

## V72

### Technical Details & Function

The amplifier has two EF804S valve stages. The 1uF capacitor provides a cut in frequencies below 40Hz in the transformer primary winding. The junctions for this capacitor are located on the pinch screws of pins 2 I.V.II on the Tuchel plug. The capacitor reduces the effect of troublesome fields by causing them to be increasingly short-circuited.

To counter extraneous fields, the amplifier is encased with a double layer of Mu Metal (1040) with a layer of copper in between. The amplifier has heavy negative feedback. The level of amplification is set by negative voltage feedback from the anode of the second valve to the cathode of the first valve. The theoretical level is achieved by adjusting Resistor 20 to just avoid valve oscillation. The by-pass trimmer capacitor allows the frequency response to be adjusted to 15kHz.

The negative feedback of both stages is so arranged that the minimum is drawn from the output. This occurs through resistor 20 up to serial number 300, and thereafter through resistor 19. This resistor causes DC feedback between the cathodes, which lowers the output resistance; the DC is not removed from the negative feedback with a capacitor. The final valve works into a DC free cylindrical output transformer. The mains transformer is fitted with an A.E.G. solid-state rectifier. The smoothing of the anode current is achieved with resistors and capacitors. The heater supply is made symmetrical by the balancing potentiometer 6. The signal lamp is connected across the heater supply to indicate that it is working. The mains transformer is protected against extraneous fields by a Mu Metal shielded casing.