

MODIFICATION KIT #10051

FOR MODEL PSP-500 POWER SUPPLY

PURPOSE OF MODIFICATION: To replace relay K102 P/N RL10033 with a new solid state relay P/N RL10046 which is more reliable and readily available.

PARTS REQUIRED: Item numbers 1 to 8 incl. on the attached Appendix A.

MODIFICATION PROCEDURE

1. Cut or remove all leads to relay K102 and remove the relay.

Note: The new relay RL10046 has been supplied partly wired to illustrate the correct positioning of components and mounting hardware. The arrangement and relative positions of hardware items should be carefully noted, and then temporarily remove the mounting screws, washers nuts, and 5K Ohm resistor in preparation for securing the new relay to the chassis. It should be noted that the zener diode (Item #3) has been soldered to terminals #3 and #4.

2. Position the new relay RL10046 (Item 1) directly over the silk-screen marks for CR103 and CR104, and orient the relay with terminals #3 and #4 towards the front panel. Mark and drill two 1/8 inch holes in the power supply chassis, in line with the mounting holes of the relay case.
3. Apply a generous coating of Thermal Compound (Item #4) to the bottom of the relay i.e., the side which will be in contact with the chassis. Secure relay RL10046 to the power supply chassis using the parts and hardware items which were temporarily removed in Step #1 above, ensuring that all items are in the same relative position.
4. The wires that were previously disconnected from K102 are to be connected/arranged as follows:
 - a) The orange/white wire (from J102 pin #11) can be pulled back through the harness to break out between C9 and R107, and then soldered to the bottom (near chassis) end of new resistor R124.
 - b) The large mauve wire (from CB101-1C) should be replaced or spliced to make it long enough for connecting and soldering to terminal #1 of new relay K103, RL10046.
 - c) Replace or lengthen the large brown/white lead (from junction of Cp102-B and DS103) to reach terminal #2

of new relay K103, connect and solder.

d) For the remaining five leads from the old relay K102:

- i) Splice together the green/white and green wires (+150 Volts).
- ii) Splice together the two yellow/white leads (-150 Volts).
- iii) The remaining blue/white wire (to S103) may be either removed or taped.

5. Test the PSP-500 for correct operation.

6. Amend the PSP-500 schematic diagram in the Technical Manual to agree with the red-circled part of the attached diagram.

W A R N I N G

The high voltage is "ON" when interlocks are closed and the "H.V. Line" is "ON", when the above modification is completed.

That is, the high voltage is NOT controlled, directly or otherwise, by the "ON - STANDBY/REMOTE" switch located immediately below the "TRANSMITTER PLATES" indicator lamp on the front panel of the PSP-500.

The operation of this control provides a standby position for the RFE-1. The switch S103 on the front panel of the PSP-500 and the contacts of relay K101 are in parallel (see figure 4-8 of the PAL-500 manual) so that either may control the amplifier. In the standby position the PA tubes (V203, V204) are biased to cutoff by the removal of the ground connection of the bias control network. The bias changes from about -25v to approximately -150v.

For remote operation with relay K101, switch S103 must be open, in the STANDBY/REMOTE position. Relay K101 is then operated by a direct current passed through terminals 1 and 2 of TB101. Minimum current required is 9ma which can be supplied from a line with a 48 VDC source and a resistance of 2000 ohms.

