

# Meet the Gentners 



One smart guy, self directed and a breeze to vork vith. The DH20 and DH22 digital hybrids have auto mix-minus, auto ansier / disconnect, automatically adapt to changing telephone conditions and much more.

Able
A suly brilliant and multi-talented personality, capanile of handiing a surprising number of tasks. Tre TS612* is able to meet the rimeds of a single station or a large talk network. A highig sophisticated system that requires very little training.

Jane
She's no "Plain Jane" and can handle almost anything you need done. The SPH 10 analog hybrid is able to send or receive audio over any stanchard dial up telephone line. The best analory hythrid ever and very cost elfective.

## Introducing the newest members of the Gentner family.

We understand the critical nature of bringing people on air, flawlessly. At Gentner Communications, quality audio is our business. We've spent the last sixteen years continuously innovating our products for you. As industry leaders in telephone interface products, we've built the name and reputation you can depend on. Gentner is now shipping our newest telephone hybrid line. The SPH 10 is the simply the best analog hybrid ever. The DH20 and DH22 digital hybrids represent the latest features in telephone hybrid technology with features tike built in monitor amp, auto mix-minus, selectable caller control and AGC, these products address the needs our customers liave ideritified. When it comes to talk shows Gentner is the standard.

## CTAEF OF GONUENTS

Welcome to Broadcasters General Store

A special thank you to those who have been so helpful in contributing ideas, information and encouragement while we were compiling our catalog. It has been a long time in the making, now please, pul/ up a comfortable chair, put your feet up and browse at your leisure.

We are dedicated to achieving exceflence in customer service through integrity and dependability and believe our growth these past 18 years is a testimonlal to that effort. The General Store has become symonymous with "old fashioned" attention to customers and their requirements. We continue to offer the fatest technology in a wide range of quality products backed by reputable manufacturers.

Thank you for allowing us to be part of your growth and prosperityl

Broadcasters General Store 2480 S.E. 52nd Street Ocala, FL 34480-7500

## BGS Store Mours: 8AM - 5:30PM EST Monday thru Friday

Phone Numbers:
FL\# 352-622-7700
IL\# 620-231-7120
Dave, Chris, Rick, Jim \& Kerry, Sales
Buck, Order Expediting Becky, Accounts Payable Debbie, Accounts Receivable

Chad, Shipping
Fax Numbers:
FL\# 352-629-7000

Phone Number:
GA\# 770-425-0630
Kandance, Sales
Fax Number:
GA\# 770-427-0562

BGS Emall: bgs@mercury.net Web slte:
www.bgsfl.com

| Digital Audio Storage | $1-2$ |
| :--- | ---: |
| Amplifiers | $3-8$ |
| Cable \& Connectors | $9-13$ |
| Headphone/Headsets | $13-17$ |
| Intercoms | $18-20$ |
| Interface/Problem Solvers | $21-27$ |
| Maintenance/Cleaning | $28-29$ |
| Microphones \& Accessories | $30-42$ |
| Mixers/Consoles | $43-60$ |
| Monitoring | $61-73$ |
| Patchbays/Panels/Accessories | $73-81$ |
| Power Conditioning | $81-84$ |
| Processors | $84-102$ |
| Recorders/Players | $102-121$ |
| Remote Broadcast | $122-130$ |
| Remote Controls | $131-136$ |
| RF Related Equipment | $137-159$ |
| VSWR Conversion Table | $160-161$ |
| Router Optics | $161-166$ |
| Satellite | $167-169$ |
| Studio Furnishings | $167-169$ |
| Telephone Equipment | $182-189$ |
| Test Equipment | $190-194$ |
| Video Equipment | $195-200$ |
| ADc Normalling Q/A | $201-203$ |
| SBE Book Listing | 204 |
| Ordering Information | $206-205$ |
| Index |  |

[^0]
## WHAT MEDATAOUCH DICTITL NTEGBATION CAN DO FOB YOUR STATION.

and its ability to completely integrate a radio facility or facilities

MTMRTG TAMDEREOMTEROR
separates MediaTouch from other digital audio companies.

Size is never an issue, since a network can be designed for a typical radio

facility of five users: Air, Production, News, Traffic and Music.

The costs of a MediaTouch system are proportionate to the amount

MOOME FEATH
of users and radio stations involved. In other words, the most basic

Medialouch system is the building block of larger things to cone

Our philosophy is to complement the style of the user

REIVIOTE IMODENU COMTROL
rather than restrict it. Success is the direct result of individuality:
being different, cutting edge, a leader. Our software development team

## IEXPANDED IMANUAES

always provides the "headroom" in the software operational system to
accommodate the uncerainties of individualism.

## - TOUCHSCREEN

SINCE 1985, PATENTED TOUCHSCREEN CONVENIENCE FOR ${ }^{~}$ ON AIR USERS

- LIVE ASSIST

RADIO'S "ORIGINAL" USER FRIENDLY "ONAIR" CONTROL PANEL DESIGN

## - AUTOMATION

WALKAWAY AUTOMATION AT THE "TOUCH" OF THE "AUTO" BUTTON

## - 7 ON SCREEN EVENTS

7 LOG EVENTS ARE "ALWAYS" DISPLAYED WITH START / STATUS BUTTONS

- "AUDIO CUED" STATUS

LOG DIGITAL AUDIO EVENTS ARE VERIFIED, AND DISPLAYED AS "CUED"

- "CUED" CHANNELSTATUS

ONCE CUED, CONSOLE CHANNEL AND "POT" COLOR ARE DISPLAYED

- BI-DIRECTIONAL START/STOP

CONSOLE CHANNEL BUTTON AND SCREEN EVENT BUTTON ARE INTERACTIVE

- PLASMA DISPLAY

APPEARS ON SCREEN (UNDER EVENT) ONCE A LOG EVENT IS "CUED"

- VISUAL ELAPSED IIME

PLASMA DISPLAY MOVES TO PLAYING TIME, SHOWS "RED" LAST 15 SECONDS

- 24 HOT KEY BUTTONS 24 "HOT" START BUTTONS FOR DIGITAL AUDIO OR OTHER SOURCES


## - SELECTABLE EVENT COLORS

MUSIC, SPOTS, LINERS, TEXT APPEAR ON SCREEN IN COLORS DESIGNATED

- BIG! COUNTDOWN TIMER

TMMER COUNTS "INTRO TO POST" TIME AND SHOWS AUDIO CHANNEL COLOR


Audio Distrilhution Amplifiers


| $\begin{aligned} & \text { Make } \\ & \text { Madel } \end{aligned}$ | Configurwien |
| :---: | :---: |
| Apher |  |
| I20.A | $1 \times 4$ |
| AII |  |
| D. 1008-2 | $1 \times 8$ |
| DA2016-2 | Dual 1xs |
| DA1000-1 | Ixs |
| DA2008-1 | Duallixt |
| D +206 | Duallx 3 |
| DA ${ }^{\text {d }} 12$ | Quadlx 3 |
| D. 208 | Duallat |
| DA416 | Quad 1x-1 |


$\begin{array}{r}\text { SDA }-8400 \mathrm{ST} / 1 \times 8 \text { or } 2 \times 4 \\ \text { Mono } / 1 \times 16.2 \times 8 \text {, or }\end{array}$
ESE
 $\mathrm{B}=\mathrm{Barrier}$ Strip

TRS $=1 / 4^{\prime \prime}$ Phone Balanced
Headphon

| Rack |
| :---: |
| Mlount |


| P |
| :---: |
| 120 |
| Su |
| 12 |


| $N$ | 0/529.95 | $120-240 \mathrm{~V}$ |
| :---: | :---: | :---: |
| Y | Y | 1178 1175 |

$\$ 829.00$ $\$ 1.149 .00$
$\$ 355.00$
$\$ 375.00$
$\$ 479.00$
$\$ 669.00$
$\$ 379.00$
$\$ 5+9.00$
5499.100
$\$ 195.00$
$\$ 320.00$
$\$ 395.00$
$\$ 695.00$
$\$ 195.00$
3495.100
$\$ 295.00$
$\$ 495.00$
$\$ 525.00$
$\$ 559.00$
$\$ 126.00$
$\$ 126.00$
$\$ 215.00$
$\$ 227.00$
5.340 .00
$\$ 425.00$
$\$ 499.00$
$\$ 645.00$
$\$ 399.00$
$105-135 \mathrm{~V}$

TB=Scres Terminal Block
TS = 1/4" IPhone Unhal.
$\mathrm{R}=\mathrm{RC} \boldsymbol{A}$ Phono Untal.
MS=Manter $O=O$ pliona


The ATI DA 10,000 flexible design lets you mix Basic and Metered DA's with Compressing Independent Output Modules in the same enclosure to optimize your system's performance. Ten Amplifier Modules and two Power supplies plug into a Eurocard Spec enclosure. Typical 100 dB dynamic range is ideal for distributing digital satellite feeds.

## Benchmark

Benchmark Systems 1000 with over 14 different modules. 4 power supply options. numerous controllers and aceessorics provides the ability, not only to distribute audio throughour your facility.
 but to control it.Mounted on a distribution amplifier. System 1000 module daughter-hoards place the power of remote gatin or mono/stereo mode control at your fingertips.

## Studio Technologies



The Studio Technologies 85 provides two AIES/EBU digital audio inpurs and eight AES/EBU outputs. Each of the eight outputs provides if fully isolated reproduc tion of cither input. Source selection is provided by front-panel DIP switches. Each input provides transformer coupling and DC vellage blocking. Status indicators light whenever digital information is presemt on their respective inpu. With a nominall 60 nanosecond input to output delay, the outputs are essentially identical to the inputs. XLR type connectors. IU



ture

pricroptrone preamp

Headphone Amplifiers

| Make/ <br> Model | Dimensions <br> HxWxD | Balanced <br> Input | No. of <br> Channels | * <br> Power <br> Supply | Rack <br> Mount | Price |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | an


| $\begin{aligned} & \text { HD } 100 \\ & \text { HD } 1000 \end{aligned}$ | $\begin{aligned} & 1.5 \times 4.15 \times 5.5 \\ & 1.75 \times 85 \times 7 \end{aligned}$ | $\stackrel{Y}{\mathrm{Y}}$ | 1 | B | N N | 5219.00 599.00 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BDI |  | Y | 1 | C | N | \$179.00 |
| HSA 100P | N/A |  |  |  |  |  |
| Eehringer |  |  |  |  |  |  |
| HA-4000 | $1.75 \times 19 \times 4$ | Y | $t+1$ aux | A | Y | \$370.00 |
| Benchmar |  |  |  |  |  |  |
| HPA-1 | $\mathrm{N} / \mathrm{A}$ | N | I | C | N | \$70.00 |
| Edcore |  |  |  |  |  |  |
| $\begin{aligned} & \mathrm{HA}-400 \mathrm{C} \\ & \mathrm{HA}-800 \mathrm{C} \end{aligned}$ | $\begin{aligned} & 1.75 \times 12 \times 65 \\ & 1.75 \times 19884 \end{aligned}$ | $\begin{aligned} & Y \\ & Y \end{aligned}$ | $\frac{1}{8}$ | $\begin{aligned} & A \\ & A \end{aligned}$ | $\mathrm{Op}_{\mathrm{Y}} / 523$ | $\begin{array}{\|} \$ 256.31 \\ \$ 320.79 \end{array}$ |
| Fastex |  |  |  |  |  |  |
| PH-50 | $2 \times 8.25 \times 8$ | Y | $5+1$ :1118 | A | N | \$279.16 |
| OZ Audio |  |  |  |  |  |  |
| HM-6 | $2 \times 11 \times 12$ | Y | 6 | 115 VAC | $N$ | 5299.00 |
| Dadio Deal | gn Labs |  |  |  |  |  |
| ST.SHI | Suck-()n | Y | 1 | 13 | Opt/5120 | 5114.00 |
| Rane |  |  |  |  |  |  |
| HC-6 | $1.75 \times 19 \times 8.5$ | Y | 6 | A | Y | \$479.001 |
| Rolls |  |  |  |  |  |  |
| RA-62HA | $1.75 \times 19 \times 6.5$ | N | 6 | A | Y | \$ 528.00 |
| Samson |  |  |  |  |  |  |
| Q-5 | $1.75 \times 8.5 \times 6$ | Y | 5 | $\lambda$ | N | \$179.99 |
| Shure |  |  |  |  |  |  |
| FP-22 | $32 \times 2.2 \times 6.1$ | Y | 1 | 1) | $\cdots$ | $5+25.00$ |
| Stewart |  |  |  |  |  |  |
| HDA-4 | 1.6.17.1×2.8 | Y | 4 | $\lambda$ | $Y$ | \$299.00 |
| Symetrix |  |  |  |  |  |  |
| SX-204 | $1.5 \times 8.2 \times 6$ | Y | 4 | B | Op17/5319 | 5319.901 |



Microphone Preamps

| Make/ Model | Frequency <br> Response | Noise EIN | Gain |  | Ohtre Features © Ophons | Price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
| 107 | 20-20k | $-128 \mathrm{dBm}$ | 6 HdB | . $2 \%$ | Duat ch. tube amp/phantom jower | \$449.00 |
| AII |  |  |  |  |  |  |
| M1000-I M100 | 50-20k $20-20 k$ | $\begin{aligned} & -124 \mathrm{dBm} \\ & -124 \mathrm{dBm} \end{aligned}$ | $\begin{aligned} & 74 \mathrm{~d} 13 \\ & 7 \mathrm{~d} B \end{aligned}$ | $\begin{aligned} & .2 \% \\ & .03 \% \end{aligned}$ | $48 V$ phantom pwr./RM opt 48V phantonn pwr./RM opt. | $\begin{array}{r} 5+29.00 \\ \$ 349.00 \end{array}$ |
| Denchmark |  |  |  |  | Circuir Card RM/4-ch. <br> RM/4 ch $/ 2$ summed outputs Two 9V batteries/phantom per. |  |
| MP-4 | $>300 \mathrm{k}$ | $\begin{aligned} & -130 \mathrm{NB} \\ & -130 \mathrm{~dB} \\ & -130 \mathrm{~dB} \\ & -130 \mathrm{~dB} \end{aligned}$ | $\begin{aligned} & 75 \mathrm{~dB} \\ & 75 \mathrm{~dB} \\ & 75 \mathrm{~dB} \\ & 7 \mathrm{~d} \mathrm{~dB} \end{aligned}$ | (0)0y\% . $0000 \%$ (0)00\% $.001 \%$ |  | $\begin{array}{r} \$ 190.00 \\ \$ 1,095.00 \\ \$ 1,29500 \\ \$ 25.00 \end{array}$ |
| MPS-400 MPS-420 | >200k |  |  |  |  |  |
| Mic-Man Jr. | $>200 \mathrm{k}$ 160 k |  |  |  |  |  |
| dbx |  | $-128 \mathrm{dBm}$ | 609313 | . $0006 \%$ |  |  |
| $760 x$ | 2-2000k |  |  |  | Dual ch. $1 / 2 \mathrm{RW} / \mathrm{phantom}$ pur. | \$349.95 |
| Radlo Design Labs . |  |  |  |  |  |  |
| RU-MP2 | 25-20k | $\quad<125 \mathrm{~dB}$$<125 \mathrm{~dB}$$<130 \mathrm{~dB}$$<130 \mathrm{~B} B$$<130 \mathrm{~dB}$ | $\begin{gathered} 35-65 \mathrm{~dB} \\ 50 \mathrm{~dB} \mathrm{fixed} \\ 65 \mathrm{~dB} \\ 65 \mathrm{~dB} \\ 75 \mathrm{~dB} \\ \text { above } \end{gathered}$ | $<-.005 \%$$.05 \%$$.05 \%$$.05 \%$$.05 \%$ | $2 \mathrm{ch} . / \mathrm{XLR}$ I/O (front), Barrier Blk (rear <br> Opt.-Pwr supply <br> Opt. Pwr. supply <br> PTT switching/ Opt.-pwr supply <br> Dual/Opi.-pwr. supply | $\begin{array}{r} \$ 299.00 \\ \$ 96.00 \\ \$ 132.00 \\ \$ 149.00 \\ \$ 151.00 \\ \$ 17.00 \end{array}$ |
| STM-1 | 50-30k |  |  |  |  |  |
| STM-2 | $50-25 k$ |  |  |  |  |  |
| STM-2X | $50-25 k$ |  |  |  |  |  |
| STM-3 | 50-25k |  |  |  |  |  |
| Rane |  | $<131 \mathrm{dBu}$ |  |  |  |  |
| MS-1 | 20-20k |  | $6(1) \mathrm{dB}$ | -.007\% | Phamom power/I'RS out | \$199.00 |
| Studlo Technologles |  | $-129 \mathrm{dBm}$ | 68 dB | (0025\% | RM/dual ch. | \$799.00 |
| Mic Pre-Eminence | 10-90k |  |  |  |  |  |
| Symetrix |  |  |  |  |  |  |
| SX202 | 20-20k | $<129 \mathrm{dBm}$ | 53 dB | >.02\% | Opt.-RM/dual ch. | \$319.00 |






Power Amplifiers (conthued next page)

*XLR=3 Pin Balanced//TRS=1/4" Phone Balanced/ $/ T S=1 / 4^{*}$ Phone Unbalanced//R=RCA Phono Unbatanced//B=Barrier/fIB=Screw Terminall BIk **Stereo into $8 \Omega$ 's (unless otherwise specified)


## ST-PA2

 PS-24A
## Bolls



Power Amplifiers
 ${ }^{* *}$ Stereo into $8 \Omega$ 's (unless otherwise specified)

## Belden

The Belden product line includes multi-conductor. multi-paired, coaxial, flat. Iiber optic. plenum. high temperature and special application cables. Listed are a few of the more common.



Canare L4E6S Star Quad
Cable with braided shield is super flexible and designed for use with mics. but also excellent for all line-fevel signals. The four conductor Star Quad arrangement cancels electromagnetically induced noise and provides redundant connections. Available in ten colors.

| Model | Conductor | Shicld | O.D. | $656^{\circ}$ Recl | $\$ /$ Foot |
| :--- | :---: | :--- | :---: | ---: | :---: |
| L-fE6S | $4=2 \times 24$ Awg | Braided | $.237^{\circ}$ | $\$ 376.63$ | $\$ 0.58$ |



## Canare DA206

AES/EBU digital audio cable has a spe-
cial PE filler rod to maintain a constant $110 \Omega$ impedance for cable runs of up to 300 meters. It's nexible twisted pair cable with a braided copper shield for use with 3 pin XLR connectors.
DA206 AES/EBU digital udio cable. Blue. $328^{\prime}$ Wt. 19 lbs $\mathbf{\$ 3 0 1 . 8 8}$


Canare Impedance Transformers allow $75 \Omega$ coaxial transmission of all 2 channel AES/EBU Digital Audio signals. Low cost and easy to use. the IO adapters, are designed to passively convert all standard AES/EBU digital audin signals from $110 \Omega$ XI_R3 Output (@ 4.5 Volts), to a $75 \Omega$ BNC cuaxial cable and then back again to a $110 \Omega / 2 \mathrm{KL} 3$ Input ( 200 mV niin). Also provides excellent rejection against hum and noise.

| BCJ-XJ-TRA | XLR(F) to BNC (Convers 11052 to 75S2). $5 \mathrm{Vp-p}$ | \$57.75 |
| :---: | :---: | :---: |
| BCJ-XJ-AIOTR | XLR(F) to BNC (Cunvers 1102 to 75s2) ${ }^{\text {c }}$ | \$74.25 |
| BCJXP-TRA |  | \$52.25 |

## Canare Coax Cable

Canare Video Cable's inner conductors are stranded for extra flexibility while a high density. basket weave braided shield blocks stray RF and electrostatic noise. Canare 75S viden cables, matched with their $75 \Omega$ BNC connectors, offers excellent return loss characteristics and very low VSWR. Perfect for all SERIAL. DIGITAL and High Delinition interconnect applications.


The Canare L-3C2VS is a 7582 miniature conaxial video cable that is light weight and tlexible. It is the same cable type being used inside the V - 3 C series RGB component cables.
BNC connectors are interclangeable, . 217 O.D.
L-3C2VS (Thin Coax) 656 Wt. 20 lbs $\quad \$ 252.63$


Canare Coaxial Cable Stripper
Stripping coaxial cable is now quick and easy with the Canare stripper. You simply insert the cable, rotate and remove. completing the job in just 15 seconds. Specially designed hardened steel blades revolve around cable and offer more than 1.000 uperations.

| TS-3C | Cable L-3C2VS | $\$ 73.42$ |
| :--- | :--- | :--- |
| TS-V3C | Cable V3-3C, V4-3C, V5-3C | $\$ 80.04$ |
| TS-4C | Cable LV-6IS, V-5C (RG59) | $\$ 73.42$ |
| TS-5C | Cable LV-77S, L-5CFB, V-5CFB | $\$ 73.42$ |
| TS-31C | Cable 1694A (RC6) | $\$ 73.42$ |

Canare makes a variety of video patchbays, coaxial cable, snake systems, cable reels and conmectors. Please call us for a Canare catalug.


## cable



## GEPCO International, Inc.

Audio Cable
Multipair - 42** (22 gage). 44** (24 gagc). 46** (26 gage) **=Pair Count Single Pair - 4201, 4201EZ.4201D (Dual)
Digital Audio - 1524, 152402, 152404. 152408, 1524012,1524SD (solid). 1526
Microphone - 1624, 1620. 1622.1601. 1642
Speaker-GSC1020FC, 1512. 1200.1400. 1600, 1800
Video Cable
Coax - 7505. 2000, . 5565 (Riser Rated), 7536, 7501, 7503
Triax - 7826,7827, 7820. 7820PEF, 7811, 7812
RGB - 753603, 753604, 763605
Composite Cables - VRC618, 1532, 1563, 1533, 1564. 1565
Digital Video - 2125B

| New Part No. | Previous Pt. * | Conductor | Shicld | O.D. | Price 1000 Ft. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 4212 | GA61812 | 12 Pair-22 AWG sird. TC | Indiv. w/drain \& overall drain | . 620 inch | \$2.627.00 |
| 4201 | 61801 | 1 pair-22 AWG strd. TC | Overall w/drain | . 145 inch | \$151.00 |
| +201E2 | 61801 EZ | 1 pair-22 AWG strd. TC | Overall w/drain (Foil bonded to jacket) | 145 inch | \$143.00 |
| 2000 | VPM2000 | 20 AlVG BC-foam dielectric | Overall foil \& braid | . 242 inch | \$336.00 |
| 7505 | VP6000 | 20 AWG BC-solid dielectric | Overall foil \& braid | . 304 inch | \$670.00 |
| 7811 | LVT61859 | 20 AWG BC-foam dielectric | Inner \& outer braid | . 360 inch | \$979.00 |
| 7826 | LVT6181! | 14 AWG sird. BC-foam dielectric. | Inner $\&$ outer braid | . 515 inch | \$1.923.00 |

Gepco is a leder in manufacturing quality ando and video cable. Above is just a sampling of what is available.
Call Broadcasters Gencral Store for a Gcpco catalog.

## West Penn



West Penn Wire Corp. is a complete cable supplier that manufactures every thing from fiber optic cable, superifexible mic and snake cables to direct burial and plenum cable. We are showing a few of the more common cables. Please call Brandcasters General Store for a West Penn Catalog. Standard spools are $1000^{\circ}$. some cables are available in a 500 foot easy box.

| Model | Conductor | Silicidd | O.D. | 500'Easy box | $1000^{\circ}$ Spool |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 452 | 1pr. x 22Awg strd. | 100\% w/dr. | 135' | \$54.00 | \$106.00 |
| 291 | 1pr. x 22Awg. strd. | 100\% w/dr. | .146" | \$50.00 | \$99.00 |
| 510 | $2 \mathrm{pr} \times 22 \mathrm{Awg}$. strd. | Indiv. \& overall w/dr. | 190' | \$104.00 | \$198.00 |
| 511 | 2pr. x 22Awg. strd. | Indiv. w/dr. \& overall w/dr | .205* | \$121.00 | \$241.00 |
| 435 | $15 \mathrm{pr} \times 22$ Awg. strd. | Indiv. w/dr. \& overall w/dr. | .658 ${ }^{\prime \prime}$ | N/A | \$1,505.00 |



## Canare Cable Reels



| Madel | Size | Wi. <br> llbs. | Stackable | Casters | Connector <br> Mounting Flange | Cable <br> Cut-Out | Hanger | Price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| R460S | L | 22.0 | NO | YES | NO | YES | YES | \$48.22 |
| R. 380 S | M | 17.5 | NO | YES | NO | YES | YES | \$ $\$ 26.88$ |
| R.300S | S | 9.5 | YES | NO | NO | YES | YES | \$389.53 |
| R300L | S | 9.5 | YES | NO | Y'ES | NO | NO | \$357.51 |
| R300CN | S | 9.5 | YES | NO | Parallel wired MEF XLR on Hub \& Fange | NO | NO | \$40.22 |



BGS

## RIP-TIE



Keep mic cables, extension cords and ski ropes neat. ridy. organized and unkinked RIP TIE Velcro bands are sewn for flexibility and strength. One end of the wrap pemtanently attaches to the cable. the other end has a convenient pull tab. Company names and logos can be custom printed on the pull tabs for increased name exposure and equipment identification. Available in six sizes and ten colors.

| Cat. \# | Sizes | 1 Pack | 10 Pack | 100 Pack |
| :---: | :---: | :---: | :---: | :---: |
| L6 | 5/8**** | \$2.75 | \$19.95 | \$175.00 |
| H3 | 1"X3" | \$2.85 | \$21.95 | \$190.00 |
| H6 | $1^{\prime \prime} \times 6{ }^{\prime}$ | \$2.95 | \$23.95 | \$220.00 |
| H9 | 1"X9" | \$3.25 | \$26.95 | \$245.00 |
| H14 | 1"XI4" | \$3.95 | \$31.95 | \$285.00 |
| H21 | $1 \times$ K21" | \$4.95 | \$36.95 | \$330.00 |

Colurs: bical, hlue. red. wellom; grry; green, tiolst, arange brow, whtre of in the 10 and




## Snakeskin Cable Cover

## American Recorder Technologies

SnakeSkin is the state of the ar wire bundling and protection system. The wrap around design provides
10056 coverage that holds wire snugly in place. Open
 weave construction will not retain moisture, and protects wires and cable from abrasion. SnakeSkin can easily be cut with scissors, or a hot knife for a neat, melted edge

| SKI-0.5/B | $1 / 2^{\prime \prime}$ SnakeSkin, $1000^{\circ}$ Black | $\mathbf{\$ 2 0 0 . 0 0}$ |
| :--- | :--- | :--- |
| SKI-1.0/B | $!^{\prime}$ SnakeSkin. $100^{\prime}$ Black | $\$ 250.00$ |

## Whirlwind

Whiriwind cable reels are consiructed of heavy gauge steel with welded frames for rugged durability. The premium WD Series reels feature a unique adjustable braking system that controls the speed of the spool during payout and cases turning during rewind. The economical MR Series reels offer heavy-duty cable storage in a compact design.

The WD-1 and WD-2 are ideal for storage of microphone and smal! diameter multipar cable. Integral handes make them easy to carry and store.

| WD-1 |
| :--- |
| WD-2 |

$\$ 169.00$

The WD-3 and WD-3S are large capacity reels that feature removable crank handles and pillow-hlock bearings for smonth cranking under heavy loads. The unique split reel design offers easy access to both ends of the cable without having to unspool the entire length.

| WD-3 | $\$ 403.00$ |
| :--- | :--- |
| WD-3S | $\$ 403.00$ |

The WD-4 and WD-4D super-large capacity reels have removable crank handles. Both feature pillow-block bearings, and the WD-4D offers split reel design. Please Call for Pricing.

The MR reels are lightweight and economical. The sturdy welded frame and integral fan out storage make them ideal for storing Medusa® Series snakes or microphone cables.

## MRLG

$\$ 155.95$


## Audio Adapters

|  |  |  |
| :--- | :--- | ---: |
| SPP-XLRJ | 1/4" Standard Phone Plug to 3-pin XLR jack | $\$ 9.99$ |
| SPP-XLRP | $1 / 4^{* *}$ Standard Phone Plug to 3-pin XLR Plug | $\$ 9.99$ |
| XLRJ-BL | 3-pin XLR Jack to Jack Barrel | $\$ 10.99$ |
| XLR-FM | 3-pin Plug to Jack | $\$ 9.99$ |
| XLRJ-PJ | 3-pin XLR Jack to Phono (RCA) Jack | $\$ 9.99$ |
| XLRP-BL | 3-pin XLR Plug to Plug Bartel | $\$ 9.99$ |



# Audio, Video \&y Broadcast Cables 

 Cable products designed, developed, and proven for professional use.

## GEPCO INTERNATIONAL

## Tirree-Way Access IT The Digital World.

Whether it's digital audio, digital video or machine control between VTRs and edit controllers, ADC 's digital patch panels provide for the access, monitor and test of digital circuits throughout your studio or station.

## Digital Video Panels

All ADC coax video jack panels are designed for composite analog, HDTV and serial digital video circuits, including D1, D2 and D3.

cylinder contact ensures gas-tight connections that can be reconfigured up to 200 times.

## Machine Control Panels

ADC Patch By Exception bays allow you to cost-effectively increase the number of ports available for your edit controllers and handle data applications up to $20 \mathrm{Mb} / \mathrm{s}$, including $10 \mathrm{Mb} / \mathrm{s}$ Ethernet, Tl and ISDN.

## Digital Audio Panels

ADC's fully-normalled digital jackfields patch AES/EBU signals up to 100 meters. High-speed, data-grade cabling assures error-free transfer of the digital signal. The patented QCP split

ADETelecommunications

## Neutrik Connectors


Below is a sampling of the connectors available from Neutrik. The XLR connectors are available in 3 through 7 pins, straight, right angle, and panel configuration.
Please call for complete Neutrik information.

| P't. No. | Description | Contact | Shell | Price |
| :---: | :---: | :---: | :---: | :---: |
| NC3MX | 3-Pin Male XLR | Silver | Nickel | \$2.42 |
| NC3MX-BAG | 3-Pin Male XLR | Silver | Blk. Chrome | \$2.91 |
| NC3MX-B | 3-Pin Nale XLR | Gold | Blk. Chrome | \$3.34 |
| NC3FX | 3-Pin Female XLR | Silver | Nickel | \$2.60 |
| NC3FX-BAG | 3-Pin Female XLR | Silver | Blk. Chrome | \$3.34 |
| NC3FX-B | 3-Pin Female XLR | Gold | Blk Chrome | \$3.87 |
| NC3MP | 3-Pin Male Pancl XLR | Silver | Nickel | \$2.71 |
| NC3MP-BAG | 3-Pin Male Pancl XLR | Silver | Blk. Chrome | \$3.27 |
| NC3MP-B | 3-Pin Male Pamed XLR | Gold | Blk. Chrome | \$3.71 |
| NC3FP-1 | 3-Pin Female Pancl XLR | Silver | Nickel | \$2.77 |
| NC3FP-1-BAG | 3-Pin Fernale Panel XLR | Silver | Blk. Chrome | \$3.28 |
| NC3FP-1-B | 3-Pin Female Panel XLR | Gold | Blk. Chrome | \$3.91 |
| NP2C | 2-Pin 1/4"Phone Plug | Nickel | Nickel | \$2.56 |
| NP2C-BAC | 2-Pin 1/4* Phone Plug | Niskel | Black | \$2.56 |
| NP3C | 3-Pin 1/4* Phone Plug | Nickel | Nickel | \$3.23 |
| NP3C-BAG | 3-Pin 1/4* Phone Plug | Nickel | Black | \$3.23 |

## ADC BNC Connectors

## Switchcraft Connectors

Switcheraft Q-G® Connector-Adapters, designed to solve common interconnection problems.

| 321 | Phono plug to 3-pin XLR female audio-connector $\mathbf{\$ 1 7 . 1 0}$ |  |
| :--- | :--- | ---: |
| $\mathbf{3 2 2}$ | Phono jack to 3-pin XLR female audio-connector $\mathbf{\$ 1 7 . 1 0}$ |  |
| 323 | Phono plug to 3-pin XLR male audio-connector | $\mathbf{\$ 1 5 . 2 0}$ |
| 324 | Phono jack to 3-pin XLR male audio-connector | $\mathbf{\$ 1 5 . 2 0}$ |
| 389 | Adapter- XLRF to XL.RF | $\$ 18.75$ |
| 390 | Adapter- XLRM to XLRM | $\mathbf{\$ 1 5 . 5 5}$ |
| A3F | Satin Nickel Finish, female 3-pin XLR | $\$ 6.70$ |
| A3M | Satin Nickel Finish, male 3-pin XLR | $\$ \mathbf{5 . 9 5}$ |

## Bodge Plugs

With a set of Bodge Plugs and a length of balanced cable. a range of 45 different adapter cables can be made quickly. saving you time and aggravation.

| BOD-XLRP | XLR 3-pin Plug | $\mathbf{\$ 3 5 . 0 0}$ |
| :--- | :--- | :--- |
| BOD-XLRJ | XLR 3-pin Jack | $\mathbf{\$ 3 5 . 0 0}$ |
| BOD-SPPS | $1 / 4^{\prime \prime}$ Standard Stereo Phone Plug | $\mathbf{\$ 3 5 . 0 0}$ |
| BOD-SPJS | $1 / 4^{\prime \prime}$ Standard Stereo Phone Jack | $\mathbf{\$ 3 5 . 0 0}$ |
| BOD-SPP | $1 / 4^{\prime}$ Standard Mono Phono Plug | $\mathbf{\$ 3 5 . 0 0}$ |
| BOD-PP | RCA Phono Plug | $\mathbf{\$ 3 5 . 0 0}$ |
| BOD-P | RCA Phono Jack | $\mathbf{\$ 3 5 . 0 0}$ |
| BOD-BJ | BNC Jack | $\mathbf{\$ 3 5 . 0 0}$ |
| BOD-TRS | $1 / 4^{*}$ Tip Ring Slecve Plug | $\mathbf{\$ 3 5 . 0 0}$ |



ADC BNC Terminating Plugs are designed to eliminate any impedanee mis-match in the network. greatly improving transmission in both narrowband and broadband networks. The ADC BNC-TP-I uses a $75 \Omega \pm 1.05 \% 1 / 2$ watt resistor which provides greater than 26 dB return loss over the frequency spectrum of DC to 500 MHz for narrow band applications. The ADC BNC-TP-2 uses a $75 \Omega \pm 0$. 1 ic $1 / 2$ wat resistur which provides greater than 26 dB return loss from DC in 1 GHz , and better than 20 dB return loss up to $2 \mathrm{GH} /$. for broadband applications. Guld plated center conductors. with tarnish resistant. nickel plated housing.

| BNCTPI | $75 \Omega \pm 1.0 \%$ | $\$ 6.30$ |
| :--- | :--- | :--- |
| BNCTP 2 | $75 \Omega \pm 0.1 \%$ | $\$ 6.83$ |



ADC has taken the traditional BNC connector and improved performance while making termination easier and more reliable. The new generation BNC features: gold plated, locking center conductors: trie $75 \Omega$ impedance: $.5^{\prime \prime}$ crimp ferveles marked with approprate cable size: compatibility with select competituve crimp tools and die sets, larnish resistant nickel plated body and bayonet; sizes for multiple cable types; and 12 point locking center conductor. A sampling of those available are shown below. Please call for firther information.

| Catalog \# | Belden <br> Cable type | Nominal Cable <br> Outer Diameter | Nominal Conductor <br> Diameter | Price |
| :--- | :---: | :---: | :---: | ---: |
| BNC8281D | 8281 | .305 | .0 .31 | $\$ 3.57$ |
| BNC1505D | 1505 A | .242 | .032 | $\$ 3.57$ |
| BNC8218DB | 8218 | .150 | .017 | Bulk $\$ 357.00$ |
| BNC1694D | 1694 A | .275 | .017 | $\$ 3.57$ |
| BNC1695D | 1695 A | .234 | .040 | $\$ 3.57$ |
| Cable Tool/Die Set |  |  |  |  |
| WT-1 | Conventional handle type |  | $\$ 111.39$ |  |
| WT-2 | Ergomemic hande type |  | $\$ 11.39$ |  |
| WD-1 | Die Set | $\$ 64.61$ |  |  |
| WD-2 | Die Sel |  |  |  |

Broadcasters General Store (352) 622.7700 Fax (352) 6297000


## Audio-Technica

| AT8314-10 | 10. ${ }^{\circ}$ XLRF-XLRM Balanced Cable | \$12.40 |
| :---: | :---: | :---: |
| AT8314-20 | 20. XLRF-XLRM Balanced Cable | \$15.10 |
| AT8314-25 | 25. XLRF-XLRM Balanced Cable | \$16.80 |
| ATS $314-30^{-}$ | 30'. XLRF-XLRM Balanced Cable | \$18.30 |
| AT8314-50* | 50. XLRF-XLRM Balanced Cable | \$25.90 |
| AT8314-100* | $100^{\circ}$. XLRF-XLRM Balanced Cable | \$38.20 |

## PRO CO



## PRO-MSFF

 $\$ 22.50$$5^{\circ}$ Mic Cable Female to Femalc XLR
PRO-SH5P2HXF780 $\$ 12.00$

$$
5^{\prime} \text { XLRF to Mono Mini Cord }
$$

## Colled Mic Cables

| GRCIMFMS | XLRF to XLRM Coiled. $30^{\prime \prime \prime}$ to $15^{\prime}$ | $\$+2.97$ |
| :--- | :--- | :--- | :--- |
| GRCIFSQMS | XLRF to $1 / 4^{\prime \prime}$ TS Coiled, $30^{\prime \prime}$ t $15^{\circ}$ | $\$ 44.64$ |
| GRCIFSMQMS | XLRF to $1 / 8^{\prime \prime}$ Mini Coiled. $30^{\prime \prime}$ to $15^{\circ}$ | $\$ 50.16$ |



## KOSS



Koss headphones have a no questions asked, Manufacturer Lifetime warranty. Koss headphones come with comfort, reliability and outstanding sound. Made in the U.S.A.

Pro/4AA Closed. $10-22 \mathrm{kHz} .10^{\circ}$ Coiled cord $\$ 104.00$

## Sony

Thesc Sony headphones feature: rugged closed ear design. folding construction, gold connectors and oxygen free cord.


| MDR-7502 | 30 mm Driver Unit, 60-16kHz. <br> (does not fold) | $\$ 74.00$ |
| :--- | :--- | :--- |
| MDR-7504 | 30 mm Driver Unit. <br> $15-18 \mathrm{kHz}$ carrying bag | $\$ 128.00$ |
| MDR-7506 | 40 mm Driver Unit. <br> $10-20 \mathrm{kHz}$ carrying bag | $\$ 170.00$ |

## AKG



## Fostex



The closed Fostex T20RP, patented Regulated Phase system. ensures very low distortion, high oulput and long tern reliability. All parts and assemblies secured by screws, assuring a long and useful life of casy maintenance. $20-30 \mathrm{kHz}, 50 \Omega$. $9^{\prime \prime} 8^{\prime \prime}$ cable. Wt. 10.6 oz.

T20RP $\$ 119.00$

headphones

## Beyerdynamic

The DT-150 is a fully enclosed studio monitoring headphone based on the DT-100 with $250 \Omega$ "s, extended frequency response for critical monitoring, extended bass response, excellent isolation from ambient noise, lightweight and rugged.

DT-150
$\$ 179.00$
The DT-770 PRO is an enclosed, high quality monitoring headphone for professionals who require a full bass sound as clinically accurate as the high and mid-range reproduction, equalized to meet diffuse field $E Q$ requirements. Padded headband ensures long-term comfort. Circumaural, closed, $5.35 \mathrm{kH} \% .600 \Omega$, w/10 cable and ste plug, 9.50 z

## $\$ 159.00$

The DT-990 PRO high quality monitoring headphone is of a circumaural open design. is equalized to meer diffuse field EQ, has a wide frequency response, fast transient response and is durable yet lightweight for long term wear. $600 \Omega$.

| DT-990 PRO | $\$ 159.00$ |
| :--- | :--- |

PARTS
407.003

Replaceable ear pads for DT150. sold in pairs
$\$ 24.00$
$+07.127$
Replaceable car pads for DT770 \&DT-990. sold in pairs
$10^{\circ}$ straight cable with $1 / 4^{\prime \prime}$ stereo plug
$\$ 19.23$
101.753
$10^{\circ}$ coiled cable with $1 / 4^{\prime \prime}$ stereo plug
$\$ 36.00$
101.826
$\$ 3.00$

All of the current Sennheiser headphones use neodymium magnets Semhemer headphones are fully modular allowing you to mainain perfect sound and functionality for years. All headphones above come with 10 " replaceable stranded steel cable with mini plug. 1/f" stereo phone adapter included

## Sennheiser



Most Sennheiser heradphones carry a wo vear parss and labor warrame:

| HD25/SP | Closed. supratural design, 16-22kHz(-10dB), 702, $50 \%$. | \$149.95 |
| :---: | :---: | :---: |
| 111)265 | Closed linear. $10-30 \mathrm{kHz} .150 \mathrm{~S} 2,7.5 \mathrm{oz}$. | \$249.95 |
| IID 445 | Replaces the HD $40 \mathrm{HI}, 20-20 \mathrm{kHz}, 52 \Omega .4 .50 z$. | \$79.95 |
| 111)455 | Open Aire design, $18-21 \mathrm{HHz}, 52 \mathrm{~S}, 42 \mathrm{z}$ | \$99.93 |
| H1D565 | Digitally Ready, "Duofol"(2-layer membrane), $16-30 \mathrm{kHz} 150 \Omega .8 .9 \mathrm{oz}$. | \$289.95 |
| 110580 | Digitally Ready, "Duofol", 12-38kHz, 300s2,9.2 oz | \$349.95 |
| IITR 6 | Universal volume control cable, interfaces with any $1 / s^{\prime \prime}$ stereo headphone jack. Made of kevlar-reinfored oxygen-free copper, with stereo/mono switch and independent slider-type lefl/ight volume controls. Length 21 feet | \$31.00 |



Audio-Technica


The Audio-Technica COM Series headsets have neodymum dynamic microphones with at tlexible mie boom and cushioned ear pads. Features include: 40 mm Driver $\cdot 30-20.000 \mathrm{H}$ e frequency response - 90 JB sensitivity $\cdot 50 \mathrm{~mW}$ maximum input power - and -55dBv an 94dB SPL microphone sensitivity.

ATH-COMI Mono, single mufi w/4.9 cable w/2 mono mini plugs. and 2 gold-plated $1 / 4^{*}$ mono plug adapters, 2.5 oc.

AГH-CON2 Stereo, dual muff w/4.9 cable w/l stereo/l monomini plug. and I stereo / 1 mono $1 / 4$ "gold plated plag adapters, 3.5 oz.

## Beyerdynamic



The Beyer DT 290 is a doublesided. reference qualiy. closed ear monitor with hypercardioid. electret condenser microphone complete with K 190.00 cable. lightweight. single exit. plug-in cable assembly. $8 \Omega$

DT 290
$\$ 299.00$

The Beyer DT 280 is a single-sided lightweight headset with dynamic microphone complete with K 190.00 cable. low profile design. reference quality, closed ear monitors. hypercardioid. single exit. and plug-in cable assembly. $8 \Omega$


The Beyer DT 190 is excellent for long term wearing without fatigue. Double-sided broadcast headset. Impedance: $200 / 250 \Omega$. with a noise cancelling on-air mic, high SPL capabilty. studio quality monitor transducer. and is modular in design for casy servicing.

| DT 190 | Dual muff. dark gres | $\$ 419.00$ |
| :--- | :--- | :--- |
| DT 180 | Single muff. dark grey | $\$ 349.00$ |

## $\$ 239.00$

The Beyer DT 108 and DT 109 dynamic headsets have a noise-cancelling mic with a frequency range of $30-20000 \mathrm{~Hz}$. These rugged. fieldserviceable headsets have headphone transducers that feature extended frequency response for clear, andible, speech transmission. The protective earcup atlenuates up to 20 dB of ambient noise. Please specify headphone impedances of $50 \Omega$ (RTS), $400 \Omega$ ( CC ), or $600 \Omega$. mic impedance in $2(0) \Omega$. with color choice of black or grey. Comes supplied with a 5 open ended cable.

| DT 108 | Single-muff | $\$ 289.00$ |
| :--- | :--- | :--- | :--- |
| DT 108.4 | Same as above w/buill-in pre-amp. balanced mic. for interface with carbon inputs available in $100 \Omega$ or $600 \Omega$, grey only | $\$ 359.00$ |
| DT 109 | Dual-muff | $\$ 49.00$ |
| DT 109.4 | Same as above w/builh-in pre-amp. balanced mic. available in $400 \Omega$ or $600 \Omega$. grev onlv | $\$+19.00$ |

## Beyer Headset Accessories

| WS-108/109 | Windscreen for DT 108/109 \#280.836 |
| :---: | :---: |
| K 109.00 | $5{ }^{\text {5 Open ended cable for DT 100's } \# 101.907}$ |
| K 109.00 | $10^{\circ}$ Open ended cable for DT 100 s $\# 127.949$ |
| K 190.00 | 5' Straight open-ended cable for DT 180/190/280/290 431.575 |
| WK 100.07 | 10' Coiled cable with I/4" stereo jack for DT 100's \$101.826 |
| WK 109.00 | 10' Coiled open ended cable for DT 100 's 4198.900 |
| WK 250.07 | 10' Coiled cable with 1/4's stereo jack for DT 200's \#442.070 |
| DT 100 | Earpads sold in pairs for DT 108/109 \#407.003 |
| DT 150/190 | Earpads sold in pairs for DT 150/190 \#431.532 |
| DT 200EP | Earpads (cloth covered) sold in pairs for DT 200's $\$ 442.704$ |
| DT 200EP2 | Earpads (sofi PVC covered) sold in pairs for DT 200's \$443.549 |
| BN 59.18/A | Headband cushion for DT 100 series \#108.715 |
| BN 59-58/A | Headband cushion for DT 150/180/190 \#377.163 |
| ClearCom Cable 5 ft . straight cable with female 4-pin XI_R |  |
| RTS Cable | 5 ft . straight cable with male 4-pin XLR |

$\$ 10.00$
$\$ 30.00$
$\$ 33.00$
$\$ 33.00$
$\$ 43.00$
$\$ 33.00$
$\$ 36.00$
$\$ 24.00$
$\$ 39.00$
$\$ 35.00$
$\$ 35.00$
$\$ 10.00$
$\$ 14.00$

$\$ 54.00$
$\$ 54.10$


## Shure

The Shure SM-2 is a professional headset with a dynamic cardisid microphone and dual mutis. The microphone element is designed for excellent rejection of noise. The SM-2 hat large, pillow-soft ear pads for external noise isolation and a double-braced, covered metal headband with a detachable cable that allows guick and easy cable changes for mono, stereo or split feed headphone functions.

SM-2
$\$ 277.50$
Al20S
$\$ 26.50$

## Sennheiser

The Sennheiser HMD25-1 is a supraural dynamic. closed headphone with $30-16000 \mathrm{~Hz}$ response and a super-cardioid dynamic mic will $50-12000 \mathrm{~Hz}$ response. Scaled ear cushions and directional mic reduces surrounding noise. Microphone can be worn on cither left or right side. Serviceability is assured by casy disassembly of all components. Comes supplied with a $6^{\circ}$ stranded steel cable terminated in stripped and tinned leads. Weight 170 oz

| HMD25-1 | $\mathbf{\$ 5 2 5 . 0 0}$ |  |
| :--- | :--- | :--- |
| HME25-1 | Same as HMD but w/electret omnidirectional boom mic | $\$ 525.00$ |



The Sennheiser HMD410-6 is a supraural. open-aire. $600 \Omega$ headphone ( 20.18 kHz ) with a dynamic supercardioid. $200 \Omega$ boom mic ( $50-12 \mathrm{kHz}$ ). Comes supplied with a $6^{\circ}$ stranded steel cable terminated in stripped and tinned leads. Weight 18 oz

## HMD+10-6

$\$ 325.00$


BCS


## Telex



The Telex V-Series professional, high fidelity headsets and headphones are modular in design. Two microphone capsules and a wide variety of five foot cord sets that plug into the headset using self-locking "Hirose" connectors are available

| V. 200 | Round, full cushion dual headphone (6008) | \$140.00 |
| :---: | :---: | :---: |
| V-210 | Single-sided with boon (150 5 ) | \$120.00 |
| V-220 | Double-sided with boom ( $150 \Omega \mathrm{st}$. or $75 \Omega$ mono) | \$165.00 |
| MB-11 | Cardioid dynamic mic. $150 \Omega$ | \$49.00 |
| MB-12 | Cardioid electret mic, $150 \Omega$ | \$49.00 |
| $\overline{\mathrm{CA} 10}$ | XLR-3 male/I/4" w/PS and PTC swith for electret | \$150.00 |
| CA-11 | XLR- 3 male/1/4" w/PTC switch for dynamic mic | \$110.00 |
| CA-20 | XLR-4 female | \$50.00 |
| CA-22 | XLR-4 male | \$50.00 |
| CA-30 | XLR-5 female | \$65.00) |
| CA. 33 | XLR-5 male | \$65.00 |
| CA-40 | Sony $1 / 8^{\prime \prime}$ mini 4 -conductor | \$65.00) |
| CA-60 | Sterco 1/4" for headphones | \$50.00) |
| CA-70 | 6-conductor, tinned ends | $\$ .45 .00$ | Earphones $150 \Omega$ with a 9 cord to pigtail

## PH-24

The Telex PH-24 has a full studio quality electret condenser microphone sound plus lightweight comtort. The PH-24 miniature noise cancelling electret microphone provides an extremely flat frequency response with significantly attenuated background noises and comes with a push to cough switch.
$\$ 250.00$

The Telex PH-25 is much like the PH-24. but it is dynamic binaural. with $250 \Omega$ omnidirectional condenser mic. Eatphones $300 \Omega /$ side with a $9 \times$ cord to $\mathrm{A} 3 \mathrm{M} / 1 / 4$ " plug.

PH.25 $\quad \$ 299.00$


## Telex Announcer's Earsets

To provide optimum versatility. the Telex Announcer's Earset is made up of interchangeable component parts which simply snap together. Depending on the component pieces selected, users can construct a version of the Announcer's Earset that best suits their particular need.


| Telethin(8) Drivers |  |  |  |
| :--- | :--- | :--- | :--- |
| A. | RTR-04 | $15 \Omega$ | $\$ 12.00$ |
|  | RTV-04 | $125 \Omega$ | $\$ 12.00$ |
|  | RTW-04 | $500 \Omega$ | $\$ 12.00$ |
|  | RTX-04 | $1000 \Omega$ | $\$ 12.00$ |
|  | RTY- 04 | $2000 \Omega$ | $\$ 12.00$ |
| B. | RTW-04V | $500 \Omega \Omega$ | $\$ 35.00$ |
| *with volume control |  |  |  |

Earmolds

| C. | EML-1 | Lg. R. car | $\$ 15.00$ |
| :--- | :--- | :--- | ---: |
|  | EML-2 | Lg. L. ear | $\$ 15.00$ |
| D. | EMM-1 | Med. R. ear | $\$ 15.00$ |
|  | EMM-2 | Med. L. ear | $\$ 15.00$ |
| E. | EMS-1 | Sm. R. ear | $\$ 15.00$ |
|  | EMS-2 | Sm. L. car | $\$ 15.00$ |
|  | EM-KT | Custom kit | $\$ 24.95$ |


| Eartips/Earcones/Earloops/Eartubes |  |  |  |
| :---: | :---: | :---: | :---: |
|  | ET-1 | Earlip. Flech tip with pluy | \$4.51 |
|  | BT. 1 | Eartips for ET-1. Bag of 25 | \$.32.00 |
|  | AEF-3 | Nylome cirloop liss earlip \& Teleshin receivers | 83.95 |
|  | AEF-2 | Planic covered metal carloup | \$3.95 |
| M. | ET-2 | Coiled acoutte cartube with clothing clip use w/earmold/tip | \$16.000 |
|  | ET-4 | Colled acoustic cartube with clothing clip, use w/earconce. comes w/l cal. S. M\&L earcones | \$21.95 |
|  |  | Strieght acoustic cartuhe with clohhmg clip use w/earmold/iip | \$16.00 |
|  | ET-5 | Siragher acoustic eartube with clothing clip, use w/earemen. comes w/l cal S. M \& El, earcones | \$21.95 |


| H. | BT-2 | S Earcones for use with ET-4 \& ET-5. bag of 5 | $\$ 12.00$ |
| :--- | :--- | :--- | :--- |
| I. | BT-3 | M Earcones for use with ET-4 \& ET-5, bag of 5 | $\$ 12.00$ |
| J. | BT-4 | L Earcones for use with ET-4 \& ET-5. bag of 5 | $\$ 12.00$ |

## Complete Earset



| Nol Shown: |  |  |
| :---: | :---: | :---: |
| EH-S | Earphone Shell Holder for all |  |
|  | Telechin(0D) rivers. Small | \$10.00 |
| EH-L | Earphone Shell Holder for all |  |
|  | Telechin@Drivers. Large | \$10.0) |
| AFC-1 | Under Chin Tube \& Foam Cushion | \$7.95 |

Cords, high-flex Telethin ${ }^{(18}$ cords 5 foot long, neutral gray: single tamper-proof jacket.

| 0. | CMT-2 | $5^{\circ}$ cord 1/4" connector | \$17.00 |
| :---: | :---: | :---: | :---: |
| P. | CMT-92 | $5^{\circ}$ cord w/right angle miniature connector | \$17.00 |
|  | CCX-2 | $5{ }^{\text {c }}$ coiled cord w/right angle miniature connector | \$18.00 |
| Q. | CMT-98 | $5{ }^{\prime}$ cord w/straight miniature connector | \$17.00 |
| R. | CCT-2 | $5^{\circ}$ coiled cord $\mathbf{w / 1 / 4 *}$ connector | \$18.00 |
| S. | CMT-95 | 5' cord w/sub-miniature or micro connector | \$17.00 |
| T. | VXT-3 | $5^{\circ}$ cord w/500) 2 volume control \& $1 / 4$ " phone plug | \$38.00 |
|  | VYT-3 | 5 ' cord w/2000 $\Omega$ volume control \& $1 / 44^{\prime \prime}$ phone plug | \$38.00 |



## Broadcast Tools



The Broadcast Tools ICM16 offers connectivity for up to sixteen Intercom stations. Features include single. five sation work group and all-call capabilitics inexpensive 3,4,5 cabling - transformer isolated send audio - active balanced send and reccive audioreceive audio mute control - and station call indication. The controller handles up to eight intercom stations and may be expanded to sixteen by adding an additional controller. The one rack unit controller supports all audio and data routing functions. All send and receive talkback audio is switched with high quallity analog switch arays The studio intercom station consists of a 20 position keypad, approximately four inches square.
ICM-16-8 Station Controller
Deskiop Intercom Station
$\$ 629.00$
Rack Mnunt Intercemi Station

## Clear-Com

The Clear-Com AB-100 On-Air Announcer's Console is a compact desktop unit designed specifically for sports. live event broadcasting. and voice-over work. The AB-100 integrates all of the inputs. outputs and controls necessary at the announce position, including intercom! "Talkback," IFB receiver, and a silent "Mute" button that provides nose-free "Cough" and "Mic on/off" switching. It includes an adjustable mic preamp and high-output line amplifice for 20 to
 20 KHz frequency response and 0 dB output with +20 dB headroom. A stereo headphone amplifier guarantees talent can always hear foth program audio and "cues" from the control room. It plugs into and draws power directly from most intercom and IFB systems or can be powered with the supplied AC adapter.

| AB-100 | Announcer's Console | $\$ \mathbf{\$ 2 5 . 0 0}$ |
| :--- | :--- | :--- |
| AB2X | AB 100 second party line channel upgrade $k$ it | $\$ 182.00$ |



Clear-Com Party-Line Intercom is a full-duplex, distributed amplifier system, where all electronics are contained in cach user station. This wide bandwidth syntem olfers hagh level audio for your production whether it's large or small. A central power supply provides audio termination and short-circuit proot regulation lor the system. The system can be designed from a host of user stations, power supplies and accessories. It can be one channel, or 12 chamels and all components are compatible to altow for future system expansion.


The CS-222 Portable Main Station is a rugged. lightweight, two-chanalel imercom station. It supports up to 30 headset stations. Operator can talk or listen on either channel, combine them. or access them separately without trying both channels together.


| CS-222 | Rackmount kit for CS-222. 2 U | $\$ 780.00$ |
| :--- | ---: | ---: |
| RK-101 | $\$ 75.00$ |  | the sulue features and funcuons as the CS-202 wht the addition of a built in speaker and optional plug in gooseneck microphone.


| $\overline{1 S}-222$ |  | $\$ 870.00$ |
| :--- | :--- | :--- |
| GM9 | $9^{*}$ gooseneck mic | $\$ 145.00$ |
| GM1 | $18^{*}$ gooseneck mic | $\$ 155.00$ |



PL-Pro Party Line Intercom is designed specilically for the demandme world of broadeast and video production. including multiple built-in IFBs, intuitive front panel controls with big. casy-to-use burtons and bright illuminated call signaling. All stations come standard with conmollable logic that allows them to be conligured with a variety of controls, and features.


2R \& $1 / 5+4+4$
See Clearcom Headsers on following page.
Call for Further Information and System Pricing!

The RS-501 beltpack is a sin-gle-chamel beltpack with volume control, mic on/off switch, signal button and indicator. sidetone adjust, 4 -pin headset connector, belt clip, and a 3 -pin intercom and loop-through $\qquad$ connectors Surface-mount adapter included.

| RS-501 |
| :--- |



The RS-502 beltpack is a two channel. dual-fisten station, with monaural ouput. Programmable switching lets the user listen to both channels simultaneously and select which channel to talk on. It includes individual volume control for each chammel, mic on/off. call signal button and indicators, sidetone adjust, t-pin headset connector, and a 6-pin loop-through intercom connector.

## RS-502

$\$ 314.00$
The RS-522 beltpack is a two channel unit that altows simultaneous listening and taking on two intereom chamels The headphone output operates in a "xplatfed" stereo mode. feding cach channel into a separate car of a dou-ble-muff headses. It includes individual volume control for each channel. mic on/off. call signal buton and indicators, sidetone adjust. 6 -pin headset and interem connector. (To be used wath CC-250/6 headset)

| RS-522 |  | \$346.00 |
| :---: | :---: | :---: |
| MS-40* | t-channel headedsputaker main sation w/1 amp PS. 2 U | \$1.299.00 |
| SB-4.40- | 4 -chamel swithboard main station, 20 | \$1.949.00 |
| MS-812A-12* | 12-6hamel prugrammable " Manter Station. 3 U | 53,675.00 |
| RM. 220 | Remote Heabsel Spaber Station, wo chamets. IU | \$677.00 |
| RSI-4.10 | Remate Heathe Spriker Station. four chammels. 20 | St,030.00 |
| KB-IIA | Headea Speaker Station, wor ehatmel, wall Ilush moum | \$312.00 |
| KB-II? | Speaker/Aic Station, une channel. pulh-to-talk, Hush walt me. | . 5312.00 |
| AR-102A | Speater Station, wo chatunels, comole or electrical bon mi. | \$227.00 |
| MR. 11HA |  | \$295.00 |
|  | epts ophonal plate-in gooseneek mic |  |



## Clear-Com

## Headsets

| CC-26 | Single muff lightweight. +-pin female XLR | $\$ 142.00$ |
| :--- | :--- | ---: |
| CC-85 | Single muff standard, f-pin female XLR | $\$ 175.00$ |
| CC-85-R | RTS, single muff standard. 4-pin male XLR | $\$ 181.00$ |
| CC-250 | Double muff standard. 4-pin female XLR | $\$ 218.00$ |
| CC-250-R | RTS double muff standard. 4-pin male XLR | $\$ 224.00$ |
| CC-250-6 | Split ear double. 6-pin female XLR | $\$ 226.00$ |
| CC-40 | Single ear economy. 4-pin female XLR | $\$ 99.00$ |
| CC-60 | Double ear economy. 4-pin female XLR | $\$ 123.00$ |
| HS-6 | Telephone style handset. 4-pin female XLR | $\$ 95.00$ |
| PT-4 | Push-to-talk handheld mic, 4-pin female XLR | $\$ 65.00$ |
| ES-1 | Ear sock cover for all headsets. pair (not CC26) | $\$ 7.00$ |



## Intelix

Intelix MZP Zoned Paging and Program Audio Distribution System
The MZP is a marriage of a matrix mixer, programmable remote controls and Windows based programming software. It is an integrated system for small to medium sized audio distribution and voice routing applications. Stock configurations include cross point level controlled mixer. power supply and user manual.

Please call for custom configurations from 8 inpurs/outputs to 128 imputs/oututs.



## Telex

The Telex Audiocom is a headset intercom system consisting of modular compoment that can be connected with conventonal wing to form a simple party line communication woym or a more sophisticated network using "director controlled" muth-chanalel configurations. Telex also offers Radiocom wireless intercom for professionals that require the added consenience of wircless operation. Radiocom products can be used in conjunction with wired sytems, or separately as a stand alone system.

Call for further information and system pricing.

## Motorola

Motorola can put the power of instant communication in the palm of your hand with Spirit Jobsite Radios. 1-Watt VHF models are ideal for communicating in rural areas. 2-Watl UHF models are ideal for use in urban areas, working around steel or concrete structures. They come packaged with: Radio, Antenna, Belt Clip. Rechargeable Battery, and 10-Hour Wall Charging Adapter. Spirit Radio's have a variety of charging. carrying and audio accessories. Please fax or call Broadcasters General Store' for a complete listing. (Typical useable range abow I mile.)

| SV10 | 2-Way Series, 1-Wall VHF. 1-Ch.. Open Squelch | $\$ 225.00$ |
| :--- | :--- | :--- |
| SV11 | PRO Series, 1-Wall VHF, 1-Ch., Open Squelch | $\$ 239.00$ |
| SV11C | PRO Series, I-Wal VHF, 1-Ch., Coded Squelch | $\$ 289.00$ |
| SU21 | PRO+ Series, 2-Wat UHF, 1-Ch. Open Squelch | $\$ 269.00$ |
| SU2IC | PRO+ Series, 2-Wall UHF. 1-Ch.. Coded Squelch | $\$ 319.01$ |



## RTS



The RTS TW Intercom System is a conference-line inter-communications system that features over 25 different components. This system is named TW ("Two-Wire"), because two-conductor cable is all that is needed to hook up a basic system. A unique circuit design, utilizing advanced solid state devices, enables the user to conveniently cary on two channels of communication through standard two-conductor shielded cable. telco JKT cable, or even ordinary lamp cord(single channcl). It operates in a full duplex mode. A minimum of two user stations and a power supply are required for communications, up to 75 user stations can be employed.

## The RTS 803 <br> Programmable Master Station

 microprocessor assisted communications control center. It utilizes a powerful microprocessor to control the selection and execution of almost all operational functions. Standard and optional features include 2 -wire (full duplex) conference line intercom with separate talk/listen switching. one-way (simplex) announce/page functions. IFB, station isolate (cilmeridvideo ISO), 4-wire line connection, multisource audio assignmem to mono/stereo headsedoudspeaker, and selective chamel call signaling Please call Broadcaster Gencral Store for system configuraion.


## SAS Sierra Automated Systems

Matrix Intercom/IFB or Mix-Minus $\&$ IFB System
The SAS Intercom Systems are built around SAS 32000 Series Switching and Mixing System components. One 30 frame services up to 32 user stations. Software programmable features include full eight character alphanumeric subscriber designation, separate talk and listen capability, interruptible foldback (IFB) and programmable groups. Fully featured control panels include intuitive alphanumeric selection, "hot punch" programmable talk and listen push-buttons. communications mic and preamp, loudspeaker and amplifier. They are available in eight or sixteen button, rackmount and desktop configurations. Also available are single rack and console mount stations that provide control-only for locations with access to line/level mic signals and cuc speakers relating to audio consoles or news desks.


Please call BGS for system configurations and pricing!

## Studio Technologies

StudioComm Series products work in conjunction with digital audio workstations
to provide a full set of monitoring, dubbing, and communications functions.


Model 50 Central Controller with Model 51 Control Console is an advanced StudioComm system featuring seven stereo inputs, two conirol room outputs, studio monitoring, and three communications functions. It allows connection of up to four Model 35 or Model 38 Talent Amplifiers.

| Model 50 with 51 | $\$ 1,799.00$ |
| :--- | :--- |

Model 40 Central Controller is a SudioComm headphone system leaturing two stereo inputs and two talent amplifier output groups. It allows connection of up to eight Model 35 or Model 38 Tilent Amplifiers.

Model 40
$\$ 449.00$
Model 70 Interface creates stereo, balanced line-level stignals Irom Model 40, 50, and $55^{\prime} \mathrm{s}$ talent amplifice output.

## Model 70

$\$ 172.00$


## Studio Technologies IFB Series



The Model 2 Central Controller contans two independent IFB ch.unels for ENG. SNG. and mobile prodection facilities. Each channel has a complete set of controls and indicators. Program source select swithes allow one or more of the four program inputs. als well as incoming audio from the two telephone interfaces, to be selected as program audio. Program level controls allow adjustment of the selected program sources. Chamel audio level is displayed by 5 segment LED meters. Channel interrupt activity is displayed by 1 ED indicator lights. Other features includs: internal interrupt mic - Voice operated. VOX, interrupt $\cdot$ and monitor amplifier. IU
Model 2
$\$ 1,795.00$
Accessories:
M11 Pancil mounted electrel 12 "goosencect nic for M22 $\$ 155.00$
M25 19" Rack Adapter for M22
M28 Pancl Adapter lor mounting M22 \& M11 in an
M36 Sefuipment console/desk $\quad$ of wor lrackets uned for monting M32 \& M33 underneath dersk
CA9/10 $10^{\circ}$ Shielded Multi-conductor Imerface cable
for linking M2 \& M22
$\$ 48.00$
$\$ 48.00$

CA9/50 50 of abue Intertice cable


Model 55 Central Controller with Model 56 Control Console is a reduced-feature version featuring four stereo inputs, one control room output, and two communications functions. In allows connection of up to four Model 35 or Model 38 Talent Amplifiers.

$\$ 1.299 .00$
Model 35 Talent Amplifier is a portable talchi amplifici
that drives up to two pars of headphones and connects to Models 40. 50 , and 55 . It ineludes mierophone stand mounting adapter.

## Model 35

$\$ 159.00$
Model 38 Talent Amplifier is a portable talent amplifier with a stereo preamplifier section and allows creation of personal cue mis. It connects 10 Models 40, 50 and 55.

| Model 38 | $\$ 249.00$ |
| :--- | :--- |

The Model 32 and 33 Talent
Amplifiers are selfcontained "belt pack" units that drive talent car pieces or headsets. Any combination of up
 to four Talent
Amplifiers can be supported by the Model 2 's talent amplifier output. The model 32 is imended for use by on-air personnel, and contains a source switch, along with an output level control. Either IFB channel can be sent to the talent at the desired volume. The 33 is unique in that a "mix" of IFB chamels 1 and 2 can be created. Two level controls. along with a source select switch. allows camera and production personnel to hear IFB cues from either or both channels. This allows IFB signals intended for both technician and talent to be simultancously monitored

| $M 32$ | $\$ 165.00$ |
| :--- | :--- |
| $M 33$ | $\$ 190.00$ |



The Model 22 Access Station can be used to provide additional IFB origination locations for those that need to cue talent or related persomel. Up to four 22 s catn be connected to and powered by a Model 2 . Normally installed with an M11
Goosenteck Mic and cither M2.5 or M2s mounting adapter
M22
$\$ 205.00$

bas

## Benchmark



Benchmark AD2004 Series 20 Bit . 6+ $X$ x sumpling analog in digital converters were designed for applications that require no-compromice performance coupled with space efficiency. The chassis is 1U high. $1 / 3$ space wide, allowing up to 12 channels in IRU. An AES 3 -id reference porn allows multiple conveners to be phase locked to the same reference signal. Jitter reduction is oustandng and there are no measurable idle tones when either free nunning or phase-locked 10 a reference signal. This is just the first of a family of digital audio products to be offered by Benchmark.

| AD2004R-4 | $4.1 \mathrm{kHz}-110 \Omega$ output | \$2.000.00 |
| :---: | :---: | :---: |
| AD2004R-48 | 48 kHz - $110 \Omega$ output | \$2,000.00 |
| AD2004R-DF | 4.1 \& 48 kHz -1 $10 \Omega$ output | \$2.200.00) |
| AD2004B-44 | $44.1 \mathrm{kHz}-75 \Omega$ output | \$1.800.00 |
| AD2004B-48 | $48 \mathrm{kHz}-75 \Omega$ output | \$1.800.00 |
| AD2004B-DF | $4.1848 \mathrm{kHz}-75 \Omega$ output | \$2.000.00 |

## Aardvark

The Aardverter provides A/D and D/A Delta Sigma, 64 $X$ oversampled. 16 bit conversion in as 1RU. hall rack space
 package. Four analog XLR connectors provide stereo 1/O and 2 digital XLR connectors provide AES/EBU. I/O-S/PDIF RCA connectors are optional. A third digital XI.R is provided for selectable house sync. LED bargraph monnors the digital level and hoth the input and ouput levels are adjustable

## Aardverter

$\$ 1,860.00$

## Symetrix



The Symetrix 620 excels in 20 -hit $A / D$ conversum, 16 -hit A/D conversion, the addition of dither and noise slapment to I6-hit digital audo. word saze conversion (20.16 \& 8 -bil), and real-time sample rate conversion (the I to 22.04 kHz ). It use the same 20-bit delas-sigma IC found in units costing up to three times more. The Symetrix fi20 delivers extremeIs accurate 16 or 20 -hit digital audio, free of $D($ C, at 25. 4t I I . 32 or 22.05 kHz
$\$ 995.00$
The Troisi Octal A/D Converter will give you ciph channels of digital sound and interlace directly to your digital multiwack. Four samdard AES/EBU stereo dggtal ouppus connect lo your dightal recording equipment and always stay in syne. Custom packate with SPDIf (cuasi al or opticall) and TDIF (DA-sX) are also azailable The modular denign allows the user to quickly change from 16 to 20 bul recording and hack agam. with the future option of moving up to 24 bits. This guaramtere that your invesument in the Troisi stays intact for years to come.

| DC\%-16ADC | 8 -Channel, 16 hit A/D Converler (AES) | \$3,510.00 |
| :---: | :---: | :---: |
| DCX-20ADC | 8-Channel. 20 bit A/D Cunverter (AES) | \$ 3.710 .00 |
| DC8-24ADC | 8 -Channel. 24 hit A/D) Converter (AES) | \$3,920.00 |
| DC8-20DAC | 8 -Chanmel. 20 bit D/A Converter (AES) | \$3.450.00 |
| DC8-24DAC | 8 -Chamel. 24 bit D/A Conventer (AES) | \$3.560.0 |



## Z-Systems

The Z-2SrC is a rack-mount sample rate converter which features AES/EBU. S/PDIF. and optical inputs and outpuls, the ability to generate 32 kHz . 44.1 kHz . or 48 kHz outputs directly from precise crystal references, or generate any sample rate berween 25 kHz and 55 kHz from itn external refer ence. In addition to serving as a sample rate converter, the z-2sre can also be used as a format convener and features an audio bypass switeh which leaves the audio data intact, but stili allows channel status bits to be manipulated. Input resolution is up to 20 bits with output resolution 24 bits.
For those needing sample rate conversion only, Z-Systems has designed the Z-link and the z-link+. low-con, compact, real-time sample rate converters. Both feature the same high quality audio path as the z-2sre sample rate converter in a hand-held package. The z-linkt adds an external synchronization loop, which allows it to have its output sample rate locked to an external AES/IEBU or S/PDIF digital audios signall. Both feature a professional/consumer outpul switch which allows the user to set the output channel status as desired. The audio specifications are identical to the $z-2$ sre. Input and output connectors are transfommer isolated coaxial (RCA or BNC).


| $z-2 \operatorname{src}$ | $\$ 1,200.00$ |
| :--- | ---: |
| $z-\operatorname{link}$ | $\$ 430.00$ |
| $z-\operatorname{linkt}$ | $\$ 599.60$ |




## Aphex



The Aphex Model 124A is a - 10dBv $t 0+4$ or +8 dBm interface for linking consumer lype equipment to professional equipment. The 124A fits in a half rack space.

| Model 124A | $\$ 229.00$ |  |
| :--- | ---: | ---: |
| Model $44-0085 \mathrm{~A}$ | Rack mount adapters | $\$ 29.95$ |



## ATI



ATI Match-Maker MM100/Disc-Patcher DP100 will take the consumer levels and match them to your console or other professional equipment with the transparency and RF immunity expected from ATI.

| MM!00 Match-Maker | Bi-directional, stereo xfur outputs | $\mathbf{\$ 2 9 9 . 0 0}$ |
| :--- | :--- | ---: |
| DP100 Disc-Patcher | Uni-directional, stereo xfmr outputs | $\mathbf{\$ 2 7 9 . 0 0}$ |
| PN 20273-501 | Rach meunt for one or two units | $\mathbf{\$ 2 8 . 0 0}$ |

The ATI NANOAMP Series of line level matchnge interface semi-pro unbalanced IHF @- - lodBv equipment into $600 \Omega$ balanced systems @ +d Bm.

| BIIO0 | Bi-directional stereo IHF to PRO converter. Two balanced to unbalanced chimnels and two unbadanced to protected active balanced output channels | \$225.00 |
| :---: | :---: | :---: |
| UB400 | Uni-directional quad IHF to balanced converter. Converts four unbalanced IHF signals imo four protected active balanced outputs. | \$230.00 |
| BU400 | Uni-directional quad balanced to IHF converter. Converts four balanced signals to four unbalanced IJF ourputs. | \$210.00 |
| Rack m | Specify 1 centered/2 side by side / or 3 side by side $\quad \mathbf{\$ 2 2 0 0 / 2 5 . 0 0 ~}$ | \$22.00/25.00/or 30.00 |



## dbx



The dbe 1024 brings hi-fi equipment (1HF) to professional (XILR) levels and impedance: and drives long lines without sigatal loss. Additional flexihility is provided by the gain/attenuation controls, allowing an even wider range of levels to be matched. Clip indicators show overload anywhere in the circuil path.

| $\mathrm{db} \times 1024$ |  | $\$ 239.95$ |
| :--- | :---: | :---: |
| ACC | Rack mosum single unt <br> (Need 2 kirs to moum in pairs $)$ | $\$ 20.95$ |

## ESE

ESE ES 244
The ESE Audio Level interface in a slereo. bidirectional couplang uni1. It provides an casy means of connecting cquipment with unbal.
 anced inputsoupputs to equipment with balanced +4 or +8 dBm inputs/outputs.

| ESE 244 | XLR \& RCA I/O's | $\$ 185.00$ |
| :--- | :--- | ---: |
| Option P | Rack mount | $\$ 50.00$ |
| Options P2 | Rack mounts 2 units | $\$ 50.00$ |



## Excallbur



The Excalibur IA-1 is a PROIHF bi-directional matching interface. Pro connections are barrier strip and IHF are RCA. Input and output levels are adjustable, and a metal enclosure provides
shielding for use in high RF environments. Barrier strips l/O.

| IA-A | $\$ 165.00$ |  |
| :--- | :--- | ---: |
| RM-1 | Holds 1 or 2 units | $\$ 21.00$ |

## Benchmark



With Benchmark's differential amplifiers retrofit your consumer gear to pro standards. (Requires $\pm 15 \mathrm{VDC}$ power.)


The Excalibur CD-1/CD-2 are unidirectional interface amplifiers designed to match the output of equipment using IHF standards to broadcast standards. The CD-2 is a double version of the CD-1. Barrier strips I/O.

| CD-1 | $\$ 99.00$ |
| :--- | ---: |
| CD-2 | $\$ 165.00$ |
| RM1 | Holds 1 or 2 units |

## Henry Engineering


#### Abstract

The Henry Matchbox II interconnects consumer equipment with professional studio gear. It is a bi-directional unit. with four independent amplifiers providing full stereo input and output interface. All four oulputs can be adjusted to accommodate a wide range of operating levels. 

It also features a special HI GAIN mode to match the low-level unbalanced outputs of computer sound cards. The Matchbox II is ideal for use with digital editors. DAT recorders. and other digital sources.


The Henry Twinmatel is a dual stereo level and impedance converter designed to interface unbulanced equipment oulputs wih professional studio inputs. Four chamels of amplification are provided. making Twinmatch ideal for use with a pair of stereo CD

players. A gain adjustment is provided for each chammel. All circuitry is active and direct coupled for exceptional sonic accuracy.

Twinmatch
$\$ 195.10$

## Matchbox II

## Radio Design Labs STA-1 See Page 25

## Rane



The Rane BB44X Balance Buddy is used to convert and provide isolation for unbalanced -IOdBv consumer level RCA outputs up to balanced +4 dBu professional 3 -pin (XLR-type) inputs and vice-versa. Two channels each way, or a stereo pair each way. The BB44X converts one pair from 10 dBv to +4 dBu and another pair from +4 dBu to -10 dBv simullaneously. There are two female and two male XLR-type connectors, and four RCA jacks.

BB44X $\$ 299.00$

## Russ Friend \& Associates

The Russ Friend \& Associates CD100•X was designed on interface a consumer type player to the input of any audio console. RCA inputs and barrier strip outputs with front pancl recessed trim pot.

CDI $(x) \cdot x$
$\$ 99.00$


## SESCOM

The Sescom little boxes solve big audio problems. They are housed in a sturdy black anodized aluminum enclosure measuring $4.52^{\prime \prime} \mathrm{W} \times 4.5^{\circ} \mathrm{D} \times 1.57^{\prime} \mathrm{H}$


The Tascam LA-40MKII is a four channel. bi-directional. balanced and unbalanced line converter. The rear panel has ground lift switches for each channel with an overall master switch and the front panel has a $\pm 6 \mathrm{~dB}$ trim pot for each channel. A unique feature of the LA-40 MKII is the Input Link which allows it to be used as a IX3 distribution amp in the unbalanced mode.

LA-40MKII
$\$ 475.00$

## Zercom

The Zercom Gain
Box was designed and built as an audio boost amplifier It has two independent channels of gain which means is can be used for stereo or as two
 separate monaural amplifiers. The two channels can be wired in series for up to 60 dB gain.

Gain Box
$\$ 179.00$



Henry MixMinus Plus is a differential summing amplitier designed to add a "Mix Mmus" oupput to an audio console or teleconferencing system. This output is typically used to feed the send input of a telephone hybrid device. MixMmus Plus subtracts the hybrid receive signal from the program output to generate a progran mix - minus the receive (caller) audio. The NULL adjustment will provide 40 dB caller audio rejection. It is also applicable to satellite audio systems, removing incoming audio from a return IFB or cue feed to prevent echo and feedback

MixMinus Plus


The Henry Logiconverter is an interface unit that ficilitates remote control of studio equipment. It solves the incompatability problems encountered when a broadeast console is used to provide remote star/stop control of peripheral equipment. Logiconverter converts TTL/CMOS or open-collector console outputs to relay closures for remote interface that is compatible. reliable and isolated. The unir can be user programmed via internal dip swithes to generate either momentary or maintained outputs irom various inputs, with 24 combinations possible.

Logiconverter
$\$ 195.00$

## Whirlwind

The Whirlwind MD- 1 combines a high quallty mic/line input stage with a transformer-isolated line driver and independent headphone amplifier. keal for boom, parabolic and interview mics, the MD-I provides phantom power, local monitoring and a line-level balanced output for noise immunity over long cable nus. The MD-I's mput stage features a level control and up to GOdB of gain. a mic/line mput level switch, plas switchable 18 V phantom power for condenser mics. Its output cin be switch selected between the isotated gain stage and a straight loopthrough. The heatphone volume control provides a 60 dB range of adjustment to the post-transformer input signal or to signals inserted at the headphone line in jack. The mix control allows the user to monitor a mix between the driver cireut and the direet line in. It's powered by two 9 V batteries.


$\square$ Radio Design Labs

Rack-Up ${ }^{\text {rM }}$ Series (All rack up Sactive stick-on units require an externall pwr. supply.
RU-LA2D IHF-PRO Interface
$\$ 266.00$
RU-BLA2 Stereo line amp. XLR's in Vouts
RU-MP2
RU-MAS
Stereo mic preamp. XLR invouts w/phtm pwr.
5 Input michline mixer
$\$ 234.00$
$\$ 299.00$
$1 x+$ Stereo audio DA or $1 \times 8$ mono
3 Output audio DA
RU-UDA4 $2 x+$ Stereo unbalanced DA $\$ 242.00$ $\$ 227.00$

- $\$ 150.00$
$\begin{array}{ll}\text { RU-MDA } 3 & \text { lx3 Mic DA } \\ \text { RU-SM12 } & \text { Dual thannel audio meter }\end{array}$
RU.SNA
Dual thannel audio mete
RU-VCAI Digitally controlled attenuator, mono
RU-VCAID Digitally controlled attenuator. stereo RU-OSCHA Sequencing oscillator
RU-SCl
RU-SQ6 Serial Converter. RS-2 Sequencing controller RU-VDA4/*

I $x+$ Viden DA tloop-1hrough in. 75Qaut $\$ 150.00$
$\$ 222.00$

$\begin{array}{lll} & \text { "Specify BNC. phono or upe F adjustable } & \\ \text { RU-VA2 } & \text { Video allenuator, BNC } 75 \Omega \text { in } \& \text { out, adjustable } & \$ 144.00\end{array}$
Rack-Up Series Mounting Accessories (Rach-ups units are $1 / 3$ rack width)
RU-RA 3 19* Rack adapter. hold up to 3RU modules $\$ 29.00$
RC-1U Universal rack adapter $\quad \$ 127.01$
JP-1 Universal jack panel \$14.00

JP-2 XLR Jack Panel $\$ 15.00$
STR-19B Racking System. ( $19^{\circ} \mathrm{RM}$ for up to 10 stick-ons at an angle) $\$ 14(1,00$
STR-19A
J-RCA
J-PHN-S $\quad 1 / 4^{-3}$ Phonc jack. stereo
$\$ 123.00$
33500
$\$ 2.35 .00$ $\$ 246.00$ $\$ 277.00$ $\$ 277.00$
$\$ 255.00$ $\$ 255.00$ $\$ 185.00$ $\$ 208.00$

Th Phonc jack. stefero $\$ 2.20$
J-XLR-M XLR. female
XLR. male
BNC jack
$\$ 2.00$
RU-FPI
MB-I
Rounting panch/reverse mounling hit
Mounting kit. Z. brackel
$\begin{array}{llr}\text { MB-2 } & \text { Mounting kit. L hracket } & \$ 6.00 \\ \text { RU-SHA4 } & \text { Wire harness adaplerkit } & \$ 12.00\end{array}$
$\begin{array}{llr}\text { MB-2 } & \text { Mounting kit. L hracket } & \$ 6.00 \\ \text { RU-SHAA } & \text { Wire harness adapterkit } & \$ 12.00\end{array}$
$\begin{array}{llr}\text { MB-2 } & \text { Mounting kit. L hracket } & \$ 6.00 \\ \text { RU-SHA4 } & \text { Wire harness adaplerkit } & \$ 12.00\end{array}$
$\begin{array}{lll}\text { RU-SHAt } \\ \text { DMK } & \text { Detachable mounting pads. (Kit of 5) } & \$ 5.00 \\ & \$ 5.00\end{array}$ $\$ 5.00$
$\$ 7.00$

$\begin{array}{lll}\text { LBL-1 Label kit } & \$ 7.00\end{array}$

## Rack-Up Accessories

| RLC. | Remote level consol. for RU-VCA:s \& ST-RG | $\$ 120.00$ |
| :--- | :--- | ---: |
| RCS4 | Remote channel selector. for RU SX 4 | $\$ 90.00$ |

Active Stick-On ${ }^{\text {m }}$ Products

| STA-1 | Electronic transformer and line amp pair | \$136.00 |
| :---: | :---: | :---: |
| STA-1M | Audio line amp. mono | \$ $\$ 100.00$ |
| STSH1 | Stereo headphone amp | \$ $\$ 1+.00$ |
| ST-IC | Intereom Amplifitr. (I mic level insut: 1 @ $8 \Omega$ out) | \$120.00 |
| ST-PA? | 2 Wart puwer amp mono | \$64.90 |
| STPA6 | 6 Watt power amp mono | \$88.00 |
| ST-MX 3 | Line level mixer ( 3 lines in, 1 line out) | \$114.00 |
| ST-MMX3 | Mic to line mixer 3 mic lines in. 1 line outs | \$126.00 |
| STMLX3 | Miefine to line mixer | \$120.00 |
| ST-MXL 3 | Line to mic mixer | \$120.00 |
| ST-LMX3 | 1.ine \& Mic Level sniser, (2 mic-1 line hal/unbal in; 1 line hal/untal outh | \$120.00 |
| ST-DA 3 | Audio DA (1 in. 3 out line) | \$126.00 |



| Summary <br> Product | fupply Max Current mA | quirements Modules per KDL supply | Iroduct | Max <br> Current ma | Modules per RIII supply |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| RU-LA?D | 50 | 6 GF | STA-1 | 50 | 6 Floating | -nt- |
| RU-BLAZ | 50 | 6 GF | STA-1M | 50 | 6 Flosung | , |
| RU-MP2 | 50 | 6 GF | ST-SHI | 175 | 2 GF |  |
| RL-MX5 | 65 | 5 CF | ST-ICl | 175 | 2 CiF |  |
| RLi-DAad | 120 | 3 GF | ST-PA2 | 150 | 2 CF |  |
| RL'BDA 3 | 45 | 6 GF | ST-PA6 | 350 | 1 (iF |  |
| RU-LDA4 | 25 | 6 GF | ST-MX3 | 55 | 6 Flouting | () $\frac{1}{\text { g }}$ |
| RU-MDA. | 35 | 6 GF | ST-MMX3 | 55 | 6 Flowing | +8\% |
| RU-SA12 | 460 | 1 GF | ST-MLX3 | 55 | 6 Floating | G9000909 $0^{\circ}$ |
| RU-2X4 | 75 | 4 GF | ST-MXI3 | 55 | 6 Flaaring |  |
| RU-VCA1/D | 80 | 4 GF | ST-LMX 3 | 55 | 6 Floating |  |
| RU-OSC4A | 75 | 4 GF | ST-DA3 | 70 | 5 Fluating |  |
| RU-SCI | 150 | 2 GF | STM-DA3 | 30 | 6 GI |  |
| RU-SQ6 | $75^{\circ}$ |  |  |  |  |  |
| RU-VDAA | 60 |  |  |  |  |  |
| RLC2 | 75 |  |  |  |  |  |

## $\square$ pratam solvers

## Radio Design Labs

Active Stick-OTras Products
STM-DA3
-DA3
STM-I
STM-2
STM.2X
STM-3
ST-MPA2
ST-AMC3
ST-P1]
ST-VCAI
ST-RGI
ST-VP1
ST-EQ ${ }^{3}$
ST-CLI
ST-GCAI
ST-GCA2
ST-LCR1
ST-LCR?
ST-ACR1
ST-ACRIM
ST-ACR2
ST-VOXI
ST-SSRI
ST-SXt
ST-OSC2A
ST-OSC2B
ST-NGI
S'F-CXIS
ST-CXW
ST-CXII:
ST-HP|
ST-HP2
ST-TC1
ST-PD5


Microphone DA ( 1 im .3 out mic)
Mic preamp, fixed gain
Low noise mic preamp, variable out Switched mic preamp, variable out
High gain mic preamp, variable out Mic phantom adaptor
Active mic combiner. 3 in - 1 out
Sterco phono preamp
Voltage controlled amplifier
Ramp generator
Voice-over/page module
3 Band equalizer
Compressor/limiter (order 2 for stereo)
Gain control amplafier
Fast gam control amplifier
Logic ctrl. relay momentary
Logic etrl. relay-alternate action
Audio ctrl relay releare 5 wo 5.0 sec. Jine in
Audio cirl relay-release 5 io 50 sec. mic in Audio etrl. relay-release 5 to 50 sec. line in Audio crirl. VOX relay. I mic - 1 line unbal in Sold state audio "rilay", 2 dince hal in \& 1 nite out ${ }^{1}$ Input switcher, unbal line in/out Oncillator, IK/IOK. 2 lone out for each treq Oncillator, $1(x) H / 400$ Hz, 2 tine out for each freq White de pink noise generator
Subwoofer crossover, 22H, to 80 Hz
Wooter crossover. $40 \mathrm{H} /$ to 165 Hz Full range crossover, 100 Hz to 30 kH \% 300 Hz Migh-Pass Filher 500 Hz High-Pass Filler Telephone system coupler Power Supply Distributur. (I to 5 supply ourputs)


000000000000

$\$ 126.00$ $\$ 96.00$ $\$ 132.00$ $\$ 149.00$ $\$ 151.00$ $\$ 83.00$ $\$ 114.00$ $\$ 126.00$ $\$ 113.00$ $\$ 103.00$ $\$ 12.00$
$\$ 126.00$ $\$ 89.00$ $\$ 139.00$ $\$ 19.00$ $\$ 119.00$ $\$ 70.00$ $\$ 103.00$ $\$ 90.00$ $\$ 90.00$ $\$ 90.00$ $\$ 96.00$ $\$ 98.00$ $\$ 95.00$ $\$ 98.011$ $\$ 98.00$ $\$ 120.00$ $\$ 113.00$ $\$ 113.00$ $\$ 113.00$ $\$ 113.00$ $\$ 113.00$ $\$ 96.00$ $\$ 64.00$
$\$ 640$

| Passive Stick-On Products |  |  |
| :---: | :---: | :---: |
| STD-150 | Divider/combiner, $150 \Omega .4$ combinations | \$49.00 |
| STD-600 | Divider/combiner. $600 \Omega .4$ combinations | \$49.00 |
| STD-10K | - Divider/combiner. $10 \mathrm{~K} \Omega, 4$ combinations | \$49.00 |
| STP-1 | Dual variable attenuator, 2 channel | \$55.00 |
| Stick-On Mounting Accessories |  |  |
| STR-19 | Racking kit | \$123.00 |
| RC-36 | Racking kit | \$14.00 |
| RR-6 | Racking Rail. 6 inch | \$6.00 |
| RR-12 | Racking Rail, 12 inch | \$10.00 |
| STR-12 | Rack kit snaps. 12 pack | \$34.00 |
| MB-1 | Mounting kit | \$6.00 |
| MSR-1 | Snap rail adaptor | \$12.00 |
| SMK-12 | Stick-On mounting strip | \$23.00 |
| DTB | Detachable terminal block | \$5.40 |
| Stick-On Accessories |  |  |
| RLCl | Remote level control, for ST-RG1 | \$60.00 |
| RLC2 | Remote level contrul, for ST-RGI \& RU-VCA'S | \$120.00 |
| RLC10K | Remote level control, for ST-VCA | \$56.00 |
| General Accessories |  |  |
| ACB-1 | Headphone jack box | \$23.00 |
| ACB-2 | Dual RCA jack box | \$23.00 |
| WB.I | Sgl wall box. for mug. 1 of the RLC1, 2. IOK \& RCS 4 | $4 \$ 5.00$ |
| WB-2 | Dbl wall box. for mig. 1 of the RLC1, 2, 10K \& RCS | 4 \$7.00 |
| CP-I | Single cover plate in white, for use with WB-1 | \$6.00 |
| CP-2 | Double cover plate in white. for use with the WB-2 | \$8.00 |
| PS-2+A | U.S. 24Vde power supply | \$17.00 |
| PS-24B | Continental Europe 24 Vdc power supply | \$31.00 |


| Summary of Supply Requirements |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Product | Mas <br> Current ma | Modules per RIII. suppls | Product | $\begin{aligned} & \text { Max } \\ & \text { Current miA } \end{aligned}$ | Modules per RIDI, sumply | Product | Max rent mis | Modules per RDI. vupply |
| STM1-1/2/3 | 25 | 6 GF | ST-EQ3 | 60 | 4 GF | ST-OSC2A/B | 80 | 4 Fouting |
| STM-2X | 30 | 6 GF | ST-CLI | ${ }_{60}$ | 4 Hoaling | ST-TCI | 50 | 6 GF |
| ST-APAL | 30 | 6 GF | STGCAI/2 | 30 | 6 Floating | ST-NG1 | 30 | 6 GF |
| ST-AMC3 | is | 6 Flowiting | STILCRI/2 | 50 * | 6 GF | ST-CXIS/F/w | 30 | 6 Flualing |
| ST-TH1 | 60 | 5 Floaling | ST-ACR1/A $/ 2$ | - $50=$ | 6 GF | ST-HPI/2 | 30 | 6 Floating |
| ST-VCAI | 51 | $6 \mathrm{GF}^{\circ}$ | st.voxi | $50 *$ | 6 GF | TX-IW | 150 | 2 GF |
| ST-RG1 | 10 | 6 GF | ST-SSR1 | 40 | 6 GF | GF = Ground Referenced <br> *Avamics 20miA mas load al (Slate) autput |  |  |
| ST-VIP | 45 | 6 GF | ST.SX - | 40 | 6 GF |  |  |  |



TX Series ${ }^{\text {TM }}$
TX-IOB Bridging input transformer, $10 \mathrm{~K} \Omega$ in. $10 \mathrm{~K} \Omega$ out bal $\mathbf{\$ 3 6 . 0 0}$ TX-1A Adjustable line transtormer. $10 \mathrm{~K} \Omega 600 \Omega$ in. $10 \mathrm{~K} \Omega$ bal out $\mathbf{\$ 2 6 . 0 0}$ TX-M2 Line matching transtormer. goros bal in, 1 lin unbal- 1 mic bal out $\mathbf{\$ 2 9 . 0 0}$ TX-70A 70 v lnput interfice, 70 V 25 V speaker lin in, I line unbal nut, adjust $\$ \mathbf{2 5 . 0 0}$ TXIW Music on hold amplificr, I unbal in, I bal \& I unbal out, I watt $\$ 72.00$ EMC Products
TS-ID Transient Suppressor, (Install up to 6 of the TS-ID w/I GB6
$\$ 100.00$
GB6 Ground Bar (for use with TS-1D)
$\$ 100.00$



7


## Whirlwind



The HotBox is a tolally ransparent active direct box. powered by wo 9 V batteries or
48 V phantom power. It includes a ground lift switch and an LED on indicator.
$\$ 140.00$
The Director() is a premium direct box that consers a line. instrument or weaker level
signal to a low impedance mic level.
$\$ 73.25$
LMP Pads are female to male XLR 3 -pin inline low impedance fixed atenuation devices.
Input impedance: female XLR @ $1 K \Omega$ : Output impedance male XLR © $150 \Omega$
IMP PAD IOJB
IMP PAD 2018
$\$ 22.40$
IMP PAD 30dB
The ISMPO2 is an economical direct box that converns a line or instrument level
unbalanced signal to a low impedance balanced mic level ( $20 \mathrm{k} \Omega$ inpul. $150 \mathrm{k} \Omega$ output)
The NlicPower is a portable +12 to 18 Vdc phantom power supply for use with most electret condenser microphones. The unil operates on wo 9 V batleries, and an LED sensing circuit indicates suflicient battery power. Input impedance $1 \mathrm{~K} \Omega$ : Output impedance 150』; Battery life 50 houn © 4 mid curren draw.


The Phase Reverse is a female to male XLR 3-pin phase reversing device
which rewerses the connection of pin 2 and pin 3 between connectors.
Little IMP in-line impedance matching translonner will female XLR connector to ithile $1 / 4$ connectur $\quad \$ 12.95$

## Shure



Broadcast Tools


Broadcast Tools Console
Controller IIA provides the solution for interfacing non-broadcast consoles or digital workstations to the broadcast studio. It offers three channels of insert switching to turn on or off console input channels or other source equipment. The user can program the switch indicators to either light steady or flash when in operation, and channel three may be configured to either mute or not mule the monitors when energized. The CC-11A offers monitor amplifier mute control, front panel monitor level control and the ability to switch between internal or external (program/off-air) monitor input sources.

| CC-IIA | $\$ 299.00$ |
| :--- | :--- |



The Broadcast Tools UI411 universal interface creates an SPITT relay and open collecetor output from an optically isolated $5-28$ woll $A C$ or $D C$ input. Four channels of control are included and can operate independently. or may be combined for latched and multiple relay contact operation. Internal DIP switches allow the UI-4II io he configured in dozens of different ways. The Ut-41I is supplied with a plastic bracket for easy mounting. A self contained power supply uperates from 12 io 48 volts AC or DC . Optional external wall transformer is available.

