



ELECTRONIC SIGNAL PRODUCTS, INC.

350 N. ERIC DRIVE, PALATINE, IL 60067

(312) 934-8110

November 19, 1987

Solidyne Corp.
2207 Hammond Drive
Schaumburg, Illinois 60173

ESP-2015 S.C.A. GENERATOR

SPECIFICATIONS:

Electrical

Data Port Input Configuration Impedance (Z) Unbalanced 10K OHMS

Output Port Configuration Impedance (Z) Level Unbalanced < 200 OHMS 0 to 6 Volts peak to peak continuously adjustable

S.C.A. to Main > 70db

Crosstalk

Subcarrier frequency range 85KHz/95KHz F.S.K.
Frequency Stability +/- 1HZ
Modulation Capability 81KHz to 95KHz N.R.Z. crystal controlled
Maximum Band Rate 4800 (utilizing full S.C.A. Bandwidth)
Spurious Emissions > 80db below carrier

GENERAL

Power Requirements 100 to 130 Volts A.C. 20 Watts maximum 48 to 72 Hertz
Operating Temperature Range 32 to 122°F (0 to 50°C)
Operating Humidity 0 to 95 Relative non condensing
Operating Altitude 0 to 15,000 feet
Shipping Weight 12 Pounds
Dimensions 19" (48.3cm) Wide 1.75" (4/5cm) High 10.5" (26.7cm) Deep excluding protruding controls and connectors

PRICE \$995.00

(F.O.B.) Palatine, Illinois 10 piece minimum order

Product specifications are subject to change without notice.

## INSTALLATION INSTRUCTIONS

MODEL ESP-2015XP DIGITAL S.C.A. MODULATION GENERATOR

UNIT MOUNTS IN 19 INCH RACK.  
NO SPECIAL COOLING IS REQUIRED.  
MAKE SURE UNIT POWER SWITCH IS IN OFF POSITION (DOWN)  
CONNECT TO 110-120V AC WITH POWER CORD PROVIDED.

### OUTPUT LEVEL ADJUSTMENT

#### NOTE:

This unit uses a timeout circuit so it will not transmit a continuous 95KHz carrier. If the data input connection is left open or is at continuous high level, no carrier will be present at the output.

Switch on unit power. Connect a low level (0V) or continuous data signal to data input.

Unit is set for minimum output. Start with connection at low level output. Increase output by adjusting the P.C. mounted trim potentiometer with a small screwdriver. (access through back panel).

If there is not enough output return output trimmer to minimum setting and switch cable to high level output. Adjust output as required.

Note: If RF modulator has an input adjustment for S.C.A. carrier level, use highest output possible from this unit.

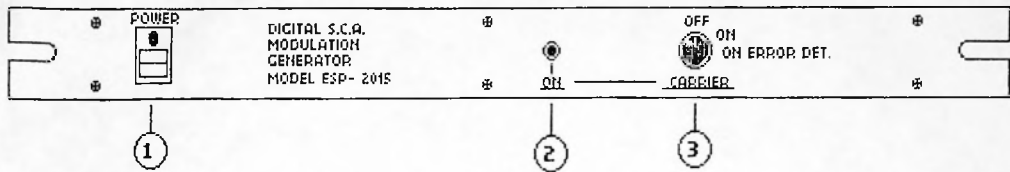
Note: If data input logic polarity is incorrect, it can be inverted. Please contact E.S.P. for help on this.

