



HARRIS

SERVICE BULLETIN

MAINTENANCE AND MODIFICATION DATA

Broadcast Group

Equipment: MW-1

Bulletin No. AM-114-LAP

Date 6-10-77

This Service Bulletin is issued as a "State-of-the-Art" up-date for the MW-1 transmitter. It is recommended that the enclosed information be reviewed by the station engineer since these product improvements may have been included in your transmitter. Hence, not all modifications enclosed herein are applicable to your station. Since there is an industry wide shortage of parts, we recommend that where possible, parts be obtained locally or possibly be already on hand at the station.

I. IMPROVE TRANSMITTER GROUNDING

Wide differences in transmitter installations indicate that superior grounding techniques must be employed for equipment protection and reliability.

- A. Add a one inch wide copper or aluminum ground strap from the back top center of the PA module deck support bracket crossmember, at the back of the transmitter. Attach the other end to any open position at the back center of the loading coil assembly deck's bottom. A suggested grounding location would be as viewed from the back of the transmitter, just in front of the center point of the C-1 capacitors. (Section I-A)
- B. Continue the ground strap on the left rear side of the transmitter cabinets from the PA deck assembly to the bottom of the output loading deck assembly above. We suggest a one or two inch wide copper strap. Attach strap with any 8-32 or similar bolts on hand at the station. (Bottom Picture; Section I-B)

II. AUDIO DRIVER ASSEMBLY A-17 (992-4206-001)

A. R.F.I. in Audio

- 1. Change C-2 (1,000 pf, 500V) to 2,000 pf capacitor (Harris Part Number 500-0845-000).

2. Change R-17 (27 ohm 2W) to a 240 ohm 2W resistor (Harris Part Number 540-0596-000).

B. Zener diode CR-3 heat sink improvement. Remove split lock washer from under CR-3 located on heat sink beneath A-17 PC board.

III. REMOTE PA CURRENT AMPLIFIER, A-22 ASSEMBLY (992-4213-002)

A. Variation of Remote PA current metering during modulation.

1. Add capacitor between terminals 21 and 22. Use any 10 volt electrolytic, tantalum or paper capacitor. We suggest a 1 to 50 mfd capacitor.

IV. PA MODULES (992-4201-001) SERVICE INFORMATION

A. Testing with sine wave tones.

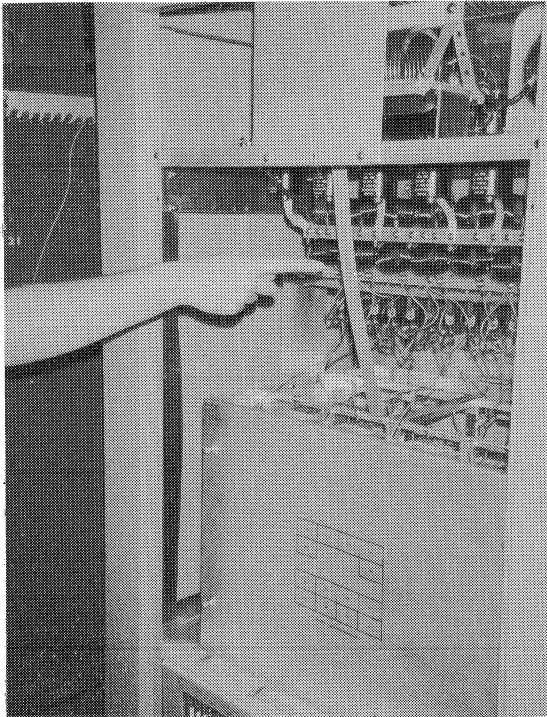
1. It has come to our attention that some extremely long and continuous test procedures are being used for Distortion and Response testing. We recommend that when testing the transmitter's audio quality above 5 kHz at full modulation, that such testing should be of short duration to reduce stress on components.

