

TRIMAX TRANSFORMERS

(CLIFF & BUNTING PTY. LTD.)

CHARLES STREET, NORTH COBURG, VICTORIA

MONITORING AMPLIFIER TYPE A45.
(P.M.G. Type M6.)

TRIMAX TRANSFORMERS MELBOURNE

MONITORING AMPLIFIER TYPE A45
(P.M.G. Type M6)

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1.0. GENERAL:

1.1. Application: The Trimax Amplifier Type A45 is a high quality amplifier designed to feed a monitoring speaker, and the input is suitable for bridging a 600 ohm line.

1.2. Description: The unit is designed for rack mounting and occupies five rack units. The total weight is 33 lbs.

1.3. Specification:

<u>Gain</u>	: 30 \pm 2 db.
<u>Power Output</u>	: (Nominal) 6 Watts. (+ 38 dbm)
<u>Distortion</u>	: Less than 4% total at + 38 dbm. Less than 2% total at + 35 dbm over the frequency range 50 cycles to 7.5 KC.
<u>Frequency response</u>	: \pm 1 db, 20 c/s - 20 KC \pm .5 db, 30 c/s - 15 KC
<u>Source impedance</u>	: 300 ohms.
<u>Input impedance</u>	: 12,500 ohms.
<u>Load impedance</u>	: 2 ohms (The amplifier is supplied connection for a 2 ohm load, but may be used for 8 ohms load by connecting the output transformer secondary sections in series instead of parallel.)
<u>Output impedance</u>	: Less than 1 ohm for 2 ohm load connection.
<u>Noise</u>	: Total noise present in the output is better than 90 db below full output.
<u>Cathode Metering</u>	: Metering jacks are provided for each tube, the jack on the left hand side of the panel being for V1.
<u>Tube Complement</u>	: V1 } 6AU6 V2 } V3 } 6V6GT V4 } V5 5V4G

2.0. OPERATION:

2.1. Circuit Details: The circuit is a two stage balanced push-pull amplifier incorporating overall symmetrical feed-back. The input transformer is designed so that the amplifier will not affect the level in the bridged line by more than .1 db. The output transformer may be connected for 8 ohms or 2 ohms load as desired, but is initially supplied connected for 2 ohms.

TRADE



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2.2. Maintenance: Careful selection of components and conservative ratings should ensure that very little maintenance will be required with this amplifier. When replacing condensers, it is desirable to see that the outside foil, or negative connection, is replaced in the same sense as previously.

2.3. Average Currents and Potentials:

Currents V1 } 1.6 mA
 V2 }

V3 } 40 mA No Signal
V4 }

Potentials (Measured with Avo Model 7, 400 v Range)

V1 } 75 V
V2 }

V3 } 315 V
V4 }

Heater V5 345 V
B+ 320 V

2.4 Power Supply: The power supply incorporated in this unit is designed to operate from 200 to 250 Volts 40 to 60 cycles, which may be selected by means of the "Trimax" tap changing fuse holder. Fuses used are 1A or less.

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PARTS LIST

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<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>MANUFACTURE</u>
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RESISTORS:

R1	100 K. 1 Watt 10% Carbon	I.R.C.
R2	1 K. 1 Watt 5% Carbon	I.R.C.
R3	1 K. 1 Watt 5% Carbon	I.R.C.
R4	60 K. 1 Watt 5% Carbon	I.R.C.
R5	60 K. 1 Watt 5% Carbon	I.R.C.
R6	100 K. 1 Watt 10% Carbon	I.R.C.
R7	100 K. 1 Watt 10% Carbon	I.R.C.
R8	500 K. 1 Watt 10% Carbon	I.R.C.
R9	500 K. 1 Watt 10% Carbon	I.R.C.
R10	250 ohms 5 Watt 5% W.W.	Guilford
R11	25 K. 1 Watt 10% Carbon	I.R.C.

CONDENSORS:

C1	.5 u.f. 400 V.W. Paper	U.C.C.
C2	.5 u.f. 400 V.W. Paper	U.C.C.
C3	.05 u.f. 600 V.W. Paper	U.C.C.
C4	.05 u.f. 600 V.W. Paper	U.C.C.
C5	16 u.f. 525 P.V. Electrolytic	U.C.C.
C6	16 u.f. 525 P.V. Electrolytic	U.C.C.
C7	16 u.f. 525 P.V. Electrolytic	U.C.C.

VALVES:

V1	6AU6	Radiotron
V2	6AU6	Radiotron
V3	6V6GT	Radiotron
V4	6V6GT	Radiotron
V5	5V4G	Radiotron

MISCELLANEOUS:

T1	Transformer Type TA731A	Trimax
T2	Transformer Type TA1110	Trimax
T3	Choke Type TZ3	Trimax
T4	Transformer Type TP2002	Trimax
J1	Single Circuit Metering Jacks	
J2	Single Circuit Metering Jacks	
J3	Single Circuit Metering Jacks	
J4	Single Circuit Metering Jacks	
PL	Pilot Lamp	Trimax
F	Tap Changing Fuse Holder	Trimax

