

A M P L I F I E R      T Y P E      3

SERIAL      173/33

SCHEDULE      C9114

CONTRACT      28058

SPECIFICATION:

General: The type 3 amplifier is designed for bridging a terminated 600 ohm line and provide high quality audio output to a wide-range monitor loudspeaker, or to act as a distribution amplifier to a large number of lines.

Mounting Requirements: The amplifier is designed for standard rack mounting and requires a rack space of  $5\frac{1}{4}$  inches.

ELECTRICAL PERFORMANCE:

Frequency Response: + 0.5 db. from 30 C.P.S. to 15 Kcs.  
+ 1 db. from 15 C.P.S. to 30 Kcs.

Gain: 42 db., continuously variable by means of potentiometer.

Stability: The amplifier is free from oscillation when the output termination is varied from open circuit to 25 ohms non-reactive resistance, to 25 ohms in parallel with 0.2 mfd. capacitance. The frequency response is within 1 db of the above response under these conditions.

Source Impedance: 300 ohms.

Input Impedance: Greater than 25,000 ohms.

Load Impedance: 3 or 12 ohms, adjustable by output plug wiring.

Output Impedance: Less than 0.4 ohms and 1.5 ohms, respectively.

Noise: Equivalent noise input at maximum gain, and with input terminated in 300 ohms non-reactive resistance - 83 dbm.

Power Output: At 12 watts output, the distortion does not exceed 0.25% over the range of 60 C.P.S. to 7.5 Kcs., and does not exceed 0.6% over the range of 30 C.P.S. to 15 Kcs.


At 18 watts output, the distortion does not exceed 1% over the range of 60 C.P.S. to 7.5 Kcs., and does not exceed 2% over the range of 30 C.P.S. to 15 Kcs.

Power Input: 200--250 V AC., adjustable by selecting fuse positions. Primary current, approximately 0.5 amp.

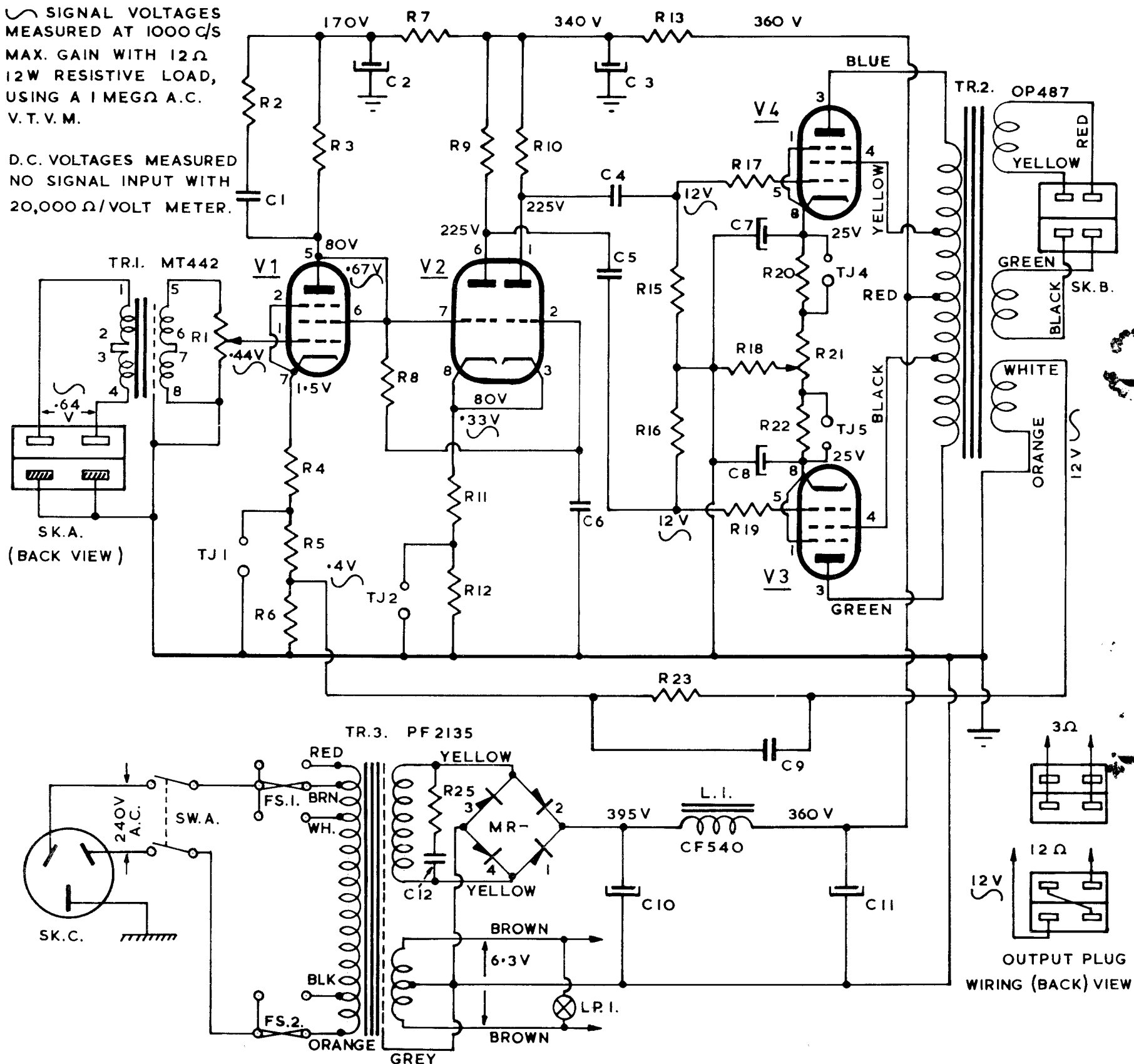
Cathode Metering: Sockets are provided to allow metering of the cathode current of each valve. Using a 1,000 ohms per volt 1 ma. meter, a deflection of approximately one half scale will be obtained with valve in normal operation condition.

