DEMODULATOR

MOSELEY ASSOCIATES, INC.

Warranty

All equipment designed and manufactured by Moseley Associates, Inc. is warranted against defects in workmanship and material that develop under normal use within a period of one (1) year, or (2) years for all MRC series equipment, from the date of original shipment, and is also warranted to meet any specifications represented in writing by Moseley Associates, Inc., so long as the purchaser is not in default under his contract of purchase and subject to the following additional conditions and limitations:

1. The sole responsibility of Moseley Associates, Inc. for any equipment not conforming to this Warranty shall be, at its option:

A. To repair or replace such equipment or otherwise cause it to meet the represented specifications either at the purchaser's installation or upon the return thereof f.o.b. Goleta, California, as directed by Moseley Associates, Inc.; or

B. To accept the return thereof f.o.b. Goleta, California, credit the purchaser's account for the unpaid portion, if any, of the purchase price, and refund to the purchaser, without interest, any portion of the purchase price theretofore paid; or

C. To demonstrate that the equipment has no defect in workmanship or material and that it meets the represented specifications, in which event all expenses reasonably incurred by Moseley Associates, Inc., in so demonstrating, including but not limited to costs of travel to and from the purchaser's installation, and subsistence, shall be paid by purchaser to Moseley Associates, Inc.

2. In case of any equipment thought to be defective, the purchaser shall promptly notify Moseley Associates, Inc., in writing, giving full particulars as to the defects. Upon receipt of such notice, Moseley Associates, Inc. will give instructions respecting the shipment of the equipment, or such other manner as it elects to service this Warranty as above provided.

3. This Warranty extends only to the original purchaser and is not assignable or transferable, does not extend to any shipment which has been subjected to abuse, misuse, physical damage, alteration, operation under improper conditions or improper installation, use or maintenance, and does not extend to equipment or parts not manufactured by Moseley Associates, Inc. and such equipment and parts are subject to only adjustments as are available from the manufacturer thereof.

4. No other warranties, express or implied, shall be applicable to any equipment sold by Moseley Associates, Inc. and no representative or other person is authorized by Moseley Associates, Inc. to assume for it any liability or obligation with respect to the condition or performance of any equipment sold by it, except as provided in this Warranty. This Warranty provides for the sole right and remedy of the purchaser and Moseley Associates, Inc. shall in no event have any liability for consequential damages or for loss, damage or expense directly or indirectly arising from the use of equipment purchased from Moseley Associates, Inc.

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INSTRUCTION MANUAL

MODEL SCD-9

STEREO DEMODULATOR

Ser# 45681

I. INTRODUCTION

The SCD-9 Precision Stereo Demodulator is intended to be used for demodulating a composite stereo waveform into the original left and right channels. This unit may be used as part of an AM composite stereo studio-transmitter link (STL) or for general purpose FM stereo demodulation.

The SCD-9 may be used with the Moseley Associates SCG-9A Stereo Generator, or any other high quality stereo generator, for conveying two audio channels over a single composite studio-transmitter link such as the Moseley Associates PCL-606/C or PCL-505/C.

The SCD-9 includes demodulation and de-emphasis circuitry as well as 15 kHz low pass filters and balanced 600 ohm output amplifiers for the left and right channels. Stereo indication is via front-panel LED with an SPDT relay for external stereo indication/enabling, and peak-reading meter for level monitoring.

II. SPECIFICATIONS

Composite Input	10k ohms, unbalanced, nominal level 3.5 volts peak-to-peak, into female BNC connector.
Audio Output	600 ohms nominal, balanced, floating, at +10 dBm nominal, adjustable over a ±3 dB range.
Audio Frequency Response	±0.5 dB, 30 Hz to 15 kHz.
Signal-to-Noise Ratio	70 dB or better, left or right channel, demodulated, with 75 µsecond de-emphasis.
Total Harmonic Distortion	Less than 0.25%, 30 Hz to 10 kHz.
De-emphasis	75 µsecond standard, to match standard stereo generator pre-emphasis.
Stereo Indicator (19 kHz Pilot Subcarrier)	Front panel LED with form C relay contacts, brought out to rear panel (rated at 1 amp/120 volts AC maximum).
Separation	40 dB or more, left to right, or right to left, channel, 30 Hz to 10 kHz (35 dB or more, 30 Hz to 15 kHz).
Metering	Full-wave switchable peak-reading meter for composite input, left channel output, and right channel output levels.
Power Requirements	120/240 VAC, 50/60 Hz, 20 watts.
Operating Temperature Range	0° C to +50° C.
Size	1 3/4" H (4.5 cm) x 19" W (48.4 cm) x 16" D (40.7 cm).
Weight	7 pounds (3.2 kg).

III. UNPACKING

The SCD-9 should be carefully unpacked and inspected for any shipping damage. Keep all packing material until performance is confirmed. Should inspection reveal shipping damage, or should hidden damage be revealed, immediately file a claim with the carrier.

It is recommended that the top cover be removed for a brief, superficial inspection.

> NOTE: DO NOT MAKE ANY ADJUSTMENTS OF ANY KIND TO THE EQUIPMENT AT THIS TIME.

This inspection should ascertain that the various components are mechanically secure. After the inspection, replace the cover.

IV. INSTALLATION

The SCD-9 will generally be located somewhere in the vicinity of a Studio-Transmitter Link (STL). The power cord will be connected to any source of 120 VAC, 50/60 Hz. The unit may be connected to 240 VAC if the power transformer is rewired for the new voltage and the fuse is changed. This is discussed under "Field Modifications and Adjustments."

If possible, the SCD-9 should be mounted between waist and eye height. Thie sill enable convenient reading of the output meter as well as convenient meter selection. The rack should be connected to station ground.

The input level is normally 3.5 volts peak-to-peak, regardless of whether stereo or mono signals are transmitted. The input will normally come from the composite output on an STL link such as a PCL-505/C or PCL-606/C. The length of the interconnecting cable should be such that its capacitance is less than 1,000 pF.

Connect the left and right output channels of the SCD-9 to the destination, such as the left and right program audio inputs of the stereo generator for the AM transmitter. It is recommended that a cable of the type having two conductors with a shielded outside jacket be used for each of left and right signals. The shield should be connected to the "GND" terminals on the SCD-9.

The normal audio output level of the SCD-9 is +10 dBm. Some AM stereo processors or generators operate at input levels as low as -10 dBm. In such cases, installing balanced attenuator pads as close as practical to the AM stereo equipment is suggested, and is to be preferred to mounting attenuator pads on the SCD-9 audio output terminals themselves.

If applicable, the remote control "F mono" (forced mono) connections may also be made at this time. The same type of cable (two-conductor with shield) may be used. The remote control cable may be terminated with a relay contact closure or a single-pole, single-throw switch to ground (the shield). This will force the SCD-9 in the monaural mode, which provides the same output from both left and right channels.

If the status Relay terminals are connected, the following convention should be used:

ARM-NC contact closure indicates the mono mode.
ARM-NO contact closure indicates the stereo mode.

The "RMT.MTR" (remote metering) terminals provide a DC voltage proportional to the SCD-9 meter reading. This remote metering may be connected to an electronic monitoring circuit or remote control telemetry input.

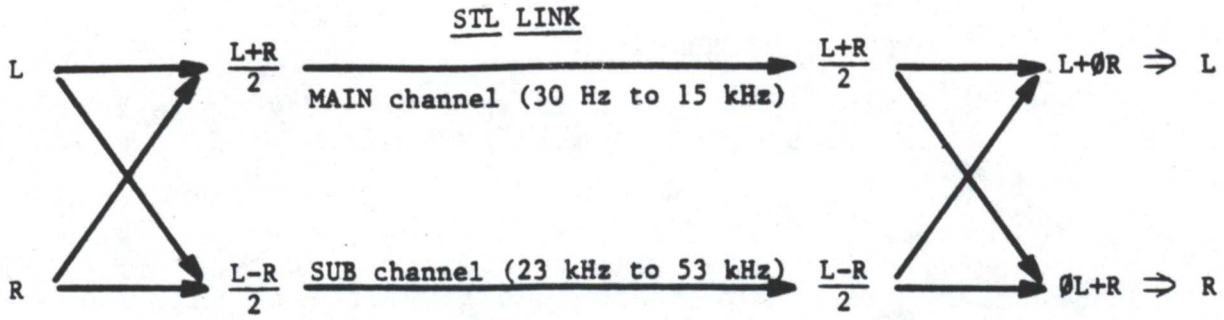
With power and audio signals applied, the operation of the meter and stereo mode indicator can be observed. The remote forced mono, status relay and remote metering, if used, can also be tested.

V. PRINCIPLES OF OPERATION

The SCD-9 technology is the same as that used in the FM Broadcast industry. The stereo encoded information consists of the following channels of information:

A) The MAIN (L+R) channel (30 Hz to 15 kHz);
B) The SUB (L-R) channel (23 kHz to 53 kHz); and
C) The 19 kHz PILOT.

The primary advantage of this system is its ability to retain both Left and Right channels of information in a monaural mode, and to produce separate Left and Right channels in a stereo mode.



Simplified stereo encoding and decoding
Figure 1

The encoding process can be simplified as follows: the MAIN (L+R) channels can be equated to a summing amplifier with a gain of one-half, and the SUB (L-R) channel can be equated to a differential amplifier with a gain of one-half.

Decoding the L+R and L-R channels back into separate Left and Right channels can be accomplished by the same use of summing and differential amplification with unity gain.

The importance of amplitude and phase response of the STL link can now be evaluated using Figure 1 and the definitions given above.

Assume, for example, that the frequency response of the SUB channel in the STL link falls 0.2 dB below that of the MAIN channel (i.e., high frequency roll off). This calculates to 1.00 for the MAIN and 0.98 for the SUB channel. As a result, when the L+R and L-R signals are demodulated, the Left and Right audio channels will contain approximately 1% of the other channel. To better illustrate this point: if the Left channel is the only active input, then the Right channel output will produce a signal about 40 dB below the Left channel output level. In measurement terms this is referred to as 40 dB of separation.

When the amplitude is held constant and a phase difference of 1 degree exists between the MAIN and SUB channels, a separation measurement of about 40 dB will also result.

It therefore follows that an amplitude difference of 0.1 dB combined with a phase difference of ½ degree can result in a separation measurement of about 40 dB.

VI. CIRCUIT DESCRIPTION

The following description is made with reference to the Block Diagram 92D1285, Schematic 91D7340, and Schematic 91D7342.

The composite baseband input is first applied to an SCA subcarrier rejection filter consisting of C82, L1, C79 and C83. The input and output impedance of this filter is approximately 5k ohms. R108 is used to match the filter input impedance and R112 and R113 are used to match the filter output impedance.