For help contact:

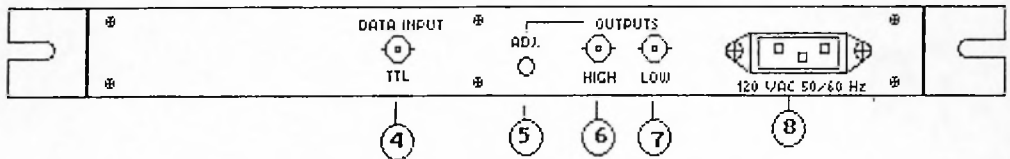
MICHAEL CHALMERS  
Project Manager  
ELECTRONIC SIGNAL PRODUCTS, INC.  
2207 HAMMOND DRIVE  
SCHAUMBURG, ILLINOIS 60173

(312) 397-6900

## FRONT PANEL



## REAR PANEL



## CONTROL DISCRIPTION

### FRONT PANEL

- 1) Power switch - turn unit power on and off , LED indicates power on.
- 2) Carrier indicator - LED indicates S.C.A. carrier on.
- 3) Carrier output control :

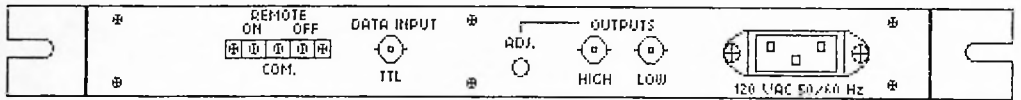
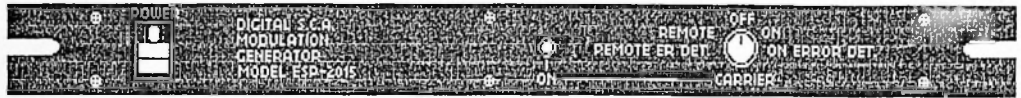
OFF = no carrier at output.

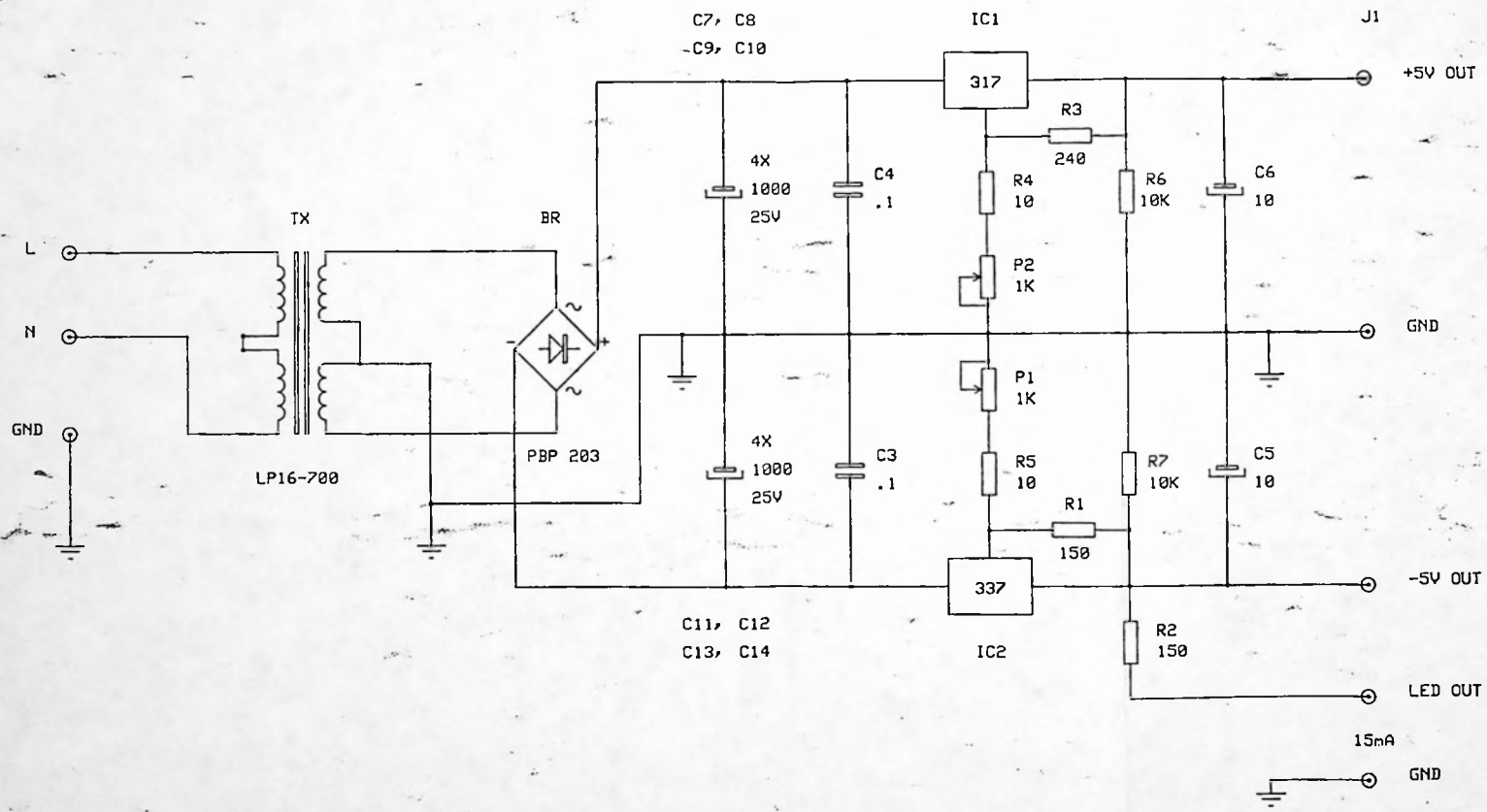
ON = continuous carrier output ,data high or low

