

GENERAL INSTRUCTIONS

- 1) Read instructions all the way through before starting.
- 2) The wire lengths on the DB-2 board are cut to enable installation in either 4 or 2 tube models. Therefore, it will be necessary to trim the lengths of some wires for neat installation.
- 3) See diagram for placement of wires and tie wraps.

DB-2 DRIVER CONVERSION INSTRUCTIONS

- ✓ 1) Unsolder wires from master volume control terminals.
- ✓ 2) Replace control with 10K linear taper (EF 9926).
- ✓ 3) Unsolder .1 MFD. (C-33) capacitor and blue wire from deep switch.
- ✓ 4) Cut and remove all tiewraps on wire harness.
- ✓ 5) Remove sheilded cable connecting footswitch jacks and main circuit board.
- ✓ 6) Remove all wires coming from driver board at their connection points.
Cut white wire leading into plastic bushing 3/4" from bushing.
- ✓ 7) Install one tiewrap around wire bundle exiting this bushing 1/4" from end of white wire.
- ✓ 8) Remove driver board, spacer, and 2 screws.
- ✓ 9) Remove filament wires (2 green, black, white) from 12 AX7 tube socket.
- ✓ 10) Remove socket. Install metal cover plate over remaining hole from outside of chassis using the 2 screws removed with tube socket.
- ✓ 11) Mount 2 lug terminal strip to center of cover plate in a horizontal position using 1 - 7 x 5/16" screw and 2 - 1/8" lockwashers (# 1208-00).
- ✓ 12) Solder filament wires to terminal strip lugs.
Left lug - green and white,
right lug - green and black.
- ✓ 13) Remove 1.5K(brown, green, red) resistors (R55,57,60,62) from output tubes (pins 5 and 6).
Leave brown and blue wires attached to pins 6.
- ✓ 14) Install 220 ohm (red, red, brown) resistors between pins 5 and 6 on each output tube.
- ✓ 15) Remove 10 ohm (brown, black, black) 1 Watt resistors from pins 1 and 8 of output tubes.

- 5 16) Remove grey wire connecting pins 8 of output tubes (in case of 4 tube model this wire connects the 2 inside tubes - see diagram).
- 0- 17) Install this grey wire between pins 6 of same tubes it was removed from (see diagram).
- # 18) Remove green wire connecting pin 2 of right output tube and eyelet on power supply board.
- 0- 19) Install DB-2 driver board with 2 - PCS-1 plastic spacers and 2 - 7 x 9/16" screws.
- 0- 20) Route red wire right, parallel to bottom of DB-2. Align with green, yellow, orange, and blue wires exiting right side of DB-2.
- 21) Install one tiwrap around these 5 wires and yellow wire, approximately 1/4" from bottom right edge of DB-2.
- 0- 22) Unscrew DB-2, lift up, and install 2 tiwraps, 3.5" apart, around the red, yellow, black, and white wires below the bottom edge of DB-2.
- 0- 23) Screw down DB-2.
- 0- 24) Route wires exiting left side of DB-2 up next to left edge of DB-2.
- 0- 25) Route purple wire along top left corner of DB-2 and solder to right pin of impedance switch. (Leave green wire soldered to this point also).
- 0- 26) Route remaining wires of vertical bundle under and to the left of black and blue wires leading to right output tube. Align along bend of chassis.
- 0- 27) Route brown wire down left side of right output tube (V4) and solder to pin 6 of this tube.
- 1-2900 956-2228 0- 28) Solder green wire to ground lug of left (extension) speaker jack. Leave any wires connected to this lug at this point intact.
- 714 0- 29) Route grey wire down from chassis bend and solder to pin 8 of right output Tube (V3 - in 4 tube models).
- 0- 30) Route white wire down from chassis bend and solder to pin 8 of left output tube (V1 - in 4 tube models).
- ✓ 31) On reverb models
 - A) Solder new 10.5" sheilded cable to foot switch jacks. White wire - rev. jack, black wire-trem. Jack, braid - ground lugs.

- B) Route cable to right along bend of chassis and then down under right edge of DB-2. Route under DB-2 wire bundle and under main circuit board. Bend up, towards 3 assigned eyelets.
- C) Solder cable to eyelets left eyelet - braid, middle - black, right - white.

