HALCRO dm10 preamplifier with remote control

Specifications and Features

INPUTS
- 3 RCA Unbalanced Voltage Mode
- 3 XLR Balanced Voltage Mode
- 1 RCA Current Mode
- Any 5 of the above I/Ps are user programmable to respond to the device names; CD, DVD, Tape, Tuner, Aux
- 1 RCA Unbalanced Phono
- 1 XLR Balanced Phono
- Moving Coil or Moving Magnet Cartridge
- Infinitely variable Phono capacitance and resistance adjustment controls

OUTPUTS
- 2 Pair RCA Unbalanced Voltage Mode, Bridgeable
- 2 Pair XLR Balanced Voltage Mode, Bridgeable
- 2 Pair RCA Current Mode; 1 pair for un-bridged connection, the other pair used in bridged mode
- 1 Pair RCA Tape output
- 1/4 inch Headphone Jack
- 6-pin XLR power ON/OFF, both pulsed and level output control

POWER SUPPLY
Switch-mode, 110kHz CW, 4th order mains filter, 4th order supply rail filter. Fully complies with EMC and CE standards. Circuit contains extensive mains transient protection and fault sensing protection.
85-240VAC, 50-60Hz

POWER CONSUMPTION
100W max via IEC input

MAINS VOLTAGE
All voltages from 85VAC through to 240VAC at 40Hz through to 200Hz or 120V through to 340V D.C. (Power supply will operate up to 270V r.m.s. but IEC sockets rated up to 240V by regulatory authorities.)

CONTROLS
On/Standby:
Front Panel;
1 x Push Button
Remote Control;
1 x Push Button

Volume:
Front Panel; Optical Rotary Encoder with Halcro Flux Detent
Remote Control;
2 x Push Buttons

Input Select.
Front Panel; Optical Rotary Encoder with Halcro Flux Detent
Remote Control;
6 x Push Buttons

Balance:
Front Panel;
2 x Push Buttons
Remote Control;
Function Key,
2 x Push Buttons

Mute:
Front Panel;
1 x Push Button
Remote Control;
1 x Push Button

Mono/Stereo (only active in Phono):
Front Panel;
1 x Push Button
Remote Control;
Function Key,
1 x Push Button

Phase:
Front Panel;
1 x Push Button
Remote Control;
Function Key,
1 x Push Button

Input Program:
Rear Panel;
7 x Push Buttons

Cartridge Select:
Rear Panel;
1 x Toggle Switch

Phono Gain:
Rear Panel;
1 x Toggle Switch

Phono Capacitance:
Rear Panel;
180° Rotary Control

Phono Resistance:
Rear Panel;
270° Rotary Control

Headphone Ground:
Rear Panel;
1 x Toggle Switch

Toggle Display Backlight On/Off
Remote Control;
Function Key,
1 x Push Button

Display:
Backlit LCD.
Displays L&R volume setting, selected source, mono/stereo (phono only), and phase.

DIMENSIONS
Width: 448mm, 17.64 inches
Depth: 400mm, 15.74 inches
Height: 240mm, 9.44 inches
Weight: 23kg, 50 lbs

REMOTE DIMENSIONS
Length: 183mm, 7.2 inches
Width: 50mm, 1.96 inches
Thickness: 24mm, 9.4 inches
Weight: 280gm, 0.6 lbs

SHIPPING DIMENSIONS
– Wooden case
Width: 585mm, 23 inches
Depth: 535mm, 21 inches
Height: 515mm, 20 inches
Weight: 36 kg, 81 lbs

SHIPPING DIMENSIONS
– Aluminium case
Width: 585mm, 23 inches
Depth: 535mm, 21 inches
Height: 390mm, 15.5 inches
Weight: 38 kg, 81 lbs

GAIN
Unbalanced and balanced -60dB to +20dB set by volume control
Phono 32dB, 38dB or 44dB for moving magnet, switch selectable +27dB for moving coil (measured at 1kHz).

INPUT IMPEDANCE
- 10kohm + 10kohm balanced
- 10kohm un-balanced
- 10kohm through to 60kohm plus 60pF through to 350pF both continuously variable for moving magnet
- 220ohm plus 4.7nF for moving coil 50ohms for current mode.

OUTPUT IMPEDANCE
- 170 + 170ohms balanced and 170ohms un-balanced.
- 30kohms current mode.
- 10ohms headphones.
- 340ohms tape.

DISTORTION
Unmeasurable- below noise floor.
At full specified output, < 250 parts per billion (-132dB) for balanced and un-balanced and current modes.

NOISE
< 0.6nV/sqrt(Hz) equivalent input noise for moving coil.
< 6nV/sqrt(Hz) equivalent input noise for moving coil at 1kHz (< 1H and < 600ohm coils.)
< 15nV/sqrt(Hz) for 32dB gain or < 12nV/sqrt(Hz) for 36 or 44dB gain equivalent input noise for moving coil at 20kHz for load impedance set at 47kohms and capacitance set to resonate with coil, assuming worst case high-Q coil.

VOLUME CONTROL
+20dB to -60dB in 0.5dB steps.

PHONO EQUALISATION
Conforms within +/-0.5dB of the RIAA standard.

PCB
4-layer PCBs for ultra high accuracy reference potentials.

COMPONENTS
Vishay 0.5% resistors and FKP1 1250V or MKP10 in critical audio signal paths.

INPUT PROGRAMMING
Each input may be assigned to a source. The assigned source is defined on the display and on the remote control. This is memorised and may be either reprogrammed or un-assigned. The programming is performed using the remote and a remote input receiver resides both on the front and rear panel for flexibility of implementation. The program status of each input is displayed on a LED associated with each input.

MEMORY
All volume gain settings for each programmed input (source) are remembered upon either power off or upon selection to a different input. Upon re-selection to each input, or upon power up, the previously remembered volume for each input is reinstated.
This accommodates differing source outputs. For example, a modern CD player may have an output up to a few volts, whereas an older type of analogue tape recorder may only attain a few hundred millivolts. This memory feature thus will return the volume setting at the appropriate previously set value.

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