## Henry Engineering

The Henry Superelay is a quick and easy relay interface for use in any studio installation requiring multiple circuit control. Superelay provides six double-throw relay outputs for low-voltage and audio switching. It can be controlled by any switch, momentary or maintained relay, or CMOS/TTL logic circuit. The AC output is switched with a solid-state synchronous relay for direct powering of "On Air" warning lights. Includes an internal flasher circuit and $12 \mathrm{VDC} / 250 \mathrm{~mA}$ utility power supply.

| U1-4 II | $\$ 1.39 .00$ |  |
| :--- | ---: | ---: |
| RM1 or RM2 | $\$ 49.00$ |  |
| U14WT | Power Supply | $\$ 14.95$ |

AUDIOLAB


AUDIOLAB TD-4A • Erases audio, video and data tapes; UMatic cassettes up to 750 oersteds and reels up to 16 inches in diameter and I inch in width. Provides a 2550 effective Gauss Field in HI mode - Built in timer has adjustable "ON" cycle and automatic shut-off Automatic cooling fan operation Overheat light with automatic thermal protection prevents exceeding duty cycle on Hl position - Themal protection resets to normal operation automatically - High Low operation with continuous duty erasing on low position for most tapes - Standard 5/16 inch center post with 3 inch NAB hub supplied. This would be the minumum reguired to erase DATs.

| TD-4A-115-60 | $110-125 \mathrm{VAC} .60 \mathrm{~Hz}$ | $\$ 950.00$ |
| :--- | :--- | ---: |
| TD.4A-115-50 | $110-125 \mathrm{VAC} .50 \mathrm{~Hz}$ | $\$ 950.00$ |
| TD-4A-230-XX | $220-250 \mathrm{VAC}$. | Specify 50 or 60 Hz |

AUDIOLAB TD-5 - Erases audio, high coercivity video and data tapes; up to 1500 oersteds and reets up to 16 inches in diameter and 2 inches in width - Provides a 3700 effective Gauss Field in HI mode

| TD-5-115-60 | $110.125 \mathrm{VAC}, 60 \mathrm{~Hz}$ | \$1.695.00 |
| :---: | :---: | :---: |
| TD-5-115-50 | $110-125 \mathrm{VAC}, 50 \mathrm{~Hz}$ | \$1,695.00 |
| TD-5-230-XX | $220-250 \mathrm{VAC}$. Specify 50 or 60 Hz | \$1.795.00 |
| 2400-008 | TD-5 Beta SP tape adapter | \$45.00 |


| Geneva |  |
| :--- | :--- |
| PF-211 | Video/Audio 2300 gauss tape craser |
| Video/Audio 2800 gauss tape craser | $\$ 109.95$ |

## R.B. Annis



|  | Han-D-Mag Only | Kit K/25 |
| :---: | :---: | :---: |
| Model 115-S Short Probe (2 1/4*) | \$33.00 | \$96.00 |
| Model 115-L Long Probe (4 1/4") | \$ $\$ 1.00$ | \$104.00 |
| Model 1ISTS Than, short probe | \$37.00 | \$100.00 |
| Model IISTL. Thin. long probe | \$45.00 | \$108.00 |
| Options: |  |  |
| Model 25/5. Range 5 Gauss | \$60.00 |  |
| Set of Steel Test strips | \$2.25 |  |
| Clip-On Extension Prothe for Maghetometer | \$4.30 |  |



## TD-1B

Erases audio. video. computer data, magnetic films. cartridges. and diskettes - for standard tapes up to $1 / 2$ inch in width - Accommodates up to $10-1 / 2$ inch NAB reels - Positive results every time with a simple two pass operation - Transient protection to prevent permanent tape damage - Thermostatically protected. (Won't earase DATs.

| TD-1B | 117VAC. $50-60 \mathrm{~Hz}$ | $\$ 145.00$ |
| :--- | :--- | ---: |
| TD-1BF | 230VAC. $50-60 \mathrm{~Hz}$ | $\$ 150.00$ |
| 2400-007 | NAB Hub adapter | $\$ 7.00$ |

## Fidelipac

The Fidelipac 395 BLANK-IT is made of molded unbreakable lightweight plastic. It supplies 1550 Gauss of erasure power at $1 / 4$ inch from its base center, and will perform at a longer duty cycle
 than similar units.

| Model 395 | Handheld. 110VAC | $\$ 100.00$ |
| :--- | :--- | ---: |
| Model 395-FP | 2-pack felt base pads | $\$ 3.00$ |



## Fidelipac's Model

400 is a powerful bulk eraser. providing over 2000 Gauss of erasure power. Featuring a scuff resistant laminate top. die cast zinc edge guide. removable aluminum pivot pin. and non-skid rubber feet. it will efticiently erase reel sizes up to $11^{\prime \prime}$ in diameter

| Model 400 | Table top. 110 VAC | $\$ 195.00$ |
| :--- | :--- | :--- |

Annis Han-D-Mags are now available in 8 different models. The "thin prote" ( 0.315 " thick as compared to $0.415^{\circ}$ ) are powerful probe type. head denagnetizers. having a husky 2000 gauss flush pole face. The Amis Pocker Magnetometer $25 / 5$ measures residual magnetism levels in recorder heads. capstans or tape guides. It indicates when it's time to demagnetize and when it's sate to use a recorder. preventing permanent damage to recorded tapes. Hon-D-Kias include a Magnetometer. Chip-on Euension Probe phas a Set of Steel Test strips and instructions



> High quality. environmentally safe cleaners to improve conductivity and mainain optmum signal quality on electrical connectors and contacts. CAIG formulations are highly concentrated - only small amounts are required (appicalls ont quick spray or drop per application).
DeoxIT dissolves oxides and suffides that form on metal contact surfaces. This restores the contactis integrity and leases a thin (organic) layer that coats and protects the metal. Available with petroleum naphtha solvent ( $5 \%$ ), or without ( $100 \%$ ). Gencral purpose treatment
PreservilT seals, lubricates and preserves metal surfaces agamst oxidation and contamination. It provides long-lasting protection for newly manufactured components or those cleaned by ultratonics. DenxlT or other procedures.
ProGold is a conditioning solution that improves conductivity, lubricates and provides long-latting protection on gold, silver rhodium, copper. nickel and base metals. ProGold is the only produce that actually penetrates plated surfaces. molecularly bonds to the base metals and seals \& protects hoth sur faces. Available with perfoleum naphiha solvent ( $5 \%$ ), or without ( 100 ) $\%$ ). Maximum performance and
protection for plated connectors and contacts.
CaiLube MCL is a precision lubricant and enhancer for plastic moving contact surfaces (fiders, switches, potentiometers, monuse pads and other mechanisms with sliding surfices). Over time these components lose their original lubrication from wear and repeated cleaning. Call ube MCL is not a deoxidizer or cleaner. use ProGnld or Deoxit for this function


## American Recorder Technologles

S-711 is formulated to clean tape heads, tape quides. capstans, and pinch rollers (not for use on PVC or Styrene components). It will remove tape oxides, soils. oils, waxes. greases, and other various contaminants while still maintaining the desirable properties of low loxicity and non-flammability. In addition, the evaporation rate is controlled to combine maximum cleaning power with fast drying. Due to it's low surface lension and excellent wetting of surfaces. penetration of remote crevices is accumplished. S-711 is non-hydroscopic. eliminating moissure or residue which cun setule on components. This will promote extended life and healthy texture to the pinch roller.

| S-711B | Head Cleaner 2 oz. | $\$ 8.00$ |
| :--- | :--- | ---: |
| S-711Q | Head Cleaner 1 Quart | $\$ 22.00$ |
| S-711G | Head Cleaner 1 Gallon | $\$ 60.00$ |
| CO-2 | CO-2 Paricle Duster | $\$ 20.00$ |
| DP-3 | Dispenser Pump 6 oz. Ceramic | $\$ 20.00$ |
| VS-1B | Video Chamois Swabs. Bag of 25 | $\$ 10.00$ |
| CS-1B | Audio Cotion Swabs. Bag of 100 | $\$ 1.20$ |
| D-512 | Wand Demagnetizer | $\$ 30.00$ |
| K-161 | Pro Audio Care Kit (CS-1B. S-711. D-51IB. C02 Duster) | $\$ 70.00$ |
| DAT-10ID | DAT Cleaner | $\$ 20.00$ |
| KCD-101A | CD Cleaner w/storage case | $\$ 16.00$ |
| LL-151 | Laser Lens Cleaner | $\$ 18.00$ |
| V-311A | VHS / ADAT Recorder Cassette Cleaner | $\$ 20.00$ |
| V-331D | 8mm Cleaner Dry Type | $\$ 20.00$ |
| LLCD | Lazer Lens/CD Cleaner Combo Kit | $\$ 30.00$ |



"OpLoco" Studio Control Panel
"MediaEDIT" Digital Audio Editor

## 

We worked on our first duopoly project over 5 years ago and our experience leaves nothing to chance. No matter what configuration of stations you have, no matter what format, no matter how many studios.. MEDIATOUCH can run it all through one central location, all with the ease of touch screen technology. And MEDIATOUCH works with your existing platforms. No expensive equipment to buy. Flexible. Affordable. Easy to use. Don't roll the dice in the game of Superduopoly. Give your stations the MEDIATOUCH advantage.


## Sow Molion Gontrollars for Demanding Sports Production

## ST300 Slow Motion Controller, \$3,000

All the features and functions you would expect to find on an $\$ 8,000$ to $\$ 12,000$ slow motion controller!

- Control up to 4 VTRs
$\square$ Simple and easy to use. Small space-saving footprint
- Quickly \& Easily store and recall up to 100 Cue Points per VTR
- T-Bar or detented wheel provide fast \& easy slomo control
- Can be customized for your specific application


DNF
ST300 Slow Motion Controller





## Floor Stands

| Allas MSI2C | Low-profile, ebony base, 41 lbs . | \$46.75 |
| :---: | :---: | :---: |
| Atlas MSI2CE | Low-profile, cbony base \& tube, +1 Ibs. | \$46.75 |
| Beyer GST400 | Adj. 35"-65", fixed boom 33', black finish | \$79.00 |
| Beyer GST500 | Heavy duty adj. stand $35^{\prime \prime}-65^{\prime \prime}$, adj. boom $18^{\prime \prime} \cdot 30^{\prime \prime}$, black | \$99.00 |
| Beyer GST590 | Low profile adj. stand 18* - 49"', adj. boom 18* - 30', black | \$99.00 |
| Beyer ST400 | Adj. $35^{\prime \prime}-65^{\prime \prime}$. black finish | \$59.00 |
| Ulimate MC07B | 1/4 turn clutch, weighted dove tail base allows carrying 6 stands in the fool print of one, 34-3/4" $64^{\prime \prime}$. wt. 9 lbs . (Come in 4 -pak) each | \$37.50 |

Ac-cetera

| Base Section lock clamp with male threaded (std) arm |  |  |
| :---: | :---: | :---: |
| M-1 |  | \$16.95 |
| M1-3 | horizontal clamp | \$16.95 |
| Aicrophone lolders, spring style with female threaded arm. Quick release design and mic |  |  |
| locking system. |  |  |
| M1-4 |  | \$16.95 |
| M-2 | horizontal clamp | \$16.95 |
| Combination Systems, base and holder clamps attached by various eenter sections |  |  |
| Flen-Erecis. 3 | Flexible will 3" thexible center section | \$32.95 |
| 门ex-Ere (8)-5 | Flexible with $5^{\prime \prime}$ tlexible center section | \$32.95 |
| Sax-Eme (ra) | Straght with 1-3/4" center section (Clamp Swivel is adj.) | \$32.95 |
| Min-E\%c(1) | Short trapeze center section | \$32.95 |
| Mis-Handlersis | Unigue mic holder with hand grip | \$32.95 |
| Pig-E-Back $\$ 32.95$ |  |  |



Audio-Technica

| ATCPS506 | Four channel 48V DC phantom supply (AC powered) | $\$ 180.00$ |
| :--- | :--- | ---: |
| ATCP8508 | Single chimel 24V DC phantom supply (AC powered) | $\$ 75.00$ |

## Crown



The Crown PH-1A is a single channel battery/phantom supply unit. It operates on two 9 V batleries or with the P'S-2.t AC to DC adapter. Use it with the Crown PCC-160), or any mic that will operate on 18 V or higher phantom.. Lnput-ountu connectors ate XIR.


The Crown PH-4B is a 48 V phantom supply: four in/tour out. It operates on 120 VAC Connectors are female -pin in. and male 3 -pin out.

| PH-4B | $\$ 200.00$ |  |
| :--- | :--- | ---: |
| RMPB | KIT $19^{\circ}$ Rack mounting kit | $\$ 15.00$ |



## Shure



The Shure PS-1A is a power supply that provides 21.5 Vdc of phantom power for one or two condenser microphones. Powered by 120/240Vac $\xrightarrow{\text { Ps. } \mathrm{A}} \quad \$ 165.00$

## Stewart

| Stewart PM1 | Single 48V Module. w/PS-1 | $\$ 93.00$ |
| :--- | :--- | ---: |
| Stewart PM2 | Dual 4 SV Module. w/PS-1 | $\$ 138.00$ |
| Stewart PM4 | Quad 4SV Module, w/PS-1 | $\$ 17 . .00$ |
| Stewan BPS1 | Single channel 48V Phantom Supply. Battery Powered | $\$ 119.00$ |



## Whirlwind



The Whirlwind MicPower is a portable phantom power supply for une what mondectrel condenser mies. It supplies +12 in $18.8 d e$ under nominal load at the microphone infut, and the output of the unit is $A C$ coupled. The unt operates on mo oV hatterice and an l.I:1) semone en cuil indicates sufficient battery power.

MicPower
$\$ 95.100$


Porta Brace Mic Holster

| Mic Holsters |  | \$42.00 |
| :---: | :---: | :---: |
| MH-3 | 15" For handheld mic w/l.ecirusumes 11185 tramsmituer | \$45.00 |
| VB. 10 | Optunal Video Belt add on tomic holver | \$21.00 |

## Pop Filters



| ART POPKIT |  | 849.95 |
| :---: | :---: | :---: |
| STOP-6 | 6" diameder pop filter | \$19.95 |
| STOP-8 | 8* diameter pop filter | \$22.95 |
| POMT | Mie stand adipler. geomeneck. \& STop-6, | \$+2.95 |
| SPS-K | 5" Pup filter w/clamp it goomencek. 1) aial | \$42.00 |

## Shock Mounts



| AKG TM-1 | Spider shock mt for mics up to 1-3/8' dia., black finish | \$22.00 |
| :---: | :---: | :---: |
| AKG TM-2 | Spider sheck min for mics up to $2^{\prime \prime}$ did.. thack finish | \$25.10 |
| AKG TM-3 | Spider shock mi. for mics up to 2-3/4* dia.. black linish | \$29.40 |
| AKG SA-26 | Universal clollespin-lype clamp which will hold the Tensimount harre] | \$12.60 |
| Electro Voice 311 | 3/4" dia. mic clip which will hold the Tensimount barrel | \$19.50 |
| Electro Voice 309A | Shock Mount for Electro Voice RE20/RIE27N/D BIk. | \$122.50 |

## Windrech Windscreens

Wind Tech ${ }^{\text {TM }}$ manufactures the highest quality microphone windscreens available in 25 brilliant colors. and a variety of sices and shapes to fit most popular mics. Using a proprictary non-heat manufacturing process. WindTech ${ }^{\text {ma }}$ windscreens are constructed from a specially developed hypo-allergenic. open-cell foam called SonicFoam ${ }^{\text {Tw. The }}$. The use of SonicFoamial permits the free passage of sound energy waves without affecting microphone frequency response. While remaining acoustically transparent, their windscreens are engineered to reduce wind velocity which eliminates wind noise, pop noises and breath sounds. Nothing protects an expensive mic from dust. dampuess and physical damage like an external windscreen . and they're washable too!


BGS

| Model | Description/Sampling | Inside diameter | Inside Depth | Price |
| :---: | :---: | :---: | :---: | :---: |
| 900 | Large Spherical/EV50/SM58 | 1.625" | $2.125^{\prime \prime}$ | \$5.00 |
| 300 | Regular Spherical/SM58/VP88 | $1.375^{\prime \prime}$ | $1.750^{*}$ | \$4.85 |
| 600 | Small Spherical/EV635/SM57 | $1.375^{\prime \prime}$ | $1.750^{\circ}$ | \$4.35 |
| 5700 | EV635/SM57/BETA57 | $1.000^{\prime \prime}$ | $1.750^{\prime \prime}$ | \$4.35 |
| 1200 | Large Cylindrical/SM80/SM81 | 0.750" | $1.625^{\prime \prime}$ | \$4.00 |
| 1300 | Sinall Cylindrical/AKGDI09 | 0.625" | $1.250^{\circ}$ | \$3.85 |
| 500 | Podium/EVCP212/SM2/10/12 | 0.4375" | $1.250^{*}$ | \$3.65 |
| 1100 | Lapel/AT803/SM98/99 | $0.250^{\circ}$ | $0.750^{\circ}$ | \$3.65 |
| 1500 | Round Lavalier/ECM4-1/55/66 | $0.375^{*}$ | 0.750" | \$3.65 |
| 2300 | Mini Round Lavalier/ECM77 | $0.187^{\prime \prime}$ | $0.350^{\prime}$ | \$3.35 |
| 2100 | Tear-Drop/SM93/99/PH21/22 | 0.250" | $0750^{\prime \prime}$ | \$3..65 |
| $20 / 421$ | X-Large Cylin/RE20/MD+2III | 1.875* | $3.250^{*}$ | \$39.95 |


| Ulltra-Screen Series for "hostile environments" with dual foan design. |  |  |  |
| :--- | :--- | :--- | :--- |
| US-I | $1.00^{*}$ | $1.750 "$ | $\$ 42.95$ |
| US-2 | $0.750 "$ | $1.750 "$ | $\$ 42.95$ |
| US-3 | $0.625^{\prime \prime}$ | $1.750 "$ | $\$ 42.95$ |


| Shotgun Series |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| SG-1 |  | .7500" | 7.250 | \$21.95 |
| SG-2 |  | .7500** | 11.50 | \$27.95 |
| SG-3 |  | .7500" | 20.00' | \$32.95 |
| Pap Screen |  |  |  |  |
| SPS-I | 5.0" OD 0.25 " air space, 2 screens, black |  |  | \$22.00 |
| SPS-K | Kit has GN-19B and Mic stand clamp |  |  | \$42.00 |
| SG-200 | Fils Sony BETACAM models BVW-200, 300. 400 \& D600 |  |  | \$17.95 |



Mini Round
Lavalier

2100 Series


## Alladin Mic Flags

Custom Mic Flags ean be manufactured in iny shape or size. A mimmum order of 5 Mic Flags is required. ArtLogo charge ( $\$ 35.00$ per color) is a one time only charge. We also can supply a typesetting service for those withou logos. Please call and we will far you the 'mformation ne'cessary to select the syle and price out custem Slic Flags.

ALA-4SA Blank Mic Flags are available in 2" or 2-I/2" Black or white + sided cube $\quad \$ 28.00$


| Microphones |  |  |  |  |  |  |  |  |  |  |  | Price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Make/ <br> Model | Application | Trans ducer | Pattern | Z- | Freq. Range | Sensitivity | Weight or Lav length | Acces Windscreen | ories~ * $N$ Stand Adapler | s suppli Shock Mount | with microphone Other Accessories |  |
| AKG |  |  |  |  |  |  |  |  |  |  |  |  |
| C391B | $\bar{S}$ | $\bar{C}$ | C | 200 | 20-20k | 10 mV | 9 | W90 ${ }^{\text {- }}$ | SA40* | H38 | N62E plantom supply | \$664.00 |
| C414B | S | C | O/C/8/HC | 180 | 20-2()k | 124 mv | 11 | W+14 | SA18/30 | 1115/22 | N62E phantom supply | \$1.675.010 |
| C426B | ST | C | MS | 200 | 30-20k | 11 mV | 16.6 | W426 ${ }^{\text {\% }}$ | SAIma | H15/33* | H//Pistol Grip | S4,669.00 |
| C460B/CK6 | S | C | C | 120 | 30-20k | 8 mbV | 10 | W32* | SA40* | 1138 | NG2E phantom Supply | \$60リ.00 |
| C3000 | ST | C | C/HC | 200 | 20-20k | 20 mV | 11.3 | W4It | SAH14* | HIS/22 |  | \$888.00 |
| D230 |  | D | 0 | 320 | +0-20k | 2.5 mV | 8 | W23 | SAta ${ }^{\text {a }}$ | 1130 |  | \$239.00 |
| Audlo-Technica |  |  |  |  |  |  |  |  |  |  |  |  |
| 815 B | SH | C | L | 500 | 30-20k | 17.5 mV | 7.1 | AT 1135 | AT8405 |  | CP-8508, I-Ch. Supply |  |
| 825 | ST | C | MS | 200 | 30-20k | 15 mV | 8.5 | AT8120 | AT8405 | AT8+15 |  | \$525.01 |
| 835B | SH | ${ }^{\text {C }}$ | ${ }_{\text {L }}$ | 500 | 40-20k | 12.5 mv | 8 | AT8132 | AT8405 | AT8415 | CP-8506. 4-Ch. Supply | \$329.00 |
| 4033/SM | S | C | ${ }_{\text {C }}$ | 100 | 30-20k | 25.1 mV | 14.5 | AT8137 | AT8430 | ATS44 ${ }^{\text {a }}$ | CP-8508 Ph supply | \$725.00 |
| 4050/CM5 | S | C | C/O/8 | 100 | 20-20k | 15.8 mV | 19.9 | AT8137 | AT8430 | AT8 $4+1$ * | CP-8508 Ph supply | \$905.00 |
| ${ }^{\text {AT804 }}$ | E | $\stackrel{\text { D }}{ }$ | $\bigcirc$ | 600 | 50-15k | 3.5 mv | 8. | AT8108* | AT8405 | ATS415 | - | $\$ 110.00$ |
| AT803B | L | C | O | 200 | $40-20 k$ $40-20 k$ | -42 dB -3 d CB | $8{ }^{8} \times$ | AT8116 |  |  | AT8530 pws. module | \$100.00 |
| MT830R | L | C | 0 | 200 | 40-20k | -34dB | .62" | AT8130 |  |  | AT3533 pwr mondule | \$200.010 |
| AUDIX |  |  |  |  |  |  |  |  |  |  |  |  |
| CD-11 | P | D | C | 600 | 50-16k | -76dB | 9 | N/A | MC-1* | N/A |  |  |
| OM-5S | P | D | HC | 200 | 40-20k | -68dB | 10.5 | N/A | MC-1 ${ }^{\text {a }}$ | N/A |  | \$329.00 |
| OM-7 | P | D | HC | 150 | 38-2 1 k | -78dB | 10.5 | N/A | MC. ${ }^{*}$ | N/A |  | 5359.00 |
| Beyerdynamic |  |  |  |  |  |  |  |  |  |  |  |  |
|  | E | D | 0 | 200 | 40-20k | 1.3 mV | 9.1 | WS58* |  |  |  |  |
| MC736PV | SH | C | 1 | 150 | 40-20k | 25 mV | 15 | WS716 | MKVII | EA736 |  | \$1.099.00 |
| MC 337 PV MC 740 | SH | C | ${ }_{0}^{\mathrm{L}} \mathrm{C}^{\mathrm{L}} 8$ | 150 | 40-20k | 35 mV | 15.5 | WS717 | MKVII | EA737 |  | \$1.199.00 |
| MC740 MC742 | ST | C | O/C/8 | 150 150 180 | $40-20 k$ $40-20 k$ | 10 mV | 14.5 | WS740 | MKVII | EA740 | PS740 pop shld. | \$1.599.00 |
| MC833 | ST | $\stackrel{C}{C}$ | MSS | 150 | $40-20 \mathrm{k}$ $30-20 \mathrm{k}$ | 10mV | 3.9 | WS740 | MKV11 | EA742 |  | \$2.999.00 |
| MCE5.IS | L | C | 0 | 200 | 20-20k | 14 mv | 1.10 | TWS-5* | MKVII | EA833 | Tic Clip MKV5/3* | \$2.599.00 |
| MCE10.15 | L |  | HC | 700 |  |  |  |  |  |  | MHV5 supply clip* | \$399.00 |
| MCES0.15 | $L$ | ${ }^{\text {C }}$ | $\bigcirc$ | 200 | 25-18k | 12 mv | $1{ }^{8 .}$ | ${ }_{\text {ZWS-10* }}^{\text {N/A }}$ |  |  | Same as RICEA. 15 | 8499.00 |
| MCE86 | SH | $\stackrel{C}{C}$ | L | 190 | 50-18k | 4.2 mV | 3 | WS716 | MKV1I | EA19/25 | MHV50 supply clip | $\begin{array}{r} \$ 329.00 \\ \mathbf{3} 99.00 \end{array}$ |
| CAD (Equitek) |  |  |  |  |  |  |  |  |  |  |  |  |
| E200 | S | C | O/C/8 | 200 | 10-18k | 17.8 mV | 12 | WS-1 | SM-1* | ZM-1 |  |  |
| E300 | S | C | O/C/8 | 200 | 10-20k | 17.8 mV | 29.8 | WS-J | SM-1* | ZM-1 |  | $\begin{aligned} & \$ 799.00 \\ & 899.00 \end{aligned}$ |
| Electro-Voice |  |  |  |  |  |  |  |  |  |  |  |  |
| 635A | E | D | 0 | 150 | 80-13k | -55dB | 6 | 314 E | 311* |  |  |  |
| 635 L | E | D | 0 | 150 | $80-13 \mathrm{k}$ | -55dB | 6 | 314 E | $311 *$ | 307 A | 635AAB Bla oplion | $\begin{aligned} & \$ 80.00 \\ & \$ 198.00 \end{aligned}$ |
| 635N/D | E | D | 0 | 150 | 80-13k | -51d8 | ${ }^{6}$ | 314 E | $311 \%$ | 307A | 635A/B Blx option | \$204.00 |
| 649 B CO 2 | L | D | $\bigcirc$ | 150 | 80-10k | -61dB | $2.25 \cdot$ | 70399 |  |  |  | \$262.00 |
| CO 2 CO 90 | L | $\stackrel{C}{C}$ | 0 | 100 | 50-20k | 8.5 mV | 1.0. | N/A |  |  |  | \$250.00 |
| CO90 COI00 | L | C | 0 | 150 | $40-15 \mathrm{k}$ 30.15 k | -57dB | .85"* | 89631** |  |  | Dual 390 Fiawn tic clip | \$310.00 |
| CO100 | L | C | - | 150 150 | $30-15 k$ $40-18 \mathrm{k}$ | -51d8 | ${ }^{1 \prime} 8^{\prime \prime}$ | 70339********** |  |  | Dual 390A Blk tie clip | \$ 426.00 |
| DO56 | E | C | C | 150 | $40-18 k$ $80-18 k$ | -45dB | .85 | $70339{ }^{\circ}$ | 312* | 307A | Dual 390A hlk tie clip | \$48.4.00 |
| RE20 | S | D | C | 150 | 45-18k | 1 mV | 26 | 20/421 | $320{ }^{\text {* }}$ | 309 A |  | \$272.00 |
| RE27N/D | S | D | C | 150 | 45-20k | 3.1 mV | 27 | 20/421 | $320{ }^{\text {* }}$ | 309 A |  | \$882.00 |
| RE38N/D | S | D | C | 150 | 25-20k | 2.5 mV | 13.4 | N/A | $320{ }^{*}$ | 319 |  | \$698.00 |
| REASN/D | E | D | C | 600 | 50-15k | -50dB | 8 | 72434 | 323 | 307A |  | \$676.00 |
| RE50 | E | D | 0 | 150 | 80.13 k | -55dB | 9.5 | 379 | 323* | N/A |  | \$300.00 |

 Note: Sensuivity in dB's or $m V / P a$, where $O d B=1 V / m i c r o b a r ~ \& ~ / ~ m V / P a=10 m V / m i c r o h a r ~$



## AlRcorp



| 500 PH | Radio/Studio version* | $\$ 799.00$ |
| :--- | :--- | :--- |
| $500 T \mathrm{~T}$ | Television |  | 500TV Television version * $\quad \$ 889.00$

The AIRcorp Pro Announcer 500 has front panel selection of input level from +4 to -50 dB . three section variable boost and cut equalization, phase rotators. compres sor/expander combination, de-esser and simultaneous mic and line level outputs. A front panel headphone jack permits set up without being on the air and a dB 25 connector allows remote control of mosi functions including "popless" insert point for effects.
*They are supplied with handles (tabs) on the rack cars
unless specified withou handles at the time of order.

## CRI

The CRL IPP-100 is a programmable microphone processor for studio and broadcast. The IPP- 100 combines powerful equalization and compression techniques with the ability to store 18 different user-designed processing set-ups. Special effects loopthrough port and key-lock security provided.

| IPP-100 |  | $\$ 1.895 .00$ |
| :--- | :--- | ---: |
| IPP-100R | Digital remote control box | $\$ 395.00$ |
| IPPCable | 25 foot serial digital remote cable | $\$ 39.00$ |



## dbx



The dbx 286A is a mic processor with preamp. compressor, de-esser, enhancer and expander/gate combined in an affordable, compact unit The preamp accepts mic or line level inputs. offers phantom power, an 80 Hz , $18 \mathrm{~dB} / \mathrm{Oet}$ high pass filter plus an input level meter. An additional 1/4" TRS phone jack can accept balanced/unhabanced line signals and an insert jack between the 286As mic preamp and signal procesting sections can be used to "loop out" to external processors.
dbx 286A
$\$ 3.49 .95$

## Orban

The Orban 787A programmable voice processor offers compression gating, noise gating, parametric EQ and de-essing. An effects send and effects return loop allow you to use the 787 if your console does not have an effects loop. The optional low-noise. lowdistortion Jensen transformer mic preamp will convert the 787 to mic level use. With up 1099 recallable preseis. nearly any voice can be processed for your radio or TV station.


| RET046 | Mic preamp retrofit kit for already purc |
| :---: | :---: |
| Security Covers | 1 rack unit. clear |
| Security Covers | 2. 3 or 4 rack units, clear |
| Rane |  |
|  |  |
|  |  |
| VP-12 | \$599.00 |

The Rane VP 12 is a mic or linc level voice processor incorporating a studio-grade microphone stage. low and hi cut filters. de-esser. gate/comprestor, and wo chamels of parametric equalization. The micruphone 3 -pin XLR input features switchable 48 V phantom power and an input gain control. A separate balanced line level inputarives from either screw terminals or a $1 / 4^{\prime \prime}$ TRS jack. A from panel swith selects whether the mic. line, or the sum of both inputs will be processed by the VP 12.

## Symetrix

The Symetrix 528 E is a voice processor with an on-board preamp. compressor/limiter. downward expander, parametric EQ/notch filter, de-esser. 48 V phantom power and individual by-pass switches for cach section. Includes clip LED's. output level and gain reduction metering. The Symerix 528 E allows you more control over vital EQ parameters and a greater range of compression adjustments than other analog voice processors. The 528 E offers 3 bands of variable frequency EQ , with variable bandwidth on cach. The compressor section provides adjustable ratio control. and a downward expander that reduces studio equipment noises. The new phase rotitor and selectable output level round out the features found on the 528E. There's no mystery why the Symetrix 528E is the broadcast standard for microphone processing. The New Symetrix 628 has all the 528E features with the following additions: digital output ( $32 \mathrm{KHz}, 44.1 \mathrm{KHz} \& 48 \mathrm{KHz}$ ), 117 user presets and 11 factory presets, front panel lock-out and an optional remote control to access I I presets.


## Valley Audio



| $401 B$ | $\$ 799.00$ |
| :--- | :--- |

The Valley Model 401B Microphone Processor was designed specifically 10 enhance the on-air personality's performance. The Valley 401 B has a transformertess mic preamplifier. three band voice EQ, positeq patch point. compressor with interactive expander, and de-esser with "normal" and "heavy" sellings. Includes I.ED gain reduction meter, switch selectable inpul/output VU metering and an output gain control. The balanced output level is switch selectable from +4dbu io -50dbv for level matching io mic or line input circuits.

Audio-Technica

## Audio-Technica 300 Series

An entry level wireless system with R03 receiver ai $10 \mu \mathrm{~V}$ sensitivity and 350 mV umbalanced audio output. and T2I body pack for guitar, headworn or lavalier mics and T22 handheld for 30 mW of RF power.

unbalanced audio output. The WTIS body pack and WT 16 handheld produce 30 mW RF power with IOdB more dynamic range.


## Audio-Technica 1200 Series

The RI2 diversity receiver has full FM deviation, $5.6 \mu \mathrm{~V}$ sensitivity in a half rack package. The T25 body pack and T36 hand held produce a full 50 mW RF power Also available is the T37C condenser mic with interchangeable elements.


1200 Series
Priced from $\$ 750.00-\$ 950.00$
W7174
UHF diversity system featuring the R71 receiver with 16 PLL channels. Tone Lock ${ }^{\text {TM }}$ squelch and $3 \mu \vee$ sensitivity. The T74 handheld ransmitter offers an N-Dym cardioid
 element and 10 mW RF power.

## W7174

$\$ 1.698 .00$

## PRO W88

A Camcorder system which operates in 5 different VHF bands on 2 selectable frequencies. It offers omni or unidirectional lavalier mics with the body pack transmitter

$$
\begin{array}{ll}
\hline \text { PRO ws8 } \quad \$ 307.00 \mathrm{w} / \mathrm{mic} \\
\hline
\end{array}
$$


pack with load of mic options, and the T 32 handheld produce 30 mW RI: power and are totally silent when swatehed on/off.

1000 Series
Priced from $\$ 690.00-\$ 880.00$

## Beyerdynamic



Beyerdynamic U 700 series UHF range comprises of a choice of components. A modular twelve channel receiver, a two channel rack moun receiver, pocket transmitter and handheld transmitter with a range of imterchangeable heads. These components can be combined to produce a system offering the highest RF integrity coupled with the hest audio possible. Designed to operate in the +70 to 980 MHz range, the U 700 system can accommodate up to twelve channels within an SMHz handwidth of one television channel.
RR7000 TG/12-2TX is a fully loaded 12 ch. $19^{*}$ RM receiver, complete with monitorfield including 12 EED 700 receivers and includeng 12 transmitters any mix of handheld or bodypack. System comes complede with? antenna and cables.

## RR7000TG/12-2TX

$\$ 73.599 .00$
Beyerdynamic NE 700 UHF Diversity Receiver is a two channel unit operating in the 470-980MINz range. Each channel features 10 LED indicators for monitoring incoming signal level and AF modulation, plus singel LED indicators for $A$ or $B$ chanmel operation and squelch, additonal LED's indicate antenna distribution and antenna power status. The ability to connect up to three recetvers offers a unigue maximum of six chamels in a three U space NE700
$\$ 5.999 .00$
The NE 600 is a frequency agile PLL syntheswed receiver. 64 frequencies available in groups of 16 operathe frequencies in one TV channel. Feturing MUM frequency toggling and GRIP pilot tone Comprol.
NEG00
S 600 Handheld transmitter w/l6 switchable frequencies, depending on mic $\quad \$ 3.100-\$ 4.500 .00$ TS600 Freguency agile bodypack transmitter with 16 switchable frey. + LED display $\quad \$ 2.299 .00$

## Electro~Voice

The Electro-Voice MS2500 wireless system is a true-diversity design, with wo separate receiver front-end circuits and a diversity switeh that monitors the resulting audio signals. The transmitters radate 50 mW of rif signal, the maximum level allowed by the FCC. The handheld transmitter features the N/D 757 B neodymium-manet transducer mic head. The bodypack transmitter has a TAAM 4 -pia mini NI.R connector. Features include: DNX'M companding • internal power supply, witchable form 115 V on 235 V - signal to noise ratto: 105 dB . that; 108 dB . A weighted metering for andio level, ri and diversity channel - balanced XLR oulput
 tion of ommidirectional and unidirectional lavalier condenser mics, as well as a headee mic and a $1 / 4^{\prime \prime}$ instrument cable are arabable



The NADY 950GS is a 160 channel true diversity system. It includes LT-60 or the HT-60 muli-channel transmitter.

950GS Priced from $\$ 2.599 .95$

The NADY 101XL is a compact portable non-diversity VHF receiver and the 201 XL is is True diversity counterpart Both offer rack mount options and body pack and handheld transminters that deliver up to 20 hours on one 9 V baltery.

Priced from $\$ 384.00-\$ 817.00$
The rack mountable NADY RW-1 is a NADY RW-1 is a
true diversity receiver that comes supplied with one of five factory installed frequencies. The RW-I has balanced and unbalanced oulputs with 120 dB dynamic range. Packages include an HT- 10 handheld or LT20 body pack transmitter and several mic choices.


Priced from \$549.95-5929.95



The NADY 401 has four independent true diversity receivers in une chassis. The package includes 4 HT- 10 or LT- 10 transmilters.
401
Priced from $\$ 1.539 .00-\$ 2.270 .00$


NADY Duet has two independen non-diversity recelvers in one chassis. The package incluctes 2 HT- 10 or LT- 10 transmillers.
Duet Priced from \$499.95-\$999.95

## Sennheiser



The Sennheiser SK250/EM2004 is
a 16 channel system with a 250 mW UHF body pack. This sys-
 tem works from 450
960 MHz with a wide range of mics and adapters to select from.
SK250/EM2004

The NADY 301 is a 4 chinnel. True diversity UHF receivor in the 920 MH \% band Comes with the HT-50.


## NADY 2000

This True diversily system is ideal for semend installitions. Up to 20 units can be used at one time. You can use cither the HT- 40 or the IT- 30 transmitters with these units.
2000
Priced from $\$ 1.249 .00-\$ 1.450 .00$

## Shure



Shure VP Series
The Shure VP3 compact poriable receiver uperates with all Shure's transmilters for up to 7 lowurs on one ov ballery. The amtema pivels for awkward mounting conditions.

VP Systems
Priced fram $\$ 470.00-\$ 590.00$ VP3 ONLY
$\$ 280.00$

## Shure I.X Series

The hall rack LX4 diversity and the LX3 non diversity receivers feature an all metal chassis, single and dual rack mount kits, squelch and level controls. balanced and unbalanced mic or line level ouppus. The LXI budy pask and L X2 handheld transmitters offer 50 mW RF power, battery fuel gauge and the $1 . \times 2$ has audio level adjustments and features BETA mic clements us well.


## LX System <br> LXBeta

Priced from $\$ 666,00-\$ 948.00$ Priced from $\$ 948.00-\$ 1.002 .00$


Shure Headset, Vocal, \& Artist Presenter- These 3 entry level systems feature the T4 diversity or T 3 non-diversity receivers and the Ti body pack or T2 handheld transmitters. They are ideal for addressing groups where cost and portability are concerns.

Priced from $\$ 360.00-\$ 560.00$

## Shure SC Series

The SC4, half rack diver sity receiver, offers exceptional sensitivily, greater selectivity, tone key squelch and an 8 -position channel select switch.
 The SC1 body pack and SC2 handheld offer the 8 positton channel select. battery fuel gauge, audio gain control and a wide selection of mic elements.

SC Systems SC Beta Systems.

Priced from $\$ 864.00-\$ 1.140 .00$ Priced from \$1,164.00-\$41.212.00

Sony


Operating airound the 800 Mhz band. Sony's PLL UHF Synthesized Wircless Systems assure interfer-ence-free operation. 94 channels are pre-programmed for maximum efliciency in multi-system operations. System receivers include WRR-810A portable, WRR-860A68 porable diversity. WRR 820 A single rack mount diversity. WRR-840A dual rack mount diversity, and WRR850A dual diversity with monitoriug. Transmitters include the WRT810A handheld. WRT-830A68 handheld. WRT-867A68 handheld. WRT820A body pack with a wide choice of mics and the WRT-860A68 miniature body pack. Package examples:

1) WRR820A
2) WRT810A 2)AN820A

Priced from $\$ 2.315 .00-\$ 7,000.00$

1) WRRR840A

## Telex



The Telex FMR
200 is the choice of professionals who demand the best in selectivity ( $>75 \mathrm{~dB}$ ) , sensitivity $(<, 4 \mu \mathrm{~V})$ and signal to noise ratin ( $11(0) 18$ ). This single chamel, 1 ratk unit reeciver is packaged with the WT-80 metal case body pack transmitter and a choice of + lapel mics - or with the HT-200 handheld with your choice of 4 different mic elements.

## FMR 200 Priced from $\$ 1,4+0.00-\$ 1,584.00$

## Shure EC Series

High selectivity and low noisc make the EC4 diversity recciver an international favorite. Balanced/unbalanced outputs as well as volume and squelch control add to its many features. The


EC1 body pack offers an omni and unidirectional mic. EC2 handhelds not only look elegant, but also offer the Power Gainem antenna, and deliver up to 10 dB more ERP.

## EC Systems

Priced from \$1,0+\$.00-\$1,182.00 EC Beta System
Shure's UHF System offers features found only on higher priced systems: RF and Audio metering, LCD program display, Tone Key squelch and rugged metal housings.
Standard system features include 191 selectable frequencies from 782-806Mhz.

Priced from \$1,206.00-\$1,260.00

MARCAD ${ }^{\oplus}$ diversity, mic or line level with XLR and $1 / 4^{* *}$ connectors and a complete line of Shure mics. System includes single or dual channel receiver, handheld (U2) or body pack (U1) transmitter.
U4S Single ch. diversity receiver $\quad \$ 1600.00$
U4D Dual ch. diversity receiver $\quad \$ 2,400.00$
U2 Handheld xmtr. Priced from $\$ 790.00-\$ 990.00$ U1 with Tiny QG connector $\quad \$ 688.00$

## Telex



Telex FMR 4
If you need a high quality. rackmount diversily receiver and $t$ channels, look no further. Miefine level out. audio and RF meters and headphone jack.


## Telex FMR 450

Too congested in the VHF band? Try the $524 \mathrm{MHz}-746 \mathrm{MHz}$ UHF band. Up to 50 systems can operate in the same location using the WT- 450 body packs or HT- 450 handheld transmitters.

Priced from $\$ 1.325 .00-\$ 1.863 .00$


The Telex ENG-1 is a camera mounted. DC-powered portable receiver housed in a molded plastic casc. The ENG-4 is the professional version with a more sophisticated front end, + channel selection and housed in a rugged metal case.

| ENG-1 | $\$ 295.00$ |
| :--- | ---: |
| ENG-4 | $\$ 1.545 .00$ |




## TOA



TRANSMITTERS

| A) | TOA WM-270 (specch quality) | $\$ 370.00$ |
| :--- | :--- | :--- |
| B) | TOA WM-280 (vocals) | $\$ 562.00$ |
| C) | TOA WM-290 (SM158 handheld) | $\$ 642.00$ |
| D) | TOA WM-370 (body pack/mic) | $\$ 370.00$ |

NON-DIVERSITY RECEIVER
A) TOA WT-770 mainframe holds two receiver modules and

|  | includes one WP-760 runer pand. | $\$ 42.00$ |
| :--- | :--- | :---: |
| B) | TOA WTU-770 Non-diversity recelver module | $\$ 218.00$ |
| C) | TOA WP-760 is the tuner panel. one required per receiver module. | $\$ 46.00$ |

## DIVERSITY RECEIVER

A) TOA WT-870 mainframe holds two. single channel
receser modules and includes one WP-S60 tuner panel
$\$ 560.00$

| B) | TOA WTU-870 Diversity receiver module | $\$ 346.00$ |
| :--- | :--- | ---: |
| C) | TOA WP-860 is the iuner panel, one requifed per receiver module | $\$ 64.00$ |



VEGA U2020 UHF 100 selectable channels in the 746-782 MHz band in a sman. ergonomic package design available with an optional rack mount. Systems include the R2020 receiver and either the BT 2020 body pack or HT-2020 handheld with your choice of the E.V. N/D557 or the E.V. N/D757B mic elements.

## U2020 UHF

Priced from $\$ 1,200.00-\$ 1,370.00$

## VEGA PRO Plus IFB

The professional IFB/alent-cueing system features the rack mount RMT-14 transmitter with up to 4 transmitter modules installed and the PL- 2 miniature receiver with up to 2 frequencies.

## Pro Plus IFB

Priced from \$1,844.00-\$4,194.00

## VEGA PRO Plus UHF

A diversity wireless system al $512-750 \mathrm{MHz}$. Systems include R 662 A receiver and your choice of T-677H or 678 HS body pack or the T-682 handheld with a choice of 4 clements.

Pro Plus UHF
Priced from $\$ 4,466.00-\$ 5,046.00$

## VEGA PRO Plus Series

Carefully selected, top quality components, as well as DYNEX III processing make ProPlus Vega's lop of the line VHF diversity system. Systems include: 67B/D III portable recciver or R-42A rack mountable receiver with either the 77/DIII budy pack or the T 82 handheld (choice of 4 elements) transmitters.

Pro Plus Series
Priced from \$2,847.00-\$5,405.00


## VEGA PRO 2 Series

A mid-range, professional VHF system leaturing the R-32A diversity receiver with the "T- 37 body puck or the T- 35 handheld with your choice of 4 mic elements.

Pro 2 Series
Priced from \$2.144.00-\$2.574.00

## VEGA AX-20 Series

For live sound, stage or conferencing, the AX-20 system is designed to pruvide years of dependable service under the mont adverse conditions. The $\mathbf{R}$ 22 rack mount diversily receiver offers dual-mode squelch circuitry for use with the T- 25 body pack, $\mathrm{T}-24$, $\mathrm{T}-28$ or the $\mathrm{T}-29$ bandheld transmitters.


| Lectrosonics |  |  |
| :---: | :---: | :---: |
| UHF Transmitters |  |  |
| UM190 | Bell-pack with 5 pin mic/line input jack | \$850.00 |
| UHI90 | "Plug-on" XLR with Lo Z inpul and adjustable gain | \$850.00 |
| UHF ReceiversUR190Compact with audio output on rear panel XLR. adjustable |  |  |
|  |  |  |


| UHF Components Systems | $\$ 2.300$ |
| :--- | ---: |
| UN190 w/URI90 | $\$ 2,300$ |
| UHI90 w/UR 190 | $\$$, |

When your field production requires compact size. durability and ultra-high quality. professionals from coast to coast turn to Lectrosonics VHF and UHF wircless systems. Altention to selectivity sets these systems apart from all others.


| VHF Transmitters $\mathbb{E}$ Receivers |
| :--- |
| M175 Belt-pack for use with electret $\mathbf{\$ 3 5 0 . 0 0}$ <br> M175LS Same as M175 with audio mute toggle switeh $\mathbf{\$ 3 7 0 . 0 0}$ <br> M187 Belt-pack with 5 pin mic/line input jack $\mathbf{\$ 5 7 0 . 0 0}$ <br> H187 "Plug-on" XLR with Lo Z input. Has wide range input  <br> gain adjustment for use with high output mics   |
| T-187/87 |
| Handheld with the Shure SM-87 electret element |


| CRIS 7 | Compact Receiver, mounts on camcorder, balanced XLR out | \$1,210.00 |
| :---: | :---: | :---: |
| VHF Systents - |  |  |
| *M175 | CR175 | \$1,120 |
| W175 | w/CRI75 | \$1,140 |
| *M187 | CR175 | \$1.340 |
| H187 W | R175 | \$1.365 |
| T187/S | /CR175 | \$2.065 |

*Inchades W/I 19 (omi) or MIHO(cardioid) mic at no charge. Add 550.00 for the optional imi.50 upgrade microphone


The Lectrosonics Digital Code System, DCS ${ }^{m}$ is a major technological advance, offering the first real solution to the most common and incurable type of interference, which is external RF signals on or close to the system operating freduency. Digital technology is combined with advanced circuit and mechanical design for an overall package charly superior to any other!

| M17.5DC Belt-Pack | mitter | \$390.00 |
| :---: | :---: | :---: |
| H175DC Plug-on | cr, plugs directlv into anv mic with an XLR connector | S490.00 |
| DR175 Ratio Dive | eceiver 12VDC, rear panel BNC amt jack de balanced XLR omf | \$980.00 |
| SR175 Basic Rec | 12VDC. rear pamel BNC ant. iack of balanced XLR out | \$580.00 |
| Svistems |  |  |
| Basic Lavalier Sustem | SR175 w/ant., M175DC \& M119 or M140 lav. mic | \$970.00 |
| Diversity Lavalier System | DR175 w/ant., M175DC \& M1I9 or M1/40 Tas mic | \$1,370.00 |
| Basic Plug-on Svetem | DR175 w/ant., H175DC w/o mic | \$1.070.00 |
| Diversity Plug-an System | DR175 w/ant., H175DC w/o mic | \$1.470.00 |
| Optional Miso | Lavalier mic upgrate when ordering system | \$50.00 |



## Audio-Technica

Audio-Technica AT-MX341a is a four-channel
SmarMixer(0) that offers automatic input mixing with unique digital microprocessor control. Choose one channel at a time or any mix of moderator override. (a switchable manual mode overrides automatic functions). It has
single threshold settings for all channels with individual gain
 controls for each
channel. Any number of Smarmixers can be daisy-chained to control large conferences. The output and inputs are individually switchable between mic and line-level, and the last mic on stays on so that ambient sound is never muted. It comes with rack mount adapter. and two can be mounted side-by-side in a single RU with an accessory joining plate.

| AT-MX341a |  | $\$ 799.00$ |
| :--- | ---: | ---: |
| AT8628 | Double rack mount joining plate | $\$ 24.00$ |

## Gentner



The Gentner MPA II is an cight channel automatic or nonautomatic gated microphone mixer and $2 \times 15$ watt power amplifier. Setup is easy with six factory pre-sets and six user programmable programs that may be configured by the user with a PC connected to the unit's RS-232 por. Features include • Aux-in for audio feed (CD/tape) and aux out for recording • Locking front pancl • Logic outputs for controlling cameras. etc. - Switchable microphone phantom power • and is expandable. 2 U


## Edcor



The Edcor Q4100 \& Q8100 microphone mixers have 4 or 8 balanced XLR female microphone inputs with phantom power. There are also 2 RCA auxiliary inputs with a single volume control bringing the units to 6 or 10 channel mixers. Eich microphone input has individual volume control. Outputs are balanced XLR male connectors with $600 \Omega$ line level and the auxiliary level output is unbalanced RCA type conncetors with maximum output of 8 VRMS into $10.000 \Omega$ s.

| Q+100 |  | $\$ 224.07$ |
| :--- | ---: | ---: |
| Q4000RM | Rackmount kit for $\mathrm{Q}+100$ | $\$ 23.25$ |
| Q8100 |  | $\$ 43.30$ |

## Intelix



All Intelix VC Series microphone mixers combine superior audio quality with simple DC control, computer control and en-barard automation. All use VCAs to ramp the audio inputs and euputs independently. The Basic features include: Low cut mput tilter - Duck - mannal (mute) - Remote control level \& mute - and Stereoline level input (one channel). The Enhanced leatures include the Basic teatares plus: Input clip LED - Signal present input LED - Bargraph output meter • Aphex ${ }^{\text {as }}$ Aural Exciter - Limiter • Duck - Automatic (mute) - and is AMIX compatible.

| $4001 / \mathrm{VC}$ | 4 input by 1 output - Basic Features | $\$ 569.00$ |
| :--- | :--- | :--- |
| $4001 / \mathrm{VCX}$ | +isput by 1 ouput - Enhanced Features | $\$ 689.00$ |
| $8001 / \mathrm{VC}$ | 8 input by 1 output - Bavic Features | $\$ 889.00$ |
| $8001 / \mathrm{VCX}$ | 8 input by 1 output - Enhanced Features | $\$ 1,049.00$ |

The AMIX. Autonatic microphone $\mathbb{\&}$ line mixer add-on module for the Enlanced VC Series microphone mixers. Automates and adjusts oupput levels according to the number of open mics on it.
AMIX
$\$ 429.00$

## Shure



The Shure SCM 800 is an eight-channel mixer with removable header-type VO connectors that provide fast and simple microphone connection. It includes adjustable EQ per channel, 48 V phantom power selectable for each channel, superior RF resistant chassis and circuitry, LED indication and LED output meter. peak-responding output limiter with selectable thresholds and LED indicator, and linking capability for up to 32 microphones. 120/230 Vac power.

| SCM800 | $\$ 745.00$ |  |
| :--- | :--- | :--- |
| RKC800 | XLR connector kit | $\$ 225.00$ |



The Shure SCM810 is an eight-channel mixer featuring Shure's patented IntelliMix(k), which activates only microphones being addressed. minimizing poor audio caused by multiple open microphones. The SCM810 features include adjustable EQ per channel, 48 V phamtom power. active balanced microphone or line-level inputs. line-level output, highly RF resistant chassis and circuitry. complete logic control of microphone activation, linking capacity for up to 400 microphones, with an internal power supply. 120/230 Vac power.

| SCM810 | $\$ 1,650.00$ |
| :--- | ---: | ---: |
| RKC800 | $\$ 225.00$ |

## $\square\}$ autiomatio mic

## Lectrosonics



## Lectrosonics LECNET ${ }^{\text {TA }}$

The Lectrosonics AM8 Automatic Mixer is microprocessor controlled and has adaptive gain proportional algorithm that controls feedback, which improves intelligibility and reduces background noise. LecNet ${ }^{\text {m }}$ components will operate as standalone devices, or interconnect to provide a multitude of functions in simple to use, cost effective, rack mounted assemblies. Fealures include: Eight balanced inputs - Single conirol knob for input giain and outpul level • Built-in compressor/eveller with adjustable threshold - Serial port for computer interface - Remote level conirol - supplied with MS. DOS(1) software on $3.5^{\prime \prime}$ dise and serial patch cable for monitoring internal activity via a computer.

| AM8 | Basic Version | \$1,325.00 |
| :---: | :---: | :---: |
| AM8-TC | W/tone control | \$1,495.00 |
| LNETWIN | Software, monitors and controls AM8 in Windows ${ }^{\text {TM, }}$, $3.5{ }^{\circ}$ disc | \$49.95 |
| IC-PC | Serial interconnecting cable: DB-9 to 3.5 mm stereo mini plug | \$14.50 |
| IC-AM8 | 8 -Pin mini-DIN 6" cable for interconnecting two AM8 mixers | \$10.00 |
| Optional Equipment |  |  |
| EQI | 27 Band, 1/3 octave, constant-Q, has LCD display | \$1,250.00 |
| EQ2 | As above, without display or pushbuttons. computer control only | \$1,040.00 |
| TH2 | Telephone Interface w/built in LeeNet ${ }^{\text {TM }}$ interface | \$1,650.00 |
| MM8 | Matrix Mixer, 12 input, 8 output whecNet ${ }^{\text {ra }}$ interlace | \$1,450.00 |
| Pa8 | Multi-channel power amp for mix-minus reinforcement. IU | \$1,250.00 |
| TAI | Line level adapter, connects any device to the AM8 mixer | \$375.00 |
| L124 | Logic interface, provides logic out signals from up to 3 AM8 mixers | \$ $\$ 375.00$ |
| NSI | Noise generator, 3 kHz band -limited \& wide-band pink noise | \$249.00 |



## Biamp

The Biamp SCM7600 is a complete stereo control center. designed to be the hear of a high quality club sound system, with two stereo phono inputs. cight steren line inputs, and two mono microphone inpurs. It has six independent stereo outputs. plus a subwooter/mono output and a light send output. for maximum flexibility. Biamp has a five year warranty and is made in the U.S.A. 5RU

SCM7600
$\$ 1,537.00$

## Denon


enon SMX2000 Digi-Scratch DJ Mixer is a 3-channel mixer that includes I micro phone, 3 stereo, and 2 phono inputs with high guality sampling sound, seamless loop, sampler and stutter. It has wo master stereo and one mono ouput channel. Tone controllers are provided on each channel and the effects section. The monitor system provides aceess to CH-I, $\mathrm{CH}-2 . \mathrm{CH}-3 \mathrm{EFFECT}$ and $\mathrm{P}^{2} \mathrm{CM} .5 \mathrm{RU}$

## SMX2000

$\$ 1.250 .100$


## Furman

The Furman DJM-6 DJ Production Mixer with Furman's unique PUNCH ${ }^{\text {M }}$ Sublarmonic Processor is designed to provide the basic features needed by today's professional Disc Jockey. It has 6 stereo inputs (2 phono and 4 line) hal feed four input channels $\bullet$ Crossfader with assignment

|  | buttons - Mic input with volume control and on/oft button: accepts cither phone or XLR plug - Cue hution and LED on each input fader • Headphone system w/front panel jack and control - House (master) fader - Sterio four segment level meters - Output 3-band EQ - Extra outputs for lighting system sync and mono subwoofer • illuminated on/off switch and ground hift switch. |  |  |
| :---: | :---: | :---: | :---: |
| - | DJM6 |  | \$499.00 |
|  | DJM-6B | Balanced | \$555.00 |

## Technics



It your turntables are considered "The World Standard" by professional DJ"s, they should have a "World Standard" mixer to control them. The Teclinics SHDJ 1200 is a mopend Phono/Line/Mic Mixer/Crossfader with superior ergonomic design and fader construction. Each line input offers trim. H1 \& $1 . O$ EQ shelving, and independent monitoring. Price includes a spare channel fader and crossiader inside the back panel. The faders can be replaced anywhere in order ter respond to accidents that happen during performances.

## SH-DJ1200

$\$ 499.95$


## Rane



Rane MP22/24

MP22 7 Stereoln. 2 mixing busees w/EQ. 2 Zones, 2 Mic Ins.. front replaceable crossiader. $4 U$
MP2t 9 Stereo In. 4 mixing busses w/EQ. zone/boobh outs.
2 Mic Ins. front replaceable crossiader. 4 U
$\$ 1,299.00$


## AEQ

The AEQ BC-300 has a practical and modern design to ensure easy operation. It features: a built-in telephone hybrid - 10W/channel power amp • cue stereo monitors -talk-back mic - headphone connector - two extra input channels - and two aux nulputs. The basic version (BC-306) offers 2 mic/line input channels and 4 dual stereo input channels. The deluxe version (BC-312) has 4 mic/line mono input channels and 8 dual stereo input channels.

## BC-300



Prices from $\$ 1,975.00$ to $\$ 2,795.00$


The AEQ BC-500 features: six dual stereo inputs - four mone mic/line inputs a a teleplune hybrid interface - studio control intercom monitor - 2 stereo and 2 mono sumb oulputs - power sup ply for on-air signaling • and four blank modules to permit expansion.


AudioArts


The AudioArts R-16 is a lully modular console. with the componentry you'd expect to see in a much larger design. The console includes: wo MM-10 microphone input modules - four or eight SL 10 stereo line input modules - noe output master module ( $0-10$ ) - one control room module - thre blanks for accessories - cue speaker power supply - white fader knobs - connector set and technical manual - and Sifan@ left and right ontput meters. R-16 measures


| R-If | 10 Inputs | \$3.895.00 |
| :---: | :---: | :---: |
| R-10 | 6 Inputs | \$2.695.00 |
| LSS-16 | Stereo Line Selector | \$275.00 |
| FF-1 | Full Function Tape Remote | \$195.00 |
| SS-3 | Start/Stop Tape Remote | \$195.00 |
| Please call for a complete list of accessories and prices! |  |  |
| The AudioArts R-5 has everything you need: wo mic wputs ten stereo line impus- Simple Phone 'st channel for casy. error-free talk segments - digital timer - onboard tape remote control - line preselector a well-designed cae system and truly effective control room and studo momtor interfaces. R-5 measures $31.5^{* W} \times 7.75^{\prime \prime} \mathrm{H} \times$ $21.2^{\prime \prime} \mathrm{D}$. |  |  |
| R-5 | 13 Inpus | \$5.795.00 |
| PG-5 | P\&G replacement faders | \$79.00 |
| CF-5 | Color Fader Knohn | \$5.93 |



The AudioArts R-60 console is totally modular. All the components are located on the high solerance modules They can even be removed while you're on-air Each individual module is electronically fused to isolate it from the system in event of a failure. The fuse will even automatically reset itself once the fault has been cleared. Consoles include: one LS-60 line selector • cue speaker - count-up timer • connector set and tool • technical manual • module extender • power supply • master output module • control room and studio modules • and one DMP-60 dual mic preamp card (for two mics). Note the 18 input console includes a clock and posstion for a second LS-60. R-60-18 measures: $7-3 / 16^{\circ} \mathrm{H} \times 21-$ $1 / 2^{\circ} \mathrm{D} \times 36-3 / 4{ }^{\prime} \mathrm{W}$. The R-60-12 measures $27-3 / 4 " \mathrm{~W}$.


## Autogram

Autogram R/TV-12 has 8 dedicated pots and the R/TV-20 has 18 dedicated pols. These consoles have the following standard fealures: Penny \& Giles long throw slide pots - Shadow selector swiches - True API w/meters - Screw-type plugable connecors - Optional live assist inter face card \& control hox - Up to $x$ patchable mic preamps (quad mic preamp card) • Electronic switching \& VCA kevel conerol - Two mix-minus busses - All inpus have adjustable inputs - Two watt. $8 \Omega 2$ cue amp - Two wath, $8 \Omega$ headphone with selectable inputs. The R/TV Live Assist Package allow somplete random sequencing of all console channels plus remote control.

| R/TV-12 | 12 Pol |  |
| :---: | :---: | :---: |
| $\mathrm{R} / \mathrm{TV}$-20 | 20 Pots |  |
| R/TV/LAP | Live As |  |
| LAPO |  |  |
| SPK | All 5 p |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |



Mininlix SA
$\$ 13,451.00$ 20 Pots 34 Stereo Iuputs
$\$ 1.423 .00$
RTVM唯
LAPO
$\$ 638.00$
SPK
Shown with
Antogram's MiniMix 8A professional audio console features: - Aluminum case whak endbells • 2 stere oupput buses •mono output • $S$ slide plug-in pots 2 dedicated mic side pots - 12 steren inpus. 6 unbalanced stereo. - ( high lesel balanced pro-stereo inputs - all VCA operaled • cue amplifer/speaker • Made in the USA

| MiniMix SA | Dimensions $19 " \times 15 " \times 5 "$ | $\$ 2.499 .00$ |
| :--- | :--- | :--- |
| MiniMlix 12 A | Dimensions $27 \times 15 \times 55^{\prime \prime}$ | $\$ \mathbf{3 , 4 9 9 . 0 0}$ |

$\$ 2.499 .00$
$\$ 3.499 .00$
$\square$


## Auditronics



The Auditronics 210 console is designed for On-Air broadcasting. It is avail able in 6. 12. 18, \& 24 mainframes with multiple options. The 210 retains all features of the classic 200 console with many added updates, including an optional 3 caller telephone module.

210 Series On-Air
Prices range from $\$ 8.325 .00$ to $\$ 25.000 .00$

The Auditronics $\mathbf{2 5 0 0}$ is the intelligent choice of audio professionals who are not willing to sacrifice quality and reliability for proce. The 2500 comes in 6. 12. 18. and $2+$ channel modular mainframe sizes. It has solid-state swithing A/B logic control and VCA level control. Standard with the mainframe are program. audition . 2 mono buses. 4 . VU meters, line output noudule for busses, control room monitor module. internal power supply. digital up/down timer. extender board, headphone module. cue speaker/amp. installution kit. manual. and a 2 year warranty

| $2500-6$ | Mainframe/with metal side panels | $\$ 2.390 .00$ |
| :--- | :--- | :--- |
| $2500 \mathrm{~T}-6$ | Mainframe/with table-top wood side panels | $\mathbf{\$ 2 , 5 9 0 . 0 0}$ |
| $\mathbf{2 5 0 0 \mathrm { D } - 6}$ | Mainframe/with drop-in wood side puncls | $\mathbf{\$ 2 , 5 6 5 . 0 0}$ |

 (Add $\$ 75$ to $\$ 100$ for each additional 6 inputs)


NuStar $3000 \quad$ Prices starting from $\$ 20,000,00$


The Auditronics 801 Series Console is avalable in 12.18 and 24 mamframes. It is availible with: stereo program. audition, utility and auxiliary output busses, 2 mono mix-minus output busses. $\mathrm{L}+\mathrm{R}$ output summing, and 2 lite telco module. This console has an extensive user-programmathe logic control system. All puth button controls are electronic with LED status indicators. All faders are stereo-balanced controlling VCA's.
801 Series On-Air
Prices range from $\$ 15,000.00$ to $\$ 35,000.010$

## Broadcast Electronics

The Broadcast Electronics $\mathbf{2 5 0}$ series Broadcast Electronics consoles provide operational convenience an an economical cont. Plug in mod-
 ules and modern circuit design ensure excellent audio performance. The mixer pols are seated for long life with cue detents. In addition, one muting relay, prefader preview on all inpus, talkback capability for two studios and a headphone/monitor amp are standard. The 250 A includes ladder type attenuators with a cue detent and roller cam key switches and a front panel polycarbonate overlay that makes it impossible to wear the graphics away!

| 8M250A | Mono-Dual Ch., 8 mixer step attenuators | $\$ 4,650.00$ |
| :--- | :--- | :--- |
| 8 S250A | Stereo-Dual Ch.. 8 mixer step attenuators | $\$ 5,600.00$ |
| $10 S 250 \mathrm{~A}$ | Stereo-Dual Ch.. 10 mixer step attenuators | $\$ 7,001.60$ |

## INTRODUCING <br> THE AUDITRONICS 2500 SERIES THE LAST SMALL CONSOLE YOU'LL EVER HAVE TO BUY



Some people believe small means limited. At AUDITRONICS we believe small is a challenge. That's why we have again defined a new standard of excellence by combining impeccable design, precision manufacturing, and value pricing in a full featured, compact audio console. The 2500 Series is loaded with all of the "me too" features found in the competition's "wannabe world class" consoles. Plus the 2500 Series delivers much more, including:

- SOLID STATE SWITCHING of all signal paths
- DC CONTROL of all level functions
- Telephone CONFERENCING capability
- 20dB HEADROOM maintained throughout
- Easily accessible wiring on MOTHERBOARD CONNECTORS
- ACTIVELY BALANCED input, patch points, and floating outputs
- Linear CONDUCTIVE PLASTIC 100 mm faders ( P \& G Standard)
- Comprehensive A/B EXTERNAL LOGIC control
- External line selector with CUE AND HEADPHONE ASSIGNMENT

And remember, AUDIFRONICS is the company that still supports the first console it ever sold -- over 28 years ago. So you no longer have to compromise with a "wannabe". With the 2500 Series you get the real thing! THE CNLY WORLD CLASS CONSOLE AVAILABLE AT "wannabe" PRICES.

# Get Digital for the Price of Analog 




## Fidelipac

Fidelipac's Dynamax MX Series is a modular console with all active circuitry on the modules. not the motherbaard. Stereo progran and audition outputs are assignable from the front panel and two programmable mono outputs are provided for mix-minus, cue feed. elc. Each input module features external logic switching for starting source equipment and has two inputs selectable between mono or stereo. balanced unbalanced or mie. The Dynanax MX includes a built-in cue amplifier, speaker and simplified headphone output that can be jumpered for a variety of monitor mute/dim comfigurations. A single mic priamp (mstalled) and one technical manual are supplied with the console.


The Fidelipac MX/D Digital On-Air console is cqupped with up to enght interchangeable input board modules, each providing two channcls with XL.R inputs. Input boards are amalog or digual and may be selected in any combination at the time of purchase. Analog modules digitize incoming audio and convert that signat to the MX/D mixer's internal data format Digital modules convert all incoming dagital signals to a common simphing rate and synchronize data with the internal matrix. With all signals homogenized in a common internal format, the main procenor board usec the litest in DSP and microprocessor technology to perform mixing. swithing and audio signal processing in a single 24 bit dita stream. Three digital channels plus three analog chamels are available for the MX/D consoles ouput. Both digital and amalog outputs support progrim, auditon and mono. Digital ouput is prowided at a 4 SkHz sampling rate although. upon request, this rate can be prevet at 32 kHz by the factory. Future tlexibility is permited by the interchangeatle design of the input modules which can be augmented or reconfigured with relalive ease.

## LPB

LPIB's 7000 stereo P\&G slide-fader console has modular plug-in electronics behind a fixed from pathel with gold contacts throughout. It features: 2 inputs per channel, 3 stereo output buses: 3 mono outputs for mono-mixdown or mixminus; 3 stereo tape ouputs and 3 mono lape oupputs. There are remote starts for all inputs with hlinking ready lights and programmable muting for cue and 4 sets of monitor speakers. Channel start and stop can be controlled remotely The timer can follow chand activation for either cumblative or event timing. Also included: headphone amplifier, cue amplifier and spaker, monitor driver; and a rach mount power supply.




## Logitek



Logitek's Serial Sound System consists of a 12 -stot mainframe which can hold up to eight, $8 \times 8 \mathrm{mono} / 4 \times 4$ stereo analog or digital I/O cards. two DSP audio processor cards. Iwo commumications processor cards and up to two power supplies. The mic pre-amp unit is housed externally and offers four independent pre-amps with balanced I/O on XLR connectors

The Digital I/O card accepts AES/EBU \& SPDIF digital formats. The analog I/O card converts to/from the digital domain via 20 -bit A/D/A. The DSP processor card comes standard with one "analog devices share" DSP, upgridable to twelve DSP's. The sample rate is selectable ( $32 / 44.1 / 48 \mathrm{KHz}$ ) and can hold up to four. 32 MB DRAM chips (available at your local computer store) for up to 30 seconds of audio delay. The COMM processor has four serial ports and configurable banks of 15 relays and 15 switch mputs for machine control. It also handes all AES or wordelock synchronization. The mainframe can heuse up to two. 100 -wall hor-swapable power supplies.

The mainframe is addressed via a modem for remote broadantme or factory support/service; a PC/RS 232 port for automation control or via 9-pin RS485 serial data from several Logitek control surfaces: the ROC-10 has ten faders \& looks. feels and sound like an ar console, profanity delay control and a latree writing surfice

| AE32 | Mainframe w/IDSP. I I/O cird, mic pre © PS \$3.750.00 |  |
| :---: | :---: | :---: |
| 1020A | 20 -bil analog I/O card | \$750.00 |
| IO4D | Digital 1/O card | \$750.04 |
| CSHRC | Additional DSP card w/ single DSP | \$995.00 |
| FF-O | Extra DSP (with origimal order) | \$650.00 |
| FF-U | Exira DSP (ficld upgrade) | \$750.00 |
| AEC2 | Redundant COMm/Control Card | \$750.00 |
| AEP-100 | Redundamt Power Supply | \$399.001 |
| MP-4 | Quad Mic Pre-amp | \$525.00 |
| ROC-10 | Ten Fuder Control Surlice | \$3.995.00 |
| NUMIX |  |  |
| NW-FP | Fader Wedge | \$1.695.00 |
| NW-FM | Motorized Fader Wedye | \$2.095.00 |
| NW-M | Meter Wedge | \$1.795.00 |
| NW-S | Selector Wedge | \$3.995.00 |

## Radio Systems

Radio Systems RS Series Consoles come with two inputs per channel that will aecept from -60 to +10 levels. It has two stereo and one mono output buss, full DC control. P\&G faders. full VU metering with peak LED's, and an event timer. Each module has full remote control that follows the input selection and mid-stage channel patch points. RS Series consoles come with a complete monitor section, heavy duty cue and headphone amplifiers, and an internal talkback system. All input, output and remote control wiring is via convenient removable barrier strips. These connectors simplify initial installation and provide for quick future wiring changes. RS Consoles have a two year manufacturer's warranty with next business day parts delivery.

|  |  |  |
| :--- | :--- | ---: |
| RS-6 | $\$ 4,795.00$ |  |
| RS-12 | $\$ 4,995.00$ |  |
| RS-18 | supplied with clock | $\$ 6.995 .00$ |
| RS-24 | supplied with clock | $\$ 12,995.00$ |
| 6IMMB | Six input mix | $\$ 3$ minus board |
| 4OMMB | Four output mix-minus board | $\$ 395.00$ |
| DMMB | Dual mix-minus board | $\$ 495.00$ |
| DA | DA card | $\$ 195.00$ |
| FSE | Four source expander | $\$ 195.00$ |
| AR | Accessory relay | $\$ 225.00$ |

[^1] spare parts kils • components • and more.



## Biamp

The Biamp MixPak Plus 5 U powered mixer has excellent sonics, rugged construction. and professional features with a manufacturer warranty of five years. Made in the U.S.A.

| MixPak $6 / 300$ | 6-channel mixer $w / 300$ watts into $4 \Omega$ mono | $\$ 714.00$ |
| :--- | :--- | ---: |
| MixPak $8 / 300$ | 8-channel mixer w/300 watts into $4 \Omega$ mono | $\$ 814.00$ |
| RW-M | Rack wings | $\$ 33.00$ |

## Electro~Voice

Electro-Voice powered mixers deliver high sonic quality and versatility in a variety of sizes and configurations. These mixers can be used with the SX100 and SX200 speakers and the 100BK speaker stand to form a compact, portable sound system.

| I00M | 8-Channel. $100 / 100$ Watt. $8-\Omega$, sterco | $\$ 2,058.00$ |
| :--- | :--- | :--- |
| 6IPMX | 6-Channel, 200 Watl. $4 \Omega$, mono w/phantom power | $\$ 1,210.00$ |
| SIPMX | S-Channel. 200 Watt. $4 \Omega$, mono w/phantom power | $\$ 1,428.00$ |



## [BL

The JBL EON Power System consists of two bi-amped 15 inch 2-way powered speakers, an EON MusicMix@ 10 channel stereo mixer with advanced performance controls. 2 ESOS dynamic microphones. and all necessary cables. With this made-to-match system. all components are buile to work together. Just connect the speakers to the mixer and the mixer into the wall. It's plug and play

EON Power System
$\$ 2.177 .00$

## Spinit

The Spirit PowerStation is a console that combines studio-quality mixing and digital effects with an audiophale power amp - everything you need between stage and speakers - in a single nuged package A few of the main features are: 8 mono and 2 stereo input channels -18 inputs, including tape and effects returns - UltraMic ${ }^{\text {rat }}$ pre-imp • Built-in Lexicon effects processor • 3band EQ, with swept mid frequency on mono channels - 48 V phantom power • Power amp 265W per side - Dedicated record outs and tape returns - Hinged cover.

| PowerStation | $\$ 1.599 .95$ |
| :--- | ---: |
| Rack Mount Kit | $\$ 49.95$ |



## TOA



Toa MX-401 is a compact. H-channel self-powered mixer with 150 watts into 4 ohms. Each input chanmel has its own level control, a two-band equalizer. pre-EQ and post-EQ sends. and balanced/unbalanced inputs. One program and one foldback output are provided. The master control section features a patchable 5 -band graphic equalizer, 3 -spring reverb, full patch bay wath phone and tipe inputs. Power amp protection circuitry and Auto compression, both include I.ED stiatus indicator

MX-401
$\$ 756.00$

## Yamaha



The Yamala EMX 3500 Powered Mixer is available in 12 and 16 -chamed versions. Its streamlaned, user-friendly design and panel conmrols make it easy for anyone to set up and master quekly. This full featured mixer has a wide variety of balaneed inputs and outputs, 3 -stage EQ with mid sweep and high pass filler. builtin digital effects processor. 9-band stereo graphic EQ, and 350W amplifier. All you need to do is connect speakers, microphones, your other sound sources and the EMX 3500 will take care of the rest.

| EMX350012 | 12 Input stereo powered mixer, 3 nux., 350W $\times 2$ @ $4 \Omega$ | \$1.999.00 |
| :---: | :---: | :---: |
| EMX 350016 | 16 Input stereo powered mixer, 3 mux., $350 \mathrm{~W} \times 2$ O +32 | \$2,199.00 |
| EMX640 | W x | \$6+9.9 |

## 相

## Allen 8 Heath



The unique benefit of the Allen \& Heath GL2-S is the number of sterco input channels and stereo output mixes available at any one time. From the same input sources you can control up to three independent mix outputs. One pair of outputs can be the main stereo LR output, one pair could be a special headphone mix, the other pair an independent stereo feed for recording. Other features are: 4 Band EQ with 2 mid sweeps $\cdot 6$ Aux sends on individual controls • 2 Pre post switches per channel - 8 Stereo line inputs $\cdot 6$ Mono balanced XLR mic/line inputs $\cdot 11$ RU $\cdot$ and more

| GL2-S |  | $\$ 1.595 .10$ |
| :--- | :--- | ---: |
| GL2 | 4 mono/ 4 stereo version of above | $\$ 1.595 .00$ |
| GR1 | $6 \times 3$ multiple zonc mixer. 3 mono and 3 sterco inputs | $\$ 995.00$ |
| GL2CMS | Console Mount Stand | $\$ 69.00$ |

## Behringer

The Behringer Eurodesk is very quiet, and acoustically transparent. Eurodesk sweep EQ has been specially designed to go from 50 Hz to 20 kzz . It gives you 60 line inputs on mixdown, and a universal expander port can link it to a second Eurodesk. or any other mixer. Many other features take the Eurodesk into new levels of performance for an 8 -bus console. such as: 24 B -channel inputs, each with their own dedicated EQ , level and mute - Both solo-in-place and pre-fader listen busses ${ }^{\circ}$ and 400 W 19" RM power supply. Also available: optional 24 input meter bridge switchable between tape \& channel.

| Eurodesk MX8000 |  | $\$ 2.499 .99$ |
| :--- | :--- | ---: |
| MB8000 | Meter Bridge | $\$ 349.99$ |
| Cybermix CX8000 | Universal 32 channel fader/mute automation system | $\$ 519.99$ |



## Logitek

The Logitek TR2 is a compact, 12 input, modular stereo console, with up to three inpuls per channet, 4 metercd outputs with DAs, 2 monitor drivers plus cue, machine control and tally outputs all in a $19^{\prime \prime}$ rack! The TR2 mixer frame is 50 tall and the detachable meter bridge is 2 U . If you need more inputs, an eight input preselector can be plugged into any unused mixer position. A 2 U accessory subframe will hold 12 four band EQ modules. The meter bridge which includes the power supply and cue amp can be mounted away from the mixer. leaving room for other equipment. The Logitek TR2 console is ideal anyplace where space is at a premium but quality can not be compromised.


| TR2-C8 | Mainframe w/trimpot final amp, 8 TRI-3 Mixers \& 4 TRI-B | \$4,910.00 |
| :---: | :---: | :---: |
| TR2-Cl2 | Mainframe w/rimpot final amp. 12 TR1-3 Mixers | \$6.370.00 |
| TR2-FR/SL | Mainframe holds 12 input modules w/slide pot final amp | \$1.990.00 |
| TR2-FR/TM | Mainframe holds 12 input modules w/rim pot final amp | \$1.750.00 |
| TR2-EXP | Expansion frame holds 12 input modules w/trim pot final amp | \$845.00 |
| TRI-3 | Input mixer with 2 line \& 1 mic level input | \$385.00 |
| TRI-3L | Input mixer with 3 line level inputs | \$385.00 |
| TRI-M | Input mixer with I mic level input \& pan control | \$385.00 |
| TRI-L | Input mixer with ! line level in. mode switch \& pan control | \$385.010 |
| TRI-P | 8 input preselector | \$300.00 |
| TRI-B | Blank panels for unused inpul positions | \$20.00 |

Mackie


The Mackie Digital 8 Bus is as easy to use as an analog console so you spend more time recording and less time pushing butuns, and trying to figure out stuff from the manual. Mackie packed it with IOKO MIPS of digital processing power for simultaneous multichanmel digital effects, dynamics processing and 4-band paramerric EQ. plus seamlessly integrated dynamic automating of every control via Ultramix(OII internal software. We would be happy to fax you a complete spec sheet.

Digital 8 - Bus
$\$ 9,995.00$

## Auditronics 900 Series <br> up to 40 Input Positlons in Mainframe

## TV Products from

## Auditronics

The Premier Audio Console for Television On-Air Broadcasting and Production. Auditronics puls almost 30 years of experience into your hands. Your Audio and Operations will shine with it's Quality and Efficiency!
Console Features:

- Pre-Select System: Router, Computer, or Manually can handle hundreds of inputs.
- Reliability by Design: Top of the line components and Innovative Circuit Design.
- Functionality in every Respect: Each and Every Function is included to make great Television Audio Easy.


Auditronics 851 Series
up to 30 Input Postions in Malnframe


## The Sky is the Limit when you need the Best Audio for your Great Video! <br> You want the Auditronics 851!

- Designed for Live, Interactive Television
- Four Frame sizes fit your room and budget
- Three Sterco Master Busses
- Two Mono Mix-Minus Busses
- Selectable Master Mono output
- One Auxiliary Stereo Foldback Buss and Sterco Aux Return Input
- One Multipurpose Intercom and Communication Buss
- Extensive User-Programmable Logic systems

Options available inchude:

- Stereo Microphone input - 2 Channel Balance
- Mono or Stereo Equalizers - $10 \times 1$ Stereo Preselector
- Multiple Dual Studio Monitor Outputs usable for IFB


## Auditronics 1900 Series

Infinitely Expandable Mlx-Minus System with IFB
The 1900 Mix-Minus System - "The Problem Solver"

- Unique Modular Rack-Mounted Mix-Minus/IFB Audio System
- Unlimited input, output and IFB contigurations.
- Signal monitoring is provided Standard by Cue Speaker. Headphones oulput and VU meter.
- Producer's IFB pancls, Talkback, Slate, Talkback Return and Signal Conlictence (optional modules are also available).
- External to 'your' consoles which allows for Fool-Proof Setup and Operation.
- Used for Talem Foldback Mix-Minus.
- Broadcast quality electronics and specifications.
- Video Conferencing. Talk. Sports, and Interviews.



## FEATURES \& SPECIFICATIONS

BGS


| MODE1 | CR1604-VIT | MS1402-VLT | MSI202-VLI | LM. 3204 | LM-3204E |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Inputs | 26 | 20 | 18 | 44 | 40 |
| Heno prefur | 16 | 6 | 4 | 2 (muc only) | - |
| Letrolse | - | 4 | 4 | 16 | 16 |
| 73p | 2RCA | 2RCA | 2 RCA | 2RCA.2TRS ${ }^{\text {/4" }}$ | - |
| 4 ta rent | 4 stereo | 2 stereo | 2 stereo | 4 sterea | 4 stereo |
| Lrach | - | - | - | - | - |
|  |  |  |  |  |  |
| Manthftrmo | TRS $1 / 4$ | TRS $1 / 4^{\circ}$ and XIR | TRS $1 / 4^{\prime \prime}$ and XLR | TRS $1 / 4^{\prime \prime}$ | $1-1{ }^{7}$ |
| Man Meso |  | - | - | - | - |
|  | 6 TRS $1 / 4$ | $1 \mathrm{TRS} 1 / 4$ | 2 TRS $1 / 4$ | 4 TRS $1 / 4 \%$ | - |
| Lapel/3tme | RCA | RCA | RCA | 2RCA. 1 TRS $1 / 4^{\prime \prime}$ | - |
|  | $4 \mathrm{TRS} 1 / 6^{\circ}$ | 2TRS ${ }^{1 / 4}$ [Alt $3-4$ ] | 2TRS $1 / 4$ (Alt 3-4) |  | - |
| Fions | 1 | 1 | 1 | 1 | - |
|  | TRS $1 / 4^{*}$ | TRS $1 / 4{ }^{1 /}$ | TRS $1 / 4{ }^{\text {" }}$ | TRS $1 /{ }^{\prime \prime}$ | - |
| Channel Strips | 16 | 10 | 8 | 16 | 16 |
| Nemerais | 4 | 2 | 1 | 2 | 2 |
|  | YE | YE | YES | - | - |
| Oxamint | YE | YES + Ah )-4 | YES.Alt 3-4 | YES + Alf 3-4 | YES + Alf 3-4 |
|  | YES | YES | YES | YES | YES |
| Ifil mbats | -20/Sola Coment | - | - | -20.0U/5ala | -10.0L/Sola |
| Br aspor mathe | -1, 3-4, L-R | Mute/alt 3.4 | Mute/Alt J-4 | Mute/Alt 3-4 | Mute/alt 3-4 |
| Vienemuti | 60mminders | 60 mm faders | rotary | ratary | rotary |
| Marter Section |  |  |  |  |  |
| kin sedmuers | 2 | 1 | 1 | - | - |
| Macer es ied sel? | 2 | 1 | 1 | - | - |
| Spreota retur | 4 | 2 | 1 | 4 | 4 |
| Q:tal 3 matum wic | YES | - | - | - | - |
| A1mentionveh | 1 | - | - | - | - |
| Afers heay iz Meriy | 2 | 1 | 1 | - | - |
|  | YES | YES | Prionly | - | - |
|  | YE | YE | YE | YES | - |
| Mane | YES | YES | YES | Tape Monitor | - |
| Pden | 4 ums, Main L/R | ManL/RORThane | LR sterea (rotary) | MamL/R CR/Phane | - |
| Bitnberoswif | YES | YES | YES | YES | YES |
| Bre Lemp soct | YE | - | - | - | - |
| MODEL | CR1604-VIT | MS1402.VLI | MS1202-VIT | LM-3204 | LM-3204E |
| Noise' |  |  |  |  |  |
|  | -86.5didu | -8989 | -89d8u | -86.5dBu | - |
| Meter thee finry, Ch pars a inti | -840inu | -86divu | -86 d du | -84.0dBu | - |
|  | $\geq 9000$ | $\geq 90 \mathrm{dis}$ | 290 d 1 | $\geq 90 \mathrm{~dB}$ | - |
| Total Harmonic Distortion' | betow 0.005\% | below 0.005\% | below 0.005\% | below 0.005\% | below 0.005\% |
| Crosstalid |  |  |  |  |  |
|  | -84dB | -8SdB | -8kd8 | -7]d | -7)dB |
| Chand muted othen damois $x$ trit | -84di | -84d8 | -84d | -81d8 | -87d8 |
| Frequency Response' |  |  |  |  |  |
|  | -0/-1星 | -0/-1din | .0/-1d8 | .0\%-1d8 | -0/-1d8 |
| 20id 10 locide | -0/-388 | -0/-3d | -0/-3dB | $10 /-\mathrm{JdB}$ | *0/-3d8 |
| Maximum Levels |  |  |  |  |  |
| Maprempros | 4 HdBu | 4 T didu | - $\overline{\mathbf{4}} \mathrm{d} \mathrm{H}$ | -MdEu | - |
| Steer rate | . 27 dBu | . 22 d d | -22dBu |  | -22dBu |
| Blandirymatatis | -28didu | +28dia | $\cdot 18 \mathrm{dBu}$ | -18dĒu | - |
| Nctara*as | $\cdot 22814$ | -21080 | $\cdot 22 \mathrm{dBu}$ | +22d8u | - |
| Impedances |  |  |  |  |  |
| 4xpremorger | 145 | 1318 | 1.16 Cl | 1.3 k 2 | - |
| Alsther mata (exter meat) | 3104 | >1062 | :10ks | >10kd | 31060 |
| Matopeary | 11/62 | 1 JkC | 1.16 | 115d | 1.16] |
| S etseoutper | 1200 | 12012 | 120.1 | $120 \Omega$ | 12011 |
| Equalization | Hhand swept nid | 3-band | Hband | 3-band | 3-band |
| Lida | 8 OH | 80 Hz | $\mathrm{BOH}^{2}$ | 80 Hz | $\overline{\mathrm{BOHz}}$ |
| Mito |  | $2{ }^{2} \mathrm{LHz}$ | 25 kHz | 25kHz | 24H2 |
| He | 12 hHz | 12 KHz | $\overline{12} \mathrm{hHz}_{2}$ | $126 \mathrm{~Hz}_{2}$ | 12 KHz |
| Lombiner | 5inoch 7 他 |  | Hentore 9 \% | - | - |
| Miarophone Preamp EIN.' | -79.5 dim | -120.5 dBm | -129.5 dim | -129.5 dBm | - |
| Power Requirements | 50 watts | 25 watt! | 25 watts | 60 watts | 60 watls |
| Weight | 20 tbs (9) kf.) | 9.5 lim [4.548) | 6.5 bs (3)4.) | 24 lbr (11 kg) | 24 lss (11 kg.) |




## Mackie Consoles

Mackie consoles have sealed controls, steal chassis, built in power supply and a three year manufacturer's warranty.


1202 7U Rack Mount
$\$ 12.00$


## 1402-VLZ

1402 8U Rack Mount $\$ 12.00$


Mackie CRL1604-VLZ
CR-1604-VLZ
\$1,199.00
RPi604-VLZ
Allows the CR1604-VLZ input/ourput pod to be used in either table-top or rackmount positions $\$ \mathbf{2 5 . 0 0}$ (Classic CR-160t Accessorie's still avalable)

The Mackie 8•Bus Series mixing consoles are truly designed for the digital age with extended dynamic range, more headroom and reduced noise floor. Features include: in-line monitoring Internal 116 dB dynamic range - Two completely assignable headphone monitoring systems • Studio quality. discretc low noise, high headroom
 mic preamps on all chs. (including +48 V phantom power) - EQ includes true parametric HI-MID with separate band center and "Q" controls, swept LO-MID. shelving HF and LF plus $18 \mathrm{~dB} /$ octave Tchebychev high-pass filter at 75 Hz • second (MIX-B) monitor/AUX section w/pan, level and source buttons - 6 stereo, 6 assignable AUX returns • Assignable control room/studio functions • Built-in talk back system with microphone - Balanced XLR main L/R oulputs for PA.

| $32 \cdot 8$ | $32 \times 8 \times 2$ | $\$ 4,999.00$ |
| :--- | :--- | ---: |
| $24 \cdot 8$ | $24 \times 8 \times 2$ | $\$ 3,999.00$ |
| $16 \cdot 8$ | $16 \times 8 \times 2$ | $\$ 3.199 .00$ |
| $24 \cdot E$ | $24 \cdot \mathrm{Ch}$. Expansion Console |  |
|  | for $32 \cdot 8 \& 24 \cdot 8$ | $\$ 2,999.00$ |

Mackie matching stands made of rugged \begin{tabular}{lr}
steel are free standing and attach in minutes. <br>
\hline ST32•8 \& $\$ 299.00$ <br>
\hline ST24•8 \& $\$ 299.00$ <br>
\hline ST16.8\&S'T24.E \& $\$ 299.00$ <br>
\hline

 Meter Bridges feature ladder LED's for each input channel. The $32 \cdot 8,2+1 \cdot 8$ \& 16.8 have VU meters for main outputs. The Bridge attaches to machined recesses in the side panels of the console and 

may be tilted at any angle from $0^{\circ} 1090^{\circ}$ <br>
\hline $\mathrm{MB} \cdot 32$ \& $\$ 899.00$ <br>
\hline

 

$\mathrm{MB} \cdot 32$ \& $\$ 899.00$ <br>
\hline $\mathrm{MB} \cdot 24$ \& $\$ 799.00$ <br>
\hline $\mathrm{MB} \cdot 16$ \& $\$ 699.00$
\end{tabular} $\overline{M B} \cdot 16$

$M B \cdot E$ $\$ 699.00$
$\$ 699.00$

Mackie Side Car provides 11 rack spaces for patchbays. Sbus power supplies, etc.
SC. 8
$\$ 399.00$
Pleases call for further information and pricing!

| LM Console: |  | SR Series Console: |  |
| :---: | :---: | :---: | :---: |
| LM-3204 | \$999.00 | SR32-4 | \$2.299.00 |
| LM-3204E | \$899.00 | SR2- ${ }^{\text {- }}$ | \$1,599.00 |



MixerMixer
Combine up to 12 outputs from any three mixers.
effectively doubling or tripling your inpus without having to buy effeets devices for each one 100 mm remote fader with $6^{\prime}$ cord - allows main outputs from all mixers combined via MixerMixer to be governed by a single fader $\cdot$ each combined mixers main outs become sub-masters

## CordPack

All the cables needed to connect up to three mixers with one MixerMixer. $3^{\prime}$ cables 36 mono. 3 stereo


Broadcast Tools


Broadcast Tools Console ControllerIIA provides the solution for interfacing non-broadeast consoles or digital workstations to the broadeast studio. It offers three channels of insert switching to turn on or off console input channels or other source equipment as indicated by a bright red LED on eath swith. Additionally. the CCIIA offers monitor amplitier mute control. fremt pand momtor level control and the ability to switch between internal or external (program/ofl-air) monitor input sources. Audio connectors are TRS $1 / 4^{\prime \prime}$ jacks, front panel switches are SPS $\Gamma$ momentary' with LED, and a DB-9 male remote conerol. Cascade multiple CCIIAs for more than three channel inserts.
CCIA
(D)
 (-an -

$$
\begin{aligned}
& \text { HF and } \\
& \text { UX } \\
& \text { ith } \\
& \text { Dis for } \\
& \text { \& \& \& } \\
& \text { rtputs. } \\
& \text { recess- } \\
& \text { le and } \\
& \frac{1090^{\circ}}{\$ 899.00} \\
& \frac{5699.00}{5699.00} \\
& \hline
\end{aligned}
$$

$\qquad$ $\$ 75.00$ $\$ 69.00$
Side Car


## AudioAts



AudioArts MR-40 is just righ for 4 -track analog and digital work statons ha can even back up your on-air console. The MR-40 has 4 -rack buss assign for your tape recorder, program assign so you can transfer direct to your 2-track or go righlu on-air. Standard features: startstops just helow the fader just like an on-air console • a 3-band EQ section • a stereo send buss that follows steren channel balance controls • mono modules - two subgroup modules • and one each stereo ouput master, control room module, cue speaker, power supply. connection cable. connector hit, thols. wo blatk panels. and the meterbridge that includes four group meters and left and right program meter. MR-40 meat sures $296.9^{\prime \prime} \mathrm{W} \times 7.7^{\circ} \mathrm{H} \times 22.2^{\circ} \mathrm{D}$.

| MR-40 | 4 mone mic/line modules and x stereo line modules | \$7.995.101 |
| :---: | :---: | :---: |
| LS-40 | Sicreo source selector (1) 5 ) | \$250.00 |
| TR40FF | Tape remote. I set full-function | \$250.00 |
| TR+0SS | Tape remmete. 3 pair stirl/stop | \$250.00 |



## Auditronics

The Auditronics 310 consoles are dengned for $t$ and 8 track production. They are asail able in 16 . 24 and 32 mainframes wilh sultiple options. Standard features include: 4 aus send and returns. 4 or 8 nutput submastering. 4 group master fiders. VCA bider control. cue, steren solo. sterco monitoring. phantom me power and a complete mectering package.

## 310 Series Production Consoles

Please call for pricing

## Samson



The Samson MPL 1502 is a 15 input stereo mixing console. It has 5 1/4"TRS stereo and 5 mono XLR michinc inputs. 3-hand EQ un cach channel. 2 aux send and retums. and a built-in headphone amp. A flexible metering system allows the user to monitor levels of the stereo out. phantom power and on/off status, while peak input LEDs for each channcl indicate signal overload.

MPLI502
9


The Samson Mixpad 9 features 3 balanced mons mic/line inputs and 3 stereo inpuls (for a total of 9 ): 2 aux sends per channel and 2 stereo effects returns to the left and right main outpus. Independent 2-band EQ ensures precise tonal control while mic input trims let the Mixpad be used with a variely of microphones. It also features constant level pan controls on the mone channels and balance controls on the stereo channels. Peak LEDs on the left and right main outputs and balanced sterco outs complete this versatile mixer. Only $9^{\prime \prime} x$ $9.6^{\prime \prime} \times 2-1 / 2^{\prime \prime}$ at 3.38 lbs .


The Samson MIPL, 2242 ?2-channcl. -1-hus. rack mountable mixer th has 22 total inputs. (IO XLR balanced fieaturing a lon noise, padess preanp derigen, and 6 IM: TRS sereo mpuns. Other leatures include: 4 -bind $E Q \cdot 4$ sereo aus returns - 6 allas sends. (1 pre-and 5 pont-lider) $\cdot 1$-bus design (using + dedcathed group faders for sulumixing) with discrele group and main summing outpus and nore.
$\qquad$ $\$ 649.99$ Endbell Kit 5.4.99

The Samson PLL 2404 rackmount mixer has 24 balanced line inputs ( 12 stereo). It features: $A$-bus mixer with 56 mm faders on bus ouss $\cdot 3$ bands of EQ. 4 auxiliary sends on each channel - 4 stereo effects relurns with assign switch - pre-fider listen - and more.



The Samson PL 1602 rackmount mixer has 16 balanced line inpus is stereo). It teames: ? XI. R/mic inpurs (halazaced) - 2-band EQ on cach clatanel - 2 aus sends with 2 steres effects returns - and master $L . / R$ faders for unbalanced oupus.
PL.1602 $\$ 279.99$


## Spirit



The Spirit Folio Lite is a compact and versatile low cost mixer designed to meet the demands of a wide range of users. The main features are: a pre-fade listen solo system - High definition, ultralow noise circuitry - Steel chassis - 12 lnputs with a maximum of 16 inputs available at mixdown - inserts available on every mono input and mix out - PFL solo on every input - 4 dedicated stereo inputs • 2 auxs with aux I pre/post switchable • switchable plantom powering • dedicated stereo return - dedicated tape return $\cdot 2$-band EQ • and separate stereo outputs for tape, monitors and headphones. Extermal power supply and carrying case included

| Folio Lite | $\$ 399.95$ |
| :--- | ---: |
| Rack Mount Kit | $\$ 49.95$ |
| Spare Power Supply | $\$ 4.95$ |

The Spirit Folio SX has a total of 20 inputs and 18 outputs (including auxes and direct outs) offered as standard. The mixer's twelve mono mic/lane channels are all equipped with Spirits UliraMic ${ }^{191}$ preamp. In addition to mix outs, two subgroup busses allow groups of insitmments to be sent either to multitack recorders, additional speakers or be sub-grouped to mix. Four steren inputs, eight direct outs, switchable pre/pont fider, 3-band EQ with sweepable mids, high pass filters on cach channel. 3 aux sends, and a sepa rate mono output with level control and iwo subgroup outputs are also wailable. Sporting an integral carrying handle for casy portability, the chassis can optionally be rack-mounted into a IOU space.