U15 and associated components act as a buffer between the output of the filter and the input of the stereo demodulator IC and the metering circuit. C70 and C71 act as decoupling capacitors for the stereo demodulator. The metering circuit is decoupled by C69.

U14 and associated components perform the stereo demodulation function. A stereophonic composite baseband signal consists of: a Main (L+R) channel between 30 Hz and 15 kHz, a 19 kHz pilot signal, and a (L-R) subchannel bewteen 23 kHz and 53 kHz. When the stereo demodulator detects a 19 kHz pilot, it demodulates the input signal into separate left and right audio channels. In addition, the stereo demodulator circuit may be forced into a mono condition where the left and right output channels produce the same signal either by a loss of the stereo pilot or by an external grounding of the forced monaural terminal on the back of the SCD-9. The grounding of the forced mono input activates Q2, which forces U14 into the mono mode. Pin 11 of U14 activates the LED to indicate when the stereo demodulator is in the stereo mode. This turns on Q1, which activates K1 to provide alarm terminal contacts at the back panel. Viewed as an Alarm relay, the ARM and NC (normally closed) contacts make connection when a non-stereo condition exists (i.e., Loss of Pilot, Forced Mono, or Loss of Power). When the stereo demodulator is in the stereo mode, the ARM and NO (normally open) contacts are made, and the ARM and NC contacts are open.

> Note: the 75 µsecond de-emphasis, 15 kHz Low Pass Filter, and Floating Balanced Amplifier for the left and right audio channels perform identical functions; hence, the reference designators for the right channel will be shown in brackets (e.g., R55 [R72]).

A 75 µsecond de-emphasis circuit consists of R55 [R72] and C45 [C119]. This circuit is normally used in FM stereo transmissions where the stereo generator has a 75 µsecond pre-emphasis.

If the stereo generator is operated without a pre-emphasized signal, both C45 and C119 should be removed.

U8 [U23] and associated components act as a buffer between the de-emphasis network as the 15 kHz low pass filter.

U5 [U20], U6 [U21], U7 [U22] and associated components act as an elliptical seven-pole, 15 kHz low pass filter. Two of the three transmission zeroes are located at 19 kHz and 38 kHz to maximize rejection of the stereo pilot and the L-R subcarrier frequencies, respectively. This filter utilizes a technology known as "impedance transformation." Here the capacitors on the plug-in card (Schematic 91D7342) act as resistors, the resistors act as inductors, and the operational amplifiers and associated components on the main PC board act as capacitors. This approach produces several advantages over conventional filter design:

a) The hum pick-up of wire-wound inductors is eliminated;
b) The component tolerances and temperature coefficients are greatly improved; and
c) The capacitors used to adjust the transmission zeroes are equivalent to 25-turn vernier components.

Referring to sheet 2 of Schematic 91D7340, U3 [U18] acts as a buffer for the output of the 15 kHz low pass filter, as an amplifier to compensate for the insertion loss of the filter, and to provide the signal level required by the Balanced Floating Output Amplifier. C23 [C97] provides a 0 V DC reference for the input to the Balanced Floating Output Amplifier.

U1 [U16], U2 [U17] and associated components form a transformerless +10 dBm, 600 ohm output amplifier. This amplifier provides approximately 5 dB of output headroom (for a +15 dBm signal) prior to clipping. When the output of this amplifier is connected to a transformer, it is important that the output differential current be kept at a minimum. If repairs to this amplifier are performed, two items should be checked:

1) The output voltage at TP3 [TP4] should be less than 100 millivolts

2) It is important that the 0.1% resistors be replaced, if necessary, with equivalent 0.1% values.

Both of these factors are necessary to assure the output amplifier will not produce a DC offset current into a transformer input. This can be verified by placing a 600 ohm resistor across the + and - terminals of each amplifier output and measuring the DC voltage across it. In addition, the diode action of CR2 [CR11], CR3 [CR12], CR4 [CR13] and CR5 [CR14] should be checked to ensure that the output levels will not exceed the power supply rails in the event that a transient voltage appears on the output lines.

The metering circuit input selection switch (S1) checks one of three levels: composite input, left channel output, or right channel output. The desired function of S1 is connected to the input of U13, which acts as a buffer amplifier. U12, U11 and U10 act as a full wave rectifier, with CR8 and C55 acting as the peak detector. U9 and associated components provide acceleration to offset the meter's internal damping.

The power supply (91D7340, sheet 1) is a full wave bridge rectifier with three-terminal regulators to provide plus and minus 15 volts. The power transformer primary is of a split configuration to allow 240 VAC operation as well as 120 VAC operation.

VII. LIST OF ADJUSTMENTS

Should monitoring equipment indicate that there is a problem in the system, and, further, should this trouble be positively traced to the SCD-9, then readjustment may be in order.

> NOTE: Controls should not be reset unless it is quite certain that a specific problem will be solved by a specific readjustment. Description of the various controls is given here to assist a competent operator to correct misadjustment.

The following controls are accessible by removing the top cover of the SCD-9.

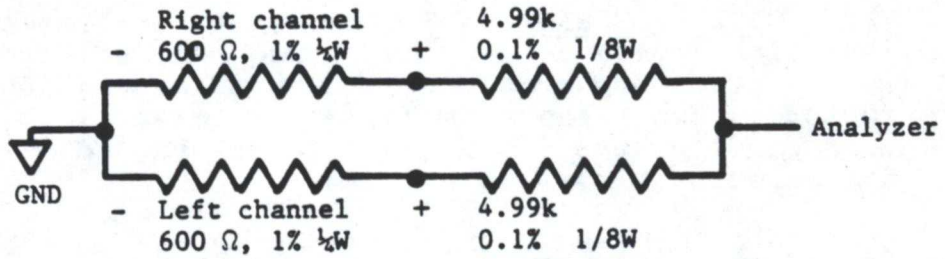
19 kHz ADJUST (R111) -- This adjustment is made with the composite baseband input disconnected. With a frequency counter connected to TP6 (BLU), adjust R111 for a value of 19 kHz, ±50 Hz. This adjustment sets the

idle frequency of the stereo demodulator phase lock loop when the stereo pilot is not present. Applying the composite input signal should cause the output at TP6 to lock onto the stereo generator's 19 kHz pilot frequency. Applying a ground to the "F MONO" (forced mono) input on the SCD-9 back panel should turn off the phased lock loop oscillator in U14.

INPUT LEVEL (R112) -- This adjustment is made with 3.5 volts peak-to-peak composite input at J2 for a level of 1.2 volts peak-to-peak at TP8 (GRAY). The 1.2 volts peak-to-peak level at TP8 provides for optimum performance of the stereo demodulator (U14).

AMPLITUDE AND PHASE MATCHING

The following tests are conducted using a low distortion audio generator, a stereo signal source, a stereo generator of known quality, an Audio Distortion Analyzer, and a passive mixing circuit shown below:



Passive Mixing Circuit
Figure 2

NOTE: The stereo demodulated Left and Right audio channels have been factory-aligned for gain and phase matching to ensure minimum linear cross-talk of the AM stereo L+R and L-R channels.

The de-emphasis, 15 kHz low pass filter transmission zero adjustments (R3, R7 and R11), and the audio channel gain adjustment R31 [R148] interact during the phase and gain matching. As a general practice, the Left channel is used as a reference, and the Right channel is aligned for optimum performance.

Set the audio input frequency to 400 Hz and the level so that the output of the SCD-9 is -10 dBm (Left or Right).

Set the function selector of the stereo signal source to L+R and establish a 0 dB reference on the distortion analyzer.

Set the function selector of the stereo signal source to L-R and measure the resulting signal in dB at 400 Hz, 1 kHz, 5 kHz, 1 kHz, and 15 kHz. This value should exceed 40 dB between 400 Hz and 10 kHz, and exceed 35 dB at 15 kHz.

Although the adjustments interact, the following guidelines may be helpful:

> GAIN (R148) should be adjusted at 400 Hz.
> DE-EMPHASIS (R172) should be adjusted at 5 kHz.
> 15 kHz FILTER ADJUSTMENTS (R3, R7, and R11) adjust the phase matching of the low pass filter and have the most noticeable effect between 5 kHz and 15 kHz.

NOTE: The information below provides the initial settings for the de-emphasis and 15 kHz low pass filter adjustments in the event major realignment of the gain and phase matching is required.

LEFT [RIGHT] CHANNEL GAIN (R31) [R148] -- Set the audio generator to 400 Hz and the stereo mode selector to (L+R). The output is measured by placing a 600 ohm resistor across the plus and minus terminals on the rear panel of the SCD-9. R31 [R148] should be adjusted for an output level of +10 dBm.

LEFT [RIGHT] DE-EMPHASIS (R55) [R172] -- This adjustment compensates for the pre-emphasis in the stereo generator. If C45 and [C119] are removed, this control will have no effect.

15 kHz LOW PASS FILTER ADJUSTMENTS (A2 and A3) -- This adjustment is facilitated by removing one end of C45 and C119. These capacitors are located on turret lugs, and the terminal closest to the front panel is the end where the capacitors' lead should be un-soldered. Care should be exercised to turn off the power and use a grounded-tip soldering iron when disconnecting the capacitor leads.

The initial procedure for adjusting the filters for the left and right channels is identical. Therefore, only the procedure for the left channel will be described.

Inject a signal at the terminal where the capacitor lead was removed (C45 [C119]). This should correspond to Pin 3 of U8 [U23]. Adjust the signal generator level at 400 Hz so that the SCD-9 left and right output levels are +10 dBm (0 dB on the front panel meter).

With a sensitive oscilloscope connected to TP3 (ORANGE) [TP4 (YELLOW)], align the 15 kHz filters as follows:

Adjust the audio generator for a frequency of 38 kHz and adjust A2R3 [A3R3] for a minimum or null reading.

Adjust the audio generator for a frequency of 19 kHz and adjust A2R7 [A3R7] for a minimum or null reading.

Adjust the audio generator for a frequency of 22 kHz and adjust A2R11 [A3R11] for a minimum or null reading.

If removed for this test, replace C45 and C119 prior to performing the gain and phase matching test above.

METER ALIGNMENT

NOTE: The meter is aligned under normal operating conditions after the proper input and output levels have been verified.

METER MECHANICAL ZERO -- Disconnect jack J7 from the main stereo demodulator board and adjust mechanical zero for an end of scale reading on the left side. Reconnect J7.

METERING - COMPOSITE INPUT LEVEL (R116) -- With the front panel meter selector switch in the composite input position, adjust R116 so that the meter reads 0 dB.

METERING - LEFT CHANNEL OUTPUT LEVEL (R115) -- With the front panel meter selector switch in the left position, adjust R115 for a meter reading of 0 dB.

