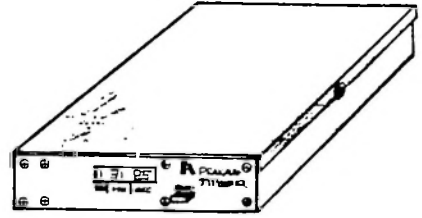




PEAK AUDIO INCORPORATED

NEW PRODUCT INFORMATION

TIMESAVER



Provides tape time readout for reel to reel tape machines.
Reduces time spent searching for a particular point on the tape.
Provides a tachometer output for connecting to SMPTE controllers.
Two speed operation with automatic speed switching from the machine.
True tape time in fast forward and rewind as well as in the play mode.

The Timesaver is a field installable accessory which provides an accurate readout of tape time. The Timesaver is a two part system containing a precision tachometer which is mounted to the tape transport. The tape is threaded around the tachometer and when in motion it sends a signal to the electronics unit. The electronics unit counts and displays the tachometer signal.

The Timesaver will display time up to four hours in the positive direction and up to one hour in the negative direction on five bright seven segment LED's. Time is displayed in hours, minutes, and seconds.

The Timesaver can be preset to operate at any two speeds. A signal from the speed switch on the tape transport will select the proper preset for the Timesaver. A front panel reset button is provided to clear the display. In addition, the Timesaver has direction and tachometer output connections on the rear panel for interfacing to SMPTE controllers.

INTRODUCTION

The Peak Audio Timesaver is a professional two speed timing accessory for use with professional reel to reel tape machines. Some of the many features of the Timesaver are:

1. The Timesaver is supplied with a power supply and requires no wiring to the tape machine.
2. A precision polyurethane coated tachometer for accurate tape timing.
3. Tape direction and tachometer output connections for SMPTE controller interface.
4. Remote speed input connection for optional interface with the machine speed switch.
5. A "zero" pulse output for optional interface with the tape machine stop switch. (This pulse will stop the tape machine when the display reads 0:00:00. Tape travel past zero is dependent on machine braking).

SPECIFICATIONS

Tachometer:	Precision surface mounted mechanism containing the ball bearing housing, shaft, polyurethane coated roller, optical encoder, and two phase optical sensor. The tachometer is 1-11/16" in diameter.
Maximum time display:	3:59:59 in the positive direction. -:59:59 in the negative direction.
Display type:	Seven-segment LED.
Operating speeds:	Any two speeds (3-3/4, 7-1/2, 15, 30) may be internally selected.
Front panel controls:	Reset-clears the display to 0:00:00. Speed-selects the high or low internally selected speed.
Timing accuracy:	Within .2% at any selected speed.
Power requirements:	110VAC 50/60Hz.

INSTALLATION

Scully 280, 280B; Ampex 350, 440.

PLEASE READ ALL DIRECTIONS PRIOR TO BEGINNING THE INSTALLATION.

1. Remove drill template drawing #790-A0-000 from this manual.
2. Refer to the tape path drawing #731-A0-000 and orient the tachometer behind the head nest and between the reels as shown.
3. Carefully thread the tape around the tachometer to insure that the tape will clear the head bracket. Adjust the tachometer position if necessary.
4. Scully 280, 280B users should refer to tape path drawing #731-A0-001 and carefully rethread the tape around the tachometer. Adjust the position of the tachometer so that either tape path may be used. Note: Scully 280B's with constant tension must use tape path #731-A0-001.
5. Mark the tachometer footprint on the transport surface with a pencil. Remove the tachometer and replace it with the drill template.
6. Check the rear side of the transport to insure there will be no interference when drilling. If necessary, temporarily remove the power supply.
7. Remove any component that may be subject to accidental shorting from drilling the deck plate. (The logic PWA on the Scully 280B is a good candidate).
8. Center punch and drill the three holes as shown on the drill template.
9. Remove the two phillips head screws from the bottom of the tachometer.
10. Remove the four tachometer wires from terminals 8 thru 11 on the rear of the display unit.
11. Place the tachometer wires through the wire access hole in the transport.
12. Position the tachometer on the transport and secure it with the two screws which were removed in step 9.
13. Refer to the test sheet drawing #751-A0-000 supplied with this unit and re-connect the tachometer. Note: All tachometers may not be color coded the same.
14. Check and clean the transport of any foreign matter which resulted from the drilling.
15. Replace the transport power supply or any other component removed during installation.