The Spirit Folio Notepad achieves DAT quality audio as a result of its surface-mount design and use of components common to larger Spirit consoles. It's a versatile. portable mixer for both live and studio applications. Notepad offers the following features: 10 Inputs. (four mic/line balanced inputs. Iwo unbalanced stereo inputs) - Mic preamps with 50 dB of gain range - 2-Band EQ on every mono input • Post-fade aux send on every input - Dedicated stereo effects return • +48 V Phantom power - Stereo inputs equipped with switchable RIAA preamps for turntables - 2-Track return for playback of masters - Separate mix and monitor outpuls • Peak and VU metering • and headphone output .
 and a direct out on every mono channel. 10 post-fader direct outputs, at true $\downarrow$ buss group section and a stereo mix output. Other features are: 3-band EQ. a high pass filter for stage rumble or mic popping. 6 aux sends. 6 stereo returns. and two sterco inputs. Rac Pac was designed from the ground up to excel in both worlds. studio and live mixing.

| Rac Pac | $\$ 1.199 .95$ |
| :--- | ---: |
| Spare Power Supply | $\$ 49.95$ |

Power Supply Rack Kit
$\$ 69.95$

## Studio Technologies

The Studio Technologies M750 audio mixer was decigned for use in ENG. SNG, and specialized broadcast applications. Features include + mic/line inputs. 2 stereo line inputs, and 2 stereo output busses. The setup section provides voice identification storage and playback. along with a precision, computer-controlled tone gencrator. The extensive montor section features analog VU-type meters. The M750 has all operator controls located on the front panel. Powered by $120 \mathrm{~V}, 50 / 60 \mathrm{~Hz}$, optional $220 / 240 \mathrm{~V}$. 2 U

## M750

$\$ 2.495 .00$


## Tascam

The Tascam M1600, 8 -huss mixer offers many stamdard features not found in most consoles of nts class. Advanced low-noise circuitry de high end componentry deliver natural and transparent sound with an extremely low noise floor. Eight XLR mic/line inputs plus all TRS. I/4" inputs and outputs are also accessed through state-of-the-art D-Sub connectors. One stereo and four mono aux sends combined with f fulty assignable stereo aux returns allow for the most thexible assignment packige available. Each mic inputs offers 55 sth of trim plus phantom power, and all inputs offer 3-band EQ with semi-parametric sweepable mids, solo in place, mute, buss assign, pan, aux assign, aux monitor, insert, signal present/overload LED; master section ofters full monitoring. buss/master control as well as buss/master metering.
$\overline{\mathrm{M}} \mathrm{GO} \mathrm{K} / 16$
MU1616
MU1600/2-
MU1624
MA-X

16 Chinnel
Optional meter bridge 2-1 Chamel Oplional meler bridge S-Channel liapamder
\$1,699.00 $\$ 500.00$
$\$ 2,199.00$
$\$ 650.00$
5450.00


Broadcasters General Store(352) 622.7700 Fax (352),629.7000


## Tascam

The Tascam M2600 Series Mixers were totally redesigned and re-engineered. They are available in 16 . 24 and 32 inpuls At the push of a switch you get 64 inputs on a 32.48 on a 24 . and 32 on a 16 when mixing down. The M2600's feaure: Balanced and unbalanced tape ins and outs • 48V Phantom Power • Direct group out switching and advanced signal routing means no tepatching • Absolute Sound Transparency ${ }^{\text {Th }}$ and a double reinforced dual-ground system • Bi-directional semi-paramerric split EQ on each clumel - 6 Auxes ( 2 steren) available al all times. Comprehensive monitor matrix allows for 2 separate stereo mixes • In-place solo • Direc $\downarrow$ Group switching - Talkback mic • and Optional highintensity. multi-function meter bridge.

|  | M2600/16MK1I | 16x8x2. 16 Dual Ins. 8 program outs. and 2 Master Outs | \$3.199.00 |
| :---: | :---: | :---: | :---: |
|  | MU2616 | Meter Bridge for M2600/16MKII | \$849.00 |
|  | M2600/24 ${ }^{\text {M }}$ | 24x8x2, 24 Dual Ins, 8 program outs. and 2 Manter Outs | \$3.999.00 |
|  | MU2624 | Meter Bridge for M2600/24MKI | \$999.00 |
|  | M2600/32MIKII | 32x8x2. 32 Dual Ins. 8 program outs, and 2 Manter Outs | \$4.999.00 |
|  | MU2632 | Meter Bridge for M2600/32MK1I | \$1,199.00 |

The Tascam M3700 Series was designed for mulhirack recording studios. They feature: in-line monitor forman with lincar laders • input channels provide 6 aux sends with 4 send level controls. PFL or stereo in-place solo facilities, and mute switches for channcl, monitor and aux $5 \&$ 6.8 bar-graph meters with select switches for group/ape return montoring. plus 2 VU meters on stereo relurns • alalkback facility • balanced XLR stereo outputs and 2TR inputs - built-in 5 -frequency oscillators - PFL or stereo in-place solo - insertion point on each channel. stereo and group buss - mute switches for channcl. monitor. and aux $5 \& 6 \cdot$ control room section provides monitor select switches, solo switch. dim switch. mono switch and level control - studio section provides control room or stereo monitor select switches. mono switch. on/off swatch and independen phones and studio level controls and the flip function swaps monitor input source with channel input source.

| M3700/24 | (24X81 24 Mono In. 8 Prog Outs. Automated | $\$ 14.999 .00$ |
| :--- | :--- | ---: |
| M3700/32 | (32X8) 32 Mono In. 8 Prog. Outs. Automated | $\$ 16,999.00$ |
| MU-3524 | Meter expander for M3500/24 \& M3700/24 | $\mathbf{\$ 8 7 5 . 0 0}$ |
| MU-3532 | Meter expander for M3700/32 | $\$ 1.175 .00$ |
| LA-3500 | Balancing kit for M3700 | $\mathbf{\$ 6 0 0 . 0 0}$ |
| CS-3724 | Stand for M3700/24 | $\mathbf{\$ 5 5 0 . 0 0}$ |
| CS-3525 | Top Board for M3700/24 | $\mathbf{\$ 2 7 5 . 0 0}$ |
| CS-3732 | Stand for M3700/32 | $\mathbf{\$ 6 0 0 . 0 0}$ |
| CS-3533 | Top Board for M3700/32 | $\$ 275.00$ |



Yamaha


The Yamaha ProMix 01 with 20 BIT digtal memory offers a powerful edec for studio. live sound, commercial installation applications and for use with hard disc recorders. Snapshots and moving lader autumation make it ideal for comples situations where mix setings must be recalled repeatedly and precisely. The Promix of is fealure packed with: 16 input channels with gain Irim and pad is balanced XLR's with -18 V phantom power. 8 balanced jacks) - Stereo input channel (Unbalanced 1/4" jacks) - Outputs: Stereo out-balanced XLR ( +AdB ) and SPDIF digital. Record out-RCA/phono ( -10 dB ). Monitor outunbalanced 1/4" jack ( +4 dB ) - Comprehensive monitor functions: stereo mix, cue. or 2track recorder - Four fader groups, for single fader control of several faders - Pair function links adjacent input channels (EQ. fader. aux) for steret) operation - Cue function for solo of input channels and aux sends - Motorized faders - 33 Position pan control - $240 \times 6$. dot backlit LCD display provides metering of all ehannels and graphic display of mixer settings - 12-Segment sereo LED meters - Comprehensive MIDI functions - 2 internal assignable effects • and 3 compressors.
ProMix 01
$\$ 1.999 .00$
01 Stand
RK01
Rack Mount kit
$\$ 29.95$
W01SP
Wond side panels
$\$ 74.95$

## Check out IQS'S SAMM Audio MIDI Mixer Software on Page 116 ! SAMM can contorl up to 16 ProMix via MIDI!

## Yamaha

The Yamaha 02R has atotal of 44 input channels, plus a full complement of features - all driven by RISC technology CPUs and Yamaha's latest 32-bit DSP chip. It brings powerful system control and full dynamic automation to the heart of your digital recording studio. Whas 40 input channels and two full-featured stereo internal returns. There are 8 buss outputs and 8 aux sends plus 16 direct outputs. The 24 built-in analog input channels feature 20 -bit linear AD/DA conversion with oversampling. Thousands of parameters can be stored in a scene memory "snapshot" io be recalled in an instant. The 02R has a 4 -band full parametric EQ and two internal effects units. EQ can be applied to each input channel and to the stereo output. The open architecture design allows you to inser up to four optional 8 -track digital $1 / O$ cards (for a maximum of 32 tracks). With these cards you can select from any of the curently used formars - adat(0. Tascam TDIF I. YAMAHA. or AES/EBU

|  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

The Yamaha PM3500 Front of House console is available with 24. 32. 40 or 48 inpuss: and PM13500 monitor console with $4 t$ or 52 inputs. They are closely related. sharing the same body and virtually all of the same features. The only difference is their inputs The PM13500 s modules are swith atsagnable to the eight mix busses and the sereo buss, with eight auxiliary send individually pre/post switchable. In addition to these modules, the console includes four separate stereo input modules that can also be used as auxiliary returns. The PM 13500 has digitally controlled seene memorics. The input channels, auxiliary returns and ouput buss ON/OFF functions are electronically controlled via a central CPU. The consoles allow up to 128 patches or "scenes" to be stored in memory and recalled va a 10 -key pad on the front panel or an extemal MIDI device. Any of the 12 x memories can be assigned to a group of eigh "direct recall" switches to make them expectially easy to access. External MIDI control can he used to mdividually turn input and oupput chamels on or ofl as required.

| PM13500-24 | $28 \mathrm{Ch}(2+$ mono. 4 stereo) $\$$ group +st. . 8 aux. 128 mule scones. \& 8 VCA groups | \$36.999.00 |
| :---: | :---: | :---: |
| PN3500-32 | 36 Ch ( 32 mono, 4 stereo) 8 group +st. 8 aux. 128 mute seenes, \& 8 VCA groups. <br> 4 bind parametric EQ. + sicreo matrix $\&+$ momo matrix | \$ 2 2,999.00 |
| PM13500-40 | 44 (h ( 40 mono, 4 stereo) 8 grouptst. <br> 8 aun. 128 mute seenes. \& 8 VCA grouns. <br> 4 bimil parametric EQ. it sereo matrix of 4 mone marix | \$48.999.00 |
| PM3500-48 | 52 (h ( 48 mono. 4 stereo) 8 group+st., <br> \& alle. 128 mute secnes. \& 8 VC 1 groups. <br> 4 bind patanctric EQ. 4 stereo matin \& + mono matrix | \$54.999.00 |




## ATI

The Nanoamps from ATI are compact. rugged and low cost mixers and utility amplifiers featuring XLR connectors, high performance. low noise circuitry and quiet. UL and CE approved remote power modules. Use them free standing, stack them or rach mount 1. 2, or 3 across in IU

| MXS100 | Mixer, stereo line out, 3 panned mic/line inputs | \$799.00 |
| :---: | :---: | :---: |
| XPS100 | Expander for the MXS 100. stereo buss out. 4 panned mic inputs | \$549.00 |
| XPS200 | Expander for the MXS 100 . stereo buss out. 2 stereo line level inputs | \$379.00 |
| MX100XLR | 3-Ch. mic/line mixer w/LED bargraph metering w/independent level adjust \& master gain control. w/selectable phantom power | \$359.00 |
| XPI00XLR | 4 Input mic/line expander for the MX100XLR | \$289.00 |
| 20604-501 | Center mount for single unit | \$22.00 |
| 20604-502 | Side-by-side mount for two units | \$25.00 |
| 20604-503 | Side-by-side mount for three units | \$30.00 |

Henry Engineering


Henry's Micromixer will
accept up to four balanced or unbalanced line-level inputs and will mix them to a stereo output. A level control for each input provides adjustment from "off" to + Itdb of gain. "Micro-Assign" switching permits each input to be assigned to the teft. right, or both
outputs in any combination. All circuitry is active and direct coupled for exceptional sonic accuracy.


The Henry Stereonlixer is an egeht input. three output stereo line maxer for line-level sources. It lets gou mix four tered or eight mono vources or a combination of buth. Each brudging infut will accept a balanced or mbatanced source. $\lambda$ level conual for each mput provides adjushment from ()fF to + IOdB of gain. Lett and Right buss mpus allow multiple Stereomixers to be linked together to expand input capacity, All connections are via harrier strep terminals.

## StereoMixer

$\$ 250.00$

## Broadcast Tools



The Broadcast Tools SM-6 is a 6 input stereo mixer. equipped with 6 irnnt panel push butoon type on/off switches, and stereo hatanced inputs with 15 turn input trimmers and single turn output trimmers. Ample gam is provided allowing use of unbalanced consumer level devices. The SM-6 may also be configured for dual monaural output operation. Audio connections appear on the rear panel wa wire captive terminals. Applications include: programmable mix minus for telephone hybrids. selectable IFB feeds and additonal console input expanson.

## SM-6

$\$ 349.00$


The Intelix 8002 MCB is an eight channel, dual buss microphone mixer designed for the hroadeast, video field production, sumnd reinforcement and recording industries. It has: balanced inputs and outputs • IU chassis • phantom power • level control • LED bargraph • limiter • front panel headphone output * dual busses * and can be AC or DC powered.

## Radio Design Labs

## See Other Radio DesignLabs Mixers on Page 25.

The RDL AMX-84 is both a digitally controlled audio matrix router and a low-noise audio mixer with 8 stereo inputs which can be mixed to 4 sterco outputs, in any combination. Functions are controlled by 32 data lines on an input connector. It has low noise and distorion and input gain can be trimpot adjusted for precise level matching.

AMX-84 $\$ 1.126 .00$


The Rane MLM82 is an eight-input, two-butput mic/line mixer. Inputs $1-4$ are michline level switchable, and inputs 5-8 accommodate up to four stereo or mono line level sources. Features include: four stered/mono batianced/unbalanced line inputs (I/4"TRS) • iour mono balanced line inputs (XLR) • outputs switchable to mic or line level • phamom puwer switch - Irmless mic stage preamps - stereo/mono switch • and biecolor signal present/owerload LEDs


The Rane SM-82 stereo line level mixer has \& sterco or 16 mono unbalanced $1 / 4^{*}$ TS line inputs. Each input channel has a stereo rotary input level control, stereo atux send slider and a balance control slider. The aux return section and the output stage both include a rotary level control and a slide balance control.

## Symetrix



The Symetrix 450 Dual Zone Priority Mixer has two mono mic/line inputs (with phantom power and low frequency tilters) and four stereo line inputs. Each input may be assigned to a stereo output zone a mono ouput zone or both. Its unique hierarchical Priority Overide structure permits the wo michine inputs and the first stereo line input to mute the other (lewer priority) inputs assigned to the same zone. The 450's flexilility and simplicity make it the perfect choice for a wide variety of systems. By aceepting andio inputs from virually any type of audio source and selectively routing to either the mono or stereo oupput zone the +50 can save you time and money in the design and installation of your next project.

| 450 | $\$ 629.00$ |
| :--- | :--- |



The Tascam M08 compact mixing system fe:atures: 12-Input (t mono. 4 stereo) 4 XLR inputs. 2-Band EQ on all channels-2 Dedicated $A \cup X$ sends (pre and post) -4 Mano effects returns Mute and PFL on each input thannel - Dedicated 2-track input - and 60 mm Line:ar master fader.

| M0S |  | $\$ 349.00$ |
| :--- | :--- | ---: |
| RM1OS | Optional rack mount kit | $\$ 15.00$ |



The Rane SM 26 B combines 6 -in/2-out line level mixer and 2 -in/6out splitter distribution amplifier in a one rack unit package. It provides Mix/Pan and level controls with 12 dB gain for level matching and can be used as a line boost amp. zone level controller. or in a combination of modes at once. Inputs and outputs are balanced 1/4" TRS.

| SM-26B | $\$ 129.00$ |
| :--- | :--- |

## Stewart

The Stewart
MM4-S is a four-
channel active stereo output mixer in a half-rack chassis.
 Each of its four balanced mono inputs are individually swithable between microphone and line level, with switchable $+48 v$ phantom power. The MMI-S features an individual gain and pan contol for each channel. as well as master level control, and switchable balanced output operating levels.

| MMH-S | Two year wartanty | $\mathbf{\$ 3 9 9 . 0 0}$ |
| :--- | :--- | ---: |
| RNK 100 | Single rack | $\mathbf{\$ 2 0 . 0 0}$ |
| RMK200 | Dual rack | $\mathbf{\$ 3 0 . 0 0}$ |

## Tascam



## ATI

ATI Micro-Meter Studio Metering Systems let you know at a glance where your signals are or are not. Display one. wo. three or four stereo lines (eight channels) on bright, three color. sixteen segmemt. LED bargraphs with simultaneous VU and PPM peak display. Balanced. bridging inputs are switchable for 0 VU at $-10 .+4$ and +8 dBm line levels. Wide range. backlit scale. compact $3-1 / 2^{\prime \prime}$ rack mount.

| VU200 | One Stereo Display | \$549.00 |
| :---: | :---: | :---: |
| VU400 | Two Stereo Display | \$799.00 |
| VU600 | Three Stereo Display | \$1,049.00 |
| VU800 | Four Stereo Display | \$1.299.00 |

ATI Nanoamp Series Metering has balanced bridging inputs, each drive ten segment, multi-color LED bargraph meter display. 0 dB internally selectable @ $-10 .+4 .+8 \mathrm{dBu}$. Front panel trimmers allow for precise calibration at 0 VU


| BGD200-VU | Dual bargraph meter display VU Response | $\mathbf{\$ 3 2 9 . 0 0}$ |
| :--- | :--- | :--- |
| BGD-200-VU-б | As abose w/hi-polar LED phase indicator \& headphone monitor | $\mathbf{\$ 3 7 9 . 0 0}$ |
| BGD200-PPM | Dual bargraph meter display PPM Response | $\mathbf{\$ 3 2 9 . 0 0}$ |
| BGD-200-PPM-0 | As abose w/hi-polar LED phase indicator \& headphone monitor | $\mathbf{\$ 3 7 9 . 0 0}$ |
| BGD400-VU | Quad bargraph meter display VU Response | $\mathbf{\$ 3 8 9 . 0 0}$ |
| BGD400-PPM | Quad bargraph meter display PPM Response | $\mathbf{\$ 3 8 9 . 0 0}$ |

## B\&B Systems



B\&B AM-1B has : quality $\mathrm{X} / \mathrm{Y}$ scope with 2 VU meters and 2 peak LED's. This unit provides monitoring of sterco aludio plase. program average and peak levels, plus SMPTE time code phase/genlock. It is ideal for television production and post production facilities. 3 U

## AM-1B



The B\&B AM-313 is a real time visual and audible monitor of stereo audio. Phase, program VU levels. peak
threshold,(L+R) aux.. internal power amplifier and two sets of three inputs make this unit perfect for any stereo audio application. 2U

## AM-3B

$\$ 3.400 .00$
The B\&B AM-3 is a complete tool for stereo audio transmission applications. It provides monitoring of stereo audio phase, program average and peak levels. plus a third channel display selectuble between left and right channel sum or SAP (second audio program). 4U


The B\&B AM-2 is similar 10 the AM-1B in monitoring stereo audio phase and levels but withou the features of SMPTE Ame code monitoring and channel selection for the CRT display. Designed for stereo radio facilities and recording studios. 3 U

## AM-2

\$3,560.00
The B\&B AM-213 is a compact version of the AM-2. with identical functions. for use in limited rack space environments. 2 U

## AM-2B

$\$ 2.960 .00$


The B\&B AM-2HR is a halfrack unir with quallity full size $X / Y$ scope. for visual "stereo" audio phase monituring. Front panel control of line level outputs and amplitied headphone/speaker outputs. Front pancl selection of "stereo" or "L+R SUM" audio monitoring. 3 U
AM-3 Special order only $\quad \$ 4,260.00$


The B\&B Imagescope ${ }^{\text {TM }}$ half-rack unit, is the ideal tool for any stered audio monitoring application. It displays the complex stereo audio signal, showing the dispersion of energy as it will sound in a typical listening environment. The Imagescopersh is used to position, any track or tracks in the stereo image. At a transmission site the scope will show mono compatibility of stereo program material and allow you to observe the separation. balance and level of the slereo signal. 3 U

IM-IHR

## B\& B Systems

The B\&B MP-4 Audio Meter Panel has four independent buffered channels. The standard unit has two rear panel female XLR inputs. The left input is internally strapped between channels one and two while the right input is internally strapped between channels three and four. The left and right inputs have one buffered VU meter and one buffered PPM meter each. The four channels allow for different calibration adjustments on each meter. 2 U

## MP-4

$\$ 1,800.00$

The B\&B MP-4A Audio Meter Panel has four independent buffered channels. The standard unit has four rear panel female XLR inputs. These four correspond to individual meters with independent calibration adjustments for each meter. 2 U

| MP-4A | With VU Melers | $\$ 1,800.00$ |
| :--- | :--- | :--- |
| MP-4A | With Phasc LED | $\$ 2,050.00$ |
| MP-4B | With PPM Meters | $\$ 1.800 .00$ |



The B\&B MP-2 Audio Meter Panel has two independent VU meters resistively buffered to meet E.I.A standards. No calibration adjustments 2 U

## MP.2

$\$ 620.00$
The B\&B MP-2A Audio Meter Panel has two buffered input channels configured as a stereo pair. The level of each channel is displayed on an independent SIFAM VU meter with calibration adjustments for each meter. 2 U

| MP2A |  | $\$ 1,725.00$ |
| :--- | :--- | :--- |
| MP2A + | With phase indicating LED display | $\$ 2,075.00$ |

## Dorrough

The Dorrough Loudness meter eliminates the short comings of conventional VU or PPM meters. The VU meter is too slow to respond to peak excursions, it is known as a quasi-average reading device. While the PPM meter does display and hold the peak level of waveforms, the guasi-average program level is completely ignored The Dorrough loudness monitor solves this. It displays in an easy to read format, the actual energy content of the material, regardess of freguency, while still indicating the peak amplitude of the complex audio signal. This meter gives you more complete and more usable information than any combination of peak hold, VU and PPM indicators. All Dorrough second (2) generation meters have fully integrated peak-hold lunctions.


| 40-A2 | Std loudness meter w/internal PS. 8-1/2"x2-7/8"x6-1/2" | \$ 475.00 |
| :---: | :---: | :---: |
| 40-82 | Relative loudnces to peak modulation meter | \$475.00 |
| +0-C2 | Scale differentiation of 40 -A2 with 20dB headroom | \$ 475.00 |
| 20-A/B/C2 | Straight line version of 40 series | \$ $\$ 775.00$ |
| 10-A/B/C2 | Pancl mount 5 " 2 2-1/2" w/external PS | \$ +75.00 |
| 12-A2 | Dual version of the 10-A2. 8-1/2"x.3" | \$950.00 |
| 40-S | Rack mount for single 40 | \$ $\$ 5.00$ |
| 40-D | Rack mount for dual 40. 19"x3.5" | \$45.00 |
| 20-S | Rack mount for single model 20 | \$45.00 |
| 20-D | Dual model 2019 " $1.75{ }^{\prime \prime}$ | \$45.00 |
| 10-S | Single rack | \$45.00 |
| 10-D | Dual rack | \$45.00 |
| 10.T | Triple rack allows for a center ch. sum meter when wired for both right and lefit channels. | \$15.00 |
| 12-S | Single rack | \$ +5.00 |
| 12-D | Dual rack, allows tor a total of four metering ch. | \$15.00 |



The Dorrough 40-P. parity of signals. both mono and stereo. can be seen on this meter as iwo indications starting at center scale. A null feature is also provided.

## $40-\mathrm{P}$

$\$ 595.00$

[^2]
## Dorrough



The Dorrough Digital-Reading Meters model 280-D and 380-D are AES/EBU reading and feature display of both peak and average simultaneously. over indsation. and sclectable peak-hold. Conforms to all specifications of AES 3 1992. Console or panel mount: Euro block terminals: and uses external power ( $12-24 \mathrm{Vdc}, 0.5 \mathrm{~A}$ ).

|  |  |  |
| :--- | :--- | :--- |
| $380-\mathrm{D}$ | 40dB. (Verical ml.) | $\$ 850.00$ |
| $280-\mathrm{D}$ | 40dB. (Horizontal mt.) | $\$ 850.00$ |
| $380-\mathrm{E}$ | 60 dB . (Verical mL.) | $\$ 850.00$ |
| $280-\mathrm{E}$ | 60 dB . (Horizontal mi.) | $\$ 850.00$ |

Products soon to be available from Dorrough: Phase Meter Surround Sound Metering - Big LED. Large meter for stage work Single Ch. Console Meter • In-Screen Meter • and Model 1200 Mono!


ESE Digital Audio Level Meter has been designed to simulate the action of a conventional VU Meter. yet features superior dynamic characteristics. The ES216 Audio Level Indicator displays audio levels in ten discrete steps using ten LED indicators. Levels of -20. -10. -7. -5 . $-3,-1.0 .+1,+2$ and +3 dB are displayed. Levels below 0 dB are displayed using green LED's: 0 dB is displayed in yellow; and levels above 0 dB are displayed in red. The ES216 is available in either the peak reading mode or the VU response mode.

| ES214 | Digital, venical mini-panel mount meter | $\$ 145.00$ |
| :--- | :--- | ---: |
| ES215 | Digital. horizontal mini-panel mount meter | $\$ 145.00$ |
| ES215P2 | Stereo or Dual Mono. IU | $\$ 370.00$ |
| ES215HP2 | Side by side (horizontal) version of 215P2 | $\$ 370.00$ |
| ES215P3 | Triple (stereo/center) audio level indicator, IU | $\$ 540.00$ |
| ES215P4 | Dual Stereo. 1U | $\$ 685.00$ |
| ES215P6 | Triple stereo audio level indicator, IU | $\$ 975.00$ |
| ES216 | Digital audio level indicator - meter | $\$ \mathbf{\$ 6 9 . 0 0}$ |
| ES216P2 | Stereo or Dual Mono, IU | $\$ 190.00$ |
| ES216P3 | Triple (stereo/center) audio level indicator, 1U | $\$ 260.00$ |
| ES216P4 | Dual Stereo, IU | $\$ 330.00$ |

The Dorrough 280-A and 380-A feature a single meter with two channels of audio. The meter measures $1-1 / 2^{\prime \prime} \times 5$ " and has an external power supply


| $380 \mathrm{~A} / \mathrm{B} / \mathrm{C}(\mathrm{V})$ | Analog model. verical mount | $\mathbf{\$ 8 5 0 . 0 0}$ |
| :--- | :--- | ---: |
| $280 \mathrm{~A} / \mathrm{B} / \mathrm{C}(\mathrm{H})$ | Analog model, horizontal mount | $\mathbf{\$ 8 5 0 . 0 0}$ |
| $280-\mathrm{S}$ | Single rack | $\mathbf{\$ 4 5 . 0 0}$ |
| $280-\mathrm{D}$ | Dual rack | $\mathbf{\$ 4 5 . 0 0}$ |
| $280-\mathrm{T}$ | Triple rack | $\$ 45.00$ |

## Dorrough Video Level Meters



The Dorrough model 1800 CatV Audio Loudness/Video Level Test Set is designed for guick set-up of audor and video fevels on multiple cable-television channels. Equal perceived loudness is adjusted with the Dorrough Loudness Meter, while accurate modulation/syne levels :are sel using the Video Laminance Meter. The loudness meter is the model 10-B and the video luminance meter is model $40-\mathrm{N}(\mathrm{P} / \mathrm{S})$ with a CATV cable converer.
1800
$\$ 1.995 .01$


The Dorrough Video I uminance Meter Model 40-P/S is a PAL/SECAM version scaled in volts, displays average and peak luminance, sync level. and blanking.

## 4()-P/S

$\$ 750.00$


The Dorrough Video I uminance Meter Model 40- N is an NTSC video level meter that displays the video signals of average and peak luminance. syne level, and sctup violations. Synce range - 50 to -32 IRE. Meter resolution 4 IRE per LIED.

## metentmethinsenteved

## Furman

The Furman VU-40 is a conventent rack-mount dual channel level monitor for use in any application where a quick visual check of system performance is desirable. It is comprised of two 20 LED bargraph meters, calibrated in JB like standard VU meters. You can set a front panel switch to read either peak or averige response. Other features include - On/off transient muting function protects speakers - Linc level/power out switch for each channel - Line level may be set $10-10$. 0 . or +ddB 1 - Sixteen power out choices from 20 to 1260 W . also accommodates 25 volt and 70.7 volt lines $\cdot$ and
 ground lift. on/off switches

| VU-40 | Stereo System Monitor | $\$ 2.49 .00$ |
| :--- | :--- | :--- |
| VU-40B | Includes XLR balanced line level UO on each channel | $\$ 299.00$ |

## Inovonics

The Inovonics TVU displays stereo audio level meetering on the screen of a vided monitor and is VU/PPM switchable. Applications include uses in television production, post-production, broadcast, cable-TV. and video duplicatine facilities. IU




| Logitek Audio Level Displays \& Monitors |  |  |
| :---: | :---: | :---: |
| MON-10 | 10-Input selector/meter/monitor - Stereo | \$855.00 |
| 2VUB ? | 2 Lighted VU meters in a 2 U . w/Phase check | \$525.00 |
| 4VUB-? | 4 Lighted VU meters in a 2 U . w/Phase check | \$790.00 |
| ? Specify "A" for A scalc (dB on top) or "B" for B scale (medulation on top) |  |  |
| Bright - VU LED Bargraph Audio Level Displays: |  |  |
| BVM | Mono display in desktop case. requires PS | \$205.00 |
| BVS | Siereo display in desktop case. requires PS | \$340.00 |
| BVRM | Rack mount kit, 2 U for up to 2 BVM units | \$ 50.00 |
| BVRS | Rack mount kit, 2U for up to 2 BVS units | 540.00 |
| BVP | Power supply (runs 1 BVS or 2 BVM) | \$50.00 |
| Bright - VU LED Bargraph Audio Level Displays Updated Style: |  |  |
| BDT-" | Single stereo meter in desktop case | \$ 470.00 |
| BV2-* | Single stereo meter centered in IU enclosure | \$560.00 |
| BV4-* | Dual stereo meters in IU enclosure | \$795.00 |
| BV6-* | Triple stereo meters in IU enclosure | \$995.00 |
| BV-UP | Upgrade to digital / Price per input | \$80.00 |

(Logitek Continued)
Super - VU LED Bargraph Audio Average/Peak/Peak Hold Displays
$\begin{array}{ll}\text { SDT:* } & \text { Single stereo meter in desktop case } \\ \text { SVI-* } & \text { Single stereo level display whange image \& denniny display } \\ \text { SV2-* }\end{array}$
SV2-* Dual sicreo level display w/dual image \& density display. 2 U
SV3-* Triple stereo level display whriple image de density display, 20
SV-UP Upgrade od digital / Price per input ( $S V$ \&SIS models)
Super - VU Led Bargraph Meter Plus lmage \& SUn Displays:
SISI-* SV1 plus lmage-Sum display, IU
Ultra - VU Bargragh Meter with Image/Sum plus Zoom \& Loudness Filter
UDT-* Single stereo meter in al deskton cale
UDT-B UDT with hohth Digital \& Analog inputs
UVI-R* Single stereo meter in a IU enclosure
UVI-RB UVI-R will buth Digital \& Analog inputs
UV2-R* Dual stereo meters in al U enclosure
UV2-RB UV2-R with both Dightal\& Analoge inputs
${ }^{*}$-Spectify a for amalegs or of for digital

## VU-TRAX Meter Rridge

| VTX8-BA | Eighn chanmel meter bridge with one phase display | $\$ 995.00$ |
| :--- | :--- | ---: |
| VTXX-RA | Eight chanmel neters with one phase display in a RM | $\$ 1.195 .00$ |
| VTX8-SW | 3 -In preselector for VTX8-BA | $\$ 150.00$ |






## McCurdy

The McCurdy MTR-8 LED bargraph meter has cight LED bargraph meters for four stereo or eight mono sources in one rack unit. Audio input to the unit is through rear panel mounted W'ECO type plugable bamer strip connectors. The inputs are fully balanced with optional AES/EBU ins. Available from $-10.0 .+4 .+8 \mathrm{dBu}$. please specify level when ordering.


The McCurdy VUP-4 Quad VU/PPM audio level meter features: Taut-band high quality meters • accurate readings to 0.1 dB resolution • LED illumination • Balanced. bridging inputs • PPM. VU or both types • Four channel operation • Designation strip for user supplied IDs • and optional AES/EBU inputs. Available for $-10,+4$. +8 dBu . please specify level when ordering.


## Wohler



MLH-2 2-Ch. of lg . format 24 -segment, tri-color bargraph analog level meters with peak LED, 1 U
-D To substitute digital level meters, add to suflix $\$ 145.00$ $-\mathrm{P} \quad$ To add Phase Indication, add to sullix $\quad \$ 140.00$

MLH-2AL $2-\mathrm{Ch}$. of lg . format 24 -segment. Iri-color bargraph analog level meters with peak LED. include's an alarm module for loss of audio and overringe. Over and under delays are independently set per pair. 1U(*D)
To substitute digital level meters, add to suffix
$\$ 945.00$ $\$ 145.00$

## Standard Package Level Metering and Audio Alarm Systems

Systems shown here cover the majority of cominon applications, without need for user conliguration and at reduced overall cost. Standard systems are priced as complete units. with chassis and power supply.


Standard Package Level Metering and Audio Alarm Systems
MLH-4 Same as MLH-2 but 4 Channels. IU
To substitute digital level meters, add to suftix
To add Phase Indication, add to suffix
$\$ 945.00$
$-\mathrm{D} \quad$ To substitute digital level meters, idd to suftix $\quad \$ \mathbf{\$ 2 9 0 . 0 0}$ $\$ 280.00$


MLH-4AL Same as MLH-2AL but 4 Channels. IU
-D
$\$ 1,500.00$ $\$ 290.00$
MSH-4AL 4-Ch. of compact formal 25 -segment. tri-color bargraph analog level meters. Includes alarm modules for loss of audio and overrange. Time delays set in pairs. IU
-D To substitute digital level meers. idd to suftix $\$ 260.00$
MSH-8 8-Ch. of compact format 25 -segment. tri-color bargraph amalog meters. IU
$\begin{array}{llr} & \text { meters. 1U } & \$ 1,285.00 \\ \text {-D } & \text { To substitute digital level meters. add to suffix } & \$ 515.00 \\ \text { PH-2 } & \text { To add Phase Indication, add to suffix } & \$ 560.00\end{array}$
MSH-8AL Sante as MSH-4AL but 8 Channels, IU
$\$ 560.00$
$-1)$ To substitute digital leve! meters, add to suflix $\$ 2,180.00$
MSLV-I20 20-Ch. of 10 -segment, tri-color bargraph analog meters. IU $\quad \$ 515.00$
20-Cheresemer, trolor bargraph analog meters. IU $\$ 1,600.00$
DSLV To substitute digital leve meters. add to suffix
MSLV- 220 Same as MSLV-120 but with 25 -segment, IU
To substitute digital level meters, add to suffix

AJ.RM-64 Alarm unit for luss of sudio on 64 channels of tevel meters or loss of audio and overrange on 32 channels of level meters. Used in conjunction with any Wohler level metering unit
$\$ 3,855.000$
For custom configarations and pricing, please call Iroadcasters General Same


## When it comes to Audio Monitoring, it comes from Wohler!

Our customers love Wohler because they provide the mosi comprehensive range of In-Rack audio monitoring products in the industry, providing solutions for all audio monitoring needs. They created the In.Rack revolution nearly ten years ago, and continue to offer quality products for all budgets.
Renowned for their self-powered speaker systems which have become the industry standard, Wohler also manufactures:

Level \& Phase Meters (now including In-Picture); Alarms for audio errors and location and Audio Routers / Source Selectors.
Speak with us today to find out how Wohler products can help you.


In-Picture Metering
witundreds of models for all applications \& budgets
o Only $\mathbf{J}$ or $\mathbf{2} \mathbf{U}$ high - perfect for space-critical environments

- Magnetically shielded-put Wohlers right next to video screens - Accepts multiple inputs - analog \& digital sources - AES \& SDI - Plug-and-Play - just drop in the rack - no installation hassles

F
Focused Sound"is a monitoring lechn que first offered by Wohler ana made possible inrough ine use of close tange inrack, high fidelity drivers ocalec ight in front of the uset
Because the sound ravels a much sholler distance from its soutce to ine operator's ears wo'ume settings can be kept lower. The result is grearer clarity, grearly reduced 100 m noise. and much less ocoustic crosstalik belween adjocent bays.


Fquased sound


## ANALOG CLOCKS......

Here are two types of our Analog Clocks that can be driven from any of our five Master Clocks. Our X - $5112(12 / 24 \mathrm{Hr}$.) Analog Clock can self set its hands to the correct time from three different time code inputs (SMPTE/EBU, ASCII or ESE). Alternate modes of operation allow the LX. 5112 to synchronize with an alternating 12 or 24 volt impulse signal, or to act as a stand alone clock. We also carry the LX-168 'Sweep' Second Hand and the LX-162S "Stepping" Second Hand Analog Clocks, driven from Impulse Drivers.


## AUDIO PRODUCTS.......

These product's include two different "Digital" Audio Level Indicators. Each is available in rack mount panels with as many as six mounted on a single $1 \quad 3 / 4^{\text {a }}$ panel. Other units include the highly popular ES-244 Audio Level Impedence Interface (which allows interfacing between "pro" and consumer equipment) and the ES-212 Phone Patch (which interfaces between an audio console and the telephone).

## MASTER CLOCKS......

For more than 25 Years, ESE's Master Clocks have been known for their accurate and cost effective methods of time keeping. Any of our five Master Clocks can drive up to 100 of our Digital Displays with up to 4000 feet of cable. Our Digital Displays range from $4^{\circ}$ to $4^{*}$ LED characters that are viewable from 10 to 120 feet, perfect for Broadcasting and Recording Studios. Our Master Clocks lock to GPS, WW, Modem and Crystal


## DISTRIBUTION AMPLIFIERS.......

ESE's Audio and Video Distribution Amplifiers have been designed to create exact copies of an available input signal. Whether the signal is Audio, Video, S-VHS or HDTV, these Distribution Amplifiers deliver the highest in professional broadcast audio/video quality We supply a variety of DA's ranging from $1 \times 4$ to quad $1 \times 6$ 's which can be set up to have 24 outputs in a single rack. We also carry $1 \times 4$ video \& audio PC cards for Desktop applications.


## matertngrmasefievel

## Radio Design Labs

The Radio Design Labs RU-SMI 2 Dual Audio Meter is for anywhere you need andio level metering, degital string display indication, prewise leftright meter tracking, individual channel calihration controls, selectable peak or average metering. sciectable metering of peak $\mathrm{L}+\mathrm{R} / \mathrm{I}_{-}-\mathrm{R} \quad 1 / 3 \mathrm{RU}$ for high density rack mounting. Each channel input has a write-on label areal for idenufication of the source or function being monitored.


## See other RDL products on page $25 \& 26$.



## Gentner

TX-37A
(Sec RMK for optional rack mount)
PTX Portable, 37 chatnels, with lavalier mic. user $2 A A$ batterien
RX-IA Tunable Receiver with built-in belt/pocket clip, wrist strap \& single earhud
RX-6 (1-Channel Recever with huite-in belupocket
SRX Tunable Speaker Receiver powered by o
Tunable Speaker Receiver
C batteries or AC power
Mixer/Power Amplitier
MPAH
(See pape tis for fill descripuon)
BC-10 NiCad Battery Chareer for up to 10 RX-6.
$\mathrm{RX}-1 \mathrm{~A}$ or portable transmitter
ES
Ear Speaker
SEB Singla Earbud
DEB
Dual IEarhud
EC
MHP Mono Headphone
RNK Rack mount kit for TX-37A transmitter
PACA Includes one TX-37A and three RX-1A's
PACB Includes one TX-37A and en RX-1A's
PSCC Includes one PTX and en RX-IA's
Pluaw call for fwher information ou accessortes and options non shown
$\$ 599.95$
$\$ 399.00$
$\$ 75.00$
$\$ 135.00$
$\$ 199.00$
$\$ 2.995 .00$

## $\$ 399.00$

$\$ \$ 5.00$
$\$ 3.50$
$\$ 7.50$
.16
$\$ 12.00$
$\$ 45.00$
$\$ 824.95$
$\$ 1.349 .95$
$\$ 1.149 .95$


## Telex

Telex SoundMate ${ }^{\text {wid }}$ personal listening systems help owercome batckground noise and poor building acoustics that can mathe listemeng difficult for the hearmg impaired listener. A Teles base station, portable bell pack transmiter, your choice of recelvers, and a wide assomment of acessories allow you to meen the needs of indwiduals who require hearing assistance. These listening syatems are cuen compatible with a variety of hearing instrument syles for hearing and users.

## AAT-2N

TWG
AAR-ION
SR-100
SMI

| Base Sation Tramsmiter | $\$ 555.00$ |
| :--- | ---: |
| Belt Pack Transmitter | $\$ 427.00$ |
| Single Channel Receiver | $\$ 77.00$ |
| $16-C h a n n e l ~ T u n a b l e ~ R e c e i v e r ~$ | $\$ 189.00$ |
| Includes one AAT-2N, three AAR-10N, 3 carbuds \& antenna | $\$ 803.00$ |



Gentner Assistive listening systems are designed to give the hearing impared the highest level of hearmg assistance at a competitive price. Features include: Transmillers accept vinually any input. XLR, RCA, balanced or unbalanced - Trinsmitters and receivers are field tunable to 37 FCC approved frequencies - Builtin multiband compressor and audio processor designed to bring the high and low sounds within a range that hearing impared people can hear - Uses ivo AA size batteries for about 60 hours of life or NiCad batteries for about 30 hours and a vanemy of accessones in choose from.

## Williams Sound

With the help of a Williams Sound Personal PA System. hearing impaired people can enjoy a new listening experience, uninterrupted by annoving sounds. Sonce the message is broadcast directly from the microphone to the lisiener, only the sounds which are mended to be heard reach the listencrs cars. The Personal PA System features an Fat mansmiller that connects to an existing sound syatem, sypically using a tape oufput connection from the amplifier or mixer Optional tramsmoters ate avambable for facilities that do mot have a sound sysem. The transmiter acts as a miniature radio sation, broadeasme oser a radius of 3 (h) fect or mare The poeket- siad receivers operate on a single 9 V battery. The receivers are desighed for use with or without the user's hearing atid, whough at variety of optional eaphones and Tele Coil Couplers.

## PPAVPE


Many ohher patkeres and opions awailable:. Pledse call jor further information and pricinge'



Speaker Mounts



「Pivotelli Speaker Supports peri imits speakers to swing side to side and tilt |up and down. Clamps speakers front to |back and provides screw holes to secure! tbotom of hricket to speaker if destred |Sold in pairs only. Wall mount. max. w.t.| $\mid+4$ Its. each. Cabinet stre + "to 10 depth iss
$599.95 /$ pair


| Ultimate Support Tripod Stands with bags |  |  |
| :---: | :---: | :---: |
| TS-30T | Standard tripod, silver. max. ht: $6^{\prime} 7{ }^{\prime \prime} .75$ th, capacity | \$1..+ .00 |
| TS-30BT |  | \$152.00 |
| TS-33T | Standard tripud, silver, max. ht: $9^{\prime} \mathbf{2}^{\prime \prime}$, 100 It, capacity | \$158.00 |
| TS-33BT | Standard tripod, black, max ht: $9^{2} 2{ }^{\prime \prime}, 100 \mathrm{ft}$ c capactly | \$182.00 |
| TS-33AT | Standard articulating leg tripod, silver, max. ht: $9^{\prime} \mathbf{2 c}^{\prime \prime} 100 \mathrm{lb}$. cap | \$194.00 |
| TS-33ABT | Standard articulating leg ripod, hack, max. hit: $9^{\prime 2} \mathbf{2}^{\prime \prime}$, 100 th cap | \$217.00 |
| Ultimate Support Ultilock Tripod Stands with bags |  |  |
| TS-40T | Standard Ultilock tripod, silver, max. ht: $67^{\prime \prime}, 7516.8$ capacity | \$158.00 |
| TS-40BT | Standard Ultilock eripod, black, max ht. $6^{\circ} 7^{\prime \prime} .75 \mathrm{lb}$. capacity | \$176.00 |
| TS-44T |  | \$182.00 |
| TS-4BT |  | \$21)6.00 |
| TS-44AT | Standard Ultilock articulaing leg tripod, silver, max. ht: 9 '2"* | \$218.00 |
| TS 4 ABT | Standard Ulitock articulating leg tripod, black, max. hr: 9'2" | \$2+1.00 |
| Accessories |  |  |
| BMB-200K | Large mounting bracket w/mounting hardware | \$28.10 |
| TMB-400K | Two-prece slide mounting bracket w/mounting hardware | \$27.00 |
| TSM150K | Socket mounting bracket w/mounting hardware | \$20.00 |
| TAD-100 | Adapter stud for mounting speakers with ${ }^{-\cdots}$ diameter socket | \$14.50 |
| TAD-138 | Adapter stud for mounting speukers with 1-3/8" diameter socke | \$14.00 |

Ultimate Support Ultilock Tripod Stands with bags

| -307 | Standard tripod, silver. max. hu: $\mathbf{6}^{\prime} 7^{\prime \prime} .75 \mathrm{It}$, capacity | \$1.34.00 |
| :---: | :---: | :---: |
| TS-30BT | Standard tripod. hlack, max he: $67{ }^{\prime \prime \prime}, 75 \mathrm{lb}$ capactry | \$152.00 |
| TS-33T | Standard tripud, silver, max. ht: 9'2', 100 16, capacity | \$158.00 |
| TS-33BT |  | \$182.00 |
| TS-33AT | Standard articulating leg tripod, silver max. hat 9'2", 100 lb , cap. | \$194.00 |
| TS-33ABT | Slandard articulating leg rripod. hlack, max. hit 9'2", In0 th cap | \$217.0 |
| Ultimate Support Ultilock Tripod Stands with bags |  |  |
| TS-40T |  | \$158.00 |
| TS-40BT | Standard Ultilock 2ripod, blach, max hi. $6^{\prime} 7^{\prime \prime} .75 \mathrm{lb}$. capasity | 76.00 |
| TS-44T | Slandard Ulitock iripod, silver, max. ht: 9 '2", 100 lt c capaciry | 182.00 |
| TS-4BT | Slandird Ultilock rripod hlack, max hi: $9^{\prime 2} \mathbf{2}^{\prime \prime}$, 100 lb , capactity | \$2016.00 |
| TS-44AT | Standard Utilock articulaing leg tripod, silver, max. ht: 9 '2" | \$218.00 |
| TS-4ABT | Standird Ultilock articulating leg tripod. black, max hr: y'2" | \$241 |
| Accessories |  |  |
| BMB-200K | Large mounting bracket w/mounting hardware | \$28.10 |
| TMB-400K | Two-plece slide mounting bracket w/mounting hardware | \$27.00 |
| TSM150K | Sockel mounting bracket w/mounting hardware | \$20.00 |
| TAD-100 | Adapter stud for mounting speakers with \|" diameter socket | \$14.50 |
| TAD-138 | Adapter stud for mounting speakers with 1-3/8" diameter sockel | \$14.00 |



## Uutimate Speaker Stands



## PRO CO

The RMS-1 routes the outputs of a stereo amplifier to one of three pairs of speakers. The switching logic allows fast and easy "A-13" comparrsonn between any two pairs of speakers desired. The heary-duty toggle switches safely carry loads as high as 1800 walls. The RMS- 2 has two inde-
 routing capabilities as the RMS-1

| RMS-1 | $\$ 225.05$ |
| :--- | ---: |
| RMS-2 | $\$ 4+4.25$ |




Nearfield Montioring



## 1 porered montions



Powered Monitors

| Maked Model | Frequency Response | Power | Meter | Connectors | Video Shicld | $\left.\begin{aligned} & \text { Weight } \\ & \text { Pounds } \end{aligned} \right\rvert\,$ | Other Features | Options | Price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mackle |  |  |  |  |  |  |  |  |  |
|  |  | HR824 | 39-22k | $150 / 100 \mathrm{~W}$ | N | 'LR/TR ${ }^{\text {a }}$ | N | $328.75^{\prime \prime}$ woof | r/I" dome/Bi- |
| McCurdy |  |  |  |  |  |  |  |  |  |
| AT2656 | 100-20k | 3W | Y | WECO strip | Y | 11 | 10" woofer/1" hom |  | \$595.00 |
| AMP-100 | 100-20k | 12W | N | WECO strip | N | 9 | IRU |  | 5695.00 |
| AMP-100M | 100-20k | 12W | Y | WECO strip | N | 9 | $\bigcirc$ meter incld. |  | \$860.00 |
| AMP-200 | 100-20k | 12W | $Y$ | WECO strip | N | 11 | 0 meter incld. 2RU | $9+\mathrm{Ch} . \mathrm{w} / \mathrm{Hc}$ | \$1.085.00 |
| Roland |  | $\begin{aligned} & \text { AMP-400 } \\ & \$ 750.00 \end{aligned}$ | 100-20 | 10w | N V | ECO st ip | N |  | adphone Jacks |
| Wohler |  | MAI2C | N/A | 10w | N | TS | Y' | 5 Basi/t | eble Control |
|  | \$145.00 |  |  |  |  |  |  |  |  |
| AMP-1A 80 -15k |  | 10.18W | Y | RCA/XLR | Y | 14 | L-R \& Center Speakers |  | \$710.00 |
| AMP-IAPF | 80-15k | 10.18W | Y | RCA/XLR | Y | 14 |  | $\text { *DC-12@ } \$ 1+5$ | \$975.00 |
| AMP-IA/VTR + | 80-15k | 10-18w | Y | XLR | Y' | 15 |  | *HPH-1 @ \$68 | \$1,445.00 |
| AMP-I/VTR + D | 80-16k | 10.18W | Y | XLR | Y | 15 |  | SDAE- | \$2.130.00 |
| AMP-2 | 80-16k | 11-20w | Y | RCAXLR | Y | 18 |  | *SDAE-1 @ \$1.630 | \$1.095.00 |
| AMP-2/VTR + | 80.16 k | 11.20 W | $Y$ | RCAXLR | Y | 18 |  | *Input select options | \$1.715.00 |
| AMP-2/VTR + D | 80.16k | 11-20W | Y | $\begin{gathered} \text { IES/EBU/XILF } \\ 10-18 W \end{gathered}$ | Y | $\begin{gathered} 18 \\ \times L R \end{gathered}$ |  |  | \$2,420.00 |
|  |  | $\begin{aligned} & \text { VM1 } \\ & \$ 370.00 \\ & \text { VM? } \end{aligned}$ | 301-9k |  | N |  | Y | 17 | Scl. Ch/RU |
| Yamaha |  |  | 30019 k | 10W | N | LR/RC | Y | 12 | )ual Ch/1RU |
|  | \$5 35.00 |  |  |  |  |  |  |  |  |
| VM4 | $300-9 \mathrm{k}$ | 10-18W | N | XLR | Y | 1.3 | Quad $\mathrm{Ch} / 1 \mathrm{RU}$ |  | \$840.00 |
| AMP-SUR | 80-16k | 11-20w | Y | RCA/XLR | Y | 21 | SurroundSound monitor |  | \$2,030.00 |
| -4çovis | -7 |  |  |  |  |  |  |  | 249 |
| MS60S | 20-20k | 60 W | N | XLR/TS | N | 22 |  |  | 5599.00 |



Sound Reinforcement

| Make/ Model | Frequency Response | $\begin{aligned} & \text { Impe- } \\ & \text { dance } \end{aligned}$ | $\begin{aligned} & \text { Power } \\ & \text { (RMS) } \end{aligned}$ | Sensitivity dB | Drivers | Enclosure Style | Approx. Dim. <br> HxWxD | Weight Pounds | Price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Community |  |  |  |  |  |  |  |  |  |
| CSX25S2 | 70-18k | $8 \Omega$ | 100W | 97.5 | 12"-W/PH horn | Blk. carpeted wood | $18.25 \times 15 \times 13.5$ | 38 | \$418.00 |
| CSX35S2 | 60-18k | $8 \Omega$ | 150W | 99.5 | $15^{\prime \prime}$-W/PH horn | Blk. carpeted wood | $23.75 \times 17.25 \times 13.25$ | 48 | \$499.00 |
| CSX52S2 | 40-18k | $4 \Omega$ | 200W | 98 | $15^{\prime \prime} \mathrm{W} / 6.5-\mathrm{M} / \mathrm{PH}$ horn | Blk. carpeted wood | $33.5 \times 18 \times 18$ | 88 | \$915.00 |
| CSX57S2 | 40-18k | $4 \Omega$ | 300w | 102 | $2 \times 15$ "-W/1"-CD/PH horn | Blk. carpeted wood | $33.5 \times 26.75 \times 8$ | 115 | \$1,049.00 |
| Electro-Voice |  |  |  |  |  |  |  |  |  |
| SX100 | $80-25 \mathrm{k}$ | $8 \Omega$ | 200W | 99.5 | 12"-W/1"-CD$12 \mathrm{l}-\mathrm{W} / 1{ }^{\prime \prime}-\mathrm{CD}$ | Molded Polymer Wedge Molded Polymer Wedge 100 | $\begin{aligned} & 23 \times 17 \times 12.25 \\ & 23 \times 17 \times 12.25 \\ & 12^{*}-\mathrm{W} / 1^{\prime} \mathrm{CDB} \end{aligned}$ | $\begin{gathered} 32 \\ 30 \\ \text { carpete } \end{gathered}$ | $\begin{aligned} & \$ 692.00 \\ & \$ 906.00 \end{aligned}$ 17-ply fir |
| SX200 | 80-25k |  | $\begin{gathered} 300 \mathrm{~W} \\ 72-20 \mathrm{k} \end{gathered}$ | 101.5 |  |  |  |  |  |
|  |  |  |  | $8 \Omega$58 | $300 \mathrm{~W}$ |  |  | carpete | 17-ply fir |
| Galaxy Audio |  | Pro 2 <br> Gray/N | Px15.6 |  | \$926.00 |  |  |  |  |
| JBL |  | $\begin{aligned} & \text { Pro 2 } \\ & \text { Gray/V } \end{aligned}$ | $\begin{gathered} 40-18 \mathrm{k} \\ \mathrm{ht} . / \mathrm{Blk} / \varnothing \end{gathered}$ | $\begin{gathered} 8 \Omega \\ \text { Qak/Walnu } \end{gathered}$ | $\begin{gathered} 200 \mathrm{~W} \\ 19 \times 27 \times 13.5 \end{gathered}$ |  | $\begin{gathered} 15^{\prime \prime}-\mathrm{W} / 1.5 "-\mathrm{T} \\ \$ 699.00 \end{gathered}$ |  |  |
| Control 8SR | 70-16k | $4 \Omega$ | 175W | 9297 | $\begin{gathered} 8 "-W / 1 "-C D \\ 12^{\prime \prime}-\mathrm{W} / 1.5 "-C D \end{gathered}$ | Molded Polymer Foam | $\begin{gathered} 15 \times 10 \times 9 \\ 24 \times 17 \times 12 \end{gathered}$ | 12.5 | \$318.00 |
| Control 12SR | 55-16k | $8 \Omega$ | 200w |  |  | Molded Thermo Plastic |  | 4.4 | \$996.00 |
| Control 23 | 85-22k | $8 \Omega$ | 50w150w | 86 | $3.5 " 90^{\circ}$ horn | Paintable/weather resistant | $7.6 \times 5.5 \times 4.4$ | 4 | \$98.00 |
| Control 25 | 80-16k | $8 \Omega$ |  | 88 |  | Paintable/weather resistant |  | 5 |  |
| Control 28 | 60-16k | $8 \Omega$$8 \Omega$ | $\begin{aligned} & 175 \mathrm{~W} \\ & 125 \mathrm{~W} \end{aligned}$ | 92 | $5.25^{\prime \prime} 90^{\circ}$ horn $8^{\prime \prime} 90^{\circ}$ horn | Paintable/weather resistant Molded Polymer Plastic | $\begin{aligned} & 15 \times 11 \times 8.6 \\ & 19.4 \times 14 \times 12 \end{aligned}$ | 1220 | \$221.00 |
| EON 10 | 70-15k |  |  | $\begin{gathered} 92 \\ 100 \end{gathered}$ | $10^{\circ}-\mathrm{W} / 1^{\cdots-C D}$ |  |  |  | \$469.00 |
| EON 15 | 60-15k | $8 \Omega$ | $\begin{aligned} & 125 \mathrm{~W} \\ & 250 \mathrm{~W} \end{aligned}$ |  | $\begin{gathered} 15^{\prime \prime}-\mathrm{W} / 1.75^{\prime \prime}-\mathrm{CD} \\ 18^{\prime \prime}-\mathrm{W} \end{gathered}$ | Molded Polymer Plastic Molded Polymer Plastic | $19.4 \times 14 \times 12$ | 3692 | \$599.00 |
| MR918 | 35-4.5k | $\begin{aligned} & 8 \Omega \\ & 8 \Omega \end{aligned}$ | $\begin{aligned} & \text { 250W } \\ & 300 \mathrm{~W} \end{aligned}$ | $\begin{aligned} & 100 \\ & 100 \end{aligned}$ |  | Tolex covered OSB | $27 \times 17.5 \times 16.6$ $41 \times 28 \times 18$ |  | $\mathbf{\$ 7 6 9 . 0 0}$$\$ 639.00$ |
| MR922 | 60-17k |  | $\left\{\begin{array}{c} 250 \mathrm{~W} \\ 250 \mathrm{~W} \\ 38-17 \mathrm{k} \\ 18110 \end{array}\right.$ | 100 | 12"-W/2"-CD | Tolex covered OSB | $23 \times 17 \times 11$ | 49 |  |
| MR925 | 60-17k | $\begin{array}{\|c\|} 8 \Omega \\ 8 \Omega \\ \text { MR92 } \end{array}$ |  | 101 | 15"-W/2"-CD | Tolex covered OSB | $26 \times 19.5 \times 14$ | 57 | \$699.00 |
|  |  |  |  | $8 \Omega$ | 250W | 102 | $12 \times-\mathrm{W} / 2 \mathrm{\prime}$ - CDTo | ex cover | d OSB |
| Klipsch |  | $\begin{gathered} 41 \times 28 \\ \text { MR93 } \\ 889.00 \\ 8 \Omega \end{gathered}$ |  | $\begin{gathered} \$ 839.00 \\ 8 \Omega \end{gathered}$ | $\begin{gathered} 250 \mathrm{~W} \\ 18^{\prime \prime}-\mathrm{W} / 10^{\prime}-\mathrm{M} / 2 "-\mathrm{CD} \end{gathered}$ | $100$ <br> Tolex covered OSB | $15^{\prime \prime}-\mathrm{W} / 8^{\prime \prime}-\mathrm{M} / 2^{\prime \prime}-\mathrm{CD}$ |  |  |
| 28x28×18 | 90 |  | $\left\{\begin{array}{c} 38-18 \mathrm{k} \\ 250 \mathrm{~W} \end{array}\right.$ |  |  |  |  | Tolex co | cred OSB |
| MR938 | 38-18k |  |  | 100 |  |  | $32 \times 28 \times 18$ | 99 | \$1,035.00 |
| Ramsa |  | KP201 | IA50-20 | $8 \Omega$ | 125W | 96 | 12"-W/2"-CD/1"-T | Painted I | lywood |
| 22×16×13 | 38 $65-20 k$ |  |  |  |  |  |  |  |  |
| KP250IIA | 65-20k | $\left.\left\lvert\, \begin{array}{c} 8 \Omega \\ K P 301 \\ 32.5 \times 2 \end{array}\right.\right]$ | $\left\|\begin{array}{c} 250 \mathrm{~W} \\ \text { IA45-20 } \\ \times 1782 \end{array}\right\|$ | $\begin{gathered} 102 \\ 8 \Omega \\ \$ 889.00 \end{gathered}$ | $\begin{gathered} 12 "-\mathrm{W} / 2 "-\mathrm{CD} / \mathrm{I}-\mathrm{T} \\ 400 \mathrm{~W} \end{gathered}$ | Painted Plywood 101 | $\begin{gathered} 22 \times 16 \times 13 \\ 15^{\prime \prime}-\mathrm{W} / 2^{\prime \prime}-\mathrm{CD} / 1^{\prime}-\mathrm{T} \end{gathered}$ | $\begin{array}{\|c\|} 49 \\ \text { Painted } \end{array}$ | $\begin{gathered} \$ 689.00 \\ \text { lywood } \end{gathered}$ |
| Tannoy |  |  |  |  |  |  |  |  |  |
| Yamaha |  | $\begin{gathered} \text { WS-A } \\ 16.5 \\ 8 \Omega \end{gathered}$ | 065-18k $\$ 360.00$ 125W | $\begin{aligned} & 8 \Omega \\ & 98 \end{aligned}$ | $\begin{gathered} 80 \mathrm{~W} \\ 12 "-\mathrm{W} / \mathrm{I} "-\mathrm{CD} \end{gathered}$ | 92 | $15.5 \times 22 \times 10.75$ | Ided Re:$23$ | $\begin{gathered} \text { in } 11 \times 7 \times 9.3 \\ \$ 995.00 \end{gathered}$ |
| WS-A200 | 70-20k |  |  |  |  | Molded Resin |  |  |  |
| System 600 | 52-20k | $8 \Omega$ | 160W | 90 | 6.5" Dual Concentric | 19 mm Particle Bd. | $8.6 \times 14.1 \times 10.5$ | 16.5 | \$695/pr. |



## Anchor

The A nchor Liberty $\mathbf{4 5 0 0}$ from Anchor Communications, is a powerful, portable sound system which converts from efficient voice projection to a full-range. high fidelity with a simple flick of a switch. This unique product works as well indoors as outdoors. and with or without AC power.

| MPA-4500 | Dual Function Sound System (AC operable only) | $\mathbf{\$ 1 . 0 5 0 . 0 0}$ |
| :--- | :--- | ---: |
| MPB -4500 | Dual Function Sound System (Battery \& AC operable ) | $\mathbf{\$ 1 . 1 7 5 . 0 0}$ |
| MPA-4500H | Dual Function Sound System with Heavy Duty battery installed | $\mathbf{\$ 1 . 2 2 5 . 0 0}$ |
| MP-4501 | Dual Function companion (unpowered) | $\mathbf{\$ 5 6 0 . 0 0}$ |



The Anchor Mini-Vox reaches crowds of over 200. This five-pound audio system can be hand-held or worn over the shoulder and is versatile cnough to tackle a variety of situations including guiding tours, controlling crowds and organizing forces during an emergency. You need one in your newsroom!

| PB-25 | Handheld Portable PA system | \$270.00 |
| :---: | :---: | :---: |
| PB-25SA | Same as above with Signal Alert button installed | \$295.00 |
| PB-25WB | Wireless Mani-Vox (order mic \& trans. separately) | \$400.00 |
| WH-1000 | Handheld microphone \& transmitter | \$180.00 |
| WL-1000 | Body-pack transmiter only (order mic separately) | \$140.00 |
| MIC-25 | Hindheld Mic with $6^{\circ}$ coll cord and 1/4" phone plug | \$49.00 |
| MIC-50 | Handheld Mic with $10^{\circ}$ coil cord and 1/4" phone plug | 549.00 |
| M1C.901P | Handheld low impedance mic w/20* cable and $1 / 4^{\prime \prime}$ phone plug | \$100.00 |
| L-M-30 | I.apel mic w/3.5mm mini-plug | \$38.00 |
| HBM- 35 | Economy heatband lype mic | \$60.00 |
| HBM-40) | Headiand lype mic | \$90.00 |
| RC-25 | Rechargeable Ballery Kit | \$89.00 |
| CC-2.5 | Nylon carrying bag w/storage compartment | \$37.00 |



The Anchor Porta-Vox runs with or without AC power, weighs only 25 pounds and is powerliul enough to provide erystal-clear sound to crowds up to 5,000 .

| PB-500 | Batery operated portable P.A. System | \$975.00 |
| :---: | :---: | :---: |
| PB-5001V | Wireless Porta-Vox (order mic and trans. separately) | \$1.225.00 |
| WH.5S | Handheld mic/transmitter w/Shure SM-58 mic element | \$360.00 |
| WB-II | Body-pack transmitter only | \$255.00 |
| CM-60 | CollarMic ${ }^{\text {P3 }}$ for use with WB-II | \$140.00 |
| HBM-60 | Headband type mic for use with WB-II | \$100.00 |
| SP-5\%0 | Speaker pack for Porna-Vox | \$530.00 |
| RC-16 | Replatement charger / AC adapter | \$18.00 |

## Lectrosonics

The Lectrosonics Long Ranger III is the highest output portable PA system of its lype. The built-in wireless microphone, rechargeable power supply, and high audio output the amplifier produces an honest 33 Watts RMS) produce enough audio output to cover an area the size of a football field. It operates wa rechargeable battery pack or external 12 Volt power
$\$ 1,440.00$



OHM offers a complete, compact home theater system featuring 3 choices of satellite speakers and 3 choices of sub-woofers. The SAT-1 speakers are lower cost and lower power rating, making them ideal for rear channel speakers. The SAT-2's are built for perfect stereo imaging. faithful sound reproduction and 150 W of power in a 7 lb . die cast metal structure you can hold in your hand. A shielded version is available for center channel audio. OHM also offers 3 subwoofers: SB-1 for music and small to medium size rooms: SB- 2 for theater effects in medium to large rooms: and SB-4, the only subwoofer providing bass in all four channels.

| SAT-1 | $\$ 220 /$ pr. | SAT-2 | $\$ 430 /$ pr. | SAT2C | $\mathbf{\$ 2 5 0} / \mathrm{ea}$. | SB-1 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| SB-2 | $\$ 550.00$ | SB-4 | $\$ 850.00$ | SAT-1 mounting kit | $\$ 35 /$ pr. |  |

OHM has been working with the Walsh patented invented cone driver technology for 20 years and has managed to produce the Walsh 300 . which sounds virtually identical to the top of the line Walsh 5 for one half the cost The inverted driver with its $45^{\circ}$ crossfired super tweeter not only produces full room stereo without a center channel, but also phase-coherent, tume-aligned audio that no multi-driver system could hope to accomplish. Standing about 4' tall and about 1' wide they don't just sound good, but look great 100. Choose from oak, walnut or black vencer.

| Walsh 100 MKII | $\$ 1,395 / \mathrm{pr}$ | Walsh 200MKII | $\$ 2.595 / \mathrm{pr}$ | Walsh 300 MKII | $\$ 3,995 / \mathrm{pr}$ |
| :--- | :--- | :--- | :--- | :--- | :--- |



## NEAR Weather Proof

New England Audio Resource (NEAR) is the only speaker company in the world to design and
manufacture their own all metal drivers. Metal drivers are faster than paper or polypropylene cones. they don't flex and warp (causing distortion), and they are weather-proof

|  |  | W/ Backies |  |
| :---: | :---: | :---: | :---: |
| AELI.1A | $51 / 4^{\prime \prime}$ Metal cone, molded rust-free cabinet | \$159.00 | \$175.00 |
| AELI.2A | Same as above but coaxial | \$179.00 | \$195.00 |
| AELI.4A | 2-Way. $51 / 4{ }^{\prime \prime}$ metal cone LF. 1.1 " titanium HF | \$229.00 | \$249.00 |
| AELI.5A | 2-Way, $61 / 2^{\prime \prime}$ metal cone LF. $1.1{ }^{\prime \prime}$ titanium HF, sloped front | \$299.00 | \$315.00 |
| AELI.6A | 2-Way. $61 / 2^{\prime \prime}$ metal cone LF. I.I" titanium HF |  |  |
|  | Hi-density cabinet w/sealed enclosure | \$299.00 | \$319.00 |
| AEL2.01C) | 2-Way $61 / 2^{\prime \prime}$ metal cone LF, 1.1" titanium HF |  |  |
|  | Hi-density fiberglass cabinet | \$599.00 |  |
|  | Optional Rack Mounts priced from $\$ 32$ to $\$ 40$ a pair. |  |  |



NEAR makes a full line of home speakers, from mini-monitors to clegant foor standing models ranging from \$399/pr. 10 \$7,000/pr.

## ADC Jack \& Plug Cleaning

## Recommended Procedure for Cleaning ADC Audio and Video Jacks

Cleaning of ADC audio or video jacks can be accomplished ONLY by insering and withdrawing a clean plug into the jack 5 or 6 times. This causes a mechanical wiping action which cleans both the springs that contact with the plug and the switching contacts. Burnishing tools are NOT to be used as this submits the jack springs to extreme wear and can cause intermittents. Under no circumstances should any liquids or gases be sprayed or otherwise applied inte your jacks! This includes any contact cleancr, freon, compressed air, alcohol, mek or toltuence. Any of these chemicals could ruin your jacks.


## Recommended Procedure for cleaning ADC unplated Brass Audio Plugs

1~ Moisten a clean cotton cloth, with clean tap water
2- Sprinkle a small amount of non-chlorine cleanser ( or a similar mild abrasive) on the moistened wipe.
3- Wrap the cloth around the brass area of the plug and rotate
4- Rinse off the plug thoroughly in clean tap water and dry. Caution: DO NOT immerse the plug shell in water!


## ADC Audio Products

The ADC BJF Mark II incorporates the best features of the Pro Patch MKI! into the BJF series, making the conventional patchbay quite unconventional. Your cabling and connections are secure-the unique chassis and the strain relief design see 10 it . Downtime is minimized because the front panel on all BJF MKIIs is removable from the front. providing easy access to the jacks.
The RJF Patchbays listed below have $4^{\prime}$ cable harnesses. BJF Patchbays are avalable with $3^{\prime}, 4-8^{\prime}, 10^{\prime}, 12^{\prime}, 15^{\prime}, 20^{\circ}$ and $25^{\circ}$ harnesses. Add $\$ 12$.00/ft to your price and $3-4$ weeks lead time

| MKII BJF Patchbays, Longframe (t/4") $1.75 " h, 2 \times 24$ |  |  |
| :--- | :--- | :--- | :--- |
| BJFI03-4MKII | Ultra Pattch normals Brought out | $\$ 967.00$ |
| BJF107-MKII | Ulira Patch normals Strapped | $\$ 767.00$ |
| MKII B.JF Patchbay, Longframe (1/4") $3.5 " h, 2 \times 24$ |  |  |
| BJF203-4MKII | Ulira Patch normals Brought out | $\$ 967.00$ |
| BJF207-4MKII | Ulira Patch normals Strapped | $\$ 767.00$ |

MKII BJF Patchbay, Bantam 1.75'h, $2 \times 48$

| BJF303-4MKII | Ulira Patch normals Brought out | $\mathbf{\$ 1 . 5 4 8 . 0 0}$ |
| :--- | :--- | :--- |
| BJF307-4MKII | Ultra Patch normals Strapped | $\mathbf{\$ 1 . 4 0 1 . 0 0}$ | MKII BJF Patchbay. Bantam $3.5^{\prime} \mathrm{h}, 2 \times 48$ BJF403-4MKII Ultra Patch normals Brought out $\$ 1.548 .00$ BJF407-4MKIl Ultra Patch normals Strapped $\quad \$ 1,401.00$

ADC Digital Audio Jacklields are specifically designed for patching AES/EBU digital audio signals. The fully normalled or half normalled panels are used to patch AES digtal audio signals up to a total circuat length of 300 feet. As with standard ADC audio products, the patented QCP split cylinder contact is utilized for all wire teminations. This systems chsures the highest quallity by providing a secure, gas tight connection that can be reconligured up to 200 times or replaced if damaged. This insulation displacement contact drastically reduces wiring time by eliminating wire stripping and soldering while providing easily identifiable circuit aceess.

| Digital Pro Patch |  |  |
| :---: | :---: | :---: |
| DAL3-I4MKIINS | $2 \times 24 \text { rows }\left(3.5^{\prime \prime} \times 19 \times 14^{\prime \prime}\right) \text {. }$ <br> longframe jacks, normals strapped | \$951.00 |
| DAL3-14MKIIHN | $2 \times 24 \text { rows }\left(3.5^{\prime \prime} \times 19 \times 14 "\right)$ <br> longframe jucks, half nomalled | \$951.00 |
| DABI-I4MKIINNI48 | $1 \times 48 \text { row }\left(1.75^{\circ} \times 19 \times 14^{\prime \prime}\right)$ bantam jacks, no normals | \$880.00 |
| DAB3-14MKIIHN | $2 \times 48 \text { rows }\left(3.5^{\prime \prime} \times 19 \times 14^{\prime \prime}\right)$ banam jacks, half normalled | \$1.467.00 |
| DAB3-I4MKIINN | $2 \times 48 \text { rows }\left(3.5^{\circ} \times 19 \times 14^{\prime \prime}\right)$ <br> bantam jacks, no normals | \$1.362.00 |
| DAB3-14MKIINS | $2 \times 48 \text { rows }\left(35^{\circ} \times 19 \times 14^{\prime \prime}\right)$ <br> bantam jacks, normals strapped | \$1,467.00 |
| DALI-14MK1126ENS | $2 \times 26$ rows ( $1.75^{\prime \prime} \times 19 \times 14^{\prime \prime}$ ) longtrame jacks, normals strapped with ELCO connectors 90 Pin | \$1,040.00 |



Digital Broadcast Jack fields ( 4 ' cable harness to QCP termination)

| DAL107-4MKJI | $2 \times 24$ rows (1.75*). longframe jacks, normals strapped | \$983.00 |
| :---: | :---: | :---: |
| DAL207-4NKII | $2 \times 24$ rows ( $3.5 \%$ ) longtrame jacks. normals strapped | \$983.00 |
| DAB307-4MKII | $2 \times 48$ rows ( $1.75^{*}$ ), bantam jacks, normals strapped | \$1.617.00 |
| DAB407-4MK11 | 2 x 48 rows ( 3.5 "). hantam jacks, normals strapped | \$1.617.00 |

The ADC Connectorized Patchbays offer the maximum in installation thexibility for systems built at diflerent lecations or installations that are moved frequently. Because all the circuits are combined on multi-pin comectors, set up and tear down is fast and convenient. Cable harnesses of varying lengths can be substituted at difterent locations. In addition, cable harnesses can be pre-built on the bench instead of wiring in the racks, saving valuable installation time. Available in longframe or bantam versions; half or fully normalled; with 3-pin. 38 -pin, 50 -pin or 90 pin connectors; and I.C.O.N breakout systems.

## ADC Audio Products



## ADC Bantam Audio Pull Out Panel (New)

ADC has developed a medified broadeast jackfield that incorporates 2 rows of 48 bantam jacks in a one rack unit panel that features a pull out drawer which houses the patented QCP punch down block for terminating audo circuits. This unit is fully normalled and was desiened specifically for use in mobile trucks or where ever space is at a premiun. 2RU and longframe ( $.25^{\prime \prime}$ ) versions are awailable upon request

BPOPI-NO or BPOP2-NO
$\$ 1,653.00$

The ADC I-BJF is a series of non-terminated patchbays designed to be terminated on I.C.O.N. wall or rack mount panels. The umbilical of the 1-BJF features 24 pair cable for termination of inpus and outputs to the bay.

Longframe- $3.5^{*}$ Panel with $2 \times 24$ array. X Suffix denotes umbilical length in feer. Base Price shown is for $8^{\prime}$ umbilical. Add $\$ 12 / f$ to the suggested list price for umbilicals longer than 8

| I-BJF-3NO-X | Normals bruught out to backplane of chassis | \$869.00 |
| :---: | :---: | :---: |
| I-BJF-3NS-X | Normals strupped at jacks | \$719.00 |
| I-BJF-3HN-X | Half normalled. Top row mult, buttom row fully normalled | \$719.00 |
| Bantam-1.75" Panel with $2 \times 48$ aray. X Suffix denotes umbilical length in fect. Base Price shown is for $8^{\prime}$ umbilical. Add $\$ 20 / \mathrm{ft}$ to the suggested list price for umbilicals longer than $8^{\circ}$. |  |  |
| I-BJF-BNO-X | Normals brought out to backplane of chassis | 1.369.00 |
| I-BJF-BNS-X | Normals strapped a jacks | \$1.219.00 |
| I-BJF-BHN-X | Half normalled. Top row mult, bottom row fully normalled | \$1.219.00 |



I-WS


ADC I.C.O.N. Rack Mount System is an audio cable management system engineered for broadcast, production, recording and professional audio applications. The I.C.O.N. is used as the central termination and distribution point for the cabling in an audion system. All zudio equipment cabling is terminated on the I.C.O.N and signald routhng is accomplished by cross-connecting cable terminations at this central point rather than point to point interconnections. This saves time and cable, and allows for signal path changes and equipment additions to be made quickly and easily.

## I.C.O.N. I-96 System

| I-96 | 96 circuit termination paned | \$200.00 |
| :---: | :---: | :---: |
| 1-FPD | Fanning Panel for routing cables horizomally | \$75.00) |
| 1-FL | Vertical filler pane] | \$50.00 |
| I-FPB | Fanning Panel for routing cables horizontally and vertically | \$105.00 |
| I-VR | Ventical ring bracket | \$31.00 |
| I-ET3 | Horizontal express trough-3.5" | \$70.00 |
| I-ET5 | Horizontal express trough - $5.25^{*}$ | \$70.00 |
| I.C.O.N. I-WS Systems |  |  |
| I-WS | Terminats and cross connects 192 balanced audio circuits | \$599.00 |
| I-WSET | Express trough | \$70.00 |

## I.C.O.N. I-24 Systems

| I-WA | Wall mount frame fitted with four I-24A blocks-Common Gnd. | $\$ \mathbf{8 8 0 . 0 0}$ |
| :--- | :--- | :--- |
| I-WB | Wall mount frame fitted with four I-24B blocks | $\$ 660.00$ |
| I-WFP | Wall mount fanning panel | $\$ 70.00$ |
| I-24A | Terminates and cross connects 24 balanced audiu circuits. |  |
|  | Shield terminals multed. Left and right arrays multed. | $\$ 128.00$ |
| I-24B | Same as I-24A but without multed shicld terminals | $\$ 120.00$ |
| I-24C | Same as I-24B - But unjumpered | $\$ 110.00$ |
| I-24R | I-24 rack mounting rails | $\$ 24.00$ |



## ADC Audio Products



ADC has designed the Pro Patch Mark Il pancls front and back 10 deliver more time and worh savings. In front. circuit desggnations are neat and consentent: and in back. the terminal layout affords faster installation and more flexibility of conliguration.

Pro Patch Sterco, Longframe (1/4"). 2 : 24

| PPS3-14NKIN: | $35^{\prime \prime} \times 14^{\prime \prime}$ normals brought out | \$967.00 |
| :---: | :---: | :---: |
| PPS3-18MKIINO | $35^{\prime \prime} \times 18^{\prime \prime}$, normals brought out | \$967.00 |
| PPS3-1+MKIINS | $35^{\prime \prime} \times 14^{\prime \prime}$, mommals strapped | \$794.00 |
| PPS.3-18MKIINS | $3.5{ }^{\prime \prime} \times 18{ }^{\prime \prime}$, nommals strapped | \$794.00 |

Pro Patch Bantam
PPBI-1.1MKIINN $1.75^{\circ} \times 14^{\prime \prime} .1 \times 48$ no normals $\quad \$ 1.1+4.00$ PPB3-I.AMKIINS $3.5^{\circ} \times 14^{\prime \prime}$ Normals strapped, $2 \times 48 \$ 1.250 .00$ PPI33-IANKIIHN $35^{\circ} \times 14^{\prime \prime}$. half normalled, $2 \times 48 \quad \$ 1,250.00$

| Pro Patch Audio, Longrame (1/4"), $2 \times 24$ |  |  |
| :---: | :---: | :---: |
| PPAI-IHMKILNO | $1.75^{\prime \prime} \times 14^{*}$. normals brought out | \$900.00 |
| PPA3-14MKIINO | 3.5 " $\times 14^{\prime \prime}$, normals brought out | \$900.00 |
| PPA3-18MKIINO | 3.5 " $\times 18^{\prime \prime}$. normals brought out | \$900.00 |
| PPAI-1+AKIINS | $1.75^{\prime \prime} \times 14^{\prime \prime}$. normals strapped | \$7.34.00 |
| PPA3-1+MKIINS | $35^{*} \times 14^{*}$. normals strapped | \$7.34.00 |
| PPA3-18MKIINS | $35^{\prime \prime} \times 18^{\prime \prime}$, normals strapped | \$734.00 |



Designation Strip

Designation Strips

| SAILS-3 | Labels for 3.5" Longframe Pro Patch. BJF \& PPV-24MKII | \$7.00 |
| :---: | :---: | :---: |
| SAIL_S-S | Latels for Stereo Pro Patch | \$10.00 |
| SAlISS-I | Labels for 1.75* Longframe Pro Patch or BJF | 55.00 |
| SAILS BBJF | Labels for Banam BJF | \$10.00 |
| SAILS-BPP | Labels for Bantam Pro Patch | \$10.00 |
| SAILS.V | Labels for VAMP | \$10.00 |
| SAILS S9 | Labels for DPC chassis | \$5.00 |
| D. 3 | Designation kit for 3.5" Longframe Pro Patein. BJF. PPV-24MKII | \$15.00 |
| D-S | Designation kit for stereo Pro Patch | \$15.00 |
| D-1 | Designation Kit for $1.75{ }^{*}$ Longframe Pro Patch. BJF | \$15.00 |
| D-BBJF | Desegnation Kıt for Bantam BJF | \$15.00 |
| D-BPP | Designation Kit for Bantam Pro Patch | \$15.00 |
| D.2PP1 | Designation Kit for PPI2224 \& 26, $3.5{ }^{\circ}$ series | \$15.00 |
| D-IPPI | Destgnation Kil for PPII22 $+\& 261.75^{\circ}$ series | \$15.00 |

Patch Kit Patchhay Panel chassis design offers complete built-in cable support and protection for your jacks. The PJ339-L jack used in the Longframe Path Kit features an offset ground lug for casy bussing of shield terminals.

| P-KIT-I | Patch Kit. $1.75^{*}$ Loongrame $2 \times 24$ | \$229.00 |
| :---: | :---: | :---: |
| P-KIT-1A | Patch Kit. 1.75" l_ongframe $2 \times 26$ | \$249.00) |
| P-KIT-ISI | Patch Kit. Stereo $2 \times 24$ | \$229.00 |
| P-KIT-3 | Patch Kit, 3.5* Longframe $2 \times 24$ | \$229.00 |
| P-KIT-3A | Pateh Kit, 3.5" Loneframe $2 \times 26$ | \$249.00 |
| P-K1T-3S | Pateh Kit, 3.5"Stereo $2 \times 24$ | \$229.00 |
| P-KIT-13 | Patch Kil. 1.75* Bantam $2 \times 48$ | \$305.00 |
| P-KIT-B1 | Path Kit. 3.5" Bamtam $2 \times 48$ | \$.305.00 |



## ADC Audio Products



## Pro Patch Cords - Nickel Plated

Long Frame Single

| Length Red | Green | Bluc | Black | Price |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $1^{\circ}$ | R1 | G1 | B1 | BK1 | $\$ 21.43$ |
| $2^{\circ}$ | R2 | G2 | B2 | BK2 | $\$ 22.23$ |
| $3^{\circ}$ | R3 | G3 | B3 | BK3 | $\$ 23.04$ |
| $4^{\circ}$ | R4 | G4 | B4 | BK4 | $\$ 23.84$ |
| $6^{\circ}$ | R6 | G6 | B6 | BK6 | $\$ 25.46$ |

Conventional Patch Cords - brass plugs. gray cable

| Length | LF | Price Single | LF | Price Dual | Bnt | Price <br> Single | Bnt | Price <br> Dual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1 \cdot$ | PJ81 | \$22.72 | PJ171 | \$47.63 | PJ712 | \$12.47 | PJ762 | \$19.52 |
| $2 \cdot$ | PJ82 | \$23.79 | PJ172 | \$48.02 | PJ71. | \$13.02 | PJ764 | \$20.03 |
| $3 \cdot$ | PJ83 | \$24.77 | PJ173 | \$48.47 | PJ716 | \$13.51 | PJ766 | \$21.17 |
| $4^{\circ}$ | PJ84 | \$25.74 | PJ174 | \$48.70 | PJ718 | \$14.02 | PJ768 | \$22.03 |
| 6. | PJ86 | \$27.60 | PJ176 | \$50.59 | P572? | \$15.04 | PJ772 | \$23.68 |
| Pro Patch Cord H |  |  | PPH | \$36.00 |  |  |  |  |


| Long Frame Dual |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Length | Red | Green | Blue | Black | Price |
| 2 | R22 | G22 | B22 | BK22 | \$46.30 |
| 3 | R32 | G32 | B32 | BK32 | \$47.11 |
| $4{ }^{\circ}$ | R42 | G42 | B42 | BK42 | \$47.92 |
| $6{ }^{\circ}$ | R62 | G62 | B62 | BK62 | \$49.53 |

Bantami Single

下New $\overline{\mathrm{Q}} \overline{\mathrm{B}}-\mathbf{2 T}$ has longer shaft with non-orienting tip for Quicker, easier punch-downs!

|  | QCP Tools |  |  |
| :---: | :---: | :---: | :---: |
|  | QB-2 | Impact tool | \$75.00 |
|  | QB-2T | Replacement tip for QB-2 \& Q915 | \$21.00 |
|  | Q905 | Replacement tip for QB-I \& Q914 | \$48.30 |
|  | QRK-25 | QCP spare pans kit | \$30.00 |
|  | Q115 | Manual wire insention tool | \$27.30 |
|  | Q150 | Rack mountable tool holder | \$35.70 |
|  | SLVG-1 | Sleeving kit, includes $100 \mathrm{pcs} 25^{*}$, white | \$3.00 |

ADC Fiber Systems

The ADC FL2000 (FL2) series of fiber optic products is designed specifically for the unique requirements of the enterprise network. Economical and thexible, the FL2 system is fully adaptable for large or small main distribution frame (MDF). intermediate distribution frame (IDF) or telephone closet (TC) applications. Flexible enough for a wide variety of customer requirements, the FL2 system provides termination. splicing and storage capabilities for in-building cables. outside plant cables and fiber optic terminal (FOT) equipment patch cords. The FL2 system's modular design provides maximum flexibility to satisfy both current needs and future growth requirements. A varicty of options and accessories ensures compatibility with existing optical equipmen.

## Features:



- FL2000 is a complete line of modular panels and boxes, developed for cabinet, rack and wall mounting
- The FL2000 system accommodates the Value-Added connector modules. adding flexibility and functionality to the
optical transport system. Splitters, wavelengh division multiplexers (WDMs) and other optical components can be easily incorporated.
- The modular FL2 6 pak plug-ins are intended for all FL2 panels and boxes and can be ordered as neceded.

They are available in all connector styles.

- ADC's patented removable angled retainers allow easy access for single fiber maintenance.
- ADC offers a full line of optical components to complete your installation, including optional locks.
- Superior vertical cable protection and management is provided.
- The FL2 rack mount panels are hinged on the left front side, allowing full access to the rear of the front plate and the interior of the panel.
- Rack mount panels are equipped with mounting brackets to provide 5 " recess mounting.

Mounting brackets are available for 1 " or 2 " recess for flush mounting.

- Rack mount panels are equipped with mounting brackets to provide 19" EIA rack or cabinet mounting. Optional brackets are available to accommodate $23^{\prime \prime}$ rack or cabinel mounting.
- Rack mount panels can also be wall mounted.
- The FL2 splice panels are available in 48 fiber and 144 fiber configurations.
- The FL2 splice deck offers a simplified and efficienı means of fiber splice protection and fiber storage.


## ADC Video Products



## ADC Time Delayed Patching

The length of video cable in a set of video circuits directly affects the timing of those circuits relative to each other. The difference of the length of a patch cord inserted in a video circuit can create a substantial timing error. When you use ADC's Video Pro Patch MKII panel with 3' ADC Pro Patch Video patch cords, no delay errors occur because of the delay compensation circuitry internal to each unit.

| PPV-2+MKII | Pro Patch Video 24 Circuits. delay compensated 31/3" $\mathrm{H} \times 18^{\circ} \mathrm{D}$ | \$2.400.00 |
| :---: | :---: | :---: |
| PPV-RPL-KIT | Circuit replacenient kit (each kit replaces 1 circuit) | \$110.00 |

Analog and Serial Digital Video Panels
The Professional Viden (PV) panels feature a solid alummum thassis with an msulated lace plate. a top cover, side brackets, and a cable tray. The Video Patch Pamel (PPI) series utidizes a standard one or wo rach spate insulated alumonum faceplate with an attathed phenolic panel. This design has evolved into the industry standard.


PPI Video Blank Patch Panels

| PPII22-RS | $1.75{ }^{\circ}$ p,anel, $2 \times 24$ circuit | \$150.00 |
| :---: | :---: | :---: |
| PPI1226RS | 1.75* palled, $2 \times 26$ circuia | \$155.00 |
| PPI2224RS | 3.50 pamel, 2x2t circum | \$150.00 |
| PPI2226RS | $3.5 *$ panel. 2 x 26 circuit | \$155.00 |
| PPV Prof'essional Video Blank Pancls |  |  |
| PV22+13 | 3.50 pancl. $2 \times 2+$ circuit | \$125.00 |
| PV226B | $35^{\circ}$ pancl. $2 \times 26$ circuit | \$135.00 |

## PPI Video Panels with S.J2000N Jacks

| PPII224RS-N | $1.75{ }^{\prime \prime}$ pancl, $2 \times 24$ circuit | \$1,007.00 |
| :---: | :---: | :---: |
| PPII226RS-N | $1.75^{\prime \prime}$ pancl. $2 \times 26$ circuit | \$1,080.00 |
| PPI2224RS-N | 3.5 pancl. $2 \times 24$ circuit | \$1.007.00 |
| PPI2226RS-N | 3.5" panel. $2 \times 26$ circuia | \$1,0.38.45 |

PPV Pro Video Panels with S.J2000N Jacks

| PV224B-N | $3.5^{\circ}$ panel. $2 \times 24$ circuit | $\$ 1.007 .00$ |
| :--- | :--- | :--- |
| PV226B-N | $35^{\circ}$ panel. $2 \times 26$ circuit | $\$ 1.080 .00$ |
| PD |  |  |

PPI Video Panels with S.J2000N-75 Jacks
PPII224RS-75N $1.75^{\circ \prime}$ pitmel. 2,24 circuit $\$ 1.114 .00$
PPII226RS-75N $1.75^{\circ \prime}$ pathel. $2 \times 26$ circuit $\$ 1.209 .00$
PP12224RS-75N $3.5^{\circ}$ partel. $2 \times 2+$ circuit $\quad \$ 1,114.00$

PPI2226RS-75N $3.5^{\circ}$ panel, $2 \times 26$ circalt $\$ 1.309 .00$
PPV Pro Video Pancls with SJ2000N-75 Jacks

| PV224B-75N | $3.5^{\prime \prime}$ pancl. $2 \times 24$ circuit | $\$ 1.114 .00$ |
| :--- | :--- | :--- |
| PV226B3-75N | $3.5^{\prime \prime}$ pancl, $2 \times 26$ circuit | $\$ 1,209.000$ |


C. A. P. S. Component Analog Patching System Loaded Patchbays, (3.5"x ${ }^{\circ}{ }^{\circ}$ )

| CV-8-N | 8RGB Groups with SJ2000N jacks | $\mathbf{\$ 1 . 0 7 4 . 0 0}$ |
| :--- | :--- | :--- |
| CV-8-N75 | 8RGB Groups with SJ2000N-75 jacks | $\mathbf{\$ 1 . 1 6 2 . 0 0}$ |
| CV-6-NS | 6RGB + Sync Groups with SJ2000N jacks | $\mathbf{\$ 1 . 0 7 4 . 0 0}$ |
| CV-6-N75S | 6RGB + Sync Groups with SJ2000N-75 jacks | $\mathbf{\$ 1 . 1 6 2 . 0 0}$ | Modular Patchbays. ( $3.5^{\prime} \times 19^{\circ}$ )



Note: For syne patchinge use an RGB patch cove and a smgle video path cord. Four prong path cords are not avalable


Component Analog Time Dclayed Patchbay
CPPVRGB Group delay compensated. $3.5^{\circ} \times 10^{\circ}$ (Use only' with 3' patch cords)
$\$ 2.451 .00$

ADC Video Products

Pro Patch Video Patch Cords


|  | Red | Green | Blue | Black | Price |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Video Patch Cords |  |  |  |  |  |
| $1^{\circ}$ | R1V | GIV | BIV | BKIV | $\$ 19.35$ |
| $2^{\circ}$ | R2V | G2V | B2V | BK2V | $\$ 20.02$ |
| $3^{\prime}$ | R3V | G3V | B3V | BK3V | $\$ 20.70$ |
| $4^{\circ}$ | R4V | G4V | B4V | BK4V | $\$ 21.38$ |
| $6^{\circ}$ | R6V | G6V | B6V | BK6V | $\$ 22.74$ |

Video to BNC Patch Cords

| $2^{\circ}$ | R2V-B | G2V-B | B2V-B | BK2V-B | $\$ 19.18$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $3^{\circ}$ | R3V-B | G3V-B | B3V-B | BK3V-B | $\$ 19.86$ |
| $4^{\circ}$ | R4V-B | G4V-B | B4V-B | BK $4 V-B$ | $\$ 20.54$ |
| $6^{\circ}$ | R6V-B | G6V-B | B6V-B | BK6V-B | $\$ 21.90$ |

BNC to BNC Patch Cords

| $2^{\prime}$ | R2V-B/B | $G 2 V-B / B$ | $B 2 V-B / B$ | $B K 2 V-B / B$ | $\$ 19.18$ |
| :--- | :--- | :--- | :--- | :--- | :--- | | $3^{-}$ | $R 3 V-B / B$ | $G 3 V-B / B$ | $B 3 V-B / B$ | $B K 3 V-B / B$ | $\$ 19.86$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| $4^{\circ}$ | R4V-B/B | $G 4 V-B / B$ | $B 4 V-B / B$ | $B K 4 V-B / B$ | $\$ 20.54$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $6^{\circ}$ | $R 6 V B / B$ | $G 6 V-B / B$ | $B 6 V-B / B$ | $B K 6 V-B / B$ | $\$ 21.90$ |



Video I.C.O.N.


$$
\begin{array}{|ll|}
\hline 12 " B N C & \text { Installation Tool } \\
\hline
\end{array}
$$




CJIOJIN Coax shorl body jack. BNC nickel \$10.25 CJ201IN Coax long body jack, BNC nickel $\$ 10.50$

 imalling, high data rate, dust sealed super viden jack. It olfiers $1>2 \mathrm{GHz}$ bandwidth and a true $75 \Omega$ circuit path patched and |normalled when used in concer with ADC's new CP1:75 coax iplug-terminated patch cords. Designed for use in applications like: HDTV, DTV, DI as well as allalog video transmission where high bandwidth and truc $75 \Omega$ integrity are paramount!
dbx


The dbx PB-48 is for the studio where there is a need to frequently change cable routing and patching. It gives you 48 TRS I/O patchpoints that are necessary when patching balanced signals or send/return signals on insert jacks. Each vertical pair of jacks is easily configurable to allow half-normalled operation. IU

| PB-48 | $\$ 179.95$ |
| :--- | :--- |

## Genther



Gentner Prewired Audio Patch Panels

All Gentmer bayfronts are made of phenolic (non conductive) black therinoset material, with sted mounting brackels. Jacks are Tip-Ring-Sleeve (TRS), with normals on the Tip and Ring connections. The cable is 22 gauge, stranded. twisted pair with shield and overall shicld. Standard cables are $5^{\prime}$ in length and exit the patch panel on the left as viewed from the rear.

|  | Normal brought out |
| :---: | :---: |
| \|'1'U- | "66" type punch block |
| 1 AB | Normals strapped at bay |
| 1 F | Gentner Flexiblock |
| TRB- | Top row normals are bridged |
| ${ }^{\text {S }}$ SP- | Gentner Superpatch |
| 'XT- | Christmas Tree (special order) |


| 24SR-TRS-BO-PU | \$659.00 | 24SR-TRS-BO-FB | \$759.95 |
| :---: | :---: | :---: | :---: |
| 48DR-TRS-AB-SP | \$959.00 | 48DR-TRS-AB-PU | \$899.00 |
| 48DR-TRS AB-FB | \$959.00 | 48DR-TRS-AB-XT | \$959.00 |
| 48DR-TRS-BO-SP | \$1,299.00 | 48DR-TRS-BO-PU | \$1.199.00 |
| 48DR-TRS BO-FB | \$1,299.00 | 48DR-TRS-BO-XT | \$1,299.00 |
| 48DR-TRS-TRB-SP | \$959.00 | 48DR-TRS-TRB-PU | \$899.00 |
| 48DR-TRS TRB-FB | \$959.00 | 48DR.TRS-TRB-XT | \$959.00 |
| 52DR-TRS-AB-SP | \$1,199.00 | 52DR-TRS-AB-PU | \$1.099.00 |
| 52DR-TRS AB-FB | \$1.199.00 | 52DR-TRS-AB-XT | \$1.199.00 |
| 52DR-TRS-BO-SP | \$1,399.00 | 52DR-TRS-BO-PU | \$1,299.00 |
| 52DR-TRS BO-FB | \$1,399.00 | 52DR-TRS-BO-XT | \$1.399.00 |
| 52DR-TRS-TRB-SP | \$1,199.00 | 52DR-TRS-TRB-PU | \$1.099.00 |
| 52DR-TRS TRB-FB | \$1,199.00 | 52DR-TRS-TRB-XT | \$1,199.00 |
| 96DR-TRS-AB-SP | \$1.799.00 | 96DR-TRS-AB-PU | \$1,699.00 |
| 96DR-TRS AB-FB | \$1.799.00 | 96DR-TRS-AB-XT | \$1,799.00 |
| 96DR-TRS-BO-SP | \$2.599.00 | 96DR-TRS-BO-PU | \$2,499.00 |
| 96DR-TRS BO-FB | \$2.599.00 | 96DR-TRS-BO-XT | \$2.599.00 |
| 96DR-TRS-TRB-SP | \$1,799.00 | 96DR-TRS-TRB-PU | \$1.699.00 |
| 96DR-TRS TRB-FB | \$1.799.00 | 96DR-TRS-TRB-XT | \$1,799.00 |






| SuperPatch/1 | One row, 160 terminal whwo slots per terminal, 2 wire/slot, 2U | $\$ 159.00$ |
| :--- | :--- | :--- | :--- |
| SuperPatch/2 | Two row, 320 termmal w/wo slots per terminal. 2 wire/slot, 34 | $\$ 249.00$ |

Gentner Versapatch II is a 2 U . chassis-enclosed stereo patch panel. It contains 48 tip-ring-sleeve jacks ofiset in pairs. configured in two rows.

| Versapatch I/FB-BO | Normals Brought Out | $\$ 1, \mathbf{3 4 9 . 0 0}$ |
| :--- | :--- | ---: |
| Versapatch II/FB-AB | Normals Jumpered at Bay | $\mathbf{\$ 8 9 9 . 0 0}$ |
| Versapatch II/FB-TRB | Half Normalled | $\$ 899.00$ |




Siemon offers over 20 different size blocks configured from 2 pair up to 250 pair per block. There are two basic series for all 66 blocks the M Series and the B Series. The M Series clips are closer together allowing for a greater packing density. The M and B acries are end-stackable, hut the M series stacks without tosing space between blocks. All the "plug-on" adapters and accessones are designed for use with the $M$ series

## Accessories

| $\overline{\text { S20B }}$ | Cable hanger, 1-3/4" diameter top x 3" high self contained wood screw | \$1.19 |
| :---: | :---: | :---: |
| S145 | Single hanger with front entry, and a base, 3-1/2" base to fromt |  |
|  | \& 3-1/8" verical lower hanger | \$3.25 |
| SB6 | Mounting bracket, for use with the B series blocks | \$6.95 |
| S89D | Mounting bracket. for use with the M series blocks | \$2.09 |
| SAI-1000 | Tin-plated Copper Alloy Clips, 2-position clips. 1000 per polybag | \$29.50 |
| SAI-100 | Tin-plated Copper Alloy Clips, 2-posilion clips. 100 per polyhag | \$3.95 |
| S714 | Autonatic impact tool w/66 blade | \$79.00 |
| S71401 | Spare blade for S714iool | \$23.75 |
| SBT | Manual punch down tool w/66 blade | \$28.00 |
| 3M ST | Connector punch block houk-up | \$0.44 |

## Tascam



## Tascam Patchbays

| PB-32H | 32 Point Normalled and Unbalanced. Phonc front to RCA rear | $\$ 185.010$ |
| :--- | :--- | :--- | :--- |
| PB-32P | 32 Point Normalled and Unbalanced. Phone front to phone rear | $\$ 185.00$ |
| PB-32R | 32 Point Normalled and Unbalanced. RCA front to RCA rear | $\$ 185.00$ |
| PB-32W | 32 Point Normalled and Unbalanced. Combo (20 - RCA \& I2 - Phone) | $\$ 185.00$ |
| PB-32B | 32 Point Normalled and Balanced.TRS Phone front to TRS Phone rear | $\$ 210.00$ |

# power conditioning 

BEST
Surge Suppressor Tech Note A surge, transient or spike is any electrical line disturbance that raises the line voltage above the normal levels caused by the power company. lightning and electrostatic discharge. UL 1449 measures the voltage that remains after a series of 0.000 volt. 500 amp pulses have been injected onto the power line. When selecting a surge suppressor. pick the lowest value of clamping voltage. For example, a surge suppressor rated 330 V is better than 500 V because it allows less transient voltage to pass. sient volt.
Best Power Technology, Inc. has a complete line of power back up and protection products. The Forters(b) is a microproceswer-controlled. line-interactive UPS from 360VA to 3KVA. It is small and lightweight, and features a digital display with an intellegent. interative inlerface. The Fermps@. ferroresonam-based. line-interactive UPS from 700 VA to 18 KVA . offers Anificial Intelligence, full voltage remulation and complete galvanic isolation. The Pariot'm Standby Power Systems with enhanced power protection features; Citadelsw ferrorewnam-based power conditioners from 110 VA to 1.8 KVA ; SpikeFreerm. a line of multi-stage surge suppressers: and UBS ${ }^{1 \times 4}$. DC power source that provide extended run times for 48 -volt and 120 -volt UPS products. This is just a small sampling of available Best power protection.

