MA1400
High performance power amplifier

features
- Superior sonic performance
- Increased output current capacity
- Versatile input connections
- Removable dust filters
- Advanced protection circuits
- Multiple gain selection
- Soft Start

applications
- Live sound reinforcement
- Fixed installations

The MA1400 is one of a versatile range of professional power amplifiers designed to meet the increasing demands of both the rental and installation markets whilst remaining cost efficient.

By harnessing a conventional toroidal transformer power supply with the latest semiconductor technology and a proprietary copper cooling system the MA1400 amplifier offers outstanding sonic performance, power and reliability in a shallow (359mm) 2U package.
NEW CHASSIS
Hum fields created from conventional iron transformers, both toroidal and C-core, have always caused problems within amplifier racks, very often interfering with more sensitive equipment located in the vicinity. By incorporating different iron materials in a sandwich construction the magnetic hum field has been reduced to a minimum.

MULTIPLE POSITION GAIN SWITCH
To meet the ever-increasing demands for a more flexible gain structure within systems the MA1400 amplifier offers a multiple position gain switch. This switch enables the maximum gain to be selected from a range of the most standard industry settings; 20, 23, 26, 29, 32, 35, 38 and 41dB.

VERSATILE INPUT CONNECTION
The Neutrik Combo-jack offers both professional XLR and semi-pro TRS phono-jack inputs as standard and the Phoenix three pin terminal block makes for easier and cost effective installation connections.

DUST FILTER
The MA1400 amplifier employs front to back cooling. To avoid unnecessary dust particles being drawn into the body of the unit a removable dust filter has been fitted to the front panel.

LED INDICATORS
Status LED’s indicate key amplifier functions. The protect LED will trigger if the amplifier channel has shut down due to a short circuit, over temperature or high frequency protection. The clip LED indicates severe clipping, whilst the signal present LED activates at -40dB below full level.

SOFT START
The MA1400 has been fitted with a sophisticated soft start circuit. This circuit minimises the risk of breaker trips or blowing mains fuses due to the initial current surge experienced when the amplifier is powered up.

PROTECTION
Two levels of DC protection are provided. DC current limiters, supplemented with power rail fuses, and crowbar DC output load protection.

Thermal Protection: Preventing the amplifier operating at an unsafe temperature.

AC Protection: If the AC mains voltage is outside the operational window the amplifier will automatically shut down.

VHF Protection: If high level, non-musical signals are detected that are above the audible frequency band, the amplifier is shut down.

Clip Limiter: Prevents severely clipped waveforms reaching the loudspeaker, but maintains full peak power.

COOLING
The MA1400 amplifier runs very cool due to a patented heat exchanger. The output devices are mounted directly onto the copper heat exchanger avoiding thermal losses normally found when using pads. The heat exchanger is mounted horizontally in front of a pressure chamber. The air flow over the geometric fins is maintained by two proportional speed fans ensuring superior efficient cooling.
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overall dimensions
The amplifier shall have two channels each capable of producing an output of 700 watts continuous average power at 1kHz and 1% THD EIA into a 4 ohm load with both channels driven. Each input shall be electronically balanced and have a CMRR of 50dB at any frequency between 20Hz to 20kHz. Each channel shall exhibit distortion of no more than 0.01% THD at 1kHz and –1dB under clip. Hum and noise shall be at least 105dB below full rated output power and channel separation shall be greater than 70dB at 10kHz. The input gain shall be selectable by rear-mounted switches between 20dB and 41dB in 3dB steps. The front panel shall have LED indicators for each channel that will activate to show channel on, signal present (-40dB), clip and protect mode; also, individual channel gain controls each with a 31-position detent. To allow for a variety of input connection possibilities, each channel shall have a Neutrik Combo socket and a three pin terminal block mounted on the rear panel. Power output for each channel shall be via a rear panel mounted Speakon connector.

Dimensions (W) 483mm x (H) 88mm (2U) x (D) 359mm (19ins x 3.5ins x 14.1ins).

Weight 17kg (37lbs).

The amplifier shall be the Martin Audio MA1400.