ON ERROR DET. = continuous carrier output with active data  
at DATA INPUT ( will not transmit continuous  
95 kHz carrier).

### REAR PANEL

- 4) Data Input - TTL data input ( set at factory for 95 kHz with high signal)  
( can be inverted by internal jumper)
- 5) Output level adjust - 20 dB output adjustment range.
- 6) High level output - -10 to +10 dBm
- 7) low level output - -30 to -10 dBm (600 ohm load)
- 8) Power input - 110 to 120 VAC 50/60 Hz





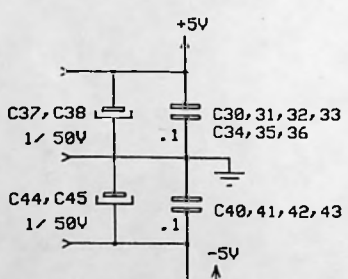
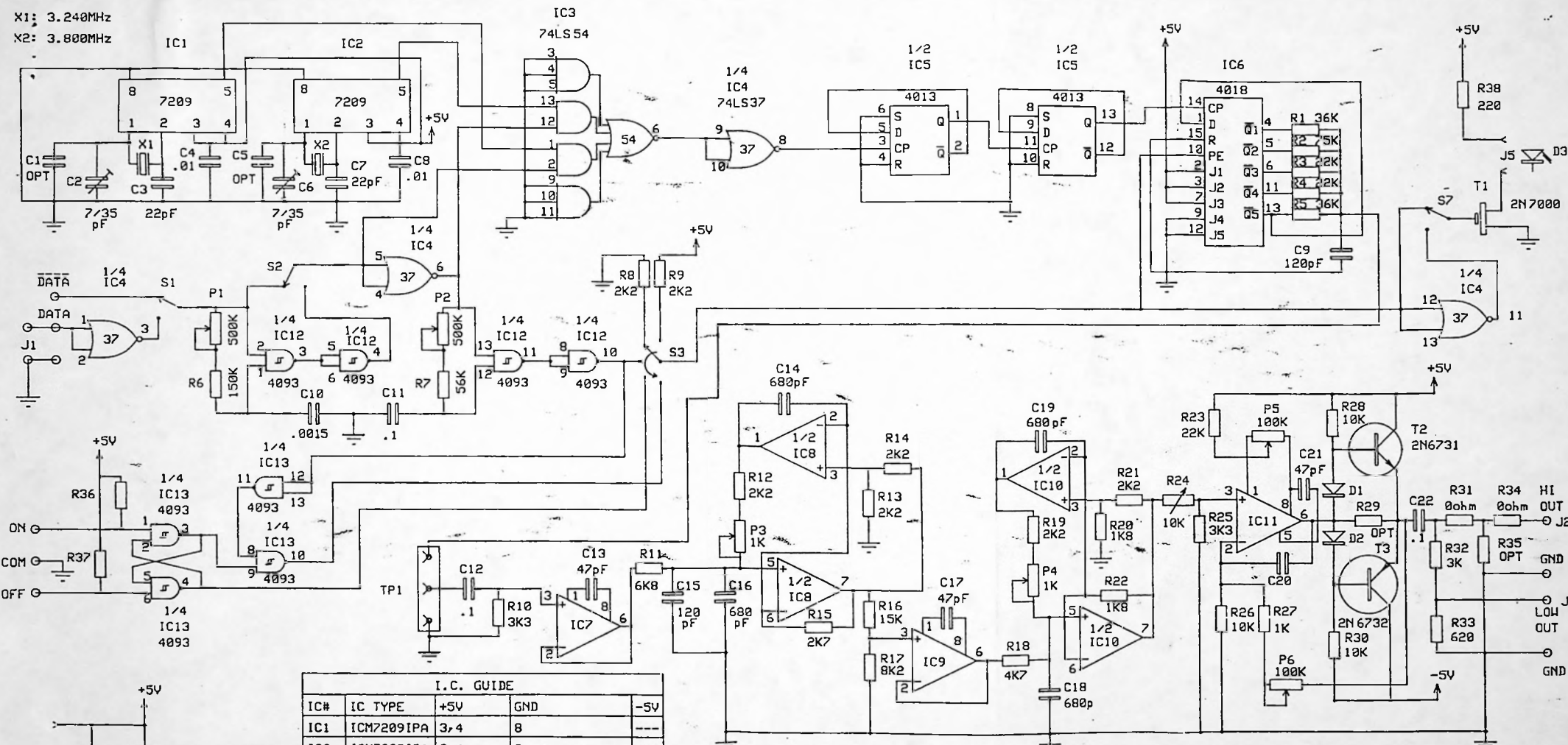
NOTE:  
 ALL RESISTORS ARE IN OHMS  $\frac{1}{4}$ W  
 ALL CAPACITORS ARE IN MICROFARADS  
 UNLESS OTHERWISE SPECIFIED

DATE	REV	REVISION RECORD	DR	CK

SIZE	B	DATE
DR	ZK	
CK		
APPD		
SCALE	~	
REV		

ELECTRONIC SIGNAL PRODUCTS, INC.	
