



PART	DESC.	PART NO.
V1-4	8 PIN	17-450-08
V5	9 PIN	17-450-09
AP1	200 DHM	71-201-11
S1	SWITCH	88-220-01
J1	9 PIN	17-310-09
J2, 3	250 FASTON	17-836-01
J4, 5	187 FASTON	17-894-01
J6	5 PIN	17-310-05
J7	2 PIN	17-310-02

- NOTES:**
- 1) CAUTION: SHOCK HAZARD !!! THIS UNIT CONTAINS HAZARDOUS VOLTAGE. DISCONNECT POWER AND BE SURE POWER SUPPLY IS DISCHARGED BEFORE TOUCHING INTERNAL PARTS.
  - 2) UNLESS NOTED, RESISTOR VALUES IN OHMS, 1/2W-1% TOL. CAPACITOR VALUES IN MICROFARADS, 400V-5% TOL.
  - 3) VOLTAGES ARE MEASURED WITH 1 MEGOHM OSCILLOSCOPE AND 10 MEGOHM DIGITAL VOLTMETER.
  - 4) CIRCUIT GROUND  $\text{---}$  SWITCH GROUND  $\text{---}$  CHASSIS GROUND  $\text{---}$

**CAUTION:**  
THIS SCHEMATIC IS PROVIDED FOR USE BY QUALIFIED PERSONNEL. TO AVOID RISK OF ELECTRIC SHOCK, REFER SERVICING TO QUALIFIED SERVICE PERSONNEL. DO NOT PERFORM ANY SERVICING BEYOND THAT EXPLAINED IN THE OPERATING INSTRUCTIONS.

- BIAS CALIBRATION PROCEDURE**
- 1) CONNECT 8 DHM LEAD RESISTOR (100V MIN.) TO SPEAKER OUTPUT JACK.
  - 2) VOLTAGES ARE MEASURED WITH 1 MEGOHM EFFECTS RETURN JACK.
  - 3) ADJUST BIAS CONTROL FOR SLIGHT CROSSOVER DISTORTION.
  - 4) SET BIAS VOLTAGE FOR EL-34 POWER TUBES BETWEEN -45 AND -42V.
  - 5) SET BIAS VOLTAGE FOR 6550 POWER TUBES BETWEEN -55 AND -50V.
  - 6) MAXIMUM CURRENT DRAW AT IDLE SHOULD NOT EXCEED 1 AMP.

REV	DATE	BY	CHK'D	DESCRIPTION
1	05-26-92	B.C.		ADD BIAS CALIBRATION PROCEDURE
2				
3				

  

SIGNATURES: S.R. DATE: 2-21-91	PROJECT NAME: VL-1001/1002
CHK'D: L JACKSON ORIGINAL ISSUED:	DRAWING NAME: TUBE BD. SCHEMATIC
DRAWN: S.R. PLOT DATE: 05/26/92 PLOT TIME: 12:57:42 FILE NAME: S491011	DRAWING NO.: 07S491-01 SHEET: 1 of 1