32) Route wire bundle from bottom right corner of DB-2 along top edge of main circuit board. Install one tie-wrap on this bundle, 1/4" from intersection of vertical bundle from power supply board.

33) Route green wire up and solder to eyelet on bottom left corner of power supply board.

34) Route remaining wires down and align with vertical bundle.

35) Install 2 tie-wraps, 1/4" apart, on vertical wire bundle just above intersection of horizontal bundle coming from DB-2.

36) Install 2 additional tie-wraps, 1/4" apart, on vertical wire bundle, in between horizontal bundle intersection point and wires exiting left for plastic bushing in chassis.

37) Install one tie-wrap on vertical wire bundle just above wires exiting left for main circuit board.

38) Route orange, yellow, and red wires left and align with existing wires.

39) Install one tie-wrap around whole bundle exiting left from vertical bundle for main circuit board.

40) Route yellow wire along top of lower 620 ohm (blue, red, brown) resistor. Strip 1/2" insulation off end of wire and wrap around left lead of 620 ohm resistor. Solder this connection.

41) Route orange wire along top of upper 620 ohm resistor. Strip 1/2" insulation from end of wire and wrap around left of this resistor. Solder.

42) Run blue wire from vertical wire bundle down to lower bend in chassis. Bend up and solder to center terminal of master volume control.

43) Solder green wire (previously unsoldered from old master control) to right terminal of master volume control.

- 0 44) Solder .47 MFD capacitor across two deep switch lugs.
Trim excess leads.
- 0 45) Solder 3" purple wire from left terminal of master
volume control to top lug of deep switch. Dress
under lip of chassis.

TESTING AND ADJUSTMENT

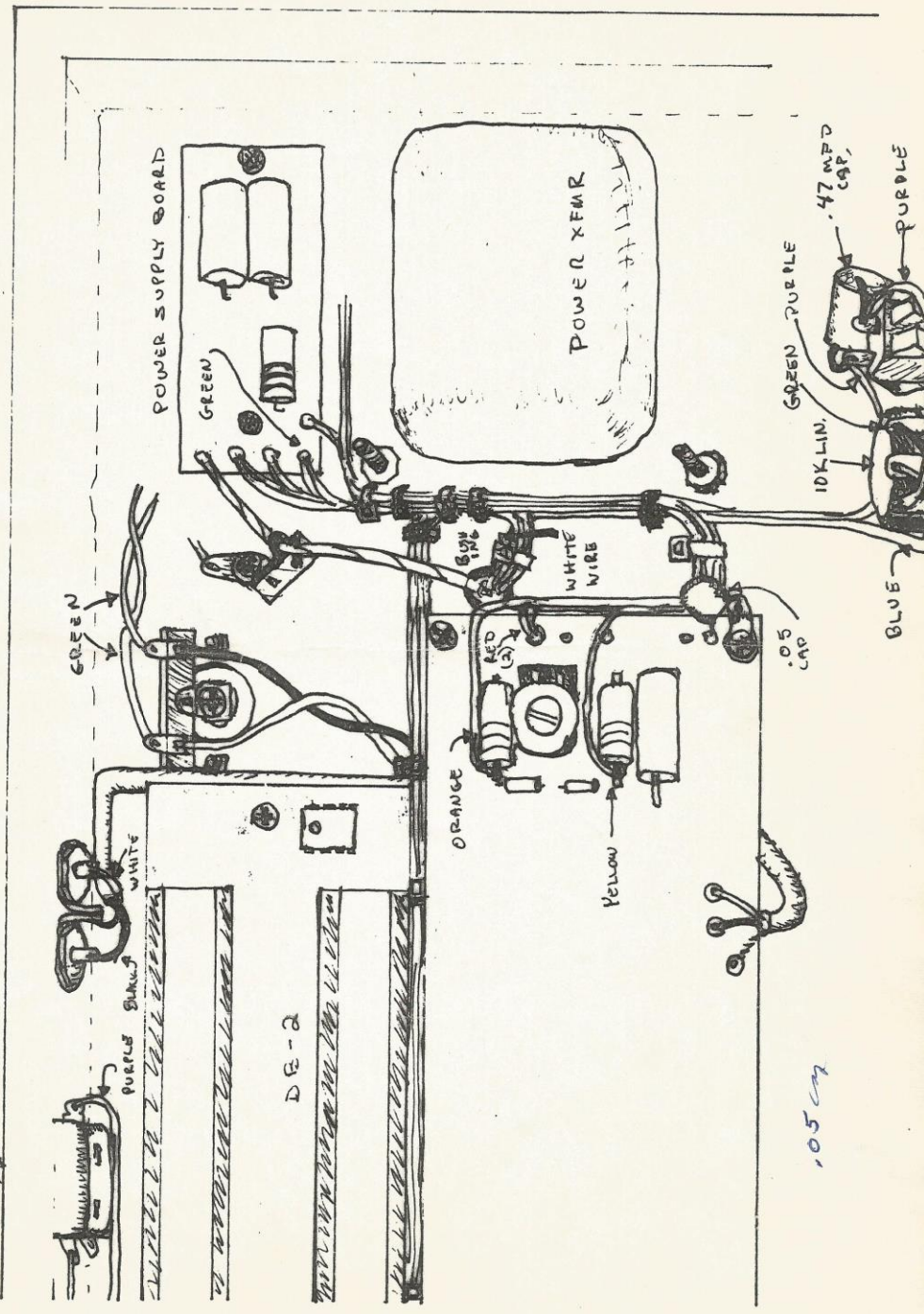
Conditions: No signal, master volume off,
power switch off

