

any cartridge presently available (at any frequency). The gain at 1 kHz is 42 dB (125 times) which means that even the most sensitive of cartridges may be used. But along with this high gain, the noise level is 0.7 μ V referred to the input (63 dB below 1 mV). Since some audio measurements laboratories state noise as so many dB's below 10 mV, this unit has a figure of -83 dB below 10 mV, which makes it a very quiet operator.

The output level is about 12 volts rms; and below 4 volts output, the distortion is just about unmeasurable, rising to 0.1% at the 12-volt output. This high level of output is available across the audio bandwidth of 20 to 20,000 Hz. The feedback loop maintains the frequency response flat to within ± 0.5 dB of the ideal RIAA curve. There is also a switch to change the feedback loop to provide a flat response for use with an optional microphone input.

Construction. The foil pattern shown in Fig. 2 covers both channels of a stereo pair. The component indications are the same for

TECHNICAL SPECIFICATIONS

Gain: 60 dB at 20 Hz, 42dB at 1kHz, 23 dB at 20 kHz; all within 0.5 dB of RIAA.

Gain with Microphone: within 0.5 dB from 20 to 20,000 Hz.

Sensitivity: 0.8 millivolts rms with 100 millivolts output.

Noise: 0.7 microvolts unweighted (RIAA bandwidth referred to shorted input).

Maximum Output before Clipping: 12 volts rms, 20 to 20,000 Hz.

Input Overload: 13 mV at 20 Hz, 100 mV at 1 kHz, 850 mV at 20 kHz.

Distortion: Unmeasurable at 1-volt output, increasing gradually to about 0.2% at clipping.

both channels, with R18, C10, D1 and D2, and S1 common to both channels.

The schematic of the power supply for the amplifier is shown in Fig. 3. It would appear at first glance to be somewhat elaborate but it is essential that the system be free of hum since the amplifier gain at 60

Fig. 1. This is the schematic for one channel of the preamp, except for components, as mentioned in Parts List, that are common to both.