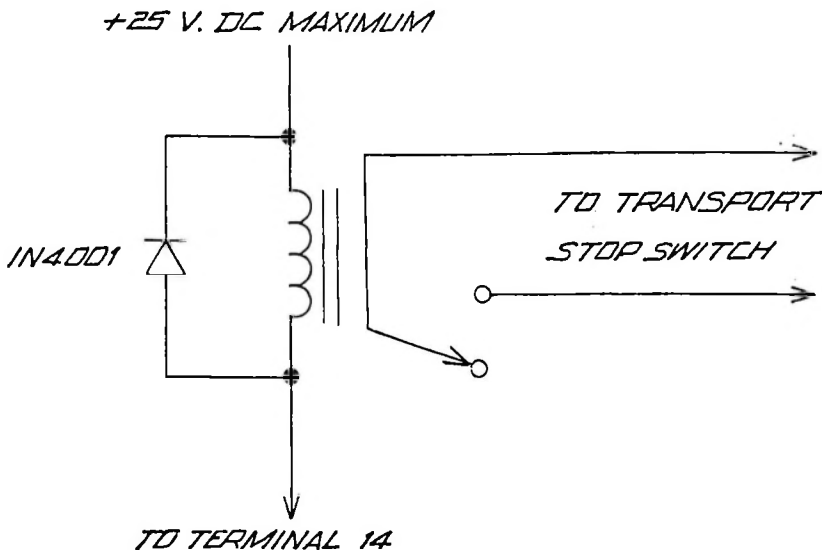
OPERATION

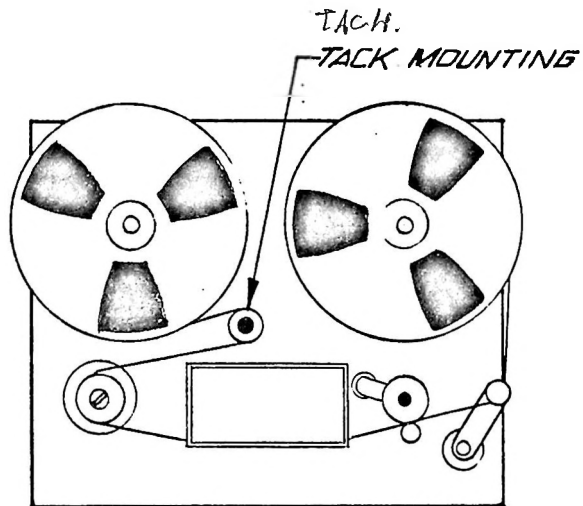
1. Refer to the test sheet drawing # 751-A0-000 and insure that the internally selected speeds of the Timesaver are the same as the speeds of the tape transport. If they do not match re-configure the speed select diodes on the Timesaver Logic PWA. Refer to drawing 801-A0-000 .
2. Apply power to the Timesaver and the display will read 0:00:00 or -00:00.
3. See drawing #731-A0-000 for tape path information and thread a blank reel of tape.
4. Put the transport into the play or fast forward mode and the display will count up to 3:59:59. In rewind the display will count down to zero, display a minus sign and then count up to -59:59.
5. The speed switch is used to select the high or low internally selected speed.
6. The reset switch clears the display and should be pushed when the transport play speed is changed.

Note: The Timesaver has been supplied to count positive when the tachometer is rotating clockwise. If counter-clockwise operation is desired reverse wires attached to terminals 8 and 9 on the rear of the Timesaver.

OPTIONAL CONNECTIONS AND MODIFICATIONS

1. Direction output- Terminal 7 on the rear of the Timesaver provides direction information for interface to SMPTE controllers. The output will be a TTL high in one direction and low in the other direction.
2. Tachometer output- Terminal 6 on the rear of the Timesaver provides tachometer pulses for interface to SMPTE type controllers. The tachometer frequency is 10Hz at 3-3/4 IPS.
3. Return to zero- Terminal 4 on the rear of the Timesaver goes momentarily low when the negative sign illuminates. This signal maybe connected to the transport stop switch to provide a return to zero function. Terminal 4 is an open collector output with a maximum rating of 25v dc at 100ma maximum. If positive logic or a higher voltage rating is needed a relay interface as shown below is necessary.
4. Speed control- Terminal 3 on the rear of the Timesaver is an input connection to the speed select circuitry. A connection between the transport speed switch and terminal 3 would allow the transport speed switch to control the speed of the Timesaver. With terminal 3 pulled to ground the Timesaver will operate at high speed, and with terminal 3 left open or pulled to +5vdc the Timesaver will operate at low speed. The speed switch on the Timesaver should be disabled by cutting jumper J1 on the logic PWA. See drawing #801-A0-003. If inverse logic or a higher voltage control is needed a relay interface is necessary.

