PHILIPS

SERVICE DATA

MODEL EV4403

ELECTRO-ACOUSTICS

MOD. EV.4403 - THREE CHANNEL MIXER

SPECIFICATION

Inputs:	2 mic.	1 PU
Impedance:	100K ohm	470 K ohm.
Sensitivity:	6 mV	320 mV
Signal to noise ratio:	Controls up	55dB
	Controls down	65dB
Valve:	1 - 12AX7	
Power Consumption:	6.3 V AC	0.3 Amp
	300 v DC	1 mA
Controls:	2 Microphone volume	
	1 P.U. volume	
Dimensions:	L $6\frac{1}{2}$"	D $4\frac{1}{2}$"
	H $4\frac{1}{2}$"	(inc. valve)
Weight:	1 lb.	

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1. GENERAL

This unit is wired up as a sub assembly suitable for mounting on a panel in a rack or for incorporation in P.A. amplifiers, type EV.4431 and EV.4432. Where a radio tuner EV.4453 has not already been fitted.

The EV.4403 is a single stage preamplifier employing a twin triode valve, each half being used for one microphone level input. The output is mixed by means of independent volume controls together with the input from a P.U. source.

When mounted on any of the above amplifier chassis, this unit extends the amplifier input facilities thus giving a maximum of 3 microphones and two P.U./radio inputs with individual volume control.

2. INSTALLATION

The unit may be mounted in the space provided on the top of the chassis using 3 No. 6 P.K.screws. The heater leads (red and white twisted) should be connected to pins 2 and 7 of the nearest 6CM5 socket. The H.T. lead (red) is connected to the 3rd lug of the I.E.4.E.I. strip nearest the rectifiers under the chassis.

The twin shielded wire should have its red lead connected to the 4th lug of the I.E.4.E.I. strip nearest to the 1st 12AX7 under the chassis. The three single shielded leads should be soldered to the input connectorsprovided, which are intended to be mounted on the rear of the chassis. (See illustration).