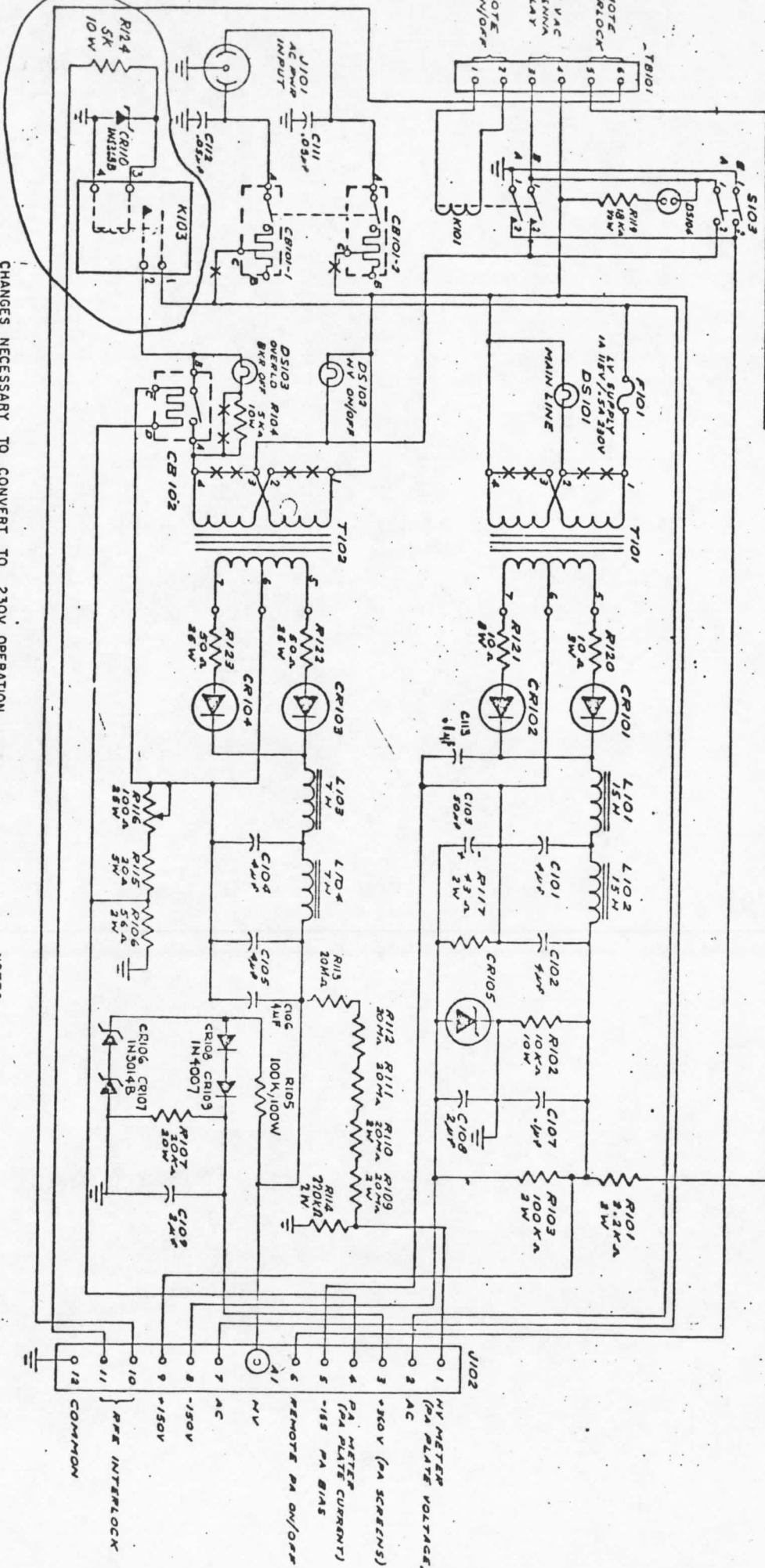
Modification KIT-10051 Parts List as follows:

<u>ITEM</u>	<u>TMC P/N</u>	<u>DESCRIPTION</u>	<u>QTY.</u>	<u>SYM.</u>
1	RL10046	Relay, Solid state	1	K103
2	RW107-47	Resistor, Fxd. 5K, 5W	1	R124
3	1N5368B	Diode Zener	1	CR110
4	GL138	Thermal Compound	X	
5	MWC22(7)96	Wire, Stranded, 19"	1	
6	SCPP0632SS12	Screw <i>PLUS NUTS AND WASHERS</i>	1	
7	SCPP0632SS26	Screw <i>PLUS NUTS AND WASHERS</i>	1	
8	WA102-4	Washer, Insul.	2	
9	TE 149-136	GROUND LUG	1	

Parts rendered surplus

<u>ITEM</u>	<u>TMC P/N</u>	<u>DESCRIPTION</u>	<u>QTY.</u>	<u>SYM.</u>
1	RL10033	Relay	1	K102

COVER INTERLOCKS
 S101
 TOP
 S102
 BOTTOM



CHANGES NECESSARY TO CONVERT TO 230V OPERATION
 T101 REMOVE JUMPERS MARKED *---* AND CONNECT JUMPERS
 BETWEEN TERMINALS 2 & 3.
 T102 SAME AS T101.
 CR101 REMOVE LEADS FROM TERM "C" AND CONNECT TO TERM "B." (MARKED **)
 R104 REMOVE AND DISCARD JUMPER MARKED **.
 F101 CHANGE FROM 1AMP TO 1/2 AMP.

- NOTES
 1- ALL FUSES ARE SLOW BLOW.
 2- T8101 TERMINALS 5 & 6 NORMALLY
 JUMPED UNLESS REMOTE INTERLOCK
 IS REQUIRED.

Figure 7-3. Schematic Diagram Model PSP-500