METERING - RIGHT CHANNEL OUTPUT LEVEL (R146) -- With the front panel meter selector switch in the right position, adjust R146 for a meter reading of 0 dB.

METERING BALLISTICS (R57) -- Set the stereo mode selector to the left only position. Toggle the meter function switch between the right and composite, causing the meter to deflect between -20 dB and 0 dB. While performing this, adjust R57 for a 0.25 dB overshoot at 0 dB.

VIII. FIELD MODIFICATIONS

REWIRING POWER TRANSFORMER TO ACCOMMODATE 240 VAC -- The SCD-9 is normally wired for a primary voltage of 120 VAC. The split-primary power transformer can have its windings in series for 240 VAC as shown on the schematic. The transformer has been designed for 50 Hz. When the transformer is reconnected for 240 VAC operation, the fuse should be changed to one with a 1/8 ampere rating.

IX. OPERATIONAL SUGGESTIONS

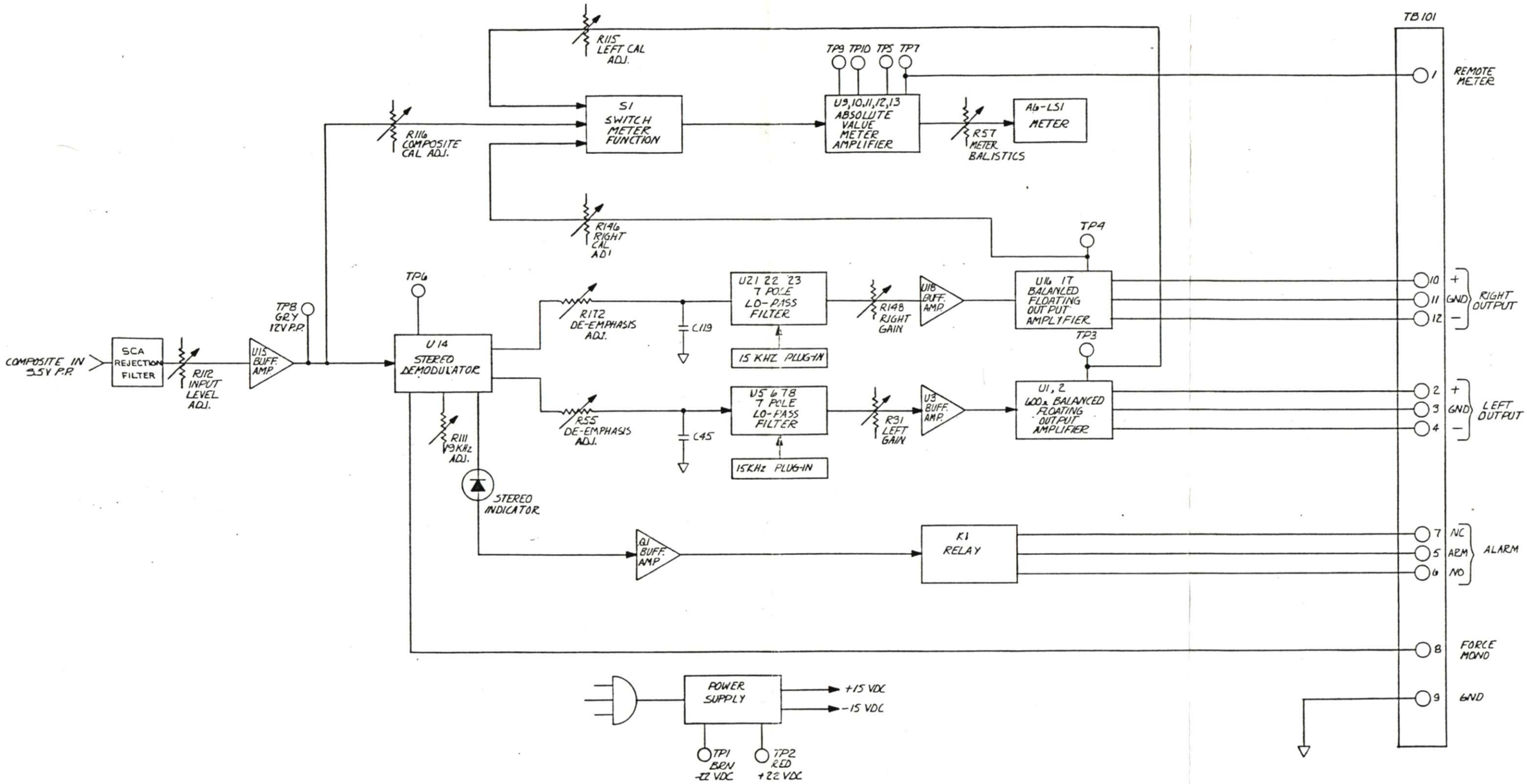
Some customers have expressed a desire to defeat the pre-emphasis and de-emphasis standard in composite STL links. This can be done; however, it may result in a reduction in the signal-to-noise ratio of the STL link of the order of 7 dB. If this loss of SNR is acceptable, then it is possible to operate the STL link in a "flat" mode.

When the STL link is operated with pre- and de-emphasis, the following guidelines should be used when making system tests:

> The Signal-to-Noise Ratio should be measured with reference to an STL modulation of 100% at 400 Hz.
>
> The audio input level should be adjusted for 100% modulation (as indicated on the STL link) when measuring distortion.
>
> The audio input level should be reduced -20 dB (below 100% modulation of the STL link at 400 Hz) when measuring frequency response and stereo separation.

This eliminates the possibility of over-deviating the STL at high audio frequencies because of high-frequency boost by the pre-emphasis network.

When audio processors or other equipment are between the signal source and the measuring instrument, care should be taken to ensure that errors are not introduced by limiting or other audio processing.

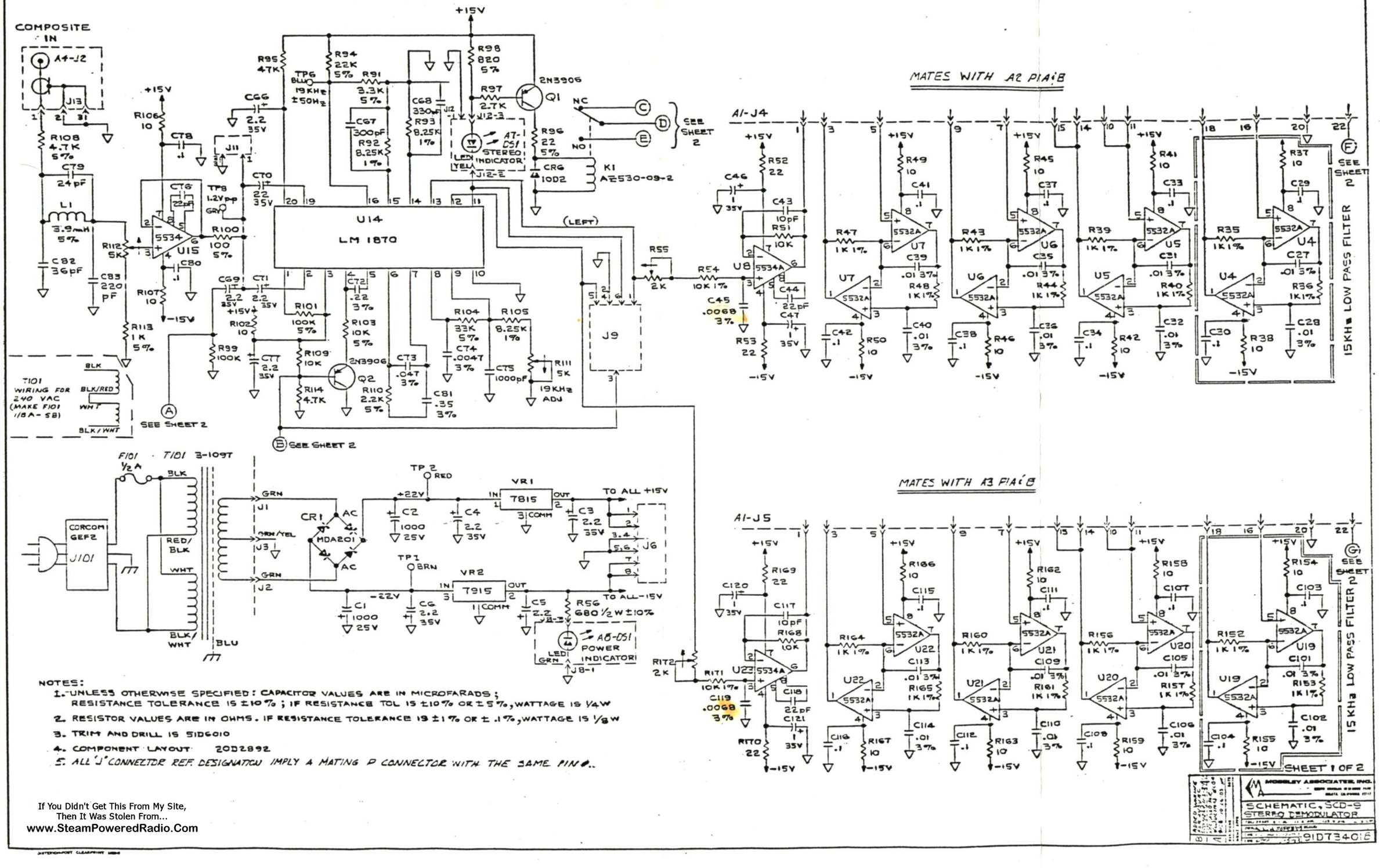


MOSELEY ASSOCIATES, INC
SANTA BARBARA, CALIFORNIA

BLOCK DIAGRAM SCD-9

DRN	AF	11-11-83	SCALE: NO
CHK	[illegible]	11-21-83	92D1285 A
ENG	[illegible]	12-21-83	