Cathode Current of Output Tubes: A potentiometer, R.21, is provided to balance the DC current of the output valves.

REF.	DESCRIPTION	QTY.
R. 1	Pot. 20K Log. Type C. S. I. R. C.	1
R. 2	6.8 K 10% B. T. A. "	1
R. 3	68 K 5% B. T. A. "	1
R. 4, 5	500 $\Omega$ 5% P. W. 5. "	2
R. 6	150 $\Omega$ 5% B. T. A. "	1
R. 7	150 K 10% B. T. A. "	1
R. 8	1 M 10% B. T. A. "	1
R. 9, 10	100 K 2% D. C. F. "	2
R. 11	39 K 10% B. T. A. "	1
R. 12	390 $\Omega$ 5% B. T. A. "	1
R. 13.	10 K 10% B. T. A. "	2
R. 15, 16	330 K 10% B. T. A. "	2
R. 17. 19	2.2 K 10% B. T. S. "	2
R. 18	180 $\Omega$ 5% P. W. 5. "	1
R. 20. 22	22 $\Omega$ 10% B. T. A. "	2
" "	12 $\Omega$ 10% B. T. A. "	2
R. 21	Pot. 100 $\Omega$ W. W. 2W Naunton	1
R. 23	4.7 K 5% B. T. A. I. R. C.	1
R. 25	27 K 10% B. T. A. "	1
C. 1	100 pf. 10% M. S. Simplex	1
C. 2, 3	8 uf Elect. 450 v DCW Ducon	2
C. 4. 5	.33 uf 400 v Polyester D. F. K. 430 Ducon	2
C. 6	.47 uf 400 v Polyester D. F. K. 432 Ducon	1
C. 7. 8	100 uf 25 v. w. Elect. E. T. I. B. Ducon	2
C. 9	220 pf. 10% M. S. Simplex	1
C. 10. 11	4 uf 400 v DC Paper Ducon	2
C. 12	.01 uf 1000 v Styro. DFB 1024 Ducon	1
V. 1	6AU6	1
V. 2	12AT7	1
V. 3, 4	EL34/6CA7	2
T R 1	MT 442 Ferguson	1
T R 2	OP 487 "	1
T R 3	PF 2135 "	1
L 1	CF 540 "	1
MR 1-4	BY100 Diodes Philips	4
FS1-FS2	Fuse Cartridge 1A.	2
S. W. A.	Switch Toggle D. P. S. T. Type D Alpha	1
S. K. A, B	Connectors M244 Trimax	4 Pn
S. K. C.	Plug Mains 99/M606 H. P. M.	1
LP1	Lamp Pilot 6 v "Liliput" in holder Type 188 E. S. Rubin	1

 SIGNAL VOLTAGES  
 MEASURED AT 1000 C/S  
 MAX. GAIN WITH 12 Ω  
 12W RESISTIVE LOAD,  
 USING A 1 MEGΩ A.C.  
 V.T.V.M.

D.C. VOLTAGES MEASURED  
 NO SIGNAL INPUT WITH  
 20,000 Ω/VOLT METER.



CENTRE INDUSTRIES. SYDNEY.  
 AMPLIFIER TYPE 3. (99-001-11)