

A75 SERIES 2 STEREO AMPLIFIER
COMPONENT VALUES.

RESISTORS.

No.	Value.	Tolerance.	Rating.	Type.
R1.	27K.	+ 5%.	¼ Watt	High Stabilit
R2.	47K	"	"	" "
R3	120K	2% Metal Film	"	" "
R4	120K	2% Metal Film	"	" "
R5	47K	5%	"	" "
R6	120K	"	"	" "
R7	150 ohms	"	⅛ "	" "
R8	220 ohms	"	"	" "
R9	180K	"	¼ "	" "
R10	9.1K	+ 2%	"	" "
R11	150 ohms	+ 5%	"	" "
R12	1K	"	"	" "
R13	3.9K	"	"	" "
R14	330K	"	"	" "
R15	10K	"	"	" "
R16	220 ohms	"	"	" "
R17	220 ohms	"	½ "	" "
R18	33K	"	¼ "	" "
R19	4.7K	"	"	" "
R20	22K	"	"	" "
R21	100 ohms	"	"	" "
R22	1K	"	"	" "
R23	10K	"	"	" "
R24	6.8K	"	"	" "
R25	47K	"	"	" "
R26	47K	"	"	" "
R27	22K	"	"	" "
R28	18K	"	⅛ "	" "
R29	10K	"	"	" "
R30	18K	"	"	" "
R31	10K	"	"	" "
R32	10K	"	"	" "
R33	4.7K	"	"	" "
R34	680K	"	¼ "	" "
R35	150 ohms	"	"	" "
R36	2.2K	"	"	" "
R37	680 ohms	"	"	" "
R38	10K	"	"	" "
R39	10K	"	"	" "
R40	22K	"	"	" "
R41	3.3K	"	"	" "

RESISTORS.

No:	Value.	Tolerance.	Rating.	Type.
R42	2.2K	$\pm 5\%$	$\frac{1}{4}$ watt	High Stability.
R43	330K	"	"	" "
R44	47K	"	"	" "
R45	4.7K	"	"	" "
R46	680 ohms.	"	"	" "
R47	3.9K	"	"	" "
R48	1.8K	"	"	" "
R49	10K	"	"	" "
R50	1K	"	"	" "
R51	100K	"	"	" "
R52	390 ohms.	"	"	" "
R53	47 ohms.	"	"	" "
R54	100K	"	"	" "
R55	12K	"	"	" "
R56	2.2K	"	"	" "
R57	1K	$\pm 2\%$	"	" "
R58	1K	"	"	" "
R59	4.7K	$\pm 5\%$	"	" "
R60	4.7K	"	"	" "
R61	22K	"	"	" "
R62	22K	"	"	" "
R63	22 ohms.	"	"	" "
R64	22 ohms.	"	"	" "
R65	330 ohms.	"	1 watt.	" "
R66	150 ohms.	"	1 watt.	" "
R67	1K.	"	2 watt.	" "
R68	100 ohms.	"	$\frac{1}{4}$ watt.	" "
R69	1K	"	2 watt.	" "
R70	100 ohms.	"	$\frac{1}{4}$ watt.	" "
R71	820 ohms.	"	1 watt.	" "
R72	27 ohms.	"	$\frac{1}{4}$ watt.	" "
R73	27 ohms.	"	"	" "
R74	1 ohm.	$\pm 10\%$	2 watt.	Wire Wound.
R75	1 ohm.	"	"	" "
R76	10 ohms.	$\pm 5\%$	$\frac{1}{2}$ watt.	High Stability.
R77	150 ohms.	"	$\frac{1}{4}$ watt.	" "
R78	1K.	"	$\frac{1}{4}$ watt.	" "
R79	2.2K	"	$\frac{1}{8}$ watt.	" "
R80	330K.	"	"	" "

CAPACITORS.

