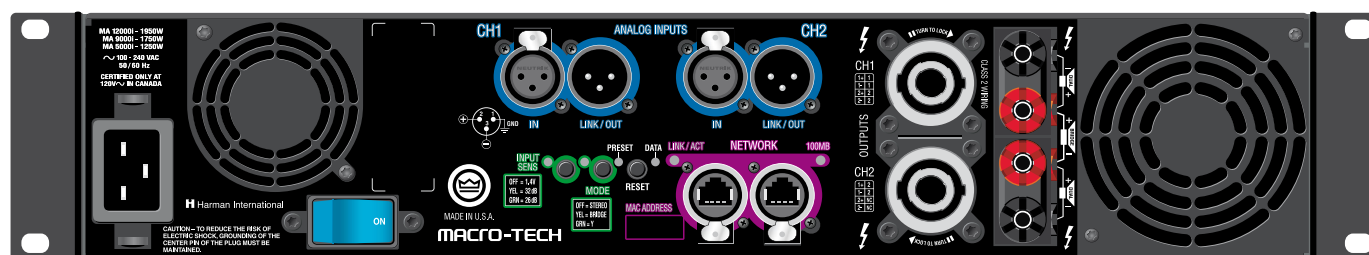# Macro-Tech® i Series

Macro-Tech 5000i, 9000i, 12000i power amplifiers for touring sound

Power Output — Guaranteed minimum power in watts at 20 Hz-20 kHz with 0.1% THD

Model Name	2-ohm Dual (per ch.)			4-ohm Dual (per ch)	8-ohm Dual (per ch)	4-ohm Bridge	8-ohm Bridge
	20 mS BURST	20 Hz - 20 kHz	1 kHz				
MA-5000i	**3,000W**	2,000W	2,000W	2,500W	1,250W	4,000W	5,000W
MA-9000i	**4,700W**	2,800W	2,800W	3,500W	1,500W	5,600W	7,000W
MA-12000i	**6,000W**	3,750W	3,750W	4,500W	2,100W	7,500W	9,000W

Features

- The Macro-Tech® i Series continues the Crown® Macro-Tech legacy of unparalleled sonic accuracy and detail, putting sound quality above all else

- Patented, cutting-edge Class-I circuitry gets more power out of an amplifier with less waste

- Rugged construction ensures that all Macro-Techs are built to withstand years of abuse on the road

- Global Power Supply — designed to deliver maximum power no matter what country you work in

- Built-in load, line voltage, input and output monitoring

- Standard Ethernet networking via System Architect® lets system operators monitor and control the amplifier from any location

Specifications

Performance

Frequency Response (at 1 watt, 20 Hz - 20 kHz into 8 ohms): ±0.25 dB.

Signal to Noise Ratio (below rated full-bandwidth power, A-weighted): > 112 dB.

Total Harmonic Distortion (THD) (at 2 watts into 8 ohms): < 0.1%.

Total Harmonic Distortion (THD) Plus Noise (at full rated power): < 0.1%, 20 Hz to 20 kHz.

Intermodulation Distortion (IMD) (60 Hz and 7 kHz at 4:1, from full rated output to −30 dB): < 0.35%.

Damping Factor (20 Hz to 100 Hz at 8 ohms): > 5000.

Crosstalk (below rated power, 20 Hz to 1 kHz): > 80 dB.

Common Mode Rejection (CMR) (20 Hz to 1 kHz): >70 dB typical.

DC Output Offset (shorted input): < ± 3 mV.

Input Impedance (nominal): 20 kilohms balanced, 10 kilohms unbalanced.

Maximum Input Level: +20 dBu typical.

Network: Onboard HiQnet™, compatible with standard 100 Mb Ethernet hardware.

Load Impedance: (Note: Safe with all types of loads)
Stereo: 1/2/4/8/16 ohms.
Bridge Mono: 2/4/8 ohms.

Input Sensitivity (referenced to 8 ohm rated output): 1.4V, 32 dB gain, and 26 dB gain.

Voltage Gain (referenced to 8 ohm rated output):
MA-5000i: 37.1 dB to 22.2 dB
MA-9000i: 37.9 dB to 23.0 dB
MA-12000i: 39.3 dB to 24.5 dB

Required AC Mains: Universal AC input, 100-240VAC (±10%), 50/60 Hz. Maximum AC mains voltage 264VAC.

