

Moving Coil Cartridge Preamp

Although moving coil cartridges undoubtedly give better reproduction from disc they usually require expensive step up transformers to enable them to be used with conventional RIAA equalisation.

The reason for this is that most cartridges of this type have outputs of 60-150uV and like to 'see' an input impedance between 60-330R.

The circuit shown was developed to cater for a particular cartridge of this type although by modifying the value of one component, R1, it is possible to cater for the complete range of inputs

detailed above.

Inputs signals are coupled to the base of Q1 via the isolating capacitor C1. R1 damps the input impedance to the correct value to match the particular cartridge in use. R2 and R3 bias Q1 which is employed in the common emitter mode. Heavy local AC and DC feedback is introduced by R5 and this defines the gain of the stage at 20dB. To minimise noise a BC109C is used here operated with a low collector current, 50uA. The output stage of this amplifier is the darlington pair Q2 and Q3. Output signals being taken from across R7, R8.

Ideas for experimenters

R1 should be determined by experiment but can be initially found by using a 470R preset in the R1 position and

adjusting this for optimum sound quality by ear.

