



# 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

|            | 2-ohm Dual (per ch.) |                   |        |                        |                        |                 |                 |
|------------|----------------------|-------------------|--------|------------------------|------------------------|-----------------|-----------------|
| Model Name | 20 mS<br>BURST       | 20 Hz - 20<br>kHz | 1 kHz  | 4-ohm Dual<br>(per ch) | 8-ohm Dual<br>(per ch) | 4-ohm<br>Bridge | 8-ohm<br>Bridge |
| 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<sup>®</sup> lets system operators monitor and control the amplifier from any location

# Macro-Tech® i Series

### **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):  $< \pm 3$  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, 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.  $(48.3 \text{ cm}) \text{ W} \times 3.5 \text{ in.} (8.9 \text{ cm}) \text{ H} \times 16.2 \text{ in.} (41.1 \text{ cm}) \text{ D}.$ 

**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.



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