- 1) Plug in amp
- 2) Plug in dummy load resistor
- 3) Switch power on
- 4) Read D.C. voltage on tabs of transistors or heat sinks (collector of transistor). Readings generally should fall between 50 and 60 Volts above ground.
- 5) Switch voltmeter to 1 VDC scale
- 6) Read voltage across emitter resistors. (3.9 ohm (orange, white, gold) 1 Watt)
upper resistor read right lead/ground
lower resistor read left lead/ground
- 7) Adjust trimpot on DB-2 so voltage on emitter resistors is a minimum of 25 mV. There may be a difference of over 15 mV. between the two readings. This trimpot is not meant to balance these readings - just to set the minimum to 25 mV.
- 8) Dab the edge of the trimpot with finger-nail polish or glue to fix the setting. This will not have to be reset.
- 9) Plug in signal generator and test for power output and absence of oscillations in output waveform.

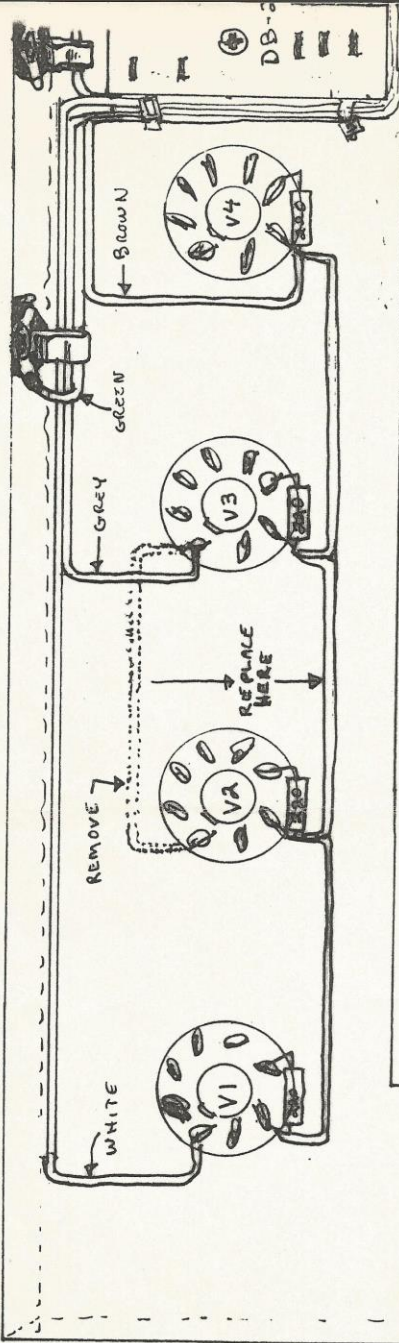
PARTS LIST

15 tiewraps
1 DB-2 board
1 .47 MFD 250 VDC Capacitor (2 LUMZ 100)
1 10K Lin. control (EF 9926)
2 7 x 9/16" screws
2 PCS-1 spacers
1 2 lug terminal strip Cinch # 52
1 tube socket hole cover plate TCP12Ax7A
1 Terminal strip mounting screw 7 x 5/16"
2 1208-00 1/8" lockwashers
1 10.5" sheilded cable (2 conductor + braid)
1 3" purple wire
4 220 Ω resistors 1/2 Watt 10 %