V. AUDIO PAD CHANGE, A-18 ASSEMBLY (992-4205-001)

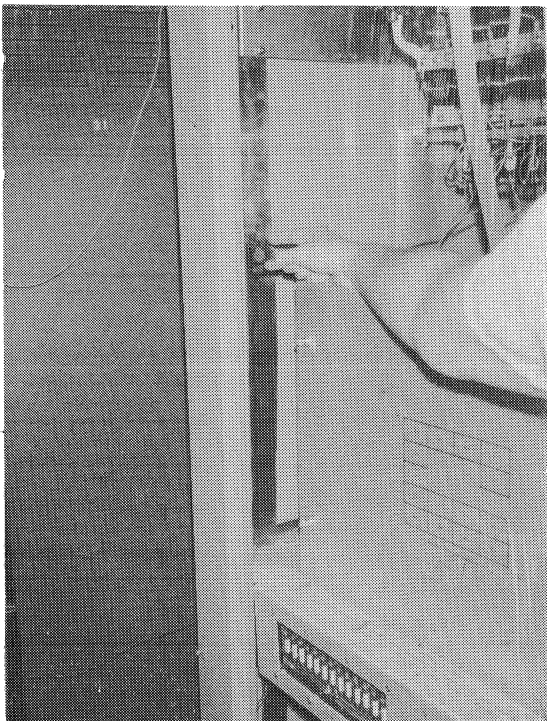
A. 600 Ohm termination resistance changes when switching between High/Low power levels.

1. Change configuration of Audio "H" pad. Review attached drawing and overall drawings in Instruction Book. Remove one end of 100 ohm R-19 resistor. Add resistor Rx for your power level between freed end of R-19 and PC board. At K-3A, re-arrange audio wire number 150 as per drawing. Add shielded single conductor cable from the junction of R-19 and Rx to relay K-3A as shown in drawing.

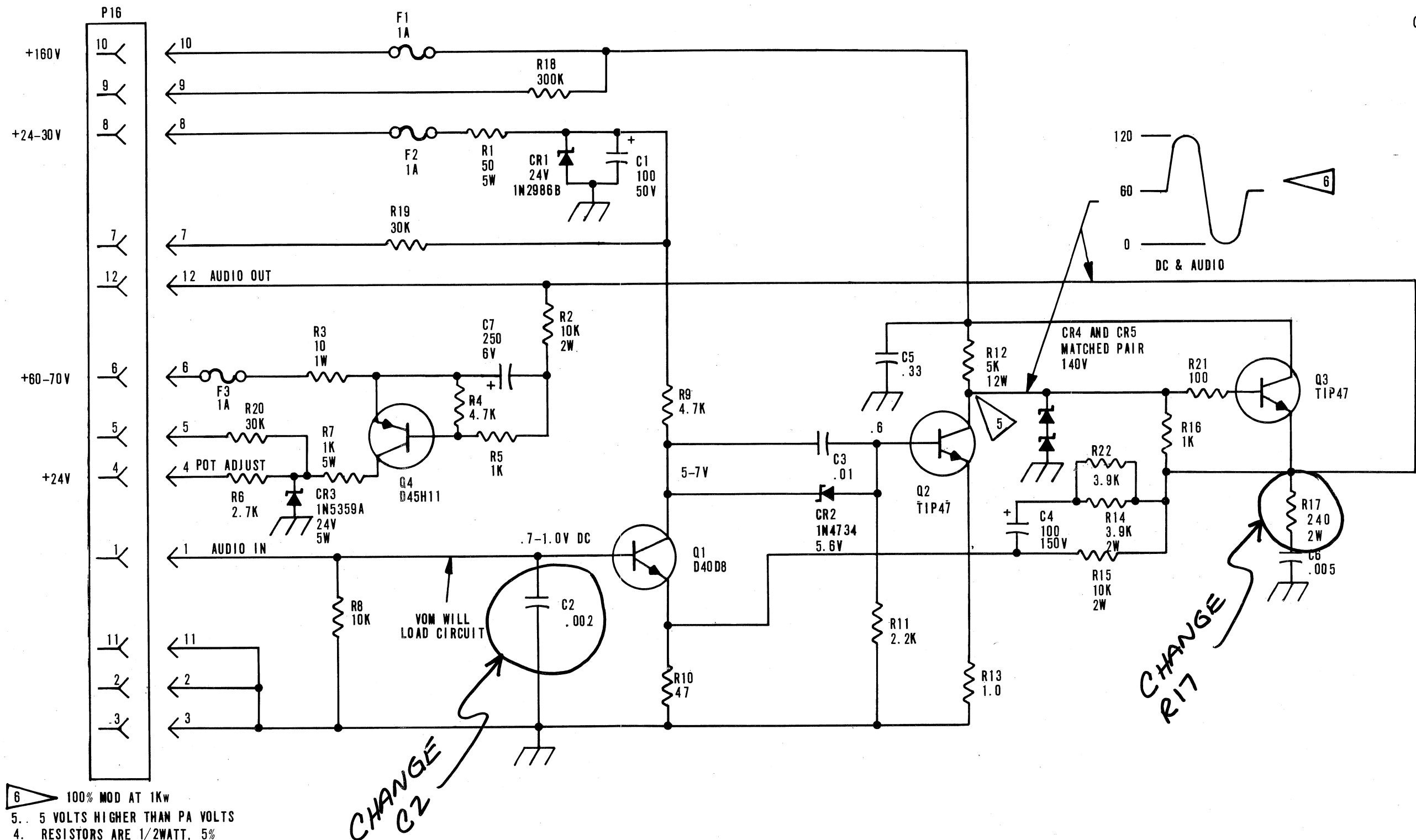
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PA Module Deck Ground Strap
(Section I-A)