Type	Value.	Tolerance.	Rating.	Type.
C1	10mfd		16V	Electrolytic
C2	33,000pf	+ 5%	400V	Polyester.
C3	8,200pf	"	"	" "
C4	47mfd		6.4V	Electrolytic
C5	.33mfd	+ 20%	250V	Polyester.
C6	47 mfd		40V	Electrolytic.
C7	47mfd		16V	" "
C8	220mfd		40V	" "
C9	0.1mfd	+ 20%	250V	Polyester.
C10	10mfd		16V	Electrolytic.
C11	2,200pf	+ 10%		Polystyrene.
C12	10mfd		16V	Electrolytic.
C13	0.33mfd	+ 20%	250V	Polyester.
C14	0.33mfd	"	250V	" "
C15	0.68mfd	"	250V	" "
C16	470 pf.	+ 5%		Polystyrene.
C17	470pf.	"		" "
C18	1000pf	"		" "
C19	0.047mfd	+ 10%	250V	Polyester.
C20	680pf.	+ 5%	160V	Polystyrene.
C21	0.68 mfd	+ 20%	250V	Polyester.
C22	0.047mfd	+ 5%	400V	" "
C23	0.047 mfd	"	400V	" "
C24	2,200pf	"	125V	Polystyrene.
C25	150mfd.		16V	Electrolytic.
C26	10mfd		16V	" "
C27	47mfd.		6.4V	" "
C28	10 mfd		16V	" "
C29	1,000mfd		40V	" "
C30	10mfd		16V	" "
C31	1000pf	+ 5%	125V	Polystyrene.
C32	150mfd		2.5V	Electrolytic.
C33	0.22mfd	+ 20%	250V	Polyester.
C34	100mfd		16V	Electrolytic.
C35	100mfd		16V	" "
C36	47mfd		16V	" "
C37	220mfd		40V	" "
C38	0.1mfd	+ 5%	160V	Polystyrene.
C39	1,500pf		40V	Electrolytic.
C40	5000mfd		60V	ELECTROLYTIC
C41	5000mfd			
C42	100pf	+ 20%		Ceramic.
C43	1500pf	+ 20%		" "
C44	47pf.	+ 20%		" "

POTENTIOMETER.

No	Value.	Law.	Type.
RV1	100K	LOG	Dual Carbon.
RV2	250K	LIN	" "
RV3	100K	LIN	" "
RV4	100K	LIN	" "
RV5	50K	LIN	" "
RV6	100K	1/10Watt	Pre-Sot Carbon.
RV7	100 ohms	1/10 watt	" " "
RV8	100 ohms	1/10 watt	" " "

TRANSISTORS.

No	Type.	Make.
T1/L/R	Silicon 'PNP	ZTX214 or Equivalent.
T2/L/R	" 'NPN'	ZTX109 " "
T3/L/R	" 'NPN'	ZTX384 " "
T4/L/R	" 'NPN'	ZTX384 " "
T5/L/R	" 'NPN'	ZTX109 " "
T6/L/R	" 'NPN'	ZTX109 " "
T7/L/R	" 'NPN'	ZTX109 " "
T8/L/R	" 'NPN'	ZTX450 " "
T9/L/R	" 'NPN'	ZTX450 " "
T10/L/R	" 'NPN'	MJ3001 " "
T11/L/R	" 'NPN'	MJ3001 " "

No. DESCRIPTION.

TRANSFORMERS.

TR1	Driver
TR2	Mains Type 1963 - 38.

Silicon Rectifiers.

D1, 2,3,4.	IN5402
D5.	IN4148

Thermistors.

TH5,6.	Mullard VA 1034, 50 ohm at 25° C \pm 10 ohms. 1 watt.
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Zener Diode.

ZD1	BZX61 C30 30V \pm 5%. 1 Watt.
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No. DESCRIPTION.

Fuses.

F1/L/R. F2/L/R. 2A 20mm. Glass Cartridge. "Quick Blow".
F3 1.5 (250V) 3A (110V) 20mm. Glass Cartridge "Anti-Surge".