FILE FOR PROD



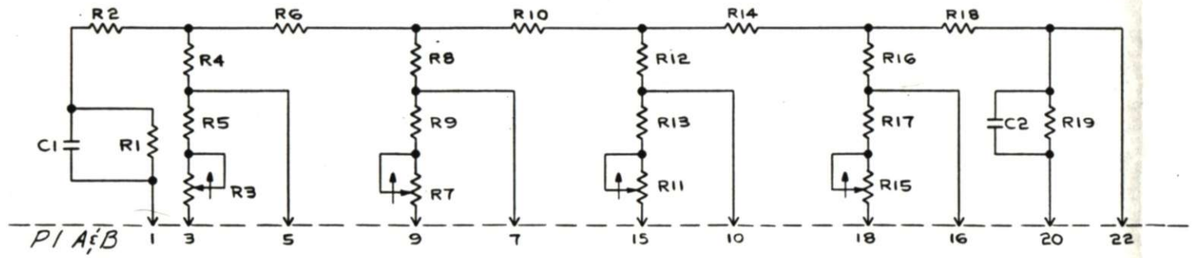
BALANCED FLOATING OUTPUT AMPLIFIER

BALANCED FLOATING OUTPUT AMPLIFIER

OPTIONAL

SCHEMATIC, SCD-9 STEREO DEMODULATOR

SHEET 2 OF 2



FREQUENCY	MAI SCHEMATIC NO.	MAI COMP ASSY NO.	JUMPER	C1	C2	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15	R16	R17	R18	R19
15 KHz	91D7342-1	20C2893	JUMPER, #22 BUS	.01 1% 100V	.01 1% 100V	20K 1/8W 1%	931 1/8W 1%	200	130 1/8W 1%	619 1/8W 1%	1.47K 1/8W 1%	200	750 1/8W 1%	909 1/8W 1%	1.30K 1/8W 1%	200	562 1/8W 1%	909 1/8W 1%	649 1/8W 1%				JUMPER	24.3K 1/8W 1%

NOTES:

1. UNLESS OTHERWISE SPECIFIED, CAPACITOR VALUES ARE IN MICROFARADS
2. RESISTOR VALUES ARE IN OHMS
3. TRIM AND DRILL IS SICG011

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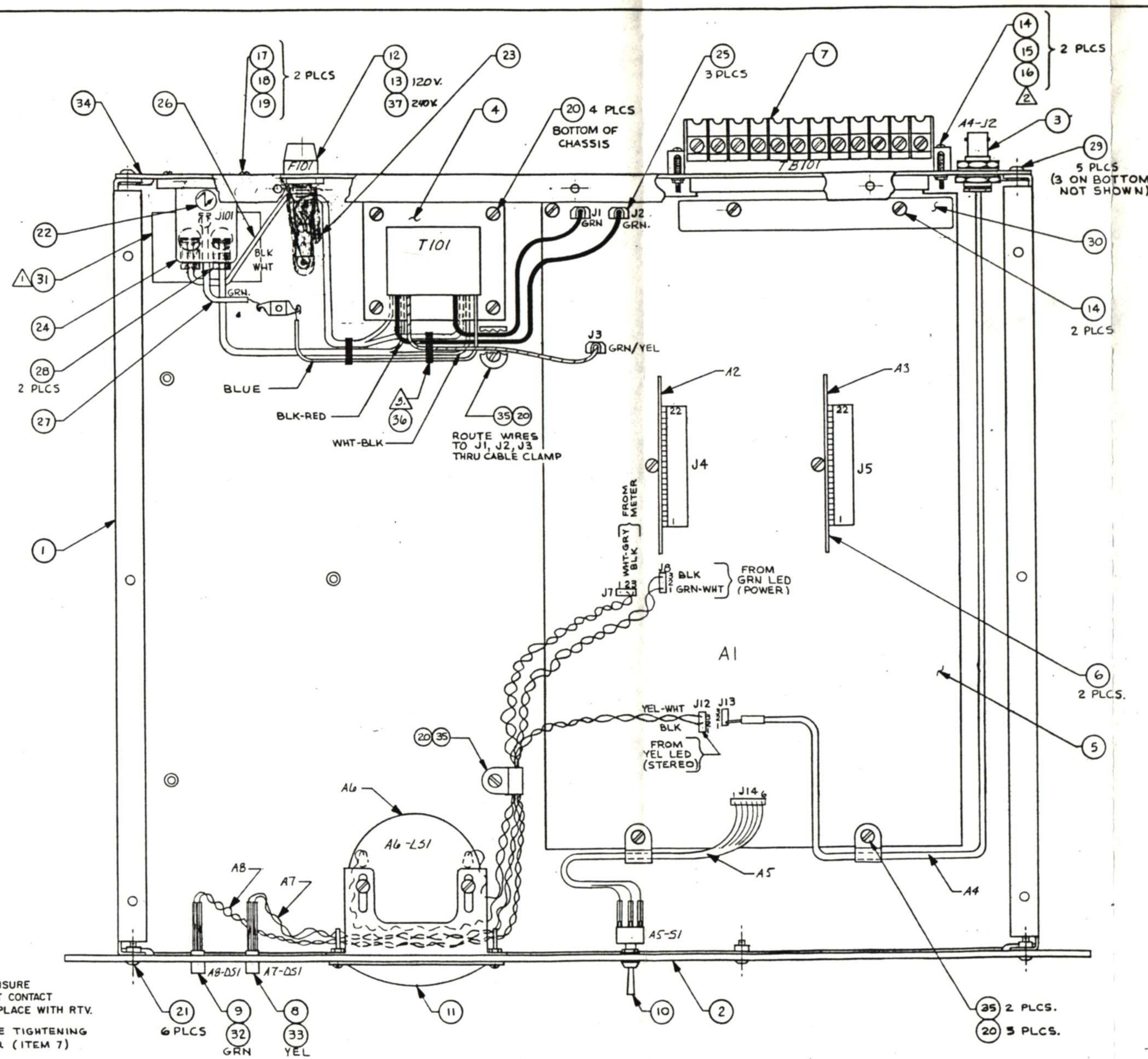
SANTA BARBARA RESEARCH PARK
GOLETA CALIFORNIA 93117

SCHEMATIC-GIC LPF

91D7342 A



NOTES:

1. LOCATE APPROX. AS SHOWN TO INSURE THAT POWER TERMINALS DO NOT CONTACT THE CHASSIS, AND SECURE IN PLACE WITH RTV.
2. INSTALL P.C. BOARD BEFORE TIGHTENING HARDWARE ON CONNECTOR (ITEM 7)
3. CABLE TIES AS SHOWN (2 PLCS).

REV	REVISIONS	DATE
B	UPDATE CO. STD. ADD ITEM 37, OPT. 240V OPTION	
A	REL EASED FOR PROD. ECO 4028	10-24-83

MOSELEY ASSOCIATES, INC.

ASSEMBLY, STEREO DEMOD. SCD-9

DWN	S. J.	2-16-83	SCALE: 1/1
CHK		5-4-83	21D2801 B
ENG		5-3-83	

DIETERICH-POST CLEARPRINT

PRINT PHANTOM ITEMS
PRINT COMPONENTS
PRINT PHANTOM/COMPONENT COMMENTS

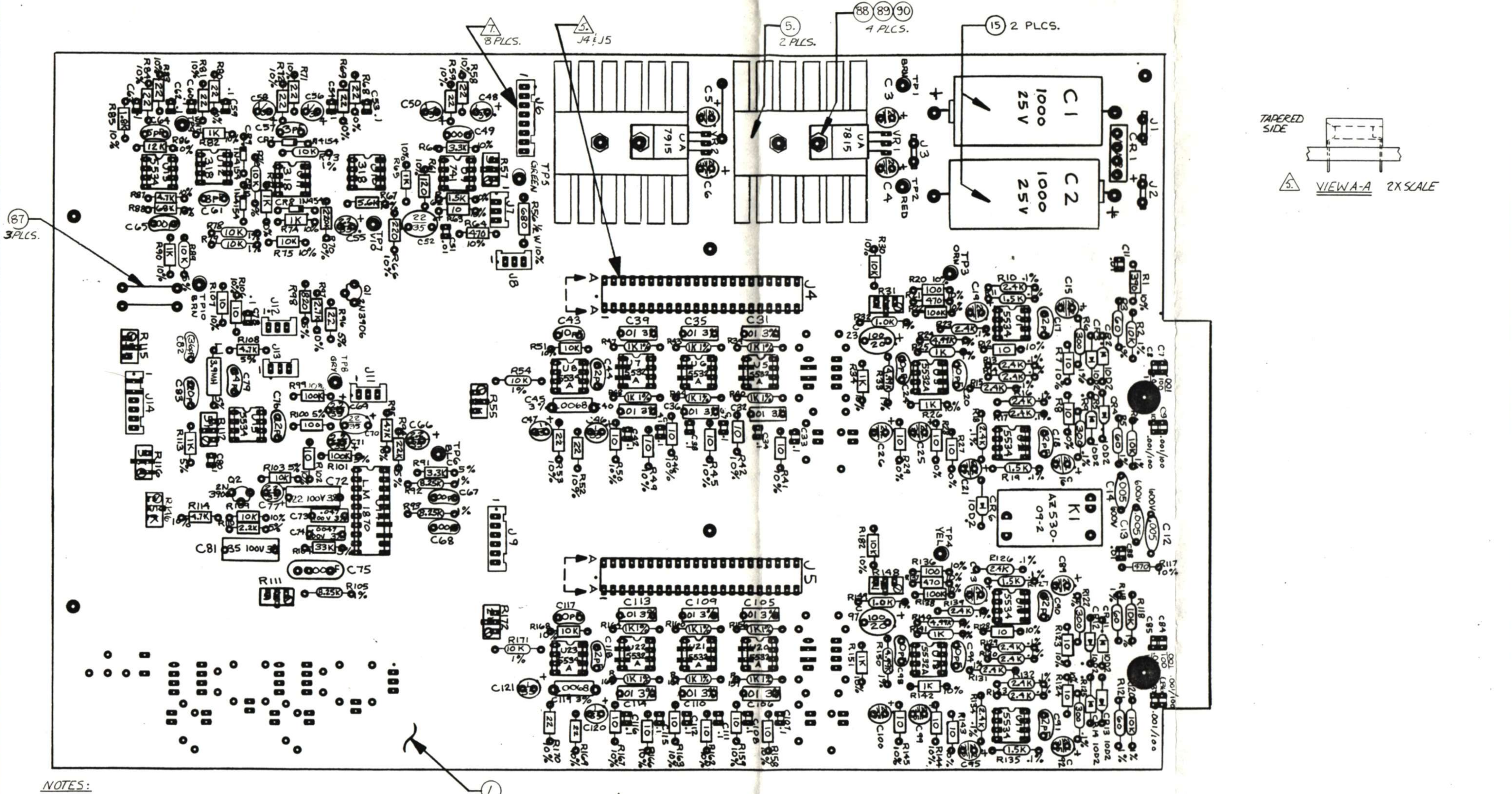
PARENT ITEM 9503681 CROSS REF ITEM DESCRIPTION SCD-9 STEREO DEMODULATOR ENGR DRAW 21D2801 B BATCH QTY 1 ITEM TYPE 1 UNIT MEAS EA LOW LEVEL 01 PLANNER 520