Please call Broadcasters General Store for a Best catholog.

|  | Model | Description | VA/Watis | Runtime full | Volts In/(Ont | Price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | *Rack Mountahle |  | Half I.oad (min.) |  |  |  |
|  | SMT280B | Patriot (6) for PCs | 280/175 | $9 / 27$ | 120 | \$129.000 |
|  | SMT420B | Patriot® for PCs | 420/260 | +/12 | 120 | \$179.00 |
|  | L11020B | Fortesse for network | 11201675 | $7 / 19$ | 120 | \$779.00) |
|  | LI720BR ${ }^{\text {L }}$ | Forress(0) for network | 7204770 | $5 / 15$ | 120 | \$699.00) |
|  | LL1020BR* | Forressel for network | 10207700 | $7 / 18$ | 120 | \$879.00 |
|  | FE850VA | Ferrups(0) for lg. systems | 8501600 | $11 / 28$ | 120 | \$1,229.011 |
| 11 FW | FEI.ISKVA | Fermps(8) for Ig systems | I. $15 \mathrm{KVA/800}$ | 18/48 | 120 | \$1.789.001 |
|  | FEI.8KVA | Ferrups@ for lg . systems | $1.8 \mathrm{KVA} / 1.25 \mathrm{KW}$ | W 11/30 | 120 | \$2.049.00 |

## Whirlwind



Whirlwind rackable power strips have an on/off switch - a resettable circuit breaker - and 15 amp capacity.

| AC6R | Six AC outlets | $\$ 54.00$ |
| :--- | :--- | :--- |
| AC6RSP | AC6R with surge protection | $\$ 79.80$ |
| AC4R2F | Four outlets on rear, two on the front | $\$ 5.3 .00$ |

## dbx

The dbx Power Light rack-mount module provides the dual convenience of an adjustable light source plus 8 separately switched, surge and spike protected $A C$ outles. The two retractable light tubes have their own switch and dimmer control.
dbx 115
$\$ 159.95$


## EDCO

The EDCO BMC Series is a rugged, highly reliable main or branch dstribution panel surge protector. Installed in parallel, the BMC Series offers maximunn protection for major facilities such as office buildings, entertainment complexes. schools, etc. In addition it is ideal for prolecting computer installations and other sensitive clectronic equipment. The BMC offers full redundancy which is monitored with 6 dagnostic indicator lights. 40 KA to 125 KA Surge Capacity - 5 year warranty $\cdot 6^{\prime \prime} \mathrm{Wx} 8^{\prime \prime} \mathrm{Hx} \boldsymbol{4}^{\prime D} \mathrm{D}$


The EDCO EMC 240B is a rugged. highly reliable panel surge protector for $120 / 240 \mathrm{~V} / / \mathrm{O}$ applications. In features totally solid-stale construction with two advanced, metal oxide varistors (MOV). each capable of 40.000 amps of surge current. After a surge. the suppressor automatically recovers and is ready for the next surge. (Hopefully)

Madel No.
HMP208Y
HMP120/240D
HMP240D*
HMP480Y
HMP480D*

Flectrical Service (All 3 phase)
$120 / 208 \mathrm{~V}: 3 \mathrm{PH}: 4$-wire WYE $240 \mathrm{~V}: 3 \mathrm{PH}: 4$-wire DELTA $240 \mathrm{~V}: 3 \mathrm{PH} ; 3$-wire DELTA $277 / 480 \mathrm{~V}, 3 \mathrm{PH} ; 4$-wire WYE 480V: 3PH: 3-wire DELTA

* Theser special models not listed with UL

Price
\$1,082.82
$\$ 1,082.82$
$\$ 1,082.82$
$\$ 1.082 .82$
\$1,082.82

The EDCO HMP Series is a parallel suppresser, designed for use at the service enirance or brancli/disistibution electrical panel It provides protection against high energy spikes and transients induced onto electrical power lines. The HNP Series features replaceable protection modules. high current fusing and per phase status indicators 65 KA Surge Rating. $8.4^{\prime \prime} \mathrm{W} \times 8.4^{\prime \prime} \mathrm{Hx} 4.0^{\circ} \mathrm{D}$

The EDCO SRS-232 utilizing silicon avalanche clamp devices, is intended as a secondary level surge protector for IEEE Sid. RS-232C peripheral devices.

| $\begin{aligned} & \text { SRS-232-25 } \\ & \text { SRS-232-9 } \end{aligned}$ | Interface with 25 pin connectors, protects pins $2-8$ and 20 Interface with 9 pin connectors, protects all pins |  |
| :---: | :---: | :---: |
| EA Systems |  |  |
|  |  |  |
| PD-9 | 9 Outces. 8 lbs. | \$200.00 |
| 1 DIO | 10 Outets, (8 switched. 2 lixed ont). 8 Ibs. | \$160.00 |
| PDIOV | 10 Outels. Digital Voltage Re:alout, 8 lbs | \$280.00 |
| PDIIL | 11 Outlets. Hi/Low lights. 8 lbs. | \$240.00 |
| PDIILV | 11 Outcrs, Hi/h.ow lights, Digital Volage Readout. 8 lbs. | \$360.00 |
| PDIOVRS | I0 Outlers, Digital Voltage Readour. $1.5-30 \mathrm{Sec}$, on/off Seq., 25 lbs A.C. Lime Voltage Regulator | \$990.00 |
| PDIIS | 11 Outers. 5-30 Sec. on/off Sequencing. 9 lbs. | \$380.00 |

ETA conditioned power distribution units are designed to prevent damage to sensitive equipment from sudden volage spikes and potentially damaging power surges as well as from EMI/RFI interferences. The sequencing units are specilically designed to protect and filter any electronic equipment that requires a time delayed power up and down. IU. 120 V standard. Is amps per unit, with most avalable in $220 / 230 / 240 \mathrm{~V}$ with IEC-320 connectors.

## power conditioning

## Furman

The Furman PL-8 power conditioner and light module has eight switched AC outlets on the rear panel and two slide-out light fixtures with a dimmer control. The PL-8 protects your delicate electronic equipment by combining a high voltage surge and transient suppresser with an RFI/EMI interference filter. The PL-PLUS is an enhanced version of the PL-8. On the front panel it provides a display of AC line voltage by means of a 20 LED
 bargraph meter, reading from 90 to 128 volts in two volt steps. It also features a higher 15 amp rating. with a heavy-duly 10 fool power cable.

| PL-8 | $\$ 159.00$ |
| :--- | :--- |
| PL-PLUS | $\$ 229.00$ |


| Juice Goose |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| The Rackpower Series are rack mounted power distribution panels with 120 volt power outputs and 15 amps of power ( 1800 watts) in all steel chassis with spike protection, and super discriminating EMI RFI filters. |  |  |  |  |  |
| Rackpower 100 Rackpower 200 | Eleven outputs and a BNC connector for Littlite Ten outputs with two dimmable pull out tubular lights and color-coded 20 LED input voltage meter. | \$179.00 $\$ 282.00$ | Juice Go <br> panel with power. <br> Includes AC | J JG8.0 is a rack mount, po ht 120 volt power outputs. angled outlets to accommod ne conditioning and spike pro | sribution amps of ll wars. |
| Rackpower 320 | Ten outputs. includes "star" ground. ground lift and ground fault interrupt features to safely solve ground loop problems. Automatic power drop out relay protect against damaging spikes. | \$329.00 | JC8.0 JG8.0L <br> JG8.0LM | JG8.0 plus 2 dimmable. pull out tubular lights JG8.0L plus a color- coded. 20 LED input voltage meter | $\begin{array}{r}\$ 85.00 \\ \$ 120.00 \\ \$ 189.00 \\ \hline\end{array}$ |

## TRIPP LITE

BC Pro UPS System is microprocessor controlled for blackout protection and brownout switchover to battery at 101 volts - Diagnostic LEDs alert you to UPS operating conditions - Built-in self test function, surge suppression and line noise filtering • LAN UPS • $\$ 25.000$ Ultimate Lifetime Insurance on connected equipment • 2 Year Warranty.


BC Personal Battery Back-Up Systems guard against blackouts, brownouss. surges and spikes • Compact tower style case has small footprint ( 9 " $\times 5$ " $\times 6^{\prime \prime}$ ) • $\$ 25,000$ Utimate Lifetime Insurance on connected cquipment $\cdot 2$ Year Warranty

## BCPERS200 Basic PC or small Mac protection, 200VA/140W. 2 outlets

$\$ 199.00$
Mid-size PC or Mac, network hubs, 14" mon. protection. 450VA/325W. 4 outlets $\$ 259.00$ Large PC or Mac, routers, stand-a-lone PC protection. S50VA/375W. 4 outlets BCPRO850 PC s.CAD station, multiple workstation protection, $675 \mathrm{VA} / 425 \mathrm{~W}, 4$ outlets BCPRO1050 Heavily configured PC's. LAN fileserver protection. 800VA/570W. 4 outlets Pentium network graphic workstation protection. 1050VA/ $35 \mathrm{~W}, 6$ oulets

BCPERS280 AT. 386. or medium Mac protection, 280VA/175W. 2 outlets
 $\$ 109.00$ $\$ 129.00$

BCPERSS00 486. Pentium fully configured. $17^{\prime \prime}$ moniIn protection. $500 \mathrm{VA} / 350 \mathrm{~W}$. + outlets

All the features of the Isobar line plus. premium diagnostic LED indicators alert you to loss of AC power, damage to protection circuitry and improper outlet wiring. $\$ 25,000$ Ultimate Lifetime Insurance protects Isobar and connected equipment against surge damage. including lightning. Lifetime Product Warranty.

4 outlets, 6 cord, 1050 joule rating, handies spikes 1084,000 amps ISOBAR6Ultra $\quad 6$ outlets, $6^{\circ}$ cord, 1200 joule rating, handles spikes to 96.000 amps ISOBARBUlura 8 outlets, $12^{\circ}$ cord, 1200 joule rating, handles spikes to $96,000 \mathrm{amps}$ ISOBAR8RM
$\$ 89.95$ $\$ 104.95$ $\$ 116.95$
$\$ 129.50$


COAX Surge Suppressers for A/V Equipment protect your investment in big screen video, VCRs, editing and satellite equipment. "F' connectors for cable TV coax, plus six protected AC outlets. Provides: 960 joules rating and instantaneous AC surge response handling up to 36,000 amp spikes. $\$ 25,000$ Insurance coverage.

## ISOBAR6COAX

ISOBAR Under-Monitor Surge Suppressers plus RJII jacks for moden//ax protection. Lifetime Warranty.

## GREAT AUDIO... FAST!



The One

You've Been

Waiting

## FOR



This is as good as it gets.
The new Shure UHF Wireless delivers everything you'd expect from a premiumquality UHF system - and more.

The system offers features like LCD displays on both transmitters and receivers. A generous 225 channels of frequency-agility. The flexibility to perform flawlessly in practically any application. And the built-to-last reliability you expect from Shure. All for an unbeatable price. You patiently waited for it. Now it's waiting for you.

To learn more, phone Shure Brothers Europe, 49-7131-72140.


The Sound of Professionals...Worldwide.

## The <br> One-Two Punch



The 610 Broadcast Delay makes talk radio safe and easy!
The Symetrix 610 Stereo Broadcast Delay allows talk show hosts to "Dump" obnoxious callers and automatically build back 7.5 seconds of delay time.

Two-stage dump option allows quick turn-around of callers.
The "Cough" button mutes the program without dead air.
Easy "plug \& play" installation.
A pricetag of $\$ 2,695$ US suggested retail.

## For <br> Talk <br> Radio.



The 528E Voice Processor makes any talk show host sound good!
Voice talent is expensive. So why not get your money's worth? The 528E is the industry standard voice processing toolbox. featuring a top quality preamp. compressor, de-esser, three bands of parametric EQ, and a downward expander plus a phase rotator all in one unit.
Three overlapping parametric equalizers.
Variable compression ratio.
3 bands of variable frequency EQ.
Switchable phase rotator.
US suggested retail price of $\$ 699$.

## TRIPP LITE

DataShield Dataline surge suppressers are critical for the data lines connecting networked equipment. They guard against the effects of lightning, electrostanic discharge, ground surges and faulty wiring which routinely cause glithes, lock-ups and hardware damage. Installed directly at the data port, protection is now avalable for virtually any interface. Lifetime Product Warranty:

| DHUB | RJ45, 8-port ethernet, token ring. RS422/423/485 | \$279.00 |
| :---: | :---: | :---: |
| D10B2 | 10 base 2 thin coax protector(M/F BNC jacks), for IFM 3270 \& CCTV | \$33.95 |
| DI0B2T | 10 base 2 thin cozx protected "T" (FAM/F BNC jacks), for IBM 3270 \& CCTV | \$47.95 |
| DB9 | Serial DBy RS 232 protector (pins 1-9) for any male or female 9 -pin porn | \$29.95 |
| DTEL? | RJII two line dial-up protector, ideal for modems, faxes, answering machines, etc. | \$33.95 |
| DCATV | Coaxial protector (M/F "F' connectors) for Cable TV applications | \$47.95 |



Iso'Tel Surge Suppressers gives you protection from surges, spikes and line noise from phone and data lines, as well as AC power lines. Instantaneous surge response with suppression up to 54.000 amp spikes. Ulimate Lifetime Insurance protects connected equipment for up to $\$ 25,000$ from spikes and surges, including lightning. for life.


OmniPro Series Line Interactive Standby UPS Systenis are designed for poor power environments. Omnipro's UPS systems keep you working through low or high voltage conditions without using any battery power. - Multi levels of voltage correction - Recharges batteries during brownouss - up-front LED's supply mformation on UPS operating conditions, battery status, self-test results • 500,000 Ulimate Lifetime Insurance protects connected equipment against surge damage, including lighnning. - 2 Year Warranty.
OAINIPRO280
OMNIPRO 450
OMNIPRO

| Hubs and routers protection. 280VA/175W, 4 outlets |  |
| :--- | :--- |
| Heavily configured PC s protection. $450 \mathrm{VA} 280 \mathrm{~W}, 4$ oulets | $\$ 169.00$ |
| LAN fileservers protection. $675 \mathrm{VA} / 425 \mathrm{~W} .4$ outlets | $\$ 274.00$ |



SMARTPRO NET Intelligent Network UPS Systems is a complete single carton solution to computer power problems, complete with CD-ROM Management and Shutdown Sofware and cabling - Four tevels of voltage corection - Front panel LED's constanty display UPS load and battery charge status - $\$ 50,000$ U Ulimate Lifetime Insurance on connected equipnent - 2 Year Warranty.


| SMART280NET | Mid-size Matc or 14" noonitor p |
| :---: | :---: |
| SMART-LSONET | Latere Mac. 386 or smi color mo |
| SMART700NET | Heavily config. 386/486 protec |
| SMART850NET | 850 VA 530 W .4 outlets, no soft |
| SMART700RM | $700 \mathrm{VA} / 450 \mathrm{~W} .3 \mathrm{U} .6$ outlets |
| SMARTIO50RM | $1050 \mathrm{VA} / 705 \mathrm{~W} .3 \mathrm{U} .8$ outlets. R |
| SMARTI400RM | 1400 VA 940 W .3 U .8 outhets. R |
| SMART2200RM | $2200 \mathrm{VA} / 1750 \mathrm{~W} .5 \mathrm{U} .8$ outlets, |

## Microcon Systems



The FM FlexiMod composite processor will improve your sound expend your coverage and keep you legal. The proprietary c-limiter module cmulates the best atributes of a superfass, very clean limiter combined with an effective. low-dstortion clipper. For the first time you can be loud and punchy wihout being squashed and distorted. You can configure your FM FlexiMod for several different ind distinct modes of operation, depending on the on-air results you desire. Features include: Distortion -cancelling circuitry Up to 6dB of composite processing possible - Fully regulated external power supply True 5052 oulput - Full stereo separailion • 4 -LED activity meter - Flat or de-enphasized melering - Can be configured tor regenerated pilot or can aecept direct pitot from stereo gencrator - Knob or tweaker control - and Rack mount standard. Plense' call BGS to arrange a demenstration.

FM FlexiMod $\quad \$ 1,395.00$

## Modulation Sciences



Modulation Sciences' CP-803 Composite processor keeps your FMI station loud. clean and legal. Use it with any conibination of conventional audio processing to provide up to odB of additional loudness.

| CP-S03 | Composite Processor | $\$ 1,495.00$ |
| :--- | :--- | :--- |



BGS


The CRL Amigo AM is a complete, self contained processor for AM stereo or mono applications. It contains wide range multi-band AGC. exclusive matrix limiting with full mono gain suppon. and stereo soundfield enhancement circuitry. Easy to set up and use. IU

Amigo AM
\$3.195.00

The CRL SEC-400/800 use four bands of compression and dynamic equalization to help tailor your own on-air sound. They can also be used to increase loudness and density. Selectable compress or limit operation and selectable time constants add to the flexibility of the SEC-400 and SEC-800.

| SEC-400 | Mono | $\mathbf{\$ 1 , 8 5 0 . 0 0}$ |
| :--- | :--- | :--- |
| SEC-800 | Stereo | $\mathbf{\$ 2 . 3 5 0 . 0 0}$ |

The CRL PMC-450 is a peak modulation controller that uses a combination of NRSC standard pre-emphasis. tri-band limiting. clipping and filtering to permit maximum. loudness with minimum distorion. It also has a gated, wideband compressor that has 20 dB of AGC range. With two separate outputs the PMC-450 can drive two transmituers.

| PMC-450 | Mono | $\$ 2,150.00$ |
| :--- | :--- | :--- |

The CRL SMP-950 is a tri-band AM Stereo matrix processor using a CRL patented combination of sum and difference limiting and adjustable single channel limiting 10 optimize stereo fidelity while maintaining mono compatibility. The SMP 950 also has a gated wideband compressor. integral stereo enhance and a tilt corrector for optimizing performance with older transmitters.

## SMP-950 $\$ 2.650 .00$



The CRL MBL-100 is a stand alone processor designed for AM news/alk and sports formats. By combining 7.5 kHz filtering with powerful multi-band limiting. very high levels of average mudulation density are achieved. herefore, intelligibility of speech is improved as is signal coverage area


The CRL AGC-400 is a mono. gated, dual-band/wideband AGC providing up to 30dB of gain reduction range. Dynafex@ noise reduction is included, as is EQ balalace and selectable time constants. The AGC-400 is used before an STL or telco line to prevent overload. Stereo model is the SGC-800.

| AGC-400 | Mono | $\$ 1,650.00$ |
| :--- | :--- | :--- |
| SGC-800 | Stereo | $\$ 2,250.00$ |

CRL AM Systems (Most of these CRL packages offer split chassis flexibility!)
AM Mono Systems

| AM-2m | AGC-400, PMC-450A | $\$ 3.395 .00$ |
| :--- | :--- | ---: |
| AM-4m | AGC-400. SEC-400. PMC-450 | $\$ 4.895 .00$ |
| AM Stereo Systems |  |  |
| AM Amigo | Stereo processor | $\$ 3.195 .00$ |
| AM-2s | AGC-800. NRSC SMP-950 | $\$ 4.395 .00$ |
| AM-4s | AGC-800. SEC-800. SMP-950 | $\$ 6.395 .00$ |

## Orban

## The Optimod 9100B2

is an analog audio process. ing system for AM broadcasi C-QUAM stereo-LW or MW. It provides you with automatic gain control 10 ride levels, high-frequency boost that compensates for the roll-off in receivers (giv-
 ing you a brighter sound), a six-band limiter with distortion-canceling clipper for a very loud and clean sound and switchable low-pass filters (NRSC or CCIR/EBU standard). It also provides compensation for the LF tilt and HF overshoot that cause over-modulation in less-thanperfect transmitters and antennas. The result is noticeably more loudness.

| $9100 B 2 / U 10$ | Stereo |  |
| :--- | :--- | :--- |
| 82(YOST/U | Studio chassis for 9100B | $\$ 6,350.00$ |
| MRF023 | AM monitor roll-off filter | $\$ 1.400 .00$ |
| RET043A | $\$ 50.00$ |  |
| RET043B | Upgrades mono 91(K)A to stereo | $\$ 2,000.00$ |



## Orban

Orban Optimod 9200 is a completely redesigned $100 \%$ digital . fully programmable processor offcring conventional remote control or Windows based PC ( 3864 MEG RAM minimum) control. The 9200U has analog I/O's and can be upgraded to include 20 bit AES digital I/O with automatic sample rate selection for 32.44 .1 or 48 kHz . The 9200 comes with eight factory presesc (can't be erased) and eight user presets (stored in non-volitile memory).

| $9200 / \mathrm{U}$ | Analog in | $\$ 3,950.00$ |
| :--- | :--- | ---: |
| $9200 / \mathrm{UD}$ | Digital and analog in | $\$ 4,550.00$ |
| 9200 DIO | Digital upgrade | $\$ 650.00$ |



## Aphex

With the new Aphex FM Pro 2020 you can literally design the sound of a radio station; to generate a highly competitive on-air sound unique and effective for your market and format. The 2020 is upgradeble and modular - has sixteen user programmable read-write presets - eight read-only presets optimized for a variety of radio program formats - an internal clock/calendar facilitates an extensive day-part autonation capability - menu driven controls permit casy front pancl operation while a PC computer and modem or RS232 cable can control and monitor every parameter - password security - Front panel real-time indicators of all major processes - and fail-sale uperation is assured by a power-off internal relay bypass and fast progran recovery after shut down All processing is accomplished in the analog domain and the basic unit has analog stereo I/O's.


Inovonics


The Inovonics David-II is a new integrated FM-Stereo processor/generator. It features digital synthesis of the composite multiplex signal for best separation and stable operation. and intemal combining for SCA or RDS subcartiers. Feedionward Pulse Width Modulation (PWM) audio processing imparts loudness and fullness to the program signal with negligible antifacts and without sacrificing brillance. A unique "bass enhance" feature optionally suppresses subaudible program components while augmenting legitimate "bottom-end"

## Microcon Systems



Microcon Systems Banshee IV is a stand-alone. 2 RU analog processor incorporating a 4 -band leveler. compressor. peak limiter. intelligem peak clipper and stereo generator with an internal composite clipper working in concert to produce a loud. clean. almost tube-like processed sound. Just give us a call to arrange an evaluation!
Banshee IV
$\$ 2.495 .00$

## Purple Processor

The Purple Processor ${ }^{\text {TM }}$ will make your 8100.8100 A or 8100AI spring to life like a kituen by replacing cards 3.4. and 5. The Purple Processor ${ }^{1 \times 1}$ features a feedforward broadband AGC. four bands of compression and timiting. phase coherent crossovers, independent release gates for each band, program controlled attack/DB linear release, and low noise/low distortion VCA technology. These cards were developed by major market engineers and proven versatile, competitive. clean and loud. With the fully adjustable three card solution, you're audio will roar like a lion or purr like a cat; it's your choice with the Purple Processor ${ }^{\text {'W }}$ !

Please call to arrange for a demonstration.
Purple Processor
$\$ 3,000.00$


86


## CRL



The CRL Amigo is an FM sterco processing system designed for small market and educational stations. It is a stand alone system. needing no pre or post processing. The Amigo has a wide range input AGC. multi-band limiter and digitally synthesized stereo generator. User selectable options such as AGC gain reduction level. stereo sound field enhancement and limitclip priority are included. The unit is extremely easy to set up and use.

Amigo FM
$\$ 3,195.00$


The CRL SGC-800 is a stereo AGC/compressor which is used before an STL or telco lines to eliminate system overloading. The AGC can be operated as "dual-band, wideband or both" and allows for up to 30 db of gain reduction. Dynafex(3) noise reduction is also included.
SGC-800 $\mathbf{\$ 2 , 2 5 0 . 0 0}$


The CRL SMP-850 consists of a dual-band AGC/compressor and advanced multi-band limiter. Precise peak modulation control is achieved using CRL's proprietary variable transfer function limiter. Also a buill-in stereo sound field enhance function provides dramatic improvements in "on-air" stereo separation and loudness.
SMP-850 $\$ 2,750.00$

CRL FM Systems (Most of these CRL packages offer split chassis flexibility!)

| FM-1g | SMP-850, SG-800A | $\$ 4,095.00$ |
| :--- | :--- | :--- |
| FM-2g | SGC-800. SMP-850, SG-800A | $\mathbf{\$ 5 , 9 9 5 . 0 0}$ |
| FM-2g+ | above plus SEC-800 | $\$ 7,995.00$ |
| FM-3 | SGC-800, SEC-800 | $\$ 4,495.00$ |



The CRL DP- 100 uses the newest technology advances and innovations developed by CRL over the last five years. These advances are used in all aspects of the processing architecture to create a whole new approach to audio processing. CRL's DP-100 gives the station a natural sound with superior loudness while mantaining oustanding quality. The DP-100 is based on a 32 -bit tloating point. 40 mHz DSP platform. with an internal dynamic range of greater than 770 dB . The DP- 100 uses a fifth order Delea Sigma 18 -Bit resolution A/D converter and eight untes over sampling D/A converters, hence providing unparalleled dynamic range. The DP- 100 uses a large LCD touch screen to display an evcitine array of graphical menus. All normal controls cinn be changed with a touch of the sereen and are changed in real time. You can customize your DP-100 with just a few key strokes or use one of the numerous factory presels. The $100 \%$ digital architecture of the DP- 100 includes a wideband AGC, 5 band compressor, tri-hand limiting. fïnal fast limiter, and stereo generator. Analog, AES/EBU, and Toslink liber uptic inputs are standard. Analog. AES/EBU. Tonlink. and two independent composite outpust are also standard. Full remote control and eaty io upgrade furure software packages.

## DP-100

$\$ 11.000 .00$


The CRL Audio Signature is a digitally-controlled AGC/t-band compressor that is programable, allowing a fully customized sound to be achieved. The Signature can be remole-controlled via a PC or "dayparted" using the optional CRL real-time Event sequencer. The Audio Signature works well in front of most modern stereo limiters.

| Audio Signature | $\$ 4,995.00$ |
| :--- | :--- |
| Audio Signalure / Timer | $\$, \$ 95.00$ |
| Audio Signature / Modulation Signature | $\$ 6,995.00$ |

$\$ 6,995.00$

## We are happy to arrange evaluations for CRL equipment Give us a call!

The CRL BAP-2000 is a stand alone audio processor for mono FM or TV consisting of a two band AGC, limiter and buill-in dynatex@ nolse reduction. For TV applications on Fh filter is included. Great for non-stereo TV transmitters.

BAP-2000
$\$ 1.950 .00$


## Orban

The Orban $8200 / \mathrm{U}$ is a true digital FM Audio Processor. The audio and all control functions are digital. It's fully digital audio processing improves the quality and clarity of the successful "Optimod Sound". while adding chargeable processing structures, programmability. expandability and PC interface capability for control from your studio. home or car. Orban's RAM-based Digital Hadamard Transform Baseband Encoder ${ }^{\text {TM }}$ produces an extremely well-controlled spectrum, with indiscemibly low noise and distorion and outstanding separation.

| 8200/U2S | Digital Audio Processor | \$7,400.00 |
| :---: | :---: | :---: |
| 8200/U3S | As above w/multi-band processing | \$10,400.00 |
| $8200 \mathrm{D} / 32$ | Digital I/O card, 32kHz | \$725.00 |
| 8200/SRC | Digital l/O card. w/sample rate converer | \$1,550.00 |
| CIT25 | Composite isolation Iransformer, eliminates ground loops in longer composite cable runs | \$250.00 |
| 8200UPG/2S/3S | Upgrade 2 S to 3 S | \$3.350.00 |



The Orban 2200 has all the features of the 8100A analog Optimod FM: two-band processing, analog inputs, and stereo composite output. Other features include: AGC, Bass EQ, and HF enhancing • Protection limiter • Analog outputs - Factory presets • User programmable presets - Buitt-in tone and bypass - Remote switching of presets - True digital DSP processing and stereo
 encoding (stereo generator) • $1 \mathrm{U} \cdot$ and casy to install
$2200 / \mathrm{U}$

> (Note: 2200 cannot be field or factory upgraded to the 22000 )
> As above w/L/R digital AES/EBU digital input and output
$\$ 3.850 .00$
$2200 \mathrm{D} / \mathrm{U}$ $\$ 4.450 .00$

The Orban 8100A 1 combines level control, peak control and stereo generation functions into an integrated audio processing system for FM broadcast. It lets you adjust your station's sound, and controls peak levels to guarantec maximum loudness without over-modulation. When desirable. Optamed-FM can be adjusted to provide automatic bass equalization. Its built-in stereo generator, pre-emphasis and filtering are handled before the peak control to prevent loss of ioudness, and to eliminate modulation-robbing overshoots caused by outboard stereo generators.




Optimod-FM 8200ST is installed before your STL at the transmitter to protect it from peak and high frequency overload. The \$200ST also controls average levels on the link to maximize its dynamic range. translating to improved signal quality at the recetver.

| 8200ST/U | Studio chassis for Optimed-FM1 8200 | $\$ 1.400 .00$ |
| :--- | :--- | :--- |

Modulation Sciences and Orban Stereo Enhancements


With the Modulation Sciences StereoMaxx Stereo Expansion Processor in your air chain, your station will sound punchier and livelier. Stereo actually sounds wider than the speakers. Music takes on a bigger, deeper, dymamic quality than's especially apparent on car stereos, portibles and walk radios. Limiters, clippers or other dynamic processors don't affect Stereomaxx adversely. hecause it operates in the spatial domain, not the amplitude domain.

## MYB-2

$\$ 2,889.00$


The Orban 275A is designed to be placed permanently in line to autumatically generate stereo from one mono channel. and allow inte steren to pass through unhindered. The 275A will noiselessly cross-fade between synthestized and true stereo material. For remote operation, the optional 275NVRC remote panel duplicates all the front pancl controls.

| 275 A | $\mathbf{\$ 2 . 4 0 0 . 0 0}$ |
| :--- | ---: |
| $275 \mathrm{~A} / \mathrm{RC}$ | $\mathbf{R 2 7 5 . 0 0}$ |



The Aphex Digicoder FM Stereo Generator combines the functions of pre-emphasis limiting. 15 kHz low pass filter and stereo encoding, plus it is RDS ready. The Aphex patented Parallel Path Digital Modulation creates a precision multiplex signal with an incredible $70+\mathrm{dB}$ of separation! It uses the highest attributes of both digital and analog signal processing to produce stability. accuracy, and sound quality. Security lock-out. IU
Digicoder 400
PPDM FM Stereo generator
$\$ 3.995 .00$

## Inovonics

Inovonics 708 Digital-Synthesis FM Stereo Generator includes accurate front-pane! metering, adjustable pre-pilot Composite Processing, and internal combining for RDS and SCA subcarriers. New digital synthesis techniques and linear-phase filtering ensure outstanding performance, and a clean output spectrum protects low-injection digital and analog subcarriers. If your fundamental need is for a simple, yet fully-featured "basic" FM Stereo Generator, the 708 deserves your consideration. IU


## QEI



The QEI 772F Stereo Generator is an economicat. analog, all solid state unit. Terminals are provided to allow remote mono/stereo switching.

The QEI 710A Digital Stereo Generator is a true 24 bit numeric digital signal processing system. It is completely digital from the input oversampling finite impulse response filters to the proprietary second generation digital composite firmurare and 18 bil DAC. It is designed for ease of operation
 with familiar control functions and remote stereo/mono mode control. Includes Q -Chain digital and analog inputs and outputs. The 710 A can also be used as a digital sampling device: The digital signal can then be sent to extemal processing via Q-Chain and back again to the 710 for creation of the composite signal in the digital donain.


## Modulation Sciences

The Modulation Sciences TV encoder and baseband stereo generator provides excellent stereo separation and great performance specifications. It accepts composite video for unconditional lock to horizontal sync and complies with the BTSC standards. TSG includes operational monitoring and integral television audio processor with gating control and interleave protection circuit specifically designed for intricate multi-channel television sound requirements.

| STV-784WB | TSG. Stereo TV generator w/audio processor \& |  |
| :--- | :--- | ---: |
|  | balanced output chips | $\$ 13,100.00$ |
| STV-784 | TSG. Stereo TV generator w/audio processor | $\$ 13,000.00$ |
| STV-784NA | TSG. Stereo TV generator without audio processor | $\$ 9,875.00$ |
| STV-784AO | TSG. Audio processor for STV 784 only | $\$ 3,125.00$ |
| CLD-2503B | Balanced Composite Line Receiver for |  |
|  | STV-784 WB (w/o balanced chips) | $\$ 900.00$ |



## CRL

Designed for Stereo-TV, the CRL TVS-3001 is a two-channel tri-band AGC having a capability of up to 30 dB of gain reduction. Integral Fh filters are also included as is an exclusive CRL/CBS loudness controller that "tames" loudness problems. The TVS-3001 also senses and corrects phase reversal problems on program material. The TVS-3001 is placed at the studio and prevents adio overload of the STL/telco feeds.

| TVS-3001 | $\mathbf{\$ 4 , 8 9 5 . 0 0}$ |
| :--- | ---: |

The CRL TVS-3003 is an MTS-stereo generator and audio limiter. The TVS-3003 also has a wideband AGC providing up 1020 dB of gan reduction. The steren generator portion of the unit is digitally synthesized and therefore is drift free. Limiting is handled by a wo stage "variable transfer function" limiter which smoothly handles peak transiems without generating distortion products. A "stereo enhance" feature dramatically improves your viewer's received stereo effect.


| TVS-3003 | $\$ 8,795.00$ |
| :--- | :--- |

The CRL, TVS-300 $\downarrow$ is a digitally synthesized subcartier generator for prochannel or non-public SAP use. Features megrated audio input limiter, data and/or telemery input ports.

TVS-3004
$\$ 2,150.00$


The CRI, BAP-2000 is a stand alone audio processor for mono FM or TV consisting of a wo band AGC. limiter and buth in dynafex® noise reduction. For TV applications an Fh filter is included. Great for non-stereo TV transmiters.

| $B A P-2000$ | $\$ 1.950 .00$ |
| :--- | :--- | :--- |




The Orban 222A augments your stations spatial image 10 give you a more listenable sound. It expands the stereo sound stage without adding harmonic distortion or un-nalural coloration.

## Studio Technologies



The Studio Technologies AN-2 is designed to create convinciag stereo from any mono source. The Stereo Simulator creates two signals from one source, simulating a stereo pereeption at the ears of the tistener. The Stereo Simulator is fully mono compatible.
$\overline{\mathrm{AN}-2} \longrightarrow \$ 6+9.00$


The Studio Technologies Generation II Stereo Simulator is designed expressly for on-air TV broadeasting. posit production, and filma applications.



RDL ST-GCA2


Expander/Gate/Ducker

| Aphex 622 | Dual channel w/side chain filter. IU. XLR | $\$ 795.00$ |
| :--- | :--- | ---: |
| Behringer XR2000 | Dual channel, IU, XLR | $\$ 369.99$ |
| dbx 172 | Dual channel, 1U. XLR | $\$ 869.95$ |
| Peak Limiter |  | $\$ 1.350 .00$ |
| Aphex 720 | Dominator II, multi-band, stereo. IU, XLR | $\$ 329.99$ |
| Behringer MDX1800 | 8-channel, IU. TRS | $\$ 379.00$ |
| Symetrix 501 | Mono Peak/RMS com/limiter, IU, XLR | $\$ 419.00$ |
| Symetrix 501-01 | As 501 w/transformer balanced output stage |  |

## Mono Compressor/Limiters

Aphex 651 Expressor. IU. TRS \& XLR Manual operation only $\$ 495.00$
Aphex 661 Tube Expressor, 1U. TRS, Auto or Manual $\$ 749.00$

Aphex 323A Compellor/Aural Exciter, multi-band. IU. XLR Broadband $\$ 949.00$
dbx 160A 1 U, TRS \& XLR $\$ 459.95$
$\mathrm{dbx} 163 \mathrm{~A} \quad$ half rack 1 U . TS $\$ 169.95$
dbx 165A w/Peak stop. 2U, BS $\$ \mathbf{1 , 4 9 9 . 9 5}$

Distressor EL8

Classic Knee Compressor. IU. XLR \& TRS
$\$ 1,499.00$
Furman C128

IU. TS
$\$ 269.00$
Furman C128B 1U. TS \& XLR ..... $\$ 303.00$
RDL ST-CL! See Page 26 Stick On, TB ..... $\$ 139.00$
RDL STGCA1 See Page 26. Gain control amp. Stick On, TB ..... $\$ 119.00$
RDL STGCA2 See Page 26. Fast Gain Control amp. Stick On. TB $\$ 119.00$
Multi~dynamic Processors
Aphex 106 4-channel Easyrider ${ }^{\text {rs }}$ Auto compressor, IU, TRS ..... $\$ 4+9.00$
Aphex 108 2-channel Easyrider ${ }^{1 \mathrm{M}}$ Auto compressur, IU, TRS ..... $\$ 299.00$
An MDC-2001 Stereo compressor, noise gate, expander, de-esser. exciter, peak limiter, clipper, IU, XLR ..... $\$ 525.06$
Art DR-X 2100 SE IU. TS, See page 94 ..... $\$ 669.95$
ART Pro Gate $\quad 8$-channel programmable. 2U, TRS ..... $\$ 1,099.00$
Behringer MDX2100 New Composer, stereo compressor/limiter, peak limiter.expander gate, IU, XLR \& TRS$\$ 279.99$
Behringer MDX4060 Stereo 2-band comp/leveler/limiter/peak limiter. IU, XLR \& TRS ..... $\$ 549.99$
Behringer MDX8000 Stereo 4-band comp/leveler/limiter. IU, XLR \& TRS ..... $\$ 769.99$
BSS DPR-404 4-channel compressor/de-esser, IU. XLR ..... $\$ 1,449.00$
dbx 263A De-esser, half/rack IU. TS ..... $\$ 169.95$
Rane DC-24 w/Gate \& fourth order active crossover. IU. XLR \& TRS ..... $\$ 599.00$
Symetrix 421 M
Mono, AGC leveler. limiter. w/speech curve filters,IU. TRS \& XLR$\$ 569.00$
Symetrix 422 Stereo, AGC leveler, IU, XLR \& TRS ..... $\$ 595.00$
Symetrix 488 DYNA-Squeeze ${ }^{\text {rM, }}$, 8-channel compressor, IU, TRS \& TS ..... $\$ 579.00$
NoiseGatBehringer XR14004-channel, Logic Assisted Gate. 1U. TRS $\$ 4.49 .00$
4-channel, IU. TRS$\$ 29.00$
Behringer XR2400 4-channel. IU, TRS \& XI_R ..... $\$ 499.94$
BSS DPR-504 4-channel w/parametric key filter IU, XLR ..... $\$ 1,449.00$dbx 274
DOD 844Furman QN44Furman QN44B 4-channel, IU, TS \& XLR$\$ 289.95$JBL M644-BLU 4-channel, IU. XLR$\$ 565.00$
Klark Teknik DN510 2-channel, IU, XLR ..... $\$ 499.00$Klark Teknik DN514 4-channel, IU, XLR$\$ 1,144.00$
Valley 460 Autogate 2-channel, IU, TRS \& XLR

## Dual Compressor Expander

| dbx 166A | w/gate, IU, TRS \& XLR | \$329.95 |
| :---: | :---: | :---: |
| dbx 266A | AutoDynamicrM atack/release, IU, TRS | \$249.95 |
| Behringer MDXI200 | Autocom, IU, TRS | \$189.99 |
| Klark Teknik DN500 | IU. XLR | \$1,244.00 |
| Symerrix 425 | IU, XLR \& TRS | \$579.00 |
| Valley 433 | Dynamite 3, w/gate. 1U, TRS | \$799.00 |
| Dual Compressor/Limiter |  |  |
| Aphex 320A | Compellor. IU. XLR | \$1,350.00 |
| ART SC2 | w/Gate, IU. TRS | \$295.00 |
| Ashly CLX-52E | w/Gate, IU, TRS | \$499.99 |
| BSS DPR-402 | w/De-c.sser, IU, XLR | \$1,449.00 |
| dbx 168A | IU. XLR | \$999.95 |
| dbx 1066 | w/Gate \& side chain insert. IU, TRS \& XLR | \$549.95 |
| dbx 1046 | t-channel compressor for use as 2 independent st. comp., IU. XLR \& TRS | \$649.95 |
| Disitressor 8LS | Classic Kine Compressor, IU, XLR \& TRS | \$2,750.00 |
| DOD 866 | w/Gate, IU, TRS \& RCA / Impedance balanced outputs | \$239.95 |
| Furman LC6 | IU. TS | \$439.00 |
| Furman LC6B | IU. TS \& XLR | \$507.00 |
| JBL M712-BLU | w/Gate, IU, XLR | \$499.00 |
| Klark Teknik DN504 | Quad Compressor/limiter, IU. XLR | \$1,396.00 |
| Yamaha GC20201311 | IU. XLR. TRS. dual-mono selectable | \$ 469.00 |







He would be happe to fax or mal complete specifications on any compressorflimiter you find of interest.


Biamp


The Biamp Advantage DDL 11 digital delay line utilizes DSP technology to provide a one inputone output, single-tap delay for time aligument of remote and under-balcony speaker systems. Fealures: 16 bit Sigma-Dela A/D conversion - 48 kHz sampling rate utilizing 64 x oversampling • detay time selectable from 0 to 1.023 seconds - delay time selectable in 1 milli-second increments - short delay mode seleclable for spuaker driver alignment - bypass mode selectable for direc delay comparisons - balanced 1/O on barrier strip connectors - signal present and peak indicators on front panelscrewdriver adjustable input and output level controls $\cdot$ delay time selectable with front panel DIP switches - see-through security cover protects controls from tampering a a five year warranty.

## DDLII

## $\$ 199.00$

The Symetrix 402 Dual Ouput Delay is a 1 input. 2 output digital audio room delay intended for acoustical alignment of distant speaker systems. The 402 allows you to delay the remote speakers to


The Rane AD 22 Digital Audio Delay is a fully balanced. two input, two output alignment delay providing a delay range of 0.011 to 327.68 milliseconds on each output. The delay of each output is independenty adjustable in 10 micrusecond and 1 millisecond increments. Feaures: 1-Bit Dolby ${ }^{\text {rw }}$ Time Link Conversion - Terminal strip inputs and outputs - Independent remote memory recall interface on rear - Two EPROM memones per chamel - Sensitivity comrol - Signal present and clip indicators - Front panel lockout switch on rear • Delay display in mSEC, feet or meters • 5 digit LED display - Fail-safe bypass for each channel - IU.

| AD 22 | $\$ 8+9.00$ |  |
| :--- | :--- | :--- |
| AD 22B | Batanced XLR in/out connectors | $\mathbf{\$ 8 + 9 . 0 0}$ |

## Symetrix

 match the time it takes for the signal coming from the main speakers to reach the listener positioned near the remote speakers. Features: 19 bit A/D, 18 bit D/A's for $>100 \mathrm{~dB}$ dynamic range - Two independently adjustable outputs - Simple user interface - Delay setting stored in non-volatile memory. no battery to replace • Autunatic hard wire bypass in case of power loss - From panel lockout - Barrier terminal, XLR, and $1 / 4$ " phone connectors


## Rane



The Rane AVA 22 Audio/Video Alignment Delay is a fully balanced two input. two output alignment delay providing a range of 0.0 to 9.5 NTSC frames (8.0 PALSSECAM frames) on each output. The delay of each output is independently adjustable in field (half-frame) increments. Features: 1-bit Dolby ${ }^{\text {ra }}$ Time Link Conversion - Front panel lockuut switch on rear Independent remote memory recall interfice on rear - Active balanced 3-pin inputs \& outputs • Two EPROM memories per channel. no batteries • Failsafe bypass for each channel - IU.
$\qquad$

## Hotronic



The Hotronic AL86 Solid State Frame Recorder provides the significant 6 second delay for both video and audio to instantly edit profanity during a live broadeast. In comparison. the old method needs two 2 -inch or two 1 -inch V'TRs and a technician to operate the system. The AL86 requires no attention during operation and is more technically reliable. eliminating extess equipment. tupe and storage. Fealures include - 20 hit audio/l( 0 bit video resolution selectable delay from I frame to 180 frames - 18 k Hz andio sampling (Synchronized to video) - 14.3 MH \% viden samplang.

## Eventide



The Eventide BD-500 Digital Broadcast Delay comes standard with 8.5 seconds of stereo delay. and additional delay can be added in the field. The user divides the total available delay time into not one or even two. but several discrete segments. (the user decides how many). Each time the DUMP button is pressed, only the one segment is dumped. You still have delay protection right away. A snecere button momentarily "edits" audio entering the delay. allowing the host to sneeze or make a comment without being heard on air. and without dead air. The unit shows an exact digital read out of delay time. and has a "quick read" bargraph which instantly confirms "you're safe" at a glance. It comes with analog XLR type I/O. or optional AES/EBU I/O. All frumt panel switches (except configure) can be remoted (both RS-232 and dry contacts are provided).Status indicators can be remoted as well. IU

| BD-500 | $\$ 3.395 .00$ |
| :--- | ---: |
| BD-500AES/EBU $/ 1 / \mathrm{O}$ | $\$ 4.690 .00$ |



The Eventide BD941/BD942 delays offier costeflective obscenity protection. Both feature a delete function, $5-20,000 \mathrm{~Hz}$ audio frequency. 16 bil res. and a 44.1 kHz sampling rate.

| BD9+1-6 | 20 kHz . Mono. 6 seconds fixed delay | \$1,795.00 |
| :---: | :---: | :---: |
| BD941-12 | 20 kHz . Mono. 12 seconds tixed delay | \$2.195.00 |
| BDY42-3 | 20 kHz Stereo, 3 seconds fixed delay | \$1.995.00 |
| BD942-6 | 20 kHz , Stereo. 6 seconds fixed delay | \$2.395.001 |

## Symetrix



The Symetrix 610 Broadcast Audto Delay can unoberusively "stretch out' the program until 7.5 seconds of 15 kH / bandwidh stereo audio is stored in memory. Once the 'DUMP profanity' button is pressed, the 610 automatically begins to stretch the program audio again until the full 7.5 second delay is attained. It can be set up so that only half of the 7.5 second memory is deleted the first time the button is pushed, thereby maintaining a 3.75 second reserve. This allows the host to bring another caller on air righ away withou having to wait for the memory to build up from scratch. A 'cough' button allows the host to make impromptu interruptions of the program for up to 7.5 seconds while keeping the audience unaware of the break. The 610 has remote control of all functions, active balanced XIR iuputs and nuputs. IU


## ART



The ART Multiverb Alpha SE contains 404 of the finest and most widely used studio production and performance presets available. The Multiverb Alpha SE offers all types of delays, chorusing, flanging, phasing. pitch transposing. sampling, and stereo imaging effects. Additional features include 24 bit digital processing and full MIDI implementation and real-time control of all parameters.

| Multiverb Alpha SE | $\# 472$ | $\$ 575.00$ |
| :--- | :--- | :--- |



The ART FXR and FXR Elite II both have stereo 2 channel digital multi-effects processors that feature dual processing and ART's new ASIC audio chip. Effects include: reverb. delay, chorus. flange. and panning. The FXR is a quick set up. plug in and play processor with 255 presets. The FXR Elite II adds MIDI real time control. MIDI mapping. and the ability to edit parameters and store your changes.


| FXR | $\#+23$ | $\$ 259.00$ |
| :--- | :--- | :--- |
| FXR Elite II | $\# 434$ | $\$ 345.00$ |



The ART DR-X 2100 SE will perform 10 simultaneous audio functions; features 24 bit DSP: is a full function dynamics processor with compressing. limiting, programmable EQ, noise gate and expander: studio reverberator: and multi-effector. It gives you over $21 / 2$ octaves of pitch shift. 12 reverb programs. 12 reverse and gated algorithms, over 20 types of delays, stereo panning, over 400 preset, and complete MIDI interface.

## DR-X 2100 SE

H+32 Digital Multi-Effector/Pitch Transposer/Sampler
$\$ 669.00$
BOSS (Roland)


The Roland VT-I is a unique device designed for altering and effecting the human voice or any other audio signal. It can provide everything from a slight detuning, for voice "thickening", to a full $\pm$ octave pitch shift. enabling one person to sing a duet with themselves. Unlike tape speed adjustments or a conventional piteh shifter, the VT-1 alfords separate control of pitch and format, so the users voice can be altered without the "chipmunk" effect. There is also a feature specifically designed to produce "robot-like" talking. Four preset memory locations and four user memory locations.

## Digitech

## dbx



The dbx 290 steren digital reverb) is the perfect solution for anyone who wants professional results without the hassle of programming, while maintaining low price and high quality. With the touch of a button, choose from several different reverh types: hall, chamher, cathedral. room, plate, and gated reverb. Then seleet the reverb's basic size, color and decay time. While a $\mathrm{S} / \mathrm{N}$ ratio of $>87 \mathrm{~dB}$ is impressive by itself. the digital noise reduction pushes the noise floor even lower when the unit is ide. It has $1 / 4$ " ballanced ins and outs.


The Digitech Studio $\mathbf{4 0 0}$ is cipable of up to eight effects at one time. in any order and in an endless number of combinations. Combined with the 4 independent XLR and $1 / 4$ " halanced inputs and outputs. the Studio 400 has the needed flexitility for any professional application. The extensive list of effects includes multiple reverbs. delays, choruses, thangens, auto panner, intelligent pitch shifting. rotary speaker simulator compressor. EQ's, detune and more. You can modify any of the 100 factory presets and save these modifications to 100 user locations. The extensive Modifier section allows total realtime control of up to eight parameters per preset. either via MIDI or with the Studio 4 (X)'s unique dynamic and LFO sellings. $2 U$

| Studio 400 | $\$ 869.95$ |
| :--- | ---: |
| DIO $\quad$ Digital in/out for Sudio 400 ( $A$ ES,/EBU, S/PDIF) | $\$ 279.9$ E |



## Digitech



The Digitech Studio Quad, with 4 completely independent inputs and outputs. redefines multi-effects by giving you the power of two true stereo processors or 4 independent mono processors. It is driven by SDISC(3) technology and offers an extensive collection of reverbs. delays. choruses, pitch shifters. EQ. and more. Other features include: Large custom display - Muluiple inpul/output signal path routings - Automatic input leveling • Dynamic parameter modifiers • and full MIDI implementation. IU


The Digitech Studio Twin true stereo effects processor is the easy to play baby of Digitech's studio processors with all the power of an S DISC® digital processor. Features: 18 Bit A/D. 20 bis D/A conversion 46.875 k Hz sample rate - Multiple simultaneous effects (series or parallel) 28 Dual mode makes it 2 processors in 1 - Parametric EQ - Accepts MIDI program changes - and 99 user programs for storing custom sounds. IU

Studio Twin $1 / 4^{\prime \prime}$ balanced TRS
$\$ 299.95$

## DOD

The DOD 512 is a true stereo multi effects processor that allows you to quickly get the sounds you need such as reverbs, delays, churuses, flanges. pitch shifting. phasers, tremolo. and panning. You also get series and paratlel combinations of reverb or delay. Two independent sources can be plugged in and be processed through two effects separately - Two real time parameter editing controls for tweaking-in your reverb decay, delay time or modulation speed and noise reduction with adjustable threshold • 32 Effects combinations w/15 presets cach - total 480 presets • and 44.1 kHz sampling for full bandwidth effects.


## Eventide



The Eventide H3000-B is an entire production deparment in a single box! This digital audio processor offers all the effects you need. without sacrificing any quality. convenience or effectiveness. The H3000-B features 16 Algorithms, including TimeSqueeze ©. Stuter and Patch Factory: 184 Factory Presets for spontaneous on-air use: and a full complement of production-oriented reverbs, delays, and digitally-generated sound effects. The Soft Keys give one-button access to key parameters making programs quick and easy to use.

| H3000-B + |  | $\$ 2,995.00$ |
| :--- | :--- | ---: |
| H3000-B/LT | Broadcast Lite dynamic ultra-harmonizer <br> (w/o Time Squeeze Board) | $\$ 2.495 .00$  <br> HS395 95 second internal Sampler board |

Eventide's DSP4000B Ultra-Harmonizer is based on the powerlul DSP4000, hut it has a unique set of software programs created especially for radio. TV and post-production by sound designer Jay Rose. The DSP4ONOB offers Timesquecze® stereo time compression and expansion with higher quality than ever before. It's perfeet for a fast-paced "Morning Zoo" radio show. A six line graphic LCD screen less you choose the effect you want in seconds-They're conveniently organized into logical groupings. Every effect features a wide variety of useradjustable parameters. and the LCD screen leads you quickly through the process, explaining how the various parameters affect the sound. In addition to saving presets you create in the DSP400013's internall memory, you can also sture them on a removable PCM-CIA memory card for convenience. added capacity and to protect your unique sounds from use by others. The DSP4OOOB comes standard with balanced analog inpuss and outputs, with audio bandwidth extending to 22 k Hz z. Optional is a digital I/O module that provides 24 -bit AES/EBU and S/PDIF I/O.

| DSP4000B |  | $\$ 3,995.00$ |
| :--- | :--- | ---: |
| DSP4000 | w/AES/EBU \& S/PDIF 1/O's | $\$ 4,995.00$ |
| HS487 | 87 second intemal sampler board | $\$ 995.00$ |
| HS4174 | 174 second internal sampler boird | $\$ 1,495.00$ |



The Lexicon PCM 80 digital effects processor with a true stereo signal path. and the ability to mix analog and digital inputs together offers an exciting range of effects possibilities. The PCM 80 also features a 24 -bit digital bus and multiple DSP architecture. It includes new and old algorithms, with a host of new effects, including revert. delays, chorusing and dynamic spatialization. Features: two DSP processors • dynamic patching • AES Digital VO • Balanced analog XLR I/O - and unique tempo modes. The PCM80 includes SIMM slots for additional effects memory, and a PCMCIS card slot for new algorithms or memory. IU

| PCM80 |  | $\$ 2.795 .00$ |
| :--- | :--- | ---: |
| Dual FX | Dual FX card | $\$ 249.00$ |
| Pitch FX | Pitch FX card | $\$ 249.00$ |
| Post FX | Post FX preset card (Scott Mantin Gershin) | $\$ 199.00$ |
| Music FX | Music FX preset card (David Rosenthal) | $\$ 199.00$ |



The Lexicon Multiple Processor FX technology ${ }^{\text {rM }}$ stereo effects processor is a full strength reverb all the time with up to 5 effects at once. You can expect: a "goof proof' system for quickly fine-tuning any program. without having to enter an in-depth editing mode • visual feedback with on-board help guides - 56 pitch, chorus, EQ. modulation. delay and world-class reverb effects - 200 presets - with database sorting to let you find exactly what you want and more. Operating levels from -10 db to +44 db : analog I/O has balanced XLR and TRS $1 / 4^{\prime \prime}$ connectors, SPDIF digital $/ \mathrm{O}$.

## t.c. electronic



The t.c. electronic Finalizer is a program compressor. master EQ. and high end A/D. at an alfordable price. Siripped across the stereo output of the mixer, the Finalizer is the ultimate digital dynamics tool. It easily adds the essential hoost of energy where you need it most. in the linal DAT or CDR recording. It has a large LCD screen, a one-level menu system, and a unique 'Wizard' function, that identifies the best setting for any given situation. IU

The t.c. electronic DBMAX ${ }^{\text {TM }}$. Digital Broadcast Maximizer is a versatile multiband dynamics processor. It includes EQ, stereo adjuster, automatic gain controller, 3-band look ahead compressor, limiter, expander. and more......all applicable simultaneously.

| DBMAX | Available August 1997 | $\$ 3.995 .00$ |
| :--- | :--- | :--- |



## t.c. electronic



The t.c. electronic Wizard M2000 signal processor will enable you to create Magical Sound. Uncompromising effects processed by the TC DARC's chip offer you a clarily, density, and feel beyond anything you have ever experienced before. The library of proprictary effects includes reverb, pitch shift, delay, chorus, ambience. equalization, de-essing, phasing. compression, gates, expansion. limiting, and stereo enhancement. There are 250 factory presets, and another 250 of your own settings can be stored in the unit. It has digital I/O connectors, S/PDIF. AES/EBU and dithering ensures that the dynamic range in your M 2000 is kept when you digitally connect it to a device with a lower bit resolution. Great care has been taken to create the ultimate user interface. With the Recall Wizard you can instantly find the preset that suits your need in any situation. The single layer interface ensures that all parameters are always only one menu level away. No more paging through endess menu levels. And much, much more.

M2000 $\$ 1.995 .00$

## Yamaha

The Yamaha SPX-1000 is a fully-equipped effects studio at your fingenips. Features: Iotally natural reverberation - an echo room in which you can instantly change any room dimen sions - fully programmable early reflection - a full range of modulation effects - freeze programs that let you replay sound snap-shots • multi-effect programs that combine up to 5 different fully programmable effects. - pitch change. compression. expansion. distortion. rotary panning and much more! The SPX-1000 has a 44.1 kHz sampling frequency. MIDI implementation, A/D-D/A are 16 bit, Yamaha format digital I/O and unbalanced I/4" TS analog IO connectors. IU


## SPX-1000

$\$ 1.829 .00$


The Yamaha REV 100 is basically a no-fuss signal processor - all you have to do is select one of its 99 presel effects and play. The three most critical parameters for all effect programs are adjustable via rotary panel controls - just rotate the appropriate controls until the sound is right. REV 100 effect categories include: reverb. true stereo reverb, gate reverb. delay. delay/reverb, and reverb/modulation. It has 16 -bit $A / D$ and $D / A$ conveners and a 44.1 k Hz sampling rate. Other important features include: advanced MIDI features • easy-to-read 2-digit LED display • and peak LEDs make it easy to set the optimum input level. IU

## REV 100

1/4" TS I/O
$\$ 299.00$


The Yamaha SPX-990 has a wide selection of professional quality digital effects. It has 80 preset effects and 100 memory locations. True stereo (2-in/2-out) configuration allows stereo sources to be processed without disrupting the original stereo image. Effects include: reverb, early reflections, delay \& echo. modulation, pitch change, pan, freeze, and complex effects. Inputs and ouputs arc analog, electronically balanced, with XLR and TRS I/4" connectors. A/D-D/A are 20 bits. 1 U

## SPX-990

$\$ 1,179.00$


The Aphex 104 has two processing types to enhance both ends of the spectrum. The 104 has increased presence and clarity with switch select for normal or high harmonics. Virually noise free with the Big Bottom ${ }^{\text {TM }}$ bass enhancer to increase bass sustain, density and loudness. Operates at -10 dBv or +4 dBu with $1 / 4^{\prime \prime}$ phone jack for VO. IU

## Aphex


 -and null fill. Standard features include: operates with $I / O$ levels from +8 to $-10 \mathrm{dBm} \cdot$ operates balanced or unbalanced automatically - all user settungs externally accessed • RF filtered AC power input • direct relay bypass with remote control of bypass • solo function • and switches LED are indicated. Noise and distortion are virtually eliminated in the Type lli circuitry, while the new special features now make enhancement possible while actually erasing noise from noisy sources.


BBE 462 \& 862 apply different phase correction algorithms to three separate frequency bands. The variable front panel control allows the user to adjust the amount of processing desired BBE® is used to increase the clarity and intelligibility of program material and does not add any exira noise or harmonics to the sound.

| 462 | Dual channels \& controls, $1 / 4^{\prime \prime}$ and RCA unbalanced <br> connectors, line level operation | $\mathbf{\$ 3 4 9 . 0 0}$ |
| :--- | :--- | :--- | :--- |
| $\mathbf{\$ 6 2}$ | Dual channels \& controls, $1 / 4^{\prime \prime}$ and XLR balanced <br> connectors, +4dBu level operation | $\mathbf{\$ 5 9 9 . 0 0}$ |

SPL


The SPL Stereo Vitalizer takes the concept of "audio swectening" to a new level. Designed to be compatible with the way the human ear perceives sound, the Vitalizer's network of interactive filters actually reshapes the entire audio spectrum so that listeners perceive sounds as louder, clearer and more delailed.

| Vitalizer 9319 | $1 / 4^{\prime \prime}$ unbalanced jack version | $\$ 599.00$ |
| :--- | :--- | :--- |
| Vitalizer 9320 | XLR plus $1 / 4^{\prime \prime}$ jack version | $\$ 699.00$ |

SPL Classic Vitalizer has two individual channels with separite sel-up controls allowing the unit 10 be used in full stere mode or as 2 mono chamels.

| Classic V9214 | 1/4" unbalanced jack version | $\$ 999.00$ |
| :--- | :--- | ---: |
| Classic V9215 | XLR plus $1 / 4^{"}$ jack version | $\$ 1,099.00$ |

## dbx



The dbx 296 is a dual-channel Spectral Enhancer that cleans up and details instruments. vocals and mixed program material on stage or in the studio. Independent controls for input gain, low frequency detail, high frequency detail and hiss reduction allow you to adjust the 296 for exactly the amount and type of enhancement you want. You can actually cut hiss while adding high frequency detal and add mass to the bottom end while reducing the "mud" in the mid-bass with LF detail. Other features include: LED meter to display hiss reduction filter activity - clip indicators for each channel signal clipping anywhere in the signal path DynActive ${ }^{\text {TSI }}$ circuitry continually analyzes the input signal and self-adjusts to provide proper balance of high frequency detail and hiss reduction * balanced I/4" TRS inputs and I/4" TS outputs. IU
$\$ 349.95$

## Sabine Room EQ



The Sabine Real-Q Real-Time Adaptive Equalizer, is the first adaptive DSP tool that uses artificial intelligence to automatically analyze and equalize your sound space during the program. The Real-Q only adjusts for changes in the room acoustics. not changes in the mix. If you decide to add bass to the mix, it will not compensate. However, if the audience absorbs the bass. the Real-Q automatically adds it back in. It automatically analyzes and flattens the room, or matches any curve you create, then monitors and compensates for any changes in the roon. The Real-Q provides a full featured RTA and noise generator digital graphic EQ. graphic display of the room's response curve. and storage for 100 different response curves.

| REQ3101 | 1-Channel/zone | $\mathbf{\$ 5 . 4 5 0 . 0 0}$ |
| :--- | :--- | :--- |
| REQ3102 | 2-Channel/zone | $\mathbf{\$ 6 . 9 5 0 . 0 0}$ |
| REQ3103 | 3-Channel/zone | $\mathbf{\$ 8 , 4 5 0 . 0 0}$ |






## Stcreo Graphic $2 / 3$ Octave

| Art HD-15 | 15 Band, 2U. TRS \& BS | \$459.00 |
| :---: | :---: | :---: |
| An HD-15XLR | 15 Band. 2U. XLR | \$509.00 |
| Ashly GQX-1502 | 15 Band. 2U. TRS. XLR \& BS | \$529.99 |
| Biamp microEQ152 | 15 Band, IU, XLR | \$437.00 |
| dbx 2215 | 15 Band. 3U. TRS. XLR \& BX, whlimiter \& type III NR | \$499.95 |
| dbx 3215 | 15 Band, 2U. XLR. BS \& TRS | \$749.95 |
| DOD SR430QX | 15 Band, IU. XLR, Balanced I/O | \$244.95 |
| DOD SR830Q | 15 Band. 2U. TRS, TS \& RCA | \$219.95 |
| DOD SR830QX | 15 Band. 2U. XLR. 1/4" TRS | \$239.95 |
| DOD SR830Q | 15 Band. 2U. TRS (XLR Optional) | \$214.95 |
| Electro-Voice EQ-215 | 15 Band, IU. XLR \& TRS | \$548.00 |
| Furman Q-152B | 15 Band, 2U, XI, \& \% TRS | \$557.00 |
| Klark Teknik DN332 | 16 Band. 2U. XI.R | \$1.204.00 |
| Klark Teknik DN320 | 16 Band. IU, XLR | \$860.00 |
| Rane GE215 | 15 Band, 2U, XLR \& Euroblock | \$559.00 |
| Rane ME15B | 15 Band. IU, microGraphic, TRS \& XLR | \$429.00 |
| Rolls REQ215 | 15 Band, IU, XLR, TRS \& RCA | \$250.00 |
| Samson E30 | 15 Band, IU, TRS \& XLR | \$239.99 |
| White 4675 | 14 Band. 2U. XLR | \$866.00 |
| Yamaha GQ2015A | 15 Band. IU. TRS \& XLR | \$ $\$ 29.00$ |

## Stereo Graphic 1/3 Octave

| Ashly GQX-3102 | 31 Band, 3U, TRS, XLR \& BS | \$1.059.99 |
| :---: | :---: | :---: |
| Bthringer DSP-8000 | 31 Band. 2U. XLR. TRS \& 2-bit MD \& D/A comserters | \$899.00 |
| dbx 2231 | 31 Band. 2U. TRS, XLR \& BS, whimiler \& type 111 NR | \$749.95 |
| dbx 3231L | 31 Band. 3U. TRS, XLR \& BS | \$1.199.95 |
| DOD SR231Q | 31 Band. 2U. XLR | \$.49.95 |
| DOD SR23IQX | 31 Band. 2U, XIR\&TRS | \$.374.95 |
| Electro-Voice EQ-231 | 31 Band. 2U, XLR \& TRS | \$8-40.00 |
| Klaw Teknik DN-360 | 30 Band, 3U, XLR | \$ $\$ .880 .00$ |
| Rane GE60 | 30 Band. XLR. BS \& TRS | \$899.00 |
| Ranc ME60 | 30 Band microGraphic. 2U. XLR. TRS \& RCA | \$699.00 |
| Rolls REQ231 | 31 Band. 2U, XLR, TRS \& RCA | \$525.00 |
| Samson E62 | 31 Band. 2U. XLR \& TRS | \$349.99 |
| White 4856 | 31 Band, 3U, XLR \& TS | \$1,550.00 |
| Yamaha Q20318 | 31 Band, 2U. XLR \& TRS | \$749.00 |
| Mono Graphic 1/3 Octave |  |  |
| Art HD-31 | 30 Band, 2U, XLR, TRS \& BS | \$459.00 |
| Ashly GQX-3101 | 31 Band, 2U, TRS, XLR \& BS | \$629.99 |
| Biamp micruEQ301 | 30 Band. IU. XLR | \$414.00 |
| dbx 2031 | 31 Band, 2U, TRS, XLR \& BS, w/limiter \& Type III NR | \$499.95 |
| dbx 3031 | 31 Band. 2U, TRS, XLR \& BS | \$749.95 |
| dbx 3031C | 31 Band cut only. 2U. XLR, TRS \& BS | \$749.95 |
| DOD 43IQX | 31 Band, IU, XLR, Balanced I/O | \$249.95 |
| DOD 83IQX | 31 Band, 2U, XLR, Balanced I/O | \$249.95 |
| Electro-Voice 2710 | 27 Band w/pink noise gen., 2U. XLR \& BS | \$1.060.00 |
| Electro-Voice EQ-131 | 31 Band, IU, XLR \&TRS | \$524.00 |
| Furman Q-302B | 30 Band, 2U, XLR \& TRS | \$503.00 |
| Klark Teknik DN300 | 30 Band, 2U, XLR | \$1,260.00 |
| Klark Teknik DN301 | 30 Band cut only. 2U. XLR | \$1,316.00 |
| Klark Teknik DN27A | 27 Band, 3U, XLR | \$1,328.00 |

Cominued nex pave....


| Mono Graplic 1/3 Octave (Continued) |  |  |
| :---: | :---: | :---: |
| Ranc GEI 30 | 30 Band. 2U. XLR \& Euroblock | \$529.00 |
| Rane GE-30 | 30 Band. 2U. cutboost cut. XLR \& BS | \$799.00 |
| Ranc ME-30B | 30 Band microGraphic. 1 U . TRS \& XLR | \$419.00 |
| Symetrix 531E | 31 Constant Q Bands. \#U. TRS \& XLR | \$579.00 |
| White 4828 | 31 Baind. 2U. XLR \& TS | \$750.00 |
| While $\$ 200 \mathrm{~A}$ | 28 Band cut only, 2U, BS | \$1,125.00 |
| White 4400 | 28 Band, 2U. BS | \$1,100.00 |
| Yamaha GQ103IBII | 31 Band, IU, XLR \& TRS | \$399.00 |
| Parametric |  |  |
| Aphex 109 | Dual 2-band or mono d-band. IU. TRS. Tubessence | \$495.00 |
| Ashly PQX-571 | Mono 7 band. IU. TRS. XLR \& BS | \$399.99 |
| Ashly PQX-572 | Stereo 7 band, 2U, TRS. XLR \& BS | \$699.99 |
| Behringer PEQ305 | Mono 5 biand. 1U. TRS \& XLR | \$329.99 |
| BSS FCS-916 | Mic/Line amplifier, 1 U, XLR \& TRS | \$999.00 |
| Ubx Project 12.42 | Mono 5 band, 1U. TRS | \$299.95 |
| Klark Teknik DN405 | Mono 5 band. IU. XI,R | \$924.00 |
| Klark Tehnok DN+10 | Stereo 10 band. 2U. XLR | \$1,372.00 |
| Rance PE-15 | Mono 5 band, notel tilter, IU, XLR \& TRS | \$399.00 |
| Ranc PE-17 | 5 band, IU. XLR \&TRS | \$549.00 |
| Symetrix 551E | 5 bind. IU, XLR \& TRS | \$ 49.00 |
| Stereo Dipital Parametric |  |  |
| Ros DPX Manframe | 30-Band, IU, XLR (options for AES/EBU) | \$995.00 |
|  | 6-Band st., 2U, AES/EBU (Time Code option \$1.000) | \$3.000.00 |
| Z.ys. 2-chm | As above whet of display \& controls for each band. 4 U | \$9.900.00 |
| Proprammable EQ |  |  |
| Art DR-X 2100 | IU. TS | \$768.95 |
| BSS IJPR-901 II | Mono 4 band Dynamic EQ/or new split function. dual ch. 2 band. IU. XLR | \$1,549.00 |
| Dolby 740 | Spectral Processing. IU, XLR | \$1,760.00 |
| Oxmoor DEQ-1 | Mono 29 band, IU. XLR | \$1.118.60 |
| Oxmoor DEQ-11 | Mono 29 band. 2U. XLR | \$1,540.00 |
| Ranc RPE 228 | Stereo 28 band. Remose Programmable. IU Euroblack I/O | \$1.249.00 |



We would be happy to fax or mail complete specifications on any equadizer sou find of interest.



## Goldiline



The new (Goldline FD-23, used with any equalizer, is a fast and effective way to elminate feedback. The FD-23 makes use of the same filters used in expensive $1 / 3$ octave analyzers. You can simply and quickly ring-nut any room by raising the level of the sound system until feedhack occurs. The LED display of the FD-23 will indicate which frequency to cut allowing the minimum cut necessary to kep the music while eliminating the leedback. It is a rugged porable instrument with burt-in microphone and is powered by $A$ A batleries or a 12 vole DC supply. 120\%.., 3-1/4"xs"x2-1/4

## Furman



The Furman IP-8/IP-2 Iso-Patch temporarily or permanenty isolates line level audio signals. to break ground loops that cause buzz and hum. It features eighs inpus/ouputs in a standard hall-nernal contiguration. IU. The IP-2 is an inexpensive dual channel version of the IP-8. It features 2 Inputoulput channels fitted with 1/4" jacks.

| $\mathrm{PP}-8$ | $\$ 259.00$ |
| :--- | ---: |
| $\mathrm{P}-2$ | $\$ 69.00$ |

100


BGS

## Sabine

Sabine FBX-901 \& 901/S has automatic feed back elimination, with more gain before feedback. and no muting of sound: these are the proven benefits of Sabine"s FBX Feedback Exterminators. Thousands of sound engineers and musicians are using the FBX's patented adaptive filters for fast and precise feedback control. Now Sabine brings you two new versions.


| FBX-901 | Single channel w/nine filters | $\$ 6.49 .95$ |
| :--- | :--- | :--- |
| FBX-901/S | As FBX-901. 1/5-octave version | $\$ 649.95$ |

The Sabine FBX-SOLO. is a miniature version of the FBX-901. One SOLO controls feedback on one input channel-you decide which feedback prone inputs get atumatic feedback control and maximum gain, from one channel to all your channels. Use one FBX-SOLO per channel; up to six units per rack tray. Mix mic and line versions to match your system requirements. SOLO. DSP based automatic notch tilter \& feedback controller.

| SL-620 | Line level input version. $1 / 4^{\prime \prime}$ I/O's | $\$ 324.95$ |
| :--- | :--- | ---: |
| SM-620 | Microphone level input version. XLR I/O"s | $\$ 3.49 .95$ |
| SL6Rack | Rack Tray, holds up to six SOLO's | $\$ 4+.95$ |
| SPSU-1 | SOLO single unit replacement power supply | $\$ 19.00$ |



## Aphex



The Aphex 9000 Modular Processing System is a space saving way to install some of the more popular Aphex products.

| 9000 R | 3U unpowered | $\$ 379.00$ |
| :--- | :--- | ---: |
| 9000 PS | 9000 series power supply, 2U Aphex modules only | $\$ 499.00$ |
| 9001 PS | same as 9000PS for added DBX® compatibility | $\$ 599.00$ |
| 9005 PS | 3U 9000PS 5 amp power supply, Aphex only | $\$ 699.00$ |
| 9251 | Aural Exciter module, single channel | $\$ 449.00$ |
| 9301 A | Compeller module, single channel | $\$ 549.00$ |
| 9621 | Logic assisted gate module, single channel | $\$ 449.00$ |
| 9651 | Expressor module, single channel | $\$ 449.00$ |
| 9721 | Dominator Il, single channel | $\$ 595.00$ |
| 9901 A | Parametric EQ, single channel | $\$ 449.00$ |
| 9000 BP | Blank panel, single position | $\$ 19.00$ |

## dbx



The (ibx 900 Series is a modular signal-processing system that eliminates redundant packaging. saves rack space and provides exceptional flexibility and serviceability.

| F900A | 9-Channel mainframe, 3U | $\$ 599.95$ |
| :--- | :--- | :--- |
| FS900 | 2-Channel horizontal mini-frame. 1U | $\$ 399.95$ |
| 902 | De-esser module | $\$ 299.95$ |
| 903 | Over Easy Compression module | $\$ 295.95$ |
| 904 | Noise Gate module | $\$ 295.95$ |
| 905 | 3-Band Parametric/Noteh Equalizer module | $\$ 499.95$ |
| 911 | Type I NR Encode/Decode module | $\$ 239.95$ |
| 929 | 2 Channel single ended NR module | $\$ 399.95$ |
| 941 A | 2 Channel Type II Encode module | $\$ 259.95$ |
| 942 A | 2 Channel Type II Decode module | $\$ 269.95$ |
| BP-900A | Blank panel | $\$ 12.95$ |
| $900 / E X T$ | Extender card | $\$ 99.95$ |

## GREAT MNDS DO THMKK ALKEE！



The Aphex FM Pro
\％


Station Manager


Engineer
veryone imagines being louder than their competition without causing listener fatigue．It＇s no longer just a fantasy．With the new Aphex FM Pro，loudness doesn＇t come at the cost of mind numbing grunge and distortion any more．It took the genius of five existing patents，combined with six new inventions．to create the most powerful，greatest sounding processor ever．

> 资铝 Engincers will love the ease of set-up and use, plus remote control and security features to keep unwanted hands off the controls.
> Program directors will love the complete flexibility to fashion truly unique processing for their particular programming and tastes.
> Starion managers will love the increased loudness to grab listeners and the high audio quality to keep them tuned in.

It＇s a no brainer－if you want loud without listener fatigue，call for a demonstration today．

## Discover how good your station can sound!

## Audio Processing from CRL Systems

## DP-100 Digital Processor

 The Next Generation FM digiting audio quality. superior loudness \& outstanding audio quality.No matter the size of your station or the size of your budget CRL has a quality system to fit your needs. Experience CR's's audio products for Radio and Television.

Try CRL. We will help you get the most from your audio processing investment!

| FM Radio | AM Radio | Television |
| :---: | :---: | :---: |
| - DP-100 Digital Processor | - AM Stereo Amigo | - TVS-3003 Limiter \& MTS Generator |
| - SC-100 Digital RDS/ RBDS Generator | - AM-4M Mono Modular System | - TVS-3001 Audio Controller |
| - Amigo FM Processor | - MBL-100 <br> News/Talk/Sports | -TVS-3005 SAP Generator |
| - FM-2G+ Modular System |  | - BAP-2000 Mono Processor |

Circuit Research Labs, Inc. Audio processing for every market \& every budget!


## Behringer



The Behringer Denoisers are single-ended noise reduction unus with a cut-off frequency active over a range from 800 Hz to 20 kHz They greatly reduce system noise in radio and TV productions, recording studios. tape duplication facilities, cuting rooms and project suites. The active ingredients in Behringer's Denoisers reside in a side-cham. not in the way of the main signall path. This elegant 'negative feedback' design offers minimal disturbance to your valuable signal. giving you a very clean transparent audio pabhway.

| SNRIO00 | 2-Channel Denoiser | $\$ 249.99$ |
| :--- | :--- | :--- |
| SNR2000 | 2-Channel. Multi-band Denoiser | $\$ 369.99$ |



The Dollyy Model 363 provides two channels of Dolby SR and/or A-type noise reduction. Features include automatic record/play change-over. huilt in Dolby noischone generators, auto compare test facility and active balanced mput and output circuitry.

| 363 SR/A | Two-channel unit will Cat. No. 300 <br> switchable Dolby SR and A-type module | $\$ 2.995 .00$ |
| :--- | :--- | :--- |
| 363 SR | Two-channel ums wih Cat. No. 350 <br> Dolby SR only modules | $\$ 2.655 .00$ |

## dbx



The $\mathbf{d b x} 140 \mathrm{X}$ and 150 X provide more than thaB of exira dynanic range. The 140 X is ideal for cart machines, telco lines. videotape audio tracks. STL's. etc. and the 150X for open-reel tape machines. full-bandwidth digital recorders. elc. Units are half/rack and IU

| 140X | Type I Noise Reduction. 2 Channel | $\mathbf{\$ 3 1 9 . 9 5}$ |
| :--- | :--- | :--- |
| 150 X | Type I Noise Reduction. 2 Channel | $\$ 319.95$ |

## Roland



The Roland SN-700 is a fully digital noise elimination system that employs exclusively designed DSP circuitry to remove all types of noise without "breathing" or changing the ronality of the overall sound. This is achieved with two separate noise reduction circuits that hande noise and hum independenty. The SN-700's single-ended design can perform noise cancellation in real time, making it ideal for broadcasting. sound reinforcement and other professional applications.


## Audi~cord



The Audi-Cord DL Series is an excellemt value. The playback decks have replay lock out, audio muting (secondary tone switchable) and automatic motor turn off. The record decks have analog VU meters, automatic meter swiching from record to play and an optional timer. The DL Series also has a dual ranspors, Record/Play available. This machine will allow you to make dubs or stereo to mono mix dubs.

| DL-PM | Mono Playback | \$1.050.00 |
| :---: | :---: | :---: |
| DL-PS | Stetco Playback | \$1.150.00 |
| DI.-RM | * Mono Rec/Play | \$1,550.00 |
| DL-RS | *Stareo Rec/Play | \$1.800.00 |
| DL-DM | ${ }^{\text {\% }}$ Dinal M Mono R/P | \$2.700.00 |
| DL-DS | *Dual Stereo R/P | \$2,800.00 |
| 184-0009 | Terriary Tome Delector | \$ 40.100 |
| $185-0007$ | 8k $\mathrm{H} / \mathrm{L}$. Ter Ose (Rec) | \$60.010 |
| 185-0006 | Rack whelf | \$65.00 |
| *-T | Timer option add | \$100.00 |

## Broadcast Electronics



The
Broadcast Electronics Dura-Trak
is built to deliver long term relability with a mechanical design derived from the Phase Trak 90 machine. A superior cartridge guidance sybtem, previously played cart lockout and instrumentation quality balanced inputs and outputs are a few of the features that make the Dura Trak 90 a grear cart machine value.

| DT90AP | Mono Playback | $\$ 1,650.00$ |
| :--- | :--- | ---: |
| DT90ARP | Mono Rec/Play | $\$ 2,500.00$ |
| DT90APS | Steco Playback | $\$ 1,800.00$ |
| DT90ARPS | Stereo Rec/Play | $\$ 2.750 .00$ |
| Rack shelf | $19^{*}$ wide, $7^{\prime \prime}$ high rack shelf | $\$ 220.00$ |



BGS


The Fidelipac Dynamax CTR10 series is ruggedly constructed with a precision DC capstan motor and PLL control circuitry for excellent speed stability. Inputs and oulputs are via XLR's or 9 pin "D" connectors. Remole control, tallies and FSK data interfacing are accesced thru a 50 pin " $D$ " connector.

| CTR10 Series |  |  |
| :---: | :---: | :---: |
| CTR11 | Mono Reproducer | \$1,795.00 |
| CTR 12 | Stereo Reproducer | \$1.935.00 |
| CTR13 | Mono Recorder/Reproducer | \$2,640.00 |
| CTR14 | Stereu Recorder/Reproducer | \$2.890.00 |
| ESDIO | Eraser/Splice Detector | \$1.390.00 |



## Audiopak-ITC~Fidelipac Carts

 for superior high frequency saturation headroom, in a light blue casing with the sume neutral design as the AA-3. Come in 24 packs. priced each. | Broadcast Cartridges | A-2 | AA-3 | AA-4 |
| :--- | :--- | :--- | :--- |

| Bulk Emply | 3.85 | $\mathbf{5 . 2 5}$ | N/A |
| :--- | :--- | :--- | :--- |
| Empty | 4.19 | N/A | N/A |
| 10/20/35/40/50/ |  |  |  |
| 65/70/90/100 Seconds | 5.00 | 6.10 | $\mathbf{7 . 0 0}$ |
| $140 \mathrm{Sec} / 2.5 / 3.0 /$ |  |  |  |
| 3.5/4.0/4.5 Minutes | 5.65 | 6.85 | $\mathbf{7 . 7 5}$ |
| 5.0/5.5/6.0/6.5/ |  |  |  |
| 7.5/8.5/10.5 Minutes | 6.35 | $\mathbf{7 . 9 0}$ | $\mathbf{9 . 0 0}$ |

Audiopak A-2's come
with a black casing and with a black casing and
605 ferric oxide tape for mono applicutions. AA-3's come with high-outpu, low-distortion 613 tape in the familiar dark blue "neutral-desicn" casing. or "digital-ready" AA-t's with olt lape. a premium oxide formulation designed fox euperior high fruquency

| C:at. No. | Price each |
| :---: | :---: |
| AN-11 | \$9.88 |
| AA-10 | $\$ 10.03$ |
| AN-20 | $\$ 11.17$ |
| AA-40 | \$10.32 |
| As-70) | \$10.47 |
| AA-1013 | \$10.76 |
| AA-2.5 | \$11.6.3 |
| AA. 30 | \$11.92 |
| AA-3.5 | \$12.21 |
| AA-4.0 | \$12.50 |
| A-4. 5 | \$12.79 |
| AA-5.0 | \$13.23 |
| AA-5.5 | \$13.52 |
| AA-6.5 | \$14.10 |
| AA-7.5 | \$14.83 |

Replacement Parts and bulk lubricated tape for all carts are available. please cull for pricing.

## Mini Disc

| Sony |  |  |
| :--- | :--- | ---: |
| MDW60A | 60 Minutes, box of 10 | $\$ 94.20$ |
| MDW74A | 74 Minutes, box of 10 | $\$ 113.20$ |

TDK

| MDXG60 | 60 Minute | $\$ 14.17$ |
| :--- | :--- | ---: |
| MDXG74 | 74 Minute | $\$ 17.47$ |

「Fidelipac Dynamax@ Cobalt, Mastercart 350)
> \& 300. Audiomax © 3000 \& 4000.
> Please call Broadcasters Gencral Stare for pricing and aralability!

Audiopak IA-II Ipreviously 1TC/Scotcheart broadcast cartidee utilues a passive system of internal tape guidance. which allows your carridge machine to do a precise job. Come in 10 packs.
$\qquad$


## Fidelipac

| CTR100 Series with CartScan and built-in Splice Detector |  |  |
| :--- | :--- | ---: |
| CTR111 | Mono Reproducer | $\$ 2.675 .00$ |
| CTR112 | Stereo Reproducer | $\$ 2.80 .00$ |
| CTR123 | Mono Recorder/Reproducer | $\$ .475 .00$ |
| CTR124 | Stereo Recorder/Reproducer | $\$ 4.830 .00$ |




Mini Disc Recorders

| Manufacturer | $\underset{\text { Out }}{\text { Analog }}$ | $\underset{\text { In }}{\text { Analog }}$ | Digital Out AES/SPDIF | Digital In AES/SPDIF | Remote Port | Price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Denon |  |  |  |  |  |  |
| DN-995R | X | X | X | X | P/S | \$3,800.00 |
| DN-990R | X | X | X | X | P/S | \$2,800.00 |
| DN-981F | X | N/A | X | N/A | P/S | \$2,300.00 |
| DNMIO50R | X/R | X/R | X/R | X/R | P/S | \$1,800.00 |
| DN-1100R | X/R | X/R | R | R | P | \$2,600.00 |
| DN-80R | R | X | X | X | S | \$4,500.00 |
| $\begin{array}{lllll}\text { DN-045R } & \text { Used for duplication for Serial only RS232C/RS422A } & \text { S } & \$ 4,200.00 \\ \text { Otari }\end{array}$ |  |  |  |  |  |  |
| Otari <br> MR-10P |  | N/A | R | N/A | P | \$2.625.00 |
| MR-I0RP | X | X | R | R | P/S | \$3.255.00 |
| Sony - |  |  |  |  |  |  |
| MDS-B5 | X | X | R | R | P/S | \$3.295.00 |
| MDS-B6P | X | X | R |  | P/S | \$2.300.00 |
| MDS-JE5 10 | R | R | 0 | 0 |  | \$360.00 |
| MZ-B3 | M | M |  | OPT | P | \$899.95 |
| Tascam - M |  |  |  |  |  |  |
| MD-801P | X/R | X/R | X/R | XR | P/S | \$2,399.00 |
| Key: $\quad X=X L R \quad \begin{aligned} \\ \text { a }\end{aligned}$ |  |  |  |  |  |  |

MD technology was introduced in 1992 by Sony for the consumer market to compete against Phillip's DCC, cventually replacing it. Since that time many professional units have been developed based on the MD format meaning they all have similar specs and differ only in their topology, features and prices. (DCC never really got started.)

MD Specs includes: 2-Channel • Playback: optical laser pickups • Record: magneto optical overwriting Compression Algorithm: ATRAC, Adaptive Transformer Acoustic Coding - Rec/Play time: 74 minutes maximum A/D converter: 16 -bit linear $\cdot$ Sample rate: $44.1 \mathrm{kHz} \cdot$ Start time: $<100 \mathrm{~ms} \cdot \mathrm{~S} / \mathrm{N}$ ratio: $>8+\mathrm{dB} \cdot$ Frequency response: $20-20 \mathrm{kHz} \cdot$ Modulation system: EFM, Eight to fourteen modulation

Specific Model Features

Denon


DN-995R Rec/Play • 1/3 rack by 3U • L/R level adjusi I/O • External sync I/O - Serial/Parallel remote - PC control software - and rear H/P jack
$\$ 3,800.00$
DN-981F Playback only version of the DN-995R without the external sync. Includes: "hot start": assign 10 tracks to be fired from PC software or parallel control
$\$ 2,300.00$


DN-MI050R Rec/Play. 3RU, slandard edit functions plus cue \& A-B section editing •auto level record start • $\pm 9.9 \%$ vari-pitel - search/scan/with jog whed - XLR/RCA analog VO: AES/EBU \& SPDIF digital I/O • PC keyboard interface - optional ACD-25 rate converter. ACD-26 hot start kit (up to 20 tracks) and ACD-27 SMPTE TC kit
$\$ 1.800 .00$


DN-80R Housed in a rigid shock proof aluminum case, this portable MD boants a 16 MB RAM butfer ( 40 stereo seconds), monitor speaker mic attenuator \& mare. Dimensions: $8.75^{\prime \prime} \times 3.3^{\prime \prime} \times 10.7^{\prime \prime}$ Weight: 1.5 lbs .

Broadcasters General Store (352) 622:7700 Fax(352) 6297000


MZ-B3 MD for the boardrom! Stereo or mono (not compatible with professional units), built-in mic and speaker, auto datetime stamp function. selectable VOX operation, 3.5 mm I/O and H/P Jack. Uses 3 -AA batteries or optional AC adapter and case.
$\$ 900.00$

MZ-R3 "Walkman" style M1D Rec/Player with 4 MB buffer for shock resistance. LCD display. wack mark/move/crase one/all tracks, edit function. internal mic/speaker, and stereo headphones with in-line remote. AC adapter. dry battery case \& carrying case included.
$\$ 550.00$


## Tascam



| MD-801R | Rec/Play, 3U, front panel input adjust, standard played <br> it functions, SCMS ID selectable, "Jog" dial for editing <br> to 1/8Gth of a second, and multiple unit link functions. | $\mathbf{2 . 4 9 9 . 0 0}$  <br> MD-801P Playback only version of the MD-80IR | $\$ 2,399.00$ |
| :--- | :--- | :--- | :--- |
| BU-801 | RAM Buflier for MD-801 | $\$ 249.00$ |  |

## 360 Systems

The Instant Replay by $\mathbf{3 6 0}$ systems is a fully professional audio sampler that can store up to 1000 cuts of audio on an 8 . 16 or 24 hour internal hard drive using Dolby AC-2 audio compression. 500 of these cuts can be stored in 10 banks and each bank of 50 cuts can be "Mapped" to the 50 "Hot Kcys" and may be recalled by typing in the cut number, part of the cut's name or all of the cut's name. Cuts are imponed via the balanced analog inputs, digital inputs or by the standard "D-NET" ( 8 x real time) file transfer system. Each "Hot Key 's" audio is loaded into ar ram buffer for instant sound at the touch of the button. Cuts can be stacked, looped. paused. stopped or initiated from the beginning as fast as you can hit the button. Greal for live theater, production rooms or the drive-time Jock with way too many cants loaded with sound effects, bumpers, themes, voice-overs and station ID's.

| DR5508 | 8 Hour Instant Replay | $\mathbf{\$ 2 , 9 9 5 . 0 0}$ |
| :--- | :--- | :--- |
| DR55016 | 16 Hour Instant Replay | $\mathbf{\$ 3 . 4 9 5 . 0 0}$ |
| DR55024 | 24 Hour Instant Replay | $\mathbf{\$ 3 , 7 9 5 . 0 0}$ |

Digicart/II is a stand alone, hard disc based digital storage device designed especially for broadcast use and is considered the most cost effective machine on the market. It becomes a direct replacement for multiple analog can machines without the expense of routine maintenance and replacement cars. With instant access to thousands of cuts and stacks, zero shutile time, and excellent audio quality it out performs any tape based machines. Digicar/ll is configured with a standard Bernoulli drive and a choice of several large hard drives. An optional external hard drive storage system can expand the storage capacity seven fold. All three popular sample rates are supported as well as Dolby AC-2 for maximum storage capacity. Also featured are: GPI closures - BCD parallel interface - ES-bus serial interface - and non-destnctive editing consisting of head/ail trims • fade infout • and level adjust. Optional remote controls for simple labeling, "onair" control. and production room full remote control as well as software for PC control and digital file transfer via D-Net from one machine to another. Balanced XLR I/O and AES/EBU I/O are standard.
Digicart/II Plus gives you the same great features of the original Digicardll with the following added benefits: space for two internal, large capacity hard drives for up to 10 hours of 16 -bit linear stereo audio or up to 49 hours with Dolby AC-2 • internal 100MB zip drive • 1/O interfaces and D-Net firmware for trinsfer of files between existing 360 Systemis equipment.

| 2510 | Digicarull wilh IGB Hard Drive | \$4,995.00 |
| :---: | :---: | :---: |
| 2520 | Digicarf/ll with 2GB Hard Drive | \$5.395.00 |
| 2530 | Digicard/ll with 3GB Hard Drive | \$5,695.00 |
| 2710 | Digicaryll Plus with IGB Drive (AC-2 $=8 \mathrm{Hrs}$ ) | \$3,995.00 |
| 2720 | Digicar/Il Plus with 2GB Drive (AC-2=16Hrs) | \$4,395.00 |
| 2730 | Digicar/II Plus with 3GB Drive ( $\mathrm{AC}-2=24 \mathrm{Hrs}$ ) | \$4.695.00 |
| RC. 205 | Mini Keyboard Remote Control | \$130.00 |
| RC-210 | Playback Only Remote Control | \$595.00 |
| RC-220 | Full Function, 4 unit. Remote Control | \$745.00 |
| DMF-65/10 | 65 MB Multi-format Bernoulli Discs, 10 pcs. | \$500.00 |
| DMF-105/10 | 105MB Multi-format Bernoulli Discs, 10 pes. | \$750.00 |
| DMF-150/10 | 150MB Multi-format Bernoulli Discs, 10 pcs. | \$990.00 |
| RS-12 | Rackslielf for one or two Digicar/Il or II+ | \$149.00 |
| D-NuK | Field upgrade File Transfer Firmware Kit | \$195.00 |
| D2PlusEUPGK | Upgrade DigicaryII to Plus Series w/Ext. zip drive | \$525.00 |
| D2Plus IUPGK | Upgrade Digicarr/II to Plus Series w/Int. zip drive | \$495.00 |
| Optional hard drives and installation kits for Digicard/l and Digicar/ll Plus |  |  |
| HDIGB | IGB Hard Dise and installation kit | \$495.00 |
| HD2GB | 2GB Hard Disc and installation kit | \$795.00 |
| HD3GB | 3GB Hard Dise and installation kit | \$1,095.00 |

Call hroadcasters Gencral Strre for tupgrade kits for ohder Digicarss and furfher information'

We are happy to arrange a demonstration on any 360 System equipment!





Marant ~ PMD-201 • PMD-221 • PMD-222 • PMD-430



Marant: PMD-320


American Recorder Tech. Maintenance


## Telex



The Telex ACC Series can make up to 27 copies of both sides of a 60 minute casselte in less than 2 minutes. The control unit allows adjustment of audio record level and provides peak reading LED melers to monitor these adjustments. A control unit copies three cassettes and expansion copy units handle four. Copy speed is. 30 ips 16 x with a frequency response of $50-10.000 \mathrm{~Hz}$.


The Telen Replical ${ }^{\text {TM }}$ copier is the smallest, lastest and lightest copier on the market with typical Telex simple operation and a full set of functions such as stop. rewind, copy and interrupt. In has a 16 X record speed and copies bolla sides of a calssette at one time.


The Telex Copyette EH ${ }^{\text {m }}$ Series produces high quality. low cost cassettes in large quantities at nearly 16 times normal speed. This means you can reproduce both sides of a C - 60 tape in less than 2 minutes. You have a choice of $\mathrm{EH}^{1 \times 2}$ models that are capable of duplicating cither one cassette or three at a time. in mono or stereo and features crase heads.

| Copyette 121Mono | Half track, two ch...(30 ips ) | \$550.00 |
| :---: | :---: | :---: |
| Copyette 121Steroo | Quarter Track. four ch. ( 25 ips ) | \$885.00 |
| Copyette 123Mono | H:alf track, two ch.. ( 30 ips ) | \$1,350.00 |
| Copyede 123Stereo | Quarter Track, four ch., (25 ips ) | \$2.150.00 |

Broadcasters General Store (352) 622.7700 Fax(352) 6297000

## Compact Disc Players



## Compact Disc Players

## DN-600F <br> DN-C680 <br> DN-95JFA <br> DN-961FA <br> оп2оогмики <br> on.250

Marantz

Many[temsin Stockfor Immediate Delivery...Call Tooday!

## $\square$ digital

## TWECOMM



Twecomm TC-650 is a remote control for the Denon DN-650F, DN-95IFA, DN96IFA, DN-980F, DN-990R. and DN-995R CD players and mini disc recorder/plisyer units. The remote has the following functions: Standby-Cue
w/LED, Pause w/LED. Play w/LED, Record w?LED. Track step up, Track step down, Search up and Search down A 12 -foot DB-25 control cable is furnished with each unit

| TC-650 |  | $\$ 98.50$ |
| :--- | :--- | ---: |
| TC-675 | Dual adipler allows two CD or MD units to be <br> simultaneously controlled from a single TC-650 | $\mathbf{\$ 7 4 . 5 0}$ |
| TC-600 | Hot Start for DN-981 \& DN-1100R Mint Disc | $\mathbf{\$ 4 6 9 . 0 0}$ |
| TC-700 | Remote for DN-720R or DN-790R | $\mathbf{\$ 7 2 . 5 0}$ |
| TC-770 | Remote for DN-770R | $\mathbf{\$ 7 2 . 5 0}$ |

Marantz
Marantz CDR 620/615 Recorders

| Features | CDR620 | CDR615 | Remarks (pertain to CDR 620 only) |
| :---: | :---: | :---: | :---: |
| AES/EBU digital I/O | yes | no | output suitable for cascading |
| SPDIF digital I/O coax | yes | yes |  |
| XIR amalog 1/O | yes | in | 620's input sensitivity is switchable by software |
| Cinch Analoge I/O | no | out |  |
| Level meter accuracy | 0.5 dB | 0.5 dB | Metering according to broadcast guidelines |
| Sample Rate Convener | yes | yes |  |
| Sample Rate Converter on/olf | yes | option | For precise mastenng of +4.1 kHz source material |
| Auto Track Increment on level | yes | yes | Frame accurate |
| Increment level adjust | yes | yes |  |
| Auto Track Incr. From CD | yes | yes |  |
| Auto Track Incr. from DAT | yes | yes |  |
| Auto Track Incr from $\overline{\mathrm{DCC}}$ | yes | yes |  |
| Auto Track lucr from MD | yes | yes |  |
| Index recording | yes | option |  |
| Digital fade-in | yes | yes |  |
| Digital fade-out | yes | yes |  |
| Variable Audio Delay | 1 MB | IMB |  |
| Variable Pause recording | yes | yes |  |
| Emphasis on/olT | yes | option |  |
| Copy Prohibit on/off | yes | option |  |
| ISIRC code recording | yes | option |  |
| EAN/UPC code recording | yes | option |  |
| SCSI-II | yes | no |  |
| Dedicated wire remote control | yes | option |  |
| Parallel Remote 1/O | yes | yes |  |
| High Speed Copy | yes | no |  |
|  |  |  | CDR620 Standard with RC620 remote control $\quad \$ 3.600 .00$ |
|  |  |  | CDR615 |
|  |  |  | RC620 Oprionall Remote Control for CDR615 $\quad \$ 300.00$ |



## DATS



PDR-1000
PDRIOO-TC

## Otari

DTR90T

| Panasonic |
| :--- |
| SV3800 |
| SV3900 |
| SV4100 |
| Sony |

DTCA6
PCM-R500
PCM2800
PCM7010F
TCD-D8
TCD-DIOProll
TCD-DI00

## Tascam

| DA-PI |
| :--- |
| DA-20 |
| DA-30MK |
| DA-60 |

DA-60

## Key:



## 111

Manyltems in Stock for Immediate Delivery...Call Today!