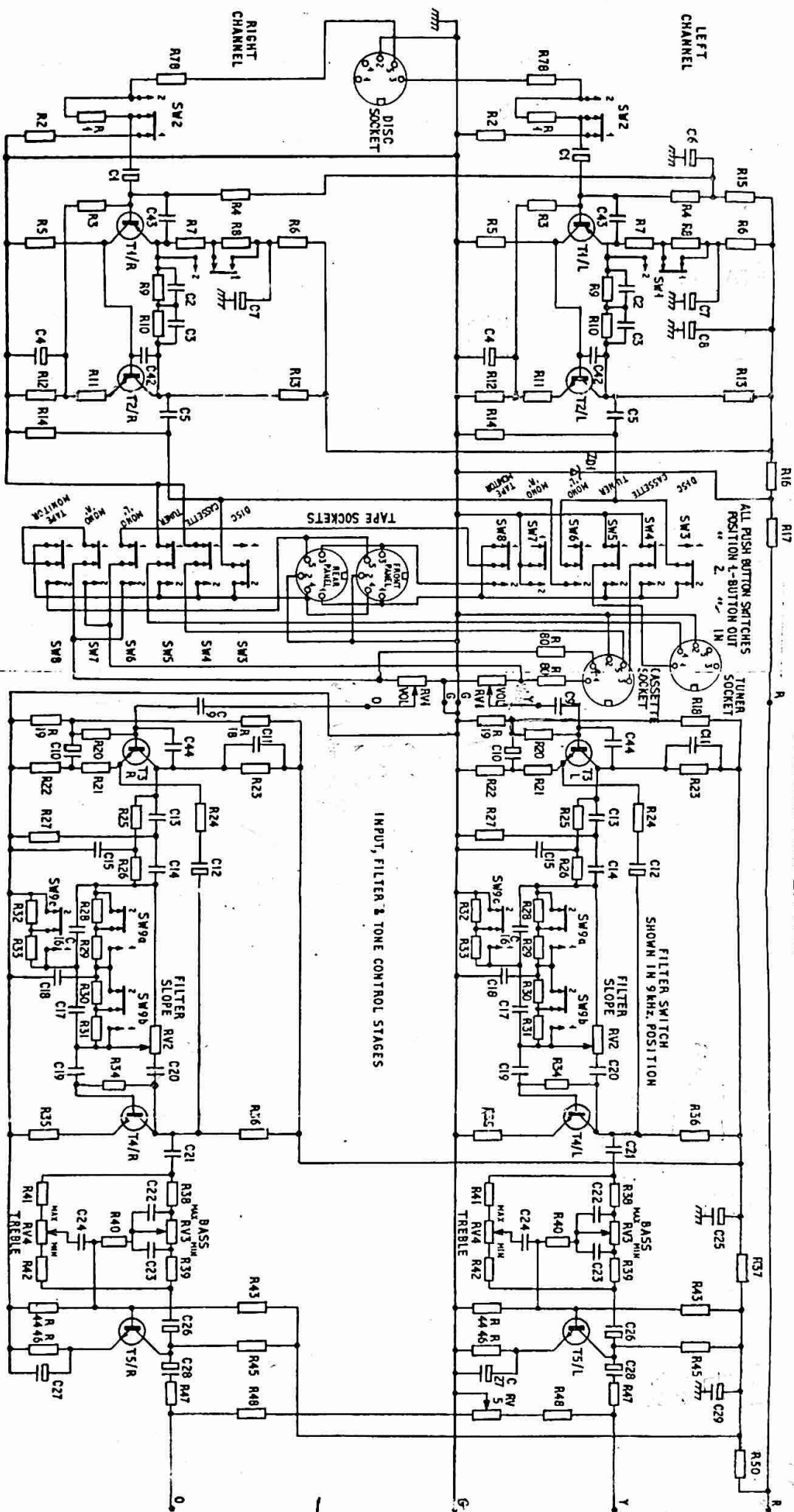
Dial Bulb.

