

A.W.A.

INSTRUCTIONS

The PA1004Z is a mains or battery operated, 9 transistor, portable 20 watt amplifier.

Front user controls, reading from left to right, are as follows:-

Monitor Switch: This switches on or off the 5" x 3" Monitor Speaker Kit, PA383, when it is fitted within the amplifier..PA383 is an optional accessory.

P.U. Radio Tone: This control only operates when the Selector Switch is on Radio or P.U.

Selector Switch : This connects one pre-amp. stage to either the Radio or P.U. or Mic. 3. terminals at the rear.

P.U. Radio Mic. 3 Volume: This controls the channel determined by the Selector Switch.

Mic. 2 Volume. This controls the Mic. 2 input terminals

Mic. 1 Volume. This controls the Mic. 1 input terminals.

N.B. On the base of the amplifier a pre-set control is provided for Bass adjustment.

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MILE END, SA

AMPLIFIER CONNECTIONS

Power. Two cables are provided, one for mains and one for 12 Volt battery operation. With the battery cable make sure that the red lead is attached to the positive terminal and the black lead to the negative battery terminal.

Three protective power fuses are provided one 1.5 amp. for mains and two 5 Amp. fuses for battery.

On mains operation only a lighted bezel indicates that the amplifier is on.

Input. Provision is made for low impedance (20-80 ohms) microphones only, preferably of the balanced type. In this case the active leads from the microphone are connected across the appropriate pair of Low terminals and the shielded lead to the corresponding Earth terminal.

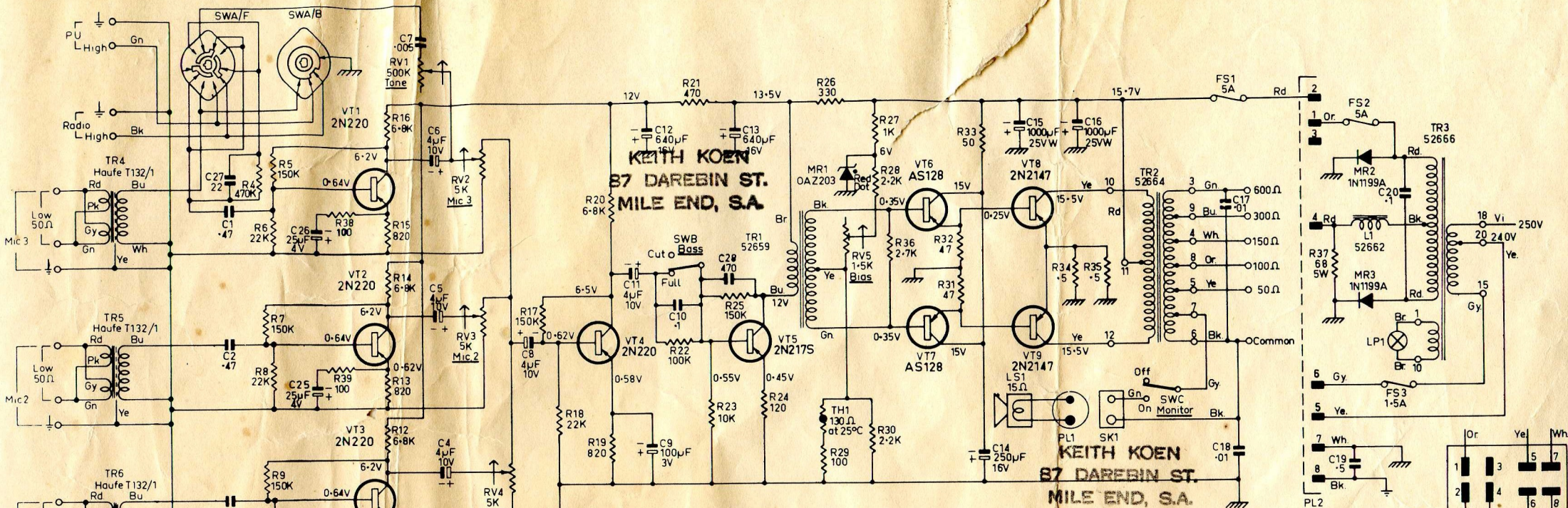
If the microphone is unbalanced (ie has a single shielded lead) then it should be connected across the chosen pair of Low terminals only. The Low terminal to which the shielding is connected may then be linked to the Earth terminal if found necessary.

Output. The impedance for each output terminal is clearly marked and the closest possible match to the load being used should be selected.

Warning. To avoid damaging the output transistors, never run the amplifier with the speaker disconnected or the lines short circuited.

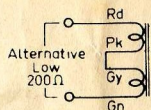
INPUT DATA ON TYPICAL AMPLIFIER (1000 CYCLES)

OPERATING CONDITION	IMPEDANCE TYPE	SENSITIVITY FULL OUTPUT	MAXIMUM INPUT	INPUT IMPEDANCE
Mic. 1, 2 or 3	Low	-70dbm (250uV)	12mV	20-80 ohms
Pick Up	High	-20dbm (80mV)	1.5V	500K ohms
Radio	High	-20dbm (80mV)	1.5V	500K ohms



Bias Adjustment

- 1 Volume controls set fully anti-clockwise no signal input
- 2 Supply voltage to 2PL2 set to 12volts
- 3 Adjust Bias control to give standing current through FS1 of 100mA

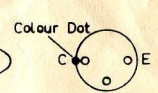
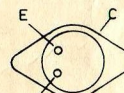
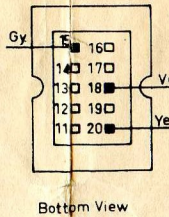
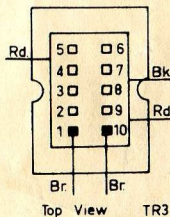
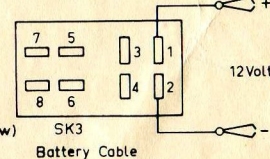
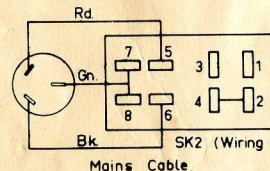
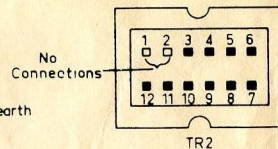


Series connection of input transformers for 200Ω input

NOTES—
SWA shown in full anti-clockwise position viewed spindle end ie Radio position. Positions are Radio, PU and Mic 3
Arrows on potentiometers indicate direction of clockwise rotation
Voltages shown measured with 20,000 ohm/volt meter, on Radio position with no signal input; all voltages are negative with respect to printed board earth
Voltages shown are for mains operation
Voltages on battery operation are approximately 25% less.

⊥ Indicates printed board positive rail
⊥ Indicates chassis earth.

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R1102/1

CHANGES	
R1 WAS 220K	3-8-65
C27 ADDED	4-8-65
TR4, 5 & 6 added	
C21, C22, C23	deleted
C011179B	12-12-65
R41 R42 R43 added	
C011248B	17-12-65
R41, 42 & 43	deleted
C24 ADDED	
C011410B	11-3-66

Amalgamated Wireless (Australasia) Ltd. Sydney.	DRN	30-4-65	TYPE— PA.1004 Z
Circuit Diagram	CKD		
20 WATT PA AMPLIFIER	APP		DRG—C. D. 1443
	RLD		