BOM ITEM	LL CD	COMPONENT & CROSS REF.	DESCRIPTION & COMMENT	ENGINEERING DRAWING NUMBER		QUANTITY PER	ITEM UM	TYP	OPT NBR	FIRST OP SEQ	LT ADJ	EFFECTIVE DATES FROM	TO
1	02	2032118	CHASSIS DETAIL SCD-9	0502969	A	1.000	EA	2					
2	02	2010961	FRONT PANEL SCD-9	0502968	A	1.000	EA	2					
3	02	2202448 A4	COAX ASSY COMPOSITE INPUT SCD9	2481102	A	1.000	EA	1					
4	04	4090361 T101	4090122P-92A 3-1097A	3-1097A	A1	1.000	EA	4					
5	02	9204785 A1	SCD-9 STEREO DEMOD	2002892	C	1.000	EA	1					
6	02	9204793 A2,A3	SCD-9 15KHZ GIC LPF	20C2893	A	2.000	EA	1					
7	02	3110632 TB101	CONN PSB	PSB3KB12ANNNNN		1.000	EA	4					
8	02	2300937 A7	CABLE ASSY , YEL LED SCD-9	2481107	A	1.000	EA	1					
9	02	2300945 A8	CABLE ASSY , GRN LED SCD-9	2481103	A	1.000	EA	1					
10	02	2300960 A5	CABLE ASSY , SWITCH SCD-9	2481105	A	1.000	EA	1					
11	02	2300978 A6	CABLE ASSY , METER SCD-9	2481106	A	1.000	EA	1					
12	04	3370335	FUSE HLDR STD HKP	HKP		1.000	EA	4					
13	04	3370236 F101	FUSE MDL-1/2 AMP (SLOW-BLO)	MDL 1/2		1.000	EA	4					
14	05	1090257	SCR PNHD PHPS 6/32 X 3/4 SST	BINDER HEAD		4.000	EA	4					
15	05	1090562	WSHR LK #6 INTL T CD PL	LOCKWASHER #6		2.000	EA	4					
16	05	1090554	NUT HEX 6/32 SM PATT	NUT 6/32 SM		2.000	EA	4					
17	05	1050152	SCR PNHD PHPS 4/40 X 3/8 SST	BINDER HEAD		2.000	EA	4					
18	06	1050582	NUT HEX 4/40 SM PATT	NUT 4/40		2.000	EA	4					
19	05	1050624	WSHR LK #4 INTL T CD PL	LOCKWASHER #4		2.000	EA	4					
20	05	1090208	SCR PNHD PHPS 6/32 X 3/8 SST	BINDER HEAD		11.000	EA	4					
21	03	1090315	SCR BTNHD SKT CAP6/32 X3/8	BUTTON HEAD		6.000	EA	4					
22	05	3430071	LBL HIGH VOLTAGE SYMBOL	10A1058-2	A0	1.000	EA	4					
23	05	1560069	TBG SHRINK	FIT 221 1/2CL		.150	EA	4					

PRINT PHANTOM ITEMS
PRINT COMPONENTS
PRINT PHANTOM/COMPONENT COMMENTS

PARENT ITEM 9503681 CROSS REF ITEM DESCRIPTION SCD-9 STEREO DEMODULATOR ENGR DRAW 2102801 B BATCH QTY 1 ITEM TYPE 1 UNIT MEAS EA LOW LEVEL 01 PLANNER 520

BOM ITEM	LL CD	COMPONENT & CROSS REF.	DESCRIPTION & COMMENT	ENGINEERING DRAWING NUMBER		QUANTITY PER	ITEM UM	ITEM TYP	OPT NBR	FIRST OP SEQ	LT ADJ	EFFECTIVE DATES FROM	TO
24	04	3370053	CONN PWR W/FILTER 6EF2 J101	6EF2		1.000	EA	4					
25	06	3110004	CONN INSUL J1,J2,J3	2-35-0804-2		3.000	EA	4					
26	06	1641455	W STRD 16GA BLACK 26/30	1557 BLACK		.300	FT	4					
27	05	1641505	W STRD 16GA GREEN 26/30	1557 GREEN		.200	FT	4					
28	05	1560028	TBG SHRINK	FIT 221 1/8CL		.100	EA	4					
29	05	1050129	SCR PNHD PHPS 4/40 X 1/4 SST	PAN HEAD		5.000	EA	4					
30	02	2063295	RF SHIELD, SCD-9	05B3007	A	1.000	EA	2					
31	03	2060333	PLATE	05A2693	B	1.000	EA	2					
32	03	3390119	LENS CLIP LGHT GRN	CLF-280-GTP		1.000	EA	4					
33	03	3390093	LENS CLIP LGHT AMBER	CLF-280-ATP		1.000	EA	4					
34	02	2063311	REAR PANEL, SCD-9	05C3014	B	1.000	EA	2					
35	04	1270032	CLP CA BUTYRATE H-3/16	832		4.000	EA	4					
36	05	1270008	CA TIE 3.65 BLK	08-475		2.000	EA	4					
37	04	3370228	FUSE MDL-1/4 AMP (SLOW-BLO) F101	MDL 1/4		.000	EA	4					



NOTES:

1. UNLESS OTHERWISE NOTED:
   CAPACITOR VALUES ARE IN MICROFARADS, VOLTAGE IS 50V.
   RESISTOR VALUES ARE IN OHMS.
   5% AND 10% RESISTORS ARE 1/4 WATT,
   .1% AND 1% RESISTORS ARE 1/8 WATT.
2. P.C. BOARD: 51D6010-12
3. SCHEMATIC: 91D 7340
4. SOCKETS TO BE INSTALLED AT ALL I.C. PLACES.
5. INSTALL J4 AND J5 WITH TAPERED OPENING FACING LEFT AS SHOWN IN VIEW A-A.
6. SECURE C1 AND C2 TO P.C. BOARD WITH RTV.
7. INSTALL CONNECTORS J6 THRU J9, AND J11 THRU J14, WITH SLOTS ORIENTED AS SHOWN.

SHEET: 1 OF 2

REV	REVISIONS
C	ARTWORK CHG CIRCUIT SIDE ONLY ECO 4092 22 MAR 84 CH
B	ON SHEET 2: ITEM 83 WAS 3.9µH ON SHEET 1: ITEM 87 WAS 5 PLCS ROTATE RHG 180° C82 WAS 220pF ECO 4049 12-2-83 CH
A	RELEASE FOR PROD ECO 4028 10-26-83 IF

MOSELEY ASSOCIATES, INC.
SANTA BARBARA RESEARCH PARK
GOLETA, CALIFORNIA 93117

COMPONENT LAYOUT
SCD-9 STEREO DEMODULATOR

TOL: FRACT. ± 1/32, .XX ± .030, .XXX ± .010, ∠ ± 1/2°
DWN: CAN 1 APR 83 SCALE: 2X
CHK: 10-4-83
20D 2892 C

DIETERICH-POST CLEARPRINT 1000-5

QTY. -1	DESCRIPTION	REF. DES.	STOCK NO.	ITEM NO.
				106
				105
1	TEST POINT, EFJ 105-0851-001, VERT., WHITE	TP 9	3290111	104
1	EFJ 105-0863-001, VERT., GRAY	TP 8	3290103	103
1	EFJ 105-0862-001, VERT., VIOLET	TP 7	3290095	102
1	EFJ 105-0860-001, VERT., BLUE	TP 6	3290087	101
1	EFJ 105-0854-001, VERT., GREEN	TP 5	3290079	100
1	EFJ 105-0857-001, VERT., YEL.	TP 4	3290061	99
1	EFJ 105-0856-001, VERT., ORN.	TP 3	3290053	98
1	EFJ 105-0852-001, VERT., RED	TP 2	3290046	97
2	TEST POINT, EFJ 105-0858-001, VERT., BROWN	TP1, TP10	3290038	96
1	CONN. ASSY., AMP 102202-5, 8 PIN	J6	3090479	95
2	CONN. ASSY., AMP 102202-3, 6 PIN	J9, J14	3090453	94
6	POT., SPECTROL 64W502 P.C. PIN 5K .5W 25T	R57, 111, 112, 115, 116, 146	4630877	93
4	POT., SPECTROL 64W202 P.C. PIN 2K .5W 25T	R31, 55, 148, 172	4630745	92
1	RES., A-B RC20GF681K 680Ω 1/2W 10%	R56	4420246	91
4	WASHER, S.R. #6		1090588	90
4	NUT, HEX, SM. PATT. #6-32		1090554	89
4	SCREW, B.H. #6-32 X 3/8"		1090208	88
.42'	BUS WIRE #22		1641927	87
20	SOCKET, I.C., AMP 640463-1 8 PIN	U1-3, 5-13, 15-18, 20-23	3250016	86
1	SOCKET, I.C., AMP 640464-1 20 PIN	U14	3250057	85
2	CAP., SPRAGUE 196D226X9035PE4 EPOXY-DIP 22/35V	C52, 70	4280095	84
1	INDUCTOR, LNX/FU 3900 3.9MH 5%	L1	4020046	83
2	RES., A-B RC07GF 103J 10K 1/4W 5%	R89, 103	4460317	82
1	332J 3.3K 1/4W 5%	R91	4460226	81
1	472J 4.7K 1/4W 5%	R108	4460242	80
1	220J 22Ω 1/4W 5%	R96	4460754	79
1	102J 1K 1/4W 5%	R113	4460143	78
1	101J 100Ω 1/4W 5%	R100	4460051	77
1	333J 33K 1/4W 5%	R104	4460390	76
1	223J 22K 1/4W 5%	R94	4460374	75
1	104J 100K 1/4W 5%	R101	4460481	74
1	821J 820Ω 1/4W 5%	R98	4460853	73
1	RES., A-B RC07GF 222J 2.2K 1/4W 5%	R110	4460192	72
6	RES., A-B RC07GF 103K 10K 1/4W 10%	R30, 51, 75, 109, 168, 182	4410379	71
1	RES., A-B RC07GF 221K 220Ω 1/4W 10%	R66	4410163	70
28	RES., A-B RC07GF 100K 10Ω 1/4W 10% R7, 8, 12, 27-29, 41, 42, 45, 46, 49, 50, 63, 102, 106, 107, 123, 124, 128, 143-145, 158, 159, 162, 163, 166, 167		4410023	69
9	RES., A-B RC07GF 102K 1K 1/4W 10% R26, 34, 65, 74, 77, 82, 90, 142, 151		4410247	68
14	RES., A-B RC07GF 220K 22Ω 1/4W 10% R52, 53, 58, 59, 68, 69, 71, 72, 80, 81, 83, 84, 169, 170		4410049	67
1	RES., A-B RC07GF 683K 68K 1/4W 10%	R88	4410478	66
1	RES., A-B RC07GF 123K 12K 1/4W 10%	R86	4410387	65