TREM REV

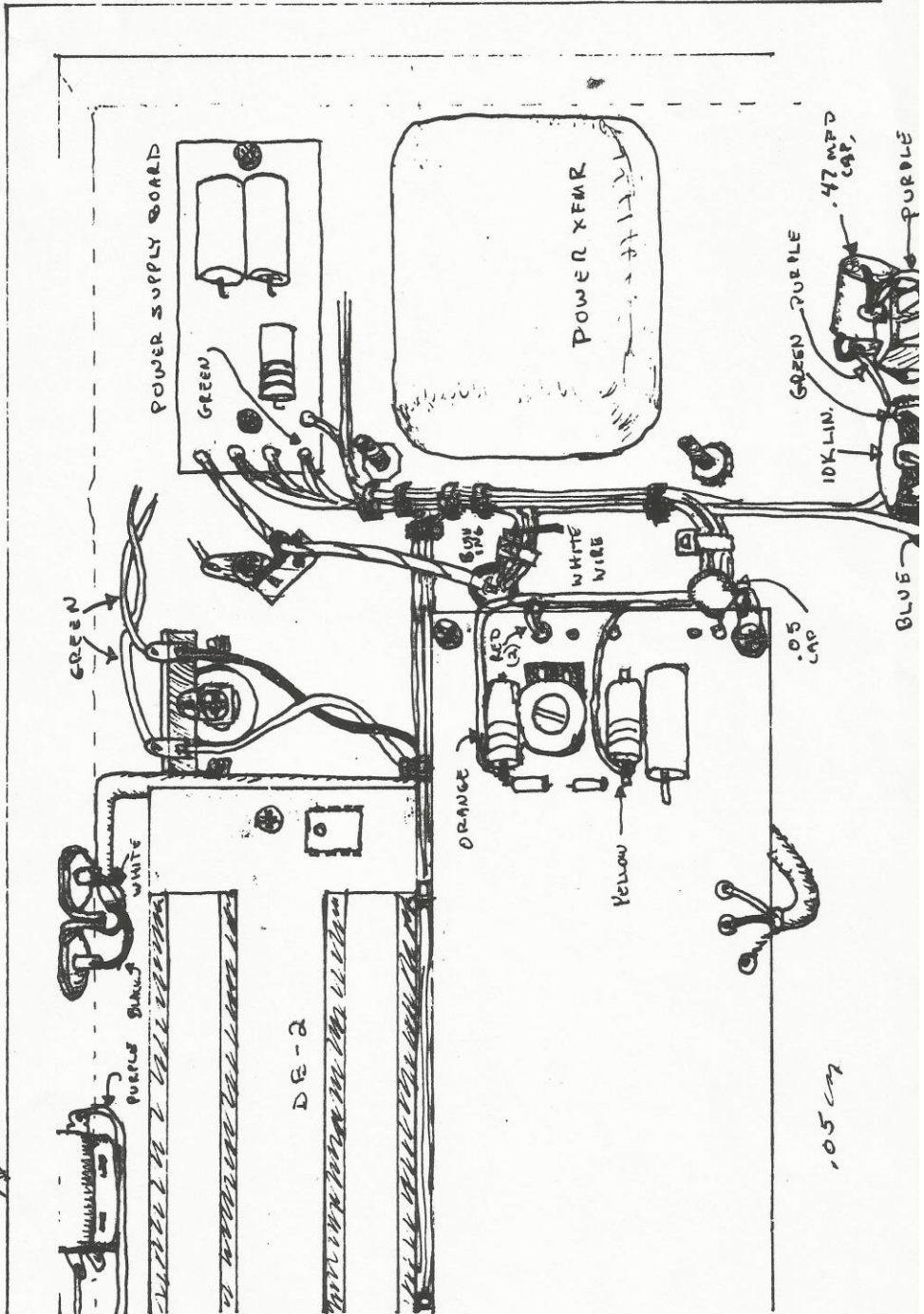


.05 CA



MAIN CIRCUIT BOARD

TREM REV



.05 CAP