Main Cabinet Ground Strap
(Section I-B)



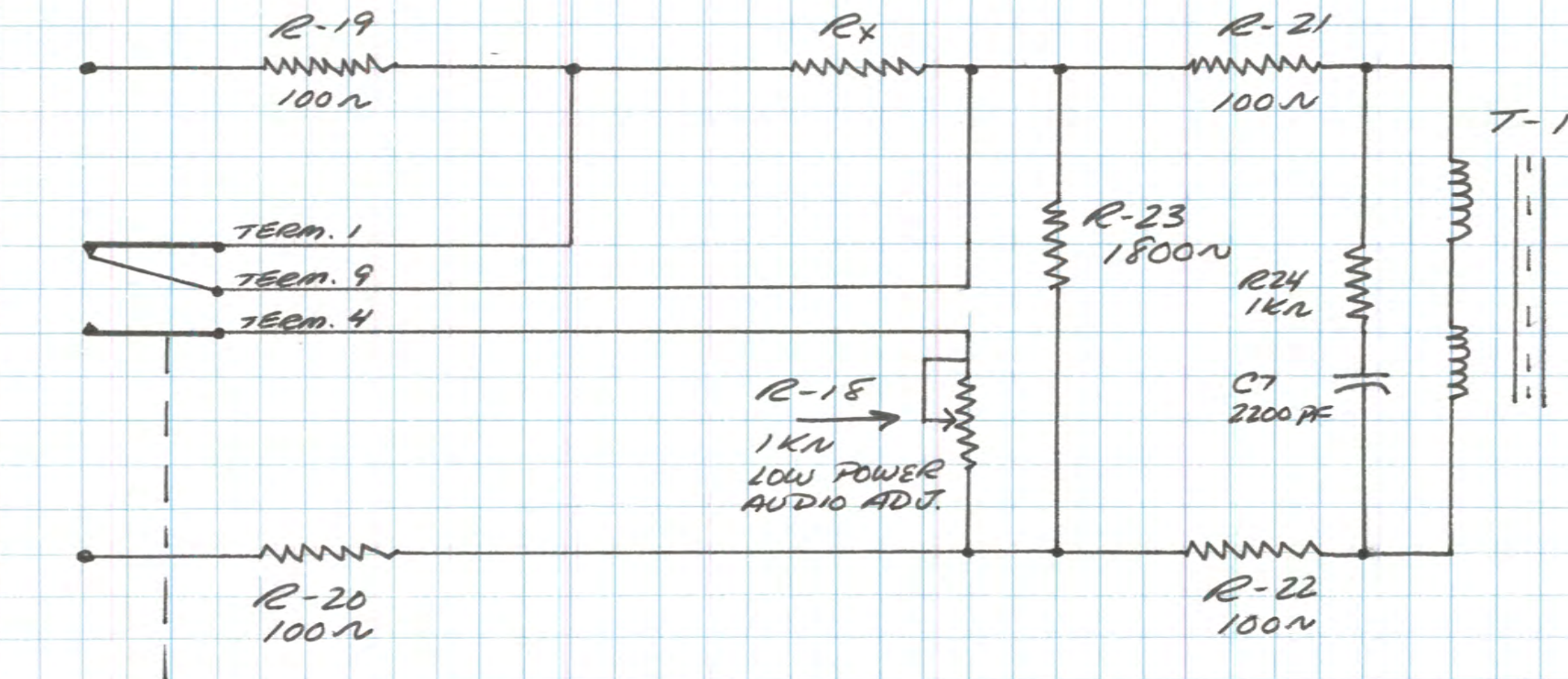
HARRIS CORPORATION Broadcast Products Division
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WARNING: Disconnect primary power prior to servicing.