+/- 5VOLT DC POWER SUPPLY SCHEMATIC DIAGRAM	
DRAWING NO:	SHEET__OF__

X1: 3.240MHz  
X2: 3.800MHz



I.C. GUIDE				
IC#	IC TYPE	+5V	GND	-5V
IC1	ICM7209IPA	3,4	8	---
IC2	ICM7209IPA	3,4	8	---
IC3	74LS54	14	7,3,4,5,8,9,10	---
IC4	74LS37	14	7	---
IC5	MC14013B	14	7,4,6,8,10	---
IC6	MC14018BCN	16,2,3,7	8,9,12,15	---
IC7	CA3130E	7	---	4
IC8	CA3260E	8	---	4
IC9	CA3130E	7	---	4
IC10	CA3260E	8	---	4
IC11	NE5534N	7	---	4
IC12	MC14093B	14	7	---
IC13	MC14093B	14	7	---

DATE	REV	REVISION RECORD	DR	CK

SIZE	B	DATE	ELECTRONIC SIGNAL PRODUCTS, INC.  DIGITAL S.C.A. MODULATION GENERATOR SCHEMATIC DIAGRAM
DR	ZK		
CK			
APPD			
SCALE			
REV			DRAWING NO: CB-0065
			SHEET OF

NOTE: ALL RESISTORS ARE 1/8W.  
ALL CAPACITORS ARE IN MICROFARADS  
UNLESS OTHERWISE SPECIFIED.