## Tascam



DA302 3RU, dual indepenten DAT recurder • high apeed DAT duplicator has SPDIF I/O. AES/EBU ourpun only digital interfice and RCA analog $1 / 0$ inturtaces. (XLR $/ 0$ are optional) - 2 x speed duplication • $1 / 2$ speed rectplay LP mode @ 32 KH .
\$1.999.00
LAD302 XIR balancing kit
$\$ 100.00$

## DAT Tape \& Cleaner

American Recorder Technology

| DAT101 | Dat Cleamer (Wat) |
| :--- | :--- |
| DATIOA1) | Dit Clemer (Dry) |



## DAT Tape 8 Cleaner

| 「To erase DĀ̄̄ tapes a demagnetizer Iwith very high flux is required See page 28. |  |  |
| :---: | :---: | :---: |
| Ampex |  |  |
| $467 \mathrm{R015P}$ | 15 Mimute, box of 10 | 569.30 |
| $467 \mathrm{R030P}$ | 30 Minute. box of 10 | \$84.20 |
| 467 R 046 P | 46 Minute, box of 10 | \$94.60 |
| $467 \mathrm{R060P}$ | 60 Minute. bex of 10 | \$107.70 |
| $467 \mathrm{R090}$ | 90 Minute. box of 10 | \$129.40 |
| 467R120P | 120 Minute, box of 10 | \$152.80 |
| Panasonic |  |  |
| RTR19M | 19 Ninutes, box of 10 | \$55.00 |
| RT-P3+M | 34 Minutes, bux of 10 | \$63.00 |
| RTR¢ヶM | (h Minutes, box of 10 | \$75.00 |
| RTP9+M | 94 Minutes box of 10 | \$88.00 |
| RTP12+M | 12.4 Minules, box of 10 | \$99.50 |
| RTRCLP | Dat Head Cleaning Tape | \$11.00 |
| Sony Professional DAT Tape |  |  |
| PDP34 | 3.4 Minetes, bex of 10 | \$120.30 |
| PDP6t | 64 Mmutes box of 10 | \$157.30 |
| PDP94 | 94 Minutes, box of 10 | \$191.30 |
| PDP!2t | 124 Minutes, bux of 10 | \$225.00 |



## AKAI

Akai DD1500 is a multi-track MO / hard disc recorder / editor that is ensy to use by virually anyone involved in audio editing. Being a dedicated system with no host computer required. not only is performance optimized for recording. editing and syncing audio to picture but you will find that the DDI500's performance is far more reliable than computer based systems. The DD1500 can be configured according to your needs. You may create an 8 -track system using a single MO disc or. if you prefer, will be able to create a true 16 -track system with a fixed hard disc. A future upgrade will also allow the DDI 500 M to accommodate 6 AMB of RAM allowing eight 'sampler tracks" thereby effectively creating 16 -tracks from one MO. A custom LSl in the DD1500M offers 32 channels of audio processing which, although configured as 16 -tracks. allows crossfades on butt edits to be achieved within one track and across all sixteen tracks simultaneously. All systems include the DD 1500 M mainframe. DD1500L controller. SMPTE/EBU timecode interface. biphase sync. video sync. RS 422 machine control and DSP.


AKAI DR4's hard disc recording medium offers 4-channel simultaneous recording and playback with a wide range of editing functions. Its simple. user-friendly operation has the fecl of an analog recorder. and the large jog/shuutle wheel makes editing fast and easy. Its expansion possibilities allow you to increase the number of tracks and the recording time. The DR4 records sound data on random access hard discs so you can jump to any of the 108 assignable location points. Up to 16 tracks can be recorded or played by linking four DR4 units together and running them simultaneously. Operate the master unit. and the slave units automatically follow. Editing functions include: copy. move and insert. The DR4 contains an 18 -bit, 64 -times oversampling A/D converier and an advanced single-bit dual D/A converter. The DR4 has digital input and output terminals for AES/EBU Types I and II. and can backup all four channels to a DAT recorder.

| DDI500B | Basic 16-Track System includes 4 analog and 4 digital I/Os, 16MB RAM | \$17.825.00 |
| :---: | :---: | :---: |
| DDI500E | Expanded System includes 12 analog and digital inputs. 16 analog and digital outputs, 16 channcls real-time digital EQ, 64 MB RAM | \$26.250.00 |
| DDI500A | Analog interface with 4 A/D and 4 D/A converters | \$1.570.00 |
| AD4 | Optional 4 A/D for DD1500 | \$550.00 |
| DA4 | Optional 4 D/A for DDI500 | \$390.00 |
| DIO4 | Optional 2 AES/EBU digital I/O interfaces ( 4 channel) | \$550.00 |
| DDIs00X | 1.3GB Magneto Optical Disc Drive | \$5,475.00 |
| SMOF52106 | Second 1.3GB Magneto Optical Drive for DDi500X | \$3.250.00 |
| EQ16 | 16 Channel real-time Digital EQ | \$780.00 |
| EXM1508 | 8MB RAM Memory | \$ 615.00 |



| DR | Hard disc recorder (user supplies the hard drive) | \$1.79 |
| :---: | :---: | :---: |
| DRAdS | Hard dise recorder with 540 MB hard drive | \$2.145.00 |
| IB110D | Digital interface allows four channel playback \& recording via digital I/ | \$299.00 |
| IBIIIS | SCSI Interface is for backing up to an MO disc | \$199.00 |
| IB112T | SMPTE reader/generator oplion. V3.0 version soris | 0 |
| 1813M | MIDI Interface for MIDI sequencer synchronization, V3.0 version software | \$209.00 |
| ALX 50 | Cable to connect multiple DR4d's | \$19.9 |

AKAI's DR8 is a compact. rackmountable, easy to use digital recording/editing system offering 8 analog $1 / O$ 's and 2 I/O cluannels of AES/EBUSPDIF. Up to 7 DR8 units can be chained together for a total of 56 racks. The edit modes include: copy, move, insen, delete, erase and slip. The onboard 16 -channel mixer lets you create a stereo mix of disc tracks as well as track merging. Special features include optional internal hard drive. jog/shutile wheel with 2 resolutions, auto/fool switch/manual punch in/our, 109 locate memories and adjustable preroll. Five expansion slots atcommodate optional interfaces: SMPTE, MIDI, ADAT optical I/O, RS-422, and Bi-phase I/O for sync to film machines.


| DR8 | 8-Track digital recorder w/16-channel mixer | \$3,495.00 |
| :---: | :---: | :---: |
| DR8HD | DR8 w/ IGB internal hard drive | \$4.295.00 |
| DR16 | 16-Track digital recorder w/16-channel mixer | \$4,995.00 |
| DRI6HD | DR16 w/ 2GB intemal hard drive | \$6.380.00 |
| DL16 | Remote record/cdi/mix controller for DR8 \& DR16 | \$1,795.00 |
| SuperView | VGA interface card for DR8 \& DR16 | \$699.00 |
| IB80IS | SCSI interface | \$299.00 |
| IB802T | SMPTE interface | \$379.00 |
| IB803M | MIDI interface | \$299.00 |
| IB804A | ADAT interface | \$299.00 |
| IB805R | RS-422 interface | \$299.00 |
| IB806B | Bi-phase interface | \$299.00 |
| EQ8 | 8-Channel, 3 band parametric EQ board | \$550.00 |
| EQ16 | 16-Channel, 3 band paramerric EQ board | \$(199.00 |



## Panasonic



The Panasonic MDA-1 multi-channel digital audio tape recorder benefits from the latest developments in transpor technology to incorporate an "intelligent". quick response software controlled tape transport using the ADAT S-VHS tape format. A Dynamic Braking System enables the transport to treat recording tape gently while moving quickly between locate points. H has onboard digital editing capabilities such as: Track Copy. Tape Offset and Track delay. The Track Copy creates a digital clone of a single track or a group of tracks. The Tape Offset enables shifting of time reference between multiple MDA-I's. Track Delay allows the time reference of a track to be delayed up to 170 ms . Automated features include an on-board 10 -point auto locate memory system, auto record, auto play. auto return and rehearse functions. An easy to read fluorescent display shows level metering with three modes of peak display while the tape counter references elapsed time in hours, minutes, seconds and hundredths of seconds. The MDA- 1 offers 18 bit 128 times oversampling analog to digital converters. The digital to analog converters offer 20 bit equivalent, 8 times oversampling performance combined with a user selectable 44.1 or 48 kHz sampling rate. Included are both balanced XLR and RCA inputs and outputs.

| MDA-1 |  | $\$ 3.495 .00$ |
| :--- | :--- | ---: |
| RT-DA+4 | 4 Minute ADAT tape. box of 10 | $\$ 129.50$ |

## Sony

Employing the His video cassette tape format, the Sony PCM- $\mathbf{8 0 0}$ records and reproduces 8 channels of digital audio for 108 minutes in 16 -bit linear with an NTSC standard ' 120 ' tape. It is equipped with AES/EBU digital audio I/O using D-sub 25 -pin connectors and balanced XLR analog I/O for conncetion with professional audio equipment. The sampling frequency is selectable from 44.1 kHz or 48 kHz . It includes convenient noiseless auto punch in/out operation with rehearsal function. variable speed playback
 $\pm 6 \%$ in $0.1 \%$ steps, and two point aute locate function. Up to 16 units can be operated in perfect synchronization with the optional RCC-Sl sync cables. The PCM-800 provides SMPTE/EBU time code generation and chase synchronization with the DABK-801 sync board.

| PCM-800 | 16-Bit 8-Channel Digital Recorder | $\mathbf{\$ 5 . 9 9 5 . 0 0}$ |
| :--- | :--- | ---: |
| RMD800 | Remote control unit, controls up to six units | $\mathbf{\$ 1 , 5 0 0 . 0 0}$ |
| RCC-SI | Sync cable, Im | $\$ 39.00$ |
| DABK-801 | Sync board | $\$ 800.00$ |

## Hl-8 Tape \& Cleaner



## American Recorder Technology

| V311A | VHS/ADAT Recorder Cleaner (Dry)) | $\mathbf{\$ 2 0 . 0 0}$ |
| :--- | :--- | :--- |
| V311D | 8 mm Recorder Cleaner (Dry) | $\$ 20.00$ |
| V311 | 8 mm Recorder Cleaner (Wet) | $\mathbf{\$ 3 2 . 0 0}$ |


| TDK |
| :--- |
| P6HP Prol20 |



Building on the success of the DA- 88 the Tascam DA 98 ofters exciting new features like confidence monitoring, individual track tape/source monitoring. an integrated electronic patchbay, digital track copy and switchable reference level capability. Sony P2 and MIDI synchrontzation are standard. it has anew LCD display and the ability to defeat it's dither function. The DA-98 utilizes the DTRS $\otimes$ His format to deliver up to 116 minutes of digital indio recording on 8 tracks and is compatible with all DTRS fomat recorders. It has a that 20 Hz to 20 kHz frequency response, a dynamic range that exceeds 92 dB and uses 20 bit Delta Sigma A/D converters with 64 times oversampling and $20 \mathrm{bit} \mathrm{D} / \mathrm{A}$ converters with 8 times oversampling.

DA-98

|  | $\$ 5.999 .00$ |
| :--- | ---: |
| System controller, controls up to 6 | $\$ 1.599 .00$ |
| 24 Track remote meter | $\$ 999.00$ |
| AES/SPDIF interface | $\$ 1.149 .00$ |
| SPDIF interface | $\$ 1.399 .00$ |
| Digital 8 track recorder. modular | $\$ 4.799 .00$ |



## The Roland PMA-5B

Personal Music Assistant is an entirely new concept in compositional and backing devices. This unique, palm-sized instrument offers unprecedented recording and playback options. It features a high-quality GM/GS sound source, an eight-track sequencer. a powerful intelligent arranger and a whole lot more. Everything, but the volume, is accessed and controlled via the touch-panel interface or "touch-screen." Some of the main fealures: 306 synthesizer and instrument sounds. 16 drum sets • Roland's Intelligent Aranger with 100 Music Styles • 20 song memory, store and recall user patterns • headphone jack - battery or AC operable - Import and playback standard MIDI file (SMF) song data - ad lib function for instant "musically correct" soloing • and built-in serial computer port.

> | PMA-5B | $\$ 595.00$ |
| :--- | :--- |



The Roland DM-800 Multi
Track Disc Recorder is a compact, stand alone unit - a completely dedicated digital audio workstation. It performs all digital mixing operations from audio recording editing. track
bouncing to final mixdown. It fully supporis SMPTE and MIDI time codes and even features a built-in SMPTE Resolver to synchronnusly lock to any time code. There"s very litule to learn, because every function is hardware controlled and right in front of you. Since your fingers are navigoting familiar territory. operations on the DM-800 are very fast. The large LCD lets you see meters, time location. waveform, edit and tratek information. If you need a larger display. you can connect the DM-800 to your studio's video monitor or even your home TV. Eight digital/analog outputs and six digital/analog inputs. 300 virtuat tracks. Backup to audio DAT or SCSI data DAT. Time compression with multiple modes. Call Broadcasters General Store to arrange a denonstration!

| DM-800 | Multi Track Disc Recorder | $\$ 6,295.00$ |
| :--- | :--- | ---: |
| DM800HD | DM-800 with 2 internal 500 MB B drives | $\$ 7.595 .00$ |
| DIF800 | ADAT/DA-88/RS-422 interface, 19" Rack mount 1U | $\$ 1.095 .00$ |
| DM800RS | Roll Around Stand | $\$ 120.00$ |
| DM800TC | Hard Travel/Shipping Case | $\$ 100.00$ |
| DA400 | 4Channel D/A Convener | $\$ 6.45 .00$ |

The Roland VS-880 provides 64 recordable tracks. a CD quality digital

recorder, a digital mixer and studio-quality multieffects (an add-on board option) in a completely self contained unit. Every operation is performed within the digital domain. It has 4 analog I/Os and 2 SPDIF digital I/Os. You can record 4 tracks al once with 8 layers per track making the total number of tracks per song 64. Editing functions include: copy, move, exchange. insert. cut/erase, and time compression. The VS-880 is equipped with an internal IDE and standard external SCSI interfaces to give you extensive storage media flexibility. It comes standard with either a 540 MB hard drive or an Iomega Jaz Drive which uses IGB removable cartridges. Creating backups or loading completed songs onto external storage devices is easy using the SCSI interface (daisy-chain up to seven SCSI devices). Affordable removable media devices, like the lomega Zip Drive, offer a simple way to archive massive amounts of digital data. This way you can carry or even exchange data, just as you would an ordinary cassette. You can also back up your song data to audio DAT.


| VS880V2 |  | \$2,695.00 |
| :---: | :---: | :---: |
| VS880TC | Hard shell travel case | \$150.00 |
| VS8FI | Dual St. Effect Expansion Board | \$395.00 |
| Jaz ${ }^{\text {Tm }}$ EXTI | lomega Jaz Drive, external | \$499.95 |
| Jaz ${ }^{\text {M }} 1 \mathrm{~GB}$ | 1 Gigabyte Jaz Disc. Each | \$139.95 |
| Jay ${ }^{\text {² }} 1 \mathrm{lGB5}$ | 1 Gigabyte Juz Dise, 5 Pack | \$549.95 |
| Zip-EXT1 | Iomega Zip Drive, external | \$219.95 |
| Zip-100 | 100MB Zip Disc, each | \$22.95 |
| Zip-100/5 | 100MB Zip Disc, 5 Pack | \$164.95 |
| Zip//iom | SCSI Adapter for PC | \$59.95 |

## IQS~Innovative Quality Software

The SAW. Software Audio Workshop, software by IQS is a professional production tool that allows you to record and edit 16 bit resolution CD and DAT quality soundrites at sampling frcquencies up to 48 kHz on your computer's hard drive with ease. Completely non-destructive "Region" and "Play Sequence" editing as well as "Drag and Drop" to "Multitrack" view (which has adjustable display width). Live format conversion during playback ( 8 -bit, I6-bit, mono, stereo at any sample rate). Software emulated DSP functions provide parametric EQ, noise gate, limiter, compressor. echo effect and vari-pitch, each patchable to each track or sound card output. Other features include; reallime volume adjust. pan, mute and solo during playback - simultancous rec/play . with professional sound card - and simultancous playback of 4 tracks per sound card. SAW supporis up to two stereo sound cards and both "WAV" and "SND" sound formats. It has 38632 bit-register C-plus/plus assembly language, making SAW the fastest editing software available. Now with version $6.0 \mathrm{SAW}+$ architecture.


## Tempo Works

Tempo Worksts is a program which allows the user to considerably lengthen or shorten the play time of an uncompressed digital audio file without distortion or artifacts while maintaining the original pitch. The unque capability of this program allows digital audio tracks to be "companded" to exact play times thus eliminating the necessity for announcers or performers to read or play for time. Now full production altention can be given to inflection, delivery and performance. Tempo Works rat eliminates lengithy editing required to trim audio files to precise play windows by trimming of undesired deadtime at the beginning and end of tracks and companding to the nearest $1 / 100$ th of a second. Temp Works ${ }^{\text {tM }}$ provides the best recording and broadcast companding available. Version 1.6 includes the modular features of pitel lowering by up to 3 musical half-steps (1.5 notes) and rate conversion from 48 kHz or 44.1 kHz (CD) down to 16 or 32 kHz . Ratte converted or pitch changed files may be companded to desired length with a separate compand program execution
Tempo Works ${ }^{\text {ram }}$
Call for pricing

## SAW

$\$ 599.00$
The SAW Plus represents the next generation of digital hard disc editing software. They have extended the power of the SAW to a maximum of 16 mono or stereo tracks of simultancous. live playback on any windows compatible sound card(s). Each track has controls for level, mute, solo. pan, effects patching and output assignments. Also available is a seven band paragraphic EQ. noise gate, compressorflimiter, peak liniter and echo effects. It supports up to four stereo sound cards and effects live format conversion. The powerful processing engine of SAW Plus performs multiple simultaneous functions. screen draws and audio processing equivalent to 64 bit resolution all without the use of DSP hardware...it's all in the software! Most of the functions of SAW are incorporated into the SAW Plus and much more. Call us for complete "turn-key" packages!

## SAW Plus

$\$ 999.00$

## Midiman



Midiman makes MIDI interfaces for PC. Macintosh, line mixers. sync boxes, time code displays. many MIDI accessories and wireless MIDI system accessories.. We are high lighting two of their products. The DMAN is a high quality, full-duplex. PC Digital Audio Card that can record and playback sterco audio tracks simultaneously ~ a musi for any serious digital recording system. DMAN allow's you to monitor what you are recording while listening to previously recorded tracks. It also includes a high impedance microphone input and a standard wave table header for adding any wavetable daughter board. The Syncman Pro is a single space, rackmount unit that performs most sync functions you will ever need. All types of MIDI synchronization are supported including: SMPTE to MIDI Time Code, Direct Lock (for Performer), SMPTE to Song-Pointer, and their own new Spot-Lock Video sync. Syncman Pro also performs all SMPTE read, write. and regenerate functions and has a full $.6^{\prime \prime}$ high SMPTE/Song-Pointer display.

| DMAN | $\$ 2.49 .95$ |
| :--- | ---: |
| Syncman Pro | $\$ 399.95$ |

## tripleDATTM by Creamware



Cream Ware tripleDATrm transforms your Windows ${ }^{\text {IM }}$ PC into a high performance, multitrack digital audio recording and editing workstation with ultra fast signal processing in 32 -bit code. TripleDAT ${ }^{\text {n/ }}$ consists of both hardware (tripleBoard 2.0) and its own versatile audio workstation software - offering a complete solution. Edit multitrack arrangements on your hard drive with tripleDAT ${ }^{\text {an }}$ from +1012 sfereo tracks and more, depending on the processing speed. hard drive speed and storage capabilities of your computer. You can record digital audio directly to your hard drive from any live source or pre-recorded sound source. The tripleDATra audio card gives you both optical and SPDIF I/Os (optional AES/EBU). Apply signal processing effects to tracks and sound samples from a sophisticated suite of DSP Pentium based filters and effects, replacing racks of gear. All signal processing operates in realtime, with no watiting for the system to calculate and apply effects such as: 4 and 8 band parametric EQ. room simulator/reverb. delay processor. dynamics processor with compressor/limiter/expander/noisegate/ and de-esser. Bonus test equipment. phase scope and 60 band RTA to trouble shoot any audio. worth the price of the system. Synchronize to internal or externil MIDI Time Code or to SMPTE Time Code with an external converter box (See Midiman Syncman Pro). The tripleDATis System: 16-bit ISA tripleBOARDra - optical I/O, w/cabling•SPDIF I/O, cowxiat - high quatity analog v/O • infrared remote, hardware and cabling for remote control of most popular DATS.


## Fostex



The Fostex XR-3 is the world's first easy-operation multitracker equipped with an internal microphone. The logic controlled auto bounce circuit enables anyone to perform ping-pong recording casily. Features include: 3-3/4 ips tape speed • Dolby B NR system • punch infout function $\cdot \pm 10 \%$ pilch control function • and one-push system record butions.

```
XR-3
\(\$ 349.00\)
```


## Sony Digital Porta~Studio


#### Abstract



The Sony MDM-X4 is a new Mini Disc multitrack recorder. Features include ATRAC technology $\cdot 4$ channel recording and playback - 37 minutes per track - digital sound $\cdot$ instant access • advanced editing • virtual mix • with a large display and joogshutle.


## MDM-X4

$\$ 1,250.00$


The Fostex XR-5 is a multitrack recorder which combines a double speed 3-3/4 ips four track recorder and a four input, two mic mixer. It provides a wide range of progressive. diversified lunctions. Features include: input level switching for channels 1 \& $2 \cdot$ high/low shelving equalizers in each channel - simultaneous 2 -track recording • internal Dolby B NR $\pm \pm 12 \%$ pitch control, and punch in/out function.

```
XR-5
\(\$ 469.00\)
```



The Fostex XR-7 is a multitracker noled for ins diversified functions. It combines a a track recorder capable of simultancous itrack recording • a mixer with six inputs for iwo
mics and 4 lines - two AUX sends for each channel and an AUX return - iwo point shelving equalizer in channels $1-4$ enhanced in channels $5-6$ by a single parametric equalizer • selectable $1-7 / 8$ ips or $3-3 / 4 \mathrm{ips} \cdot$ Dolby C NR • punch in/out $\cdot \pm 10 \%$ pitch conirol • and a highly visible backlit LCD.

XR-7
$\$ 579.00$

## Tascam

The Tascam Porta 03 MKII Ministudio is the perfect entry level audio skeichpad for aspiring songwriters. engineers and producers. This extremely cconomical 4-track
 recorder with integ mixer lets you overdub as well as mixdown to standard cassette. Includes: two mic/line inputs cach with trim control - headphone jack • RCA out jacks • Dolby B NR • and 3-digit tape counter.

The Tascam 424MKII Portastudio has superior audio quality, batanced XLR inputs. enhanced equalization and a big studio style AUX section plus tape direct outs. This 4 -rrack recorder wilh 8 -input mixer (4 mono and 2 stereo) has 3-band EQ with sweepable mid, 2 tape speeds, auto punch in/out, and 4 -track simullaneous recording.


424MKII


## Tascam



## The Tascam 488MKII

 Portastudio gives you the functionality of a professional studio like: 8-track recorder with 8 -channel, 12 -inpui mixer - XLR inputs with 48 V phantom power • 3 band EQ • auto punch in/out 2 independent AUX sends • Jbx noise reduction • and multifunction. fluorescent meter display.488MKII $\quad \$ 1,499.00$


4 -track recorder with 12 -input mixer ( 8 mono, 2 stereo) has balanced XLR inputs, sync in/out for use with MIDI, auto locators. auto punch in/out and two effects sends.


## Yamaha



## The Yamaha

 MT8XII is a high performance music production system integrating a flexible 14 -channel mixer and a top quality 8 -track cassette recorder in one well coordinated unit. It offers advantages that even the latest digital hard disc recording systems can't beat: more affordable - records on standard audio cassettes - 8 mono \& 3 sterco channels - balanced mic/line inputs with phantom power • 3-band EQ on all 8 mono channels • dual AUX sends • 4 -group assignment • high-speed 8 -track recorder • frequency response from 40 Hz to beyond 15 kHz - signal-to-noise ratio in excess of 80dB with internal dbx NR • logic controlled variable speed transport • punch in/out recording with atuto punch I/O function • 3-point auto-locator • MIDI synchronization • and direct tape outputs. The Mr8XII is the tool you need to turn your musical ideas into linished works of art.
## MT8XII

$\$ 1.199 .00$

The Yanıalıa MD4 is one of the first multitracker to utilize the Mini Dise format, with its superior audio quality and quick locate capabilities. The quick locate provides fast and accurate search and locate for Song Starl, Song End, Last Recording In/Out point, Direct Time Locate, and eight user mark points for each song. It is a four channel analog mixer, with gain, 3-band EQ, aux send, pan, fader on input channels. MIDI seguencer sync-MTC output, auto punch in/out, bounce down to any track with simultancous 4 track playback and multiple ping-pong with negligible signal degradation.
$\$ 1.199 .00$


The Yamaha MT4X is a 4 -track multitrack recorder with flexible mixing facilities and advanced creative control. Each of the four input channels can accept mic or line level signals.




## Blue Group

PhoneByte is an AT-based premier digital phone bit recorder specificillly designed for fast paced. high personality programming. Uniquely inte-
 grated into your control room operation. its features include: Extensive remote control functions. PhoneByte comes standard with 6 programmable input ports and 8 programmable relay outpuls. - Integration continues with intelligent connection to your phone line selector allowing auto recording of designated lines for true one buton recording. You simply answer the phone and PhoneByte records, each one with its time, date and total duration. PhoneByte's powerful features allow fast editing. quick stacking of calls for rapid sequential playback, easy commenting and search and purge functions to manage hundreds of calls with ease. - The personal touch feature with optional 60. 176. and 300 push buton panels puts hundreds of sound effects, bits and drops, specially configured for each jock, al your personalities' fingertips and big pick screens give you pages of bits on a point and play basis. Monitor sold separtely.

PhoneByte
Prices staring from \$4.396.80

## Eventide

| VR204 | Single DDS-2 DAT Drive. 60 Hr . Internal Hard Disc | \$7.495.00 |
| :---: | :---: | :---: |
| VP204 | 4 to 24 Channel Porable Playback only DDS-2 DAT Reproducer | \$6.495.100 |
| VP244 | 8 to 24 Channel Playback Only Digital DDS DAT Reproducer | \$4.995.00 |
| SLP | Sman Label Printer with cable | \$325.00 |
| DDS90 | 90 Meter DDS DAT tapes. box of 10 | \$250.00 |
| DDSI20 | 120 Meter DDS-2 DAT tapes, bax of 10 | \$375.00 |
| DDSC | DDS DAT Cleaning Tapes. box of 10 | \$250.00 |
| Labels | Additional Labels for Smart Label Printer. box of 2 | \$14.00 |
| VR240MKIIIS | Single DDS-2 DAT Drive. 60 Hr. Internal Hard Disc. 8 ch . | \$12,500.00 |
| VR240MKIIID | Dual DDS-2 DAT Drive. 60 Hr. Internal Hard Disc. 8 ch. | \$15,390. |

Eventide Digital Studio Logging Recorder/Player. uses digital DATbased technology that revolutionized communications audio logging. and is now available in a compact $t$-chamnel unit. Each data grade 120 meter DAT tape has a capacity of 500+ hours. divided among up to four channels. The VR204 recorder is also equipped with a hard dise memory module with a capacity of approximately 30 channel-hours. Tapes recorded on the t-channel VR204 can be played back on the 24 -channel VR 240 . The VR204 recorder/player and VP204 playback deck bring the many advantages of digital logging to new applications and an even broader group of users.

## 360 Systems



360 Systems ShortCul. the high speed telephone call in broadcast editor that replaces cumbersome reel recorders for: phone call ins • news actualities - promos • voice-overs - whatever comes in over the phone that you have to record quickly. It edits. tou! True stereo waveform editing with dedicaled edit button. shutle wheel for "head rocking" effect. edit marker insertions on the fly, and actual "bleep" tone insertion for profanity protection. Special features include: 16 Bit linear non-compressed recording - AES digital and analog I/O's - 10 "For Keys" for instant access to edited cuts • password protection of individual directories • built-in mic preamp • speaker • and keyboard for titling cuts. All this in a package so small and lightweight you can carry it under your arm.

| SC180-1 | ShonCut with 1.5 hour internal hard drive | $\$ 2,995.00$ |
| :--- | :--- | ---: |
| SC180-2 | ShonCut with 160 minute internal hard drive | $\$ 3.495 .00$ |
| SC180-3 | ShonCut with dual 2 hour internal hard drive | $\$ 3,795.00$ |
| TS612 Cable | Interface cable for Geniner TS612 | Call for pricing |



## See Media Touch on Page 182 for your Automation, Live Assist, Hard Disc on~air Production and News Editing System!

## 119

 ManyItemsin Stock for Immediate Delivery...Call Today!
## THE ONLY TALK SHOW DELAY THAT CAN MAKE THESE STATEMENTS.

Bad words, \#@S~反* \%! like bad news, often come in threes. The new Eventide BD500 is the only obscenity delay in the world that can eliminate chem. Now, when you hit the Dump button, you don't lose the whole delay and the obscenity \% \# ! @ * \$! protection that goes with it. You can divide the total available delay time into not one, or even two, but several discrete segments. You still have protection even after dumping two consecutive \& * $\mathbf{\$ \%}$ @! no-no's.

You also get the cleanest, quickest delay catch-up you can buy. Because there's only one way to maximize audio qualiry and still carch-up rapidly after a delay dump... and Eventide owns the patent. Over the years, several other brands of delay have come and gone. Bur the simple fact is that the catch-up methods ochers use must be painfully S-L-O-W to avoid serious audio problems.


And, because you may not be using that analog console forever, the BD500 is also the only broadcast delay that's digi-
tal-ready with optional AES/EBU digital audio inpurs and ourpurs. It's stereo, of course. A convenient new "sneeze" button allows the talent to sneeze, cough, erc. without being heard on air, and without dead air. All front panel switches (except configure) and all status indicators can be remoted (both RS-232 and dry contacts are provided.) Plus, only the BD500 gives talent both a digital readour of delay time and a "quick read" LED bar graph that shows "you're safe" ar a glance.

For all these features and quality, you'd expect top-of-the-line pricing. But surprise! The BD500 costs housands less. It's the best value ever in a broadcast talk show delay. Exactly what you'd expect from the people who invented digital broadcast delays in the first place. Call your distributor, Eventide direct, or check it out on the Web at http://www.eventide.com


## It's 9:30 am. You've got to edit nine phone-ins, cut a dozen

 spots, record four station I.D.s and two promos before lunch. $1-9$ 8

## STATION



Shortcut ${ }^{\text {nu }}$ is 360 Systems' new editor

## SO LET US SHOW YOU A SHORTCUT right the first time That's why Stortcut

for people in a hurry: It's powerful enough for production yet easy
enough to use on-air. Shortcut delivers massive storage, scrub
editing, a bright waveform display, and even built-in speakers.

All this in a compact self-contained package with the
gives you real buttons for direct access to editing commands. No need for computers, monitors, or mice. Shorteut is complete and ready 10 go for just $\$ 2,995$. So if you have too much work and too little time, just take a Shortcut. Call (818) 991-0360 toclay muscle to handle your toughest assignments.

We know you need to move fast, and get it


Short/cut


If you're a call-fetter station, you can try DigiCart/ll for 10 days with no obligation. If you decide to buy it, we'll arrange your purchase through Broadcaster's General Store. Call (352) 622-7700 or fax (352) 629-7000 today.

Broadcaster's General Store • 2480 S.E. 52nd Street • Ocala, FL 34480-7500
(352) 622-7700 • Fax (352) 629-7000•E-Mail: [bgs@mercury.net](mailto:bgs@mercury.net) • Web Site: http://www.bgsfl.con


## Otari



The Otari MX5050 serics feature: built in mini-autolocator with three one-touch cue point memones, search zero and repeat func tions. The transpors are very smooth with micro processor controlled logic, motion sensing and dynamic breaking. Standard features include a 37 pin parallel $\mathrm{I} / 0 . \pm 20 \%$ specd control. transformerless active balanced inputs and outputs and reed size switches for boulh take-up and supply reels. The BQ-1II now features gapless seamless punch in and punch out as well as at rehearse mode

| MX5050B-III | 1/4" 2-Channel Half Track | $\$ 4.452 .00$ |
| :--- | :--- | ---: |
| MX505013Q-III | I/4" A-Channcl Quarter Track | $\$ 7.636 .00$ |
| RK-2B | Rack mount kit for B-III and BQ-III | $\$ 84.00$ |
| ZA-52L-22 | Mctal roll around flour stand | $\$ 491.00$ |


'The Otari MX50IIN has a built-in 5digit tape timer display, search to cue locator with one cue point memory, zero locate. $\pm 7 \%$ vari-speed, and transformerless active balanced XLR inputs and outputs. An independent reel size selector switch allows supply and take-up reel sizes to be intermixed. The Otari MX-55NM is a high quality production and mastering 2 channel half track tape machine. It features: microprocessor based transport, dynamic braking. $\pm 20$ Sic speed control. 4 point auto-locator. easy access card bay, Dolby ${ }^{\text {TW }}$ HX pro headroom extension. gapless seamless punch in/punch out, cue speaker. 3 frequency test oscillator and more.

| MX-5011N | 1/4" 2-track, 15/7.5 IPS | \$3,233.00 |
| :---: | :---: | :---: |
| MX-50IIN- | Same as above but speed is $7.5 / 3.75$ ips | \$3.429.00 |
| MX-55N | 1/4" 2 -channel, $15 / 7.5$ or $7.5 / 3.75$ ips | \$5,830.00 |
| MX-55NM | 1/4" 2 -channel. Console Mode! | \$7.791.00 |
| MX-55TM | 1/4*2-channel w/ Lime code, Console Model | \$9,434.00 |
| ZA-5EK | Rack mount kit for MX-50IIN \& L | \$77.00 |
| ZA-51A | Rack mount kit for MX-55N | \$81.00 |
| ZB-51F | Rack mount kit for MX-55NM/TM | \$245.00 |
| 2B-51D | Metal roll-around floor stand for MX-55N, with skirt | \$694.00 |
| 7.B-51E | Metal roll-around floor stand for MX'-55NMUTM. with skif | 569.4.00 |

## Studer



The Studer A807 was conceived as a multipurpose tool for recording studios and broadcasters. The A807 has a highly perfected tape transport design with advanced drive technology features: two rugged direct drive AC spooltng motors, brushless DC capstan motor. comprehensive function selection and digitally controlled analog technology.

| A807-2/2VU | 1/4"2-Track (3.75/7.5/15ips) | \$12.500.00 |
| :---: | :---: | :---: |
| A807-2/2VU HS | 1/4* 2-Track (7.5/15/30ips) | \$12.500.00 |
| A807-2/2VUK | 1/4" 2-Track w/metered overbridge and console | \$13,500.00 |
| As07-2/2VUK HS | 1/4"2-Track w/metered overhridge and console | \$15.500.00 |



The Tascam BR-20 has balanced ++dBm ins and outs with all major calibration controls casily accessible through the front pantl The transpors is precision servo controlled for smonth operation and accurate real time counter readings. It has a $\pm 12$ eic piech contrul, direct time locate. built in moniter speaker (optional on the BR-20T). three DC motors, a parallel remote port. three presetable locate points plus zero and buitt in rack mounts. The BR-2OT timecode version has center channel time cokle, dapless punch infout and spot erase.

| BR-20 | 2 track reel to reel | \$3.149.00 |
| :---: | :---: | :---: |
| BR-201 | 2 track reel to reel w/eenter ch. Tinceode | \$3.799.00 |
| Mazo | Nic amp kit for BR-20\&20T | \$100.00 |
| SP20 | Internal spe:aker hit for the BR-20T | \$75.00 |
| RC-402 | Transport remote contrel | \$250.00 |
| RTS-15 | Deluse roll arourd transport stand | \$275.010 |



| 32 | 1/4" hall Irack (wo speed (7.5/15ips) | \$2,399.00 |
| :---: | :---: | :---: |
| 3413 | 1/4" four track two speed (7.5/15ips) | \$3.049.00 |
| RC-71F | Fiull liunction transport remote | \$135.00 |
| RM-300 | Rack mount for 32 and 34B | \$65.00 |
| RTS-15 | Deluxe roll around transport stand | \$275.00 |




Clipper Products


| Model \# | Wt.Capacity | Cart Wt. | Price |
| :--- | :---: | :---: | :---: |
| $880-2$ | 400 | 19 | $\$ 169.95$ |
| $770-2$ | 400 | 15 | $\$ 129.95$ |
| $660-2$ | 300 | 13 | $\$ 109.95$ |
| $440-2$ | 150 | 8.5 | $\$ 79.95$ |

## Modern Cases



Modern Cases Rack Bags are a lightweight, durable protective case for your rack equipment. Made of foam covered plywood and cordura fabric. the bag simply zips open front and rear for quick access. Carrying straps are included.

## BGS

| Description | Outside Dimension | Inside Dimension | Weight | Price |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1200 Case ${ }^{\text {a }}$ | 9-1/4"×9-3/4"× $5^{\prime \prime}$ | 9-1/2"x $7-1 / 2^{\prime \prime} \times+1 / 2^{\prime \prime}$ | 3 lbs | \$55.11 |  |  |
| 1300 Casc ${ }^{\text {24 }}$ | 10.3/4"x 9-3/4"x 7" | 9.1/2"x $7-1 / 2^{\prime \prime} \times 6-1 / 2^{\prime \prime}$ | 3.5 lbs . | \$66.34 |  |  |
| 1400) Case ${ }^{\text {ra }}$ | $13^{\prime \prime} \times 12^{\prime \prime} \times 6^{\prime \prime}$ | 9-1/2"x $7-1 / 2^{\prime \prime} \times 6-1 / 2^{\prime \prime}$ | 3.5 lbs . | \$100.68 |  |  |
| 1450 Case ${ }^{\text {P/ }}$ | $16^{\prime \prime} \times 13^{\prime \prime} \times 7^{\circ}$ | 15"x 10-1/2"× $6^{\prime \prime}$ | 7.5 lbs . | \$130.16 |  |  |
| 1500 Case $^{\text {ia }}$ | 18-1/2" $\times 15-1 / 4^{\prime \prime} \times 6-7 / 8^{\prime \prime}$ | $17^{\prime \prime} \times 11-3 / 4^{\prime \prime} \times 6^{\prime \prime}$ | 8.5 lbs . | \$151.81 |  |  |
| 1520 Case ${ }^{\text {1m }}$ | 19-1/4** $15-1 / 2^{\prime \prime} \times 7-1 / 2^{\prime \prime}$ | $18^{\prime \prime} \times 12-7 / 8^{\prime \prime} \times 6-3 / 4{ }^{\prime \prime}$ | 10.5 lbs . | \$167.08 |  |  |
| 1550 Case $^{\text {da }}$ | 20-1/2"× $16-3 / 4{ }^{\prime \prime} \times 8-1 / 2^{\prime \prime}$ | $19^{\prime \prime} \times 14^{\prime \prime} \times 7-3 / 4^{\prime \prime}$ | 14 lbs . | \$189.81 |  |  |
| 1600 Case $^{\text {TM }}$ | 23-1/4" $\times 20-3 / 4^{\prime \prime} \times 9^{* \prime}$ | 22"x $17{ }^{\prime \prime} \times 8{ }^{\prime \prime}$ | 17 lbs . | \$224.82 |  |  |
| 1650 Caseta $^{\text {a }}$ | $31-1 / 2^{\prime \prime} \times 21-3 / 4 \times 11-1 / 2^{\prime \prime}$ | $29^{\prime \prime} \times 18^{\prime \prime} \times 10-1 / 2{ }^{\prime \prime}$ | 17.5 lbs . | \$2+4.47 |  |  |



## Pelican Protector Equipment Cases

Pelican Protector(1) cases are watertight and ainight to 30 feet for the ultimate in protection. Constructed of light-weight space age structural resin with a neoprene o-ring seal and exclusive purge valve. Supplied complete with pre-scored pick n' pluck foam or padded dividers (no cutting required). Aso includes locking flanges, massive multiple latehes for absolute security and a comfonable molded fold down handle. Integral perionalized name plates can be engraved at additional cost.

| 1454 | 1450 Case with padded dividers | \$171.99 |
| :---: | :---: | :---: |
| 1504 | 1500 Case with padded dividers | \$183.98 |
| 1524 | 1520 Case with padded dividers | \$213.58 |
| 1526 | 1520 Case w/L527 convertible travel bag | \$269.08 |
| 1527*sec bedmu | Convertible travel bay only | \$122.75 |
| 1554 | 1550 Case with padded dividers | \$260.15 |
| 1604 | 1600 Case with padded dividers | \$295.48 |
| 1654 | 1650 Case wath padded dividers | \$314.67 |
| 1.508 | Photographer's Lid Organizer Holds film. filter, gadgets, notes | \$23.34 |
| 1509 | Attaché Lid Organizer. fits $1500 / 1520$ Holds paper, pens, calculator etc. | \$25.68 |

The 1527 Travel Bag is designed to tit inside a 1520 case. Conserts instanty from a hard case to soft hag, for complete hardknocks travel protection. Just pulf out for whort day trips etc. sling over your shoulder and go without rearranging anything. Made of heavy duty waterproof padded Batlistic Nylon with multiple fromt and side gadget pockets. Padded adjustable divider system protects complete outhts. Exclusive top/side acess to equipment while in use with thick curved and padded shoulder strap. All nylonzippers and clips. $171 / 2^{\prime \prime} \mathrm{Lx} / 2 \mathrm{I} / \mathbf{Z}^{\prime W} \mathrm{Wx} 61 / 4^{\prime \prime} \mathrm{D}$ in black.



## Porta Brace



## SKB Cases

SKB cases are slackable, lighweight. and made of a strong polyethylene material. The draw tight latch covers are gasketsealed to keep out moisture and din. The mounting flange is close to the edge. which makes it easy to read the dials and LCD screens on your equipment. The snap-in hardware allows for easy replacement of mounting nuts if failure should occur. Cases come with mounting hardware. Outside rack (OD) dimensions for the SKB19 cases are $21-1 / 2^{\prime \prime} \mathrm{W} \times 20-1 / 2^{\prime \prime} \mathrm{D}$ with $17^{\prime \prime}$ of rack-mountable depth. The SKB-9 shock cases are $36^{\circ} \mathrm{W} \times 27^{\prime \prime} \mathrm{D}$ with $20^{\prime \prime}$ of rack-mountable depth


## Viking Cases

All Viking cases can be customized to fit your requirements and budget. Standard case designs available are: DJ cases. standard or shock mounted rack and double wide rack cases, pull over rack cases, and music cases. Some of the options are: rear rack rails. a variety of casters or rubber feet. locks. comer and fastener hardware. waterproofing and special foam. Normal turn around time of seven to ten working days with no additional charges for rush orders! Call Broadcasters General Siore for a Viking catalog and pricing.


## Star Case

Star Case specializes in both cutomized case interiors and exteriors. They work with numbrous densities and graden of polyester and polyelhylene foams. anti-statics. cubed foams, special cotton and synthetic material lining. hidden compartments, roll-out desk surfaces. roll-in ramps. and special paritioning devices for all types of audio, video, and computer magnetic media. Contact Broadcasters General Store for a Sar Case catalog and pricins.




The AEQ MP- 10 portable mixer is ideal for remote transmission. It has transformer balanced selecrable mic/line inputs, transformer balanced outputs and three headphone output jacks. An internal rechargeable Nicad battery allows up to four hours of play with an automatic switch to battery if power fails. Carrying case included

## MP. 10

$\$ 1.495 .00$

## The AEQ PME-02 was

 designed to make your remote transmission problem frec. It has four inputs with level controls: three michline selectable inputs with XLR-I/4" hybrid connector and one stereo line with mini jack connector. It has wo outputs with level control and a VU meter for the main output. It can be connect- ed to the AEQ TLE-02 telephone line extender, to send the mixed audio to the studio via telephone line or connect it to another PME-02 to enhance the number of inputs. Comes supplied with a carrying case and extemal power supply and works with 8 AA batterics or car cigarette lighter adapter.

| PM3-02 | $\$ 45.00$ |  |
| :--- | :--- | :--- |
| PME-02T | With optional transformer balanced mic/line | $\$ 510.00$ |

## Cellcast by Marti



## Big Ears ${ }^{\text {m }}$



The Big Ears ${ }^{T / 3}$ is a true parabolic reflector capable of picking up sounds from well over 200 feet away. It is constructed from a patented plastic material. so that the integrity of the shape is maintained as well as the thickness. which produces sonic consistency and also visual, see-through clarity for the operators. The Big Ears ${ }^{\text {Ts }}$ uses a one piece foam vinyl covered grip bar that also acts as a support bar for freestanding use. The dish is shatter and break resistant. lightweight. and can easily be mounted permanenty $25-1 / 2^{\prime \prime} \times 26-1 / 2^{*} \times 10^{\prime \prime}$ overall. parabolic 23", weighs 5 Ibs . Colors: Yellow. orange. blue, green, bronze \& clear. All dishes are sec-through.

| Big Ears $^{T M}$ | $\$ 1.249 .00$ |
| :--- | ---: |
| Strap complete with pads | $\$ 30.00$ |
| Ear Muff' Windscreen | $\$ 99.00$ |
| Shipping Case | $\$ 279.00$ |
| Carrying Case | $\$ 129.00$ |

## CircuitWerkes



The Circuit Werkes RP- 1 combines a high quality single channel mic amp with a headphone amp in a compact package that's ideal for locker room reports and other extended remote broadcasts. The RP-1's features include: Headphone amp with variable level, balanced input and adjustable sidetone for monitoring IFB and your program audio - Active. balanced mic preamp and auxiliary unbalanced line inputs with separate controls • Built in 1 kHz calibration oscillator - LED metering switchable to program output or cue input - Standard XLR mic and program output connector, $1 / 4$ " stereo headphone/cue jack and 3.5 mm auxiliary jack - and Battery power

## RP-1

$\$ 299.00$

The Marti Cellcast RBS-400 four channel mixer can save you time and money on your remote broadcasis. Cellcast has the flexibility to tran.mit via cellular or land-line so that no matter what the situation calls for you can be on the air within minutes. This unit comes in a heavy duty carrying case, complete with frequency extender encoder, antenna. I2V adapter. AC power supply, and ten nicad rechargeable bitteries. Dimensions $135 / 8^{*} \times 5$ $1 / 32^{\prime \prime} \times 93 / 4^{\prime \prime}$ Weight 15.5 lbs

## RBS-4(0)

$\$ 2.950 .00$


## Comrex



The Comrex "Codec Buddy" is al multifunction remote console designed to be used with digital audio codecs. The Buddy' is a complete remote studio. providing audio mixers for program feeds, communications, headphones. and public address systems. There is a versatile headphone mixer and monitor matrix allowing headphone listeners to make customized cue selections and adjust level individually. The Codec Buddy also provides a separate amplifier for feeding PA systems with local program audio or codec felurn sudio - or an adjustable mix of the two. An analog telephone interface is built in for communications and a one-line frequency extender encoder is included as a program transmission backup.

Codec Buddy
Remote Fichd Mixer
$\$ 1,900.00$

| Buddy Travel Cate | Rugged Carrying Case | $\$ 175.00$ |
| :--- | :--- | :--- |

The Comrex Cue System relays both program and instructions from a transmitter (installed in a van, studio, press box, stadium, ete) to pockel receivers. The CTA Cue Transmither is a 1 wat rack mount transmiter that accepts two audio sources (program $\&$ cue). The cue autumatically overrides the program. with program remaining audible al a lower level. The LPQRA receiver has $6 k \mathrm{~Hz}$ audio response for accurate program monitoring. ceramic fillers for interference-free operation and high level output for intelligibility in noisy environments.

| CTA | IFB Transmitter | $\$ 1 . \mathbf{3 5 0 . 0 0}$ |
| :--- | :--- | ---: |
| LPQRA | IFB Receiver | $\$ 625.00$ |
| LPQRA-C | 2nd crystal for LPQRA | $\$ 50.00$ |



## Electro-Voice



The rackmount Electro-Voice ELX-IR fealures four balanced mic/line inputs. phantom power switchable output limiter, low cut filters. and is powered by AC or three 9 V batteries. Headphone outpu has a separate power amp and level control and will drive any type of headphones or small a speaker. Level selting is casy with the built-in tone oscillator.

## Henry Engineering



The Henry StereoMixer is a 4 stereo/8 mono line mixer that is ideal as an input expander or source combiner. StereoMixer is quick and eisy. has superb audio performance. lots of headroom and an internal power supply.

StercoMixer $\quad \$ 250.00$

## IK Audio


card and your audio mixer or amplifier.
Pureformer
$\$ 59.00$


## IK Audio



## The JK Audio

RemoteMix replaces the handset on your analog, digital. PBX, ISDN and single line telephones for professional remote broadcasts. It has balanced XLR and unbalanced RCA line I/O's. one balanced XLR mic input, and an adjustable sidetone null feature. An internal $8 \Omega$. I watt/channel amplifier drives headphones or a small speaker. 9V bathery or AC powered.
$7{ }^{\prime \prime} \times 5^{\prime \prime} \times 3^{\prime \prime}, 2 \mathrm{lbs}$.


RemoteMix


The JK Audio RemoteMix
$\mathbf{C}+$ is a portable phone line hybrid/mixer for remote broadcast or line interviews. It works with conventional phone lines or your cellular telephone using a fax or modem adapter(available from your cellular dealer). The RemoteMix $\mathrm{C}+$ has balanced XLR output and unbalanced RCA line V/O's, adjustable null feature, and two halanced XLR microphone inputs and two headphone jacks. It runs 36 hours on two 9 V batterics. An AC adapter is included.


Remotemix C+
$\$ 595.00$


The JK Audio RemoteMix $\mathbf{3}$ is a combined phone line hybrid mixer and universal handset interface in one. li can be used on analog phone lines with the RJ-II jack. or use it on digital PBX or multi-line phones by plugging the coily cord into the handset port. Features include: two mic inputs • tape in and out two headphone jacks • VU meter • intemal speaker and microphone for quick setup • XLR male out for IFB feed - battery and AC operation


RemoteMix 3
$\$ 895.00$

## Ramsa

The Ramsa WR-M IOA, muluple source mixer has four balunced XLR michline inputs and two stereo input channels. Each stereo channel accepts three pairs of line level signals, and one pair of RIAA-equalized phono inputs. Eight stereo and lour mono sources can he connected to the WR-MIOA. A built-in compressor can be switched to 'level' all mono inputs. There is priority muting for voice overs. Both stereo input liaders are equipped with a microswiteh for automatic 'on-cue' remote start of tape cart machines, turntables, or CD players. PFL allows you to preview stereo inputs prior to feeding the ousput. For convenient mounting. the connector panel can be located on the top, back or bottom of the unit.
WR-M10A $\quad \$ 1.050 .00$


## Spirit

The Spirit ProTracker is an 8-channel linear fader mixer in as 3 RU frame. Although at home in a small production room it is ideal as a portahle remote mixer, especially when that remote involves sound reinforcement. Features include: Aux send/return for outboard EQ, elfects, etc. - 60 dB of mic gan •L/R Pan control • + +isv phantom power • adjusiable limiter $\cdot \mathrm{L} / \mathrm{R}$ Master faders - and an extensive monitor section.

ProTracker \#RW5197
$\$ 1.199 .95$


126



The Shure FP42 has all the features and ruggedness of the M267 plus full stereo capability which makes it perfect for stereo mixdown in editing suites. All four inputs are transformer-balanced mic/line, with two stereo outputs. The FP42 has pull-pot mic cueing on all inputs for channel previewing.


Shure's FP33
stereo mixer, will replaces the highly successful FP32A. The new features include improved pre-cision-scaled rotary potentiometers and battery switching circuit - Internal headphone level adjustments - and improved connectors.
$\$ 1.795 .00$

| FP42 | $\$ 1,240.00$ |
| :--- | ---: |
| A16R Rack Mount | $\$ 35.00$ |



The Sliure FP4 10 is a portable mixer that automatically keeps unused mics turned down and will only allow one mic to be activated for each source. When someone speaks the Noise Adaptive Threblold activates within 4 milliseconds for speech, not room noise. When no one is speaking, the last mic is kept on to assure a consistent background ambiance. until a new one is activated. The FP+10 can control multiple wireless mics. work in the effects loop of a multi-channel con sole and switch to a redundant mic if the primary fails. Up to 25 FP4 10 s can be linked for even greater versatility. The FP 410 has four inpuls and two outputs, all transformer balanced. mic or line switchable. Other features include: 48 V phantom power, tape output jack, low cut filters. IkH tone oscillator, adjustable peak limiter with LED indicator, switchable peak VU incter, $1 / 4^{* *}$ and mini headphone jacks and a monitor in jack to connect an external source to the headphone amp. Powered with two 9V batteries or $120 / 240$ Vac.

## FP410. rack mount included



Shure's M267 fea-
tures include: a switchable limiter • phantom power - LED peak indicator - headphone jack with level control - auto. matic muting circuit battery check function tone oscillator • mic/line switches on each input and output • low-cut switches on each of four transformer-balanced inputs • and is powered by three standard 9-V batteries or AC

| M267 | $\$ 625.00$ |
| :--- | ---: |
| A268R Rack Mount | $\$ 35.00$ |



Shure's M268 is a compact. ligh-weight. 5 -input mixer with individual volume controls for each channel plus master volume. It includes four iransformer coupled low impedance balanced microplone inputs. and four high impedance $1 / 4^{*}$ phone jack inputs plus a high level aux input. The M268 also has switchable phantom power. mix buss, mic level transformer balanced output and aux level unbalanced output.

| M268 | $\$ 365.00$ |
| :--- | ---: |
| A2G8R Rack Mount | $\$ 35.00$ |

## Zercom



The Zercom MAX-Z is a
four channel mixer with both dedicated bilanced and dial up phone line connections. Features include: clock. stopwatch/timer. VU meter. low battery indicator. four headphone jacks with cues fed to the left channel, wide range audio inputs that will match mic to line levels, cue channel, phone line alarms, and tone or pulse memory dialing. Accessories supplied are carrying case, built-in rechargeable batteries and charger. Size $13^{\prime \prime} \times 17$ "x5" Weight 15 lbs .

| Max-Z | $\$ 1,225.00$ |
| :--- | ---: |
| RBP Remote Broadcast Package, Max-Z with Zercom Telephone Hybrid $\$ 1,596.00$ |  |



The Zercom MAX-Z II is an abbreviated version of the MAX-Z. High quality audio handling is maintained in the two channels of audio input. It is $A C$ or DC powered with twa healdphone ourpuls, cue chatinel and case. Size 8"x9.5" Weight 6 lbs .


The ATI PB2X8 Press Box Distribution System has two balanced mic/line inputs with swithed phanton power and low cut filter on mics. Both inpurs have individual gain controls and are switchable together or separately into any of eight transformer balanced adjustable outputs. Calibrated test tone oscillator Switchable LED display - Line level XLR connectors in and out • plus $1 / 4^{\prime \prime}$ and 3.5 mm plone jack outputs at -10 dBu

## PB2X8

\$1.399.00

## Whirlwind



Whirlwind's PresslPower takes two transformer isolated XLR mic/line inputs and disisibutes them to sixteen transformer isolated XI_R outputs ( 12 mic/-50dB, 2-line/0dBV. 2-line/variable). A headphone output is provided will a level control. plus, to expedite selup. a 1 kHz tone is available. Powered by four 9 V batteries or AC ( $110 / 230$ ). the PressPower can be rakkmounted or used with the included carrying case.

## PressPower

$\$ 1,785.00$


The ATI MXS100 is a portable, three channel, mic.line selectable mixer with low noise balanced mono inputs. phantom power. pan pots, switched low cut filters and a test tone oscillator driving stereo, metered, low distortion, servo balanced line outputs with switchable peak limiting. A stereo 100 mW headphone output is switchable from normal stereo program to split I+R/Q monitoring. The headphone $Q$ feed is internally selectable from any input channel and/or an extemal cue input jack

| MXSI00 | Field or portable mixer | $\$ 799.00$ |
| :--- | :--- | :--- |
| MX200 | Studio mixer. stereo line out. 3 panned micfline inputs | $\$ 599.00$ |
| XPSI00 | Expander. Stereo buss out. 4 panned mic inputs | $\$ \mathbf{5 9 . 0 0}$ |
| XPS200 | Expander, Stereo buss out. 2 stereo line level inputs | $\mathbf{\$ 3 7 9 . 0 0}$ |



Whirlwind's MIX-44 is a unique two rack units product that allows the creation of four discrete mixes from four separate inputs. It accepts four separate balanced line level input signals. and applies them to four separate mixer sections where they are combined through volume controls to provide four separate output mixes. Each of the four mixer sections has four input volume controls, one for each of the input signals. These signals are combined through a master volume por and exit via balanced line level XLR's. Switches are provided to enable the MIX-44 to be used as two four by two matrices. Inputs and outputs are balanced XLR's. A meter and headphone circuit monitor the four master oupputs.

## MIX 4

$\$ 1,000.00$


The Medusa Pressbox is a rugged, passive. transformer spliting device that takes a single line level signal and provides nultiple low impedance feeds.

| PB06 | 1-in. 6-out | $\$ 310.00$ |
| :--- | :--- | ---: |
| PBI2 | 1-in, 12-out | $\$ 581.00$ |
| PBI6 | 1-in. 16-out | $\$ 740.00$ |
| PB24 | 1-in. 24-out | $\$ 1.075 .00$ |

Shown from top to bottom: MIX-5S ~MIX-6~MIX-8
The Whirlwind MIX-5S is designed as an all-pupose mixer for sound contracting. It offers 4 -input channels, each with XLR and $1 / 4=$ TRS balanced connectors, suitable for mic or line level use. An LED readout provides a visual indication of levels, and phantom power is provided for operating condenser microphones. XLR and $1 / 4$ " TRS oupputs are provided. with the XLR output mic or line level switchable. The outputs have their own drive circuit for isolation. An dux chanel is provided with RCA mput facks for connecting a tuner. CD player, tape player, ete.


## Marti



The Marti SR-10 is a frequency agile base station receiver with superior selectivity. Features include: frequency agile over $\mathbf{~} \mathbf{5 0} 0-455 \mathrm{Mhz}$. Band - Front panel selection of channels - Sub-audible tone decoder - Automatic noise reduction -Built-in monitor speaker with lront panel headphone jack and level control - LCD display (backlighted) to indicate exact channel frequency - and six programmable priority channels can be seanned or selected.

## Marti RPT-30/15/2

These Marti systems enable non-technical personnel to produce professional sounding live remotes. The Marti remote tranmitters are for continuous duty - have two frequency capability • sub-audible encoders, for switching repeaters • and will work on AC or DC power. The RPT- 30 has four balanced mic inputs, with one switchable to a line input. The RPT 15 and RPT 2 have two audio inputs. mic and high level unbalanced. The hand held RPT- 2 mic input is push to talk. The CR-10 and $A R-10$ receivers have dual frequency capability and sub-audible tone decoding. Mart transmitters have a one year warranty.


| RPT-2 | Hand held 2W xmer w/o internal bit. I lieq. | \$1,085.00 |
| :---: | :---: | :---: |
| RPT-2-2 | as above dual frequency | \$1.115.00 |
| RPT2-B | as above w/ internal baltery I frea. | \$1.155.00 |
| RPT2-2B | as above w/internal battery dual frecy. | \$1,185.00 |
| RPT-15 | Portable/mobile 15W transmitter 1 frea | \$1,165.00 |
| RPT-15-2 | as above w/dual treguency | \$1.195.00 |
| RPT-30 | RPU 30W trammitter, single freg. | \$1,815.00 |
| RPT-3()-2 | as above dual frequency | \$1.845.00 |
| CR-10-D | Revr Single frequency, w/decoder | \$1.395.00 |
| CR-10D-2 | as above dual freguency | \$1.425.00 |
| AR-10 | Mobile relay revre single Prea | \$1,395.00 |
| AR-10-2 | as above dual frequency | \$1.425.00 |

Varions Marti packages. aceessories and amemas are atailable' Please call Broadcasters General Store for more informathon.


The Marti SRPT-40 and SRPT-20 RPU iransmitwers have incorporated in them all the features found in the RPT- 15 and RPT- 30 transmitters and add the ability to change frepuency by means of front pancl thumbwheel switches. New switching power supplies produce $30 \%$ more power with $30 \%$ less, weigh and run cooler The SRPI-40 and SRPT- 20 will operate on any $50 / 60 \mathrm{H}$. AC voltage between 95 and 250 volts, without changing jumpers or swithes. They have a compressor/limiter built-in. UG-58 N female RF connector and are compatible with your existing system when not companded.

| SRPT-40 | 40 Wart | $\$ 2.795 .00$ |
| :--- | :--- | :--- |
| SRPT-20 | 20 Watl | $\$ 2.500 .00$ |

Many[temsin Stock for Immediate Delivery...Call Today!


## Moseley

The Moseley RPL 4000 Remote Programming Link is frequency agile via internal dip switches and the user programmed frequencics are selectable from a from panel swith or rear panel remote control. The system has a sub-audible encoder/decoder and a built-in 21 compander with provisions for user preferred external noise reduction or signal processing. The RPL 4010 portable transmitter is a 20 watt, continuous duty unit powered by $8-15 \mathrm{Vdc}$. It has three balanced inputs, one switchable to a line input, a headphone monitor jack. and has comprehensive monitoring and diagnostics via a twelve position switch. The RPL 4020 receiver features a built-in loud speaker with volume control, full diagnostic metering, excellent selectivity, and adjacent channel rejection.

| RPL 4010 | Transmitter | $\mathbf{\$ 2 , 9 5 0 . 0 0}$ |
| :--- | :--- | :--- |
| RPL 4020 | Receiver | $\$ 2,950.00$ |



## Comrex POIS CODEC



## Marti POTS CODEC

Marti SMARTI is a telephone codec for remote broadeasting which is capable of simultaneously sending and receiving 7.5 kHz audio over a single standard analog telephone line It actually offers 3 different operating nodes. one with very low delay and 7.5 kHz audio - one whit even less delay and only slightly lower quality performance e and the third mode is a direct analog telephone interface. Uulizing the latest MPEG compression algorithms coupled with modern DSP technology. SMARTI offers better than RPU qualty with phone line convenience. Functions are push-buton or menu driven from "telephone style" keypad and a $2 " \times 16 "$ LCD dieplay. Ten phone numbers can be stored for easy access and calls can be initiated from the remote or studo location. It also incorporates two relay contact closure swatches allowing control of equipment at the other end of the system. All controls are located on the front panel and include: compres-
 sion algorithm switch • wo headphone jacks with program and return mode select switches • a monitor jack with level control, return audio and line output level adjustments • four XLR audio inputs that are mic/line switchable with level controls - and a timer which allows events such as breaks to be accurately timed via the LCD display.

## SMARTI

$\$ 3,400.00$
MUSICAM USA POTS CODEC
The Comrex Hotline has the audio clarity of a microwave link and the convenience of a simple telephone call. Just plug the Hotline into your client's phone jack. connect your micheadphone (or the output of a wireless receiver). press the quick dial memory button for the studio (it even has last number redial memory) and you're on the air. Comrex'x adaptive audio compression algorithm is designed to work with the lower speed connections associated with POTS lines. At $12 \mathrm{~kb} / \mathrm{s}$ (worst case) it will deliver 20 Hz 4.5 kHz response......better than a single line frequency extender. At $33.6 \mathrm{~kb} / \mathrm{s}$ (best case) it delivers 20 Hz 10 kHz response----microwave over the phone!!! It also offers an extra input and output for house feeds.

Hotline porable
$\$ 2.995 .00$
Holline Rackmount
53.195 .00

Suli Carty Case
\$50.00
Sofi Carty Case
S175.00


The Musicam USA FieldFone ${ }^{\text {ram }}$ is a portable single channel, mic/line telmote codec that interfaces to a POTS line (plain telephone line) to bring you 7.5 KHz of audio through the use of a high speed modem and the patented Musicani $\mathrm{HQ}^{19}$ audio compres sion algorithm. This full duplex unit, incorporates a telephone keypad. memery redial. balanced inputs with level contruls and a lecal/return headphone mix. 12 lbs. The FieldFone II provides the following added features: 3 mic input (1 switchable for mic or line - 2 headphone aonitor circuits with seperate send and return levet controls - batanced XLR oupput " unbalanced $1 / 4$ " send and receive audio outputs • $t$ on-board relays for remote control of external devices - dedicated relay function keys - wider frequency response and greater dynamic range - improved internal construction - and external battery por.

FFIOO
$\$ 3,350.00$
C2100 $\quad 6^{\circ}$ Outpu Adapter Cible. $1 / 4^{*}$ phone to XLR
$\$ 35.00$
FF200
$\$ 3.850 .00$
Musicam Studiofone is a racknount version of the FieldFone. A few special features include: a speaker for active monitoring - four LED's for visual monitoring of activated relay closures - and a built-in talkback feature for talent IFB.


Audio Fail Safe

## nemote aontrols

## Consider the purchase of 2 sllence sensors. Set 1 for 30 Seconds to call the studio or PD and 1 to call you after 5 minutes!

## Belar

The Belar AS-1 Audio Sentry is an alarm which aurally and visually alens station personnel of the absence of modulation or carrier. It will react immediately upon loss of carrier. In the case of loss of modulation, the Audio Sentry can be programmed to sound off anywhere between 3 and 60 seconds.

## AS-1



Broadeast Tools Silence Monitor The Silence Monitor is designed to monitor any stereo or monaural audio source for activity. The absence of audio will extinguish the "SIGNAL" LED and close a relay after a programmable time delay. The relay remains closed for the duration or the loss of audio, while a second relay is latched and may be set to flash. The precise time delay is programmed via 8 dip switches in incrememts of 2 seconds with a naximum time delay of 8.5 minutes. It is equipped with an on-card silence alarm reset switch. opto-isolated remote reset and defeal inputs and LEDs that display presence of audio. power and silence alarm. A new feature allows one of three ways to configure the Silence Monitor: both channels, left channel only or right channel only!
Silence Monitor $\$ 199.00$


The Broadcast Tools Alert Sentry-16 provides a convenient way to monitor station alarms on Windows based PC's. The AS-16 is equipped with 16 nptically isolated inputs, that may be programmed for wet or dry contacts. The AS-16 output is standard RS-232 and may be fed to the serial ports of muttiple computers. It also provides two separate relay comtacts. The first closes for six seconds after any high to low or low to high input on any port. The second relay contact stays closed indelinitely while any or all alarms are present. The AS- 16 is provided with sofiware that may be run under Windows and allows up to sixteen alert and sixteen non-alen, 63 character descriptions to be displayed. An alarm condition causes a high-lighted cursor to flash beside the highlighted 63 character description. Input connections are via wire captive terminals.

| AS-16 | $\$ 3.49 .00$ |
| :--- | ---: |
| RM-2 Rackmount | $\$ 49.00$ |

## Gentner

Gentner Silence Sensor The Silence Sensor monitors your audio source, observing both rising and falling edges of audio. In addition it observes audio on a wideband and narrowband basis, pernitting the unit to ignore hum and other erroneous signals. If it nutes a loss of audio an open collector output is activated and the time-out sequence begins. If audio returns before time-out, the unit reverts to a "ready" state. However, if audio does not return after a programmed delay time. a second open collector output is activated along with a relay closure to tum on lights, sound alarms or start other sources. A set of dip switches located behind a front panel inser allow you to sel dime-out for 1 to 16.5 seconds or 1 to 16.5 minutes.

## Silence Sensor

$\$ 539.00$

## Radio Design Labs

## Radio Design Labs ACR-1 \& ACR-2

Radio Design Labs ST-ACR1M is designed to switch on low-level sources, such as microphones or mic-level sources. The ST-ACR2 is designed to switch on line-level sources with extended release delay. The ST-ACR2 is widely used as a Silence Sense Relay.

|  | Sensitivity | Release Time |  |
| :--- | :--- | :--- | :--- |
| ST-ACR1 | -30 dBv to OdBv | 0.5 sec. to 5.0 sec. | $\$ 90.00$ |
| ST-ACRIM | -60 dBv to 10 dBv | 0.5 sec. to 5.0 sec. | $\$ 90.00$ |
| ST-ACR2 | -30 dBv to OdBv | 5.0 sec. to 50 sec. | $\$ 90.00$ |
| PS-24A | Power Supply, one will power six ACR's | $\mathbf{\$ 1 7 . 0 0}$ |  |

## Audio Fail Safe

## Sine Systems

Sine Systems AFS-1 The AFS-I Audio Fail-Safe is a self-contained device that is typically used to trigger an alarm or terminate transmission if program audio fails. The AFS-I can monitor one or two audio signals and provide a relay contact-closure for as long as either audio signal is present. When neither audio signal is present for an adjustable delay period ( 7 seconds to 4.5 minutes) the relay contact opens and remains open until one or both of the audio signals return. The output relay is rated ( 6 amperes $/ 120$ volts) to allow direct control of most equipment.

## AFS-1

$\$ 249.00$

## Broadcast Tools

The Broadcast Tools SRC-8A adds remote relay control to your DSP-6000 (or equivalent) digital STL or ISDN remote equipment. Applications include direct relay control for your dial-up remote control, a supplement to your dedicated remote control. relay control of satellite.
 transponder or remote audio switching as well as machine control and talent alerting for remotes. The standard system provides one-way control. The SRC-8B is available for bidirectional control and status. All SRCs utilize a high integrity data format for maximum reliability. The SRC-8A consists of both transmit and receive units. Power adapters and serial cables are provided.

SRC-8A
\$399.00/pr.
SRC-8B \$499.00/pr.
RM-2
$\$ 49.00$
The Broadcast Tools DC-8A is designed to connect to a standard dial-up celephone line, allowing the user to control eight SPDT relays and monitor eight digital inputs via any standard Touch-Tone (elle tephone. The
 relays may be configured for momentary, latching, interlocking or group latch/unlatch operation. The DC-8A incorporates a "Pager Alert" function, which when activated, will dial up to three digital pagers and display a programmed phone number along with the input that caused the alarm. Additional features include: programming via standard Touch-Tone © phone • up to 8 digil passwords - programmable number of rings • 1 kHz tone generator • audio t/O switching to telephone line - front panel status 1.EDs for tone, off-hook. locill control, ring and power - single higi/low DTMF tones used for status of the eight relays and digital inputs. Three new features include: CPC control, allowing the automatic disconnection of the phone line when the calling pany hangs up • Acknowledgment of tone defeat. disathling the feedback tones when used for on-air applications - and stand-alone DTMF Detection. enables the user to connect programming audio to the unit allowing the detection of DTMF tones one through eight. IU

## DC-8A

$\$ 399.00$
Circuit Werkes


Circuit Werkes DR-10 Dial-Up Controller is a microprocessor bascd remote control that lets you control your station's equipment from anywhere there's a phone. Auto answers on user set ring number and auto-disconnects at calls-end. Its 10 dry relays ( 2 are DPDT for switching balanced audio, etc.) can be programmed to decode any of the 16 DTMF tones and caln be individually programmed for momentary, latching or interlacked operation. Any relay can be asigned to any tone(s). Th has four logic level inpus that can cuase the DR-10 to automatically activate any relay and/or call your pager. Other features include: up to 8 digit user set password prevents pirating - each relay is programmable to close at beginning or end of tone and can beep when astivated (End of tone closures are after the beep!) - two-tone and detection delay modes eliminate falsing for remotes. etc. - a simple, built-in audio hybrid, with active, balanced input and outputs, lets you control your equipment while monitoring local audio sources - retains its settings and prior state after a power failure - and a silencer option removes DTMF tones from output. All outputs appear on casy to use screw terminals and programming is casily done from any DTMF telephone.


The Circuit Werkes DS-8 is a DTMF Sequence Decoder providing dry closures for eight different tone sequences. It can decode one to eight separate DTMF sequences used by networks for automating closed circuit feeds and local insertions. Each relay can be set for one to four digit code(s). Relays are easily (and independently) programmable, via DTMF phone, to operate in momentary, latching. or interlocked latching modes. Any mixture of modes and code lengths can be used and it remembers all the seltings in a power failure. All connections are screw terminal. Use the DS-8 for remote audio switching. automated program recording, secured remote EAS control, you name it! Optional rack mount (pictured) is available. A two unit rack mount is also available.

## Burk

The Burk Technology ARC-16 is a full time studio control. dial up control or both. The ARC-16 includes 16 analog metering channets. 16 status channels and 16 raise and 16 lower control outputs. The ARC-16 units have 32 character displays with labels and units you have selected for easy calibration and local operation. You decide whether to add studio control. telephone access or both.
Communications between site can use dedicated lines. dial up. STL subcarriers. FM SCA or 450 MHz TRL. Subcarrier generators are built in at no extra cost. The ARC-16 system is capable of controlling two transmitter sites from one studio or one transmitter site from two studios. The telemetry links between the sites can be mixed. Full access to all sites is available at any site by pushing a button. Alarm reporting is handled immediately and is displayed at all sites no matter which site is monitored.

Please call Broadcasters General Store for şistem configuration.



| ARC-16 | 2 unil remote control system, one studio unit. one transmitter unit. one set of modems * | \$3,895.00 |
| :---: | :---: | :---: |
| ARC-16S | Includer control termmal with display and modem to connect to an existing transmitter or studio unit * May require additional modem and two port adapter. for existing unit. | \$1.795.00 |
| ARC-16CI | Stand alone system w/computer interface | \$2.695.00 |
| ARC-16T | Includes 16 channels of analog inputs, 16 channels of status, 32 control outputs ( 16 raise, 16 lower). Includes a modem to connect to an existing transmitter or studio unit.* May require additional modem and two port adapter. for existing umit. | \$2,295.00 |
| ARC-16T32 | Expansion unit for 32 channels, (may need 2 port adapler) | \$2,195.00 |
| ARC-16SA | Transmitter unit with front panel display plus the ES1 | \$2.995.00 |
| AutoPilot ${ }^{(8)}$ | Automatic transmitter control software | \$595.00 |
| ESI | Enhanced Speech/Conputer Interface hardware for ARC-16's | \$895.00 |
| AMI-2 | Antenna monitor interface up to 8 towers | \$395.00 |
| Cl | Computer interface hardware for the ARC-16 | \$195.00 |
| CDL | Control display logging software for Cl or ESI | \$295.00 |
| RMSx/y | Radio modem for studio unit ** | \$200.00 |
| RMTx/y | Radio modem for transmitler unit ** | \$200.00 |
| Module | Input or output module for Radio Modem | \$35.00 |
| $\overline{\text { SSI }}$ | Studio Status Indicator for external user supplied indicators for first transmitter site | \$250.00 |
| SIO | Studio inpu/output option provides 8 raise and 8 lower control outputs, 8 analog metering channels, 8 status inputs for controlling and monitoring equipurent at the studio site. Two SIO's may be installed for a total of 16 Ch . | \$495.00 |
| IP-8 | Interface panel 8 metering inputs, 8 status inputs and 8 each raise and lower outputs. plus fail satic use at Ximtr All outputs are isolated with 10AMP relays (form C) contacts | \$ $\$ 95.00$ |
| BT1 | Indoor Sensor for BTU-4, for montoring ambient 1emp. in a room | \$79.00 |
| BTO | Outdoor Sensor for general purpose monitoring w/15* cable | \$49.00 |
| BTS | Stack Probe for BTU-4 for temp. Sensing air ducts. w/15' cable | \$69.00 |
| BTU-4 | Burk Temperature Unit w/1-BTO, supports 4 independent probes | \$199.00 |
| TPA | Two port adapler | \$100.00 |
| LVK-3 | Line voltage Kit | \$195.00 |
| TLM | Tower light Monitor | \$109.00 |
| TE-2 | Transient Elimimator | \$ $\$ 129.00$ |
| TE-RJ | Dial line Transient Eliminator | \$159.00 |
| UPS 400 | Backup Power Source | \$297.00 |
| WMS | Wire modem for studio unit | \$200.00 |
| WMT | Wire modem for transmitter unit | \$200.00 |
| SCA-2 | Subcarrier Receiver | \$198.00 |

* Please specify type of modem, relco. STL. SCA, or TRL and inchude desired subcarrier frequencies for STL or SCA imks. SCA links require SCA receiver to recover telemery:
**For Radio Modems please specify STL subcarviers, SCA and TRL links x and y are the outpur and inpur subcarrier frequencies respectively: Audio inputs or outputs are speciffed by substihning zero for $x$ or $y$ :

The Burk BDT-115 RF Data Link provides error-free communications between ARC16 Remote Control units. It eliminates telco charges and SCA requirements and up to 100 units may be operated at the same site. Burk provides a range of antennas for the BDT-115. permitling line of sight operation at up to 20 miles. BDT- 115 Wireless Data Transceivers use spread spectrum technology to transmit data using the unlicensed band of $902-928 \mathrm{Mh} \%$. For about the cost of a TRL system the Burk RF Data Link provides a bi-directional alternative.

| RF Data System | 2-BDT-115, 2-TPA kits, 2-BDT/BNC cable sets. <br> ARC4.6 D firmware for BDT | $\mathbf{\$ 2 , 7 9 5 . 0 0}$ |
| :--- | :--- | :--- |
| BDT-115 | Single Wireless Data Transceiver | $\$ 1, \mathbf{3 9 7 . 5 0}$ |



Please call Broadcasters General Stom to arrange a free RF path analysis from Burk, and for cable and antenna pricing.


The Conex DT-40 dTMF Tone Remote Control System accepts DTMF tones from an audio line, receiver, or other source. After giving your user access code, it allows remote control of sixteen SPDT relays. The relays can be momentary, latching, or interlocking. A switch settable device selection code allows up to 15 DT-40's to be individually controlled from one audio source. It has miniature screw-clamp terminal strips for easy connection.

## DT-40

$\$ 399.00$

The Conex DT-55
answers a phone line. accepts a user determined access code, then allows remote control of ten SPDT relays and the remote monitoring of ten external
 switch contacts or logic levels. The relays are magnetic latching. On power loss and restoration you can choose to retain their prior states or return to the de-activated state. Each relay can be set. cleared or activated momentarily, for the duration of the push-button actuation on the calling telephone. Additionally, the DT-55 can be set up to act in an interlocking mode, when a button is pressed, its associated relay is set and all other relays are cleared. Easily distinguishable tones indicate the high-low or openclosed status of the ten extemal inputs. Status lights indicate the ringing signal, power, DTMF tone detection. line connection and access. It uses miniature screw-clamp terminal strips for tasy connection.

## Gentner



| GSC 1/O8 | 8 Channels each of metering status \& command, <br> w/System Server Software, VCR-WIN | $\$ 1,795.00$ |
| :--- | :--- | :--- | ---: |
| GSC I/OI6 | 16 Channels each of metering status \& command. <br> w/Svstem Server Software, VCR-WIN | $\$ 2,795.00$ |
| VS | Voice Server | $\mathbf{\$ 9 9 5 . 0 0}$ |

Pleasc call for special package prices!


| VRC-2000 | Includes Data interface, Set-up VCR and VCR-WIN software, and telephone line surge | \$2.995.00 |
| :---: | :---: | :---: |
| 2000Package | As above plas 1 command relay $\& 2$ screw barrier strips | \$3,499.00 |
| CRU | Command Relay unit (Phoenix type commectors) | \$ $\mathbf{4 9 5 . 0 0}$ |
| SBS | Wiring lnmertace | \$195.00 |
| D1 | Data lnterface | \$549.00 |
| SS | Silence sensor | \$5,39.00 |
| ACS | AC current sensor | \$219.00 |
| TSU/F or C | Temperature Sensor Unit w/one Fahrenheit or Celsius Probe | \$319.00 |
| Probe | Temperature Probe. Fahrenheit or Celsius | \$99.00 |
| TSP | Telephone Surge Protector | \$89.00 |
| EFI/ISP | EFi model DPI 153TLS. AC or telco line surge protection | \$139.00 |

The Gentner GSC3000 Site Control System takes the concepts introduced by the VRC2000 Remote Control Unit to the next level. The GSC's I/O unit provides 16 analog metering inputs. 16 binary status inputs and 32 command ourputs configured as 16 raisellower command channels. Additional 'smarts'. such as macro and time-based event capabilites, were added to the GSC. The GSC3000 System offers these unique features and benefits: operation of 1 to 256 sites -8 to 256 channels of metering, status and command, per site - single or multiple PC montoring sites - friendly Windows@ and Windows95® based operation - and PC based voice/DTMF option allows control and command of multiple site locations from a single dialed number. The GSC3000 ste control system is configured from: I/O Unit that perfonns all data collection. time and macro driven command functions - System Server Suftware that provides for the set up of all $1 / O$ units and allows basic operation of the complete system - Logging Management Software that amplifies the logging capability and logging post processing functions of the system Developer's Software Package that permits the user to customize the displays and develop personalized command functions using Visual Basic • and the Voice Server.

The Gentner VRC-2000 provides simple. effective transmitter remote comrol. 24 hours a day It offers access by dial-up phone line. radio link. data link or bi-directional audio link. Its synthesized voice response provides an audio interface to the system - punch in touch tones and it talks back to you. You can get complete remote control capabilty with automatic time-of-day functions. and automatic alarm reporting and comection.


## Monroe

Cue Tone Receivers manufactured by Monroe Electronics provide decoding of DTMF Cuc Tone Signals transmitted over satellite transponders or telephone lines. Use of the Cue Tone Receiver permits automatic. unatuended operation of channel switching functions at the headend when programming begins, ends. or changes. Models are available in wall or rackmount enclosures and may include optional features such as telephone access and audio/video switching.

Monroe DTMF Cue Tone Encoders are used by satellite and microwave program services to provide automated headend switching functions. These signals can be used at the headend or studio to control modulators, processors, audio/video switches, agile receivers, scramblers, video tape machines. or other unattended switchable devices. Models are available in wall or rackmount enclosures.

Audio/Video Relay Panels provide audio-follow-video switches that can be controlled by program timers, remote controls, or cue tone receivers. Each switch will respond to a contact closure, a transistor switch to ground, or a compatible logic level. The control inputs are buffered to eliminate high output current drive requirements of the controlling device.

The Monroe Program Timer is a rackmount programmable time of day and day of week swither designed to be used alone or with Monroe Cue Tone Receivers to provide unattended time and Cue Tone switching functions. It can be used with Audio/Video Relay Panels to provide independent. time controlled audio-follow-video switches.

The Video Recorder Control is a rackmounted commercial insertion controller designed to provide automatic, unattended switching to local video taped commercials in response to CaTV program source cues. In serves as the controller for a run-
 of-schedule commercial insertion system. providing the cue tone detection, VCR conirol and audio/video switching requirements of the system.

The Remote Receiver Channel Selector provides for the remote selection of satellite iransponders and includes an integral FCC registered telephone line interface which allows direct connection to a standard dial-up telephone line for remote channel selection by means of DTMF commands. They also include a local audio input to provide control via a leased line, audio pair, or micruwave system.

Monroe Remote Control Systems are available for control and monitoring over dial-up telephone, microwave, two-way radio, or other audio paths by means of DTMF commands. These systems give the calling party control of remote relays and the ability to interrogate status input points for remote control and status monitoring of unatended sites. They can also provide automatic dialing of stored phone numbers to report change of status of inputs. and can make use of an internal timer to execute control commands.

Telephone Couplers will answer the incoming ring signal and complete a bidirectional audio path to and from an ordinary dial-up telephone line. All Monroe Telephone Couplers are FCC registered and are available in wall or rackmount enclosures ready to connect into a standard telephone line.


The Emergency Alert System permits civil emergency authorities a choice of local, dial-up telephone, or dedicated telephone access to a cable/broadcast system audio channel. Use of a security access code is required when using either dial-up or dedicated telephone.

The Remote Radio Control Units allow a caller to monitor the traffic on a receiver, and upon depression of the Push-To-Talk switch on the handset. to key the transmitter and place the caller's voice on the air. Monroe audio frequency Push-To-Talk feature allows remote control of radio equipment where hardwire facilities are not available.


Listed below is just a sampling of what is available from Monroe. We'd be happy to supply a complete packet and pricing.

| 624 | Video Sensor | \$295.00 | 935A | DTMF Sender: 2-Codes | \$825.00 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 625 | RF Sensor | \$325.00 | 939A | Cue Tone Receiver w/4-digit Decoder: 90 mA | \$400.00 |
| 626 | Video Distribution Anlp | \$195.00 | 948 | Cue Tone Receiver w/A/V switch | \$915.00 |
| 627 | Sterco A/V Switch | \$165.00 | 3000P-14 | A/V Panel w/4 A/V switches | \$515.00 |
| 628 | Encoder Sensor | \$325.00 | 3000R-107BD | Dual Tone Sender, 2-Codes | \$3.745.00) |
| 629 | $1 \times 4$ Stereo A/V amp | \$525.00 | 3000R-107CD | Dual Tone Sender, 3-Codes | \$4,140.00 |
| 630 | 4x1 RF Matrix Switch | \$425.00 | 3137B | Phone Answer card | \$145.00 |
| 631 | Program Timer Jr | \$485.00 | 31718 | BCD to DTMF encoder card | \$225.00 |
| 900/22C | 1 Card wall enclosure | \$65.00 | 3446-3 | Single AV Switch | \$105.00 |
| 900/22F | 3 Card wall enclosure | \$90.00 | 6002-6 | 6 Channel Telephone Remole | \$595.00 |
| 900/22G | 6 Card wall enclosure | \$145.00 | CES-340J-16 | DTMF $4 \times 4$ TT Pad | \$125.00 |

## Moseley

The Moseley MRC 1620 is an intelligent integrated remote control system that has 16 raise and 16 lower command relays. 16 TTL status inputs and 16 analog metering inputs. The system will automatically log, and can be controlled and interrogated from an optional control terminal or IBM PC with Taskmaster 20 software. All status channels are simultaneously displayed on the front panel. The MRC 1620 constantly checks telemetry and status data for each channel against assigned limits and triggers audible and visual alarms for out of tolerance conditions.


The Moseley MRC-2 will control multiple sites from multiple control points. The basic system is one Control Terminal, one stand alone Remote Terminal or one Remote Terminal with Data Acquisition/Command unit. Multiple remote terminals may be added to the system. with each remote terminal designated as a site. A stand alone remote terminals maximum configuration could be 64 command lines. 48 status channels and 48 telemetry channels. The MRC-2 can control your AM, FM or TV site individually or all three at once. Many control, data acquisition and expansion options are available. Please call Broadcasters General Store for further information.

| MRC 2 | Control Terminal only | $\$ 4,980.00$ |
| :--- | :--- | :---: |
| MRC 2 | Remote Terminal only |  |
|  | (16 Command/16 Status/16 Analog telemetry channels) | $\mathbf{\$ 7 , 9 8 0 . 0 0}$ |



Phatronies


The Phartronics Pressure Sensor Interface provides a very precise sample voltage of 0 to 4.5 VDC that varies lincarly with line pressure. The DC sample is comparible with any briand of remote control. To set a Lower-Limit alarm on the pressure sample input of your rembe control simply "T" into your existing pressure line to provide a line pressure sample and connect the output sample voltage to your remote control.

PSI-V3
$\$ 225.00$


## Stine Systems

The Sine System Rl'C-1 is an affordable fully-featured dial-up (from any telephone) remote control for your transmitter. It speaks to you with a natural human voice. It can also telephone you to report out-of-olerance conditions and can automate ransmitter power/pattern changes. The basic system consists of one RFC-1/B and one RP-8 eight-channel relay panel. And more RP-8s for more channels. Add the optional SP-8 heavyduty surge protection system and Sine Systems will cover lightuing damage under the one year warranty


The Sine System DAI-I Dial-Up Audio Interface provides an array of features unparalleled in the industry. It combines an autocoupler, a dial-out alarm, two AGiCs. a DTMF operated equipment controller and an audio switcher into one affordably priced device. It allow "dialup" remote breadensts when the studios are unmanned. The DAI-RP provides a space to rack-mount the DAI-1. a power supply, a screw-terminal interiace module and five general-purpose relays for equipment control and audio swisching. The optional DB- 1,50 millisecond delay board prevents DTMF tones getting on the air. The optional CI- 1 Composite Insertion Module is available for use when diserete audio is unavailable.

|  |  |  |
| :--- | :--- | :--- |
| DAI-1 | Dial-up andio interface | $\$ 699.00$ |
| DAI-RP | Relay pancl kit | $\$ 229.00$ |
| CI-1 | Composite imsertace module | $\$ 129.00$ |
| DB-1 | Delay huard | $\$ 129.00$ |




## Program <br> onueyance

Getting your signal from Point $A$ to Point $B$ is not really all that difficult. Getting it there in its purest form reliably is a more difficult task. Don't leave something as important as the conveyance of your air signal to amateurs. For over 25 years, thousands of broadcasters worldwide have delivered their programming with Moseley.


Frequency-agile composite system built to perform in the harshest RF environments.


A 2.4 GHz Spread Spectrum link for stereo remotes up to distances of 25 miles.

## Tune Your Station to Greater Flexibility and Profits.



Listen to Iniraplex. Improve the management and operation of muliple stolions from a single facility os on LIM or a duopoly. Lee Intraplex channel module flexibility tune you in to greater profils.

Intraplex solutions provide high quality, uncompressed oudio tronsmission over inexpensive TI lines. You can combine dato and PBX voice channels in the same circuit. And save money monith offer monih ofter monih. Only Introplex provides LIMA/duopoly operators the freedom to combine all your communicolions inlo a single, monoged netvork.

Listen to Inlraplex. You con coll for our free booklet on radio stotions thal have already chosen Intraplex for a quality
transmission solution. In it, radio professionals give their own reasons for choosing Intraplex for their solution.


Intraplex

## VsWh Conversion table

Our thanks to Andrew for allowing us to use this chard

## Microwave Antenna System Slide Calculator

The Andrew "Microwave Antenna System Slide
Calculator/Transmission Line Selector" is available on request. The computer includes useful scales and tables for calculating parabolic antenna characteristics, tree space propagation, HELIAX cable and waveguide performance, and other antenna system calculations.
To obtain a copy, ask for Bulletin 8525 (Imperial units) or M8525 (metric units). The metric unit is available with instuctions in English, Italian, German, Spanish, and Frencth.

## Definitions

Return loss, RL, is the decibel ratio of the incident volt-age to the reflected voltage.
Reflection coefficient, | $\Gamma$ lis the numerical ratio of the reflected voltage to the incident voltage.

Voltage Standing Wave Ratio, VSWR, is the numerical ratio of the maximum voltage to the minimum voltage that would exist on the uniform reference transmission line.

## Microwave Transmission Lines

## Conversion Formulas

The following formulas can be used for determining values not listed in the table below.

$$
\begin{aligned}
& R L=-20 \log _{10}(|\Gamma|) \\
& |\Gamma|=\frac{V S W R-1}{V S W R+1} \\
& |\Gamma|=\operatorname{antiog} 10 \frac{(-R L)}{20} \\
& \text { VSWR }=\frac{1+|\Gamma|}{1-|\Gamma|}
\end{aligned}
$$

## Connersion Table

| Return Loss. dE | Rellection Coellicient. .. | VSWR | $\begin{aligned} & \text { Return } \\ & \text { Loss. dB } \end{aligned}$ | Rellection Cocllicient. ${ }^{\circ}$ | VSWR | Relurn Loss. dB | Reflection Cocllicient. ${ }^{\circ}$ | VSWR | Return Loss. dB | Rellection Coellicient. ${ }^{\circ}$ | VSWR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 14.0 | 19.95 | 1.50 | 22.0 | 7.943 | 1.173 | 30.0 | 3.162 | 1.065 | 380 | 1.259 | 1025 |
| 14.2 | 19.50 | 148 | 22.2 | 7.762 | 1.168 | 30.2 | 3.090 | 1.064 | 38.2 | 1.230 | 1.025 |
| 14.4 | 1905 | 147 | 224 | 7586 | 1.164 | 30.4 | 3.020 | 1.062 | 38.4 | 1202 | 1 ก24 |
| 14.6 | 18.62 | 146 | 226 | 7413 | 11 mm | 30 F | , 961 | 1.061 | 38.6 | 1.175 | 1.024 |
| 14.8 | 18.20 | 1.44 | 22.8 | 7.244 | 1.156 | 30.8 | 2.884 | 1.059 | 38.8 | 1.148 | 1.023 |
| 15.0 | 17.78 | 1.43 | 23.0 | 7.079 | 1.152 | 31.0 | 2818 | 1.058 | 39.0 | 1.122 | 1.023 |
| 15.2 | 17.38 | 1.42 | 23. | f 918 | 1149 | 31.2 | 2.754 | 1.057 | 39.2 | 1.096 | 1.022 |
| 15.4 | 16.98 | 1.41 | 23.4 | 6.761 | 1.145 | 31.4 | 2.692 | 1.055 | 39.4 | 1.072 | 1.022 |
| 15.6 | 16.60 | 1.40 | 23.6 | 6.607 | 1.141 | 31.6 | 2.630 | 1.054 | 39.6 | 1.047 | 1.021 |
| 15.8 | 16.22 | 1.39 | 238 | f. 457 | 1138 | 31.8 | 2.570 | 1.053 | 398 | 1.023 | 1.021 |
| 16.0 | 15.85 | 138 | 24.0 | 6.310 | 1.135 | 32.0 | 2.512 | 1.052 | 40.0 | 1.000 | 1.020 |
| 169 | 15.49 | 1.37 | 24.2 | 6.166 | 1.131 | 32.2 | 2.255 | 1.050 | 40.2 | 0.9772 | 1.020 |
| 16.4 | 15.14 | 1.36 | 24.4 | 6.026 | 1.128 | 32.4 | 2.399 | 1.049 | 40.4 | 0.9550 | 1.019 |
| 16.6 | 14.79 | 135 | 24.6 | 5.888 | 1.125 | 32.6 | 2.344 | 1.048 | 40.6 | 0.9333 | 1.019 |
| 16.8 | 14.45 | 1.34 | 24.8 | 5.754 | 1.122 | 32.8 | 2.291 | 1.047 | 40.8 | 0.9210 | 1.018 |
| 17.0 | 14.13 | 1.33 | 25.0 | 5.563 | 1.119 | 33.0 | 2.234 | 1.046 | 41.0 | 0.8913 | 1.018 |
| 17.2 | 13.80 | 1.32 | 25.2 | 5.495 | 1.116 | 33.2 | 2.188 | 1.045 | 41.2 | 0.8710 | 1.018 |
| 17.4 | 13.49 | 1.31 | 25.4 | 5.370 | 1.114 | 33.4 | 2.138 | 1.044 | 41.4 | 0.8710 | 1.017 |
| 17.6 | 13.18 | 1.30 | 25.6 | 5.248 | 1.111 | 33.6 | 2.089 | 1.043 | 41.6 | 0.8318 | 1.017 |
| 17.8 | 12.88 | 1.30 | 258 | 5.129 | 1.108 | 33.8 | 2042 | 1.042 | 41.8 | 4.8128 | 1.016 |
| 18.0 | 12.59 | 1.29 | 26.0 | 5.012 | 1.106 | 34.0 | 1.995 | 1.041 | 42.0 | 0.7943 | 1.016 |
| 14.2 | 12.30 | 1.28 | 26.2 | 4.898 | 1.103 | 34.2 | 1.950 | 1.040 | 42.2 | 0.7762 | 1.016 |
| 18.4 | 12.02 | 1.27 | 26.4 | 4.786 | 1.101 | 34.4 | 1.905 | 1.039 | 42.4 | 0.7586 | 1.015 |
| 186 | 11.75 | 1.27 | 26.6 | 4.677 | 1.098 | 34.6 | 1.862 | 1.038 | 42.6 | 0.7413 | 1.015 |
| 18.8 | 11.48 | 1.26 | 26.8 | 4.571 | 1.096 | 34.8 | 1.820 | 1.037 | 42.8 | 0.7244 | 1.015 |
| 19.0 | 11.22 | 1.25 | 27.0 | 4.467 | 1.094 | 35.0 | 1.778 | 1.036 | 43.0 | 0.7079 | 1.014 |
| 192 | 10.96 | 1.25 | 27.2 | 4.365 | 1.091 | 35.2 | 1.738 | 1.035 | 43.2 | 0.6418 | 1.014 |
| 19.4 | 10.72 | 1.24 | 27.4 | 4.266 | 1.089 | 35.4 | 1.698 | 1.035 | 43.4 | 0.6761 | 1.014 |
| 19.6 | 10.47 | 1.234 | 26.7 | 4.169 | 1.087 | 35.6 | 1.660 | 1.034 | 43.6 | 0.6607 | 1.013 |
| 19.8 | 10.23 | 1.228 | 27.8 | 4.074 | 1.085 | 35.8 | 1.622 | 1.033 | 43.8 | 0.6457 | 1.013 |
| 20.0 | 10.00 | 1.222 | 28.0 | 3.981 | 1.083 | 36.0 | 1.585 | 1.032 | 44.0 | 0.6310 | 1.013 |
| 20.2 | 9.772 | 1.217 | 28.2 | 3.890 | 1.081 | 36.2 | 1.549 | 1.031 | 44.2 | 0.6166 | 1.012 |
| 20.4 | 9.550 | 1.211 | 28.4 | 3.802 | 1.079 | 36.4 | 1.514 | 1.031 | 44.4 | 0.6026 | 1.012 |
| 20.6 | 9.333 | 1.206 | 28.6 | 3.715 | 1.077 | 36.6 | 1.479 | 1.030 | 44.6 | 0.5888 | 1.012 |
| 20.8 | 9.120 | 1.201 | 28.8 | 3.631 | 1.075 | 36.8 | 1.445 | 1.029 | 44.8 | 0.5754 | 1.012 |
| 21.0 | 8.931 | 1.196 | 29.0 | 3.548 | 1.074 | 37.0 | 1.413 | 1.029 | 45.0 | 0.5623 | 1.011 |
| 21.2 | 8.710 | 1.191 | 29.2 | 3.467 | 1.072 | 37.2 | 1.380 | 1.028 | 45.2 | 0.5495 | 1.011 |
| 21.4 | 8.511 | 1.186 | 29.4 | 3.388 | 1.070 | 37.4 | 1.349 | 1.027 | 45.4 | 0.5370 | 1.011 |
| 21.6 | 8.318 | 1.181 | 29.6 | 3.311 | 1.068 | 37.6 | 1.318 | 1.027 | 45.6 | 0.5248 | 1.011 |
| 21.8 | 8.128 | 1.177 | 29.8 | 3.236 | 1.067 | 37.8 | 1.288 | 1.026 | 45.8 | 05129 | 1.010 |




## Antenna Specialists

Base Commander. UHF Broadband Collinear Fiberglass Vertical Base Sation. 7dB Gain

| ASPRD700 | $450-460 \mathrm{MHz}$ | \$525.00 |
| :---: | :---: | :---: |
| ASPRE700 | $455-465 \mathrm{MHz}$ | \$525.00 |
| ASPRF700 | $460-470 \mathrm{MHz}$ | \$525.00 |
| ASPR615 | Side Tower mounting kit. mounts antenna 18 " to $36^{\prime \prime}$ from tower | \$295.00 |
| ASPR616 | Base station tower clamp sel (2 clamps per unit): galvanized | \$54.25 |
| Whip antenna, magnet mnt., 5dB Gain |  |  |
| ASP-7654 | $445-470 \mathrm{MHz}$ | \$75.75 |

## Cushoraft



The Cusheraft UHF Mobiles are rugged high performance $406-512 \mathrm{MHz}$ stainless steel antennas. available with ether PL259 or mini-UHF connector. A molded center phase prevents shock-induced damage and mosture contamination. The all-brass hardware and ultraconically welded-in brass threads eliminate the electrolysis effee of dissimilar metals. Cusheraft includes a full 16.5 feet of RG58A/U cable with $97 \%$ briid coverage and all lrass mount hardware

| SN450S | $450-470 \mathrm{MHz}$. 5 dB . Collinear. hole mount with spring and RG-58 | $\$ 65.00$ |
| :--- | :--- | :--- |
| SN450MS | As above but black magnel mount | $\$ 85.00$ |

The heavy-duty Cushcraft PLC Series Yagis are factory assembled and adjusted for easy installation. They feature heary-wall tubing elements and large rugged machined aluminum blocks for the boom-to-element junctions. Six and ten element models are available.

| PLC-456N | $450-470 \mathrm{MHz}, 7.5 \mathrm{~dB}$ gain, N connector. 125 mph wind surv.. 8 lbs | $\$ 152.100$ |
| :--- | :--- | :--- |
| PLC-4510N | $450-470 \mathrm{MHz} .11 .5 \mathrm{~dB}$ gain, N connector. 125 mph wind surv., 12 lbs. | $\$ 217.00$ |

Ruggedized mounting, all-welded joints. and complete weatherproofing are yours with Cusherati 900 MHz Yagis. At these frequencies. antenna construction is critical. As in all PC Yagis. the clements are welded to the boom. The pigtail feed will withstand a 50 pound pull. and makes connector weatherprooling a snap.