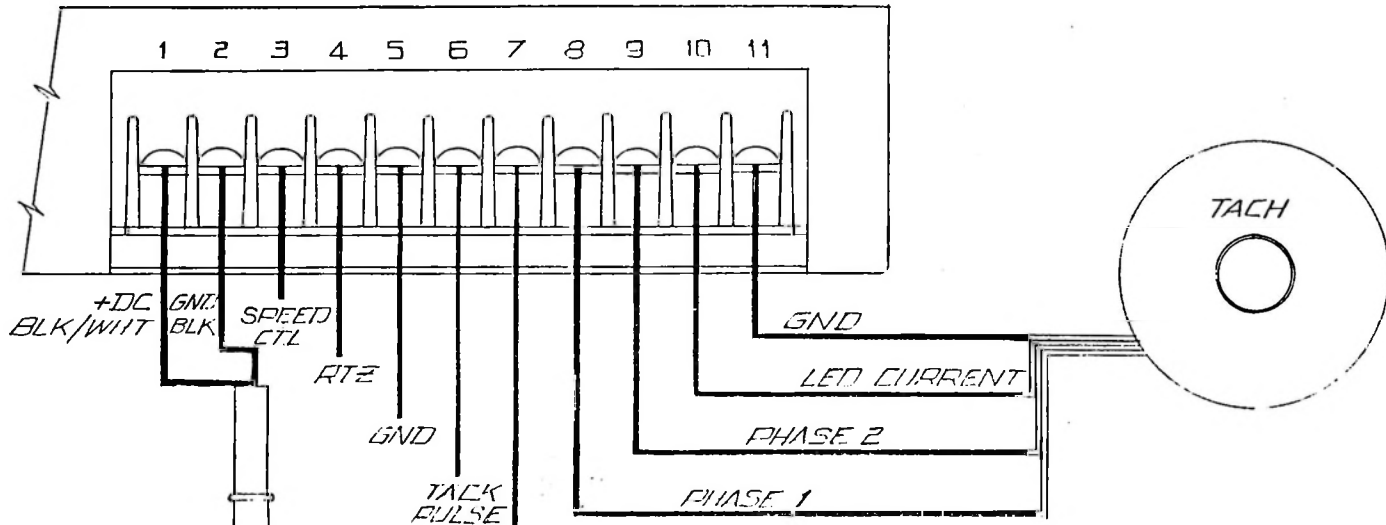




TAPE PATH: AMPEX AND SCULLY

PEAK AUDIO INC
HOLLAND, PA 18956

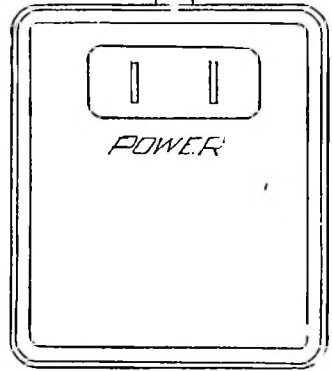
731-AD-000



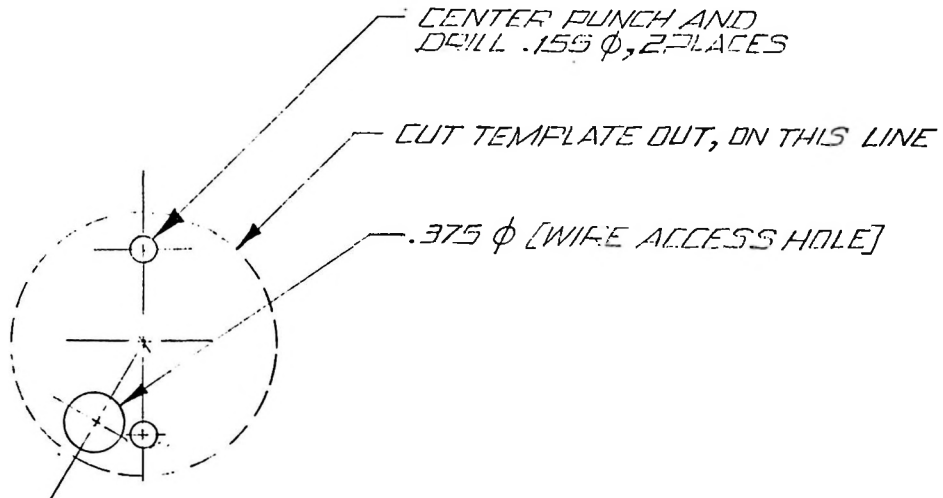
DIRECTION

Reverse
8 & 9
For Direction
Change

CUSTOMER:
SERIAL NO.
VOLTAGE:
SPEED:
ACCESSORIES:



PEAK AUDIO INC. HOLLAND, PA 16256		
SCALE: ~	APPROVED BY	DRAWN BY <i>F.T.</i>
DATE: <i>5/11/79</i>		
<i>TEST SHEET - TIME SAVER</i>		
		DRAWING NUMBER <i>751-A-010</i>



CENTER PUNCH AND
DRILL .155 ϕ , 2 PLACES

CUT TEMPLATE OUT, ON THIS LINE

.375 ϕ [WIRE ACCESS HOLE]

