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R32 Design Brief, 2 pages.



R32 MM-MC amplifier

The R32 MM-MC amplifier provides the ideal interface between the low-level output of a cartridge and the line-level inputs of a hi-fi system. The R32 is the successor to and upgrade for the successful and acclaimed R20 MM/MC amplifier. Occupying a standard 430mm component width, rather than the ½ size 215mm of the R20, it will be easier to install and aesthetically more pleasing within a matching Primare system. The larger chassis makes it easier to separate and isolate sensitive signal circuits from the power supply, reducing noise and resulting in greater fidelity.

Adjusting for Moving-Magnet or Moving-Coil cartridges

The R32 accepts either moving-magnet or moving-coil type cartridges. Gain (MM 41.5dB, MC 62dB) and impedance (10, 20, 50, 100, 200, 500ohm and 47kohm) can be adjusted to match cartridge and preamplifier. With a very low output moving-magnet cartridge, an additional 5dB increase in gain is available by the fitting of an internal jumper inside the unit.

Audiophile circuit design

The R32 is housed in an aluminium chassis and is analogue in design throughout. It has no digital circuits. Primare's signature dual-mono design philosophy has been applied wherever possible.

For sonic excellence and low noise the R32 design comprises the optimum mix of discrete lead-free components - including polypropylene capacitors and 1% MELF SMD resistors - from the best Japanese and American semiconductor suppliers such as Toshiba, Burr-Brown and Fairchild.

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The mains transformer is of the R-core type, well known in the audiophile world for its low (almost non-existent) hum and low magnetic leakage. The transformer includes separate windings for left and right channel supplies, which are then rectified and individually regulated in order to provide the different voltages required by the R32. Tantalum and low impedance capacitors are employed throughout the design.

- There are no capacitors in the signal path.
- A DC-servo removes any DC offset present in the circuit.
- The output and input RCA connectors are gold plated and have Teflon insulation for the best possible transmission from the cartridge of the delicate low level signal.

In an upgrade from the R20, the R32 includes a relay controlled mute circuit, which removes irritating pop noise when turning the R32 on or off.

Clean power supply and circuit isolation for the best possible performance

As the most critical noise source, the R-core transformer is placed in the front left corner of the bigger R32 chassis, away from the amplifier circuits which are placed at the back and to the right. Isolation of the two circuits is aided by the introduction of a shield plate between the two.



Product specification R32

Inputs	1 pair RCA
Outputs	1 pair RCA
Input impedance	10, 20, 50, 100, 200, 500 Ω and 47 k Ω
Output Impedance	100 Ω
Gain	MM 41.5dB, MM with jumper 46.5dB MC 62dB
Signal to Noise	20Hz – 20kHz unweighted MM -70dB, MC -60dB,
THD+N	MM <0.02%, MC <0.05%
Power consumption	Operation 11.5W
Dimensions (wxdxh)	430 x 380 x 95mm
Weight	8.5 kg
Colour options	Black or titanium