PC9010N
$928-960 \mathrm{MHz}$. 12 dB gain. 10 elements. N connector. 125 mph wind surv., 3 lbs.
$\$ 112.00$
Decibel

| Model | Pattern | Gain in dB | Frequency (MHz) | Price |
| :--- | :--- | :---: | :---: | ---: |
| DB264 | Broadband Array. Omni | 6.0 | $150-174$ | $\$ 681.00$ |
| DB411B | Offset pattern antenna | 9.0 | $450-512$ | $\$ 383.00$ |
| DB420B | Broadband, Omni | 9.2 | $450-512$ | $\$ 838.00$ |
| DB432A | 6 Element Yagi. economy | 8.0 | $450-470$ | $\$ 112.00$ |
| DB436C | 6 Element Yagi. flex lead | 10.0 | $406-512$ | $\$ 228.00$ |
| DB438C | 6 Element Yagi, boom conn. | 10.0 | $450-470$ | $\$ 275.00$ |
| DB536 | Omnidirectional | 6.0 | $406-470$ | $\$ 600.00$ |
| DB538 | Omnidirectional | 7.5 | $406-490$ | $\$ 786.00$ |



Decibel manufactures RF amplifiers and repeaters. baseband and notch cavity fitters, combiners, duplexers, ferrite isolators, monitor systems, multicouplers, und more antcnnas. Call Broadcasters General Store for the Decibel Products cataher

## Mark Antennas (Comstat)

Mark Antennas meet or exceed every existing F.C.C. requirement, are lightweight, strong, heli-arc welded aluminum, multi-element parabolic grid antennas. One of the outstanding characteristics of a grid antenna is the low wind loading figures, usually 25 to $40 \%$ of solid dishes. When ordering please specify frequency

Mark $940-960 \mathrm{MHz}$ Parabolic Grids

| Diameter | -Note -1 includes meunting hardware for a 1.9"-4.5" vertical O.D. pipe |  |  | Price |
| :---: | :---: | :---: | :---: | :---: |
|  | Pressurized 7/8" EIA Flange | Non-Pressurized 7/8" EIA Flange | Non-Pressurized <br> "N" Female |  |
| 4 Ft | P-9A48G-U | P-9A48GF-U | P-9A48GN-U | \$1,110.00 |
| 6 Ft | P-9A72G-1 | P-9A72GF-1 | P-9A72GN-1 | \$1.450.00 |
|  | $\sim$ Note -2 includes mounting hardware for a 4.5" vertical O.D. pipe ONLY |  |  |  |
| Diameter | Pressurized 7/8" Ela Flange | Non-Pressurized 7/8" EIA Flange | "N" Female <br> "N" Female | Price |
| 6 Ft | P-9A72G-S | P-9A72GF-S | P-9A72GN-S | \$1,570.00 |
| 8 Ft | P-9A96G-S | P-9A96GF-S | P-9A96GN-S | \$2,330.00 |
| 10 Ft | P-9A120G-S | P-9A120GF-S | P-9A120GN-S | \$2,960.00 |

Other diame'ers, frequency ranges, mounts and styles are available. Call Broadcasters General Store for a Mark catalog.

## Marti



HA-450


| Model | Pattern | Gain (dB) | Freq.(MHz) | Price |
| :--- | :--- | :---: | :---: | :---: |
| SC-48 | 4 ' full range parabolic | 19.0 | $940-960$ | $\$ 850.00$ |
| YC-XXX | Yagi. 5 element, specify freq. | 9.0 | $152.08-170.45$ | $\$ 200.00$ |
| YC-450 | Yagi. 6 element | 10.0 | $450.01-455.99$ | $\$ 200.00$ |

The Marti HA-450 base antennas will give you up to 30 dB isolation from vertically polarized UHF transmitters. This antenna will minimize annoying interference during remote broadcasts.


| Model | Gain (dB) | Mounting Length | Mounting Weight | Price |
| :--- | :---: | :---: | :---: | :---: |
| HA-450-1 | Unity | $12-3 / 4^{\prime \prime}$ | 3 lbs. | $\$ 138.00$ |
| HA-450-2 | 3.0 | $25-\mathrm{I} / 2^{\prime \prime}$ | $4-\mathrm{l} / 2 \mathrm{lbs}$. | $\$ \mathbf{2 9 2 . 0 0}$ |
| HA-450-3 | 6.0 | $51^{\prime \prime}$ | $9-\mathrm{l} / 2 \mathrm{lbs}$. | $\$ 545.00$ |

## Scala

Scala offers a full line of antennas for VHF, UHF and telemetry systems. For twenty five years Scala antennas have delivered performance and dependability.

| Model | Description | Gain (dBd | Mhz | Mount | Connector | Price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PR-950 | Paraflector(1) | 20.0 | 940-960 | H or V | N | \$650.00 |
| MF-950B | Miniflector(1) | 14.0 | 9-10-960 | V only | N | \$340.00 |
| Model | Description | Gain (diBd) | Mhz | Mount | Watts | Price |
| PR-460 | Paraflector ${ }^{(1)}$ | 15.5 | 450-470 | H or V | 100 | \$650.00 |
| CA7-460 | Seven-clement Yagi | 10.0 | 450-470 | H or V | 250 | \$220.00 |
| Note: No mounting hardware included with Scala Antemas. MKPX-8 is the standard mounting bracket for PARAFLECTORS at $\$ 50.00$ <br> Must be ordered separately! <br> Call Broadcasters General Sore for a complete Scala catalog. |  |  |  |  |  |  |



Call Broadcasters General Store for a complete Scala catalog.


Precision Off-Air Monitoring

| Model | Description | Mhz | Mount | Polarity | $\Omega$ 's | Price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CL-FM/HCM | Broadband Log | 88-108 | C | H | 50 or 75 | \$550.00 |
| CL-FM/HRM | Broadband Log | 88-108 | R | H | 50 or 75 | \$600.00 |
| CL-FMRX/HCM | Broadband Monitoring | 88-108 | C | H |  | \$390.00 |
| CL-FMRX/HRM | Broadband Monitoring | 88-108 | R | H |  | \$440.00 |
| CL-FMRX/VRM | Broadband Monitoring | 88-108 | R | V |  | \$440.00 |
| Specify $50 \mathrm{~N}, 75 \mathrm{~N}$ or 75 F |  |  |  |  |  |  |
| Model | Description | Gain (dBd) | Mount | Polarity | S's | Price |
| HDCA-5/HCM | Five-element FM Yagi | 7.5 | C | H | 75 | \$330.00 |
| HDCA-5/HRM | Five-element FM Yagi | 7.5 | R | H | 75 | \$370.00 |
| HDCA-5/CP/RM | Five-element FM Yagi | 7.5 | R | C | 75 | $75 N \sim \$ 910.00$ |
|  |  |  |  |  |  | 75F-\$810.00 |
| HDCA-10/HCM | Ten-element FM Yagi | 9.5 | C | H | 75 | \$550.00 |
| HDCA-10/HRM | Ten-element FM Yagi | 9.5 | R | H | 75 | \$570.00 |

Specify $75 N$ or $75 F$ and frequency

| Model | Description | Mhz | Mount | Polarity | S's | Price |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: | :---: |
| CA5-FM/HCM | Five-element FM Yagi | Specify | C | H | $50(50 \mathrm{~N})$ | $\$ 330.00$ |
| CA5-FM/HRM | Five-element FM Yagi | Specify | R | H | $50(50 \mathrm{~N})$ | $\$ 370.00$ |
| CA5-FM/CP/RM | Five-element FM Yagi | Specify | R | C | $50(50 \mathrm{~N})$ | $\$ 910.00$ |

## ERI

LPX is a rugged, brass and copper. wide bandwidth antenna. with $1-5 / 8^{\prime \prime}$ tubing throughout. Rated at 9 kW input for end fed models and I2kW for centerfed. Centerfed models have 3-1/8" female EIA input. End fed are $1-5 / 8^{\prime \prime}$ ElA female. Many options available.

## LPX

Prices from \$2,837.00 to 35,559.00

## Low Power (CP-11A)

This half-wave spaced system is ideal for low power and booster sites with a maximum input of 500 w to 2000 w . It is available only in even numbered bays connected with non-pressurized RG-type cable. Terminated with a UHF female or $1-5 / 8^{\prime \prime}$ male EIA connector.

## CP-IIA

Prices from $\$ 1,175.00$ to $\$ 7,900.00$


## Medium Power (1105A/B)

The $1105 \mathrm{~A}, 1-5 / 8^{\prime \prime}$ system offers up to 8 bays to a maximum level of 7.5 kW . The 1105 B . 3-1/8" system offers up to 12 bays (in pairs only) with a maximum power of 12 kW . Due to their light weight. they're ideal for small structures. Many options available.

## 1105A/B

Prices from $\$ 1,727.00$ to $\$ 22,045.00$

## High Power (SHPX)

This rugged, all brass and copper, large clement antenna produces a wide bandwidth and a uniform energy distribution. The " A " series, $3-1 / 8$ " inter-bay line, is rated between 32 kW and 64 kW . The " B " series, $4-1 / 8$ " inter-bay line, is rated at 40 kW to 112 kW . The "C" series, $6-1 / 8$ " inter-bay line is rated for up to 120 kW ! Many options available.

## SHPX

Prices from $\$ 4,108.00$ to $\$ 96,500.00$


ManyItemsinstockfor Immediate Delivery...Call Today!

## Shively

## Low Power (6812)

Originally designed for educational broadcasting. the 6812 is perfect for budget installs, translators or stindby systems. This stainless steel, non-pressurized, circularly polarized FM antenna has a maximum rating of 750 w with the $\mathrm{RG}-213$ inter-bay connection.

Prices staring at $\$ 750$ for a single bay

## Medium Power (6813)

Extremely low windloading and comperitive pricing has made the 6813 CP antenna the choice of medium power FM broadcasters. It's wide bandwidth assures excellent stereo and SCA performance. The 1-5/8* version is rated at 3 kW per bay to a maximum of 12 kW . The $3-1 / 8^{\prime \prime}$ version can handle up to 20 kW .

$$
\text { Prices starting a } \$ 4,000\left(1-5 / 8^{\prime \prime}\right) \text { and } \$ 6,100\left(3-1 / 8^{\circ}\right)
$$

## High Power (6810)

The choice for most Class C stations, the 6810 is rated at 10 kW per bay to a maximum of 40 kW . It's broad bundwidth will allow wo stations separated by 2.4 MHz to diplex. Standard input is $3-1 / 8^{\prime \prime}$ EIA female connector. 4-1/16" optional

Priced ranging from $\$ 5,000$ to $\$ 36,200$ for a 12 bay (Add $\$ 750$ for cach radome)


Will Burt

| Standard Duty Masts |  |  |  |
| :---: | :---: | :---: | :---: |
| Part No. | Model ${ }^{\text {No. }}$ | Conduit Length | Price |
| 902462 | TMD-5-20-15x/16x | $30^{\circ}$ | \$3.975.00 |
| 902543 | TMD-6-27-15x/16x | $40^{\circ}$ | \$4,325.00 |
| 90254.1 | TMD-7-34.15x/16x | $60^{\circ}$ | \$4,650.00 |
| 903073 | TMD-8-30-15x/16x | $50^{\prime}$ | \$3.400.00 |
| 00158 | Canvas Top Cover |  | \$54.0 |


|  |  |
| :---: | :---: |
| X* Notes | Nested height in feet |
| XX** Notes | Extended height in feet |
| XXXX*** 1st X position Notes- | 1. Std duty, non-locking 2. Std duty, locking |
|  | 3. Hvy duty. non-locking 4. Hvy duty, locking |
| XXXX*** 2 na X position ${ }^{\text {Notes }}$ | 5. Rotatable (Manually) 6. Non-rotatable |
| 1XXX*** 3 rd X position Notes | 7. Internal mt. 8. External mt. 9. Field mast |

Heary Duty Masts

| 903151 | TMD-6-25-35x/36x | $40^{\circ}$ | $\$ 5.350 .00$ |
| :--- | :--- | :--- | ---: |
| 902985 | TMD-6-30-35x/36x | $50^{\circ}$ | $\$ 9.400 .00$ |
| 902352 | TMD-7-30-35x/36x | $50^{\circ}$ | $\$ 5,680.00$ |
| 902890 | TMD-7-30-45x/46x* | $50^{\circ}$ | $\$ 9,000.00$ |
| 902342 | TMD-7-42-35x/36x | $70^{\circ}$ | $\$ 9.020 .00$ |
| 902343 | TMD-7-42-45x/46x** | $70^{\circ}$ | $\$ 11,000.00$ |
| 902604 | TMD-8.5-52-35x/36x | $100^{\circ}$ | $\$ 10,140.00$ |
| 902623 | TMD-8.5-52-35x/36x | $100^{\circ}$ | $\$ 10.930 .00$ |
| 900210 | Canvas Top Cover (opt) |  | $\$ 68.00$ |

HURRY-UP Mast
903220 25' HURRY-UP $\$ 1.450 .00$
${ }^{*}$ Nomal delivery is $1-4$ weeks: items marked ${ }^{*}$-up re 12 weeks

| Pneumatic Systems |  |  |  |
| :---: | :---: | :---: | :---: |
| Part No. | Model No. | Description | Price |
| 902860 | TMD-C-287 | $115 \mathrm{VAC} .1 / 6 \mathrm{HP}$ | \$920.00 |
| 902861 | TMD-C-288 | $12 \mathrm{VDC} .1 / 8 \mathrm{HP}$ | \$920.00 |
| 902257 | TMD-C-267 | 115 or $230 \mathrm{VAC}, 1 / 2 \mathrm{HP}$ | \$1.560.00 |
| 902297 | TMD-C-271 | $12 \mathrm{VDC} .1 / 3 \mathrm{HP}$ | \$1.720.00 |
| 902674 | TMD-D-278 | 115 VAC \& $12 \mathrm{VDC} 1 /$.2 \& 1/3 HP | \$2.4+4.00 |
| 902404 | TMD-C-275 | 115 or $230 \mathrm{VAC} .3 / 4 \mathrm{HP}$ | \$1.380.00 |
| 902675 | TMD-D-284 | $12 \mathrm{VDC} .1 / 3 \mathrm{HP}$ | \$1.560.00 |
| 902193 | TMD-D-289 | $220 \mathrm{~V} / 50 \mathrm{~Hz} .1 / 2 \mathrm{HP}$ | \$1.430.00 |
|  | TMD-C-29. | 220V/50Hz, w/ank, I/2 HP | \$1.535.00 |
| 902566 | TMD-C-280 | Hand Pump | \$385.00 |
| 900-484 |  | Filter-Regulator-Lubricator | \$190.00 |
| 900634 |  | Filter-Lubricator | \$125.00 |
| 900481 |  | Swivel Air Fitting with Adapter | \$59.00 |

$\dagger$ Notes NYCOIL Iength calculations for std non-locking collar mast model.


| ILeth. | 1/2"1Dx9`OD | 3/4"IDx13"OD | 1'ID×16-1/2"OD |
| :---: | :---: | :---: | :---: |
| $130^{\circ}$ | 900507-\$80.00 | 900+43-\$149.00 | 900+14-\$258.00 |
| $140^{\circ}$ | 900507-\$94.00 | 9004+3-\$198.00 | 9004+4-\$344.00 |
| 50 | 900507--\$117.00 | 900443-\$210.00 | 900-44-\$420.00 |
| $60^{\circ}$ | 900507-\$146.00 | 900+43-\$252.00 | 900-4+4- $\$ 504.00$ |
| $70^{\circ}$ |  | $900+43-\$ 311.00$ | 900575-\$660.00 |
| 180 |  |  | 900575-\$660.00 |
| 1100 |  | 900443-\$390.00 | 900444-\$775.00 |

TVeather-tight Strain Rēlief Connectors

| Prart No. | Description | Price! |
| :---: | :---: | :---: |
| 1900540 | $90^{\circ}$ ell for 1/2"1D NYCOIL. | \$22.00 |
| 1900539 | $90^{\circ}$ ell for 3/4" ID NYCOIL | \$32.001 |
| 000574 | $90^{\circ}$ ell for $1^{*}$ ID NYCOIL | \$52.00 |

*For installation of customer suppilied cables in NYCOIL cable condait contact BGS for quote.



LDF5-50A

Andrew Corporation pro-
vides cable, rigid transmission line, dehydrators, broadcast anten nas, coaxial switches, and accessories. Phase stable. super-flexible. high temperature, low VSWR and 50 or 75 ohm are some of the types available. Please remember that some cable sizes come on a retumable reel, which requires a deposit and a retum freight
charge. Call Broadcasters General Store for an Andrew catalog.


| Cable size $960 \mathrm{MH} / 450 \mathrm{MHz} / 10$ | Part Number z | Attenuation dB/100ft | Connectors | Price |
| :---: | :---: | :---: | :---: | :---: |
| 1/4"Superlex Foam | FSJI-50A | $5.87 \mathrm{~dB} / 3.93 \mathrm{~dB} / 1.81 \mathrm{~dB}$ |  | \$1.66/ft |
|  | FIPNM-H |  | N Male | \$14.50 |
|  | FIPNF-BH |  | N Female bulkhead | \$39.00 |
|  | 40417 |  | 50 pc .nylon tic kit | \$36.00 |
|  | 223158 |  | Grounding kit | \$22.00 |
| 3/8"Foam Dielectric | LDF2-50 | $3.47 \mathrm{~dB} / 2.3 \mathrm{~dB} / 1.05 \mathrm{~dB}$ |  | \$1.89/ft |
|  | L2NM |  | N Male | \$35.20 |
|  | L2NF |  | N Female | \$35.20 |
| 1/2" Foam Dielecric | LDF4-50A | $2.29 \mathrm{~dB} / 1.5 / \mathrm{dB} / .684 \mathrm{~dB}$ |  | \$2.50/ft |
|  | L4NM |  | N Male | \$31.70 |
|  | LANF |  | N Female | \$31.70 |
|  | 43211 |  | 10pc. hanger kit | \$31.00 |
|  | 31670-2 |  | 2"-3" round inember adapter kit | \$25.00 |
|  | 204989-1 |  | Grounding kit | \$23.00 |
|  | 43094 |  | Hoisting grip | \$29.00 |
| $\overline{7 / 8 " \text { Foam Dielecruic }}$ | LDF5-50A | $1.28 \mathrm{~dB} / .834 \mathrm{~dB} / .369 \mathrm{db}$ |  | \$6.18/ft |
|  | L5NM |  | N Male | \$77.00 |
|  | L5NF |  | N Femalc | \$77.00 |
|  | 42396A-5 |  | 10pe. hanger kit | \$41.00 |
|  | 31768A |  | 10pe. angle adapt kit | \$67.00 |
|  | 204989-2 |  | Grounding kit | \$30.00 |
|  | 19256B |  | Hoisting grip | \$43.50 |


| 1-5/8" Air Dielectric | HJ7-50A | . $215 \mathrm{~dB} / .207 \mathrm{~dB} / .194 \mathrm{~dB}$ |  | \$16.22/f1 |
| :---: | :---: | :---: | :---: | :---: |
|  | 87R |  | 1-5/8" EIA (GP) | \$2611.00 |
|  | 87G |  | 1-5/8. EIA (GB) | \$300.00 |
|  | 42396A-2 |  | 10pc. hanger kit | \$41.00 |
|  | 31771-4 |  | $12{ }^{\prime \prime}$ thread rod (5pc) | \$80.00 |
|  | 204989-4 |  | Grounding kit | \$30.00 |
|  | 24312A |  | Hoisting grip | \$51.00 |
| 3"Air Dielectric | HJ8-50B | .147dB/.140dB/. 131 dB |  | \$29.12/ft |
|  | 78ARM |  | $31 / 8^{\prime \prime} \mathrm{ElA}$ (GP) | \$460.00 |
|  | 78AGM |  | 3-1/8" EIA (GB) | \$485.00 |
|  | 31766A-11 |  | 10 pc . hanger kit | \$65.00 |
|  | 31790-1 |  | 10pc. hdwr. kit (1") | \$13.50 |
|  | 204989-5 |  | Grounding kit | \$32.00 |
|  | 26985A |  | Hoisting grip | \$78.00 |

Easiax kit consists of tool. instruction sheet and 5 extra blades. Easiax makes a clean cut and decreases the risk of cuting the inner conductor.

| \#207866 | For LDF4-50A and LDF4-75, replacement blades \#209874 | $\mathbf{\$ 3 0 . 0 0}$ |
| :--- | :--- | :--- | :--- |
| \#207865 | For FSJ1-50A/75 and FSJ4-50B/75A. replacement blades \#209874 <br> (Docs not have jacket cutting blade) | $\mathbf{\$ 3 0 . 0 0}$ |
| \#222951 | For LDF5-50A. replacement blades \#222954 | $\$ 45.00$ |

## Bird

The Bird Model 43 thru-line directional watmeter accurately me:a-
 sures forward or reflected power in coaxial transmission lines under any load condition. This wattmeter consists of a line section and meter housed in an aluminum case. Quick-change-type connectors and plug-in elements are required for operation.

| 43 | CW/Portable | $\$ 263.00$ |
| :--- | :--- | ---: |
| Elements | Specify frequency <br> and power | From $\$ 68.00$ |



The Bird 3126
\& 3127 protect installations from high VSWR, me:a suring power from
250 W to 250 kW at frequencies from $2-1000 \mathrm{Mh} \%$. Abnormal load conditions quickly cause transmitter shutdown. a buzzer alarm. and a change of illumination color of the reset butoon. Audible and visual alarms indicating system malfunction may be remoted.

| 3126 A | For rigid lines ( $15 / 30 / 60$ scale meters) | $\$ 1.024 .00$ |
| :--- | :--- | :--- |
| 3127 A | For rigid lines ( $5 / 10 / 25$ scale meters) | $\$ 1,024.00$ |

## Cablewave

| Cable size $950 \mathrm{MHz} / 450 \mathrm{MHz} / 1$ | Part Number 0 MHz | Attenuation dB/100ft | $950 \mathrm{MHz} / 450 \mathrm{MHz} / 100 \mathrm{MHz}$ | Price |
| :---: | :---: | :---: | :---: | :---: |
| 1/2" Foamilex | FXA12-50J | $2.9 \mathrm{~dB} / 1.8 \mathrm{~dB} / .84 \mathrm{~dB}$ |  | \$2.01/ft |
|  | 735000/735001 |  | N Male/Female | \$31.00 |
|  | 735002/735003 |  | UHF M/F | \$31.00 |
|  | 735005 |  | HN Male | \$79.00 |
| 7/8" Foamflex | FXA78-50J | $1.8 \mathrm{~dB} / 1.2 \mathrm{~dB} / .49 \mathrm{~dB}$ |  | \$5.04//f. |
|  | 734380 |  | 7/8" EIA | \$272.00 |
|  | 735100/735101 |  | N Male/Female | \$72.50 |
| 3/8" Foam Flexwell | FLC38-50J | $3.8 \mathrm{~dB} / 2.5 \mathrm{~dB} / 1.1 \mathrm{~dB}$ |  | \$1.89/ft |
|  | 734761/734762 |  | N Male/Fenale | \$35.20 |
|  | 734773/734774 |  | UHF M/F | \$44.00 |
| 1/2"Foam Flexwell | FLCl2-50J | $2.3 \mathrm{~dB} / 1.6 \mathrm{~dB} / 69 \mathrm{~dB}$ |  | \$2.50/ft |
|  | 738802/738801 |  | N Male/Female | \$31.70 |
|  | 738804/738803 |  | UHF M/F | \$27.35 |
|  | 738807 |  | $7 / 8^{\prime \prime}$ EIA | \$112.00 |
| 7/8" Foam Flexwell | FLC78-50J | $1.3 \mathrm{~dB} / 85 \mathrm{~dB} / 37 \mathrm{~dB}$ |  | \$6.18/ft. |
|  | 738841/738842 |  | N Male/Female | \$77.00 |
|  | 738843/738844 |  | UHF M/F | \$74.00 |
|  | 738845 |  | 7/8" EIA (GP) | \$116.00 |
| 108MHz/100MHz/88M1Hz |  |  |  |  |
| 15/8" Air Flexwell | HCCl58-50J | .2dB/.195dB/.19dB |  | \$16.22/ft |
|  | 738303 |  | 1-5/8" EIA (GB) | \$300.00 |
|  | 738314 |  | 1-5/8" EIA (GP) | \$260.00 |
|  | 738300/738301 |  | N Male/Female | \$240.00 |
| 3"Air Flexwell | HCC300-50J | . $15 \mathrm{~dB} / .14 \mathrm{~dB} / .13 \mathrm{~dB}$ |  | \$29.12/fi |
|  | 738350 |  | $31 / 8{ }^{\prime \prime} \mathrm{EIA}$ (GB) | \$465.00 |
|  | 738355 |  | $31 / 8{ }^{\prime \prime}$ EIA (GP) | \$440.00 |
| 3-1/2" Air Flexweil | HCC312-50J | . $12 \mathrm{~dB} / .11 \mathrm{~dB} / .095 \mathrm{~dB}$ |  | \$31.98/ft |
|  | 734578 |  | 3-1/8" EIA (GB) | \$692.00 |
|  | 734579 |  | 3-I/8" ElA (GP) | \$672.00 |

## MYAT



Series 301 (3-1/8" Rigid, 50S2) Pricing
301-001 $\quad 20^{\circ}$ line assembly, flanged both ends. hdwre include., 55.2 lbs . $\$ 600.00$
301-002 Same as above, but customer specified length.
$2.6 \mathrm{lbs} . / \mathrm{ft}+4.5 \mathrm{lbs}$.
$\$ 165+\$ 23 / \mathrm{ft}$
301-004
20 line assembly. unflanged, no hdwre. 50 lbs .
$\$ 490.00$
301-006 Same as 301-001, but only one end flanged. 54 lbs . $\$ 550.00$
301-008 Fixed flange for silver brazing
$\$ 36.00$
301-009 Swivel llange for silver brazing
301-013 Field flange adapter, pressurized, soft solder type
$\$ 54.00$

Fiange adapter, unpressurized whose clamp
$\$ 74.00$
301-017 Coupling assembly w/inner connector for 2 unpressurized line assemblies
$\$ 94.00$
301-021 90 Degree Elbow, flanged w/hdwre $\$ 368.00$
301-025 90 Degree Elbow, unflanged
301-050 Gas barricr with 1/8* NPT gasport
301-138 Manual patch panel ( $3,4,5$, or 7 pole)
301-042-1 Fixed hanger, Top of vertical run (2 min.)
301-042-3 Vertical spring suspension hanger
301-042-5 Wall anchor plate (2 per wall)

Please call for information and pricing on the Series $401\left(+-1 / 16^{\circ}\right) 50 \Omega, 601\left(6-1 / 8^{\prime \prime}\right)$
5052. $\left.701 / 6-1 / \$^{\prime \prime}\right) 75 \Omega, 80 /\left(9-3 / 16^{\prime \prime}\right) 75 \Omega$ or a Myat catales.


Cablewave is dedicated to the design and manulacture of microwave antennas. cable. waveguides and associated accessories. Other sizes, impedance's, hangers, grounding kits, dehydrators, etc. are available. Please remember that some cable sizes come on a returnable reel, which requires a deposit and a return freight charge. Phase stabilized versions of some cables are available for an additional charge

Call Broadcasters General Store for a Cablewave catalog.

## Coaxial Dynamics

The 81000-A Waltmeter can measure RF power in $50 \Omega$ coaxial cable and ransmission lines. in the range of 0.1 to 10,000 watts full scale, and from 0.45 to 2300 MHz . A rugged shock mounted meter with a mirrored-backed scale along with superior taut band technology, provides reliable and accurate readings. For added convenience, two sockets for storage of additional elements are located on the back of the unit.

| S1000-A | $\$ 200.00$ |  |
| :--- | :--- | :--- |
| S1001-A | w/auxiliary DC input | $\$ 273.00$ |

Typical Transmission Line Installation Details Miter Elbows ( $\mathrm{X} 01-021$ ) are used at the top of the tower to bring the vertical run close to the suppore structure (a short horizontal section of line assembly may also be necessary at this point). At the bottom of the vertical run. one or two miter elbows connect the vertical and horizontal sections while allowing room for expansion and contraction
Rigid Hangers (X01-042-I) are used at the top of the tower to stabilize the connection between the transmission line and the antenna feed line. Normally a pair of rigid hangers spaced 10 ' apart is suflicient. 20' Rigid Line Assemblies (X01-001/007) compose the vertical and horizontal runs. Myat can also supply sections in any specified length, with or without flanged ends. Pressurized and unpressurized line sections are both readily available.
Spring Hangers (X01-042-3) are placed at a maximum of $10^{\prime}$ intervals to allow the main portion of the vertical run to expind and contract with temperature changes. A Lateral Brace ( $\mathrm{X} 01-042-8$ ) at the base of the tower prevents side-to-side movement of the transmission line.
Three Puint Suspension Hangers ( $\mathrm{XO1}-042-17$ ) support the horizontal run while allowing for expansion and contraction.
Anchor Plates (X01-042-5) are required on each side of the transmitter building's outside wall.

See page 160 8 161 for Flber Optic Options

## Dielectric

## Delta Electronics

Delta Electronics offers manually or remotely operated Coaxial Transfer Switches. They can switch pairs of transmission lines in less than two seconds. If only three of the terminals of the switches are employed. the switches can be used as SPDT types. The Models 6740B and 6742B can be pressurized up to $15 \mathrm{lb} / \mathrm{sq}$. in. A gas barricr is built into each terminal, and an air inlet port is provided. Internal switch contacts enable remote control and status indication.

| 6730 E | $0-400 \mathrm{Mhz}, 1-5 / 8.13 \mathrm{lbs}$. | $\$ 2,775.00$ |
| :--- | :--- | :--- |
| 6730 E 1 | $0-900 \mathrm{Mhz}, 1-5 / 8.13 \mathrm{lbs}$. | $\$ 2.900 .00$ |
| 6740 B | $0-216 \mathrm{Mhz} .3-1 / 8.65 \mathrm{lbs}$. | $\$ 6.565 .00$ |

## MCI

MCI Coaxial Transfer Switches, as four-por transfer switches will switch two signal sources between loads. Since they can also be used as SPDT switches, complex switching mari ces can be easily assembled. A unique feature of these switches is the coplanar por configuration that permits neater more compact layouts and requires fewer elbows. Action is accomplished by a standard high torque gear motor and is bidirectional to positive stops. In the event of loss of control power, these switches can be operated manually. The switching speed of the following switchers is 2 seconds with a maximum of 3 seconds and E.I.A. male connector.


Dielectric coaxial transmission line switclics will accommodate single or multiple-line RF power, maintain high reliability maximum isolation, low VSWR. and may be mounted in any position. The A50000 series are motorized blade type coaxial SPDT or 4 port transfer switches. Switch position is indicated by a mechanical pointer and through auxiliary switches. Manual operation is provided for by the included knob. The switching time of the following switches is 2 sec onds, all have 4 ports, E. I.A. flange termination, and $50 \Omega$ impedance.

| A50000-1XX | $7 / 8$ | $\$ 2.980 .00$ |
| :--- | :--- | ---: |
| A50000-20X | $1-5 / 8.42 \mathrm{lbs}$ | $\$ 4.990 .00$ |
| A50000-30X | $3-1 / 8.54 \mathrm{lbs}$. | $\$ 5.160 .00$ |
| A50000-40X | $4-1 / 16.70 \mathrm{lbs}$ | $\$ 6.160 .00$ |
| A50000-6XX | $6-1 / 8$ | $\$ 13,800.00$ |

$X$ is determined by the motor drive and control relay coil voltage $\mathcal{\&} \#$ of ports.

| MCI Coaxial Transfer Switches |  |  |
| :---: | :---: | :---: |
| $\underline{61101}$ | $7 / 8.10 \mathrm{lbs}$. | \$2,450.00 |
| 61103 | 1-5/8. 12 lbs . | \$2.800.00 |
| 61104 | 3-1/8. 34 lbs . | \$3.600.00 |
| 61102 | 4-1/16.46 lbs. | \$5.000.00 |
| 61105 | 6-1/8. 85 lbs . | \$6.200.00 |



## 

## Broadcast Devices



## The Broadcast Devices

 CDS-200 Composite DA/Switcher was designed to allow two switchable sources to be distributed to three location. Sources within the bandwidth of 10 Hz to 100 Khz such as com- posite audio. SCA or SAP signals can all be accommodated. Each output uses individual output amplifiers for maximum isolation. Level adjustments, swither controls and a test jack for non-intrusive connection to a scope or spectrum analyzer are conveniently located on the front panel. The switcher has remote control capability with status that is compatible with vinually all remote control telemetry systems in use today.

## Excallbur

The Excalibur CDA-1 Composite Distribution Amplifier is a 1 -in, 3 -out distribution amplitier for stereo composite or subcarrier signals, with each output individually adjustable. For sites with ground lonp problems. a ground lift switch is provided on the rear panel to separate the circuit ground from the power ground and chassis. A ransient protector is part of the power supply circuitry for protection in hostile environments. IU
CDA- 1
$\$ 420.00$

> | CDS-200 | $\$ 825.00$ |
| :--- | :--- |

## Modulation Sciences

The Modulation Sciences CLD-2504 is an FM and TV Stereo Composite Distribution Amplifier providing four outputs. Each output is low
 impedance and can drive long transmission lines terminated in 50 or $75 \Omega$ s. With more than 40 dB of isolation there is no interaction among loads.

| CLD-2500 | Line Driver / Receiver Set | $\$ 1.860 .00$ |
| :--- | :--- | ---: |
| CLD-2501 | Composite Line Driver (1 in/2 out) | $\$ 975.00$ |
| CLD-2502 | Composite Line Recciver (1 in/l out) | $\$ 925.00$ |
| CLD-2504 | Composite DA (1 in/4 out) | $\$ 950.00$ |



## Environmental Technology

| ADH-2COM | Rack mount $\# 16457$ | $\$ 2,166.00$ |
| :--- | :--- | ---: |
|  | Wall mount~\#16910 | $\$ 2,279.00$ |
|  | Outdoor NEMA~16911 | $\$ 3,146.00$ |
|  | Outdoor unit minus Box | $\$ 2,821.00$ |
| Opt.-1 | 230V | N/C |
| Opt.-2 | SI Calibration | N/C |
| Opt.-3 | High Pressure, 6.0 PSI | $\$ 69.00$ |
| Opt.-4 | Extended Warranty | $\$ 207.00$ |
| Opt.-5 | High Pressure. 3.0 PSI | $\$ 69.00$ |
| Opt.-6 | Master configuration on dehydrator | $\$ 143.00$ |

## The Environmental Technology ADH-2COM Automatic

Dehydrator supplies low pressure dry air to keep waveguide and coax dry. Automatic regeneration, an alarm relay and a RS-422 communications interface make unattended operation practical. Regeneration occurs when needed rather than at fixed times and does not need a drain line. Maximum power consumption is 120 W during regeneration while averaging less chan 40 W in typical operation. 3U


$\mathrm{ADH}^{\mathrm{M}} 3 \mathrm{COM}$
\$2.594.00


## Bird

Bird Electronics offers a varied selection of RF Ioads in therr Termaline Series: dry, oil dielectric, water cooled and forced air. They range in size from 2W load 1025 kW models. Accessories include replacement coolants, dollies, step up/down thange adaptors, coupling kits. thermoswitches and water fow switches.

## Coaxial Dynamics

Coaxial Dynamics' 4000 Scries are dry, convection cooled RF loads ranging from 5 W to kW and offer a two year warranty. The 85000 Series loads are liquid filled, convection cooled, blower assenbly optional. They range in size from 600 W to 10 kW . Please specify conacetor size.

## Electro~Impulse

The Electro~Impulse DPTC$\mathbf{2 5 K F M}$ is an upright. dry, forced air cooled coaxial load rated at 25 kW continuous from DC-1 10 MHz with a VSWR @ 1.15: 1. 3-1/8' EIA input is standard. $1-5 / 8^{\prime \prime}$ EIA maybe substituted.

| DPTC-25KFM | $\$ 4,150.00$ |
| :--- | :--- |

Electro-Impulse makes several models of oil Dielectric RF loads from 500W to 5 kW and dry. forced air loads from 5 kW to 80 kW with reflect load option (controls fan), as well as convection cooled and water cooled loads. Please specify connector size.
 puterized air dehydrator with automatic regeneration. It satisfies the need
 pose microwave applications. Maximum power consumption is 146 W during regeneration while averaging less than 60 W in typical operation. It employs: dual compressors for improved reliability and higher air flow Low pressure and high humidity alarm relays are standard • monitoring of all parameters through its RS-485 serial communications port • and supports both the S-A and ETI proprietary protocols. To ensure safely and minimum power consumption. all internal pneumatic systems operate at the discharge pressure. 3U

## AVOCET



The AVOCET AV-100 enables the monitoring of television station's audio as part of the FCC's requirements for the EAS program. A choice is given for feeding either SAP or Main channel audio on rear panel XLR connectors. Both signals are balanced. line level out puts. The AV-100 is frequency agile and can be easily tuned to off air channels 2 through 69 . The selector is located inside the chassis to protect from accidental changes. Applications other than EAS include: recording programming off-air - recording news promos at radio stations for later rebroadcast - rebroadcasting to cable head ends - rebroadcasting to translators and network relay sites • and general studio monitoring.
$\mathrm{AV}-100 \quad \$ 450.00$

## HollyAnne



The HollyAnne HU-961 EAS encoder/decoder specilically designed to meet the new FCC EAS requirements for broadeast stations. The HU-961 was designed by the engineering organization that worked with the National Weather Service in developing the Specific Area Messaye Encoding (SAME) system. Using the power of a PC. (286 or better) to program the unit, the HU-961 will receive. store. and retransmit EAS messages in accordance with EAS rules and management wishes. It is capable of autornatic or manual operation and may be operated with or without a PC connected. Three audio inputs and one RS-232 1200 ASClI data input are standard. The RR-962 radio receiver. (AM. FM or Weather Band) was designed to work in concert with the HU-961. The radio receivers are tunable throughout their respective frequency ranges. using a fywhect tuner. They feature a precise center station indicator and (defeatable) AFC as applicable.

| HU-961 | $\$ 1.299 .00$ |
| :--- | ---: |
| RR-962 | $\$ 189.00$ |

## SITCO Antenna

reception!
Frequency, $162 \mathrm{MHz} \cdot 10 \mathrm{~dB}$ Gain $\cdot \mathrm{SWR}<2: 1 \cdot$
Beamwidth 55 Degrees • Verical polarization - and
Female $75 \Omega$ termination.
EAS9llRg
Opi03

EASFMR
EASCA

## Gorman-Redilich



The Gorman-Redlich EAS Encoder-Decoder comes with 4 audio inputs. expandable to 6 . It allows automatic interruption of program audio to insert EAS F.S.K. header codes. 2 tone attention signal as well as two minutes of stored digital audio and EOM. F.S.K The two minutes of stored digital audio is expandable to 4.5 mimutes. The stored audio will not include any 2 tone attention signal or 1050 cycle tone on the weather service transmitter. A four line. 40 character LED back-lighted LCD display is used with a 20 position keypad switch to set modulation levels on your transmitter, and set audio input levels for the broadeast stations you are monitoring. The keypad is also used to compose alert messages if your station will be originating a message. Another keypad key transiers control from automatic operation to manual operation and bach to automatic. While in sutomatic, the encoder-decoder will completely run the emergency alen function. When an alert is received. the display will tell you the time interval of the audio portion of the mensage. It comes with: live, two-way RS-232 Ports (l dedicated to a computer input) - a 25 pin printer port for an external IBA compatible pritter - and 52 terminals on the rear for inter-connecting to other equipment

## EAS

$\$ 1,750.00$

## TTI



The TFT EAS911R EAS Encoder/Decoder design is the result of extensive input from some of the industry's most respected professionals. All design features and operations including front panel push-butoons and rear panel connections were thoroughly researched. His features include: two balanced audio inputs (expandable to 10) - two RS-232 digital pons - RS-485 port • two relay outputs - bailanced audio output $\cdot$ digital voice recorder - help and practice key for operator traming - multi-purpose LCD display • easy-to-read 24 column impact printer uses standard, off-the-shelf adding machine paper - and a rear pancl connection mutes printer and speaker while air mic is keyed.

| EAS911R | EAS Encoder/Decoder with two balanced audio inputs | \$2,195.00 |
| :---: | :---: | :---: |
| EAS91IRG | Same as 911R w/6 halanced audio inputs | \$2.395.00 |
| Opi03 | 4-port COM expander for PC interfacc, RBDS and electronic sign driver | \$395.00 |
| EAS930A | Multi-Midule Receiver, AM, FM and 7-channel NOAA , all modules have auto-changeover and alanm | \$1,470.00 |
| EAS940A | Transmiter/Program Interrupt Unit, four separately controllable balanced audio channels with status indicators, RM and XLR connectors | \$459.00 |
| EAS941 | RS-485 Remole Control/Stalus Module for EAS911 for connection to EAS911 over single, shiclded twinted pair, up to 5,000 feet. Up to 16 units may be connected in parallel to provide remote operation of EAS911 from multiple studio locilions. | \$495.00 |
| EAS942 | Eight channel Audio Expander (used to expand EAS91I from two to ten audio input channels), IU with buill-in power supply, channel activity monitors | \$975.00 |
| EASAMR | AM Receiver Kit with AM loop antenna for EAS930A | \$320.00 |
| EASFMR | FM Receiver Kit with antenna spliter for EAS930A | \$320.00 |
| EASWRR | Weather Radio Receiver Kit with antenna splitter for EAS930A | \$360.00 |
| EASCA | Chassis ussembly and power supply kil for EAS930A | \$645.00 |4-port COM expander for PC interface, RBDS and electronic sign driver2.395 .00

have auto-changeover and alann
-.......-audio channels with status indicators, RM and XLR connectors$\$ 459.00$

# senerators ~REDS 

## CRL

The CRL SC-100 RBDS Generator is an advanced full digital DSP design system that

features the latest in RDS/RBDS transmission specifications. It supports all avalable RBDS groups and can be easily upgraded as new RBDS groups are defined. A built in 300 pager (group 7A) directory allows formation of small paging systems without additional paging terminals. The untt can be fully programmed from either the front panel 7 level ASCII keyboard or via full RS-232 remote control

SC-100
$\$ 3,395.00$

## Modulation Sciences

## Modulation Sciences

 approach to RDS gives you all the functions of the U.S. RBDS standard for a fraction of the cost of dedicated hardware. MSI provides a PC board and software to turn your 286 or better PC into a full RDS Coder. Easy to understand menus guide you through RDS setup. The text and format information can be changed at anytime, either manually or by a unique format clock. Remote software is included.

| RDS-1 | RDS System Generator \& Software | $\$ 1,750.00$ |
| :--- | :--- | ---: |
| RDS-X2 | RDS/RBDS Data Receiver w/Enclouser | $\$ 895.00$ |
| PRD- $\mathbf{3 0 0 0}$ | Precision RDS/RBDS Decoder/Monitor/Analyzer | $\$ \mathbf{\$ 2 , 2 5 0 . 0 0}$ |

## Belar

## 

The Belar RDS-1 is a fully-featured RDS/RBDS monitor and decoder. The RDS-1 is essential to monitor critical RDS parameters. such as RDS injection and the phase relationship between the RDS subcarrier and the stereo pilot. It has an RS-232 interface and a Wizard interface buill-in.
RDS-1 $\$ 2.200 .00$

## Inovonics

臬

The Inovonics 710 'PROM'-based RBDS encoder/subcarrier generitor is an easy-to-use encoder which requires no programming. As many as 15 sepirate "frames". or complete sets of Ids, flags and messages are held in the 710's non-volatile memory. With the touch of a button or by remote command. you select the data frame(s) to be broadcast. Later should you want to imple ment other options. such as paging, GPS, contests, etc., connect the 710 to any IBM-compatible PC to enter the "dynamic" mode "Static operation remains a default should the on-line link be lost

## 710

$\$ 995.00$
Inovonics 701 RDS/RBDS is a stand-alone unit that does not require a dedicated host computer. Messages are held in nonvolatile menory. It locks to 19 kHz pilot from MPX sample - no special "sync" port is required. Menu driven programming software is supplied.

701
$\$ 390.00$

## Seneraters ~SAP

## AVOCEI

The AVOCET Pro channel gives television broadcasters the efouvalent of a one way 3 kHz line. centered at 102.271 kHz on the composite audio signal. Using the Pro channel for IFB eliminates the cost. imerference, and legal
 problems associated with cellular phones. It is specifically designed for IFB applications and gives you audio quality comparable to two-way radio with built-in muting and noise filtering. The Pro-Line 102 A enables you to receive datias well as voice from the Pro Channel. lis perfect for receiving scripts, messages, remote control telemetry or other intomation at remote sites. Front panel has headphone jack and speaker with volume control, and rear panel has balanced XLR output with level adjust plus a DB-25 connector for data.


The Avocet TV-2SAP/Pro is a SAP and Pro channel receiver with Turbo Sound on the Pro channel that can improve your signal to noise ratio by up to 25 dB . It offers a versatile selection of capabilities for using your station's own audio subcarriers to cut costs and improve efliciency. The SAP channel was designed to carry a second audio channel in addition to regular program audio. SAP is a subcarrier of the audio signal centered at 78.67 kHz , and has a deviation of 10 kHz . The TV-2's Pro receiver is easily made part of your IFB system. The Pro channel can carry data such as scripts, messages, remote control telemerry or other information to remote sites. The Pro channel was designed to give televistion broadcasters the equivalent of a one way 3 kHz line. The Prochannel is centered at 102.27 kHz of the composite audio signal, and has a deviation of 3 kHz . The receiver provides batanced XLR outputs, a front panel speaker and headphone jack for monitoring.

## TV-2SAP/Pro

SAP \& Pro channel receiver, includes Turbo Sound/Pro Chamnel
$\$ 1.995 .00$
TV-2Pro
SAP chammel receiver only with dbx decoding
$\$ 1,495.00$
Pro channel receiver with Turbo Sound
$\$ 1,595.00$

Modulation Sciences


Modulation Sciences PRO Sidekick ${ }^{\text {rw }}$ Audio Generator produces PRO channel on your TV aural signal. A complete. self-contained PRO Channel Generator. Operates on mono or stereo TV aural transmitters. Use with PRO-1 PROceiver to place your IFB or cueing signals within reach of your remote vehicles without the use of cellular phones.

| PCG-Il | PRO Sidekick ${ }^{\text {M }}$ Pro channel audio generator | $\$ 3.990 .00$ |
| :--- | :--- | :--- |
| DPRO-GEN | Data Sidekick ${ }^{\text {N/ }} 2400$ biUsecond transmission rate., Crystal locked a1 $6.5 \mathrm{H}(102.27 \mathrm{kHz})$ | $\$ 5,040.00$ |



Modulation Sciences PROceiver ${ }^{T M}$ II will greatly reduce or elininate your dependence on cellular telephone connections for cueing and IFB information in ENG or remote activities. It contains a quartz-synthesized stand alone FM luner which is completely independent of the visual carrier A SAW fitter protects the signal from video interference. On board noise reduction greatly enhances signal-to-noise performance. The Antenna Diversity option allows the PROceiver to operate reliably under severe multipath conditions. The optional $12 / 28$ VDC kit lets you use PROceiver anywhere

| PRO-II | PRO channel receiver w/Antenna diversity | $\$ 1.895 .00$ |
| :--- | :--- | :---: |
| PRO-M28 | 28 Volt PS inslead of 12 Volt | $\$ 300.00$ |

Modulation Sciences APRO-MOD PRO Sidekick@ Modification enables your currenl APRO-Gencrator to utlive the functions of the new PROceiverII. Factory retrofit only.

## APRO-MOD

$\$ 950.00$


Modulation Sciences TSCA-189 TV Sidekick ${ }^{(1)}$ SAP Generator contains audio processing and BTSC encoder. Unconditionally locked to horizontal syne via composite video. Stereo generator not required

TSCA- 189
$\$ 5.275 .00$

## Senerators ~SGA

## CRL

The CRL SCA-300B is a digitally synthesized subcarrier generator with integral two-band audio limiter. The SCA-300B subcarrier frequency is user-selectable from 40 to 110 kHz . Either voice or data can be transmitted: two direct data input ports are provided. Also, the SCA-300B can be fully remote-controlled.


## SCA-300B

$\$ 2,050.00$


The CRL SG-800A FM stereo generator is a drift-free, lab grade stereo generator due to its digitally synthesized balanced modulator design. Stereo separation exceeds 55dB. SCA inputs are provided for composite loop-through. The SC800A's linear low-Z output drives up to 1.000 feet of RG- 58 cable.

## SG-800A

Digital Sterco Generator
$\$ 2.590 .00$
w/o 15 kHz low filler
$\$ 1.800 .00$

## Marti

The Marti SCG-10 subcarrier generator is designed to operate in SCA service with an FM transmitter or, with an SCD-10 subcarrier demodulator to form a subcarrier link on a microwave (STL) system. It has selectable pre and de-emphasis of $0,75,150$ or 225 microseconds and low pass audio filters of 3,5 . or 7 kHz .

| SCG-10 | $\$ 798.00$ |
| :--- | :--- |
| SCD-10 | $\$ 798.00$ |

## SCD.



Wany[temsin Stockforlmmediate Delivery...Call Today!

## Senerators ~ SGA

## Modulation Sciences



Modulation Sciences Sidekick with audio processing especially designed for SCA. and Data Sidekick have everything you need-loop-through composite connections for easy installation, remote control provisions. crystal-locked synthesizer tuning. a super-accurate peak/hold SCA deviation meter, a noise generator and synchronous AM meter so you can tunc the transmitter for minimum crosstalk Data Sidekick's direct FM modulation technique is specifically designed for maximum reliability and throughput over the SCA subcarier.
inoovfaiton montuors

## Belar

## FM Radio Monitor Equipment

FMM-2 FM Precision Modulation Monitor (specify frequency)
FMS-2 FM Precision Sierco Modulation Monitor
FMM-4A FM Digital Frequency Monitor
Option 01 Eight Alarm Relay card for FMM-4A
SCM-2 SCA Modulation Monitor. 67 kHz Sid. ( 3 more available) Each additional standard SCA frequency
Each additional special SCA frequency
RDS-1 RDS/RBDS Monitor
RFA-IA FM RF Amplifier (specify frequency)
RFA-4 Frequency Agile FM RF Amplifier (10 Memory Presets)
Option 01 Module for interfacing RFA-4 with the WIZARD
FMMA-1 The WIZARD. Precision Digital FM Modulation Analyzer
Option 01 Precision FM demodulator with calibrator (IF Input)
Option 02 Down converter/sync. AM notse detector (specify frequency)
DC-4 Frequency Agile Down Converter for transmitter operation
FMSA-1 FM Digital Stereo Modulation Monitor and Analyzer
FMRR-4 Frequency Agile FM Rebroadeasl Receiver w/calibrator \& carricr fail safe
FMRR-IA Fal Rebroadcant Recenver w/ calibrator \& carrier-fail safe (specify freq.)
DSD-I Digital SI Decoder (FM Composite input, provides 48 kHL AES/EBU St. output
DSD-IA Degital Si. Decoder whanalog outputs (adds bal analog L.R.L+R \& L-R outputs) FM Accessories
MP-8 Combined remote meter panel for FMM-2 and FMS-2
MP-9 Remote meter panel for FMM-2
MP-10 Remote meter panel for SCM-2
MP. 15 Analog remote meter panel for FMSA-I (2 meters)
PWM-I Peak weighting module ( 5 time constants plus FCC mode)

## AM Equipment

AMM-2B AM Modulation Monitor
AMM-3 AM Modulation Monitor (with Automatic Carrier Leveling)
AMMA-I The WIZARD, precision digital modulation monitor/analyzer
AMM-4 AM Digital Frequency Monitor
Option 01 Three alarm relay card for AMM-4
RFA-2 AM RF Amplifier (specify fretjuency)
AM Accessories
MP-6B Remote meter panel for AMM-2A and AMM-2B
MP-7 Remote meter panel for AMM-3
MP-It Remote meter panel for AMMA-1
LP-I Shiclded loop antenna (passive)
LP-IA Shielded loop antenna with preamplifier and line driver
Option 01 External power supply for LP-1A (not needed with RFA-2)

The Belar TVM-101 precision wide-band aural monitor is designed to measure the total modulation characteristics of mono and multi-channel television transmitters. It conforms with EIA/BTSC standards. At proof time it can be used as a lownoise. low-distortion main channel demodulator for driving audio monitor amplifiers and distortion analyzers. Wide band composite outputs are provided for Stereo. SAP. PRO and SCA monitors. The TVM-100 adds a quasi-parallel detection mode and a digital front panel volmeter for direct reading of kHz deviation.

## TVM-101

TVM-100
TVM-10IE
$\$ 4.500 .00$
TVM-102
Oplion 01
Option 03


| Specify chamnel or frequency | \$3,750.00 |
| :---: | :---: |
| Specify channel or frequency | \$4.750.00 |
| TV Aural Mod. Mon., PAL system, specify visuabaural treq. |  |
| TV Aural Modulation Monitor, Dual Sound Carriers |  |
| Specify visual \& thothatral treg. with monitor 1 aural at a time | \$5,500.00 |
| SAP \& PRO Injection board for 'TVM-100 | \$550.00 |
| Peak Weighting madule, Stime constants plus |  |
| FCC mode for TVM-100 \& 101 | \$395.00 |




## Belar



TVM-230
The Belar TVM-230 is a DSP-based. microprocessor controlled Digital BTSC TV Stereo Monitor/Analyzer. The TVM-230 digitizes the composite baseband signal and decodes the stereo multiplex portion using digital signal processing techniques. Unlike an analog design, a DSP-based design is immune to variations due to temperature or the aging and tolerance of components. By employing linear phase FIR filters, the TVM- 230 eliminates phase distortion in the recovered audio. This permits unprecedented accuracy in measuring modulation peaks on the L. R. L+R and L-R signals.

## Delta



The Delta SM-1 Splater Monitor measures the level of splatter or any other spurious emissions which fall between 11 kHz and 100 kHz away from both sides of the carrier. While normally installed in an equipment rack and fed with the transmitter or common point RF sample, it also operates in the field from a twelve volt DC source fed by an optional active antenna. This portability is very useful for investigating interference complaints.

|  |  |  |
| :--- | :--- | ---: |
| SM- | AM Splatier monitor | $\$ 3,995.00$ |
| AWA-1 | Active Whip Antenna | $\$ \mathbf{\$ 9 5 . 0 0}$ |
| PH-1 | Peak Hold Option | $\$ 495.00$ |
| SA-1 | Specrum Analvzer Filter | $\$ 495.00$ |

TVM-230
TVM-250
TVM-2A
TVM-3A
RFA-3
TVM-2A \& TVM-3A for off air use or to combin
TVM-A \&
SAP/PRO injection Board for TVM230 $\$ \mathbf{\$ 5 5 0 . 0 0}$
Option 03 PWM-I Peak Weighting Module for TVM230/250 $\$ 395.00$

| MP230 | Analog Meter Panel for TVM-230 <br> Analog Remote Meter Panel for TVM-250 | $\$ 450.00$ |
| :--- | :--- | :--- |
| MP250 | $\$ 400.00$ |  |

## Inovonics

## Inovonics' 530

combines a wideband FM receiver with very linear demodulation and metering circuitry for precise mea-
surement of FM
broadcast cartier modulation. High-resolution displays give reliable readings of total modulation. demodulated program audio, and piloustubcarrier injection levels. The incoming $R F$ signal and multipath distortion components are also monitored to ensure that indicated measurements are truly valid. The 530 aiccepts both an antenna feed and a direcily-coupled RF sample. Included are: eight station presets, balanced program audio outputs, a composite bascballed $1 / \mathrm{O}$, and connections for remote readout of all panel displays, the peak fasher. plus dead air and carrier loss alarns and headphone jack

## 530

$\$ 2.200 .00$

Inovonics' new 540 has a dual conversion design with precise, crystal-contolled digital tuning and works with any FM Mod-Monitor having a Composite (MPX) output. It measures injection level of SCA, RDS and high-speed data subcarriers. It demodulates audio SCAs and accurately displays subcarrier deviation. | 540 | $\$ 1,150.00$ | RDS Decode Option |
| :--- | :--- | :--- | :--- |

## Modulation Sciences



Modulation Sciences' ModMinder's ${ }^{\text {TM }}$ user-selectable response allows you to adjust processing for maximum legal modulation. The optional DeMod board gives you MSI's Modulation Assurance with accuracy of $\pm 1 \%$. ModMinder is compatible with analog remote control systems and operates by modem from any PC. The remote software package analyzes modulation to give you complete information about any FM signals density, loudness and competitive characteristics.

| FMMM-1 | ModMinder | $\mathbf{\$ 2 , 3 9 5 , 0 0}$ |
| :--- | :--- | :--- |
| FMMM-2 | ModMinder with DeMod | $\mathbf{\$ 3 , 0 9 0 . 0 0}$ |
| FMMM-4 | DeMod Card Upgrade | $\$ 725.00$ |



## TV

 ModMinder Modulation Status Panel works with any wideband precision demodulator (such as the Tektronix 1450-1). Gives continuous display of key MTS parameters - total inodulation percentage with pcak flasher, status and injection levels of subcarriers. Autoranging. Far more accurate and less expensive than traditional modulation monitors.
## TVMM-I

TV ModMinder, Modulation stalus panel
$\$ 3,295.00$


The Stereo

## Reference

Decoder is the
industry standard
TV stereo decoder
for critical measurements. Certified compliance to BTSC standards. Compatible with all stereo generators. Operates with the Tektronix 1450-I demodulator. Precision and balanced line outputs provided.

## Q.

The QEI 691 is a complete proof-of-performance instrument for FM inono. stereo. and SCA measurements. It has a one year manufacturers warranty on all parts and labor.


| 69 I | FM Modulation Monitor / Test Set | $\mathbf{\$ 5 , 8 7 5 . 0 0}$ |
| :--- | :--- | :--- |
| $691 / 01$ | same as above with SCA (specify frequency) | $\$ 6,875.00$ |
| $691 / 02$ | same as above with dual SCA (specify frequency) | $\$ 7,100.00$ |



Radio Design Labs ACM-2 is an AM noise monitor. RDL's ACM technology is the only time-proven. industry accepted method of controlling Synchronous AM Noise (the elusive varying: bandwidthlimiting gremlin that effects listeners receivers). Hundreds of top performing FM's in every major U.S. market turn to ACM technology for Maximum Bandwidth Performance! Every transmitter. new or old, can casily produce poor bandwidth, or can be made to perform as well as any signal in the market. Every FM station needs ACM technology to provide the accurate AM measurement and continuous monitoring needed for optimum transmitter tuning and performance.

| ACNI-2 | $\$ 834.00$ |
| :--- | :--- |
| Coaxial Dynamics \#8703511 X-Traxtors/RF Couplers Element |  |
| 50 dB for $3-1 / 8^{\prime \prime}$ line sections, $50-500 \mathrm{MHz}, 35.000 \mathrm{~W}$ | $\$ 133.00$ |

Coaxial Dynamics \#8703511 X-Traxtors/RF Couplers Element
50 dB for $3-1 / 8^{\prime \prime}$ line sections, $50-500 \mathrm{MHz}, 35.000 \mathrm{~W}$
$\$ 133.00$

## THT



The TFT 844 A is an FM stereo mod monitor that has a frequency agile RF pre-selector, basseband demodulator and stereo demodulator The 844 A can be used for off air monitoring or direet transmuter proof measurements. This monitor can be used for complete measurements of total. right and left channel modulation, channel separation. main and sub channel crosstalk, L + R, L-R, 38 kHz carrier suppression and pilot injection level. Ail measurements can be made with front panel pushbuttons and meter, and a seope can be fed from BNC connectors. Front pancl modulation calibration is possible within $\pm 2 \%$. The preselector has two digitally tunable RF preselectors to let you switch between FM stations. The $84+\mathrm{A}$ has a one year manufacturers warranty.

| Model 844A | FM baseband/stereo mod monitor | $\$ 5.150 .00$ |
| :--- | :--- | ---: |
| Option 02 | Spare parts kit | $\$ 575.00$ |
| Model 804 | Remote meter and flasher | $\$ 610.00$ |
| Option 03 | $57 \mathrm{kH} \angle$ RDS injection level | $\mathbf{\$ 3 3 0 . 0 0}$ |



The TFT 845 is an FM SCA monitor with up to three front panel selectable subcarrier frequencies. The 845 can be used to make SCA proof measurements and with one or two optional service channel boards it can provide uninterrupted SCA program or data output(s) separate from the monttor portion. It includes a loss of modulation alam and a built in modulaton calibrator. The 8.5 has a one year manufac turers warranty.

| Model 845 | 3 Ch SCA monitor. 67kHz supplied std | $\mathbf{\$ 2 , 7 3 5 . 0 0}$ |
| :--- | :--- | ---: |
| Option 01 | RF module preselector (specify frequeney) | $\mathbf{\$ 9 1 0 . 0 0}$ |
| Option 02 | Additional SCA freq (+1kHz) components | $\mathbf{\$ 1 4 5 . 0 0}$ |
| Option 03 | Additional SCA freq (92kHz) components | $\mathbf{\$ 1 4 5 . 0 0}$ |
| Option 0-1 | Spare parts kit | $\mathbf{\$ 2 9 5 . 0 0}$ |
| Option 05 | Service Ch module max 2 (specify frequency) | $\$ 315.00$ |
| Model S05 | Remote meter and flasher | $\mathbf{\$ 6 1 0 . 0 0}$ |

## TItus

The Titus Composite Audio Monitor accurately meters and monitors a station's composite sterco signal. The Composite Audio Monitor has balanced bridging. floating injuts on the front and rear (the rear "loops through"). There is also a scope output on the front that provides a semi-demodulated signal as well as digitally filtered ouputs for pilot and SCAs. The composite meter has a scale of 0-150:c and has peak hold above $100 \%$ to measure high transients or composite clipping. There are provisions for two SCA channels.


| CAM | Composite Audio Monitor | $\mathbf{\$ 7 5 0 . 0 0}$ |
| :--- | :--- | ---: |
| SF | SCA Filers (specify center frequency) | $\$ \mathbf{5 0 . 0 0}$ |
| SRM | Sungle Rack mount | $\$ 25.00$ |
| DRM | Dual rack mount | $\$ 22.00$ |
| SCC | Soft carrying canc | $\mathbf{\$ 2 5 . 0 0}$ |

## AVOCET

The AVOCET SAP-16 receives SAP and Main television audio channels and is tunable to any off-air VHF or UHF station. This makes it an ideal way for listeners to pick up the SAP channel for feeding an audio distribution or P.A. system or for personal listening to SAP programming.

| SAP-16 | $\$ 195.00$ |
| :--- | :--- |

## Carver



The Carver TX-8R features: FM stereo/mono selector • Auto/manual scan selection - 20 Presets - Analog signal strength meter • and full function remote control. 1.7". 12 lbs .

## TX-8R

$\$ 449.00$

## Denon



Denon's TU-380RD comes with RDS, which includes program type, radio text, program service name (such as call letters or slogan). clock time and traffic program ID. It can also tune to the format of music you would like to hear. Features include: 40 station presels • RF attenualor Character input to title your presets • Auto FM presets • low impedance output • and AM loop antenna.

## TU-380RD

$\$ 325.00$


The Magnum Dynalab FT-101A offers such 'workhorse' functions as a wide band composite output for modulation peak monitoring and adjustable alarm outputs for both carrier and modulation. Also standard is separate, demodulated outputs for 67 and 92 kHz SCA bands. Main channel audio output is $600 \Omega$ balanced and the SCA audio output is $600 \Omega$ unbalanced. All oulput levels are adjustable. The Pro 101 provides a 'benchmark' sampling of off-air signal quality. Being analog and fully tunable across the FM band, it provides infinite frequency adjusiment in order to deal with adverse reception environments.

## FT-101P-B19

\$1,600.00
FT-PSLU
Narrow band mode [Additional
$\$ 100.00$


Scala



TIH


PS12-4A Same as above except for 220 VAC input


## Intraplex

The standard equipment shelf for the Multiplexer family has a from panel that allows the door to slide up and over the top of the unit using three rack spaces. The TDM-163 TI. Termmal Multiplexer includes one CM-3A T1 module, while the TDM-16.5 T1. Drop and Insert Multiplexer and TDM-166 TI. Dual Terminal Multiplexer include two CM-3A TI modules. All three include a module adapter and one power supply. A second identical supply may be instatled for redundancy


## STL PLUS Basic Package (4200) includes two TDM-163(115) TI nultiplex-

 ers, one uncompressed sterco audio transmiter module, and one uncompressed stereo audio receiver module, with module adipter.TSL Add-On Package (4101) includes one uncompressed stereo audo transmitter module, one uncompressed stereo audio receiver module. and two 4 -wire voice modules, with module adapters


OPX Add-On Package ardudes one two-port FXO voice module and ane two-port FXS voice module, with module adapter, ring generator, and talk battery.
4102 Two oft premise extension voice chanmels
Channel Service Unit, in many cases is required for connection to a telephone company leased TI line. Onc CSU should be ordered for each end of the TI line

Configuration
Power supply Sid. shelf wh.jovac. Sow Pown nupply Sid shelf whaC 50 W Power supply Sid. shell w/115VAC. I00W Power supply Std shelf w/230VAC. 100W Power supply Redundant, 50W AC Power supply Redundant. Ioow AC Power supply

$\$ 1.495 .00$
$\$ 1,000.00$
FAlso anailable from Tmraplex are many specialized Therface Muluplexers such as: Linear, aph X. MPEG taudio modules in cither analos or AESVEBU. Chamel Module's for Multiplever Sysiems. Mendule Adapter. Codec interfaces. Accessories and parts. Please call 'BGS for help in system configurations and pricing!


The Moseley PCL 6000 is a digital ready STL that can operate in either analog or digital ( by adding one of the DSPGote) pkess), and imomaral or composite modes. Both the transmituer and receivers use a synthesized reference oscillator. Two systems can be employed in a dual discrele configuration to transmit right and left stereo programs with no measurable crosstalk. The main determining factor in deciding which receiver is best suited to your application is the amount of aural STL activity in your area. Moseley provides a two year warranty.


| PCL 6010 |
| :--- |
| PCL 6020 |
| PCL 6030 |
| PCL 6060 |
| Extended Bascband |
| Extended Bascband |
| TPT-2 |
| PD-1000 |
| ICU-ID |


| Transmitter, specify frequency | \$4.000.00 |
| :---: | :---: |
| Receiver, specify frequency | \$4,250.00 |
| Receiver, specify frequency | \$5,250.00 |
| Recciver, specify frequency | \$5,950.00 |
| 92 kHzSCA in baseband, ordered w/receiver | No clarge |
| When ordered separalely | Call |
| Transmitter Transfer Pancl | \$1.350.00 |
| For coupling two receivers from one amenna | \$350.00 |
| lisocoupler $800-1000 \mathrm{MHz}$. | \$495.00 |

# Use the ryotkine ...when ISDN doesn't make sense 

## One-time remotes just got easier!

Sometimes it's impractical to install a special circuit like ISDN for a one-time remote. However, a plain telephone line is usually available. Wouldn't it be nice if you could have high quality two-way audio on that plain line? That's just what you get with the HotLine.

## Call Is for Details

| BROADCASTERS |
| :---: | :---: | :---: |
| GENERAL STORE |

Weri- ciapmy to send you. line to try.

Wideband two-way audio on POTS (Plain Old Telephone Service)


## The More Powerful Your Sound, The Stronger Your Image.

Using image to attract listeners is nothing new to radio. Just the rules have changed. Now even loyal listeners have become "dial scanners." More stations are broadcasting into every market. And, suddenly, everyone seems to be competing for the same listeners. To stand out, you need a sound that's as unique as your station's personality. And that's where the power of OPTIMOD comes in. No other FM processor lets you optimize your audio image so completely. You get loud, clear sound tuned precisely to your format, your audience, and your identity. And that's important, because:
In Radio, Image Is Everything.


OP'IMMOD-FM 8200 Processor


The Moseley STARLINK 9003T1 is an all-digital, open- architecture, modular system for uncompressed digital audio conveyance over Tl or fractional Tl circuits. The STARLINK 9003 T I mainframe can house 8 application-specific personality modules which allow the user to easily configure appropriate STL/TSL systems. Other product features include: 16 -bit linear audio and choice of ISO/MPEG Layer II or apt-X coding - AES/EBU and analog inputs -Built-in sample rate converter - Intelligent Mux with drop and insert; expansion slots for voice and data cards.

|  | SL9003T1 | Ti Mainframe allows up to 8 Personality M | \$2,000.00 |
| :---: | :---: | :---: | :---: |
|  | SL9000SE | Source Encoder | \$1,250.00 |
| +20.08 | SL9000SD | Source Decoder | \$1,250.00 |
|  | SL9000DM | Digital Multiplexer | \$1,250.00 |
|  | SL9000TSU | Customer Service Unit. CSU | \$1,000.00 |
|  | SL9000AXC | Apt-X Encoder/Decoder | \$500.00 |
|  | SL9000L2E | ISOMPEG Layer II Encoder | \$500.00 |
|  | SL9000L2D | ISO/MPEG Layer II Decoder | \$500.00 |
|  | SL9000V35 | V. 35 Driver | \$500.00 |
|  | SL9000RS4 | RS-449 Driver | \$500.00 |
|  | SL9000RS2 | RS-232 Data Module | \$500.00 |
|  | SL9000ADC | Analog to Digital Converter | \$500.00 |
|  | SL9000DAC | Digital to Analog Converter | \$500.00 |
|  | Slog00 YTC | Voice Telephonc Card | 5500.00 |
| Package Pricing |  |  |  |
| PAC2XO | 2-Channel STL | 2 linear audio channels | \$8,250.00 |
| PAC4XO | 4 -Channel STL | 2 linear. 1 data, 2 compressed audio chamnels | \$13,250.00 |
| PAC2X2 | 2-Channel STL | TSL. 2 linear audio channels each | \$10,250.00 |
| PACHX2 | +-Channel STL | 2 linear, 2 compressed \& I data audio ch. |  |
|  | \& 2-Channel T | . 2 linear audio ch. | \$15.250.00 |
| PAC4X4 | 4 Channel STL | 2 linear, 2 compressed \& 1 data audio ch. |  |
|  | 4-Channel TSL | 2 linear, 2 compressed \& 1 data audio ch. | \$18.250.00 |

STARIINK SI.9001SS Spread Spectrum Digital Transmission System is a digital RPL using the latest in spread spectrum RF technology and audio source coding. The STARI.INK 900 ISS provides CD-quality stereo remotes over distances of up to 30 miles. Untethered from telco service, point-to-point local remotes can be established quickly and efficiently. Open architecture allows a user to select plug-and-play modules for ISO/MPEG Layer II or apt-X source coding. In addition, the same open architecture allows the user to select between analog or AES/EBU input and output modes. A built-in sample rate converter keeps operation considerations to a minimum. The recently assigned 2.4 Ghe band for spread spectrum reguires no license. The SL900ISS pachage includes transmitter, receiver, source encoder, source decoder, and antennas. Source encoder and decoder avalable with choice of apt-X or ISOAIPEG Layer II coding (Please specify when ordering)
SLgotisSPAC $\quad$ Transmitter/Receiver Package with antenna $\quad \mathbf{8 8 . 2 5 0 . 0 0}$

## Q

The QEI CAT-LINK digital STL/TSL consists of studio and transmitter rack mount units. each with room for up to seven modules. Input and output modules eneode or decode the composite and auxiliary channels, using linear-phase FIR tilers, a 70 MIPS DSP engine with 24 bit accuracy and no audible delay.

Please call Broadcasters General Store for information and pricugs.


The QEI QUICK-IINK is a digital stereo nicrowave system for broadcasters to use for RPU, backup STL/TSL, or anyibing else requiring a high fidelity, quick and easy, digital stereo transmission, without any audio delay. It accepts stereo or monaural audio from any mixer. Features include: XLR connectors - Two LED bargraphs - Two user signals to the receiver to control or tlag equipment at the studio - Ten coding channels Powered by AC or DC • Coding channel in use and lock status indication *and can remotely select receiver's channel code.



BGS


## SSAC

SSAC totally solid-state tower flashers have proven reliability with years of use on radio and TV towers. Flash single or multiple beacons, simultancously, alternately or sequentially and sense lamp failure with an alarm output. SSAC gives you a modular approach to your lighting needs with efficiency and economy.

| FS-155-30-T | Flasher, two beacons (120VAC) | $\$ 89.00$ |
| :--- | :--- | :--- |
| FS-165-30-T | Flasher, up to four beacons (230VAC) | $\$ 99.00$ |

## Environmental Technology De-icing

| APS3A | Provides automatic show melting system control | \$6667.00 |
| :---: | :---: | :---: |
| CIT $^{\text {m-1 }}$ | Sensor detects falling or blowing snow at temp below $38^{\circ} \mathrm{F}$ | \$320.00 |
| LCD ${ }^{\text {m-3S }}$ | Snow Swith (6). De-icing control senses both temp and precip. | Call for pricing |
| LCD ${ }^{\text {m-4 }}$ | Automatic rain blower control | \$151.00 |

LCD ${ }^{1 M-4}$ Automatic rain blower contral


## Cortana



## The Stati-Cat ${ }^{\text {TM }}$ by Cortana. lightming

 prevention system works through the principle of charge dissipation, providing a cout inuous low resistance discharge path for the static electric charge found on all tall structures. Stati-Cat charge dissipaters reduce the charge above a structure, and is designed to prevent a strike. Stati-Cal will design a system for your tower at mo charge. Warranty is void if their system design is not used.Call Brasdeasters General Store to get Stat-Cat infermation and to make arrangemems for your system design.

| $\overline{\mathrm{SC}}-1$ | Stati-Cat ${ }^{\text {rat }}$ charge dissipater | \$370.00 |
| :---: | :---: | :---: |
| SC-3 | Guywire and small tower dissipater | \$50.00 |
| SC-4 | Tonceat dissipater | \$ $\mathbf{4} 20.00$ |
| $\mathrm{CN}-1$ | Crow's Nest dissipater | \$1,525.00 |
| CN-1D | Diagonal Bar for Crow's Nest | \$ 250.00 |

# Transmitere/exaiters 

## Crown

A Crown integrated FM transmitter system combines built-in audio processing and stereo generation in one rugged. compact unit Each model provides excellent signal quality, ease-of-use and economical long-term reliability! The integrated FM transmitter system can be a standalone or stand-by transmitter, idcally suited for translator, satellator and booster operation. The integrated design makes installation quick and easy, requiring only an audio source (mono, L/R stereo or composite signal), antenna and $A C$ or $D C$ power. The built-in remote I/O interface supporls remote control and monitoring for critical functions, and the $D C$ power hookup can provide uninterrupted service when $A C$ power is lost.


Delta


The Delta ASE-2 is a IU, low cost high periormance AM Stereo Exciter. All controls are on the front panel. The operating frequency is crystal controlled for maximum stability and minimum phase noise

ASE-2-1
Bassic unit which includes TTL drive
$\$ 4,095.00$
ASE-2-2
Basce unit with high level output option
$\$ 4.270 .00$
ASE-2. 3
Basic unit with synchronous transmitter option $\$ 4.330 .00$
ASE-2-4
Basic unit with high level output option and the synchronous transmission option.
$\$ 4,370.00$

## Mart

 exact match to your system.
## 0

 automatically reducing power. 3 UQuantum 150E
Quantum 150EA
Quantum 300E
Quantum 300EA
Quantum 600E
Quantum $\sigma 00$ EA
Quantum 230 VAC


For anyone looking for a cost effective way to demodulate a composite signal to bascband left and right audio Marti inıroduced the CD-15 Composite Demodulator. It enables audio monitoring at repeater sites, running a composite AM transmiter feed or even running composite remotes (export only). All controls are front pancl mounted with simulancous left and right metering. Independent output level adjusiments for each channel insure an
CD-15 $\$ 1.495 .00$

The QEI Quantum "E" Series is an all solid sate, broadband. frequency synthesized. "on cearrier" direct FM, phase locked, transmission system. It is programmed to operate on amy 100 kHz increment in the FM band. Direct FM "on carrier" operation ensures spurious free transmission and extremely low distortion. crosstalk and noise without stereo degradation. The Solid State FET Power Amplifier of the Quantum "E" is unconditionally stable and will withstand any magnitude or phase of VSWR indefinitely wilhout damage by

> 150 Watt FM Exciter/Transmitter, 115 VAC 150 Wall FM Amplifier Onty. 115 VaC 300 Wall FM1 Exciter/Transmither, 11 SVAC 300 Walt FA Amplitier Only. 115 VaC G00 Watl FM Exciter/Transmiter, 115VAC (r)0 Wall FM Amplitier Only. 115 VAC 230 VAC oplion for $\mathrm{E} \& \mathrm{EA}$
\$4,495.00 $\$ 4.1000 .00$ $\$ 5,495.00$ $\$ 5,000.00$ $\$ 7.495 .00$ $\$ 7.000 .100$ $\$ 150.00$

## QEI Continued on next page.

The Marti ME-40, a to Watu synthesized FM Broadcast Exciter/Transmitter is an excellent choice to replace your older existing excilers or for use as a standby: Features include: 40 existing excilers or for use as a standby. Fealures melude: to
Wat VSWR protected power output - Peak-hold baseband modulation IED display - Test multimeter with forward and reverse power range - and Full remote capability.
ME-40
$\$ 3.995 .00$

## Sine Systems



The Sine Systems Thermal Sentry is designed to monitor the overall operatimg condition of a broadcast transmitter by measuring a specific thermal parameter. It provides importiant earlywarning information about conditions that, if un-corrected, could lead to down-time and costly damage To accomplish this, the Thermal Sentry uses two precision air-temperature sensors: one installed at the cooling-air intake and the other at the cooling-air extams of a transmitter. The Thermal Sentry then computes and displays the temperature diliference between the two sensors. In addition, the Themal Sentry has an alarm oupput that activates whenever the temperature differential exceeds a preset value.


$$
\square
$$

—
TS Thermal Semry $\quad \$ 299.00$

## transmitiers/ exeiters



QEI FMQ Series: Advanced technology. reliability, and conservative design are the hallmarks of QEl transmitters. All key parameters have alarms to warn you before the critical failure point. They all utilize single EIMAC lubes in grounded grid configurations with a 15.000 hour tube warranty! The driver stages are $100 \%$ solid state and automatic power control is standard. For ease of service both the IPA and power supply modules can be removed from an on-air transmiter. All transmitters come with the 675 exciter or can be ordered with the 695 exciter which also provides automatic modulation control. Prices include a spare parts kit and a factory check out after installation. All these transmitters are available with single phase power supplies with the option of a three phase power supply.

FMQ-5000 FMQ-10000 FMQ 20000 B FMQ20000B-FMQ30000B-3 FMQ30000BOption 03 Option 05

5kW FM Transmitter, single cabinet design 10 kW FM Transmitter, single cabinet 20 kW FM Transmilter. two cabinct design. three phase 20kW FM Transmitter. two cabinet desien $R$


TTC's XLS-1000MU solid state 1 kW UHF (Ch. 14-69) TV transmitter has been refined from its cabinet to its output with the latest state of the arl components for improved reliability. Its new cabinet styling has a replaceable air filter and quieter blower system. This transmitter has a newly designed XLS 5 up converter, multiple levels of redundancy. and output shon circuit protection. It also has an improved AGC amp design. outpur metering accuracy and efficiency. The XLS 1000MU has a two year limited warranty.

XLS-1000MU Transmiticr/Translator $\$ 45.100 .00$ SPK-XLS 1000 Spares Kit

## TIC/Larcan

 $\$ 4,395.00$
$\$ 27,995.00$ \$34,995.00 $\$ 54.000 .00$ $\$ 56.795 .00$ $\$ 56.500 .00$ $\$ 59.295 .00$ \$2,650.00 $\$ 1.195 .00$


The QEI FM Exciters are all solid state, on carrier direct FM. phase locked, and frequency synthesized. They are designed to meet or exceed the FCC requirements for use in the standard FM broadcast band. The Exciters may be programmed to operate on any 100 KHz inerenent using the same high stability 8 MHz crystal as a reference. The 695 FM Exciter's output is variable from 5 to 20 Wats with "Auto-mod" atuomatic modulation control. very low noise, and distortion $<0.025 \%$ independent of temperature. The 695 has bargraph modulation metering with built-in peak counter, an annunciator panel, and a specirum display output which pernits Bessel-Null calibration of modulation montoring.

| $675 B$ | FM Exciter, $115 / 230 \mathrm{VAC}$ | $\$ 2.995 .00$ |
| :--- | :--- | :--- |
| 695 | FM Exciter, $115 / 230 \mathrm{VAC}$ | $\$ 5.450 .00$ |

695
FM Exciter, $115 / 230 \mathrm{VAC}$
$55,450.00$


TTC developed the XL-FM Translators for customers who needed a way to fill gaps in their coverage. The XL-FM accepts a single FM channel, convers it to another FM channel, and provides for one or two outputs of 10 Wants.


The TTC X frequency synthesized FM Exciter is virtually transparent with THD, IMD, and TIM $<0.01 \%$, a dynamic range of 90 dB . and flat frequency response of $\pm 0.05 \mathrm{~dB}$. It is convection cooled, has tive SCA inputs, and a 30 watt FET type " $N$ " output which can drive virtually any transmitter. The Model X is designed for operation at altitudes up to 12.000 feet, and temperatures from -30 to +50 degrees Celsitus and offers frequency stability of $\pm 100 \mathrm{~Hz}$. It also includes a harmonic filler and a separate external rack mount power supply. TTC has a two year wairranty with 24 hour parts and service.

## Telecast

Telecast is a leader in mobile and fixed fiber optic video and audio communication. They manufacture a unique line of iproducts designed for extremely high quality transmission in demanding environments. Telecast systems feature: True field |portability and durability • Field or rackmount enclosures • highest quality video \& audio - NTSC or PAL compatible video - Fast, easy 1-person set up • Distances up to 20 miles • Single mode or multimode fiber • Battery or AC operation • Very low power consumption - Internal NiCad UPS backup • Anton/Bauer Snap-On(@) option • and wide temperature range.


Viper ${ }^{\text {TM }}$ features: Modular "Mussel Shells" or rackmount - 4 -module shelll-up to 2 Video. 4 Audio + Aux $\cdot 8$. module shell-up to 4 Video, 12 Audio + Aux $\cdot 2$ Ch. Aux Intercom ( 4 W, RTS or Clearcom) - 2 Ch. Aux Dala (RS 422 or Sony RM-X CCU) 2 Ch. Aux Switch Closures for Tally, Call, etc. • 96dB S Mic/Line Audio, and 70+dB Video.

| Viper'! |  | From \$200.00 to \$2.000.00 |
| :---: | :---: | :---: |
| Vipers00 <br> Viper4 42 | 8 NTSC/PAL Video rack unit | \$950.00 |
|  | 4 NTSC/PAL. 8 mic/line audio. 2 aux |  |
|  | Intercom. 2 Data Video rack unit | \$1,050.00 |

Sidewinder ${ }^{\text {ro }}$ features:
Transceivers protected in rugged reel - 2 Video. 4 Audio + Optional Aux-on 1 cable Aux intercom-4-wirc or 2wire RTS/Clearcom - Aux Switch Closure for Tally. Call, etc. - Digital Mic/Linc Audio. over 90dB S/N - SM reel 750 MD reel $1.500^{\circ} \mathrm{XL}$ reel $3.000^{\circ}$ - and Durable $5 \mathrm{~mm}\left(0.2^{\prime \prime} \mathrm{OD}\right.$ ) cable. $14 \mathrm{lb} / 1.000^{\circ}$


Sidewinder ${ }^{\text {ra }}$
From $\$ 7.495 .00$ to $\$ 17.345 .00$



Cobra ${ }^{\text {TM }}$ 370-S Fiber Optic Triax Interface sends all 2-way triax functions on one optical fiber for distances up to 50.000 ft . with no repeallers. It provides camera power and dri-
Adder ${ }^{\text {TM1 }}$ features: Digital Multiplexing Audio Snake - 64 Audio Channels on one fiber, coax or triax • 12 $\mathrm{lh} / 1.00 \mathrm{ft}$ cable saves $99 \%$ weight \& labor $\cdot$ Built-in mic pre-amps - Phantom mic power optional $\cdot 6$ mile range. no repeaters or amps • Use with Viper for 8 Video +65 Audio on 1 cable • Optional Aux Intercom \& Data Channel - and optional 3 -way mic splitter output

Adder882 Audio/Dana Multiplexer, 8 audio +8 Data, both directions, rack unit From $\$ 3,995.00$ to $\$ 7,495.00$ AdderlG1 Audio Mux. 16 audio channels. 2 Data. 4 Switch Clousures. rack unit From $\$ 3,695.00$ to $\$ 6,459.00$
 ves long triax runs. Switchable mic/line input and input impedance.

| Narrow Biand System | $\$ 27,500.00$ |
| :--- | :--- |
| Broadband System | $\$ 29,500.00$ |
| DTS System | $\$ 30,250.00$ |

The New Mini-Mussel Shell is so small and lightweight it can go anywhere. It is rugged and a compact $2.75^{\prime \prime} \mathrm{H} \times 7.0^{\prime \prime} \mathrm{W} \times 1.2^{\prime 2} \mathrm{D}$. It fits any single Telccast module TX/RX set. It includes internal UPS battery backup. Ideal for remote spotter-cam applications!

| VIM1-000 | $\$ 200.00$ |
| :--- | :--- |

## Audio TX/RX Modules

TX/RX275 Basic Dual Digital Audio • Mic/Line switchable audio. 20 kHz. 90 dB S/N
Military Connector 4-pin quick release, hermaphroditic - For quick atachment to shells \& vehicles - Fast cable plug-to-plug extension cables

MC From $\$ 750.00$ to $\$ 995.00$
EEL ${ }^{\text {ra }} 12 \mathrm{~V}$ Converter is a 4 -por AC/DC Commander featuring Universial AC inpul-120/240 VAC: $47-63 \mathrm{~Hz}$ - Fused UPS
12 VDC input $\bullet 4$ fused outputs- 13.8 VDC . 3 Amps; 4 pin XLR Auto AC to DC input swithover protection - and optional remote control on/off. 12 V

| E12VC | $\$ 995.00$ |
| :--- | :--- |

TX/RX280 Expandable Dual Digital Audio - 2-Ch. of DC-25kHz ( $\pm 0.1 \mathrm{~dB}$ ) Mic/Line Audio - 96dB unveighted S/N: 134dB Dynamic Range

Expansion Module • adds 2 Ch . of Digital Audio to TX/RS280 • up to 3 TXRXX380 sets + Intercom \& Data
From \$995.00 to \$2.550.00

TX/RX380
Exp
Video TX/RX Modules
TX/RXI03
Analog Video - FM-based, NTSC/PAL. 10Mhz, 70+dB S/N •
Exceeds RS250-(Short Haul) - 30 kilometer Range (SM)
TX/RX259 Scrial Digial Video - Laser-based SMPTE 259M compatible, 270Nbps •
No Pathological Errors (PLL \& EQ) • 20 kilometer Range
From $\$ 1.375 .00$ to $\mathbf{2 . 8 5 0 . 0 0}$

## Options:

Options:
ADAPAC02
AC Power Adapter Indour for Sidewinder and Viper systems
$\$ 79.00$
SHIPSWSM Shipping \& Carrying Cuse for SM Sidewinder \& Viper Systems \$295.00
SHIPSWMD
Shipping \& Carrying Case for MD Sidewinder \& Viper Systems $\$ 395.00$
NCB
NiCad Internal Battery for Viper and Sidewinder
PMTRST32
Optical Power Meter, ST adapter, 3 Wavelengths, $850,1300,1550 \mathrm{~nm}$
$\$ 695.00$
CONNSTQC
$S^{\top}$ Connector inslallation repair kit. Quick Crimp
$\$ 10.50$

## BEC

BEC Technologies Proline Series is a modular digital audio communications system capable of transmiting up io oft channels of full bandwidth audio. Systems may be configured as STLs. or as audio links in production studios, salellite facilities. or mobile production tricks. For shorler transmission distances (up to $750^{\circ}$ ). data may be carried on one or wo wisted par cables. On fiber optic cable. distatnce is extended to 2 miles multimode with the standard LED driver. or up to 25 miles single mode with the optional laser driver. Overall system performance specifications include frequency response of 10 Hz io $22.5 \mathrm{kHz}( \pm \mathrm{JdB})$. THD +N of less than 0.01 fe, and dynamic range better than 92 dB . Proprictary Fault Tolerant Redundant Communication (FTRC ${ }^{(M)}$ ) technology is implemented to assure fall-sate signall integrity. Modular design, with separate units for A-D conversion/data multiplexing. fiber optic transmission. and demultiplexing/D-A conversion. allows custom contiguration of complex communication systems from off-the-shelf componens.

| AD16 | Audioplex: input A/D conventer iransmitter | \$3,500.00 |
| :---: | :---: | :---: |
| DA16 | Audioplex: Oupui D/A convener receiver/repeater | \$3,500.00 |
| DPI-8 | Digiplex: AES/EBU receiver/converter/transmitler | \$3,500.00 |
| DPO | Digiplex: AES/EBU demultiplexer/repeater | \$3.500.00 |
| FBil | Dataplex: Fiber Optic Transceiver module <br> (Handles up to + ADI 6 \& $\& 4$ DAs for a total of $6+$ channels) | \$3,010.010 |
| FBII/SM | Dalaplex: Fiber Optic Transceiver module-single mede (Handles up to + ADI6s \& + DAs for a total of 6 ot channels) | \$4.900.00 |
| RPS | Redundant Power Supply module <br> (Handles up to 8 modules of any type on back up) | \$1,650.00) |
| MP16 | 16-Channel Mic Preamp/Splitter | \$5.900.001 |
| MX16 | Remote Gain Controller for the MP16 | \$1,200.010 |
| AD2 | Stereo analog input module | \$1,100.001 |
| AD $2 / \mathrm{F}$ | AD2 with fiber optic transceiver option | \$1,700.109 |
| DA? | Stereo analog outpui module | \$1.100.00 |
| DA2/F | DA2 with fiber oplic transceiver option | \$1,700.00 |



## Lightwave Systems

The Light Wave Fibox system is useful for permanem and temporary applications. On the ransmit end. the Fibal-M1 module ofters: wo XLR michine inputs with high-quality mic pre-amp. gan trim, overload LED and phantom power $\cdot 20$-bit delta-sigma A/D converters, $4 \mathrm{k} k \mathrm{k} / \mathrm{k}$, sumpling and $64 x$ oversampling - and a 1.310 nm fiber-optic output driver. At the recelve end the FBAO-M module includes: a fiber-uptic fecerver - 20-bit co linear D/A conveners - and $i 4 \mathrm{dBu}$ balanced analog outpus on XLRs. Overall dynamic range in apecilicd al 108 dB through the syame and transmission distances of up to 4 km are possible using multimode fiber. Up to five 2 -chamed slave modules can be added to each end and linked sta mul lipair cable to the master modules, allowing a single fiber to carry up to 12 channels of 20 -bil digitil audio. Alternative oulput medules offer
 an external source.

| FBAI-M | Master 2-channel, Analog input | \$850.00 |
| :---: | :---: | :---: |
| FBAl-SL | Slave 2-channel, Analog input | \$680.00 |
| IMS-Tx | 8-Channel AES digital audio transmitter plus |  |
|  | I-channel SMPTE digital video transmitter | \$1.930.00 |
| VFL300/T | Video Transmitter Module | \$797.50 |
| FBAO | Master 2-channel. Analog output | \$895.00 |
| FBDO-M | Master 2-channel. AES digital output | \$975.00 |
| FBAO-SL | Slave 2-channel. Analog output | \$710.00 |
| IMS-Rx | 8-Channel AES digital audio receiver plus I-channel SMPTE digital video receiver | \$1,650.00 |
| VFL300/R | Video Receiver Module | \$797.50 |
| LKI-6 | Linking cable for 12 channels, input | \$125.00 |
| LKO-6 | Linking cable for 12 channels, output | \$125.00 |
| RMK | Rackmount kit for 1.2 or 3 units | \$65.00 |
| ST-ST | Simplex 2 meter fiber patch cable | \$92.00 |
| FCT-2C | Two-core tactical liber cable. price per foot | \$1.20 |
| TERM-ST | Terminations on cable | \$50.00 |
| DATI-SL | RS-232/422/485/MIDI/SMPTE/Slave xmur | \$680.0) |
| DATO-SL | RS-232/422/485/MIDI/SMPTE/Slave revr | \$710.00 |
| DAT-CBL | Data link cable for bi-directional transmission | \$50.00 |



## routers / switchers

## Zercom



Zercom Patch Switch PS-I is a rack mounted, passive audio switch that's stereo 10 in and 1 out or 1 in and 10 out. This configuration allows you to reverse stereo phase and perform stereo to mono summing with the push of a buton. Use the PS-I for additional input switehing to consoles, or the selection of satellite, remate or studio feeds. Buss swithes together for more complex applications or add resistors a make audio pads on the inside. A ecreom Gain Box can be used lo increase levels as needed.
PS-1

ManyItemsin Stock for Immediate Delivery...Call Today!

# Douters/switchers 

## 360 Systems

The 360 System's AM-16/B Routing Switcher is a compact expandable system that is field selected for either $16 \times 16$ mono or $8 \times 8$ stereo matrix. It will route any source to any or all destinations. The AM-16/E expander unit operates in parallel to provide an additional 16 mono or 8 stereo inputs and outputs. Combine one master and one slave unit for $16 \times 16$ sterco operation. Additional slaves may be used for multi-channel applications or for custom matrices. The AM-16/R remote control station will provide control of 16 inputs and outputs, slereo or mono, for up to four separate levels of audio. Multiple AM-16/R remotes may be used to control a central swithing matrix from several different locations. All inputs and outputs of the AM-16B are electronically balanced. and both RS-422 and MIDI remote control facilities are provided. Front panel setups may be stured in any of 100 non-volatile memory locations, allowing recall of individual patches or complex "salvos." Memory-Protect guards against accidental erasure of programs and on power-up the last program it use is automatically selected. It has front panel patch points for two channels in and out, to serve as test points or for an emergency patch. Specifications meet today's high performance expectations.