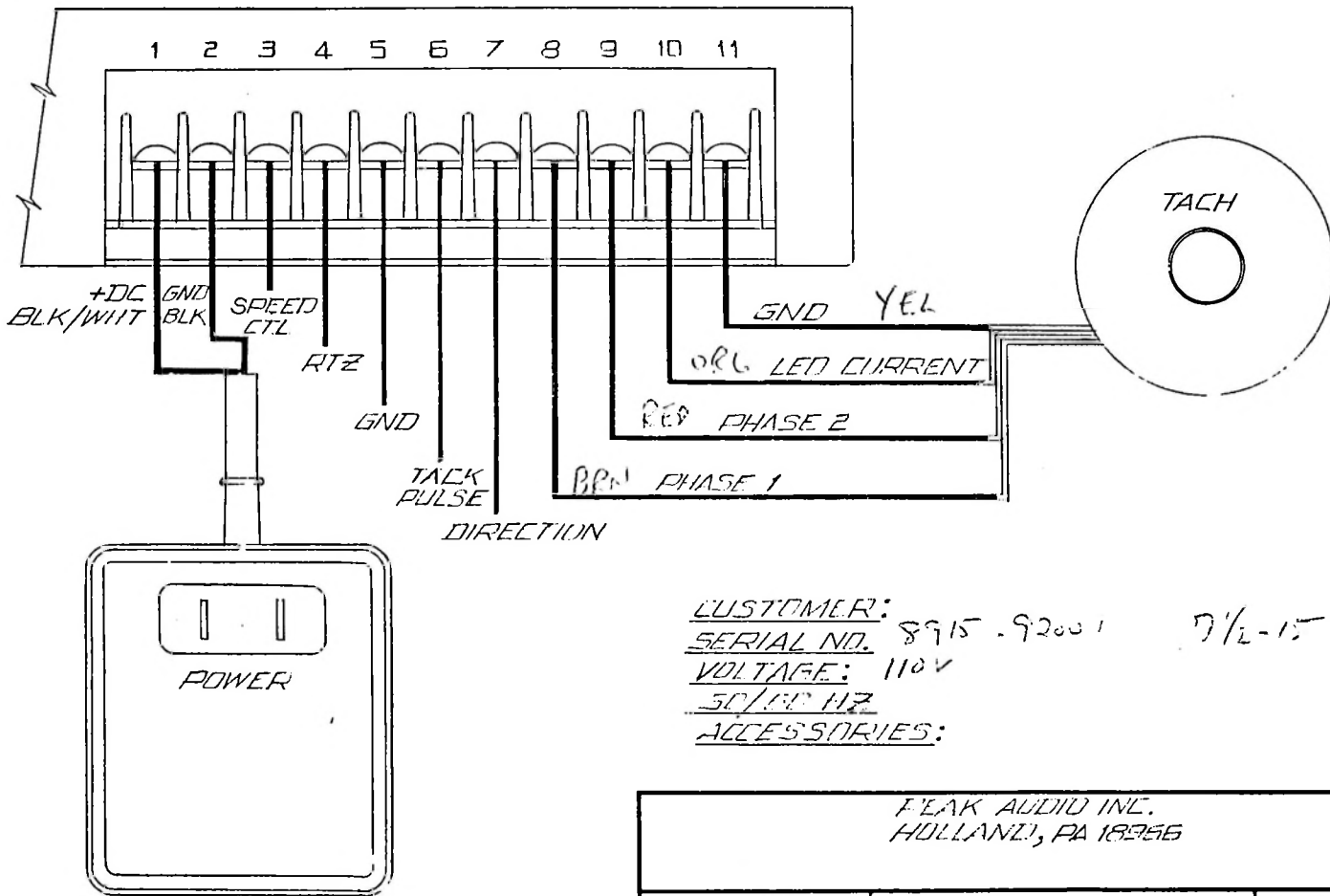
PEAK AUDIO INC
HOLLAND, PA. 18966

SCALE: ~	APPROVED BY	DRAWN BY RT
DATE: 18 NOV 83		
TEMPLATE - TIMESAVER		
		DRAWING NUMBER 790-AG-000



PEAK AUDIO INCORPORATED

TIMESAVER



CUSTOMER:
SERIAL NO. 8915-92001 7/2-15
VOLTAGE: 110V
50/60 HZ
ACCESSORIES:

PEAK AUDIO INC.
 HOLLAND, PA 18956

SCALE: ~	APPROVED BY	DRAWN BY RT
DATE: 8/14/84		
TEST SHEET - TIME SAVER		
		DRAWING NUMBER 751-A1-000

THREE YEAR LIMITED WARRANTY

Peak Audio Incorporated warrants this product to be free from defects in material or workmanship, under normal and proper use and service, to the original using purchaser. This warranty is extended to all electronic components (wear items excepted) for a period of three years from the date of purchase. Wear items such as lamps, fuses, panel components, and connectors carry a one year warranty.

This warranty is non-transferrable and Peak Audio Incorporated assumes no obligation to repair or replace equipment or parts which have been altered or repaired by other than Peak Audio Incorporated approved procedure; been subject to misuse, misapplication, improper maintenance, negligence or accident; is a result from mechanical wear, has its serial number or any part thereof altered, defaced, or removed; or has been used with parts other than those supplied or approved by Peak Audio Incorporated.

In the event of replacement or repair according to the warranty, only the unexpired portion of the warranty, from the time warranty became effective, will remain in effect for any such replacement. In the event that the user is without the use of the equipment due to its being serviced according to this warranty, the warranty period will be extended for the length of time the user is without such use.

The original using purchaser must provide evidence of the Bill of Sale to establish warranty claim and Peak Audio Incorporated assumes no liability to act upon any warranty claims until such evidence for proof of purchase is received at its premises.

At Peak Audio Incorporated discretion, the purchaser may be requested to return the defective part to Peak Audio Incorporated, FOB factory, for defect analysis. Parts or equipment may be returned only with prior authorization from Peak Audio Incorporated and must be identified by a Return Authorization Number issued by the customer service department. All merchandise returned must be sent prepaid and insured, collect shipments will not be accepted. Full details of the defect or malfunction should be included with the shipment to expedite diagnosis and repair.

There are no warranties, express or implied, including any warranty of merchantability, beyond those stated herein or which extend beyond the description of the equipment.