SHEET: 2 OF 2

	QTY. -1	DESCRIPTION	REF. DES.	STOCK NO.	ITEM NO.
	1	RES., A-B RC07GF 182K 1.8K 1/4W 10%	R85	4410270	64
	2	472K 4.7K 1/4W 10%	R87, 114	4410338	63
	1	272K 2.7K 1/4W 10%	R97	4410296	62
	1	473K 47K 1/4W 10%	R95	4410452	61
	1	562K 5.6K 1/4W 10%	R67	4410346	60
	1	224K 220K 1/4W 10%	R70	4410536	59
	1	121K 120Ω 1/4W 10%	R61	4410130	58
	1	152K 1.5K 1/4W 10%	R62	4410262	57
	1	332K 3.3K 1/4W 10%	R60	4410304	56
	4	471K 470Ω 1/4W 10%	R21, 64, 117, 137	4410205	55
	1	391K 390Ω 1/4W 10%	R1	4410197	54
	3	104K 100K 1/4W 10%	R22, 99, 138	4410494	53
	2	RES., A-B RC07GF101K 100Ω 1/4W 10%	R20, 136	4410122	52
	16	RES., DALE RN55E 2401B 2.4K 1/8W .1% R10, 13-18, 23, 126, 129-134, 139,		4500088	51
	16	RES., A/B RN55D1001F 1K 1/8W 1% R25, 32, 39, 40, 43, 44, 47, 48, 141, 149, 156, 157, 160, 161, 164, 165,		4510301	50
	10	RES., MEPCO RN55C1002F 10K 1/8W 1% R2, 4, 54, 73, 76, 78, 79, 118, 120, 171		4510145	49
					48
	4	RES., DALE RN55E4991F 4.99K 1/8W 1%	R24, 33, 140, 150	4510103	47
	4	RES., DALE RN55E1501B 1.5K 1/8W .1%	R11, 19, 127, 135	4500096	46
	3	RES., MEPCO RN55E8251F 8.25K 1/8W 1%	R92, 93, 105	4510855	44
	4	RES., DALE RN55E60R0F 60Ω 1/8W 1%	R3, 5, 119, 121	4510624	43
	4	RES., DALE RN55E3000B 300Ω 1/8W .1%	R6, 9, 122, 125	4500104	42
	1	DIODE BRIDGE, MOTOR. MDA-201 100V 2A.	CR 1	3610078	41
	4	DIODE, GE 1N4154 25V	CR 7-10	3600145	40
	9	DIODE, IR 10D2 200V 1A	CR2-6, 11-14	3610003	39
	20	CAP., EMCON 5020ES50RD104 CERAMIC DIP .1 50V C33, 34, 37, 38, 41, 42, 53, 54, 59, 60, 62, 63, 78, 80, 107, 108, 111, 112, 115, 116		4310264	38
	8	CAP., KEMET C315C102M1R5CA CERAMIC DIP .001 100V	C7-10, 84-87	4310280	37
	3	CAP., EMCON 501BEM50RD103K CERAMIC DIP .01 50V	C11, 51, 88	4310272	36
	3	CAP., ERIE 811000/X5R0502K CER DISC .005 / 600V	C12, 13 14	4310124	35
	6	CAP., ARCO DM-15-100D MICA DIP 10pF	C20, 24, 43, 98, 117, 94	4210050	34
	7	CAP., ARCO DM-15-220J MICA DIP 22pF	C17, 18, 44, 76, 90, 91, 118	4210100	33
	1	CAP., ARCO DM-15-221J MICA DIP 220pF	C83	4210357	32
	2	CAP., ARCO DM-15-301J MICA DIP 300pF	C67, 68	4210407	31
	2	CAP., ARCO DM-15-101J MICA DIP 100pF	C49, 65	4210266	30
	2	CAP., ARCO DM-15-030D MICA DIP 3pF	C57, 61	4210035	29
	1	CAP., ARCO DM-15-050D MICA DIP 5pF	C64	4210043	28
	1	CAP., ARCO DM-15-360J MICA DIP 36pF	C82	4210159	27
	1	CAP., ARCO DM-15-240J MICA DIP 24pF	C79	4210118	26
	1	CAP., ARCO DM-19-102J MICA DIP 1000pF	C75	4220018	25
	12	CAP., SEI 22UB103H POLYCARB .01 100V 3% C31, 32, 35, 36, 39, 40, 105, 106, 109, 110, 113, 114		4250171	24
	2	CAP., SEI 22UB682H POLYCARB .0068 100V 3%	C45, 119	4250130	23
	1	CAP., SEI 22UB224H POLYCARB .22 100V 3%	C72	4250577	22
	1	CAP., SEI 22UB354H POLYCARB .35 100V 3%	C81	4250619	21
	1	CAP., SEI 22UB472H POLYCARB .0047 100V 3%	C74	4250098	20
	8	CAP., SPRAGUE 196D105X0035HA1 EPOXY-DIP 1/35V	C46, 47, 48, 50, 56, 58, 120, 121	4280038	19
	21	CAP., SPRAGUE 196D225X0035JA1 EPOXY-DIP 2.2/35V C3-6, 15, 16, 19, 21, 25, 26, 55, 66, 69, 71, 77, 89, 92, 93, 95, 99, 100		4280046	18
	1	CAP., SEI 22UB743H POLYCARB .047 100V 3%	C73	4250395	17
	2	CAP., SPRAGUE 196D107X9020TE4 EPOXY-DIP 100/20V	C23, C97	4280152	16
	2	CAP., C/D WBR1000-25 1000/25V	C1, C2	4260212	15
	2	TRANS., MOTOR 2N3906	Q1, Q2	3630464	14
	1	I.C., LM1870	U14	3731072	13
	8	I.C., SIGN. NE5532AN	U3, 5, 6, 7, 18, 20, 21, 22	3730967	12
	8	I.C., SIGN. NE5534AN	U1, 2, 8, 13, 15, 16, 17, 23	3730728	11
	1	I.C., T.I. UA741P	U9	3660008	10
	3	I.C., NATL. LM318N	U10, 11, 12	3730173	9
	1	RELAY, AMER/Z AZ-530-09-2 200Ω 12V	K1	3270113	8
	1	REG., FAIR., NUA7915UC -15 1.5A. TO220	VR2	3650223	7
	1	REG., FAIR., PUA7815UC +15 1.5A. TO220	VR 1	3650207	6
	2	HEAT SINK, THRMLY. 6072	VR1, 2	2110351	5
	3	LUG CONN., ZIER. #836	J1, 2, 3	3290830	4
	5	CONN., AMP 3-102202-4, 3 PIN	J7, 8, 11, 12, 13	3090438	3
	2	CONN., BERG 65001-029, 22 PIN	J4, J5	3090552	2
	1	P.C. BD., SCD-9 STEREO DEMOD. SID6010	-12	3473584	1
*					*
*					*
*					*
*					*
*					*
	*	SCD-9 STEREO DEMOD. 20D2892		9204785	*

REV	REVISIONS	DATE
C	ARTWORK CHG CIRCUIT SIDE ONLY ECO 4092	22 MAR 84 CH
B	SEE SHEET 1 SHEET 2: ITEM 83 WAS 3.9μH ECO 4049	12-2-83 CH
A	RELEASED FOR PRODUCTION ECO# 4028	10-26-83

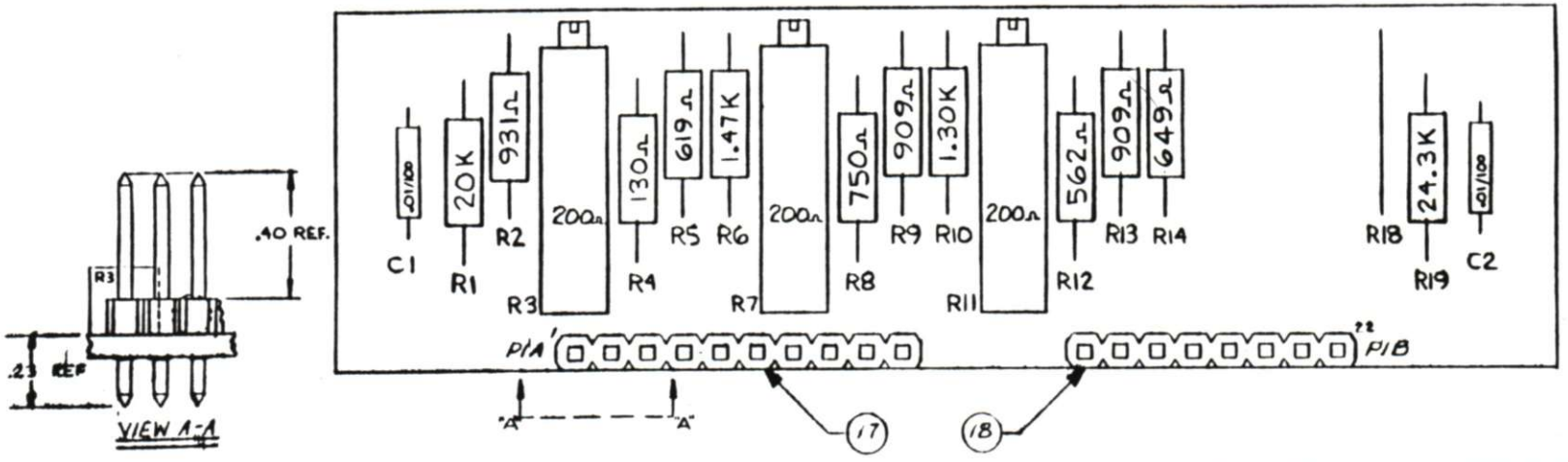
MOSELEY ASSOCIATES, INC.
SANTA BARBARA RESEARCH PARK
GOLETA CALIFORNIA 93117

COMPONENT LAYOUT
SCD-9 STEREO DEMODULATOR

TOL: FRACT. ± 1/32, .XX ± .030, .XXX ± .015, ∠ ± 1/2°

DWN CAH 11APR83 SCALE:
CHK 6-4-83
ENG 5-5-83

20D2892 C



NOTES :