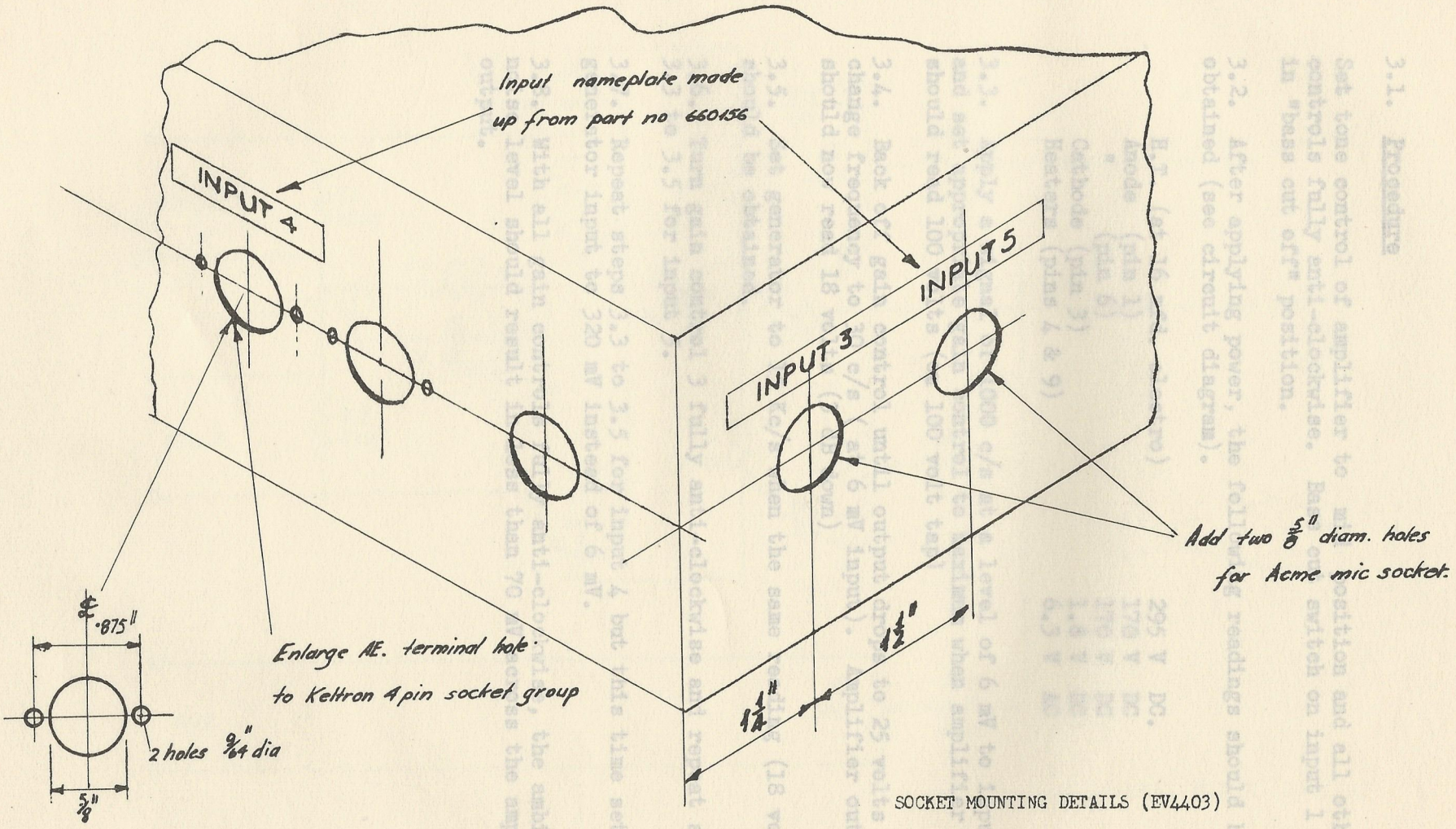
A new amplifier cover (part No. 720039) with cut out for the mixer should now be fitted. The aluminium escutcheon plate is fitted over the volume control shafts and is retained by the nuts on these shafts.

Knobs and input designation strips complete the conversion.

3. FREQUENCY RESPONSE (mounted in amplifier)

Equipment required:

Signal generator
Electronic A.C. voltmeter
Cathode ray oscilloscope
Avo model 8 meter



SOCKET MOUNTING DETAILS (EV4403)

3.1. Procedure

Set tone control of amplifier to mid position and all other controls fully anti-clockwise. Bass cut switch on input 1 to be in "bass cut off" position.

3.2. After applying power, the following readings should be obtained (see circuit diagram).

H.T. (at 16 mfd. electro)	295 V DC.
Anode (pin 1)	170 V DC
" (pin 6)	170 V DC
Cathode (pin 3)	1.8 V DC
Heaters (pins 4 & 9)	6.3 V AC

3.3. Apply a signal of 1000 c/s at a level of 6 mV to input 3 and set appropriate gain control to maximum when amplifier output should read 100 volts (on 100 volt tap)