LED1. RL4850

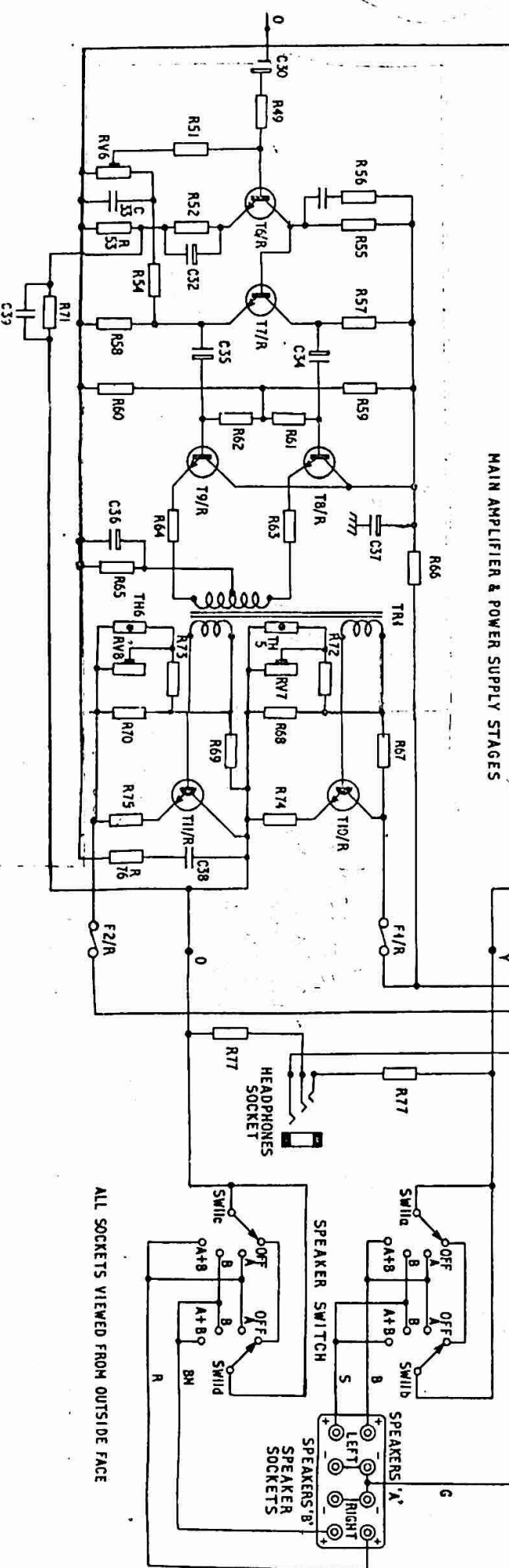
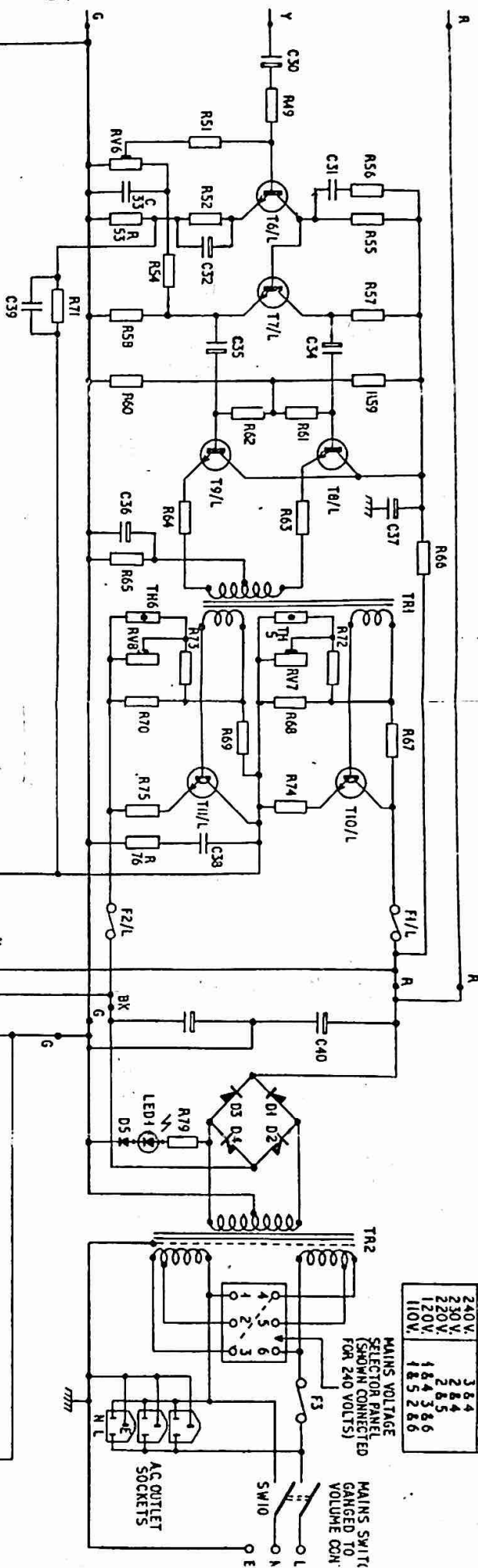
Switches.