AC Line Connector: Five cordsets supplied with amplifier (USA, UK, European, Australia, India).

Front Panel Controls and Indicators

Bridge Mode Indicator: Amber LED illuminates when the amplifier is set to Bridge-Mono mode.

Ready Indicator: Green LED, one per channel.
On (bright): Ready.
On (dim): Onset of compression.
Off: Thermal protection.

Signal Indicators: One green LED per channel.
Solid green: Input signal is above −40 dBu.
Bright green: Channel's output signal has reached the onset of audible clipping.

Power Indicator: Blue LED indicates amplifier has been turned on and AC power is available. The

LED will flash when the AC line voltage is 10% above or below the nominal rated value.

Data Indicator: Yellow LED on front panel indicates network data activity. Data indicator flashes only when the amplifier is polled for data, or is polled to see whether it is online

Power Switch: Push-on/push-off switch with built-in green AC mains present indicator.

Volume Control: Precision detented attenuator with 31 steps, press-and-hold mute function.

Volume Control LED Ring: A ring of green LEDs around each volume control show the position of the control. Entire ring flashes when channel is muted. Can be converted to be a level meter.

Back Panel Controls, Indicators and Connectors

Power Cord Connector: Detachable 20 amp IEC inlet. Cord locks with supplied cord retention clip. Voltage range is indicated above IEC inlet.

Reset Switch/Circuit Breaker: If the current draw of the amplifier exceeds safe limits, this breaker automatically disconnects the power supply from the AC mains. The switch resets the circuit breaker.

Output Connectors: Two high-current, 50A Neutrik® Speakon® NL4MLP (mates with NL4FC or NL4), one per channel. Ch 1 Speakon® is wired with Ch 1 and Ch 2 outputs for use with single 4-conductor cable. Two pairs of high-current, 60A color-coded 5-way binding posts (for banana plugs, spade lugs or bare wire).

Analog Input Connectors: A 3-pin female XLR connector for each channel.

Analog Loop Thru Connectors: Two male XLR passive analog loop through.

Mode Switch/Indicator: Sets amplifier to Stereo, Bridge, or Input Y mode. OFF=Stereo, YEL=Bridge, GRN=Y.

Network Connectors: This Neutrik® EtherCon® connector accepts an RJ-45 connector for HiQnet™ networking. Next to the connector is a yellow LINK ACT indicator that shows network activity, and a green 100Mb indicator that shows a 100Mb network connection.

Data Indicator: Yellow LED on back panel indicates network data activity. Data indicator flashes only when the amplifier is polled for data, or is polled to see whether it is online.

Preset Indicator: Green/yellow LED flashes to signal the number of the current preset. LED is green if current preset is active, or is yellow if current preset is modified.

Input Sensitivity Switch: Three-position switch providing 1.4V, 32 dB, and 26 dB settings for both channels.

Firmware/Software

Firmware can be downloaded at http://hiqnet.harmanpro.com.

Software features: User Presets, Clip Event Monitor, Input Signal Level Monitor, Output Signal Level Monitor, Thermal Headroom Level Monitor, Power/Standby Control, Signal Mute, Polarity Inverter, Input Signal Fader, Amplifier Information, User and Channel Labels, Amplifier Mode, Amplifier Output Mode, Line Voltage Monitor, Error Reporting, Auto Standby, Input Signal Compressor/Limiter, Peak Voltage Limiter, Average Power Limiter, Clip Eliminator, Thermal Limiter, Limiter Tie, Load Supervision.

Construction

Cooling: Dual-zone, microprocessor controlled, continuously variable speed fans, front-to-back airflow.

Front Panel: Cast aluminum with integrated handles.

Dimensions: 19 in. (48.3 cm) W x 3.5 in. (8.9 cm) H x 16.2 in. (41.1 cm) D.

Weight: 28 lbs (12.7 kg) net, 36 lbs (16.3 kg) shipping.

Protection: Amplifier is protected against reactive loads, faults and shorts. If one channel experiences a catastrophic failure, the entire amplifier will shut down.

Included Accessories: Rear rack ears, rack screws, operation manual, power cords, foam air filter.

Note: All measurements apply to units in Stereo mode with 8-ohm loads and rated input sensitivity unless otherwise specified.