Peak Audio Incorporated obligations are limited to repair or replacement of broken or defective parts or, at the option of Peak Audio Incorporated to refund the purchase price. The foregoing are purchaser's exclusive remedies. Peak Audio Incorporated assumes no liability for special or consequential damages. Some states do not allow the exclusion or limitation of incidental or consequential damages, so this limitation or exclusion may not apply to you.

INTRODUCTION

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5. Mark the tachometer footprint on the transport surface with a pencil. Remove the tachometer and replace it with the drill template.
6. Check the rear side of the transport to insure there will be no interference when drilling. If necessary, temporarily remove the power supply.
7. Remove any component that may be subject to accidental shorting from drilling the deck plate. (The logic PWA on the Scully 280B is a good candidate).
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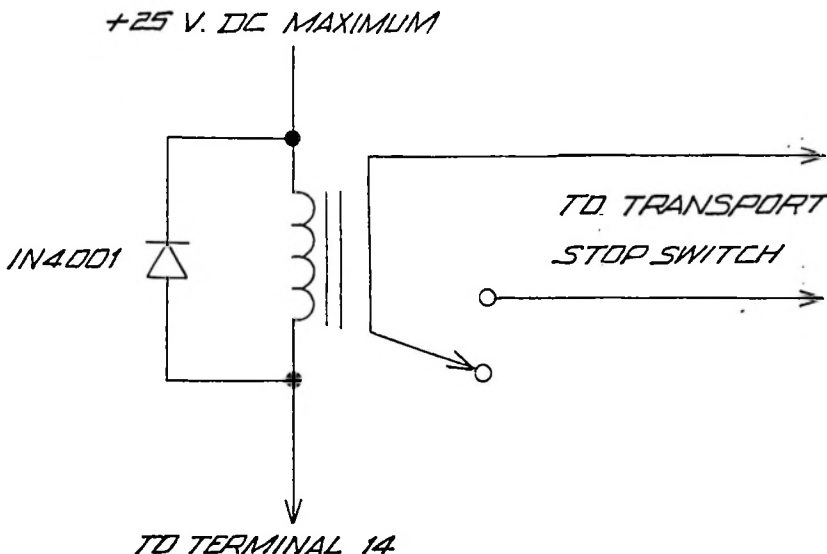
OPERATION

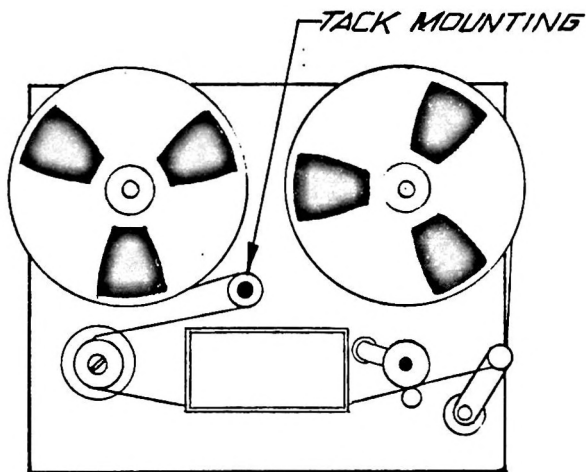
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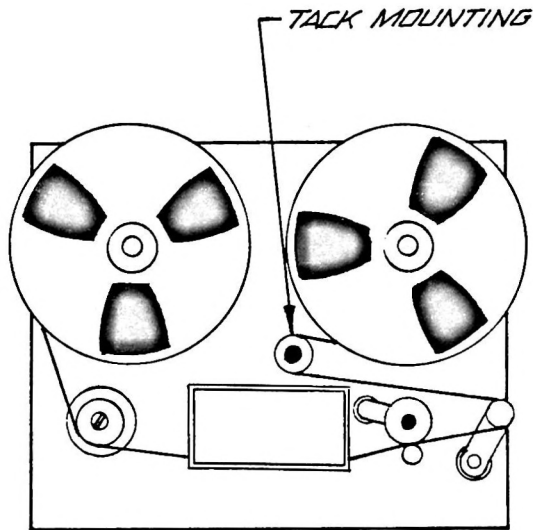




TAPE PATH: AMPEX AND SCULLY

PEAK AUDIO INC
HOLLAND, PA 16966

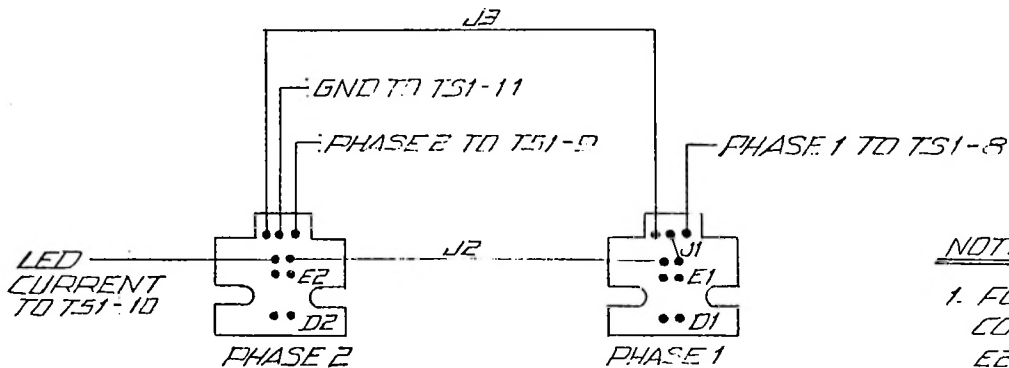
731-AD-000



ALTERNATE TAPE PATH: SCULLY WITH CONSTANT TENSION.