Audio Crosspoint Switcher
AM-16B for operation at 38.4 KBaud when using EIA-422 serial interface (MIDI por inoperative) Audio Crosspoint Expander Remote Control Station, IU, will control 1-4 AM-16/B Circuit Card Remote, same as $16 / \mathrm{R}$ w/o chassis or buttons Interennnect cable for 1 expander to AM-16/B Interconnect cable for 2 expanders to $\mathrm{AM}-16 / \mathrm{B}$ Intercouncel cable for 3 expanders to AM-16/B Interconnect cable for 4 expanders to AM-16/B
$\$ 1,495.00$
$\$ 1,495.00$ $\$ 995.00$ $\$ 695.00$ $\$ 450.00$
$\$ 15.00$ $\$ 20.00$ $\$ 25.00$ $\$ 30.00$


AM-16R
$A M-16 B$


AM-16/B-38.4
AM-16/E
AN-IG/R
AM-IG/CR
DISM-I
D15M-2
D15M-3
D15M-4
Blamp


The Biamp VSX41 Video Switcher provides four video inputs and one viden output, with source selection and remote contral functions. Passive switching allows the VSX 41 to be used as cither a $f$-input by 1 -output switcher or as a 1 -input by 4 output router, and for either video or audio signals.
Selectahle back termination allows use with either video signals or line level audio signals. Dry contact relays provide complete group isolation The VSX +1 is versatile. cost-eflective, casy to install, and carries a five year warmanty. IU
$\$ 549.00$

## Broadcast Tools



The Broadcast Tools 10XI Stereo Audio Swither/Router passively switches or routes ten different slereo sources. It provides passive switch ing through gold contact relays and aceepls levels belween -20dB and + IndB. Features include: from pancl switching wath LED indicators • full front panel remote control and status - progeamuable front panel enable - audio mute control - selective channel power-up programming and a 2400 baud serial ports. Cones with wall transtormer, serial cable. with audio I/O connections via wire captive terminal strip. IU

## $10 \times 1$

$\$ 529.00$


The Broadeast Tools 6 XIB is a six mput stereo switcherfouler which can select up to six seren balanced inpurs to one stereo oupput. It provides passive switching through sealed gold contact rulays allowing a very transparemt audio path that makes it ideal for both switching and routing applications. From panel switches with LEDs provide interlocked source selection and status. A rear panel 15 pin D combetor allows for remore control and stitlus. Remote control inpuls may be mementary or maintained TTL/CNOS. open collector or contact cloware and status is an open collector. It provides loss of power bypass on input one and may be progranmed to power-up on any of the six inputs. Additional features include: step input for input sequencing - a mute input which mutes the stereo output when activated - programinathe non-selected inpur termination - a second bridging output to allow monitoring of sotree miterial and wire captive terminal strips for $1 / 0$ connections.


The Broadcast Tools $\mathbf{3 \times 2}$ is a 3 input dual output stereo audio switeher. It features: 3 balanced stereo inputs, assignable to evither or both stereo outputs • multi-turn input rimmers - output level adjust fromt panel channel indicators - 2400 baud serial control port - two modes of parallel remote control. monde one is an on/ofíl latching mix mude, mode two confurms to B E. Audio Vault and Scott Studios 8255 1/0 control.

| $3 \times 2$ | $\$ 399.00$ |  |
| :--- | :--- | ---: |
| RMM-1 | Rack mount | $\$ 9.00$ |

The Broadcast Tools 2X1 Stereo Audio Swither/Router passive-
 ly switches or routes two sterco inputs to one stereo output or vice sersa. It features: passive swithing through gold contact reliys and in contigured to routc audio to the output in case of toss of power to the unit $\cdot 1 / O$ and control interfacing is via wire captive terminats $\cdot$ it allows control with 5 volt logic levels, apen collector, or swith contacts - and comes with wall iranstormer.

| $\overline{6 \times 1 B}$ | 1/2 rack unit or desk top | \$399.00 |
| :---: | :---: | :---: |
| RM-1 | Rack mount | \$49.010 |
| FP-1 | $1 / 2$ rack tiller parack | \$39.00 |



## Broadcast Tools



The Broadcast Tools $8 \times 2$ Active Dual Steren Audio Swither is designed to accept 8 stereo inputs switchable to two stereo outputs via fromt panel switches with LED indicators. The inputs may be programmed to either overlap, mix. or interlock any source. Inputs are balanced bridging and will accept cither balanced or unbalanced sources. The $8 \times 2$ can also be configured to provide adjustable dimming of up to 10dB per input. Rear panel input trimmers allow input adjustment between -10 and +8 dBm . Output and dimming level adjustments are also provided. Additional features include: Eprom programming for power-up input select, mute input, front panel switch disable, monaural outputs. summing inputs \& unbalanced outputs for multiple unit cascading, output selectable silence sensor. Paralle! and RS-232 serial pons are also provided for remote control and status.


The Burk LX- 1 Stereo Switcher is designed to improve your control room operation by reducing demands on your air console and eliminating the need to patch for altemate program sources. The LX- 1 can connect to your remote control system for remote program swithing - allows mixing of two studio sources, or lock-out of all audio sources • tally indications are provided for each source - star/slop pulses are available for each source • and it matches IHF or PRO inputs. IU

LX-I
Six input stereo selector
$\$ 1.295 .00$

Hens


## The Henry

 StereoSwitch is a three-input stereo sudio switcher for use as a stu dio swicher. line selector. or for automatic source selection under the control of a broadcast automation system. It accepts up to three stereo balanced audio sources, selecting one to be routed to thestereo balanced oulput. The unit can be controlled with any momentary or maintained contact closure. open collector. TTLJCMOS logic. or DC voltage from 5-24 volts. Internal power-up programming permits the user to determine which of the three inputs is automatically selected when $A C$ is applied. Tally outputs are provided to drive remote status indicators. Inactive sources can be automatically terminaled.

## 

Broadcast Tools Box-O-Switches (previously. VersaSwitch) has two rows of six front panel switches that allow remote switching of any kind of equipment needing a normally open dry contact closure Each of the 12 switches contains a bright red LED divplaying the actuve status of the associated equipment connected to it. Busses include remote start and stop CD players, recorders, automation gear or any equipment. All connections are made on wire captuve terminals mounted inside the unit.

## Box-O-Switches

$\$ 199.00$
Rack-O-Switches
Same as Box-O-Switches
only IU panel mount and connection via 2 DB-25 D.Subs
$\$ 199.100$


The Conex AS-101 Audio Swither allows any one of 10 steree sources to be switched to the stereo oultput chamel. Switching is accomplished by pressing one of the illuminated butoms on the frome panel. or remotely, wia the remute control connector on the rear panel. Several remote comorol devices may be conneted in parallel, and all will indicate the selected channel. A compact rack-mount auailiary unit houses a variety of optional hoards including an RS232/422 interface, a relay board making possible tape deck conerol, and a syomem board allowing the AS-101 to be tramstormed imto a simple autonation system under the control of any PC. Features include connection wia plug-in screw-clamp terminal block, - Transtormerless, balanced inputs and outputs • and Front panel accersible input and output level controls.

| AS-101 | Audio Switcher | $\$ 962.12$ |
| :--- | :--- | ---: |
| AS-401 | Remote control (11) chamnel) | $\$ 161.25$ |
| AS-501 | Relay hoard | $\$ 317.12$ |
| AS-201 | RS-232 interface | $\$ 209.62$ |
| AS-44 | RS-232 serial interface | $\$ 119.001$ |
| AS-202 | RS-232 expander board | $\$ 150.00$ |
| AS-95 | Auxiliary chassis | $\$ 115.010$ |

## Radio Design Labs



The RDL AMX-84 is a digitally controlled audio marix romer and a low-noise audio mixer with $x$ stereo inputs which can be mixed to 4 steroo oulputs, in any combination. Functions are controlled by 32 data lines on an input connector. It has low noise and distortion and inpur gain can be trimpor adjusted for precise level mathing.


## Intelix

Intelix's M series are sophisticated marrix mixers with VCAs at every cross point. The advantage of cross point controllable mixing is the abrity to independently create an appropriate mix for all ouppts. It is used in room-combine, show control. zone-paging. public address, audio monitoring and a variety of other applications. Intelix Comet Series remote control modules, PC, Macintosh, as well as dedicated controllers. such as Crestron and Triad Systems, and other RS232 based devices allow the matrix to be casily supervised from remote locations. M Series mixers can be "slave" matrices when used with controllers or as stand alone mixers.


| M8L8L |
| :--- |
| M16L8L |
| M24L8L |
| M32L8L |
| M8LI6L |
| MIGLI6L |

8 inputs. 8 outputs
16 inputs, 8 oulputs
24 inputs, 8 outputs
32 inputs, 8 oulputs
8 inputs. 16 outputs
16 inputs. 16 outputs
\$2.499.00
$\$ 4,115.00$
$\$ 5.439 .00$
$\$ 6.6+19.00$
$\$ 4,115.00$
$\$ 6.275 .00$
M16L8L
M24L8L
M32L8L
M8LI6L
MIGLI6L
16 inputs. 16 outputs

bGS

| P8LSL-M | Up to eight 8-channel mono remotes (8/1 Mini-Mixer) | \$2,789.00 |
| :---: | :---: | :---: |
| P8LIGI.-M | Up to sixteen S-channel mono remotes (8/I Mini-Mixer) | \$3.999.00 |
| P16L8L-M | Up to eight 16 -channel mono remotes ( $16 / 1 \mathrm{Mini}$-Mixer) | \$4,065.00 |
| PIGLIGL-M | Up to sixteen IG-channel mono remotes (16/1 Mini-Mixer) | \$6,069.00 |
| P32LSL_-M | Up to eight 32-chanmel mono remotes (32/1 Mini-Mixer) | \$6,575.00 |
| PSI_8L-S | Up to four 8 -channel stereoremotes ( $\$ / 2 \mathrm{Mini-Mixer}$ ) | \$2,399.00 |
| PSLIGL-S | Up to eight 8-chamel stereo remotes (8/2 Mini-Mixer) | \$3.395.00 |
| Pl6L81-S | Up to four 16 -chamnel stereo remotes (8/2 Mini-Mixer) | \$4.059.00 |
| P16LIGI-S | Up to eight 16 -channel stereo remotes (16/2 Mini-Mixer) | \$6.225.00 |
| Remote Control Units, Beltpack/stand mounted adapter included |  |  |
| 8/1 Mim-Mixe | rotary $\quad 8$ chanacl mono w/rotary potentiometers* | \$309.00 |
| 8/1 Mini-Mix | -sider 8 channel mono w/slider potentioneters* | \$299.00 |
| \$/2 Min-Mix | rotary 8 channel stereo w/rotary potentometers* | \$429.00 |
| 8/2 Mini-Mix | slider 8 channel stereo w/slider potentiometers* | \$415.00 |
| 16/1 Mini-Mi | r/rotary $\quad 8$ channel mono w/rotary potentometers* | 5429.00 |
| 16/1 Mini-Mix | /slider 8 channel mono w/slider potentioneters** | \$435.00 |
| 16/2 Mini-Mix | r/rotary $\quad 8$ channel stereo w/rotary potentometers** | \$689.00 |
| 16/2 Mini-Mix | /sluter 8 channel stereo w/shder potentiomelers** | \$669.00 |
| 32/1 Mini-Mix | r/rotary 32 channel mono w/rotary potentiomelers** | \$695.00 |

Psychologist Remote Control Units

*7.5" wide metal chassis
** 13.25 " wide metal chansis

## Logitek

The Intelix Studio Psychologist is a remotely controlled monitor mixing system incorporating small remote controls. Eight audio channels to evther four or eight monitor positions in mono or stereo and 16 audio channels to ether eight (stereo) or 16 (mono) monitor positions are possible. These devices transfer control information to a matrix mixer and produce separate and preferred mixes for each musician (or monitor). This system is widely used in the recording studio, stage presentation and language lab applications. Includes chassis, power supply. CPU card and audio level control cards. Does not include remote conirol units or fan-in box.

## Radio Design Labs



The RDL RU-SX4 can be used anywhere you need remote controlled :udio, switching. multiple swithing control points. 4 inputs io 1 outpul, line-level audio swithing. balanced/unbalanced $1 / 0$. and gain trim on each source. The inputs are all bridging. allowing connection from either high or low impedance sources.


## Ramko

The Ramko RS-1616 can route. amplify. distribute and mix in any combination of the full 128 input capacity 10 any and all outputs with no interaction. The system can be configured from as litile as 8 mono/t slereo in by 2 out. to as large as 128 mono/6t sterco in by 64 out Up to 32 mainframes may be looped together and controlled with a single control system. It will route adio. SNPTE. DC ultrasonics. modems or any signal thru 100 KHz . With the inputs strapped for DC. RS 232 computer signals 109600 batud can he routed or simulaneously distributed without loading or degrading the original signal. The RS-1616 has a three ycar warranty.


RS-16161.C/MF
RS-1616MP/MF RS20C

MP20C
RS8IC
RCR-2
mainframe remote serial and parallel control no front panel controls or indicators. Uses RS20C cards. manframe. uses MP20C cards
Two section (mono or stereo) outpu card, no mixing or paging.
same" as abowe with mexing/paging
8 mono 4 stereo input card
Remole controlreceiver required for all serial remote control MSDOS usage
$\$ 1,119.00$ $\$ 1,178.00$
$\$ 187.00$
$\$ 294.00$ $\$ 270.00$
$\$ 556.00$

Many options avalable, please call as for a grotmion on your swatem

## SAS - Sierra Automated Systems



The SAS 64000 Audio Routing Switcher is a high performance microprocessor controlled audio switching system designed for largescale professional broadcast facilities. Implementation of the latest analog LSI technology has created an uncompromised level of performance and exceptionally high packaging density: $256 \times 256$ in one equipment frame: $256 \times 256$ all stereo in only two frames. lt can be configured to operate as a mono. stereo or a mixed mono/stereo system. The control sofisare allows adjacent inputs or outputs to be linked as stereo pairs and treated as one source or destination. Stereo linking provides a flexible and convenient solution for facilities which have both stereo and mono sources and destinations to manage. The central frame is 14 RU and houses all input and output modules. frame controller and plug-in power supplies. Features include: 118 dB enhanced dynamic range $\cdot+28 \mathrm{dBu}$ Maximum input/output levels - Wide selection of conirol panel options - Multi-point RS-232 \& RS-422 interfaces included - and Dual redundant modular power supplies. Please call Broadcasters General Store for systems configurations and pricing!

SAS GPI-1600 Salvo Sequence Generator is a compact general purpose automation system that can be integrated with the SAS audio routing systems. It contains 16 form C relays for general purpose machine control and RS-232 serial input for station time synchronization. Event programming is menu driven via an RS-232 bus connected to a PC/terminal. The unit stores up to 1000 events and pro- vides a seven day programming schedule. The GPI-1600 is a useful tool for capturing news feeds, reel recording machines and other time-based events.


Thi SAS 32000 Sieren Automated Ruting \& Mixing System Series set the wandard for andia routing in profersional broadean facillties. The tlexible ysitem archutecture and rugeged design allow for use in a broad ratge of applications, even critical transmission path routing. The system is modular and easily expanded. The heart of the SAS 32000 is a 32 stereo inpul/ 16 stere ouput switching subsystem housed in three rack unis. Each frame houses all input amplifiers. crosspoint cards. output amplatiers and redundan power supples as required for at complete system. For larger systems the se building blecks are simply connceted togther. SAS provides a comprehensive range of rack mount and vertical console mount control pancls. Each system comen complete with RS-232 purn for system programming and computer control.

We'd he happy to provide complete information!



The SAS 16000
Audio Routing Switcher is a high performance microprocessor based audio switching system for use in professional broadcats installations. The SAS 16000 brings SAS quality and reliability to the broadeast plant which requires 32 X 16 or $32 \times 32$ matrix. all at a very attractive price. The unit is housed in a two rack unit chassis, and provides alphanumeric controls on the front panel. The sysem comes complete with stereo partitioning PC software which allows any pair of sources and/or destinations to be programmed for stereo operation. Two units may be stacked to allow $32 \times 32$ stered operation. The SAS 16000 is compatible with the complete range of SAS rack mounted and console control panels. with full alphanumeric or pushbutton capability.

Please call Broadcasters General Store for mome information and pricins.

ManyItemsin Stockfor Immediate Dêlivery...Call Loday!

## VAC

You can use the VAC Automatic Viden Switch to set up a continuous video feed to be overriden by another viden source when it becomes active. If youn need to switch audio along with the video, use the Stereo Balanced/ Balanced dudio Switch. You can use five 4 XI Video Switches to configure a 16 X 1 routing switcher. One hexadecimal switel can conirol all five bricks to act as a single 16 XI unit.
$\overline{\text { VB/AVS }}$
Allomatic Video Switch
2 in . 1 out • automatically switches to alternate source if man source fails - senses sync-tips at main input e can be connected to the $A B / S 2 X 1$ for automatic audio-follow-video switching
AB/S2XI Stereo Balanced Audio Switch
2 in. I out. stereo balanced audio switch
VB/4XI - XXi Video Switch
4 in . 1 out - remote or local control port - can be connected to the $\mathrm{AB} / 4 \mathrm{XI}$ for automatic audio-follow-video switching Balanced dudio Switch
4 in. I out, balanced audio switch
Holds 5 or 6 Bricks


## Wohler

The Wohler ARS features a versatile, modulat design that can be contigured with up to twenty stereo inputs with two stereo outputs; or as a matrix switch with up to four stereo mputs and four stereo outputs. Normal output is balanced. An optional single pair of lesel meters or single phase/polarity indicator may be added to the dudo Rounteg Swither Rack mounted installation in a single rack space with simple rear connections by way of European syle plug-in, screw-clamp termanal blocks

## Analog Audio Routing Switchers (Source Selection)

ARS-11
5 stereo inpus to I stereo output
ARS. $12 \quad$ Selects one of live 4 -channel groups
ARS.14 Selects one of five 8 -chanuet groups.
ARS-21A $\quad 5$ mono inputs to 2 independent outputs
ARS-2IB 10 mono inputs to 1 sterco output
ARS. 2 IC 2 mdependent groups of ( 5 mone ins 101 mono nut)
ARS-22A 5 stereo inputs to 2 independent stereo outputs
ARS-22B 10 sterco inputs to 1 stereo oupput
ARS-22C 2 independent groups of ( 5 stereo ins to I steren out)
ARS-42A 5 mono inputs to + independent outputs
ARS-42B 10 mono inputs to 2 independent outputs
ARS-42C 2 independent groups of ( 5 mono ins to 2 independent ouls)
ARS-42D 20 mono inpuls to $I$ output
ARS - 4 A 5 stereo inputs to 4 independent stereo outputs
ARS-44B 10 stereo inputs to 2 independent stereo outputs
ARS-44C 2 independent groups of ( 5 stereo ins to 2 ind. stereo ouls)
ARS-44D 20 stereo inputs to $\mid$ stereo output
AES/EBU Digital Audio Routing Switchers (Source Selection)
ARS-D81 8 AES/EBU inputs to 1 AES/EBU ouput. BNC connectors sted
ARS-D82 8 AES/EBU inputs to 2 AES/EBU output. BNC connectors std.
ARS-D161 16 AES/EBU imputs to I AES/EBU output. BNC connectors std

## $\$ 775.00$

$\$ 695.00$
$\$ 785.00$
$\$ 510.00$
$\$ 520.00$
$\$ 530.00$
$\$ 675.00$
$\$ 695.00$
$\$ 710.00$
$\$ 780.00$
$\$ 780.00$
$\$ 810.00$
$\$ 810.00$

## $\$ 1.015 .00$

$\$ 1.060 .00$
$\$ 1.015 .00$
$\$ 1,135.00$
$\$ 775.00$
$\$ 975.00$
1.260 .00

 meters may also be mstalled in an ARS chassis to momitor a selected source's phasedpolarisy or level. Please call for prices on these modules.

## Z-Systems

The Z-Systems $\mathbf{2 8}$. 8 I Digital Detangler is a diwitul audio pathbay router, distribution amplifier, and format converter all in one box. ZSystems offers an mexpensive solution to digital audio integration for those who own more than a few pleces of digitat audio gear and are tired of the tangles of cables, minatehed comectors, and plugging and unplagging to recontigure the system. The z. 8.8 can contect up to 8 digital audio sources and 8 digital audo destinations recontiguring "who speaks to whon". Once you ve integrated your CD. DAT, MDNi, worksiations, and digital processors this way you'll wonder how you ever functioned without the Detangler. The z-8.8 comes standard with 8 AES/EBU I/O perts. but custom configurations can be built to suit your needs (totaling 8 , of course').

The Z~Systems Digital Detangler Pro Series includes the z-8.8r. z-16.16r and z-32.32r. Each is an automated patchbay. an AES/EBU router, and a dastribution amplifier all in one package. Once you hook up all of your dygital audio t/O's, the connection pathern is then established by the touch of a few buteons on the $z$-ric router remote control or computer control interface (Mac and Windews available).



The Broadcast Tools USC-16 provides remote channel selection for DAT-SEDAT digital audio decoder cards installed in Scientific Ailanta DAT32 serics. Comtech/Fairchild DART-384 and Ariel Receivers. along with memory selection for the Scientific Atlanta "ENCORE"* receiver. Four open collector outputs are provided for control of the older receivers' transponder selection via the USC-16 serial port. Using a 2400 or 9600 haud serial port (either locally or remorely via modem) the user may program using the Menu Mode to selecr sixteen DAT-SEDAT channels, sub-channels and $7.5 / 15 \mathrm{kHz}$ selection on each decoder card. Selection of active channels. Encore memories and latching/momentary open collector control are also provided. After these channels have been programmed and/or made active. the USC-16 may be unplugged and installed. The program information is slored in Eprom memory with a retenuion life of tens years. The USC-16 allows selection of the channels and memories with momentary TTL/CMOS 56 volt logic levels. open collector or dry contact closures, allowing control by a user's remole control system or switch contacts. The 2400/9600 baud serial port provides status for the two channel pors. active memory with the Encore receiver. the last momentary/atch condition of the open collector outputs and a means of performing remote last minute changes sia modem or a locil computer.

## USC-16

SA-Cable For use with Scientific Allanta DAT- 32 series receivers
\$349.00
*Note: SA "Encore" recciver software should be 4.0 .1 or greater


The Broadcast Tools Talking Duck identi-
fies any audio circuit. Simply connect the wall transformer to the Talking Duck and press the record button and a 16 second identifying message may be recorded. On playback. a 4 second 1 kHz tone along with the recorded message will continually run. By connecting the Talking Duck to a telco loop. the user can immediately identify a remole circuil by dialing up or selecting the circuit and listening to the mes-sage. It will continually feed the circuit until a $1 / 4^{\prime \prime}$ TRS plug is inserted into the fromt panel jack. at which point, the recording is disconnected and the source equipment is switched back to the circuit.
Talking Duck
$\$ 139.00$


The Broadcast Tools Audio Fade Controller provides a convenient means of fading stereo aludio. The AFC accepts stereo balanced or unbalanced audio with levels ranging from -15 dB to +10 dB . The output is balaneed and may be adjusted from-20dB to 10dB. The AFC is equipped with preset parallel inputs and eight node serial port

| AFC |  | $\$ 199.00$ |
| :--- | :--- | ---: |
| RM-1 | 2 U rack mount | $\$ 19.00$ |
| RM-2 | SU rack panel | $\$ .19 .00$ |



The Broadcast Tools Programmable Schedule Controller (PSC). stores and controls up to 160 time and date events. The PSC is equipped with 20 spst relays, and can also send up to 12 serial custon commands. All program events are stored in non-volatile Eprom memory. To program the PSC, attach it to a non-dedicated PC running standard communications software (Bitcom. ProCom Plus. Windows Terminal, etce.). If features in AC line. 60 Hz time buse for precise timing. A supercap is provided to operate the clock processor when the PSC is not attached to AC The PSC is also equipped with an optically isolated sync input allowing network time synchronization any time within the hour Connection to the PSC is via clamp style wire captive ferminals,

## PSC

$\$ 399.00$

## CircuitWerkes



The Circuit Werkes DTMF- 16 touch-tone decoder provides up to 16 separate opiocoupled outputs using standard touch-fone signals. Jumper settable modes include: momentary, interlocked-latching, two-tone and anti-falsing. When combined with an autocoupler it is useful for a varity of tasks such as: remote control of TV camera pan and tilt heads, emergency transmitter control, controlling remote satellite receivers, network switching equipment. repeaters or any telephone control application. An optional combination lock is available which allows for additional system security. The Silencer option board removes tones that are sent over the program channel and provides a muled. balanced audio output.

| DTMF-16 | Stand alone DTMF remote control | $\$ 195.00$ |
| :--- | :--- | :--- |

*.S DTMF Silence Option - ADD $\quad \$$


## CircuitWerkes

The Circuit Werkes SUB-03a Subaudible Tone Decoder decodes industry standard 25 Hz .35 Hz and combined $25 / 35 \mathrm{~Hz}$ tones and provides dry relay contacts to the user. It features audio presence and audio clipping LED indicators to help make setup a snap. Input gain adjustment and a variable, balanced output allow for lesel matching. integral filtering substantially reduces the presence of subaudible tones at the SUB-03a's audio oupput.

| SUB-03a | $\$ 329.00$ |
| :--- | :--- |

## Conex

The Conex $\mathbf{2 5 H z}$ tone generator has front pancl LEDs to indicate the duration of the tone and silence intervals. The CG-25A has plug-in type terminal strips with $600 \Omega$ balanced bridging inputs and can be remotely controlled.

| CG-25A | $\$ 451.50$ |
| :--- | ---: |
| Special frequency requests add | $\$ 25.00$ |
| RMK. Rack mount kit | $\$ 27.00$ |



The Conex CS-25B is a compact and modular 25 HZ tone sensor for use in broadcass automation, tape control, or remote signaling systems. The seasor detects 25 Hz sub-audible tones that typically signal the end of a progrom selection. The resulting relay contact closures can be used to start the next source and stop the current suture A stereo high-pass filter module is offered as an option to provide absolute protection from program tripped cues.
$\overline{\mathrm{CS}} \mathrm{-25B-10}$
$\mathrm{CS} 25 \mathrm{~B}-11$ HIPF-25 CS-25B-01 CS-2513-20 CS-2513-21 35H Option


Dual 25 Hz Sensor
Alove with Stereo high pass filter Stereo high pass filter board Stereo high pass filler Quide 25 Hz sensor Quad 25 Hz sensor, w/sterco high pass filter Change to 35 Hz per module charge
$\$ 439.64$
5530.98
$\$ 91.34$
$\$ 319.21$
$\$ 651.41$
$\$ 742.75$
$\$ 15.00$


## ESE

The ESE 750E Series of thumbwheel programmer/comparators is both economual and easy to use when programming 1 or 2 ouput events. A thumbwheel switch is set to compare the tume infomation from an ESE clock or timer Ouput occurs each time the switch setting agrees with the time display.

ES 750E 6-Digit 12 Hour Clock with One 6-Digit Comparator ES 751E 6-Digit 24 Hour Clock with One 6-D Dig Comparator ES 753E 6-Digit 12 Hour Clock with Two 4-Digut (hr. \& Min) Comparstor ES 75-1E 6-Digit 24 Hour Clock with Two 4 -Digit (hr. \& Min) Comparater ES 760 E ES 754 E with Battery/Charger and Parallel BCD Output
$\$ 395.00$ $\$ 395.00$ $\$ 475.00$ $\$ 475.00$ $\$ 795.00$


The ESE 790 is a sophisticated 32-channel clock featuring microprocessor-based programmabolity. 1.000 ume evens can be programmed, at random rather than chronologically, to oecur every minuse, hour day or week. Multiple output channels (up to 32) can be activated simultancously or individually.

ES 790
ES 790/1 wilh I Sec/Mo Master Clock Option/Serial Time Code Output
$\$ 2,495.00$
53.150.00 ES 7y0/3 with 3 Sec/Mo Master Clock Option/ Serial Time Code Output $\mathbf{\$ 2 , 9 8 5 . 0 0}$


## Broadcast Tools

The Broadcast Tools XP-3 provides remote transponder selection for Scientific Atlanta, Comtech/Farchild and Anel receivers. It allows selection of the three transponder channels with momentary or liteched TTL/CMOS 5 volh logic levels, open collector or dry contact closures and allows cuntrol by the user's remote control systems or switch contacts. The XP- 3 has three jumpere to conligure which ransponder is selected during power-up. It is equipped with a wire caphe terminal strip prowiding remote control and status. along with local swithes for transponder selection.

XP-3
Salellite Tramsponder Controller (Xtal ctri for SAD DAT-32)
$\$ 299.00$

168



The Zephrus Series 300. Radio Network Service, basic system consists of the 304 mainframe. a 1 U platform with its own DC power supply and room for one of the two receiver cards, one of the two demod cards, and two optional control cards. The receiver cards are crystal stable but can be tuncd in 1 MHz steps to compensate for unstable LNB's. Demod cards offer $50-15 \mathrm{kHz}$ response at 0 dBm nominal outpur.

| 304 | Mainframe. 4 card slous | \$95.00 |
| :---: | :---: | :---: |
| 321 | Mono "Whisper" audio demod | \$250.00 |
| 322 | Stereo "Whisper" audio demod | \$325.00 |
| 327 | Frequency agile "Whisper" audio demod | \$465.00 |
| 361 | AFSK data demod | \$250.00 |
| 367 | DFSK data demod $\$ 25$ | \$ 325/sync |
| 381 | Three-function $25 / 35 \mathrm{~Hz}$ decoder. mono | \$325.00 |
| 383 | 6 or 15 Function $25 / 35 \mathrm{~Hz}$ decoder, stereo | \$700.00 |
| 391 | Satellite baseband receiver, above video | \$350.00 |
| 392 | Satellite receiver (FM-FM) | \$370.00 |



## 169

## ManyItems in Stock for Immediâte Dêlivery...Call Today!

# 10 acustical panels 




#### Abstract

\section*{Auralex}

Auralex＇s ${ }^{\text {TM }}$ Studiofoam ${ }^{\text {TM }}$ is wedge－cut． $60 \%$ more effective than other foams．and has a long lasting formulation that gives years of service．．In passes Califormia firecode and is far more flame retardant than other brands．Charcoal gray is usually in stock with many other colors available．（We would be happy to send a sample）All Sudiofoam panels are $2^{\prime} \times 4^{\prime}$ and ship in box quantities only． Auralex also makes Sonomatt ${ }^{\text {rat }}$ which is a charcoal gray eggerate pancl．Sonomatt is recommended when budget is the primary concern because the panels are cut ran－ domly，it makes the pattern hard to line up and not always square to the pancl． Auralex supplies a variety of solutions for your sound control problems．


Description
Q1y／Box Coverage／sq．II．
Price

Studiofoam 1＂
Sudioniml 2

| 160 | \＄247．80 |
| :---: | :---: |
| 96 | \＄199．08 |
| 48 | \＄194．94 |
| 96 | \＄173．88 |
| 64 | \＄113．38 |
| 16 | \＄230．00 |
| 16 linft | \＄166．32 |
| 20 | \＄67．00 |
| $72 \mathrm{lin} . \mathrm{ft}$ ． | 19.68 |
| 18 lin ft | \＄39．60 |
| 2 lin ．ft． | \＄28．99 |
| Approx 32 | \＄4．95 |
| 40 | \＄150．00 |
| 120 | \＄$\$ 00.00$ |
| Approx． 70 | \＄82．50 |
| 12 | \＄99．00 |
| 16 | \＄199．96 |




## AVL



AVL systems designs，enginters and manufactures high performance acoustical prod－ ucts for any custom application；wall panels．acoustic baflles，cenling and spec design． The wall and celling trentments help create an interior space that is inuly an acoustical－ ly controlled environment by absorbing up to $99 \%$ of sound encrgy．For safely and insurance purposes，panels are rated Class A with a llame spread rating of 25 or less and a smoke developed rating of 65 or less．Acoustical panels in boxed sizes． avalable in five fabrics：Grey Mix，Crystal Blue．Wheat．Quantz．and Chery Neutral．

| Panels | Size | Total Sq．Fi． | Price |
| :---: | :---: | :---: | :---: |
| $1 "(t)$ | $\underline{2} \times 2$ | 16 | \＄133．00 |
| （t） | $2 \times 4$ | 32 | \＄199．00 |
| （4） | $4 \times 5$ | 80 | \＄390．00 |
| （4） | $4 . \times 10$ | 160 | \＄688．00 |
| $2{ }^{\text {² }}$（2） | 2＇x ${ }^{\prime}$ | 8 | \＄83．00 |
| （2） | $2 \mathrm{x}+$ | 16 | \＄132．00 |
| （2） | $4 \times 5$ | 40 | \＄270．00 |
| （2） | ＋$\times 10$ | s0 | \＄490．00 |

Call Broadcasters General Stom for custom fabruss and panel pricing．


## Autogram



Autogram＇s Autoclock is a real time，count－up timer． that will display temperature highs and lows for the day with the time they occurred．

| Autoclock | Specity lond for console mount <br> or loon for desk ype | $\$ .375 .00$ |
| :--- | :--- | :--- |

## Calculated Industries

 one year wartinty

Frame Master II（
Vinyl Case
－

Calculated Industries’ Frame
Master II puts time code and film calcula－ tions in the palm of your hand It includes true 3：2 pull－down conversions．stop－wath／timer and new sync／offict function．New user－pref－ erences function lets you modify the calculator to your needs including：NTSC reference． frame rounding，audible buzzer（on／ofl）．key beeps（on／oft）and real－time roll－over． Calculator comes with a lithium battery and
$\$ 129.95$


## CRI




The CRL Real-Time Event Sequencer is a time-based external controller used to actrate equpantut that can te controlled by contact closures. The Event sequencer stores up to 255 events occuring over a seven day clock. The unit has eight contact closures that can be progranmed to latch or give 1 second or $1 / 2$ second contact closures. It programs down to 1 second interals. High accuracy crystal time base and battery backup are standard

| RTES | Real-Time Event Sequencer | $\$ 895.00$ |
| :--- | :--- | :--- |

## ESE

The ESE ES362A master up/down timer is a four-digit. 100 minute umer featuring a serial time code output. It will drive as many as 100 remote serial slates such as ES36IA. ES 364 . ES 366 A. ES369A. or ES372A Any of the ES362A's up. down. stop. resel. and prescl functions can be activared from a front-mounted switch The ES362 A performs the same functions as the ES301A, with the added speed advantage of a leverwheel used for the pre-sel functions.

| LX362A | Master, Contemporary enclosure | \$535.00 |
| :---: | :---: | :---: |
| ES362A | Master | \$435.00 |
| ES361A | Slave 0.55" LED Display | \$210.00 |
| ES364 | Slave 4" RED LED Display. wall mount | \$650.01) |
| ES366A | Slave 1" LED Display | \$320.00 |
| ES369A | Slave 2.3" LED Display | \$410.010 |
| ES372A | Slave 0.4" RED LED Display. console mount | \$192.00 |

The ESE ES112E and the E5124E are solid state. CMOS. six-digit clocks featuring hright orange LED displays. Three simple controls. fast or slow advance and hold. make setting to the precise second easy.

| ESII2E | 12 hour format | $\$ 211.0101$ |
| :--- | :--- | :--- |
| ES12 4 E | 24 hour format | $\$ 210.010$ |

The ES520 and LX520 are four-digit. 60 minute timers which have a serial time code output capable of driving 100 slaves.

| ES520 | $\$ 185.100$ |
| :--- | :--- |
| LX520 | $\$ 285.00$ |

The ES301A is a four-digit. 100 minute up/down lineer featuring six push buton comtrol switches. Minutes and seconds can be advanced simultaneously or independenty to pre-set count downs.

## ES301A

ES302A
same as above with leverwheel preser
$\$ 295.00$

## ESE Master Clock Systems

ESE Masters provide a means of keeping all time displays in the system in agreement through the use of a serial time code. Only one pair of wires is needed to distribute the time code to all remote serial input displays. An ESE master clock system can operate digital displays. clocks with sweep second hands. printers and also tell your computer what time it is.

The following clocks have many options arailable. call Broadcasters General Stare for complete herature.

The ESE ES180A NBS is a IU master clock with LED display of hours. minutes, and seconds. It receives and decodes time transmitted by the U.S. National Bureau of Standards. It provides an extrenely accurale time reference, and is available with the following outputs: serial time code that drives 100 ESIG1A, 166A, 171A, 991A and 993A remute displays: a i pulse per second oulput; an RS-232C output at 1200 Baud. switchable to other rates: a speaker audio oulput ; and an earphone jack

| ESIB0A | Specify time zone. IU | $\$ 2,195.00$ |
| :--- | :--- | ---: |
| ESAA1 | Active antenna for ES 180 | $\$ 175.00$ |

The ESE ES185A GPS (Global Pusitioning Satellite System) master clock and time code generator provides extremely accurate time and date information anywhere in the world. The unit features a IPPS accuracy of better than 130 nS and four serial time code outputs. Time and Julian Date information are received via the internal eight channel GPS receiver and displayed on the nine .56 " yellow LED's. An indoor/outdoor antenna and 4-hour battery back-up are included while several optional features are also available.

ES185A
$\$ 2,495.00$

## ESE Master Clock Systems~Continued

The ESE ES 160 A master clock has an internal tumebase and SMPTE, ESE. ASCII and IPPS are standard outputs. Optional are scrial BCD and CMOS compatible outputs. Withoul buffering it can drive 100 ES161A, 166A, 171A, 991A or 993A remote displays. The ESI60A displays six digits of time information on a $.56^{\prime \prime}$ LED and comes with battery and eharger. The ESE TC is both TC89 (tme only) and TC90 (time \& date), available on seperate outpurs.
ES160A 1 second per month accuracy, IU
ES162A Impulse Driver for LX/ES 162 S or existing 12/24 VDC system, 1 U
ESI62S Impulse clock w/stepping second hand. ES 162 A req. d
$\$ 1,595.00$
$\$ 420.00$
LX162S As above wilh "LX" enclosure
$\$ 130.00$

The ESE ES 192 A and 194A are mocro-based master clocks. They provide the out put needed to drive remote serial displays such as the ES161A. 166A. 171A, 991A or 993A

| ESI92A | 6 Digit $56 "$ yellow LED display, 12 hour format | $\mathbf{\$ 2 7 0 . 0 0}$ |
| :--- | :--- | :--- |
| LX192A | As above wih "LX" enclosure | $\mathbf{\$ 3 7 0 . 0 0}$ |
| ES194A | 6 Digit . 56 " yellow LED display, 24 hour format | $\mathbf{\$ 2 7 0 . 0 0}$ |
| LX194A | As ahove with "LX" enclosure | $\mathbf{\$ 3 7 0 . 0 0}$ |

The ESE ES 165 impulse clock driver is designed to provide synchronized power to ES 168 impulse clocks. It can drive up to 50 impulse clocks and will keep thenim running Juring a 12 -hour power failure. For optimum accuracy, the ES 165 should receive either a synchroming pulse from the I PPS output of a master clock or an altemating 12 or 24 volt impulse from an existing impulse clock system. When operated without thas pulse accuracy will be questionable


#### Abstract

| ESI65 | Impulse driver, stand alone or references master | $\$ 345.00$ |
| :--- | :--- | :--- |
| ES168 | Impulse clock w/sweep second hand | $\$ 130.00$ | $1 \times 16$ $\$ 130.00$

The ESE ES 150 is an Automatic Time Code Switchover unat. It is designed to provide it simple/automatic method for montoring and switching between a Primary Master Clock and a Secondary Master Clock. The unit receives ESE time code from two different sources (A\&B) and if a falt is detected from the Promary Clock (A), the ESI 50 automatically switches to the Back-up Clock ( $B$ ). Once a fault is detected, the unit remans in the " $B$ " state until manually reset. Front panel mounted LED's indicate status and a toggle switch allows manual switching between A and B. Additional "passively" switched I/O carcuits include SMPTE/EBU. ASC11, I PPS and optonally available IRIG-B. 8 PPS. 1kH\%. IOMHz and allernating 12 BDC Impulse Clock Drive.


| ESI50 | Primary/Sccondary Master Clock Switcher System | $\$ 1.295 .00$ |
| :--- | :--- | :--- |

These are the basic remote displays that receive serial time code from any ESE master cloch. They can be conligured with numerous options to lit your application.

| ESIGIA | Six digit $55^{\prime \prime}$ orange LED display, specify 12 or 24 hour format | \$210.00 |
| :---: | :---: | :---: |
| LXIGIA | As above with "LX" enclosure | \$310.00 |
| ES167C | Interface board translates parallel BCD into ESE serial time code | \$190.00 |
| ESIG6A | Six digit $55^{\circ}$ LED display, spesty 12 or 24 hour format, | \$320.00 |
| LXI66A | As above with "LX" enclosure | \$420.00 |
| ESI71A | Six digit .4" bright red LED display, console mount | \$192.00 |
| ES991A | Four digit 2" LED display, desk mount | \$410.00 |
| ES993A | Six digit $2^{\prime \prime}$ hr \& min., ${ }^{\prime \prime}$ sec. LED display, wall mount | \$575.00 |
| ES941 | Four digit $4^{\prime \prime}$ hr. \& nim.. ESE Serial Slave, wall mount | \$650.00 |
| ESM 4.3 | Six digit $4^{\prime \prime}$ hr, min \& sec., ESE Serial Slave, wall mount | \$795.00 |
| ES996 | Six digit $2.3 "$ hr. min. \& sec., ESE Serial Slave. $15^{\prime \prime}$ wall mount | \$625.00 |
| ES 126 | Time \& Dite $55^{*} 12$ digit ESE Serial Slave, IU | 5525.00 |
| ES 127 | Tince \& dite 1* 1 ? digit ESE Serial Slave. 2 U | \$745.00 |
| Self Setting Analog Clacks |  |  |
| LX5105 | 5" Self-selling/ımpulse clock w ESE. SMPTE or ASCII input (sweephatp) | $\$ 575.00$ $\$ 57500$ |
| LX5112 | As above but 12" | \$575.00 |
| 1. X .5116 | As above but 16" | \$675.00 |

## Seth Thomas

Seth Thomas 710 Contraci $12 Q$ has a molded case with lextured dinish. plasic lens, large easy to reid dial graphies, red sweep second hand, quarto movement. and operates with one AA hattery. Diameler 12". depth: 2-3/4"




## MultiMedia



MultiMedia ult-indoor displays come complete with a wireless remote keyboard, mounting hardware and a one year warrany. Syens can daplay messages in up to 20 different display modes and combinations. All units have batlery backed up memory in the event that power to the sign should he interrupted for up to 30 diys. Message memory is 8.000 characters or more. Enclosures are allumnum, coated black or gray with non-glare acryle lace covers Graphics, logos and pictures are user programmable on all unis. Many sigus can be operated from a leceal computer or via phene modem (Plorase call for infermathen on these options is other in \& outceor displass')

24SC Beta-Brite Dignal Serial Clock, can be networked together for synchronized operation
$\$ 199.00$



 Broadicast Service (US Omy)

## Radio Systems



All Radio Systems CT-6 models functom as buth chacks and up timers. The "mode" hulton selects between functions whout affecting the atecuracy of the ther or tume-of day.
 display. It also houses the optomal master driver hourd which outpun the R.S. 18.5 serial time
 aceepts top-of-hour and 1 Hz sync inputs and cand drive Radio Systems AC I2 analoe clock .
 clock/timer. All functions are fully remetable
 from ower $35^{\circ}$ away. It can be slased to the deaktop model mater or house the maver driver board itself. Finally, the CT-6 Console model can be ordered for mbernal installaturn in Radm Systems consoles only and can be a clock/timer or a serial slave to a maner cloch.
CT-6 Dedktop

CT-6
ST-6
CT-6L4
CT-6L. 6
CT-6C
TCXO
GPS-MDB
AC-12
:hוn
Large/4
Large/h
$\begin{array}{ll}\text { Large/h } & \$ 375.00 \\ \text { Console } & \$ 1.35 .00\end{array}$
Master Drawe Board $\$ 295.00$
GPS Master Driver Board $\$ 1.295 .00$
Cloch
$\$ 155.00$
$\$ 155.011$
$\$ 325.00$
$\$ 295.010$
$\$ 65.00$

## Sine Systems

The Sine Systems MBC-1. combined with an clectronic message hoard is an atrative studio display system. One MBC-1 can drive seseral message boards and monitors up to 15 control room devices while displaying a unique message for each one A few message possibiltien include
 optocoupler can provide ground isolation for two inputs. Each channel contains a coupling capaciter on the LED side which can atlow diret interlace to telephone lines for ring detection.



# Tije five illime in ingionl  



## MD Cart Series <br> Recorders/Players the m. $\operatorname{sys}$



 flufter or dryp-onts and tufer strefchimg The'se fidl-fluction units /wropide' atudies and
 of options. including sync/mчmisution. ()fitomat "Ilou Stat" suritchbox adels instam flayback of amy 10 rrackes (DN: 981F).

The first name in digital, Denon has also become the premier manufacturer of Minillise products for broadcast and post production applications. Even the most demanding tasks of repetitive audio required by fixed installations are made ceasy and reliable with MiniDise. Denon not only offers the most comprehensive line of Minilise products they are totally committed to the further development of MD iechnology.

The Minilise format has proved to be the most convenient and relable medium arailable. MD can literally be used millions of times without any signal degradation. The sonic quality is equal to Compact Disc and immensely superior to celluloid, while offering unsurpassed portability: More and more digital andio users are turning to MD for archisal purposes.

From recording and replication to MD Garts and ENCi MD recorders, Denon has a full fimily of products to integrite MD technology quickly and coonomically: Contact your lavorite distributor and tind out why Denon is the "first fannily in MinilDisc ${ }^{*}$









 performs exact risizititordigital dabs, up 1035 times fraster Aban medtima teilbout the castade of ATRLC compression 17e
 neplication

# Good-1ooking and 10 aded. Nowonder it's sopopular. 



Winh ths sleek front panel and jog shuttle, the new PCM-R500 DAT Recorder certainly catches your eye. But il's nof just another pretty face.

It's packed with professional features not usually found in this price range. Like four directdifive motors, which give you better tracking; a lower error rate, longer motor and tape life, and precision tigh-speed cueting and shutting. If has a software set-up menu for easy,
customized operation. And then there's Super 8 if Mapping; the technology that delivers superior, near 20 -bit resolution sound without sacrificing compatibility with the industry standard 16 -bll format.

Call $1-800-635$-SONY, ext. R500 right now to fearn more about the PCM-R500 DAT recorder. You'll love it because if's loaded. But hey, being good-looking never hurt.

Perfect Data Copy Holders
Copy Holders

|  |  |  |
| :--- | :--- | :--- |
| 16004 P | Easel Base Copyholder | $\$ 27.50$ |
| 16006 P | Weighted Base Copyholder | $\$ 42.50$ |
| 1603 P | Under Monitor Copyholder | $\$ 42.50$ |
| 16002 P | Monitor Side Mount Copyholder | $\$ 40.00$ |
| 16007 P | Flex-Arm Copyholder | $\$ 50.00$ |
| 16008 | Heavy Duty Flex-Arm Copyholder | $\$ 57.50$ |
| Accessories: |  |  |
| 16055 P | Wide Form Adapter | $\$ 17.50$ |
| 16060 P | System Lamp - 10V | $\$ 45.00$ |
| 16050 P | Motorized Line Guide - 110 V | $\$ 67.50$ |
| $105344-1$ | Paper Clip w/Clock | $\$ 7.00$ |
| $105049-1$ | Bulb. replacement for lamp assy. | $\$ 10.00$ |
| $105512-1$ | Adjustable wrist rest | $\$ 22.50$ |



## Lowell

Lowell stand alone cabinets ( $\mathrm{L}, 60$ ) are fabricated of MIG-welded 16 gauge CRS witil 11 gauge CRS fromt mounting rails tapped 10-32 on universal EIA hole spacing in a textured black powder coat finish. A recessed locking rear door with concealed guick release spring loaded hinges offers sersatile right or left swing. A locking plain front door, swwel casters and leg levelers are opional. Similar to the L60 cabinets are the senes L65/L68 but includes locking plain front door wihh recessed pull handle and EIA standard mounting rails adjustable front to rear. All cabinets mea sure $22-1 / 8^{\prime \prime}$ wide

| Model | Vertical Panel Space | Rack Units | Height | Depth** | $\begin{aligned} & \mathrm{Cin} . \\ & \mathrm{W}_{\mathrm{t}} . \end{aligned}$ | Price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L60-36 | 36-7/8* | 21 | 4-11/32" | 22* | 98 | \$531.78 |
| L60-42 | +2-1/8" | 24 | 49.19/32 | 22" | 106 | \$554.50 |
| L60-61 | 61-3/8* | 35 | 68-27/32* | $22^{*}$ | 142 | \$634.95 |
| L60-70 | 70-1/8' | 40 | 77-19/32" | 22. | 158 | \$707.75 |
| L60-77 | 77-1/8" | 44 | 84-19/32* | 22** | 169 | \$741.85 |
| L65-36 | 36-7/8" | 21 | +4-11/32" | $2{ }^{\prime \prime}$ | 102 | \$815.39 |
| L68-36 | 36-7/8* | 21 | 44-11/32** | $3{ }^{\prime}$ | 108 | \$989.55 |
| L65-42 | 42-1/8* | 24 | 49-19/32" | 22. | 110 | \$883.85 |
| L68-42 | 42-1/8* | 24 | +9-19/32" | $30^{\prime \prime}$ | 116 | \$1,072.63 |
| L65-61 | $61-3 / 8 \times$ | 35 | 68-27/32* | 22" | 148 | \$1.025.98 |
| L68-61 | 61-3/8" | 35 | 68-27/32" | $30^{\circ}$ | 156 | \$1.225.25 |
| L65-70 | 70-1/8" | 10 | 77-19/32* | 22" | 164 | \$1.094.28 |
| L68-70 | $70-1 / 8^{\prime \prime}$ | 40 | 77-19/32* | 30* | 172 | \$1,327.98 |
| L65-77 | 77-1/8' | 4 | 84-19/32" | 22" | 177 | \$1.1+3.45 |
| 1.68-77 | 77-1/8** | 4 | 84-19/32" | $30^{\prime \prime}$ | 188 | \$1.387.68 |

## *Deph shons is an overall outside dimension.

 Usable inside depth is \& "hess.Lowell gangable cabinet frames afford an open-sided design for convenient wiring accessibility in single or multi-bay configurations. The frame is fabricaled of MIG-welded 16 gauge CRS and has a fully recessed locking rear door and one pair of 11 gauge EIA standard tapped mounting rails adjustable front to rear with a textured black powder coat finish. Optional locking plain front door, removable louvered side pancls, mounting rails. swivel casters and leg levelers

| Model | Vertical Panel Space | Rack Units | Height | Depth* | Ctn. Wt. | Price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| L75-61 | $61.3 / 8 \times$ | 35 | 68-27/32* | $22 \times$ | 103 | \$801.48 |
| L78-61 | 61-3/8" | 35 | 68-27/32* | $30^{\prime \prime}$ | 109 | \$953.98 |
| L75-70 | 70-1/8" | 40 | 77-19/32" | $22 *$ | 112 | \$861.88 |
| L78-70 | 70-1/8* | 40 | 77-19/32" | $30^{*}$ | 118 | \$1.018.20 |
| L75-77 | 77-1/8" | +4 | 8-19/320 | 22* | 117 | \$892.60 |
| L78-77 | 77-1/ $8^{*}$ | + | 8-4-19/32" | 30' | 127 | \$1,106.18 |

[^3]

## H.O.M.E.

House of Metal Enclosures, H.O.M.E. makes a comprehensive range of cabinets, enclosures, racks and consoles. Panel mounting hardware is supplied. The WRE Series is 18-1/2" deep. 22-3/8" wide and comes with fixed 11 ga rack rails drilled and tapped for 10-32 screws in the slandard gray hammertone unless specified. A rear door with lock is included.
$\overline{\text { Model Height Rack Sp. Price }}$ WRE3675 +1-1/S" $36-7 / 8^{\prime \prime} \quad \$ 553.15$ WRE 200 46-3/8" $42-18^{\prime \prime} \quad \$ 576.78$ WRE6I25 $65-5 / s^{\prime \prime} \quad 61-3 / s^{\prime \prime} \quad \$ 660.43$ $\begin{array}{llll}\text { WRE7000 } & 74-3 / 8^{*} & 70-1 / /^{*} & \$ 736.13 \\ \text { WRE7700 } & 81-3 / 8^{\prime \prime} & 77-1 / 8^{*} & \$ 77155\end{array}$ WRE7700 81-3/8" 77-1/8 3771.55

Opional colors, solid or Plexiglas fromt door. cabinct she he's. locks, rack moment ed shedees, rear mek rails, casters or whller truck and more.

Please call for complefe calalogs on Lowe'll and H.O.A.E.


## ZERO Stantron

## ZERO Stantron

FRK Series Knocked down and FRW Series Welded racks are 16 ga w/base, top, side panels. rear door and two pairs of rack rails. The FR Series racks are Welded 14 ga with open sides, locking rear door. adjustable rails and conduit knockouts.

|  | Model | Width | Height | Depth | Panel Ht. | Price | Door (-D) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | FRK35-18 | 22-3/8" | 39-1/16" | 18-5/8" | 35-1/16" | \$333.70 | \$450.90 |
|  | FRK61-18 | 22-3/8" | 65-5/16" | 18-5/8" | 61-5/16" | \$425.70 | \$571.00 |
|  | FRK61-25 | 22-3/8" | 65-5/16" | 25-5/8" | 61-5/16" | \$487.90 | \$631.80 |
|  | FRK $70-18$ | 22-3/8" | 74-1/16" | 18-5/8' | $70-1 / 16^{\prime \prime}$ | \$455.30 | \$611.10 |
|  | FRW35-18 | 22-3/8" | 39-1/16" | 18-5/8" | 35-1/16" | \$370.80 | \$489.50 |
|  | FRWG1-18 | 22-3/8" | 65-5/16" | 18-5/8* | 61-5/16" | \$479.10 | \$608.10 |
|  | FRW61-2S | 22-3/8" | 65-5/16" | 25-5/8" | 61-5/16" | \$517.60 | \$663.00 |
|  | FRW70-18 | 22-3/8" | 74-1/16" | 18-5/8" | 70-1/16" | \$514.70 | \$671.90 |
|  | FR52-18 | 22-5/32* | $61^{\prime \prime}$ | 18-5/8" | 52-5/16" | \$603.70 |  |
|  | FR52-25 | 22-5/32" | $61^{\prime \prime}$ | 25-5/8** | 52-5/16" | \$649.60 |  |
|  | FR70-18 | 22-5/32" | 78-1/2" | 18-5/8* | $70-1 / 16^{\prime \prime}$ | \$707.50 |  |
|  | FR70-25 | 22-5/32" | 78-1/2" | 25-5/8* | 70-1/16 ${ }^{\prime \prime}$ | \$759.40 |  |

Other cabincts, racks, consoles, fans (exhaust or intake) and poweer strips are avaidable. Call Broadcasters General Srore for ordering information.

## 1 stprasel iunniture

ABCO


Stringer holds 50 carts. $4-\left[/ 2^{\prime \prime} \mathrm{Wx} 66^{\prime \prime} \mathrm{Dx} 65^{\circ} \mathrm{L}\right.$
$\$ 57.00$ $\$ 419.00$ $\$ 649.00$
Complete Lazy Susan holds 300, $6^{\prime} \mathrm{H} .22^{\prime \prime}$ diameter
Complete Lazy Susan holds 500. 6'H. 27" diameter
jewel cases. (Dcnon cases are very sulug)
\#70 Stringer holds 70 CDs. $5-1 / 2^{\prime} \mathrm{W} \times 5-1 / 2^{\prime \mathrm{D}} \mathrm{Dx} 69-1 / 2^{\prime 2}$
$\$ 71.00$
\$280 Complete Lazy Susan holds $280 \mathrm{CDs} .6^{\circ} \mathrm{HI} .22^{\circ}$ diameler
Complete Lazy Susan holds 560 CDs, $611,22^{\prime \prime}$ diameter

Cart Racks
\#50
\#300
\#500
$\underset{\# 70}{\text { CD }}$ \#560

Alpha Storage

Alpha Black Storage Units
CDSP96 CDSP192 CDSP288
SSP44

## SSP88

SSP132
SSP176
SSP220
CDMT20
CDR60 KDT60 KDT120 ACR60

CD Spinner, holds 96
CD Spinner, holds 192
CD Spinner. holds 288
CD Spinner, holds 44
CD Spinner, holds 88
CD Spinner. holds 176

CD Spinner, holds 132
CD Spinner, holds 220
Holds 20 CD's, angled design. can be wall mounted Holds 60 CD's, two rows, ideal for wall mounting CD Tower, 1 row, holds 60 CD 's. angled design CD Tower, 2 rows, holds 120 CD 's, angled design
Holds 60 cassettes, 3 rows, ideal for wall-mounting


## Atlantic

Atlantic makes a wide variety of economical modular tape storage units, this is a sample.


Masterplece



Masterpiece makes a CD case that provides easy one hand access without removing the whole jacket from the rack. You will never have to reorganize your filing system again! Made of special PP plastic. it can last much longer than regular cases. Cleaning fibers on both sides of the entrance wipe away any dust and dint every time you access the CD. It is identical in size to the regular $C D$ jewel case. The narrow end display material can be removed by sliding it out of the index jacket for easy index and labeling

| MPCD |
| :--- |

## ALPS

Alps storage for: casseltes, DATs, carts, CDs, all sizes audio reels, magneac film, 8mm. VHS, M2, Beta. 3/4". DI. D2. and I" reels. Alps cahinets have a reputation for craftsmanship and durability in high use stuations that is second to none. If you compare cost per unit and density per square foot of foor space. you won't find a better value in media storage. All oi Alps line of high density storage cabinets are 4 wide and 2 deep. Inserts come inside of every drawer and drawers can be mixed to lit your needs. The standard colors are: white, almond and gray. Other color laminates are available di an additional cost. These cabinets are shipped fully assembled by common carner, you may want to specify inside delisery.

| dIPS CD/CD ROM Storage Cabinets: |  |
| :---: | :---: |
| CBA605 | Five drawer base unit, holds 2120 CD 's. $42{ }^{\circ} \mathrm{H}$ |
| CBA908 | Egght drawer base unt, holds $3392 \mathrm{CD}{ }^{\circ}$, $60{ }^{\prime \prime} \mathrm{H}$ |
| CBUL66 | Six drawer top unit, holds $1836 \mathrm{CD} 5.45^{\circ} \mathrm{H}$ |
| AIPS Audio Storage |  |
| CBA609 | Nine drawer base unt. holds 2880 cassettes. 42 |
| CBA913 | Thirteen drawer hase unit. holds +160 cassettes. 60 |
| Cbulfo | Six drawer tup untr, holds 2016 cassettes, $45^{\circ} \mathrm{H}$ |
| ALPS Video Casselte Storage |  |
| CBA607 | Seven drawer base unit, holds 812 w/o box, 42"H |
| CBA910 | Ten drawer base unı, holds 1160 w/o box, $60 \% \mathrm{H}$ |
| CBU.4 | Four drawer top unis, holds 672 w/o box. $45^{\prime \prime} \mathrm{H}$ |
| CBA606 | Six drawer base unit, holds 510 whox, 42 H |
| CBAOO9 | Nine drawer base unit holds 765 w/box, $60{ }^{\prime \prime} \mathrm{H}$ |
| CBU+4.4 | Four drawer lop unit. holds $512 \mathrm{w} / \mathrm{box}, 45^{\circ} \mathrm{H}$ |
| I_ocks | Per cabmet charge |




Please call for pricing on other tape storage tams This is just a sample of whar's arailable
BRYCO


DATRAX Wall mounts or tabletop Storage Unis

| DRP8 | Holds S Dar's | \$4.99 |
| :---: | :---: | :---: |
| DRP40 | Holds 40 Dat's | \$21.95 |
| CP48 | Holds 48 Cassette's | \$21.95 |
| V836 | Holds 368 mm Video | \$21.95 |
| DR60 | Holds 60 Dit's, solid uak satin finish | \$59.95 |
| DRB60 | Holds 60 Dints solid oak black timeh | 559.95 |
| CD60 | Holds 60CD's | \$59.93 |



Middile Atiantic


Middle Atlantic Black Laminated Equipment Racks
They ship flat, assemble quickly and are constructed of $5 / 8$ furniture grade MDF Board. Pre-instatled rack rails are $1 / 8^{\prime \prime}$ thick black baked enamel steel, tapped for full hole spacing.

| Part\# | RU | Depth | Weight | I'rice |
| :---: | :---: | :---: | :---: | :---: |
| RK2 | 3 U | $16^{\prime \prime}$ | 20 lbs . | \$82.50 |
| RK4 | 7 U | $16^{\prime \prime}$ | 23 lbs | \$87.00 |
| RK8 | 8 U | $14^{\prime \prime}$ | 27 lbs | \$120.00 |
| RK12 | I2U | $16^{\prime \prime}$ | $3+\mathrm{lbs}$ | \$127.00 |
| RK16 | 160 | $16^{\circ}$ | 38 ths. | \$138.00 |
| RK? 0 | 20 U | $16^{\prime \prime}$ | 4.4 lbs | \$153.50 |
| BRK8 | SU | 18* | 31 lbs . | \$127.00 |
| BRK12 | 12 u | 18" | 36 lbs . | \$138.00 |
| IBRK16 | 16 U | 18" | 41 lbs . | \$14.50 |
| BRK20 | 20 U | 18* | 46 lbs. | \$160.00 |
| SRK | sloping rolling rack, 160 vertical by 16 deep. 12 U sloped, +5 lbs . |  |  | \$273.50 |

## Middle Atlantic/RaXXess



| Steel flat panel |  | Middle Allantic |  |  | RaXXess |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
| 1U | 16ga | EBI | \$7.50 | 14 ga | SFTI | \$6.99 |
| 2 U |  | EB2 | \$9.50 |  | SFT2 | \$8.69 |
| 3U |  | EB3 | \$12.50 |  | SFT3 | \$10.59 |
| 4 U |  | EB- | \$15.50 |  | SFT4 | \$12.59 |
| 5 U |  | EB5 | \$19.00 |  |  |  |
| 6 U |  | EB6 | \$22.00 |  |  |  |
| Stecl flanged pancls |  |  |  |  |  |  |
| 1 L | 16 ga | SB1 | \$12.00 | 16па | SFGI | \$11.95 |
| 2 U |  | SB2 | \$15.50 |  | SFG2 | \$13.99 |
| 3 U |  | SB3 | \$19.00 |  | SFG3 | \$15.99 |
| 4 U |  | SB4 | \$20.00 |  |  |  |
| 5 U |  | SB5 | \$23.00 |  |  |  |
| 6 U |  | SB6 | \$26.00 |  |  |  |
| Aluminum flat panels |  |  |  |  |  |  |
| IU | 11 ga | HBLI | \$17.50 | 1/8* Thick | AFTI | \$15.95 |
| 2 U |  | HBL? | \$22.00 |  | AFT2 | \$18.95 |
| 3 U |  | HBL3 | \$31.00 |  | AFT3 | \$27.95 |
| 4 U |  | HBL4 | \$37.00 |  | AFT4 | \$34.95 |
| 5 U |  | HBL5 | \$39.00 |  |  |  |
| 6 U |  | HBL. 6 | \$47.00 |  |  |  |
| Aluminum flanged panels |  |  |  |  |  |  |
| 14 | 16ga | BLI | \$17.50 | 16ga | AFGI | \$16.95 |
| 2 U |  | BL2 | \$21.00 |  | AFG2 | \$19.95 |
| 3 U |  | BL3 | \$26.00 |  | AFG3 | \$24.95 |
| 4 U |  | BL4 | \$29.00 |  | AFG4 | \$27.95 |



## Security Covers

Mount easily over equipment with gasket to asoid scratching - $1^{\prime \prime}$ stand-off in black:
black:

| Security Covers | Middle Atlantic |  | RaXXess |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| IU big perforation | S1 | $\$ 28.00$ |  | SEC1 | $\$ 23.95$ |
| 2U big perforation | S2 | $\$ 31.00$ |  | SEC2 | $\$ 23.95$ |
| 3U big perforation | S3 | $\$ 34.00$ |  | SEC3 | $\$ 28.95$ |
| 4U big perforation | S4 | $\$ 36.50$ |  |  |  |
| 1U fine perforation | SFI | $\mathbf{\$ 2 8 . 0 0}$ |  | PSC1 | $\$ 23.95$ |
| 2U fine perforation | SF2 | $\$ 31.00$ |  | PSC2 | $\$ 25.95$ |
| 3U fine perforation | SF3 | $\$ 34.00$ |  | PSC3 | $\$ 28.95$ |


| Lexan Locking Security Covers |  |  |
| :--- | :--- | :--- |
| RAX/SC-2 or 4 | 2U or 4U locking black enameled stcel | $\$ 44.95$ |
| RAXISSC-2P or 4P | 2U or 4U locking with lexan. see thru door panel | $\$ 54.95$ |
| RAXLSC-8P | 8U locking with iwo lexan. see thru door panels | $\$ 89.95$ |
| MAA/SECL2 | 2U hinged Plexi Security Cover | $\$ 54.50$ |
| MAA/SECLA | 4U hinged Plexi Security Cover | $\$ 63.50$ |
| MAA/SECL8 | 8U hinged Plexi Security Cover | $\$ 89.50$ |

RaXXess makes custom Rack Kits specifically designed for
Technics Cassette, CD players and other consumer decks.

| Assembles easily with four screws. Black, baked enamel finish on I6 gauge |  |  |
| :--- | :--- | :--- |
| steel. |  |  |
| CDKit | 2 Rack ears, 2 Filler panels, hardware | $\$ 41.95$ |
| CSKit | 2 Rack ears, 1 Filler panel, hardware | $\$ 39.95$ |



Rack Screws and Washers, Trim Strips and Shim Tabs

| 10-32 $\times 3 / 4^{\prime \prime}$ Plillips black oxide w/\#10 nylon washers |  |  |
| :---: | :---: | :---: |
| RAX/PTSW25 | 25 w/washers | \$5.25 |
| RAX/PTSW50 | 50 w/washers | \$9.95 |
| RAX/PTSW 100 | 100 w/washers | \$19.95 |
| RAX/SHWS | $100-$ \#10 nylon shoulder washers | \$7.50 |
| RAX/SDS | 100 Square Drive screws w/ washers | \$25.50 |
| RAX/SDB | Square Drive Bit | \$2.00 |
| MAA/HPS | 25 w/washers | \$6.00 |
| MAA/HP | 100 w/washers | \$20.00 |
| MAA/HS | 100 Square Drive serews w/washers | \$25.50 |
| MAA/SBIT | Square Drive Bit | \$3.50 |
| MAA/HTX | 50-Star Post Screws w/washers | \$15.00 |
| MAA/TBIT | Star Posi Bit | \$13.00 |
| MAA/SW | 100--Black nylon Shoulder Washers | \$8.50 |
| MAA/TSA | Trim Strip channel that covers rack screws $77^{\prime \prime}$ long. black anodized | \$39.50 |
| MAA/TSS | Trim Strip channel that covers rack screws 77' long, black powder | \$17.00 |
| MAA/STIMP | I-3/4" Shim Tab-. 063 Thick ( 10 pes. per pack) | \$44.50 |
| MAASTT2MP | 3-1/2" Shim Tab-. 063 Thick ( 100 pes. per pack) | \$56.00 |
| MAA/ST3MP | 5-1/4" Shim Tab-. 063 Thick (100 pes. per pack) | \$80.00 |



Middle Atlantic \& RaXXess

Midule Atlantic has a custom rack Shelf and bezel for almost any piece of equipment available.


Please call us for more informaion.

| $\begin{aligned} & \mathrm{RSH} 4 \mathrm{~A} \\ & \mathrm{RSH} 4 \mathrm{~S} \\ & \hline \end{aligned}$ | Black brushed aluminum custom rackshelf, 2-5 space Black textured steel custom rackshelf, $2-5$ space |  |  |  | $\begin{aligned} & \$ 151 . \\ & \$ 127 . \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
| Rackmounted Media Holders |  |  | MAA | RaXXess |  |
| Holds 40 | CD's. 4 U | CD | \$82 | RCD | \$79.9 |
| Holds 33 | casseltes, 3U | CS | \$79.00 | RCH |  |
| Holds 27 | DATs, 3 U | DAT | \$79.00 | RDT |  |
| Holds 14 | VHS tapes. 50 | VHS | \$100.00 |  |  |
| Holds LP | Laser disc/Binders, 8 U |  | \$193.50 |  |  |
| Holds 6 e | mply CD Jewel calses. IU | CDI | \$42.50 |  |  |



Sliding Shelves
SS Sliding shelf $17-1 / 2^{*} \mathrm{~W} \times 15-3 / 4 \mathrm{D}$. extends $1 t^{\prime \prime}$. up to 50 lbs . telescoping rear support fit all racks. occupies over IU
$\$ 131.50$
SSL Sliding shelf $17{ }^{\prime \prime}$ W $\mathrm{X} 1+1$. cextends $11^{\prime \prime}$. up to 35 lbs . Universal elescoping rear support fits all racks
$\$ 79.50$

## Knock down

Knock down Shelves
These shelves are separale parts for putting together your own rack shelves. Flush studs are provided with the bottom for easy asiembly. Fits all equipment up to $17-3 / 8^{\circ}$ wide.

## KDE2 2U L\&R ars only 15-1/2" deep

KDE2S
KDE3 $2 U$ L\&R short cars only. 11-1/2" deep
KDE3S 30 L\&R short ears only. $11-1 / 2^{*}$ deep
KDE4 $4 U 1.8 R$ ears only. $15-1 / 2 "$ deep
KDE4S $\quad 4$ L L R short ears unly. 11-1/2" deep
KDE5 5 U L\&R ears only. 15-1/2" deep
KDB
KDB-20.5
KDB-17.5 deep botton 15-1/2" deep use with cars 20-1/2" deep bollom (for use with $15-1 / 2^{\prime \prime}$ ) 17-1/2" deep bottom (for use with 15-1/2") $17-1 / 2$ deep bollom (for use with $15-1 / 2$ ")
shori holion $11-1 / 2^{\text {d deep use with shor cars }}$

These are avalable for ap of 10 spate cars at 15-1/2 depp.
Apprex increase' $\$ 2 /$ space.
$\$ 35.50$
$\$ 39.00$
$\$ 37.50$
$\$ 39.50$
$\$ 39.00$
$\$ 42.00$
$\$ 21.00$
$\$ 26.50$
$\$ 24.00$

Utility Shelves
Quick and casy rackmounting for equipment not normally rackmountable. One picce loga steel with a black finish.


A unique system that allows you to design and put together your own custom connector panels out of stock products UCP Panels are designed for XLR. Amp. Elco, BNC. MIDI. AC duplex. RCA. Phone. F connec tors. and more. There is no panel deflection while inserting connectors and all hardware is tlush making a professional custom installation.

Call us for help in configuring custom panels.

| UCPS | Any punched UCP single module | \$11.00 |
| :---: | :---: | :---: |
| UCPB-1 | Singe width blank module | \$11.00 |
| UCPB-2 | Double width blank module | \$21.00 |
| UCPB-3 | Triple width blank modulc | \$26.50 |
| UCPB-4 | Quad width blank module | \$30.00 |
| FK-2 | 2 space UCP frame kit w/hardware | \$31.00 |
| FK-4 | $\dagger$ space UCP frame kit w/hardware | \$58.50 |
| FK-6 | 6 space UCP frame kit w/hardware | \$86.00 |
| UCP-SF | Hinged FK-2 frame kit | \$38.00 |
| UCP-CH | 8 " Decp UCP chassis. 2 space | \$62.50 |
| UCP-ADP | UCP Panel 1900 box adapter | 511.00 |
| UCP-CT | Cable trap 5" deep. mounts to FK-2 | \$27.00 |

Rackniount Lockboxs and Storage Drawers

| A-LBX3 | 3 U by 8-1/2" deep Lockbox | \$79.50 |
| :---: | :---: | :---: |
| MAA-LBX 4 | +U by 8-1/2" deep Lockbox | \$89.50 |
| RAX-RKV3 | 3 U by 9 - deep Vault box | \$79.95 |
| RAX-RKV4 | 4 U by 9" deep Vault box | \$89.9 |

Economy Drawer, light duty rollers, extend to $11^{\bullet}$. $1+{ }^{* *}$ deep.

Premium Drawer, ball bearing rollers, extends to $14^{\prime \prime} .14{ }^{\prime \prime}$ deep. storage height is $1 / 2^{\prime *}$ less rack ht.
$\qquad$

$$
00
$$

fU by 9 " deep Vault box
$\$ 89.95$ storage height is $1 / 2^{*}$ less rack height.

| 1 | (1) | d | AXESD1 |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| 2 U | MAAUD2 | \$96.00 | RAXVESD2 | \$7.4.95 |
| 3 U | MAAUD3 | \$109.00 | RAXESD3 | \$79.95 |
| 4 U | MAAUD 4 | \$118.00 |  |  |


| Storage heighe | MAAD2 | $\$ 14.50$ | RAXSDR2 | $\$ 139.95$ |
| :--- | :--- | :--- | :--- | :--- |
| 3U | MAAD3 | $\$ 162.50$ | RAXSDR3 | $\$ 159.95$ |
| 4U | MAAD4 | $\$ 17.50$ | RAXSDR4 | $\$ 179.95$ |
| $5 U$ | MAAD5 | $\$ 187.00$ |  |  |
| SU | MAADS | $\$ 220.00$ |  |  |

Options for Rack Drawers
MAAKYLK User installed keylock for
UD Drawers
$\$ 18.00$
MAALATCH User installed latch. secures
UD drawer closed
$\$ 13.50$
MAALK Add this suffix to keylock any D
series drawer, factory installed $\$ 33.50$
MAADWS
Writing/work surface, fils D
52.50

RAXXLOCK
Optional lock for ESD \& SDR
$\$ 12.00$
Atlantic
$\$ 42.00$

\section*{RaXXess | UTSI | $\$ 41.95$ |
| :--- | :--- |
| UTS2 | $\$ 54.95$ |
| UTS3 | $\$ 59.59$ |}


0.00
31.00
8.50
53.00
$\$ 62.50$
27.00
-


$$
1
$$

——————n




## Nigel B



Rack Mount Storage
2DATD 2U. Dat drawer. holds 92. 18"D
$4 \mathrm{CD} \quad 4 \mathrm{U} . \mathrm{CD}$ drawer. holds $72,18^{\circ} \mathrm{D}$
3FDD $\quad$ 3U. 3-1/2" Floppy or Mini Dise drawer. holds 112, 18"D
AC-3D 3U. Cassent drawer. holds $60.18^{\circ \prime} \mathrm{D}$
HI8-3D 3U. Hi 8 drawer, holds 60. 18"D
VHS -3D 3U. VHS drawer. holds 30. 18*D
RMKS Holds up to $15^{\circ}$ computer/video monitor. slides out on
Holds up to $15^{\prime \prime}$ computer/video monitor, slides out on
100 lbs rated ball bearings, faceplate $13.5^{\circ} \mathrm{w}$ x $11.25^{\circ} \mathrm{h} 8 \mathrm{U}$
6FD 6U. Filing Drawer. 18"Dx $10-1 / 2 \times \mathrm{W} .100 \mathrm{lbs}$ capacity
SS18 $1 \mathrm{U} 18^{\prime \prime}$ Deep Sliding Shelf
SS24 IU 24" Deep Sliding Shelf
RE-KP Rack Mounted Adjustable Angle Shelf
POWS-18 Pull out 18 "writing shelf, wt capacity 100 lbs .
DCL Drawer Lock Set for all Drawers

## Equipment Stands

ALDRS I3U Deskiop Rack Stand. 281bs
3U Recorder Stand. additional 7 U between legs. 3-lbs
MS $\quad 24^{*}$ top adjust from flat to vertical. 7 U between legs. 32ibs
MP Mobile pedestal platform. ideal for speakers or monitors
STU10 Audio Tallboy, 12U sloping top and 12 U lower rack section
[202STK Mixer on a stick for Mackie 1202. channel conceals cables
1015STD Mobile Rack stand has IOU on top frame (could hold the Yamaha ProMix and 150 below. Comes with total-lok casters
PROTBL Project Table with adjustable height and angle. (fits Mackie 24/ t or
Yamaha O2R) Comes with total-lok casters
$\$ 179.95$ $\$ 189.95$ $\$ 179.95$ $\$ 169.95$ $\$ 169.95$ $\$ 169.95$


## $\$ 239.95$ $\$ 199.95$ $\$ 149.95$ $\$ 169.95$ $\$ 149.95$ $\$ 179.95$ $\$ 39.95$

## Lighting/Power



Rack mounted 8 outlet power strip w/full surge protection receptacles allow use of wall wars to use mosis cutlets
$\$ 139.95$ $\$ 169.95$
SP8-LT Same as SP8 with switched outlet for an optional $360^{\circ}$ Gooseneck lamp
12M-HI 12"Gooseneck lamp, with big shade to dissipate the hean, it will not get hot. and rotates $360^{\circ}$ for more directional light
$\$ 39.95$
M-HII2S 12v lampset. low voltage with a Halogen lamp, built in dimmer and switch Features the larger swivel lamp shade. Comes with 117-12v transformer
$\$ 69.95$

## WorkStations

MPS Mobile Production Station
$\$ 1.099 .95$
SWS Senior WorkStation
\$2.499.95
We'd be happy to send you a Niged B catalag!


Studio Furniture


Murphy Studio Furniture. located in Spring Valley, California, has a unigue blend of ergonomics and aesthetics with three standard series to choose from: Classic. Premer and Elite or your own custum design.

Nigel B Furniture. located in Burbank, California, is a "building block" furniture system that grows with you. Its versatility allows you to make any number of changes. knowing that what you add will match your existing layout. You will find this modular concept also extends to a growing range of accessories.
OMNIRAX Studio Furniture, located in Sausalito. California, has a unique blend of beauty, function and solid construction.

The Express Group. located in San Diego. California. has a selection of six different series of furniture to choose from or will do a custom design to suit your meds. Depending on your budget and requirements you should be able to find the perfect furniture for your studio.

Ruslang, located in Bridgeport, Connecticut, has the standard $H D$ and $S$ series af furniture available or will customize to suit your need.

Call Broadcasters General Store for complete information and pricing on uny' of these fine studio furnishing companies.

## 179

# 1 starase/finmiture 

## IIII

## Ruslang

Ruslang CD Storage compatible with standard CD case and Denon ACD-5B cases.

| CD-32 | $6-9 / 16^{\prime \prime}$ wide, $5-3 / 8^{\prime \prime}$ deep. $23-3 / 8^{\prime \prime}$ high | $\$ 65.00$ |
| :--- | :--- | ---: |
| CD-64 | $12-38^{\prime \prime}$ wide. $5-3 / 8^{\prime \prime}$ deep, $23-3 / 8^{\prime \prime}$ high | $\$ 89.00$ |
| CD-96 | $18^{\prime \prime}$ wide. $5-3 / 8^{\prime \prime}$ deep. $23^{-3 / 8^{\prime \prime}}$ high | $\$ 115.00$ |

Ruslang Modular Record, Tape, and CD Storage systems can be mixed making many various configurations available. If you don't see what you wan just ask and Ruslang will customize it for you.

## Littite

"L" series sels come complete and ready for easy surface mounting. All sets are available in 6, 12, or 18 inch lengths with bulb, mounting base and fully adjustable dimmer. Each set also includes a 6 ft . cord. a two piece snap mount, screws for permanent mounting, and a wall plug-in transformer for 120 volt operation.

Low Intensity Series
High Intensity Series

| BNC Detachable Lamp w/Base and dimmer |  |  |  |
| :---: | :---: | :---: | :---: |
| L-1/6./12,/18 | \$57.00 | L-4/6./12./18 | \$67. |
| L-1/6A./12A./18A | \$47.00 | L-4/6A./12A, /18 | \$57.00 |
| Altuched Lamp w/Base and dimmer |  |  |  |
| L-2/6./12./18 | \$47.00 | L-3/6./12./18 | \$57.00 |
| L-2/6A./12A. | \$37.00 | L-3/6A.12A./18A |  |
| 5-watu tungsten-halogen replacement bulb |  |  |  |
|  |  |  |  |

Also available as individual BNC. 3 pin XLR $\&$ pin XLR + pin XIR right angle detachable lamps or as an individual permanent moun lamp.


The High Intensity Raklite comes complete with a 12 " flexible gooseneck, bright 5 wat halogen bulb, dimmer theostat, 6 foot cord and transforner. The light is recessed into a sturdy black metal E.I.A IU. It is available in single (RL-10S) or dual (RL-10D).

| RL-10S | $\$ 99.00$ | RL-10D | $\$ 149.00$ |
| :--- | :--- | :--- | :--- |
| RL-10SA | $\$ 89.00$ | RL-10DA | $\$ 139.00$ |

All Littlite " $A$ " versions are available withour the transfonner and can be powered by any asailable 12 voln supply: "E" versions wilh Euro transformer 220V are also available.


Enherg BA-6 monitor provides your control room with a complete view of important status information at a glance. Each of the six tlashing indicators are capable of 3 modes of operation: telephone latching, auto revet, and manual reset. The BA-6 also has a DC outpul (150ma @ channel), designed to drive the BA - 6 F remote monitor for duplicate displays in other studios.


Includes I FN-6 and a set of labels Remole
Rack mount remote includes I FN-6
Rack mount remote only
Phone module, detects ring
Standard label set (32 tilles)
Modification

## Wheelock

Wheelock TelStrobe® is ideal for signaling your board operator when the telephone rings. Their solid-state design utilizes a xenon thash tube for hrightness. long life and low power consumption. Strobes operate directly from telephone line ring voltage and low voltage AC or DC power supplies.

PS-11A-WPW
$40-130 \mathrm{~V} .16 .68 \mathrm{~Hz}+115 \mathrm{VAC} .70 \mathrm{KCP}$
$\$ 97.30$
PS-33AWPW $18-30 \mathrm{VAC}, \mathrm{VDC}$. $\$ 88.59$

180

## On～Air Lights

| Fidelipac 340 <br> Fidelipac 340 REC | On Air（specify language w／order） Record | $\begin{aligned} & \$ 80.00 \\ & \$ 80.00 \end{aligned}$ |
| :---: | :---: | :---: |
| Titus OAL－xyz Specify | On Air Light Series with Oak Housings $x=H$ for Horizontal or $V$ for Vertical $y=G$ for Gold tone frame or $S$ for Silver $\mathrm{z}=$ None for On Air or R for Recording Custom lettering．engraving and wood available． | \＄125．00 |
| Pro Lights L101 | Micro Series On Air Light．2 4 Vdc．Red or White Lens | \＄32．50 |
| Architectural Series | Flat wall mount with lens | \＄149．00 |
| Architectural Series | Ceiling or extended mount with dual lens | \＄169．00 |
| Lens | Specify Record．On Air．or Mic Picture Only | \＄15．00 |
| Lens | Blank | \＄13．00 |
| COM3636 | On Air Light w／Red incandescent Bulb，Il0Vdc | \＄59．00 |
| RB－1 | 25 Watt red replacement bulb | \＄5．95 |
| Connectronics SIS | 5－1／2＂x8－3／4＂x7－3／4＊．120V．Base \＆red cover | \＄110．00 |

Specify：On Air－Recording－Mic Live • No Entr．Silence Please－Meeting in Progress －or unprimted．Other colors and legends available to order．



## Computemp

The Computemp 5 has continuously－alternating readouls displaying both the time of day and temperature at the two lecations you are monitoring．Its unique memory function keeps track of daily temperature extremes and alens you to critical temperature changes

| CompuTemp 5 | LED display．AC powered w／9V battery back－up | $\$ 94.95$ |
| :--- | :--- | :--- |

## Rainwise



The Rain Wise Weather Station provides an LED digital readout for time，indnor and ourdoor tempera－ ture．barometric pressure，wind direction，wind speed．windchill，rainfall，and ouddoor relative humidity．Its microprocessor computes and accumulates degree days heating and cooling throughout the year with maximums and minimums being provided for any desired period to the nearest hour．day and month．

| $\cdots$ | ロース |
| :---: | :---: |
| $0 \cdot \mathrm{~B}$ | － |
| $\square$ | $0 \cdot \square$ |
| $0 \cdot \underline{\square}$ | $0 \cdot$ |
| － 0 －1－$=$ |  |
| － | ：－ |
| 16. | El2\％ |


| Weather Siation | \＄990．001 |
| :---: | :---: |
| Computer Capable Weather Station | \＄1．300．10） |
| Oracle ！ | \＄595．00 |
| Oracle 2 | \＄559．10 |
| Oracle 3 | \＄$\$ 39.100$ |
| Oracle 4 | \＄4．39．00 |



## Conex



The Conex C．J－20 Cell．Jack is a compact cell－phone adapter that allews cary remote broadcusts via your cellular phones．The Celljack provides an rimesormer iselat ed and balanced XLR input wilh swithlable high／low gain for connactiont in either an external mixer or a standard broadeas dynamic microphone．The steren headsed jach allows monitoring of the cell－phone audio and．when an external radion is plugged inte the wner input jack，its indio is fed to one side of the headset．Includes the intereon－ nect cable for the Motorola＂buy－phome＂ C ．

CJ－20
$\$ 245.00$

Many Items in Stock for Immediate Délivery．．．Call Today！

## AEQ

The new upgraded version of the AEQ ACD-3001 makes it compatible with other audio codecs. It is a full duplex cader/decoder with an aux data chanacl and multiformat G 722 and ISO/MPEG II compression. It provides more than 10 kHz bandwidth and uses 46 . 32,24 , and 16 kHz sampling rates. Sustable for switch 56 and 64 , user selectable

| ACD-3001 | $\$ 2,200.00$ |
| :--- | :--- |



Comrex


The Comrex I)X 200 Music Line is designed to provide the lowen cose sulution for high quality verea audio on digital phone lines. The DX200 uses 1SOMPEG Layer It codng to send up to 20 h Hz stereo audo over digital lramsmission path as low as $112 \mathrm{~kb} / \mathrm{s}$. The DX200 is a "sceond gencration" codee which implements the recent updates to the Layer it algorithon. including a chooce of mput sanpling rates at 24,32 and 4 KkHz . The DX200 cheoder may be uer-contigured for a variety of cutpul data rates and for stereo, jomt steren, dual mono or mono eperation. It supperts data tramminsion rates up $1038+\mathrm{kb} / \mathrm{s}$. The G. 722 algorithm is also included for low delay 75 or l 5 kH a audo. Offenng a wide varicty of contigutainons, the DX200 is compatible with almost every mono or stereo condec on the markel today

| DX200 | Audio Codec |  |
| :--- | :--- | ---: |
| DX20)RC | Remote Control Option | $\$ 3,000.00$ |



The Comrex Nexus has cverything you need for rending greal sounding audio over ISDN. Auda codect, ermintal adapper and NTI arc integrated moa rugged. 3 pound. eary- 6 use package The Nexus provides low delay 15 k Hz bidirectional audio on |i2h128kb/s circuls such as BRI ISDN. It also prusides Gandirrd G. 7227.5 k Hz audio all transmission rates of $56 / 6 \mathrm{Hk} / \mathrm{s}$. Audio input is me or line and the output is a variable mix of colec return and lowal program. Feor complete digital communications, the Nexus supports ancillary data to provide a computer link between send and recelve sites.

| NEXUS | ISDN Codec wilh TA/NTI. portable | $\$ \mathbf{2 3 0 0 . 0 0}$ |
| :--- | :--- | :--- |
| NEXUS | ISIDN Codec wibl TA/NTI. rack moun wenion | $\$ 2,500.00$ |

The Conırex DX 100 is a full monofstereo apt-X encoding/decod ing system. Apt-X is considered a very stable data reduction method with high immunity to transcoding problems and very low coding delay It is a good choice for STL or studio-to-studio applications. The DX 100 is capable of bidirectional 15 kH e stereo at a data rate of $256 \mathrm{~kb} / \mathrm{s}$. On a single ISDN phone line, the codec can pass 1 wo-way 15 kHz mono audio at $128 \mathrm{~kb} / \mathrm{s}$. An Inverse Multiplexer is meluded which will "add together" the data rate of two independent 56 or trikb/s data channels.

## DK 100

Audio Codec
$\$ 3.000 .00$
See Adtran CSUIDSU and terminal adapters of Page 185.


Like the Nexus, the Comrex DXR. 1 and DXP. 1 codecs provide a lull 15 k Hz b bidirectional feed on $112 / 128 \mathrm{k} / \mathrm{s}$ circuits and use the G 722 standard for 75 kHz at $56 / 6 \mathrm{k} \mathrm{k} / \mathrm{s}$. Since they have very lutle processing delay, these codecs are the best choice for live programmong such as ailk, news and spors. where real-time cueback is essential. The DXR. 1 is a rack mount unit while the DXP 1 is conpact and pontable. An external DSU/CSU or terminal adapter is needed to imterlate these codees to your data circuit. DB25 cable included.

| DXP. | Portable Audio Codec | $\$ 1.500 .00$ |
| :--- | :--- | ---: |
| DXR | Rackineunt Audiv Codec | $\$ 1.500 .00$ |
| V. 35 Cable |  | $\$ 40.00$ |

## Intraplex

The Intraplex Model 4464 digital audio codec ranseciver is designed to lacilitate high-fidelity audion bro:deasts over the new swithed digual networks. The codec provide MPEG 11 audis at an momatal 15 kHz or 20 kH , bandwidh in both directions of an ISDN link. The Model Ithot features include: Combenient compact size. full two-way uperation encoding and decoringe in the salle box, built-II ISDN Terminal Adipters with S/T and $U$ interfaces for unversal network compatifility, bualt-mb bunding - compatiole inverse multrplexer fur dual channel synchonization, wmple user interface with "one-touch" call setup. auto-denection of the recene indio chanateristis, and auxiliary dana port at up to 9 gio baud. The Model thot is the smallest, hehtest full stereo codec on the market
$4+6.4$

$\$ 2.495 .01$



## Musicam USA

CDQPrima codecs contain MUSICAM@ enhancement to the ISOMPEG Layce II algorithm, certified Layer if compathle by the IRT, ISO/MPI:G Layer III, and G.722. All models suppon tranmission bit rates from 24 to $384 \mathrm{~kb} /$ and sampling rates from 16 to 48 klz . AES/EBU digital I/O is optional on $110 \&$ standard on all other. All models have 20 bit $A / D$ converters and give you better than $92 d B$ dymamic range and under $0.01 \%$ THD + N. All models feature Prima Logic Language for autonatic functions, full remole control, multuple ancillary dita streams with rates up of 38 . 4 $\mathrm{kb} / \mathrm{s}, 256$ speed dial addresses, multiple location TA suppor, splathannel mode and quack contigurations for simplitied operation. World pawer supply. $90-250$ VAC. $47-65 \mathrm{~Hz}$. Manufactured in an ISO-9000 certified facility for superior performance under harsh conditons

## Each CDQPrima codec supports MPEG-1//1//II and G. 722 .

Same as the 110 plus. AES/EBU (DB9) Dielual
$\$ 3.250 .00$ Same as the 110 plus: AES/EBU (DB9) Digital UO $\$ 4.200 .00$

210 Panel RS232 Remote Control. RSis5 Control Por 2U. Character LCD. accepts 3 Interface Modules. AES/EBU (XLR) Digital I/O. RS 485 Control Pon
220 Same As the 120 , but 2 U and accepts 3 Interface modules $\$ 3,750.00$
$\$ 4.700 .00$
230 Same as the 220 plus: Spectrum Analyzer and Phase Displays. Extended Feature Keypad with \& Assignable "Hor" Keys
$\$ 5.7100 .00$
TA301 Plug-in ISDN Terminal Adapter with huilt-in NT-I (for NA operation $\$ 850.00$ DIF102 Plug-in V. 35 Digital Interface
$\$ 100.00$

## Codec Packages:

CDQPrima-Stereo, Includes VU meters. AES/EBU I/O. headphone \& front panel K/C jacks-1 interface module slot
 $\$ 4.300 .000$
\#1201 $120-20 \mathrm{kHz}$ bi-directional with $V .35$ interface onls
$\$ 4.300 .00$
CDQPrima-Economy Stereo, ideal for unattended operation, STL, Backup, Ete.-I interface module slot.
\#1103 $110-20 \mathrm{kHz}$ bi-directional with ISDN terminal adapter and NTI \$4.000.00 \# $1102 \quad 110-20 \mathrm{kHz}$ bi-directional with RS422/X 21 interface only $\quad \$ 3,350.00$ \#1101 $110-20 \mathrm{kHz}$ bi-directional with V. 35 interface unly $\$ 3,350.00$

CDQPrima-Stereo, wih VU meters, XLR AES/EBU I/O, headphone \& front pancl R/C jacks. RS485-3 interface module slots.
$\$ 2203 \quad 220-20 \mathrm{kHz}$ bi-directional with ISDN terminal adapier and NT1 $\mathbf{\$ 5 , 4 5 0 . 0 0}$ $\$ 2202220-20 \mathrm{kHz}$ bi-directional with RS $422 / \mathrm{X} .21$ interface only $\$ 4,800.00$ \#2201 $220-20 \mathrm{kHz}$ bi-directional with V 35 interface only
$\$ 4.800 .00$
CDQPrima-Economy Sterco, includes XIR AES/EBU \& RS $485-3$ interface module lots.
\#2103 $\quad 210-20 \mathrm{kHz}$ bi-directional with ISDN terminal adapter and NTI
म2 102 $210-20 \mathrm{kHz}$ bi-directional with V. 35 interface only
$\$ 4.500 .00$ $\$ 3.850 .00$ $\$ 3,850.00$

CDQPrima-Deluxe Sicreo, includes all features above plus graphics I.CD, spectrum analyzer, X-Y phase display, extended keypad with assignable hot keys and enhanced status displav-3 interface slats.

| \#2303 | $230-20 \mathrm{kH} / \mathrm{bi}$-direction with ISDN terminal adapler and NTI | \$6,450.00 |
| :---: | :---: | :---: |
| \#2302 | $230-20 \mathrm{kHz}$ bi-directional with RS $422 / \mathrm{X} 21$ interface only | \$5.800.00 |
| \#2301 |  |  |

Portable Mono, Ideal for Full Bandwidit Remutes $\&$ Voice-over
RR103 RoadRumner-20kHz bi-diectional codec/mixer with built-in

RR101 RDN terminal adapter \& NT-1
$\$ 2,800100$
RR101 RoadRunner-with V. 35 or X .21 interface (Please specify)
$\$ 2.6010 .00$
Micro ${ }^{1 \mathrm{M}}$ Series Bi-directional 7.5 kHz Mono $\mathbf{G . 7 2 2}$ Codecs
Micro66i Portable. V. 35 or X.2I Interface, switchable $56 / 64 \mathrm{~kb} / \mathrm{s}$ data ralc $\$ 1,900.00$
Micro66r As above, but with I9" Rack Mount
$\$ 1.900 .00$
CDQ1000 Bi-directional 10 kHz Mono MUSICAM \& G. 722 Codec CDQ1000 19" Rack Mount. V. 35 and X. 21 Interfaces
$\$ 2,995.00$
CDQ200I Series 20kHz Stereo MUSICAM Codecs, 18 bit A/D, Remote Control, $\&$ $32 / 48 \mathrm{kHz}$ sampling rates
CDQ2001E Encoder (transmit) only. IRU. 19" rack mount $\$ 3,750.00$ CDQ2001D Decoder (receive) only, 1RU. 19" rack mount \$3,250.00 CDQ2001ED Bi-directional Encoder/Decoder. 2RU, 19" Rack mount $\$ 6.0000 .00$



Road Runner ${ }^{\text {Pa }}$ a a portable, monolSDD codex/maxer will built-m ferminal adapter and NTI and inchudes MUSICAM@, 1.ayer 3. ( 7.722 and G .711 aborithms. RuadRunner is fully bi-dirctional. It will deliver 15 kHz audio on a single $1 \mathrm{SI} \mathrm{NN}^{\prime}$ "B" whamel (unge L.ayer 3), and 20kH\% on a full ISDN BRI ( 112 or $12 \mathrm{Kkb} / \mathrm{o}$ ). In addation to 1ts RJ- 45 ourput comate (or for ISIDN. RoadRumer has a standard RJ- 11 that can leed 3.3 kHz audio into a regular phone line it ISDN is mot asabahle It fiatures two mic and one switchathe michline mput two headphone monitor circuits, sach with its own send \& receive lesel controls, and four on-board dry: floatmé relay contacts for in-band sionaling
RRIOO RoadRumner (main chassis only) $\$ 2,500$ ) 00 RRIO) with DIFIOI (X2I or DIIIO2 (V 35) $\$ 2,600.00$ RR102 wih TA201 TA, for international $\$ 2.800 .00$ RR103 with TA30I TA. tor Norlh American $\$ 2,800.00$ TCl Travel Case for RR \& accessories $\quad \mathbf{\$ 2 5 0 . 0 0}$

## $\square$ Olympiann <br> is a portable

stereo ISDN codec/mixer with memory for full duplex bi-direclional ajeration It contam MUSI (AM(1) Layer II Layer III, G. 722 \& G. 711 algo-
rithoms. plus hybrad interface for direct connection to an analog telephone line. Thre headphane outputs, wach with separate send and return level combrols. 256 speed dial addrenses. plus storage for multiple venue termmal adapter configurations. (Hympic Memory Snap Shot-OMSS\%-smart presed lets voul save all parameler

### 01.102 with TA201. for internalional $\$ 5.200 .00$

 OL. 103 with TA301. for North Anlerican $\$ \mathbf{5 , 2 0 0 . 0 0}$ TC2 Travel Case for Olympian $\$ 325.00$
## CircuitWerkes



CircuitWerkes
AC- 12 allows you to fit un to a dozen. fullfeatured telephone autocouplers in 3 U of rack space. The AC12 has two bridging. balanced inputs and switchable, busses for audıo distribution. For network feeds you can select between two dedicated audso busses or, for special needs, each coupler card has its own individual $600 \Omega$ bi-directional audio connection. Cards can be removed or installed while powered without affecting the others. All controls and indsators are remoted Indicators. include ring, on-line, audio clipping and power.
$\overline{\mathrm{AC}}$-12 Powered multi-bay autocoupler chassis with 2 AC - 1 's $\quad \$ 639.00$ $A C-1$ Coupler cards for $A C-12$
$\$ 155.00$

## Excallibúr

The Excalibur HC- 1 connects between the phone and handset. It will send and receive audu val $1 / 4$ "TRS jacks. There is a send level adjusiment
 and a switch to seleat handset audio or external audio

HC-I
$\$ 99.00$

Centner


The Gentier Auto Coupler can send or recese line level audio sources It will atutomatically answer after one complete ring and disconneets when the caller hangs up. Use the Auto Coupler for information limes. IFB or any use requiring automatic operation.