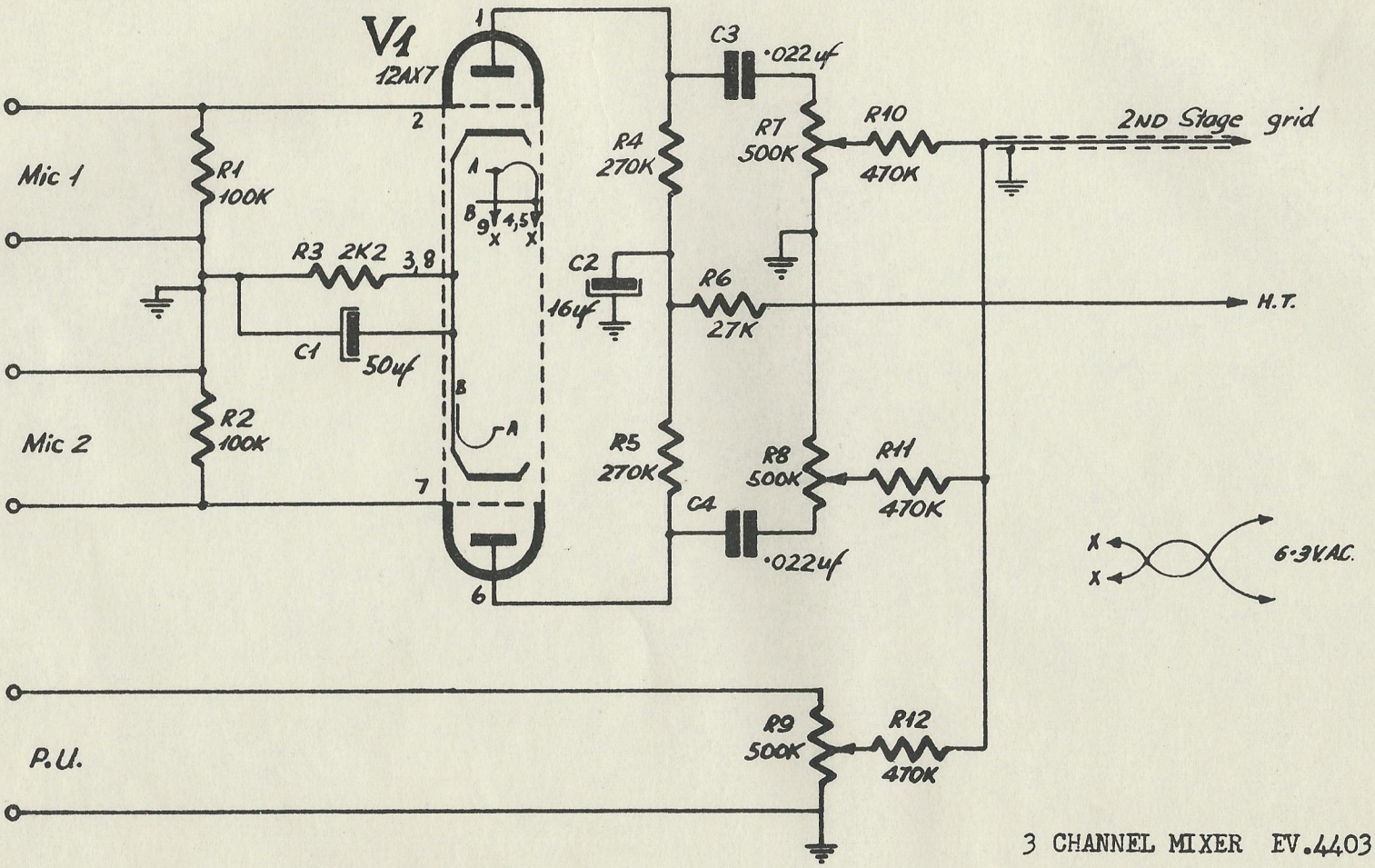
3.4. Back off gain control until output drops to 25 volts and change frequency to 30 c/s (at 6 mV input). Amplifier output should now read 18 volts (3 dB down)

3.5. Set generator to 15 Kc/s when the same reading (18 volts) should be obtained.

3.6. Turn gain control 3 fully anti-clockwise and repeat steps 3.3 to 3.5 for input 5.

3.7. Repeat steps 3.3 to 3.5 for input 4 but this time set generator input to 320 mV instead of 6 mV.

3.8. With all gain controls fully anti-clockwise, the ambient noise level should result in less than 70 mV across the amplifier output.



3 CHANNEL MIXER EV.4403

PHILIPS ELECTRO-ACOUSTICS

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FURTHER INFORMATION ON THIS EQUIPMENT CAN BE OBTAINED FROM ANY OF THE ABOVE PHILIPS BRANCHES