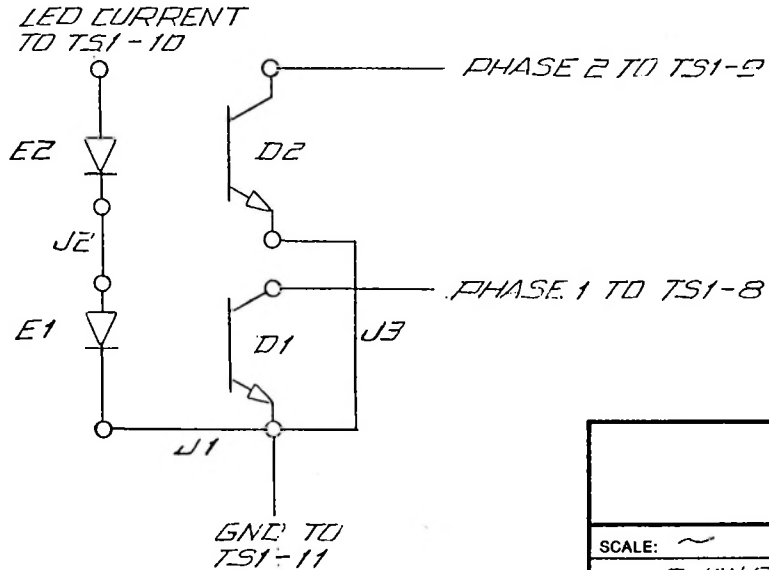
PEAK AUDIO INC.
HOLLAND, PA 15965

731-AD-001



NOTES:

1. FOIL SIDE OF BOARD SHOWN. COMPONENTS D1, D2, E1 AND E2 ARE MOUNTED ON FARSIDE.



PEAK AUDIO INC.
HOLLAND, PA. 18966

SCALE: ~

APPROVED BY

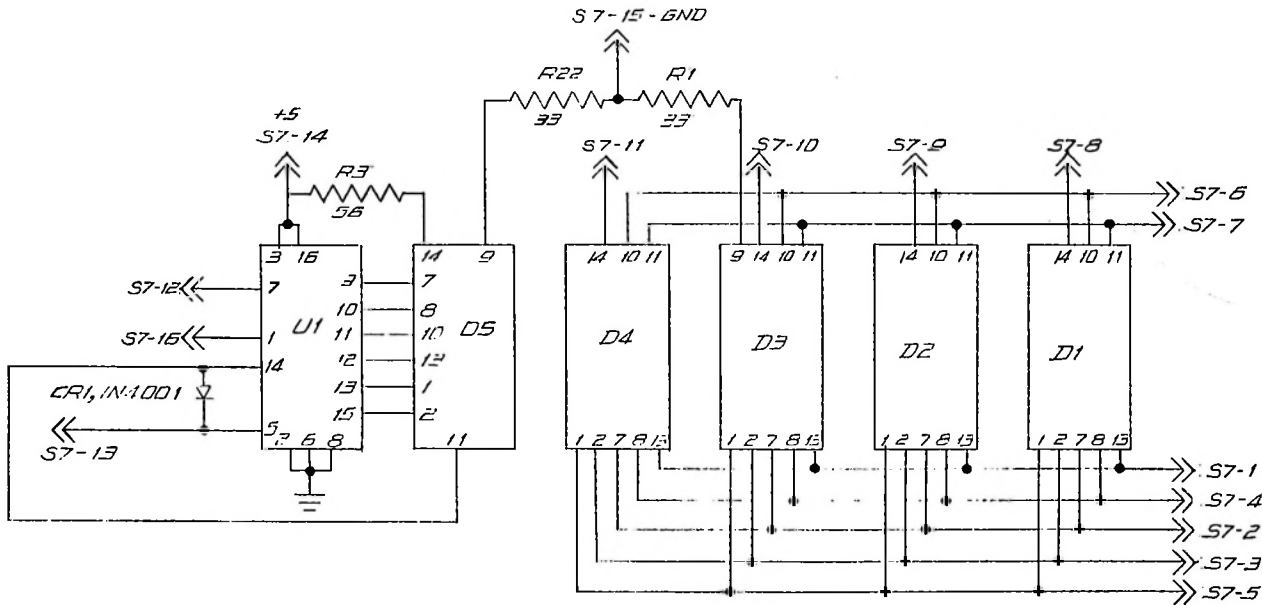
DRAWN BY RT

DATE: 9 JAN 83

WIRING DIAGRAM, ENCODER - T/S

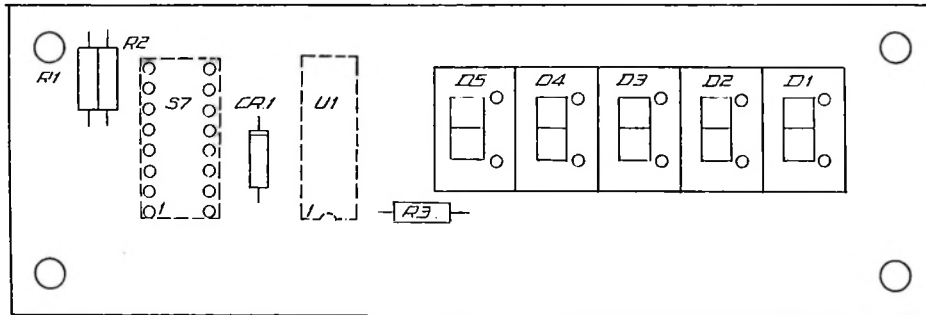
DRAWING NUMBER

751-A0-001



PEAK AUDIO INC.
HOLLAND, PA. 18956

SCALE: <i>1:1</i>	APPROVED BY	DRAWN BY <i>RT</i>
DATE: <i>11/11/85</i>		
<i>SCHERBATEL, DISPLAY-TIMESAVER</i>		
		DRAWING NUMBER <i>250-A1-001</i>

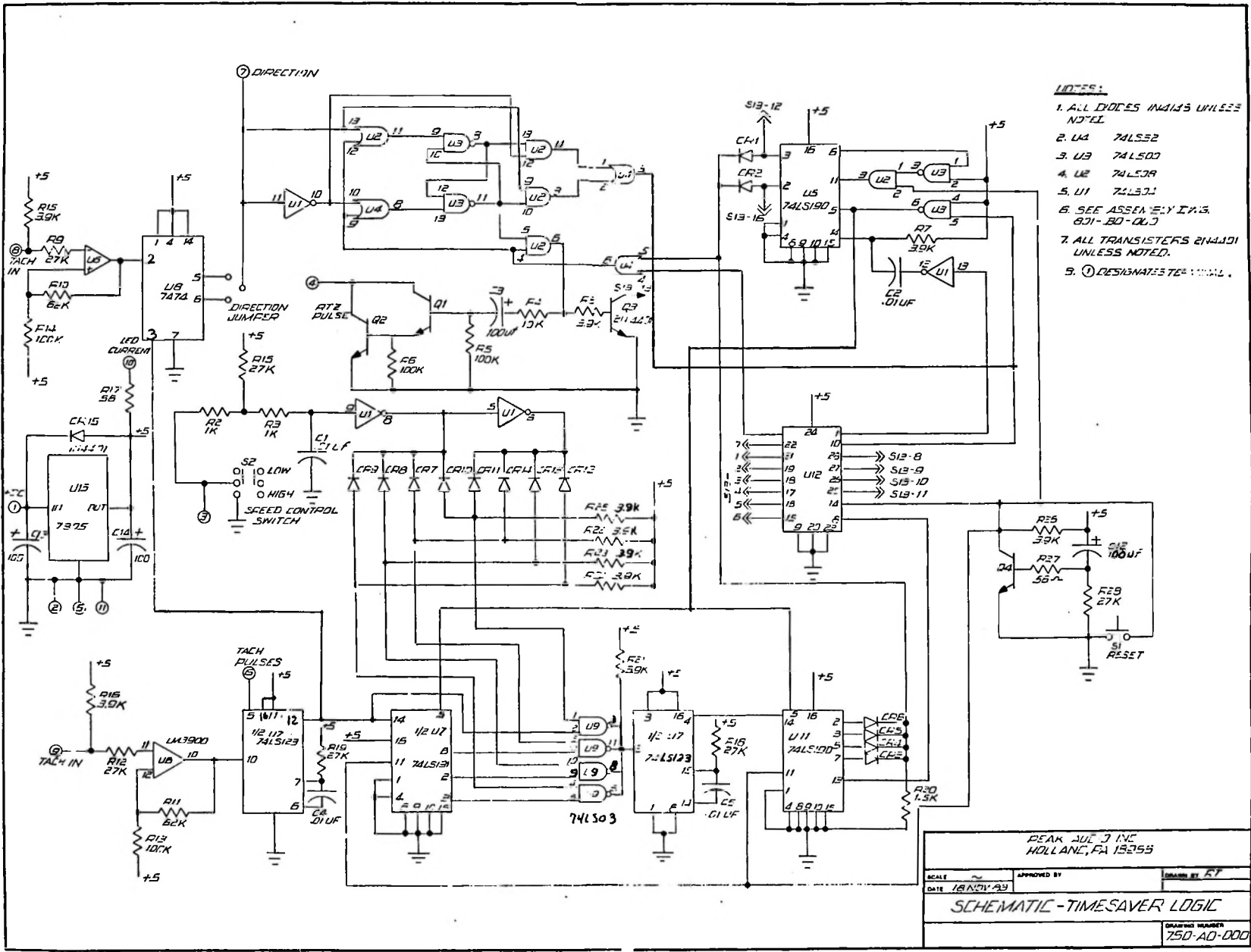


NOTES:

1. SEE SCHEMATIC 750-A0-001.
2. S7 AND U1 ARE LOCATED ON FAR SIDE.

PEAK AVIATION INC.
HOLLAND, PA 15966

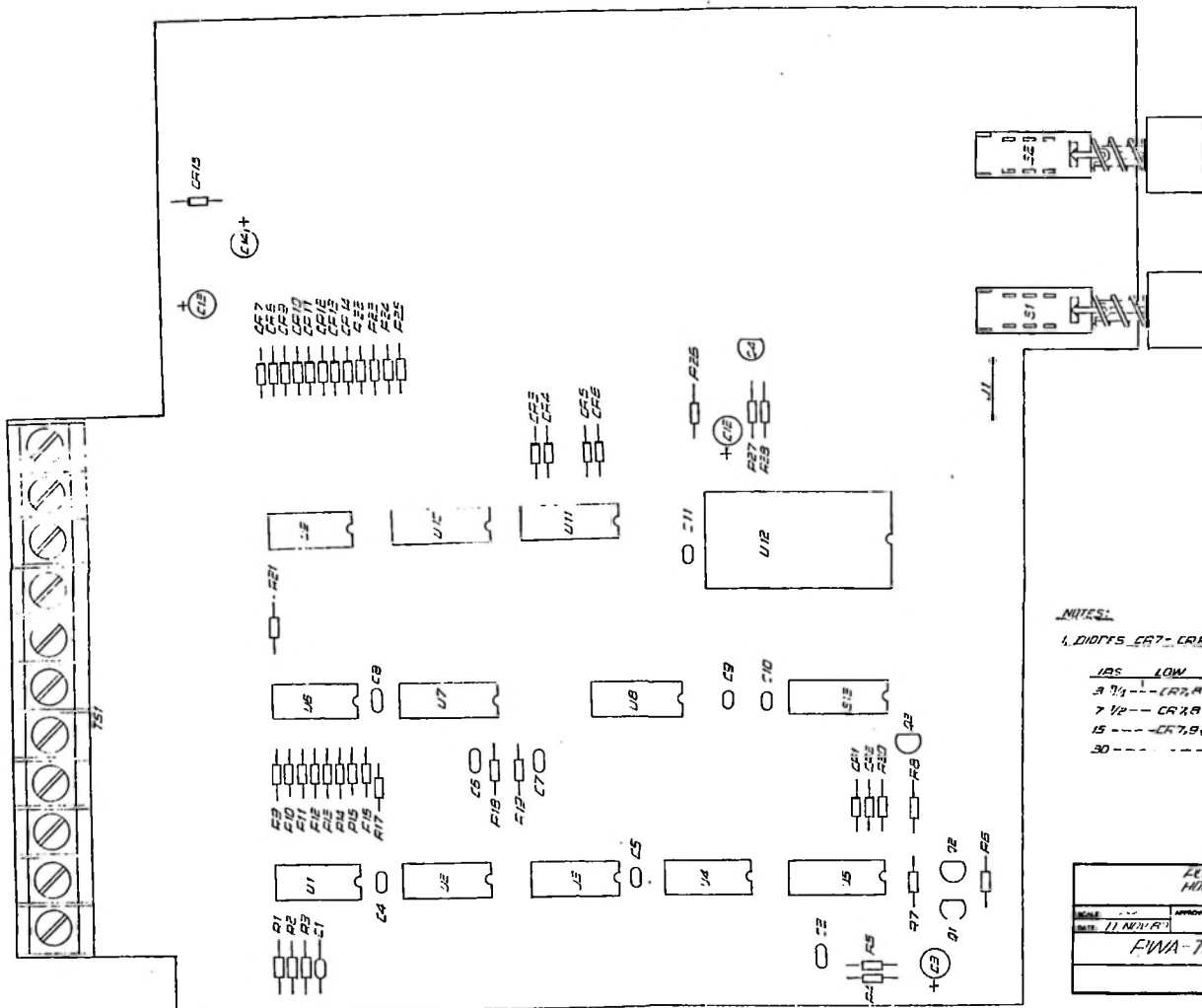
SCALE: ~	APPROVED BY	DRAWN BY <i>ZT</i>
DATE <i>11 NOV 62</i>		
<i>FWA DISPLAY-TIMESAVER</i>		
		DRAWING NUMBER <i>750-A0-001</i>



- NOTES:**
1. ALL DIODES INDIAS UNLESS NOTED
 2. U4 74LS2
 3. U3 74LS00
 4. U2 74LS39
 5. U1 74LS31
 6. SEE ASSEMBLY INSTRUCTIONS 821-80-003
 7. ALL TRANSISTERS 2N4401 UNLESS NOTED.
 8. ① DESIGNATES TERMINAL.

BEAK SUPPLY INC.
HOLLAND, PA 15255

SCALE	APPROVED BY	DRAWN BY	
DATE 1/20/79		RT	
SCHMATIC -TIMESAVER LOGIC			
DRAWING NUMBER			750-AD-000



NOTES:

1. DIODES CR7 - CR14 ARE SELECTED FOR SPEC:

	LOW	HIGH
3 3/4	CR7, 8, 10	
7 1/2	CR7, 8, 10	CR 11, 12, 14
15	CR7, 8, 10	CR 11, 12, 14
30		CR 11, 12, 14

PEAK AVIONICS INC. HOLLANDS, PA 19065		
DATE: 11/11/67	APPROVED BY:	DAVID E. [Signature]
FWA-TIME SAVER LOGIC		
		DESIGN NUMBER: 15-1141-002