S1,2. 2-button. 2-pole change over per button.
S3-8. 6-button. 2-pole " " " "
S9a,b,c. 1-button. 6-pole " " " "
S10. Double pole on/off ganged to RV1.
S11. 4-pole 4 way wafer type.

A75 Series 2 STEREO AMPLIFIER



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A75 SERIES II VOLTAGE CHART.

All voltages measured under following conditions unless otherwise stated.

- (a) Readings under 25V taken on AVO 8 25 VDC range.
- (b) Readings over 25V taken on AVO 8 100 VDC range.
- (c) Measurements taken W.R.T. 0V (chassis).
- (d) No signal input.
- (e) Disc sensitivity switch set to max. (2.5mv).
- (f) Amplifier output terminated in 8 Ω .
- (g) Mains input voltage = 245V.
- (h) Mains tapping adjustment set to 240V.
- (i) RV6, RV7 and RV8 adjusted as per instructions for 'setting up'

Transistor Designation.	Emitter.	Base.	Collector
T1	+15.6	+14.0	+4.5
T2	+4.0	+4.6	+16.0
T3	+1.0	+1.6	+4.5
T4	+0.5	+1.1	+6.6
T5	+1.6	+2.2	+10.0
T6	+0.6	+1.2	+8.2
T7	+7.6	+8.2	+23.0
T8	+13.0	+13.6	+31.0
T9	+13.0	+13.6	+31.0
T10	0	+1.0	+40.0
T11	-40.0	-39.0	0

P.D. Across ZD1 = 30.0V
 " " C8 = 30.0V
 " " C6 = 28.0V
 " " R66 = 8.0V
 " " R50 = 17.0V
 " " R37 = 7.0V
 " " C7 = 16.0V

TR2 SEC = 29-0-29 VAC r.m.s.
 P.S.V. O/P = 40-0-40 VDC
 L.E.D. Current = Approx 13MA
 TR2 Magnetising Current
 (SEC 0/C) = Less than 70MA.

SETTING UP BIAS PRESETS RV7 AND RV8.

This adjustment should be made under no signal conditions, with the amplifier output terminated in 8Ω .

- (a) Turn both presets to the S/C position (towards rear of amp).
- (b) Connect a D.C. Millivoltmeter across R75 (Neg to rear of amp).
- (c) Adjust RV8 for a reading of 40mV.
- (d) Transfer Millivoltmeter to R74 (Neg to rear of amp).
- (e) Adjust RV7 for a reading of 40mV.
- (f) Repeat steps (b) to (e) as they are slightly interdependent.
- (g) Transfer Millivoltmeter to 8Ω terminating resistor and check the offset voltage is within $0V \pm 10mV$. If outside these limits a slight adjustment of RV8 is permissible for correction.

NOTE: In the event of a D.C. Millivoltmeter not being available, a suitable alternative is an AVO 8 Multimeter set to the 50 μA D.C. range. This corresponds to 125mV F.S.D. with an impedance of 2500 ohms, which although considerably lower than a typical D.C. Millivoltmeter, is still of a sufficiently high value to avoid any inaccuracies due to shunting effects.

SETTING UP RV6.

- (a) Terminate amplifier output with an 8Ω power meter and a C.R.O.
- (b) Inject a 180mV 1KHz signal into the radio input.
- (c) Turn volume control to max and with amplifier delivering maximum O/P power (45+45w), increase input signal until the waveform on the C.R.O. just begins to clip.
- (d) Adjust RV6 for symmetrical clipping of waveform.