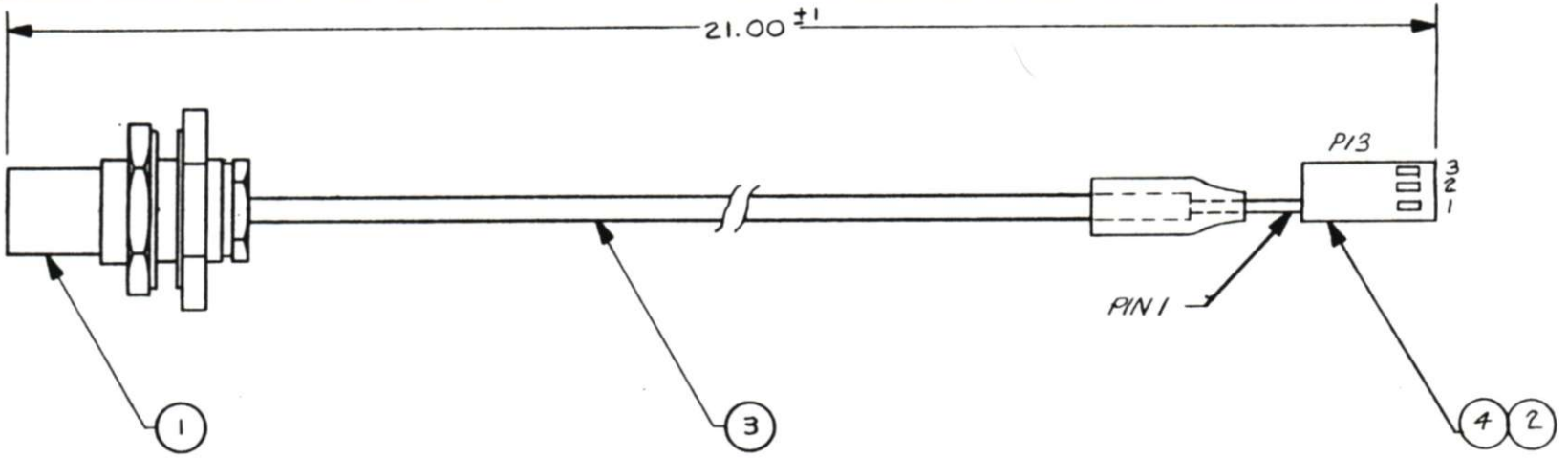
1. RESISTOR VALUES ARE IN OHMS, 1/8 W, 1%.
   CAPACITOR VALUES ARE IN MICROFARADS, 1%
2. P.C. BD. : 51C6011 -11
3. SCHEMATIC : 91D7342

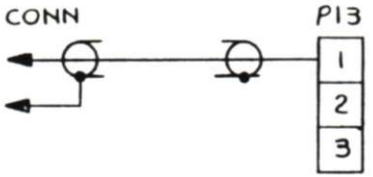
QTY.	DESCRIPTION	REF. DES.	STOCK NO	ITEM NO.
1	CONN 65502-108 8 PIN BERG	P1B	3090578	18
1	CONN 65502-110 10 PIN BERG	P1A	3090586	17
.05'	BUS WIRE #22	USED AT R18	1641927	16
3	POT., SPECTROL 43P201 200Ω	R3, R7, R11	4630794	15
1	RES., DALE RN55E2432F 24.3K 1/8W 1%	R19	4510848	14
1	RN55E6490F 649Ω 1/8W 1%	R14	4510798	13
1	RN55E5620F 562Ω 1/8W 1%	R12	4510772	12
1	RN55E1301F 1.30K 1/8W 1%	R10	4510822	11
2	RN55E9090F 909Ω 1/8W 1%	R9, R13	4510053	10
1	RN55E7500F 750Ω 1/8W 1%	R8	4510806	9
1	RN55E1471F 1.47K 1/8W 1%	R6	4510880	8
1	RN55E6190F 619Ω 1/8W 1%	R5	4510780	7
1	RN55E1300F 130Ω 1/8W 1%	R4	4510764	6
1	RN55E9310F 931Ω 1/8 1%	R2	4510814	5
1	RES., DALE RN55E2002F 20K 1/8W 1%	R1	4510160	4
2	CAP., SEI 25UB103F, POLYCARB .01μF/100V 1%	C1, C2	4250718	3
				2
1	P.C. BD., SCD-9 GIC/LPF 51C6011-11		3473592	1
*	SCD-9 GIC/LPF P.C. ASSY. 20C2893		9204793	*

MOSELEY ASSOCIATES, INC.

COMPONENT LAYOUT
SCD-9 GIC/LPF 15KHZ

20C 2893 A





WIRING DIAGRAM

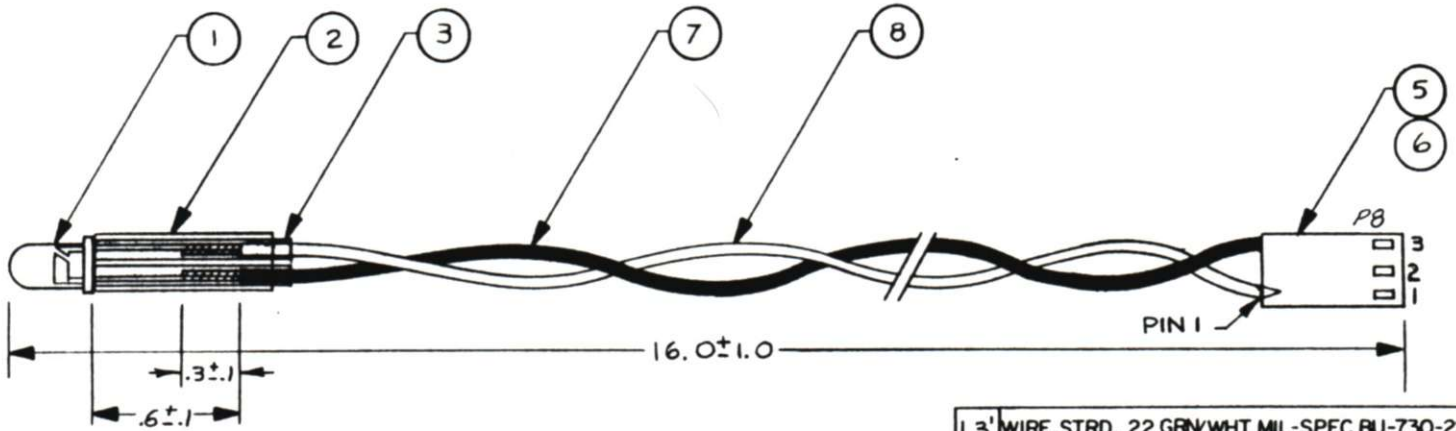
QTY	DESCRIPTION	STOCK NO.	ITEM NO.
*	COAX ASSY., 24B1102	2202448	*
1	CONNECTOR, NO. 19-175, J2 KINGS	3030251	1
1	CONNECTOR NO. 102241-1, P13 AMP	3090446	2
1	CABLE ASSY, 24B1112	2202471	3
1	CRIMP PIN 87107-5 AMP	3250750	4

MOSELEY ASSOCIATES, INC.
SANTA BARBARA RESEARCH PARK
GOLETA, CALIFORNIA 93117

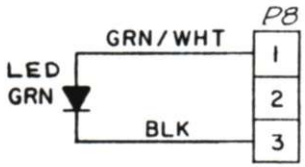
COAX ASSEMBLY

DRWN	S. J.	2-24-83	SCALE: 2/1
CHK	VCR	3-24-83	24B1102 A
ENG			

REVISIONS			
LTR	DESCRIPTION	DATE	APPR.
A	RELEASE FOR PRODUCTION PER ECO# 4028	10-21-83	



1.3'	WIRE, STRD., 22 GRN/WHT, MIL-SPEC BU-730-22-59	1640598	8
1.3'	WIRE, STRD., 22 BLACK, MIL-SPEC BU-730-22-0	1640374	7
2	CRIMP PIN 87107-5 AMP	3250750	6
1	CONN. NO. 102241-1, P8 AMP	3090446	5
			4
.18'	TUBING, SHRINK 1/16" CLEAR	1560002	3
.09	TUBING, SHRINK, 3/8" CLEAR	1560051	2
1	LED, GRN HP5082-4957, DSI	3390101	1
*	CABLE ASSY, 24B1103	2300945	*
	DESCRIPTION	STOCK NO.	ITEM NO.



WIRING DIAGRAMS

NOTES:

1. CATHODE IS FLAT SIDE OF LED.

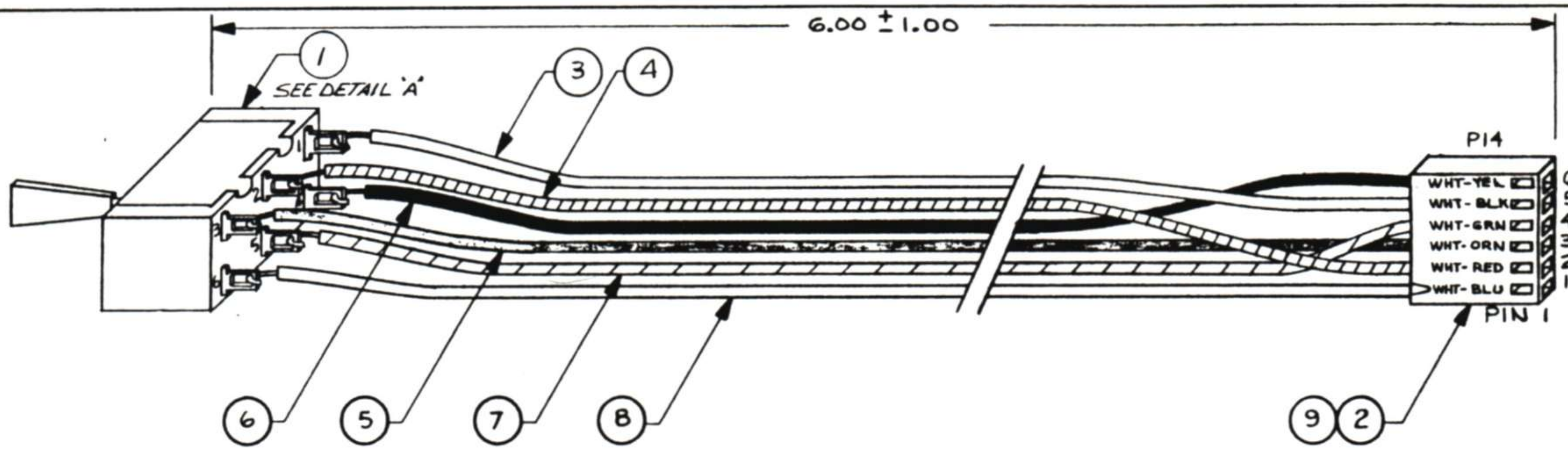
RELEASE FOR PROD. ECO# 4028 10-26-83 MC — A

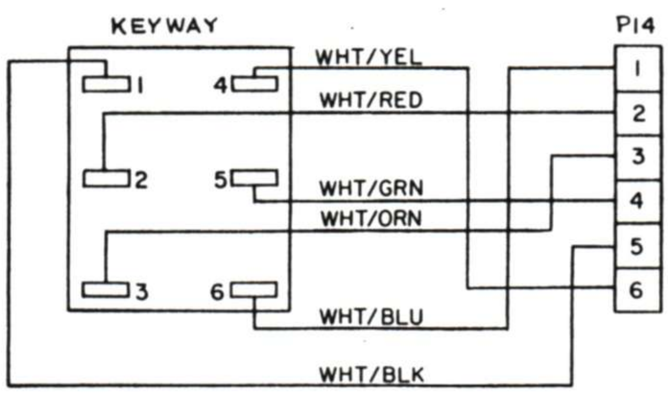
MOSELEY ASSOCIATES, INC.
SANTA BARBARA RESEARCH PARK
GOLETA, CALIFORNIA 93117

CABLE ASSY. (GRN LED)