FIGURE 8-5. AUDIO DRIVER,
A17, SCHEMATIC
828 8516 001

8-11/8-12

MW-1 CONSTANT AUDIO RESISTANCE PAD



RELAY K3
(SHOWN IN HIGH)
POWER MODE

RESISTOR Rx

$$1000/250 \text{ POWER} = 180\Omega$$

$$1000/500 \text{ POWER} = 220\Omega$$

$$500/250 \text{ POWER} = 130\Omega$$

$$250/250 \text{ POWER} = 140\Omega$$

↑
POWER MODES

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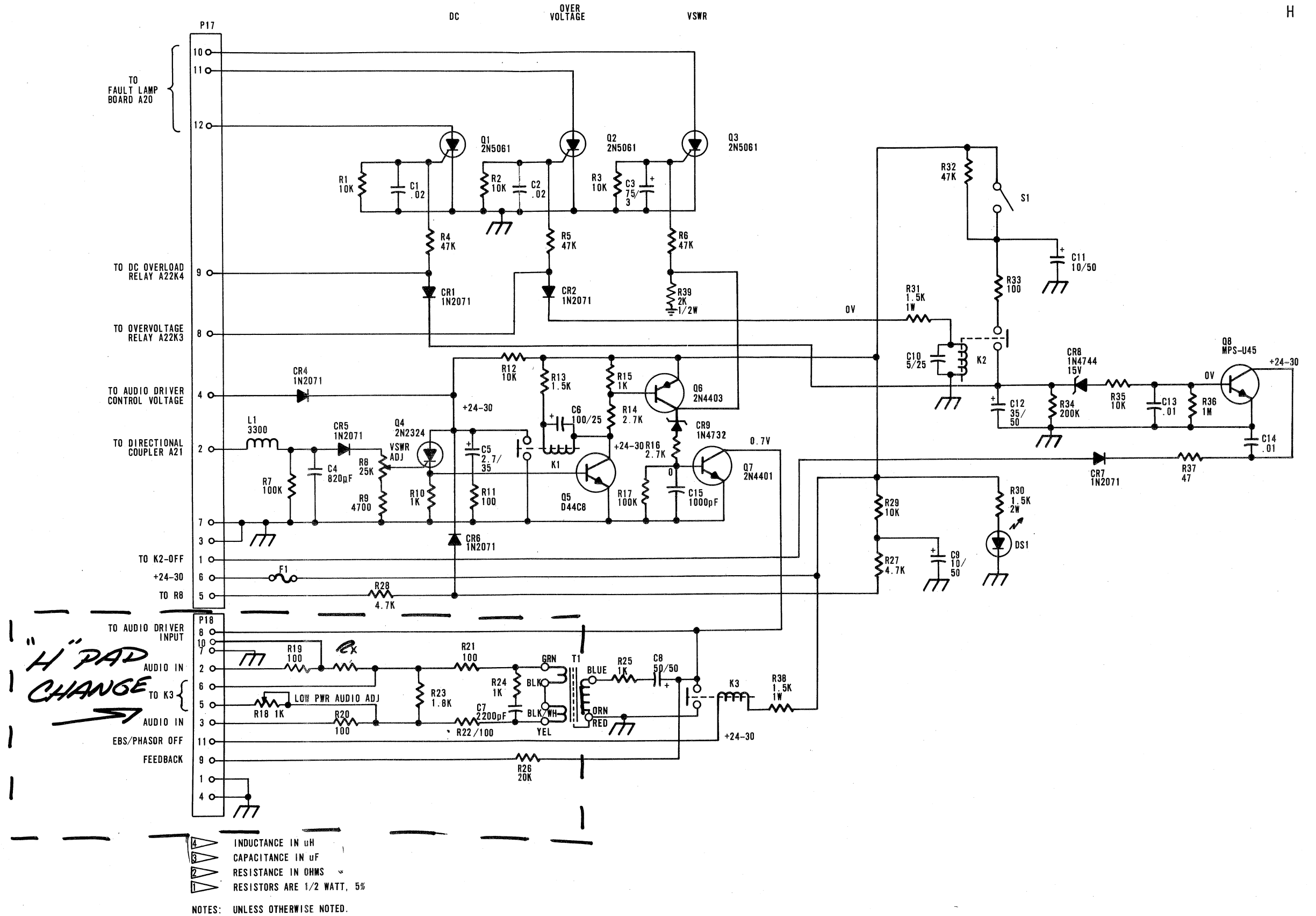


FIGURE 8-4. AUDIO INPUT AND OVERLOAD, A18, SCHEMATIC 839 1157 001

WARNING. Disconnect primary power prior to servicing.

8-9/8-10