

LOW-GAIN PRE-AMPLIFIER

ALL RESISTORS ARE 1/4 WATT. UNLESS OTHERWISE STATED.



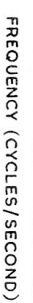
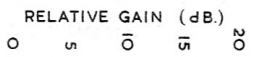
PRE-AMPLIFIER CHASSIS

INVERTED PLAN SHOWING LAYOUT OF COMPONENTS



HIGH-GAIN PRE-AMPLIFIER

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DECCA

Pre-amplifiers

for

DECCA

magnetic pick-ups

Two pre-amplifiers are described:-

- 1) Low gain using a 6J5 triode valve.
- 2) High gain using a 6SL7 double triode.

Both require an H.T. supply and a 6.3 Volt heater supply.

- 1) Low gain pre-amplifier (See figure 1). This is for use with the Decca type C or D pick-up. When used with a type C pick-up head for 78 r.p.m. and a type D for long playing records the maximum output from the pre-amplifier is approximately 150 millivolts. The input impedance of the following amplifier should be greater than 250,000 ohms.
- 2) High gain pre-amplifier (See figure 2). A maximum output of 3-4 volts is obtainable when this pre-amplifier is used with the Decca types C and D pick-ups. The gain is pre-set by a $\frac{1}{2}$ megohm volume control between the first and second triodes. The pre-amplifier has a low output impedance and may be connected to an amplifier having an input impedance greater than 100,000 ohms. When working into 50,000 ohms the bass response will begin to fall and the maximum output will be 2-3 volts.

If a greater output is required this may be obtained by increasing R6.

Construction Notes.

The high-gain pre-amplifier was made up for test purposes. Figure 3 illustrating the general appearance of the complete pre-amplifier, shows the pick-up input sockets, the switch, SI, and the pre-set volume control, R8. The chassis is made of 16 gauge aluminium. Figure 4 is an inverted plan of the chassis showing the general layout. All chassis returns are made at the same point which is a soldering tag secured by one valve-holder fixing screw.

Figure 5 is the response characteristic of the amplifier when used at maximum gain.

The hum level of the pre-amplifier is low but trouble can be experienced when it is connected to other apparatus. Care should be taken in earthing and it will be found that reversal of the 6.3 Volt heater leads will sometimes reduce hum.

To prevent acoustic feedback the pre-amplifier should be mounted away from any vibration caused by the loudspeaker.

This Data Sheet is issued in order to assist users of receivers and amplifiers of low sensitivity to use Decca high fidelity magnetic pick-up heads.

THE DECCA RECORD COMPANY LTD. CANNOT UNDERTAKE THE CONSTRUCTION OF THESE UNITS: NOR CAN THE PRE-AMPLIFIERS OR PARTS THEREOF BE SUPPLIED BY THIS COMPANY.

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