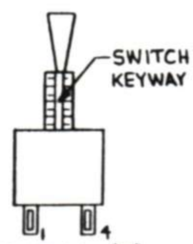
TOL: FRACT. ± 1/32, .XX ± .010, .XXX ± .005, ∠ ± 1/2°

DWN	S. J.	2-17-83	SCALE: 2/1
CHK	VCE	3-24-83	
ENG	[illegible]	5 5 83	24B1103 A





SWITCH WIRING DIAGRAM



DETAIL "A"

QTY	DESCRIPTION				STOCK NO.	ITEM NO.
6	CRIMP PIN	102095	87107-5	AMP	3250750	9
.5'	WIRE, STRD., 22GA WHT/BLU, BU-730-22-96			MLSPEC	1640697	8
.5'	WIRE, STRD., 22GA WHT/GRN BU-730-22-95			MLSPEC	1640689	7
.5'	WIRE, STRD., 22GA WHT/YEL, BU-730-22-94			MLSPEC	1640671	6
.5'	WIRE, STRD., 22GA WHT/ORN, BU-730-22-93			MLSPEC	1640663	5
.5'	WIRE, STRD., 22GA WHT/RED, BU-730-22-92			MLSPEC	1640655	4
.5'	WIRE, STRD., 22GA WHT/BLK, BU-730-22-90			MLSPEC	1640630	3
1	CONNECTOR	NO. 102241-4	P14	AMP	3090461	2
1	SWITCH,	LFH-232,	S1	JBT	3160199	1
*	CABLE ASSY., 24B1105				2300960	*

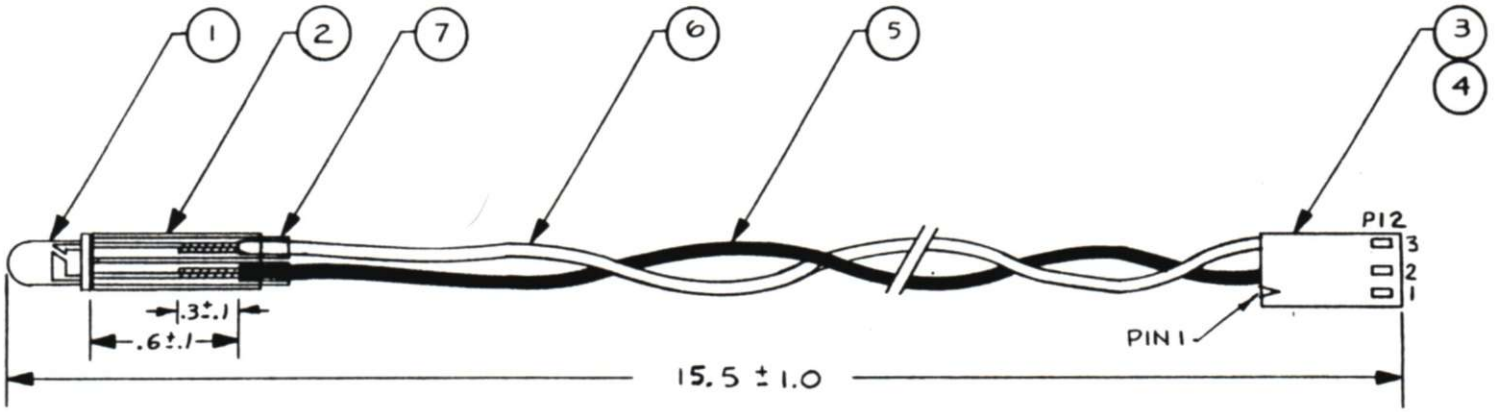
REV	REVISIONS	DATE
A	RELEASE FOR PROD. ECO # 4028 10-26-83	

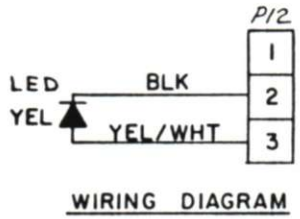
MOSELEY ASSOCIATES, INC.
SANTA BARBARA RESEARCH PARK
GOLETA, CALIFORNIA 93117

CABLE ASSEMBLY
(FRONT PANEL SWITCH)

DWN S. J.	2-23-83	SCALE: 2/1
CHK	3-24-83	
ENG	5-3-83	

24B1105 A





WIRING DIAGRAM

QTY	DESCRIPTION	STOCK NO.	ITEM NO.
.18'	TUBING, SHRINK, 1/16" CLEAR	1560002	7
1.2'	WIRE, STRD., YEL/WHT., MIL-SPEC BU-730-22-49	1640580	6
1.2'	WIRE, STRD., 22 BLK, MIL-SPEC BU-730-22-0	1640374	5
2	CRIMP PIN 87107-5 AMP	3250750	4
1	CONN. NO. 102241-1, P12 AMP	3090446	3
.09'	TUBING, SHRINK 3/8" CLEAR	1560051	2
1	LED, YEL HP5082-4557 DS1	3390085	1
*	CABLE ASSY., 24B1107	2300937	*

NOTES :

1. CATHODE IS FLAT SIDE OF LED.

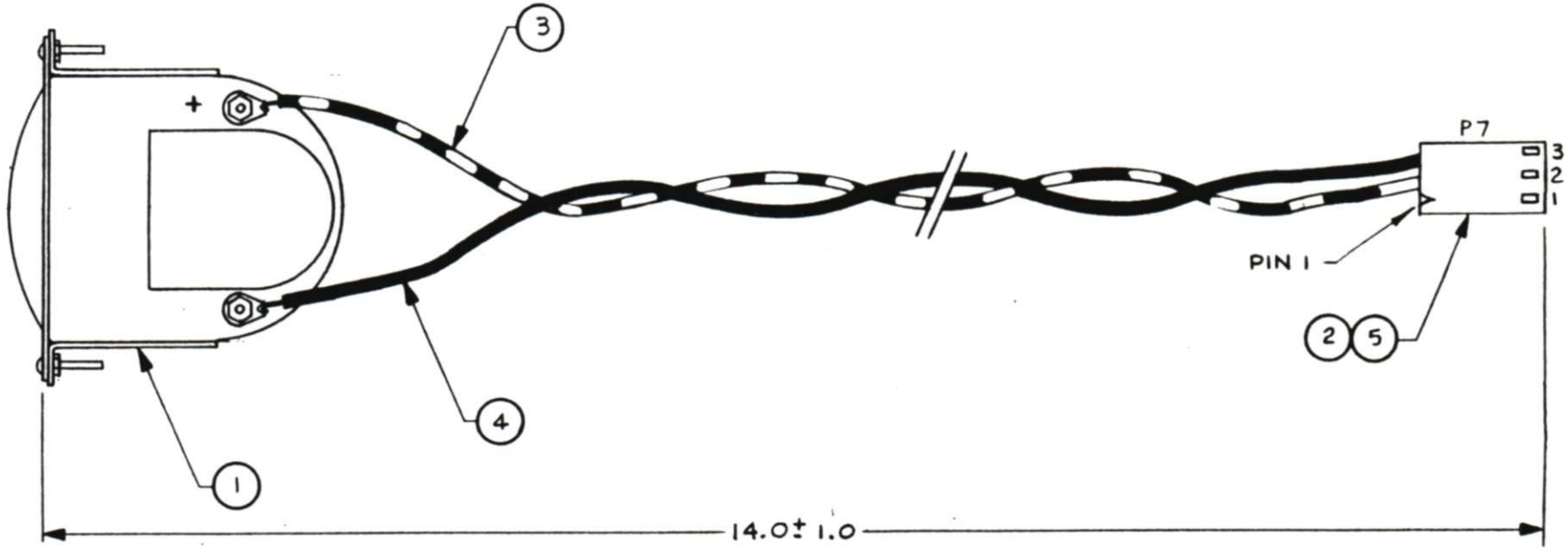
RELEASE PER ECO #4020 10-26-83 I.P. A

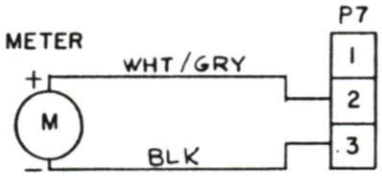
MOSELEY ASSOCIATES, INC.
SANTA BARBARA RESEARCH PARK
GOLETA, CALIFORNIA 93117

CABLE ASSY., (YEL LED)

DWN S.J. 3-17-83 SCALE: 2/1
CHK 3-30-83
ENG 5-5-83

24B1107 A





WIRING DIAGRAM

QTY	DESCRIPTION	STOCK NO.	ITEM NO.
2	CRIMP PIN, 87107-5 AMP	3250750	5
1'	WIRE, STRD., 22 GA., BLK, BU-730-22-0 MLSPEC	1640374	4
1'	WIRE, STRD., 22 GA, WHT/GRY, BU-730-22-98 MLSPEC	1640713	3
1	CONNECTOR, NO. 102241-1, P7 AMP	3090446	2
1	METER 637/5, LSI - SCALE, 50A5119 HOYT	3011293	1
*	CABLE ASSY., 24B1106	2300978	*

MOSELEY ASSOCIATES, INC.
SANTA BARBARA RESEARCH PARK
GOLETA, CALIFORNIA 93117

CABLE ASSEMBLY (METER)

DRWN	S. J.	2-23-83	SCALE: 1/1
CHK	KC	3-24-83	24B1106 A
ENG			

226300-C

SCD-9 STEREOPHONIC DEMODULATOR

FINAL CHECKOUT SHEET

Date MAR 18 1985

Technician Carl Mahan

Order # 9091

Customer KOIT

Serial # 45681

LEFT CHANNEL

Level @ 400 Hz +10 dBm

SNR: 72 dB

Freq.	Resp.	Sep.	Dist.
30	+.2	50	.20
50	0	51	.07
400	Ref 0	53	.07
1,000	0	53	.07
5,000	+.2	51	.08
10,000	0	49	.17
15,000	−.3	43	NA

RIGHT CHANNEL

+10 dBm

74 dB

Resp.	Sep.	Dist.
+.2	48	.22
0	47	.08
Ref 0	46	.08
0	46	.08
+.2	46	.08
0	48	.17
+.3	50	NA

Status Relay OK ✓

6 July 1983

nl