## Auto Coupler

Auto Coupler Cl ' for telco lines without "loop drop" hallg-up signal $\$ 329.00$ Rack Mount holds four units


Gentner's Hybrid Coupler connect directly to the telephone lite and is used io send or receive audno or oher information. Its passive design allows you to "tap" the phone line. using the telephone and coupler simultaneously, or it can seize the line. Use it for news or producer feeds. or sending a church service broadans

Hybrid Coupler
$\$ 189.00$
Rack Mount
holds four units
$\$ 49.00$

## Indy Audio

The Indy Audio 'TC-I is an anto-answering phone coupler. It can leed audion down the line to the caller, take audio of the line for broadeant. or can be connected to a lybrid for bedirectional communications. The TC-I is powered by the phone line a from pand I ED indsates when the unit is in use, and a dry relay closure is provided to start a can deck and alert the control room operator, etc. A soltage reversal or temporary upen circuit is required lor auto discomect


## The Circuit Werkes

AC-3 is a simple hybrid that provides a separate, unbalanced. send and receive port. Its new. on board limiting provides loudness without clipping distortuon. Normally open. dry relay contacts close
 enther momentarily or
or of a call. and answers on a programmable number of rings. A combination lock opuon for a secured coupler can be easily added

| AC-3 | Telephone auto coupler | $\$ 239.00$ |
| :--- | :--- | ---: |
| C-Lock 2 | Combination lock | $\$ 99.00$ |

## Comrex

The Comrex TCB- 1 manual coupler provides a switched-hold connection to a telephone line so that the telephone set may be hung
 up during program feeds. Use with any modular phone to send or receive lise or taped material Very convenient for lield use and does not require batteries or exter nal power The TCB2 automaty on the first ring and disconnects that tine when the calline party hangs up. Ideal for unaltended situations such as "listen lines" IFB feeds, dial-up networks, remote transmater sites and satellite links. The TCB-2 requires an external AC supply.

| TCB-1A | Manual Coupler | $\$ 150.00$ |
| :--- | :--- | :--- |
| TCB-2A | Auto-Answer Coupler | $\$ 250.00$ |
| Detect Board |  | $\$ 125.00$ |

Detect Board


## K Audio



JK Audio QuickTap connects between your telephone and handset jack so that you can talk over your handset and record both vides of the convervation. You can also get presentation quality audio using a powered speaker or PA system No batterics needed QuickTap
$\$ 59.00$


Connect JK Audio
THAT-1 between your telephonc and handset jack to record or play tapes down the telephone line: A handsedline in button enables you to either talk or play a recording down the phone line without changing cables to works with analoge digital, PBX. ISDN and single line telephones. You can also get presentation quality audio using a powered speaker or PA system No batteries needed.

THAT-I
$\$ 150.00$
THAT-2

> As above including. RCA \& XLR I/O. also switche's berween carbon. dynamic. or electret handsed types
3235.00

## Sound America

These palm-sized telephone audio couplers are placed between the phone and handse and send and receive audio via a $1 / S^{\prime \prime}$ minijack. The TAC oftiers a mute switch $8-32 \Omega$ input and an minnuatur selectur. The TAC + has an additional $6(0) \Omega$ input select, more attenuation control and at cough buton.


| TAC | 58.50 | TAC + |
| :--- | :--- | :--- |
| $\$ 99.95$ |  |  |

### 622.7700 Fax (352) 6297000

## Adtran

Adtran's ISU2X64 is a dual por version of the ISU128. The ISU2X64 can be viewed as a Dual Modem that suppors iwo applications. simultancously and independently, at up to 64 kbps on each DTE interface. For high speed applications over $6+\mathrm{kbps}$, a single DTE interfice can achieve up to 128 kbps using the BONDING prolocol.

1SU2X64


BGS


Adtran's ISU128 is
a sland-alone ISDN
Serice Unit that connects data terminal equipmen directly to the
ISDN network. The ISU1 28 includes NTI network termination and e erminal adapter funcionality. Synchronous and asynchronous rates are supponed through a $V 35$ or RS-530 interface. For speeds over $6+\mathrm{kbps}$. the industry standard BOND. ING protocol is used to aggregate the two 64 kbps " B " channels.

## ISU128

$\$ 995.00$

## The Adtran DSUIIIAR

is a technologically advanced. high perfurnance data service unit (DSU/CSU). 11 provides an interface between Digital
 Data Service (DDS). Basic


Data Services. 4 -wire Switched 56 . and the customer's data terminal (DTE). The DTE interface can be selected as cither RS-232 or V. 35 for :Ill data rates.

DSUIIIAR


## AEQ

The AEQ TLE-02 is a digital phone hybrid, digitial line extender and portible mixer. It has independent level control of the micfline mput, aus input and headphones. This unit is ideal for tield reporters. weighing only 3.3 lbs ., using 8 AA billteries or an external $\mathrm{AC} / \mathrm{DC}$ adapter and supplied with as carrying bag.

## Comrex



The basic Comrex LXT/R one line frequency extender system works with a standard dial telephone line or a cellular telephone to pass 250 Hz of additional low frequencies. This results in more natural sounding audio. eliminating the "tinny" lelephone sound. The LXT/R combines the function of an encoder and a decoder - the choice is made by pushing a single switch. (An LXT/R is required at both the sending and receiving ends of the phone line.)

| LXT/R | Single Line Extender | $\mathbf{\$ 8 5 0 . 0 0}$ |
| :--- | :--- | :--- |

The Comrex 2X system sends $50 \mathrm{~Hz}-5 \mathrm{kHz}$ of program audio on two ordinary dial telephone lines. Its unique noise reduction system will handle the high noise of long distance circuits for high quality progrann transmission. The 2XP Encoder accepts an external console input and contains abuilt-in telephone interface for two program lines. with a hird for communications. The 2XR Decoder requires two Comrex TCB-IA Telephone Couplers (or equivalent) for connection to dial lines.

| 2XP | Two Line Encoder |  |
| :--- | :--- | ---: |
| 2XR | Two Line Decoder | $\$ 3.500 .00$ |
| 2XP | Rugged Travel Case | $\$ 3.000 .00$ |

The Comrex 3XP.1/3XR. 1 Mululine Frequency Extender System allows high quality $50 \mathrm{~Hz}-8 \mathrm{kHz}$ audio to be sent over three standird dial telephone lines. Comrex's six-band noise reduction system assures a clean. quiel feed. even on noisy international circuils. Buill-in automatic dialing and "one-huton" setup makes the $3 \times \mathrm{P} .1$ encoder extremely casy to operate At the receive site the 3XR. 1 sutomatically answers and equalizes the lines and disconnects when the remote site hangs up.

| 3XP.1 | Multiline Encoder | $\$ 4.500 .00$ |
| :--- | :--- | ---: |
| 3XR. | Mulliine Decoder | $\$ 4.50 .00$ |
| 3XR.1 | Remote Control | $\$ 250.00$ |
| 3XP.1 | Ruged Travel Casc | $\$ 17.00$ |
| 3XP.1 | Rack Adlapter | $\$ 100.00$ |



## AEQ



Through the use of DSP technology the AEQ TH-02EX exhibits exceptional trans-hybrid loss. By taking advantage of the built-in mixminus buss you get 50 dB null with a single caller and 45 dB null with two callers. This IU hybrid also offers transformer balanced I/O and remote connector.


## Gentner



The Gentner TeleHybrid is the only digital hybrid that can interface with the handee of your analog or digital phone. Anyone in your facility can sereen calls and transfer them to the Telellyorid, since it's connected to your phone. Alf the leatures of your phone remain active. such as speed dial, conference, transfer ete. The TeleHybrid will automatically idjust to a variety of telephone line conditions to keep audio levels comsistent. Cathle in your console, cord to your phone and external power supply provided.
TH100
$\$ 729.00$


The Gentner $\mathbf{G 2 5 0 0}$ does not require a special mix-minus feed. Just plug it into your audio console and the G2500 creates its own mix-minus to the caller. Use it for dedicated VIP calls with your other phone equipment, conterencing through the console or for phone calls in other studios. Several unis link to make a mini conference bridge. Features include: atoto-answer/disconnect -amto null and atoto re-null - caller mute - and up to eight units can be conferenced together.

| G2500 | $\$ 1.995 .00$ |
| :--- | :--- |



Gentner's versatile TC-100 wephone hybrid can be ased for autoanswer information lines, on-air telephone calls, or program feeds. Simple remote control of equipment is also possible. It has a touch-tone decoder providing contact ouphats when the user presses a buton on the phone keypad.


The Gentner DH-III uses the latest DSP technology to automatically deliver outstanding hybrid null, maximum isolation between caller and send audio, while maintaning excellent sonic quality. You can talk with callers on or off air with equal ease by using the units cue button and record those calls using the DH-III's record button. The unit will send both sides of the call to your rape machine and will stan and stop the machine as well.
Digital Hybrid III $\$ 1.895 .00$


The Gentner G3200 is designed for telephone calis with a lise audience or in-studio guests. It provides both an adsanced digital hybrid and an acoustic echo canceller. The G3200 keeps receved audio from going back down the line to the caller, even when delayed by room size. Three mics and a speaker can be added to the G3200 for a remote talk show. It allows you to turn up the monitor's volume in the studio so the dudience can hedr callers. A built-in monitor amp with volume control for stage monitoring of callers and caller mutinge are also included.

## G1200

$\$ 2.495 .00$


Gentner's
Teleswitch a
simple telephone call director at an atiordable price Teleswitch is the logical solution to your basic telephone line selection needs.
It is compatible with mose phone systems and is simple to install.

| Teleswith | $\$ 795.00$ |
| :--- | ---: |
| Interconnect cable | specity hybrid |

The New Gentner SPH10 is an analog telephone interface that interconnects between a standard telephone line and your audio equipment. Features include: the newest analog technology - audio filtering and equalization $\cdot$ balanced $1 / 0^{\circ}$ balanced and unbalanced mix output for recording both sides of the conversation - built-in monitor amp - automatically accepts all worldwide voltages and is worldwide compliant!

SPH 10
$\$ 499.00$
The New Gentner DH20 and DH-22 has their newest 16 bit DSP digital technology to deliver better and more reliable sound quality. Features include: auto mixminus - built-in speaker amp - balanced I/O - mic or line input • selectable AGC • selectable caller ducking • selectable auto answer/auto disconnect compatible with most telephone central offices including loop current intermuption and busy/reorder • remote control and status • automatically accepts all worldwide voltages and is worldwide compliant. The DH-22 is two digital hybrids in one chassis. It included all the above feature as well as selectable cross conferencing

| $\mathrm{DH}-20$ | $\$ 995.00$ |
| :--- | :--- |

DH-22 $\quad \$ 1,595.00$


## Radio Systems

|  |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |

The Radio Systems Ti-101, formerly Symerix TI-101, provides easy two-way connection belween your console and phone line with back panel gain switches. Its features include: equalization, send limiting. receive compression/expansion, caller mute, LED clipping indicators, conference linking, and bandpass filtering.

# Inrormation amnouncers 

## Bogen

The Bogen HSR Series employ a state-of-the-an digital design to achieve a fuil G+Kbps digital toll qualtity sampling rate for the best sounding and the most reliable on-hold message announcers availabie. In addition, the HSR models have a specialized audio editing circuit for seamless audio with no dead air.

|  |  |  |
| :--- | :--- | ---: |
| HSR4 | 4-Minute Capacity | $\$ 830.00$ |
| HSR6 | 6-Minute Capacity | $\$ 952.00$ |
| HSR8 | 8-Minute Capacity | $\$ 1,065.00$ |
| IISRI2 | 12-Minute Capacity | $\$ 1.187 .100$ |

## Henry Engincering



Henry Digistor is a digital message storage syatem that is ideally suited for radio and TV station information lines. The message is stored in digital memory with battery back-up. Digistor can be programmed to play the message only once, or continuously until the caller hangs up. There is no re-cue time, the caller always hears the message from the beginning

Digistor
Digistor XM
Digistor HF
Dieistor XM-HE

2:08 minutes of audio
8:32 minuter of audo
higher lidelity and wider bandwidth/ 1:20 minutes include XM and HF uptions/ 525 minutes
$\$ 395.00$
$\$ 595.00$
$\$ 420.00$


Henry TeleStor is a specialized degtal audio recorder for automatically recording broadcast station "andio actuatities" When called. TeleStor automatically answers the line and waits for the caller's TouchTone ${ }^{\text {an }}$ password. When the password is detected. TeleStor begins recording zudio being fed wia the phone line Once recorded. the message is stored and is ready for instant on-the-air playback by a broadeast automation system. One message can be stored at a time. When a new message is recorded. the previous message is erased.

TeleStor STD Recording Time 1:20 minutes. Freq. Response 2..5kHz $\$ 595.00$ TeleStor XW $\quad$ Recording Time 5:25 minules. Freq. Response 2.5Kh\%

Henry Audio Online is ideal for broadeast stations, public relations firms, schools, hospitals, political offices, and other institutional users who wish to make high-quality audio presentations available via regular mephone lines. It is a caller-interactive system that allows callers 10 selest messages from an "oudio-ment". Up to 9.999 messiges can be stored with excellent audio fidelity. Editing messages is quick and easy. Messages can te recorded "live" or dubbed from a prepared tape or cassette. Audio Online consists of a special 2 -line lelephone interface/modem card plus sofiware that operates on a dedicated PC. An inexpensive, hasic "386" DOS computer is ideal (not included). For each 20 MB of hard drive space. there is about 15 minutes of recording time. The basic system answers 2 phone lines and can be expanded to handle up to 12 incoming phone lines.

Audio Online
Software and 2 lane interface/modem
5995.00


## Sine Systems

The Sine Systems Time-Temp Thing, TTT-1. is a racknounted device that can speak the time, the temperature, or hoth upon command from your automation system. It even automatically changes the way it speakes the mformation so it doesnit sound like a machine. Interfacing the Time-Temp Thing to most automation systems is simple. A contact-closure or open-collector nutput is all it needs to make in speak. When if is finished speaking it gives a momentary contact-closure back to the automation system.

The Sine Systems Time-Temp Announcer, TTA-I is a complete, self-contaned wo-line time and temperature system. It does not require a computer or any other égupment to operate. In fact it comes with ceveryhing you need to set up the system and get it operating. You get 1he Time-Temp Announcer (that handes two lines) • a weather-proof temperature sensor with 100 feet of cable a wall-plue power supply • a microphone to record messages a a pair of headphones to listen to the mesages you record • and a comprehensive instruction book. The only uptional picce of equipment you might need is a 100 fool extenston cable for the temperature sensor. You can use up to 1000 feet total of extension cable and up to 10 Expansion unis.

| TTA-1 | Time-Temp Announter, 2 line, IU | \$1,599.00 |
| :---: | :---: | :---: |
| EC-100 | Examsion cable for temp sensor, 100 | \$45.00 |
| TTA-EX1 | Expansion unit, 6 lines | \$1.499.00 |
| IC-3 | Interconnect cable for up to 5 expansion unis. | \$20.00 |
| 1C-10 | Interconnect cable for up to 10 expansion units | \$45.00 |

 T'TA-1. Order it seporately (IC-5 or /C.-10). The following ewample is what word be required for a $1+$ line system: 1-TTA-I, 2-TTA-EXI, I-IC-5.



## Centner

The Gentner ET10 is compact and portable, hooks directly into an analog or digital phone on your desk using all the features and benefits of your existing phone. Just connect the ETIO tia the handset port on the base of your telephone, place the handset on the pad and you're in conterence. The ET10 incorporates full duplex sound with digital echo cancellation making your conference calls more free flowing. interactive and natural sounding. To handle more people and larger rooms, athach an optional extension microphone. The ET 100 is for larger meetings in a more permanent setting. Like the ET10 the ET100 can be used with your existing phone and has the duplex sound and digital echer cancellation technology. It has a larger speaker and three internal mucrophones and provides 360 sound coverage


If you have Circuit Werkes TeleRadio at your stations, you can liven to every radion sation in each of your markets in real-time. Tele-Radio is a DTMF remote controled tuner cornhined with a telephone conpler. When it answers, the internal radio begin playing down the phone line to you. You can control the radio by using the buttons on your phone. lif features: ten random memory presets: remote controlled scanning. luning. AM/FM band change. \& memory set: FCC type approved for phone connection: automatically resels 10 first memory each time it answers a call: auto-answer/disonnect, and auxiliary audio input allows the coupler section to temporarily be used as an audio pateh for remote talkback.

TeleRadio
3689.95

## IK Audio



The JK Audio Tap-I.
kephone audio + power interface, separates vaice into trambinit and receive signals for recording or scrvice simulation. It prwers ielephone with $48 V D C$ and provides a 2 wire to 4 -wire hybrid. Tap-1 allows chean voice recordings with a "telephone bandwidth" sound without phone line" noise. Hybrid null adjusiment optimizes transmit and receive separation to $>50 \mathrm{~dB}$. Put wo units back to back for TV or film studio recording.

## TAP-1

$\$ 245.00$
Simply connect JK Audio Quick Tap IFB between the handset and the bane of your telephone. or replate the handset altugether. The audio from the telephone is available on a monomini $I / 8^{\prime \prime}$ jatck with a volume control. The $1 / 8^{\prime \prime}$ jack will drive an IFB earpiece directly at nominal levels. The Iransformer isolated $600 \Omega$ balanced XLR output will get the telephone signal to a divam amplitiev or mixer. Features include: $1 / 8^{\prime \prime}$ mono jack with volume control • $600 \Omega 2$ male XLR jach • and mos batteries or AC needed.

QuickTap IFB
$\$ 125.010$


## CRI



CRL, DAA-50 can reccive and decode audio data according to the AES/EBU, IEC958. S/PDIF. \& EIAJCP 340 interface standards. The DAA-50 checks your transmission link for an assortment of errors and reports them via defined LED status indicator lights. It contans a high quality digital to analog converter so you can monitor the decoded audio. Battery or AC powered.

DAA-50 Clip-on digital zudio
headphone/analyzer $\quad \$ 595.00$

## EMCO


EMCO has a comprehensive lane of test and measure ment equipment including: digital \& amalog multimeters. ascilloscopes \& probes, variable and lixed power supplies, and RF \& a audio signal gemerators. Please call Brandasiors Gomeral Sore for an EMCO caralog.


| Bi. 10 K | $10 \mathrm{~K} \Omega$ Multitester w/Batery Test. (Carded) | \$22.50 |
| :---: | :---: | :---: |
| DMR-30T | 1M $\Omega$ 3-1/2 Digit Multimeter |  |
|  | W/Transistur Test, w/ease | \$35.70 |

DMR-35A 10M $\Omega 2$ 3-1/2 Digit LCD, Diode Test, w/ease $\$ \$ 66.00$

## Galaxy Audio



A test insirument for the audio installer or soundman which malicates absolute polarity of most audio devices or may be used as a cable tester. The send unit las balanced $1 / 4{ }^{\prime \prime}$ and XLR jacks, an unbalanced $1 / 4$ " speaker out jack and an internal speaker. The recerve unit has $1 / 4^{\prime \prime}$ and XLR jacks, a sensitivity control and an internal microphone. Both units are housed in high impact padded ABS eases and are powered by a 9 volt battery.

Cricket Polarity Test Set $\quad \$ 399.00$
-

## Whirlwind

The Whirlwind Qbox(1) is the all-in-one audio line tester that you'll want in the toolhon every time you do field audio. In one battery powered box you have a microphone, a speaker, a test tone gencrator, outputs for stindard headphones or a $2 k \Omega$ earpiece, and volage presence mentoring for
 phanten or intercom power. You can talk into it. listen to it. walteh it, and clip it on your belt or cable reel tor easy uccess. The Qbos is made from a rugged. lightweight industrial composite to withatand the wear and tear of fiedwork. It's powered by a single standard 9 V alkalite battery that is cassly replaced without tools. Plog in a dynamic mic to gre it a guick test. leave the internal speaker powered as a sauawk box from the console, or use the internal mic to talk back up the line. Ifs all easy with a Qbox! The SOURCE selector lels you send a + - 0 ohz tone or the signal from the Qhox's built in condenser mic back to the main console at +4 . -20 or -50 dB 3 levels. The SPEAKER selector lets you lest dynamic mics and confirm mic or line level signals

Qhox $T B I$ wet afyme $\$ 1.30 .01$


This Whirlwind Cable Tester can test cables with any combination of XLR. $1 / 4^{* \prime}$ or RCA phono plugs for shorts, opens and phase. The handsírec design allows manipulation of cable ol locate intermitence. An orfoft switch is provided, with LED to indicate sufficient testing power. Belt clip included



The Audio Control Industrial SA-3050A is an affordable, measurement grade, one-third octave real-time analy\%er designed for audio signal analysis. The SA-3050A olfers the following fealures: 30 one-third octave handwidth filters Internal pink noise source •9× 30 lirge-format LED diaplay with IdB resolution Six internal memones with biltery backup - Averaging for 6 stored response curves. - Peak hold function - SPL scale with bargraph and fult-screen digital readout - 92dB display range - Signal input from balanced microphone input balanced plione jack or unbalanced BNC connector.

## SA-3050A

$\$ 995.00$
SA-3050APKG w/rechargeable internal battery \& parallel printer output $\$ 1.300 .00$
AC10 A\& C weighling filler $\quad \$ 4.00$
CP10 Customized printer format factory install only $\$ 100.00$
RMIO Rack mount adipter. 3U $\quad \mathbf{5 5 . 0 0}$
SCl0
SRDIO CD-basicd signal gencrator. CD containing numerous lest signals $\$ 70.00$

## DOD

DOD RTA series II Real Time Analyzer has each of the 31 bands displayed in a vertical row of 5 LED's. It is switchable between 1 dB steps in a 4 dB window or 3 dB steps in a 12 dB window, with a built in pink noise generator.


Goldiline


The Gold Line 30M8 is a $1 / 3$ Octave battery operated Audio Spectrum Analyzer complete with remote microphone and 8 memories which are active until the unit is turned off. It is also an accurate sound level meter and will read sound pressure levels in either $A$ or $C$ weighting. A calibrated instrument microphone is prosided which can be altached directly to the 30M8 via the XLR mic input or it can be remoted via mic cable.

## 30M8 <br> 30 band RTA with 8 memories <br> $\$ 736.00$

The Goldline DSP-30 features an 85 dB sound window with scroll up/down that is large enough to capture the dynamic response of a room and is capable of detailed measurements with great accuracy. The $1 / 4 \mathrm{~dB}$ precision measurement range permits the engineer to utilize standard industry test tapes and view all frequencien simultaneously for faster tape head monituring or service.

| DSP-30 | Digital 1/3 Octave real time spectrum analyzer | $\$ 1, \mathbf{5 7 9 . 0 0}$ |
| :--- | :--- | ---: |
| DS30RM | Rack Mount DSP-30/pink noise | $\$ 2.300 .00$ |
| Options: |  |  |
| OPT-CVO | DOS RS232 Computer video interface | $\$ 559.95$ |
| OPT-CVOW | Windows Version of CVO | $\$ 768.95$ |
| OPT-PRT | Primter Port, requires parallel Centronics Printer | $\$ 250.00$ |
| OPT-NVM | Non volatile memory | $\$ 125.00$ |
| OPT-RT60 | RT-60 mode | $\$ 315.00$ |
| OPT-STA | Speaker timing analysis, requires RT60 \& speaker soflware | $\$ 250.00$ |
| OPT-DAS | Disiortion analysis | $\$ 250.00$ |
| OPT-106 | 1/6ih Octave. requires CVO/CVOW | $\$ 315.00$ |
| OPT-112 | 1/12th Octave from 27Hz to 800Hz, requires CVO/CVOW | $\$ 315.00$ |
| OPT-DOSE | DOSIMETER Measurements. requires CVO/CVOW | $\$ 315.00$ |
| OPT-NC | Analyzes SPL to NC (Noise criteria standards) | $\$ 149.95$ |
| OPT-MAC | Soft PC professional to run MAC. requires CVO | $\$ 349.95$ |
| Goldline Carry Cases |  |  |
| ASAC | For M-IO. ASA-10B. SPL-120 |  |
| CS-30M | For 30M8 (comparment for mic and pink noise) | $\$ 19.00$ |
| DSP-M | For DSP-30 (compartment for mic and pink noise) | $\$ 41.00$ |

## Goldline LM27P5

The LM27P5 is a one third octave Real Time Analyzer, complete with instrument microphone and built-in pink noise generator. IU

Goldline's hand-held lo band Audio Spectrum Analyzers measure from 32 3 Hz to lokHz on ISO centers. They feature a buill in microphone. fast or slow decay tomes. and line imput


| M-I0 | 10 band analyzer/built-in pink <br> noise generator (noSPL.) <br> 10 band analyzer with SPL(no <br> pink noise generator) | $\$ 315.00$ |
| :--- | :--- | :--- |
| ASAIO-B | $\$ 374.00$ |  |



The Goldline SPL 120 is a portable instrument designed to till the need for accurate sound pressure level measurements, all at an aftordable price. It leatures: seven segment digital numeric display wih SPI. readings in dl3. a built-in instrument microphone, and is battery or AC pow. ered.
LM27P5 $\$ 630.00$

## Check out CREAMW@RE TripleDat Real Time analyzer for your computer! See page 116.

## AVCOM

BGS


The Avcom PSA-35A is a portable spectrom analyzer with LCD frequency counter readout. It accurately measures wide band signals used in the TVRO indusery Frequency coverage from 10 MHz to over 1750 MHz , and from 3.7 to 4.2 GHz . Please specily voltage.


The Avcom PSA-37D portable spectrum analyzer is Avcom's answer to your downlink installation, service, and maintenance problems. Frequency coverage is from 10 to over 1750 MHz and from 3.7 to 4.2 GHz , in 5 bands. Frequency readout is shown in MHz on a four digit LCD front panel display The digital readout allows you to identify and resolve terrestrial interference problems quickly and precisely by displaying the frequency of offending signals. The PSA-37D has a built-in DC block with +18VDC for powering LNA's and BDC's, accurate signal strengil amplitude display and internal battery with charger. Selectable veriical sensitusity of euther 2 dB or $10 \mathrm{~dB} / \mathrm{Div}$, is standard.

| PSA-37D |
| :--- | :--- |

Avcom's PSA-65A Ponable Microwave spectum analyzer covers a frequency range from less than 2 MHz to 1000 MHz . This light weight battery or line operated Spectrum Analyzer is the perfect instrument for feitd testing of RF systems, classroom instruction, satellite system alignment. electronic counter measurcs, cable TV maintenance. cellular, and production use. Options include a 10 kHz recolution bandwidh filter for the 2MHz/Dis. span that extends lower frequency range to approximately 200 kHz an FM demodulator for aural noontoring, and several high performance precision-machined log periodic antennas.

| PSA-65A |  | \$2,855.00 |
| :---: | :---: | :---: |
| PSA-65B | Same as 65A but freq. range 1 $\mathrm{MHz-1250MHz}$ | \$2,930.00 |
| 10 KHz | 10 kHz resolution bandwidth option | \$275.00 |
| FADO | FM audio demodulator option | \$185.00 |
| FE | Frequency extenders for 1-2, 2-3, 3.7-4.2 GHz and $950-1450 \mathrm{MHz}$ (Price each) | \$365.00 |
| ADO | AM detector option | \$119.00 |
| OIO | Oscilloscope interface option | \$179.00 |



## Dorrough

The Dorrough $\mathbf{1 2 0 0}$ is a simple and easy to operate stereo audio signal test set It allows measurements of level, balance, crosstalk, and signal-to-noise with a dynamic fange of -90 to +20 dB and a measuremen range of -76 to +20 dB . The solution to balanced stereo lines.

## 1200




BCS


The Delta Electronics SNG-1 stereo noise generator is designed to meet the requirements of NRSC-I and 2 slandards for testing AM stereo and mono radio ransmission facilitics.

| SNG-1 | Rack Mount Kit | $\$ 665.00$ |
| :--- | :--- | :--- |
| RMK-1 | $\$ 170.00$ |  |

## Fostex



## Delta



Fostex TT-15 is a 9 V battery operated, S-irequency sine wave oscillator ( $40 \mathrm{~Hz}, 40$ ) $\mathrm{Hz} .1,10$ and 15 kHz ) with 3 selectable output levels ( $-30 .-10$ and 0 dB), is useful for spot checking frequency response. calibrating mixers with tape recorders and other level matching jobs.

The ATI Audible Noise Generalor NG-1 has selectable and adjustable pink or white noise. pulsed or continuous with built-in speaker and an ourput jack for an external amplifier and speaker. It's battery operated for portable use and includes a wall moun AC power supply for continuous operation.

NG-1
$\$ 199.00$

## ATI



## 

## McCurdy



The McCurdy ATS-100 Stereo (or dual mono) Extended Range Audio Meter allows monitoring of audio levels over a wide range of levels and sysiem impedance's. Features include: Taut-hand high quality meters - LED illumination eliminates bulb replacement Accurate offse adjustment in IdB steps - 90dB range - Provides read ings to 0.1 IB accuracy - XLR rear connectors - An indicator is provid ed for accurate stereo phasing measurement - imtegral power supply.
$\qquad$ Specify $-10 .+4$ or +8
$\$ 1.195 .00$

The Conex RX-11 Tone Jack is a compact audio frequency generalor providing sine and square-
 wave signals with precise freguencies from 1 Hz to $29,999 \mathrm{~Hz}$. It is uneful in keving the frequency response of systems. filters. tone sensors, ete. It is powered by a 9 V battery or external power and has an RS232 interface that allows a computer or terminal to control all the normal from panel functions.

| RX-11 | Tone Jack Audio Gencrator |  |
| :--- | :--- | ---: |
| SC-1 | RS-232 Serial Cable. RJOII to DB-25 | $\$ 229.00$ |
| PS-1 | Power supply | $\$ 15.00$ |
| CA-1 | Cirrying case | $\$ 9.95$ |
| OC-1 | Outpu cable. phone jack to clips | $\$ 11.95$ |

## EMCO



EMCO Tone Generators
$\overline{\text { RF-1-RF Signal Generator }}$
$\$ 240.50$


| SS-1 - Sinct/Squarre Wive |
| :--- | ---: |
| Generator |
|  |

## Goldline

to 20 kHz The TS-2 is a TS 1 that will determme imp quency range ( 20 Hz to 27 kHz ) from $1 \Omega$ to $1000 \Omega$. Versions are available from $1 \Omega$ to $10 \mathrm{~K} \Omega$.

| TS-1 | Balanced in |  |
| :--- | :--- | :--- |
| TS-1-BP | Wired for batery (batiery included) | $\$ 399.95$ |
| TS-I-RMX | Balanced in \& out via XLR both front \& rear w/RM | $\$ 59980$ |
| TS-2 | TS-1 winl impedance function |  |
| TS-2-BP | Wired for battery (battery included) | $\$ 578.00$ |

Goldline TS- 1 is
three audio test instruments in one unit. It includes: a low distortion audio oscillator with a range of 10 Hz to 30 kHz ; a frequency counter with response of 1 Hz to 99.99 kHz ; and a dB meter with range of -50 to 24 dB from 20 Hz

short pulses suitable for Loudspeaker Timing Analysis. Complete with timer controls for "time on and off."
Powered by a 9 V battery. The output is accessed via a $1 / 4$ " unbalanced plug.

| PN-2 | $\$ 95.00$ |
| :--- | ---: |
| PN-3A | $\$ 147.00$ |

Goldline's Pink Noise
Generators supply a flat noise source as a test signal for sound systents. The PN- 2 is powered by a 9 V battery which is turned on by the insertion of a $1 / 4$ " connector to the pink noise ourput and is housed in an ABS plastic case. The PN-3A is a gated pink noise source which provides continuous pink noise or bursts which are excellent for RT60 measurements plus short pulses suitable for Loudspeaker

## Radio Design Labs

 Manually selectable audio tones, line level balanced/unbalanced outpur and gain trim for each frequency. Output connections are made on the rear panel through full-size barrier block terminals. The RU-OSC 4 A features 4 separate audio oscillators operating at $100 \mathrm{~Hz}, 1 \mathrm{kHz} .7 .5 \mathrm{kHz}$ and 15 kHz . These frequencies provide quick, automatic verification of audio frequency response through a piece of equipment or an entire audio chain. A 'silent'period between the 15 kHz tone and the 100 Hz tone provides time to verify system noise levels.

## The RDL RU-

 OSC4A \& B Oscillator is for anywhere you need reference tones to verify audio system response| $\overline{\text { RU-OSC4A }}$ | $\$ 255.00$ |
| :--- | :--- |
| RU-OSC4B | $\$ 55.00$ |

## RU-OSC4B

$\$ 255.00$
Sec Rack Up Accessories on Page $25 \& 26$.

## Radio Design

Labs ST-OSC2A/B
is a Dual Audio Oscillator with adjustable levels anywhere you need: Precision sine-wave audio signal -Amplitude-stable ascillator - and Dual tone oscillators.

| ST-OSC2A | 1 kHz and 10 kHz |  |
| :--- | :--- | :--- |
| ST-OSC2B | 100 Hz and 400 Hz | $\$ 98.00$ |
| PS24A | Power Supply | $\$ 98.00$ |



Radio Design Labs ST-NG1 is ideal where random white or pink, mic and/or line level noise signal is needed. It is suttable either as a reference noise source lor audio measurements or as a masking noise source. It produces no repetitive freguency or amplitude patern. PS24A (\$17) power supply optional.
ST-NG!
$\$ 120.00$


## Hamlet

The Hamlet portable units were the first rasterizing test measurement devices designed for field use. They digitally generate waveform/vector signals for display on standard field monitors, LCDs and some camera view finders. They provide a means of identifying and analyzing signal aberrations and assist in locating the equipment causing the problem. Monitoring video levels during video production can guard against a multitude of potential problems and are especially importan because they confirm the quality of the video signal at the remote location. improving accuracy. The Micro Scope Series are portable units that weigh less than 2 pounds and are smalle enongh to hold in the palmo of your hand. They are powered by eitler rechargeable Nicad batleries or the included 12V AC adapter Hamlet offers a complete line of porable, rack-mountable and PCB-level devices for sludio, desktop video and ENG/EFP applications. All units carry a lwo year watanty.

| 2wV | Portable Composite Waveform/Vectorscope | \$1,745.00 |
| :---: | :---: | :---: |
| 302 WVA | Porable Composite Waveform, Vector and Audio | \$1,945.00 |
| 300w | Portuble Composite Waveform only | \$1,395.00 |
| PLM-1 | Portable Composite/Component Pgm. level meter | \$1.095.00 |



The Hamlet Waveform/Vectorscopes include the newest generation of test measurement equipment, combining both the waveform and vector functions inoo one compact unit. All Hamlet units digitally-generate waveform. vector and/or audio signals with their associated graticules for display on any standard monitor. So. you can route the signals to multiple monitors of any size or to mon itors located in remote ares. You don't even need to be near the source you're measuring. Choose from a varicty of models that meet all video applications and broadcast specifications. Whether you need a full-blown waveform/vector with precise measurements or simply an inexpensive way to monitor a signal. Hamlet has a wavelornvectorscope that is right for you.

| 301WV | Composite/Cumponemt Waveform and Vectur | \$2,295.00 |
| :---: | :---: | :---: |
| 302 WVR | I/2 Rack. Composite/Compunent |  |
|  | Wescform, Vector and Audio | \$2,295.00 |
| 303 WV | Composite Precision Wavefomuand Vetor (NTSC) | \$3.495.00 |

## CIPHER DIGIAL

Cipher Digital Time Code and Machine Control Products

| CDI-4815 | Phantom II VTR Emulator. RS422 to paralle! control | \$1.575.00 |
| :---: | :---: | :---: |
| CDI-4820 | RS232 to RS 422 Conventer for the UVW'1200/1400 | \$695.00 |
| CDI-1000 | LTC VITC Reader/Translator w/CHAR Inserter | \$1,475.00 |
| CDI-1300 | LTC Reader/Gencrator with External Control | \$825.00 |
| CDI-1400 | SMPTE/EBU Time Code Generator w/Jam Sync | \$1,375.00 |
| CDI-750 | SMPTE \& CHAR Insenter | \$2.595.00 |
| CDI-825 | RS422 to LTC Converter | \$350.00 |
| TCHB-3 | Time Code Handbook. Third Edition | \$22.95 |

Cipher Digital has a varats of cables for the VTR. ICR and dudio Trinsport. Prices range from $\$ 185$ to $\$ 310$. Please' call BGS for further information and pricing.

DNF Industries


Configure the DNF ST300-S/SM Slow Motion Controller for the way you work: Select slomo speed range - automatic Mark Cue advance esave last used slomo speed. and enable/disable Freete at Record Out. one or two but ton Record Features include: A detented Wheel ("T'-bar optional) provides a fast and easy slow motion control. from $0-200 \%$ or $-100 \% 10+200 \%$ of play speed, respectively. - You can quickly and casily store and recall up to 100 cue points All Cue Points are retained when power is turned off - It is fast and easy to search to a Cue Point. manually entered Timecode Number. or Record Out Point. Manually enter/edit cue points. - Set precoll duration fromn 00:00:00:01 10 01:00:00:00. Freeze on last good video (Record Out Point).

ST300-S/SM
ST 300 -S/SM-T with T-bar)
$\$ 2.500 .00$
Specifications for ST300:
Power: 90VAC or 265VAC adapter supplied widh IEC connector
Size: $\quad 12{ }^{\circ} \mathrm{L} \times 66^{\prime W} \mathrm{~W} \times 1.5^{\prime \prime} \mathrm{H}$ in the front slope to $3 " \mathrm{H}$ in the rear
Weight: +lbs .
Rear Panel Commectors: ITRI, VTR2, ITR3. VTR 49 pin female "D" GPI. 15 pin female " $D$ " Power 's pin male' "D"
Easy to read 2 line. backlit LCD display
Jog/Shuthe Wherd with detems
Optional "T"-har, stomo 0-200c" of Play Sipeed

Options for the ST 300 VTK Controller
The DNF SHOTIIST and PLAYLIS' options allow quick access to video clips stored on the Tektronix PROFILE. ASC VR, or any DIOR supporting the Odetics Broadcass Protocol.

A shot list of up io 400 Clip IDs can be maintained in non-volatile memory. It allows you to wew the available clips in the VDR/IDDR and mark selected clips into the shotlist at single or multiple locations. Access to any location is posisible by stepping through the list. one clip at a time forwards or backwards, or enter a 3 digit number for a specific location. Any clip in the shotlist can be programmed to play from beginning to end. then stop. (or loop continually until stopped).
SHOTLIST
Option to ST300
$\$ 300.00$
A play list of up to 20 video clips can be quickly and easily created, for automatic playout. Each video clip in the play list can be programmed to playout in one of three modes: Normal- Play from beginning to end. then seamlessly play the next clip: Loop Clip-Play from beginning to end. then seamlessly loop back to the beginning and repeat: or Loop List- Play current clip from beginning to end, then seamlessly loop back to the beginning of the list, and continue playing.
PLAYLIST
Option to ST300
$\$ 300.00$

DNF mantan cire



 "

The DNF STI 320 ShotIBOX in combination with the: ST300 VTR Controller and Shot List uption provodes intant access to 200 video slips stored an a Tekiromiv PROFII.E. ASC VR, or any Digital Dise Recorder that supports Odetice Broadcasi Protocol. It allows you to quickly and casily assign a specitic video clop to a specific buton and to change assignments quickly as new clips are created. The ST320 in ideal for any fast moving production that requires instant access to pre recorded video clips soored in a Video Server or Digital Dise Recorder. (ldeal for News. Game Shows, Award Shows, and Spons Coverage.) The Shombox also includes a QWERTY keyboard for easy clip naming when loading clips into the Digital Dise Recorder, or Video Server.
ShotBox (neludes software for STMOO)
$\$ 1,500.00$
DNF ST30 VTR Controller controls serial VTRs from any simple, momentary switch. contacl closure or GPl for applica tions that do not require VTR status tallies. Standard func tions include: Fall Record. Play, Stop. Still. Rewind. Fast Forward. Preroll and Standby Off. The small $2.5^{\prime \prime} \times 2.5^{\prime \prime} \mathrm{PCB}$ is ready for casy mounting in your existing control pancle or
 control cquipment.

## ST30

$\$ 250.00$

- $\$ 730$ Easy Interface-Commect up to 8 swithese \& groumd to the 10 pin male herader input commector: Commect power to d access the RSS 22 or RS2 32 serial output at the 6 pin male header outpur connector.
-Inpua Connector-10 pin male header: 100 inch cermers.
Female hecader provided with wit.
- Oatpur Comnector-9 pin "D" combectori: female:
- Ponver Requircmems-12VDC. Ioloma. Optional PS available - Ponver Commector-h pin fomale' hedoleri fomale hededer provided with unit.
- Size-7he small 2.5"x $2.5^{\prime \prime}$ pob is redely for easy mennting in your existing comerol pancls ar commol arpaipmem.


## video equipment

## DNF Industries

DNF ST200 has an integral thirteen switch keypad, Real-time VTR Status Indicators. Timecode/CTL Tape Time Display. and Jog/Shuttle Wheel. The ST200 can be used through your facilities' existing RS 422 Control router, RS422 patchbay, or 9-pin Switch Box.


Standard functions include:

- Play. Stop. Rewind. Fast Forward. Record. Prcroll. Jog. Shutte. 2 Cue Point Memory, Search to Cue, Standby On/Off.
- A numeric keypad for entering Timecode or Tape Time "Scarch To" locations.
- The following record modes are available: Record Lockout, Crash (Full).

Assemble, Insert-Video. Audio 1. Audio 2. Audio 3. \& Audio 4. The record mode can be selected by the operator, or where required. configured by management and operator access disabled

- Standard Real-Time Tallies: Record, Play, Stop/Still. Rewind/Reverse, Fast Forward/forward, Jog/Shuttle Mode.

| ST200S | Sony VTR Controller | $\$ 1.200 .00$ |
| :--- | :--- | :--- |
| ST200A | Ampex VTR Controller | $\$ 1.200 .00$ |
| ST200AS | Ampex \& Sony VTR Controller | $\$ 1.350 .00$ |

DNF ST200-S/SM Slow Motion Controller combines all of the fealures of the ST200 Universal VTR Controller with Slow Motion Control and Multiple Cue Points in remotely control your slow motion capable VTR. It quickly and easily varies the play speed from $+200 \%$ to-100 $\%$ play speed. Standard functions include: Play, Stop, Rewind, Preroll, Record. Fast Forward, Jog, Shutle. 100 Cue Ponnt Memory. and Search to Cue. The ST200-S/SM can be used through your facilinies' existing RS422 control router, RS 422 patchbay or 9 -pin swich box.

$\$ 1,700.00$


DNF SW1X8 RS422 Switcher allows the ST200. ST100 Universal VTR Controllers. edit controller, or any other RSt?2 VTR Controller. to control of up to 8 VTRs. At the press of a bution. select | out of 8 VTRs for individual control. select a group of VTRs to control. or gang roll all 8 VTRS. Connect 2 or more SWIX8 RS 422 Switchers to control more than 8 VTRS. The SWIX8 is a highly effective Routing and Distribution system. IU

SW1X8 RS422
$\$ 950.00$


DNF SW2X1 Electronic A/B RS422 Switch quickly and easily switch between your on-air automation systen and backup control systen in the event of automation failure. It has two electronically buffered inputs and one buffered output for easy interfacing. The front panel has remote A/B select and lockout for remote only operation. In the event of power failure, on board bypass relay switches "A" input to VTR output. Power supply is included with rack-

I Rackmount housing with four SW2XI cards
$\$ 1.800 .00$
1 Rackmount housing with three SW2X1 cards
$\$ 1.40 .00$
SW2 X1-2 1 Rackmount housing with two SW2X1 cards $\$ 1,080.00$
SW2X1-1 1 Rackmount housing with one SW2XI cards $\$ 720.00$
I Rackmount housing only
$\$ 360.00$
SW2XI RS42? Electronic $A / B$ swith card
$\$ 360.00$

DNF INDUSTRIES' VTR Control Solutions are ideal for~
"Television Stations
"Video Production
-Audio Post Production
-Corporate Video Facilities
-Cable TV

- Video Post Production
-Duplication Houses
mount housing.
SW2X1-4
SW2X1-3

SW2X1-0 your specific application. Get the features ö functions you need!

- Wide range of RS422 \& RS232 VTR Controllers to fit your control needs and budget
- Customize DNF's VTR Controllers for

DNF~Your Source for High Quality, Low Cost Control Solutions!

## Control them all:

- Sony, Tektronix, Panasonic, JVC, Anıpex, Pioncer ASC VR, B'TS. Sierra Design Labs, Hitachi, Mountaingate/Recognition Drasepts, Rorke Data, Rapid Technology, Pluto, MMS

D1, D2, D3, D5, DC'T, Betacam, Digital Befacann, Mili, 1 -inch, $3 / 4$ inch, $S$-VHS, HI-8, Video Laser Disc, Video Disc Recorder

## DNF Industries



| ST60-A | Ampex VTR Controller | \$500.00 |
| :---: | :---: | :---: |
| ST60-AS | Ampex \& Sony VTR Controller | \$650.00 |
| ST60-S/PS | Universal Parallel Interface | \$500.00 |
| ST60-UVW | Sony VTRs: UVW'-1200 \& UVW-1400 | \$500.00 |
| AllSTbubTR Conrohlers do not include Keypdo or Serial Cable |  |  |
| Rackmount ST60 without Keypad |  |  |
| ST60-S/SRN | Single ST60-S | \$575.00 |
| ST60-S/DRN | Dual ST60-S | \$1,000.00 |
| ST60-AS/SRN | Single ST60-AS | \$725.00 |
| ST60-AS/DRN | Dual ST60-AS | \$1,300.00 |
| ST60-SPS/SRN | Single ST60-S/PS | \$575.00 |
| ST60-SPSIDRN | Dual ST60-S/PS | \$1.000.00 |
| Rackmount ST60 with Front Panel Keypad |  |  |
| ST60-S/SRK | Single ST60-S | \$700.00 |
| ST60-S/DRK | Dual ST60-S | \$1,250.00 |
| ST60-AS/SRK | Single ST60-AS | \$850.00 |
| ST60-AS/DRK | Dual ST60-AS | \$1.550.00 |
| ST60-SPS/SRK | Single ST60-S/PS | \$700.00 |

The DNF Industries ST60 VTRR Controller is casy to install and use. Simply plug it into the VTR serial remote connector. Connect your Master Control Switcher, Parallel Machine Control system or control panel into the parallel input of the ST60. It controls Record. Play. Stop. Rewind. Fast forward. Jog \& Shutte with a simple switch or contact closure. Switch selectable Record Mode: Record Lockout. Crash, Assemble and Insert Record. The St60 provides real-time VTR tallies: Record. Play. Stop. Rewind. Fast Forward, and Jog. Active low, Open-Collector output. It also can be easily and inexpensively customized with the functions and tallies required for your specific application.

- One ST60 controls them all: DI. D2. D3, D5, DCT, Betacam. MII, IInch, $3 / 4$ Inch. S-VHS, Hi-8.
Sony. Ampex. Panasonic. Hitachi, Tektronix. ASC. Drastic Technologies JVC \& BTS


The DNF ST 100 has the features of the ST60 as well as a Timecode/tape Time Display, keypad, and a jog/shutte wheel.. It can be ordered in a rackmount or desktop version.
$\begin{array}{ll}\text { ST100-S } & \begin{array}{l}\text { ST60-S with Keypad. Time Code Display } \\ \\ \text { \& Jog Wheel in one unit }\end{array}\end{array}$
STIOO-A ST60-A with Keypad. Time Code Display
STIOO-AS
ST100-UVW
STIOO-S/SRK \& Jog Wheel in one unit ST60AS with Keypad. Time Code Display \& Jog Wheel in one unit ST60AS with Keypad, Time Code Display \& Jog Whee! in one unit

## DNF Industries options for ST60, ST100 \& ST200

DNF Smarter Switch Option for your Universal VTR controller automatically switches control between two users controlling the same VTR. The Priority Controller (the VTR Controller with the option) automatically determines which control point gets control of the VTR using the following rules: 1. Normally, the second control point is given control of the VTR through the loop-thru connector (located on the rear of the priority controller). 2. When any function switch is pressed on the priority controller, the second control point is disabled. The priority controller takes control of the VTR. After the selected function is executed, the second control point is given control of the VTR, again. 3. While the second control point has control of the VTR, the priority control points status indicators reflect the current state of the VTR. This option must be ordered at the same time as the controller.

## Smanter Switch

For use with ST60 \& ST100
$\$ 150.00$

DNF Smart Switch Option for your Universal VTR controller allows you to manually switch control between two users of the same RS422 VTR. Just press shift + stop to toggle the Smart Switch on and off. The Master VTR Controller with the Smart Switeh Option is connected to the RS422 VTR. The second controller is connected to the LoopThru connector on the rear of the Master. When Smurt Swich is off, the Master takes control of the VTR; when Smart Switch is on, the second controller takes control of the VTR This option must be ordered at the same time as the controller. Smarn Switch For use with ST60. STIOO \& ST200 $\quad \$ 75.00$

## video equipment

## DNF Industries

The RS232 Computer Interface is for controlling RS 422 VTRs from your PC or Macintosh(®) via the ST60 VTR Controller. The ST60 handles all communication with the VTR: Formatting commands per the manufacturer's protocol, receiving and decoding VTR responses and status and providing the required baud rate and data structure interface. Most commands from your computer to the ST60 require no nore than an ASCII character followed by carriage relurn (ASCII value OD HEX) for execuiton

| ST60-CS | Sony VTR Controller Interface |  |
| :--- | :--- | :--- |
| ST60-CA | Ampex VTR Controlter Interface | $\$ 600.00$ |
| ST60-CAS | Ampex and Sony Controller Interface | $\$ 60.00$ |

DNF ST60-JRX Universal Converter converts Video Duplication System serial control, used with JVC BR-7000 and Panasonic AG-6830 type Duplication VTRs, into individual contact closures for controlling parallc! VTRs, and RS422 serial control compatible with Sony or Ampex type VTRs (switch selectable). You can control any source VTR anywhere in your facility from your duplication system. Mix and match VTR formats and brands easily or upgrade to the new serially controlled VTRs without obsoleting your existing control system. The serial and parallel uutpuls can be looped to multiple VTrs for gang-rolling. Coutrols include: record. play, stop. rewind. fast forward. pause, cject and record lock-out switch to prevent your source VTR from going into record.

DNF SR6 Serial Input/Parallel Output Converter accepts RS422 or RS232 serial data at its input and provides six open-collector outputs. It decodes the input data to determine which output will be active (low) and which output will be inactive (high). Optional Status Input Lines allow data to be returned to the controller. describing the activelinactive state of status inpuss (active line pulled to status common: inactive line internally pulled to +5 VDC). Serial input data can be from several sources including the ST60. STI00, a PC compatible or Macintosh(0) computer or any other type of controller.
SR6 $\quad \$ 600.00$

DNF ST60-J2W Parallel to Serial Converter convers contact closures. open-collector outputs, or switch closures, from Video Duplication Systems. Parallel Machine Control Systems. or simple Switch panels into serial data capable of controlling JVC BR7000, AG-6830 and SVO-960 type Duplication VTRs. Conirols include: record, play, stop, rewind. fast forward. pause and eject. The serial oulput can be looped to multiple VTRs for gangrolling.

ST60-52W
$\$ 500.00$
$\$ 575.00$


## Tell Them all Where to Go! With DNFs High Quality, Low Cost VTR Controllers




Video equipment

ESE ES305 News Talent Count-down Display is mounted to a camera so talent can see the five bright orange lights that extinguish one at a time the way a director counts down. It can display a 5 second count-down or start with 5 seconds of steady lights prior to count-down. The ES305 can be operated from 120 VAC 60 Hz or 400 Hz . or it can run on 12VDC. It comes in a black anodized case measuring $1.6^{\circ} \mathrm{H} \mathrm{x}$ $10^{\prime \prime} \mathrm{W} \times 5^{\prime \prime} \mathrm{D}$ and weighs less than 2 lbs .
$\$ 295.00$

ES305 News talent count down display.
camera mountable

## Feral

The Feral OS400 Quad Split is the first economical way to view and
 manipulate multiple images on one sereen. The Quad Split combines four video inputs into one video output. Each input is independently scalable, allowing you to horizontally and vertically re-size and position each image with aspect ratio control plus, each input can be independently frozen to hold ts display while moving the other inputs. The image re-sizing and transitions can be manually performed or pre-stored in memory for quick and easy recall. It has composite and Y/C inputs and outputs as well as NTSC and PAL video standards. It automatically detects and transcodes between formats. The genlock input and key output allow for easy integration with other equipment.


QS-400
$\$ 4.995 .00$

Evertr


Evertz Microsystems Itd. manufactures a wide range of products including ATR and VCR Iramport inter faces for video edit controllers. audio/video chase symchronizers. LTC/VITC tane code generators, readers. character inserters and iranslators, plus digital clocks, production timers and data displays.
4015
$\begin{array}{ll}4015 & \text { Film Footage Encoder } \\ 4025 & \text { Film Pos! Production S }\end{array}$
$4025 \quad$ Film Post Production System (KeyKode heads not included)
5150 Afterburner II LTC/VITC Reader/VCG (Reads KeyKode in user bits)
5500 KeyKoder Decoder with head. bracket \& cables
5500A KeyKoder/ARRI TC Decoder with head. bracket \& cables
8025 Digital VITC Keyer
5010 LTC TC Gen/Reader/VCG or VITC TC
$7100 \quad$ ATR Emulator for Sony protocol editors w/interface
 The Euro-card based design pernits the addition of TC readers, generators, translators, and character vencrators. These' modules can perform decthcated iasks or may be configured as standard or custom system applications. A sungle module enchosure is also aralable.

Call Broadcasters General Store for system configurations and pricing.'

## Hotronic

Hotronic was founded in California in 1982. Its main line of products was digital TBC/Frame Synchronizer systems. Since then they ve added several new products for both NTSC and PAL.

AP4I

APAISW AP4ISF DOC AT61

AT61F ATG1AU AT61AUD AR3I Remole AX81 Audio AQ2ISP

## $8 \mathrm{~A} / \mathrm{V}$

DOC
Remote Audio AR711 AR711 AR712 PCTBCY/C Remote Chassis!
Chassis8
AU5I

## TBC/Frame Synchronizer Y/C / composite I/O.

 full proc-amp control/Gen lock AP41 plus Digital Comb FilterAP41 plus S-VHS output, freeze frame/field. 16 speed strobe
Option for AP41. Digital Pixel by Pixel. Irop-out compensator 10 bit Frame Synchronizer. Digital Comb Filter. Puss VIR/VIT. no quantization noise, Analog I/O ATGl plus Freeze Field or Frame AT61 plus Analog Audio $1 / \mathrm{O}$
AT6I plus Digital Audio/Video output
TBC/Frame Synchronizer
AR3I Remote Control Pancl
$8 \times 2$ Asynchronized. video router
AX8I Audio Follower (XLR) option
Broadcast TBC Switcher, Digital effects, Scaler,
Down-stream keyer. Digital Comb. Filter, 3dB noise reducer
AQ21SP 8 Channel Video and 8 Channel Balanced Audio.
XLR inputs option
Digital Pixel by Pixel, Dropout compensator option for AQ2 ISP
AQ21SP Remote Control Panel Option
AQ21 Stereo Audio Switcher Option
Dual Channel TBC/Frame Synchronizer w/1 remote control
Dual Channel TBC/Frame Synchronizer w/2 remote controls
PC-Based TBC/Frame Synchronizer Card Composite/Y/C I/O
PCTBCY/C Remote Control Panel Option
PCTBCY/C 1 Slot Option
PCTBCY/C 8 Sloi Option
20 Bit Broadcast Audio Delay
Service Manual for all Models
$\$ 995.00$ $\$ 1.300 .00$
$\$ 1,300.00$
$\$ 200.00$
$\$ 2.400 .00$
$\$ 2.600 .00$
$\$ 3,400.00$
$\$ 3.950 .00$
$\$ 580.00$
$\$ 100.00$
$\$ 2.200 .00$
$\$ 750.00$
$\$ 4,000.00$
$\$ 1,400.00$
$\$ 400.00$
$\$ 950.00$
$\$ 400.00$
$\$ 1.770 .00$
$\$ 1,870.00$
$\$ 735.010$
$\$ 100.00$
$\$ 120.00$
$\$ 930.00$
$\$ 2.000 .010$
$\$ 65.00$

ManyItemsin Stockifor Immediate Delivery...Call Today!

## Matthey



Mat they - low pass video filters • very sharp cut (Brickwall) filters • 601 type filters $\cdot 422$ filters • slow roll off filters - HDTV high frequency, low pass filters • triple filters • S.I.L. filters • D.I.L. filters • zero loss filters • hybrid video amplifiers - noise weighting filters - group delay equalizers • differentiating pulse networks • video antenuators. For a complete Matthey catalog. please give us a call.

Matthey Video Delay Lines are available in metal boxes with BNC connectors. They are designed to be used either as pernanent rack mounted installations, or as temporary connections in test laboratories, outside broadcast units, or when timing a new installation. The metal boxes are strong. providing good protection to the delay line:; and RFI shiclding. Switches are all gold plated with low noise performance

| NV180 | Video delay for smaller than $180^{\circ}$ of phase, 2ns steps and $\pm$ Ins trim | $\$ 336.00$ |
| :--- | :--- | :--- |
| NV 360 | Video delay for up $10360^{\circ}$ of phase, 2 ns steps and $\pm$ ns trim | $\$ 417.00$ |

## Modulation Sciences



Modulation Sciences' new MSI320 Precision Television Demodulator is a revolution in video monitoring. The new, high quality precision demodulator provides advanced, accurate measurement and monitoring of a station's visual and aural signal at a traction of what precision demods usually cost. The MSI 320 features Modulation Sciences' own, state-of-the-art contemporary design using the most advanced components and precision technology.

```
MS1320
```


## $\$ 3.785 .00$

## PointMaker

## Please call for complete information and cable pricing.

## ~Notes~



Connected between a video source and monitor, the Pointmaker can be used to enhance a video presentation. Drawing and pointing is accomplished either from the back of the room with a wircless remote control, directly on the monitor with a light pen. or with a digitizing tablet. The Pointmaker may also be operated with a touch screen (call for compatibility). or a computer (via RS-232C). Compatible wilh monochrome ELA RS-170, composite NTSC, Y/C (S-Video) RGB, VGA (PC) and most Macmtosh sources and displays. Add the letter " C " to the model number for compatibility with CCIR and PAL video instead of NTSC. The PVI-80 series models come standard with a keyboard for typing on an image.

| Multiple-Syne Video Matker with digitizing tablet | PVI70D | \$1,995.00 | PVI80D | \$2,695.00 |
| :---: | :---: | :---: | :---: | :---: |
| Multiple-Sync Video Marker with light pen | PVI70L | \$2,095.00 | PVI80L | \$ $\$ 7.795 .00$ |
| Multiple-Sync Video Marker with wireless remote control | PVI70R | \$2,295.00 | PVIS0R | \$2.995.00 |
| Videoconference Marker with digitizing tablet | PV171D | \$2,195.100 | PVISID | \$2.895.00 |
| Videoconference Marker with light pen | PVI7IL | \$2,295.00 | PVI81L | \$2.995.00 |
| Videoconference Marker witio wireless remote control | PVI7IR | \$2,495.00 | PVISIR | \$3.195.00 |
| SVGA Multiple-Syne Video Marker with digitizing tablet | PVI72D | \$2,795.00 | PVI82D | \$3.495.00 |
| SVGA Muliple-Syac Video Marker with light pen | PVI72L | \$2,895.00 | PVIS2L | \$3,595.00 |
| SVGA Multiple-Syne Video Marker with wireless remote | PVI72R | \$3,095.00 | PVI82R | \$3,795.00 |
| SVGA Videoconference Marker with digitizing tablet | PVI73D | \$2,995.00 | PVI83D | \$3.695.00 |
| SVGA Videoconference Marker with tight pen | PV173L | \$3.095.00 | PVI83L | \$3.795.00 |
| SVGA Videoconference Marker with wireless remote | PV173R | \$3.295.00 | PVI83R | \$3.995.00 |

Multiple-Sync Video Marker with digitizing tablet Multiple-Sync Video Marker with light pen
Multiple-Sync Video Marker with wireless remote control Videoconference Marker with digitizing tablet Videoconference Marker with light pen
SVCoconference Marker witi wireless remote control
SVGA Multiple-Sync Video Marker with digitizing tablet
SVGA Multiole Syac Video Marker with light pen
SVGA Multiple-Sync Video Marker with wireless remote
SVGA Videoconkerence Marker with digltizing tablet
SVGA Videoconference Marker with wireless remote


## What is a half normalled jackfield? How and where is it used?



Figure 3

The term half normalled describes an audio jacktield that has vertical pairs of jacks normalled to each other. With this configuration, the switching contacts (normals) of one of the two jacks is used to break the circuit. The other jack is used as a mult to monitor (but not break) the circuit. Half of the available normals are utilized, hence the term half normalled

With a fully normalled pair of jacks, the tip and ring normal terminals of both jacks are connected to each other. This results in both jacks providing "break access" to both the source and destination of the circuit.

The two jacks shown in Figure 1 are in a half normalled configuration. The tip and ring normal terminals of only the bottom jack are connected to the tip and ring connections of the top jack. In this configuration the bottom jack (normals connected) breaks the circuit, while the top jack (normals bypassed) monitors the circuit.


Figure 1
audio jackfield is illustrated in Figure 2. The source deck can be monitored by inserting a plug into the top row jack while it supplies signal to the mixer via the bottom jack. Furthermore, to send a new source to this mixer, the circuit can be broken by inserting a plug into the bottom jack.

ADC Pro Patch and BJF series jacklields with the normals brought out can be half with the normals brought out can be hal
normalled. Figure 3 shows Jack 1 fully normalled to Jack 25. Jack 2 is wired half normalled to Jack 26.
A typical application for a half normalled signal to the mixer via the bottom jack.


Figure 2

Hall normalled wiring configuration: Ring of top jack to ring normal of bottom jack. Tip of top jack to tip normal of bottom jack


## Audıo Normalling

Audio normalling is a wiring pattern in which a circuit path is estadisned from one piece of audio equipment to another without the use of a patch cord. This pattern is then considered to be the "normal" circuit path that is desired most of the time. If a patch cord is inserted, the normal circuit path is interrupted and rerouted to a ditferent circuit path. Normal paths may be pre-wired at the factory ut may be configured in the field by the installer. Normalled patch parıels are most commonly found in vertical jack pairs: the top jack (row 1) is designated as the source and the bottom jack (row 2) is the destination.

## Normals Out

All contacts from top and bottom jacks are brought out to the rear termination panel or connectors. This option is considered to be the must tiexible since each circuit can be wired independently. The installer can choose any combination of normals strapped, half riurilalled, or no normals at the rear of the panel.

## Normals Strapped (Fully Normalled)

The normals of the top jack are internally strapped to the normals of the corresponding bottom jack, with the tip, ring, and sleeve brought out to the rear termination. The normal circuit path of top to bottom jack can be broken by inserting a patch cord into either jack. The signal is then routed into the patch cord. The plug on the free end of the patch cord can be inserted into another jack in the patch panel, where the normal circuit path to that jack is broken and the recurfiguration is complete.

## Halt Normalled

The normals of the bottom jack only are internally wired to the tip and ring connections of the top jack and the tip, ring, and sleeve of both jacks are brought out to the rear termination. In this curfiguration, inserting a patch cord into the bottom jack (normals corrected) breaks the normal circuit path, while inserting a patch curd into the top jack (normals bypassed) monitors the circuit.

## No Normals

In this configuration no normals are present internally or on the rear termination, so there is no normal circuit path to be interrupted.

## Sleeve Normals Out

Similar to normals out, all contacts from top and bottom jacks are brought out to the rear termination, with the addition of sleeve normal contact. This allows the shield/ground connection to be brought through and switched when patched.



Video Normalling
Video normalling typically occurs within a dual video jack. A self-normalling video jack internally routes a signal from one piece of video equipment to anuther, creating a "normal" circuit path. The insertion of a patch cord breaks the normal pain and reroutes the signal; removal of the patch cord returns the signal to the normal path. Normalling occurs vertically in dual jacks, between the top port of the jack, designated as the source or input, and the bottom port of the jack, designated as the destination or output.

Termination
ADC dual video jacks are available non-terminated or terminated to a $75 \Omega$ resistor. In the terminated jacks, when patched, the unused signal is terminated to the $75 \Omega 2$ resistor, as opposed to staying open in the non-terminated jacks. i ermination is imporant to take into account when working with high frequency signals in serial digital video applications. The primary benefit of $75 \Omega$ termination is return loss improvement. Also, if the destination equipment is not terminated, the resistor provides a load on the line so that the cable does not decome an anterma.




# TECHINAL BOOKS FOR COMMUNICATIONS TECHNICIANS AND BROADCAST ENGINEERS 

Below are books offered by the Society of Broadcast Engineers through its Book Store. Members of SBE may order books at the discounted member price. For a description of the titles and the most up-to-date pricing, check out SBE's home page at http.//www sbe org

| Item\# | TITLE and AUTHOR | NON-MEMBER PRICE: | MEMEER PRICE: |
| :---: | :---: | :---: | :---: |
| A-1 | Audio Precision Handbook by Metzger | \$12.95 | \$10.35 |
| C-2 | A Handbook of Circuit Mathemalics for Technical Engineers by Libbey | \$59 95 | 848.00 |
| C-3 | Interconnecting Electronic Systems by Whitaker/Desantis/Paulson | 569.95 | \$56.00 |
| C-4 | AC Power Systems Handbook by Whitaker | \$64 85 | \$5200 |
| C-6 | The Electrical Engineering Handbook by Dorf 2nd Edition by Dort | \$11000 | \$88.00 |
| C-7 | Pocket Book of Integrals and Mathematical Formulas. 2nd Edition by Tallarida | \$15.95 | \$12.75 |
| C-8 | Maintaining Electronic Systems by Whitaker | 584.95 | \$61.00 |
| C-9 | Fiber Optic Communjcations by Green | S64.95 | \$52.00 |
| C-10 | The Mobile Communications Handbook by Gibson | 58495 | \$68.00 |
| C-11 | The Electronics Handbook by Whitaker | \$99.95 | \$80.00 |
| F-3 | Broadcast Transmission Engineening Practice by Whartor/Metcalie/Plats | \$165.00 | \$148.50 |
| F-4 | Newnes Television \& Video Engineer's Pockel Book. 2nd Edition by Trundle | \$36.95 | \$33.50 |
| F-5 | Broadcast Technology Worktext by Ebersole | \$34.95 | \$31.45 |
| F-7 | Digital Audio 8 CD Technology, 3 d Edition by BaertTheunissenNergult | \$39.95 | \$35.95 |
| F-8 | The Digital Interface Handbook, 2nd Edition by Rumsey/Watkinson | \$49.95 | \$44.95 |
| F-9 | An Introduction to Digital Audio by Watkinson | \$39.95 | \$36.00 |
| F-12 | The Ar of Digilal Audio, 2nd Edition by Watkinson | \$7500 | \$67.50 |
| F-13 | Sterec Microphone Techniques by Bartlets | \$38.95 | \$35.05 |
| F-14 | Microphones: Technology and Technique by Bonwick | 547.95 | 343.15 |
| F-16 | Broadcast Sound Technology, 2nd Edition by Talbol-Smith | 534.95 | \$31.45 |
| F-23 | The Digital Videotape Recorder by Watkinson | \$49.95 | \$45.00 |
| F-24 | The Art of Digilal Video. 2nd Edition by Watkınson | \$75.00 | \$67.50 |
| F-25 | An Introduction to Digital Video by Walkinson | \$39.95 | \$36.00 |
| F-26 | Basic TV Technology. 2nd Edition by Hartwig | \$22.95 | \$20.50 |
| F-27 | The Video Studio, 3rd Edition by Bermingham | \$24.95 | \$22.45 |
| F-28 | Issues in Advanced Television Technology by Weiss | \$34.95 | \$31.45 |
| F-29 | Advanced Television Systems: Brave New TV by Tassel | \$36.95 | \$33.25 |
| F-30 | The Guide to High Definition Video Production by Gordon | \$3995 | \$36.00 |
| F-31 | Compression in Video \& Audio by Watkinson | \$4795 | 54.15 |
| F-32 | Digital Interface Handbook. 2nd Edition by Rumsey and Watkinson | \$4995 | 945.00 |
| F-33 | Audio for Television by Watkinson | 547.95 | 843.15 |
| F-34 | Sound Engineer's Pocket Book by Taltot-Smith | \$24.95 | \$22.45 |
| J-1 | Directional Antennas Made Simple by Layton | \$49.95 | \$39.95 |
| M-2 | TV Engr. Handbook Featuring HDTV Systems, Revised by BensorNWitaker | \$99 50 | \$79.60 |
| M-13 | Low Vollage Wiring Handbook by Maybin | \$59 50 | $\$ 47.50$ |
| M-17 | Video Engineering by Inglis | \$60.00 | \$48.00 |
| M-18 | Lenk's Video Handbook: Operation and Troubleshooting. 2nd Ed. by Lenk | 54950 | \$39.60 |
| M-19 | Antenna Engineering Handbook, 3rd Edition by Johnson | \$119.50 | \$95.60 |
| M-20 | Digital Video \& Audio Compression by Solari | \$55.00 | \$44,00 |
| M-21 | Radio Frequency Radiation, Issues and Standards by Hammett | \$55.00 | \$44.00 |
| M-22 | Wire. Cable \& Fiber Optics for Video \& Audio Engineers by Lampen (hardback) | \$55.00 | $\$ 4.00$ |
| M-23 | Wire, Cable \& Fiber Optics for Video \& Audio Engineers by Lampen (paperback) | \$34.95 | \$27.95 |
| M-24 | McGraw-Hill Dictionary of Electronics by Sclater and Markus | \$55.00 | \$44.00 |
| P-2 | Satellite Communicalion Systems Engineering, 2nd Edition by Pritchard, et.al. | \$87.00 |  |
| P-3 | Digital Video Image Processlng by Tekalp | \$55.00 | \$44.00 |
| S-1 | SBE Proceedings /check year(s) requested) © 1986 ם 1987 ם 1988 <br> - 1991 <br> - 1992 <br> - 1993 <br> ロ 1994 <br> 口 1995 <br> 1996 | \$3500 | \$20.00 |
| S-2 | SBE/NPR Radio Cerlification Course | \$395.00 | \$150.00 |
| V-1 | Power Vacuum Tubes Handbook by Whitaker | \$98.95 | \$00.00 |
| W-1 | Tech Tips from Radio Guide by George Whitaker | \$30.00 | \$14.00 |
| W-2 | Practical Radio Communicalions: Volume I | \$45.00 | $\$ 36.00$ $\$ 3600$ |
| W-3 | Practical Radio Communications: Volume 2 | \$45.00 | $\$ 36.00$ $\$ 64.00$ |
| W-4 | Praclical Radio Communlcations: Volume 182 complete set | \$80.00 | S6.00 |

Here's How To Order


To order by credit card. call SBE Services (317) 253-1640 or fax your order to (317) 253-04) 8 make checik payable to "SBE ed on all orders. Orders ore shipped UPS Ground so streel aaress must be provided. Or mol your order with payment to: SBE BOOKSIORE 8445 Keystone Crossing \#140 Indianapois, in $462400-2454$

- Prlces and ililes subject to change wlihout notice.




# ~Ordering Information~ 


#### Abstract

Customer Open Accounts: we are pleased to ship on open account to qualified domestic businesses and educational agencies. Our credit application can be found on the cover sheet or you may request us to fax one to you. All accounts over the credit terms agreed upon will relinquish their privilege of credit terms. COD is available under certain circumstances, please call for details.

Shipping Information: Normally we ship via Ups. For expedited shipments, we do use UPS, Federal Express or any specific shippitg company you may request. Transportation costs from the shipping point to dostination will be prepaid by BGS and added to your order or billed to your account (unless quoted prepaid). Inspect all shipments immediately! If a package is damaged, please make a note of damage or any missing cartons on the receipt and have the driver sign it and give you a copy. Please call BGS if any of these problems arise. See notes below on Claims.

Returns: should you need to return an item, please call for a return authorization number. Wo are happy to take Authorized returns which include all original packaEing matorials, warranty card, manuals, and accossories and are back in 14 days. Ploase ship it back prepaid froight and insured. Most special order items we do not stock are returned to the manufacturer and will have a manufacturer's restock of 15\% to $50 \%$. Some custom orders are not returnable. Computer software will only be accepted back if unopened and the factory seal is intact.


Taxes: should Broadcasters General Store be required to collect manufacturer's drop ship sales tax, you shall reimburse Broadcasters General Store. For Items that ship or bill to Florida, Goorgia and Illinois we are required to collect sales tax, unless you have submitted signed documentation of your tax exemption.

Shipment Damage Claims: Any damaged or missing cartons should be noted on the delivery receipt by the driver, before you sign for the shipment. Please copy and fax to BGS so that we may follow up and assist you in any way we can. Save all cartons and equipment until the claim is settled. Under present icc rules and regulations it is the responsibility of the consignee to inspect and report loss and damages promptly, within 5 working days, and in writing.
Conditions of Sale: Payment for the goods is as previously agreed at the time of sale and as stated on the invoice, including freight charges. In the event an invoice is not paid as agreed, the Buyer agrees that the Seller, Broadcasters General Store, Inc., retains title and right to possession of the goods, that the Buyor agrees to pay all costs of collections, including attorney's fees and that interest shall accrue on the full balance at the rate of $18 \%$ per annum. Any Iftigation between the parties shall take place in Marion County, Florida. All returned checks incur a $\mathbf{\$ 2 5}$ charge.
Warranties: The manufacturers' warrantles apply and commence on the invoice date. In the evont of equipment failure during the warranty period, contact Broadcasters General Store promptly so that we may assist in the replacement or ropalr of the defective Item.

Broadcasters General Store, Inc. 2480 S.E. 52nd street

Ocala, FL 34480
PH\#352-622-7700 Fax\# 352-629-7000

Speciflcations and prices are siublect to change without notice.


## Index




|  |
| :---: |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |



## Index

| ~A~ Continued <br> to Couplers |
| :---: |
| Automation .......-2.167-161 |
| AVCOM ..........137,169,102 |
| AVL .......................... 170 |
| AVOCET .-.137.147.148,153 |
| AZDEN |
| ZONIC |
| B\&B ........................61,62 |
| E |
| BEC Technologies ........ 161 |
| Behringer 5,51.91.99,100,102 |
| Belar ......................... |
| Audio Fail Safe ......... 13 |
| Modulation Monitor $\cdot$ - 15 |
| RBDS ...................... 148 |
|  |

Belden ….......................... 9
Benchmark ...........3,5,21,23
BEST Power ..................81
Beta Brite
$\cdot 173$
Beyerdynamic
Headphone/Headsets 14.15
Microphones ................ 35
Mic Accessories - 30,31.32
Wireless Mics .............. 38
BGW .............................. 6
Biamp .........44.50,92,99,162
Big Ears ........................ 124
Bird ..................137,143,146
Blue Group ................... 119
Bogen ......................... 188
BOSE ................................*
Brainstorm Electronics ....*
Broadcast Devices 5,137,145
Broadcast Electronics47.102
Broadcast Tools
Audio Fail Safe …131-132
Automation ................. 167
Console Controller ....... 54
Intercom ........................ 18
Mixer ........................... 59
Relay ............................ 27
Router/Switcher …162-163
Satellite ....................... 168
Bruel \& Kjaer ...................*
BRYCO Storage ........... 176
Bryston ............................. 6
BSS ......................91,92,100
Burk ........................133,163
Burst Electronics .............*
Cable

| essories ..............9-11 |
| :---: |
| Audio ......................9-10 |
| Coaxial .......9-10.143-144 |
| Connectors ............11-12 |
| Digital Analyzer ........ 190 |
| Fiber Optic .........160-161 |
| Microphone ................ 13 |
| Testers ..................... 190 |
| C |
| blewave .............137,144 |
| uitek ................ 35 |
| $\theta$ |


| ig Labs ....................... 29 | Countryman Assoc. Inc. |
| :---: | :---: |
| California Amplifiers ... 137 | Cordlox |
| Calculated Industries $\cdots 170$ | Cortana Corporation .....-137,157 |
| Canare ...................9,10.13 | Couplers ....................... 184 |
| Cartridges ....................121 | Creamware ................... 116 |
| Carts ......................... 103 | CRL ............................ 137 |
| Carver .....................6.153 | Digital Audio Analyzer • 190 |
| Cases/Equipment Bags $\cdots$-112-123 | Mic Processor .............. 37 |
| Cassette Decks .......107-108 | Processors ...........85.86.90 |
| CCS .....................-130,183 | RBDS ........................ 148 |
| CD Players/Rec. ....109-110 | Real Time Event Sequencer $\cdots 171$ |
| Celestion ........................* | SCA …..................... 149 |
| Cellcast ....................... 124 | Test Equip. ................. 190 |
| Cellular Interface ......... 181 | Crown ......................... 137 |
| Celwave ..................... 137 | Amplifiers .................... 6 |
| Channel Plus ...................* | Microphones |
| Chron | Mic Accessories ............ 32 |
| Cipher Digital .............. 195 | Satellite |
| Circuit Werkes | Transmitters ............... 158 |
| Auto Couplers ............ 184 | Cushcraft Corp. ............ 139 |
| Automation .........167.168 | Crest Audio |
| DTMF ..................... 132 | CSU/DSU .....................185 |
| Mixer ...................... 124 | Dat/adat/Hi-81/1-1/2,1/3,114 |
| Salcllite Network Sequencer - 167 |  |
| Telephone Equip. .......189 | David Clark Co. ...............* |
| Clearcom ..............18,19,69 | Dayton Industries ....137,153 |
| Clipper Products .........122 |  |
| Clocks/Timers ........-170-173 | Com/Limiter .............91-92 |
| Coaxial Cable -9-10,143-144 | Equalizers ...............99-100 |
| Coaxial Dynamics ............. | Processors -...94.98,101.102 |
| .-137,144,146 | Level Interface ............. 22 |
| Codecs .............130,182-183 | Mic Preamp ................... 5 |
| Comark ..................... 137 | Mic Processor ............... 37 |
| Community ................... 71 | Patchbay ..................... 80 |
| Compact Disc .........109-110 | Power Conditioner ........81 |
| CD Starage .................. 176 | Decibel Products ....-137,139 |
| Compressor/Liniters -91-92 | Dehydrators ...................146 |
| Computemp ................ 181 | De-esser ......................... 92 |
| Comrex | Delays .......................92-93 |
| Auto Couplers ............ 184 | Delta Electronics ....137,145, |
| Freq. Extension .......... 185 | 151,158.193 |
| Mixer ..................... 125 | Deltacomm Corp. ......... 137 |
| POTs Codec .............. 130 | Denon |
| ISDN …..................182 | Cassette Decks ............ 107 |
| ComsalRSI ........... 137,140 | CD Players ................ 109 |
| Comtech ...............137,169 | DJ Mixer ..................... 44 |
| Comtek ...................... 169 | Mini Disc .................. 104 |
| Conex | Receivers ................... 153 |
| Automation ...............168 | Dielectric ................137,145 |
| CellJack ................... 181 | DIGIMAX .......................* |
| DTMF ..................... 134 | Digital Audio Labs ............** |
| Switcher ................... 163 | Digital Audio Storage ....../-2 |
| Tone Generatur/Sensor -168, 193 | Digitech .....................94-95 |
| Conneaut Audio Devices ..* | Digitronics ...................... 92 |
| Connectronics | Distribution Amplifiers....3-4 |
| Consoles | DNF .....................195-198 |
| Automatic Mixer ....43-44 | DOD ......91,92,95,99,100,191 |
| DJ ......................44-45 | Dolby ....................100,102 |
| On~Air .................45-49 | Dorrough ..............62,63,192 |
| Powered .................... 50 | Drawmer .........................* |
| Production .............50-58 | Dummy Loads ............... 146 |
| Remote ......59-60,124-128 |  |
| Utility/Sub .............59-60 | EAS ..............................147 |
| Conquest ........................* | EDCO ............................ 82 |BEIMAC

Electro-Impulse Inc.37
lectro-VoiceAmplifiers 7
Equalizers ..... 99
Mixers ..... 50.125
Microphones ..... 35
Speakers .....  71
Wireless Mics ..... 38
EMCO ..... 190,193
EMR ..... 137
-Nu Systems, Inc ..... 180
Engineering Enterp. .....
Environmental Tecl. 137,146,157
Equalizers ...............99-100
Equipment Racks ....-174-176
ERGO Industries ..... 137
ERIESE
Amplifiers ..... 3-4
Automation ..... 168
Clocks ..... 171-172
Interface ..... 22
Metering ..... 63
Talent Count-down ..... 89
Eventide
Effects Processors ..... 95
Logging System ..... 119
Prolanity Delays .....  .93
Evertz
158-159
158-159
ers
ers .....  184
Express Group ..... 179
$\sim$ F
Feedback Eliminator100-101
Fiber Optic ..... 77,160-161
Feral ..... 199
Fidelipac
Cart Machines ..... 103
Consoles ..... 48
Eraser ..... 28
On-Air Lights ..... 181
Focusrite ..... 卷
For. A ..... *
Fostex
DAT Recorder ..... 111
Digitial Mulurack Recorder: .....
Headphones .....  1
Porta-Studios ..... 117
Speakers ..... 69
Tone Generator ..... 193
FUJI ..... *
Fujinon ..... *
Furman
Com/Limiter ..... 91-92
DJ Mixer ..... 45
Equalizers .....  .99
Feedback Eliminator ..... 100
Metering ..... 64
Power Conditioner ..... 83

| - ${ }^{\text {- }}$ | JK Audio - 125,126,184.189 | Middle Atlantic Audio ....... | Peerless ........................ 67 |
| :---: | :---: | :---: | :---: |
| Gabriel ....................... 137 | JI, Cooper .....................* | .........................33,176-178 | Pelican Cases ............... 122 |
| Galaxy Audio ......69,71,190 | JRF ...............................** | Midiman ....................-116 | Perfect Data ................ 174 |
| Garner ..........................) | Juice Goose ................... 83 | Mikrolab ........................* | Phartronics ................. 136 |
| Gemini ...........................* | ~K~ | Milconı ..........................** | Phonic ............................* |
| Genclec ........................ 69 | KACES ..........................* | Mini Disc Rec. ......-10+105 | Pionecr ............................* |
| Geneva .......................... 28 | Kay Industries .................* | Mixers ..........43-60,124-128 | Pivotelli ......................... 67 |
| Gentner | Kings ..............................* | Modulation Mon. ...-150-152 | Pointmaker ................. 200 |
| Amplitier ..................... 3 | Kintronic Labs ............137 | Modern Cases ............. 122 | PortaBrace ..............33.123 |
| Auto Coupler ............. 184 | Klark-Teknik - 91,92,99,100 | Modulation Sciences ....137 | Potomac ..................... 137 |
| Assistive Listening ..... 66 | Klipsch ........................ 71 | Composite DA …....... 145 | P.O.T.S. Codecs ............130 |
| Audio Fail Safe .........131 | Knight ...........................* | Composite Processor ....84 | Power Conditioning/UPS 81- |
| Hybrids ..............186-187 | KOSS ........................... 13 | Modulation Monitor …151 | 84 |
| Mic Mixer ................. 43 | Kramer ......................... 4 | RBDS ….................. 148 | Presenta ........................** |
| Microtel .................... 189 | KRK ............................ 68 | SAP ….................... 149 | Processors |
| Patchbays .................... 80 | $\sim$ L | SCA ......................... 150 | Acoustical Delay .......... 92 |
| Remote Control …… 134 | IBA ........................... 137 | Stereo Enhancer ........... 88 | Composite ……..........84 |
| Teleconferencing …..189 | Lectrosonics .........-42,44,72 | Stereo Reference Decouler …193 | Compressor/Limiter -91-92 |
| Telephone Equip. .-...... 189 | Lexicon ........................ 96 | TV Demodulator ….... 200 | Effects ..................94-97 |
| GEPCO ........................ 10 | Lights, On Air/Record -180- | TV St Generator ......... 89 | Enhancement ..........97-98 |
| Goldline ..........100,191,194 | 181 | Mogami .........................** | Equalizer ..............99-100 |
| Gorman Redlich .......... 147 | Lightwave Systems ...... 161 | Monitoring | Feedhack Eliminator - 100-101 |
| GRADO ..........................** | Littlite ........................ 180 | Accessories ................. 67 | Modular .-................101 |
| Hafler ......-H1 | Loggers ......................./19 | Assistive Listening - .....66 | Noise Reduction - 101-102 |
| Hafler ............................................. 7 Hamlet 194 | Logitek | Metering ..............61-66 | On Air~AM ............85-86 |
| Hannay Reels ..................* | Consoles ................49.51 | Powered ...................6.69-70 | On Air~TV ….........89-90 |
| Hard-dise Recorders ........... | Metering ..................... 64 | Sound Reinforcement50.71 | Profanity Delay .......... 93 |
| ...................1.2.106,113,115 | Router/Switcher ........164 | Special Purpose …‥72-73 | Stereo Enhancement 88-90 |
| Har-Ken Specialties ........** | L.owell Manufacturing - 174 | Monroc Electronics ..... 135 | Stereo Generator ......... 89 |
| Headphones .............13-14 | LPB ..........................3,48 | Monster Cable .................* | PROCO ...................13.67 |
| Headphone Amplifiers $\cdots$ - 4 -5 | 1TM ............................ 30 | Moseley ...................... 137 | Protech ..........................* |
| Headsets ..................14-17 | Luxo ............................. 31 | RPU ……............... 130 | Purple Processor ........... 86 |
| Henry Engincering | Luxor .............................** | Remote Controls ……136 |  |
| Distribution Amp …........ 3 | M Squared - .................. 137 | STL ..............................156 Motorola ........ | QEI 137 <br> CaU/Quick Link $\ldots . . . . . . . . . ~$ 156 |
| Interlaces ............23.24.27 Mixer .................59.125 | M Squared .................................................... MRI, ....... | Motorola …............................................ MTS ......... | Ca/Quick Link …....... 156 Modulation Monitor -152 |
| Switcher ...................163 | Nackie | Musicam USA ......130,183 | Stereo Generator .......... 89 |
| Telephone ...........188.189 | Amplifiers .................... 7 | MultiMledia ................. 173 | Trans/Exciter …...158-159 |
| HHB .....................111-112 | Consoles …........51,53.54 | Murphy Furniture .......179 | QSC .............................. 7 |
| HME ..............................** | Speakers .................... 70 | Myat ....................137.144 | Quick Lok ......................* |
| Hnat Hindes .................... 3 | Magnum Dy nalabs -137,153 | $\sim N \sim$ | -R~ |
| HollyAnme .................... 147 | Maintenance -............28-29 | Nady ............................ 39 | R.B. Annis ...................... * |
| H.O.M.E. ..................... 174 | Marantz | Nakamichi ......................* | Racks ..................174-176 |
| Hotronics ................93.199 | Casselte Recorders 107.108 | NEAR .......................... 73 | Accessories ........-177-179 |
|  | CD Players ................109 | Neumann ........................\% | Radio Design Labs ............ |
| Independent Audio ...........* | CD Recorder ..............110 | Neutrik ........................12 | ...........................3.5.8.25.26. |
| Indy Audio .................. 18 t | Mark Antennas .....-137,140 | Nigel B ................................. 179 | $60.66 .91,121.131$ |
| Inkel | Marti 137 | Nitty Gritty ............................. | $152,163,165,194$ |
| Innovative Quality Software(SAWI | Anlenna .................... 140 | Nortronics ........................** | Radio Systenıs 3.49.173.187 |
| Inovonics ..................... 137 | SCA ...................... 149 | Numark .........................* | Ramko .........................165 |
| Metering ..................... 64 | SMARTI …................ 130 | - O | Ramsa ....................71.126 |
| Modulation Mon. .......-151 | STL/TSL ……............ 155 | O.C. White ................... 31 | Ranc |
| Processing .............85-86 | Transmitters ............... 158 | OHM Acoustics ............. 73 | Audio DA .................. 3 |
| RBDS ...................... 148 | Masterpiece ................ 176 | Omnimount ................... 67 | Delays .................92-93 |
| Stereo Generator …c.... 89 | Matthey Products ....... 200 | Ommirax ..................... 179 | Conn/Limiter ...............91 |
| Intelix ............. 18,43,59,164 | Media storage ........175-180 | Orban .........37,85,86,88,90 | DJ Mixer .................. 45 |
| Intercom/IFB .......18-20,52 | Meters .....................61-65 | On-dir Lights ..............181 | Equalizers ...........99-100 |
| Interfaces | McCurdy ............65.70.193 | On-dir Processors .....85-90 | Headphone amp ............. 5 |
| A/D/A Converters . 21.161 | Micro Communications ${ }^{\text {-137,145 }}$ | Otari | Level Interface ............. 23 |
| Level ....................22-27 | Microphones | Mini Disc ................. 104 | Mac Processor …......... 37 |
| Problem Solvers ….-24-27 | Accessories ............30-34 | Reel to Reel ................ 120 | Mixer ........................... 60 |
| Relay Intraplex | Cable ........................ 13 | Oxmoor ..................................... 5 | $\begin{aligned} & \text { Ranger ..................................33,177,178 } \\ & \text { Ravess ........ } \end{aligned}$ |
| $\begin{aligned} & \text { Intraplex -...........................184,182-183 } \\ & \text { ISDN ....... } \end{aligned}$ | Mixers ..............43-44.59 |  | RBIDS Generators ........148 |
| $\sim$ J | Phantom Power …..32-33 | Panasonic ............7.111.114 | Real Time Analyzer .......191 |
| JBI, | Processors ................... 37 | l'achhays/panels | Reccivers/Tuners .......... 153 |
| Ampliticr ..................... 7 | Wireless .................38-42 | Accessories ........... 73-80 | R.B. Annis .....................28 |
| Com/Limiter ...........91-92 9 | MiniDise ...............104-105 | Audio ...............74-76.80 | Redeo Audio ...................* |
| Monitors ...........68,69.71 | Microcon Systems - ...84.86 |  | -Continued- |



## -R-Continued

Recorder/Players Analog Accessories …103.108,121 Cartridge $\qquad$ 102-103 Cassette 107-108
Porta-Studio ..........117-118
Reel to Reel ................ 120
Tumtable 121
Recorder/Players Digital
CD Players ................ 10
CD Recorder ................ 110
DAT/ADAT/HI-8-111-112.114
Hard Disc 1-2.106,113.115
Logger
$\cdot 119$
Mini Disc .............104-105
Porta-Studio ................. 117
Software ...............1-2.116
Redco Audio
Reference Audio Design ...*
Reinote Broadcast
Cases/Bags ..........112-123 Mixers .......59-60,124-128
POTS Codec .............. 130
RPU ....................129-130
Remote Control
Audio Fail Safe ...131-132
Dial-Up ...............132-136
Revox
RF Equipment
Antennas 139-142.147.169
Coaxial Cable ......143-144
Coaxial Switches ........ 145
Composite DA ............ 145
Dehydrators ................ 146
Dummy Loads ............ 146 EAS …........................ 147
Mast Antennas ............ 142
Modulation Monitors .. 150-152 RBDS Generators ...... 148 Receiver/Tuners .......... 153 RF Amplifiers ............. 154 SAP Generators ... 148 -149 SCA Generators -. 149-150 STLTSL ….. 154-156,161 Towers ....................... 157 Tramsmiller/Exciters …158-159 TSL ..............154-156.161
RF and Relate Chart $\cdots 137$
Richmond Sound ..............*
Rip-Tie $\qquad$
ROH $\qquad$
Rohn ......................-137,157
Router/Switchers ....161-166
Roland ..........70,94,102,115
Rolls ....................-5,8,99,153
Rorke Data
Ross .............................. 100
RTS
100
Ruslang ..................179-180
Russ Friend \& Asso. ..... 23 $\sim$ S~
Sabine ................................5,101
Samson .......99
SAP Generators ....I48-149

## Satellite

Automation ‥1-2.167-169
Demod ....................... 169
Remote Channel Select 167-168
SCA Generators .....149-150
Scala .......... 137,140,141,154
Sennheiser
Headphones/Sets .....14-15
Microphones ................. 36
Wireless Mics
.39
Sescom ............................ 24
Seth Thomas ................. 172
Shintron
172
Shively
...................137,142
Shure
Amplifier ......................3.5
Carridge ….................. 121
Headset
.15
Interfaces ...................... 27
Microphones .................. 36
Mic Mixer ..................... 43
Mic Accessories ..30,31,33
Mixers ....................... 127
Wireless Mics .........39-40
Siemon ............................ 81
Sierra Automated (SAS) …
Sine Systems
Audio Fail Safe .......... 132
Message Bd. ............... 173
Remote Controls ….... 136
Thermal Sentry ........... 158
Time/Temp Thing ....... 188
SITCO Antenna ............ 147
SKB ............................... 123
Software ................../-2.116
Sonar Radio $\qquad$

## Sony

Cassette ................107-108
CD Player ................... 109
DAT Player ..........111-112
Hi-8 Recorder ............. 114
Headphones ................... 13
Porta-Studios .............. 117
Microphones ................. 36
Mini Disc ............104-105
Wireless Mics ............... 40
Sorbotech
Sound America ............. 184
Soundcraft ....-50,55,68,126
Soundolier/Atlas ........31-32
Speakers .....................68-73
Speaker Accessories ........ 67
SPECO -50,55,68,126
Spirit ....................................98
SPL .......................................... 98
Standard Tape Labs ........*
Stanton ......................... 121
Stantron,Zero ................ 175
StarCase ........................ 123
Stewart .................-5,8,33,60
STIJTSL's .......154-156,16I
Studer ........................... 120

Studio Furnishings
Acoustic Treatment ..... 170
Clock/Timers ........170-173
Copy Holders ............. 174
Equipment Racks - 174-176
Media Storage ......175-180
Waming Lights .....180-181
Weather Instruments .... 181
Studio Technologies
3,5,20.56,90
Switchcraft ...................... 12
Symetrix
A/D Converter ................ 21
Delays ...................92-93
Com/Limiter ..........91-92
Equalizer ................ 100
Mic Preamp ................ 5
Mic Processor ............. 37
Mixer .................... 60
Power Amp ................
360 Systems
AM-1613 Rouler/Swither …... 112
DigicartII/IIPlus ............ 106
Instant Replay .106
ShoriCut 119
Tannoy ….......................68.71
Tascam
Amplifier ........................... 8
Cassette ................107-108
CD Player .................... 109
DAT Recorder ......111-112
Hi-8 Recorder …..........114
Interface ......................... 24
Porta-Studios ........117-118
Mini Disc .............104-105
Mixers ................56,57.60
Patchbay ....................... 81
Reel to Reel ................. 120
T.C. Electronics ..........96-97

TDK ................................**
TEA .....................................*
Technical Projects ..........................45
Telecast Fiber Systems - 160
Telephone
Codec/ISDN/SW56130,182183-
Couplers .................... 184
CSU/DSU .................... 185
Frequency Exiension …124,185
Hybrids ................ 186,187
Information Announcers ...... 188
Teleconferencing ......... 189
Telephone Interfaces .... 189
Teleradio ...................... 189
Telewave

## Telex

Assistive Listening ........ 66
Cassette Duplicator ..... 108
Headsets ..................16-17
Intercoms ....................... 19
Microphones ................. 36
Wireless Mics ................ 40
Telfax
Tempo Works .................. 116

立
Test Equipment
Cable Testers
190
Digital Analyzer .......... 190
Real Time Analyzer ..... 191
Spectrum Analyzer ….. 192
Stereo Audio Test Set ...192-193
Tone Generator $\cdot$.... 193-194
Waveform/Vector ….....194
TFT ..................137,147,152
TIC ............................... 137
Tiffen $\qquad$
Titus ....................... 152,181
TOA ............................41,50
Tone Generators .....193-194
Towers ........................... 157
TPI, ................. 137,154,156
Tranı ...............................*
Transmitters ...........-158-159
Trimm ...............................
Tripp Lite ....................83-84
Troisi ................................ 21
TTC .........................137,159
Turntables .............................121
Twecomm
$\sim \mathrm{U} \sim$
U.S. Audio ......................... 8

Ullimiate Support Systems .-32,67
United Power ....................*
UI'S
$.82-84$
UREI
$\sim \mathrm{V} \sim$
Valley Audio …..24,37.91.92
Varta ..................................:
Video Accessories Corp. $\cdot \cdots . . .4,165$
VIF
Viking Cases .................. 123
Vega ................................. 41
vswr Conversion Table ….... 138
-W~
Warning Lights ........-180-181
Weather Instruments ....../181
Wireless Microphones -38-42
West Penn Wire .............. 10 Wheelock $\qquad$
Whirlwind .........4, $41,24,27$, 33,81,128,190
White Instruments ...99-100
Williams Sound ............... 66
Will-Burt ................137,142
Windtech ....................33-34
Winsted
Wohler Tech. .-65,70,165 ~X~Y~Z~
Xedit

## Yamaha

Amplifier ...................... 8
Com/Limiter .............. 92
Effects Processors ..... 97
Equalizers ..........99-100
Mixer …..........50.57.58
Monitors ..........68,70,71
Porta-Studios.
…... 118
Zephyrus ............137,164)
Zercom -3,24,127,162,187
Z-Systems $\cdot \mathbf{2 1 , 9 9 , 1 0 0 , 1 6 5}$


## Flexibility.

- Stand alone operation with multiple digital and analog inputs and outputs
- SCSI-II interface allowing integration with PCs and digital audio workstations (CDR620 only)
- Full function wired remote control (optional with CDR615)
- 9-pin parallel interface for external automation
- One button record capability
- Unatt nded duplication


## Functionality.

- Built-in sample rate converter
- Auto track incrementing
- Programmable fade in and out
- CD-ROM, CD-I, CD-Photo, Video CD and CD-DA recording capability via SCSI-II interface (CDR620 only)
- Unlimited archiving (ignores SCMS)
and much much more!

The Marantz compact disc recorders have broken new boundaries on value. It's more than you ever imagined for less. Far less. For more information call your preferred professional audio dealer.

Superscope Technologies, Inc.


DIGICART/II. THE VOICE OF MASTER CONTROL. No wonder it's used by virtually every major television network in the world. Fact is, DigiCart/It is the industry standard for playback of bumpers, voice-overs, stingers, and effects. Nothing else organizes, archives, and instantly retrieves more than 10,000 sounds with digital quality and precision. It's networkable, uses both hard disks and removable media, and supports both fully linear digital audio and Dolby compression. With programmable playlists, full GPI, and serial conırol, DigiCart/II is your best insurance against dead

air, missed cues, and make-goods. So test drive a
DigiCarı/II in your facility at our expense. Call today and we'll send you one tomorrow.



[^0]:    Although overy offort has been mado to onsure the accuracy of product speciflcsitions and price informatlon, we all know, no one ls perfoct excout our Moms, and our Mom ls ret/red. Romomber manufacturers' specs and orices are subject to chango wlthout notico. Wo approchato your bushossi (Oh, and fust to see if you were readinit our cataloe wo purposely inserted at fou typos a)

[^1]:    Options available are: Plexiglass copy stand • "Squasw-Box" • input selector switcher - remote interface modules - custom engraved swithch caps - pre made source cables \& punchblock harnesses $\cdot$ color-coded fader knobs.

[^2]:    「 Explanation of Dorrough meter suffixes
    40-A2 has a scale allowing 14 dB of headrown in 1 dB steps. $40-\mathrm{B} 2$ is a scale differentiation of the $40-\mathrm{A} 2$ and ios calbitrited in pereent modulation, with the lower scale, in dB from +3 to $-36 d B$. 40-C2 also a scale differentia-! tion of the $40-\mathrm{A} 2$ allowing 20 dB of headroom.

    Please call BGS for ordering derails.

[^3]:    "Dipth shemn is an orerall outside dimension Usable insude deph is + " less.

