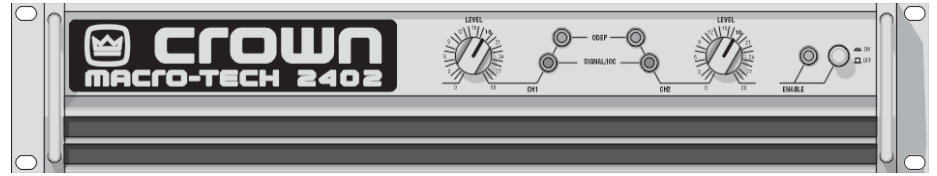


MACRO-TECH® SERIES
**MA-602
MA-1202
MA-2402**


Macro-Tech® Series amplifiers deliver superior sonic accuracy and enormous amounts of power from a low-profile design, and are perfect for touring and fixed installations.

The Crown® Macro-Tech 02 Series amps are enhanced versions of the Macro-Tech line. They offer the same features and performance of the original Macro-Techs while delivering key added benefits that continue to expand the versatility of this distinct product line.

When it comes to manufacturing amplifiers, there are no shortcuts to quality. Crown's Macro-Techs have proven themselves time and time again in some of the most demanding applications in the world.

For more details about the Crown Macro-Tech Series, contact the Crown Technical Support Group at 800-342-6939 or 574-294-8200. Also, visit the Crown Audio website at www.crownaudio.com.

Specifications

Note: Specifications relate to 120 volt, 60 Hz units in Stereo mode with 8-ohm loads and an input sensitivity of 26 dB gain at 1 kHz rated power unless otherwise specified. Specifications for units supplied outside the U.S.A. may vary slightly at different AC voltages and frequencies.

Power

Output Power: See power charts below.

Load Impedance: Safe with all types of loads. Rated for 2 to 16 ohms in Stereo, 4 to 16 ohms in Bridge-Mono and 1 to 4 ohms in Parallel-Mono mode.

Voltage Gain at 1 kHz, 8 ohm rated output:

MA-602: 54:1 ±6% or 35 dB ±0.5 dB at 0.775 volt sensitivity.

30:1 ±6% or 30 dB ±0.5 dB at 1.4 volt sensitivity.

20:1 ±6% or 26 dB ±0.5 dB at 26 dB gain at the maximum level setting.

Features

- Crown's Grounded Bridge™ design delivers large voltage swings without using easily stressed output-transistor configurations like conventional amplifiers. The results are lower distortion and superior reliability.
- Patented ODEP® (Output Device Emulation Protection) circuitry compensates for overheating and overload to keep the amplifier working when others would fail.
- IOC® (Input/Output Comparator) circuitry immediately alerts of any distortion exceeding 0.05%, providing dynamic proof of distortion-free performance.

- Enhanced PIP2™ (Programmable Input Processor) connector accepts new accessory modules that tailor the amplifier to suit specific applications, such as networking via HiQnet™ or TCP/IQ™.
- Balanced XLR and 1/4-inch (6.35-mm) phone jack inputs for each channel on the standard PIP2-FXQ module.
- Full protection from shorted, open and mismatched loads; general overheating; DC; high-frequency overloads; and full protection from internal fault are provided by our latest protection scheme: "Quad-Mute."
- Three Year No-Fault Full Warranty completely protects your investment and guarantees its specifications.

MA-1202: 64:1 ±6% or 36 dB ±0.5 dB at 0.775 volt sensitivity.

36:1 ±6% or 31 dB ±0.5 dB at 1.4 volt sensitivity.

20:1 ±6% or 26 dB ±0.5 dB at 26 dB gain at the maximum level setting.

MA-2402: 83:1 ±6% or 38 dB ±0.5 dB at 0.775 volt sensitivity.

46:1 ±6% or 33 dB ±0.5 dB at 1.4 volt sensitivity.

20:1 ±6% or 26 dB ±0.5 dB at 26 dB gain at the maximum level setting.

Required AC Mains: 50/60 Hz; 100, 120, 220 and 240VAC (±10%) units are available. All draw 100 watts or less at idle. Current, voltage and frequency requirements are provided on the unit's back panel.

AC Line Connector:

MA-602 and MA-1202: NEMA5-15P (15A)

MA-2402: NEMA 5-20P (20A)

Performance

Frequency Response: ±0.1 dB from 20 Hz to 20 kHz at 1 watt.

Phase Response: ±10 degrees from 10 Hz to 20 kHz at 1 watt.

Signal-to-Noise Ratio:

A-weighted: Better than 105 dB below rated full bandwidth power.

20 Hz to 20 kHz: Better than 100 dB below rated full bandwidth power.

Total Harmonic Distortion (THD) at full-bandwidth power: Less than 0.05% from 20 Hz to 1 kHz increasing linearly to 0.1% at 20 kHz.

Intermodulation Distortion (IMD): (60 Hz and 7 kHz at 4:1) Less than 0.05% from 163 milliwatts to full bandwidth power.

Damping Factor: Greater than 1,000 from 10 Hz to 400 Hz.

Slew Rate: (Slew rates are limited to useful levels for ultrasonic/RF protection.) Greater than 13 volts per microsecond.

MA-602

	*1 kHz Power	**20 Hz–20 kHz Power
2 ohm Dual (per ch.)	400W	335W
4 ohm Dual (per ch.)	325W	300W
8 ohm Dual (per ch.)	225W	210W
4 ohm Bridge-Mono	750W	650W
8 ohm Bridge-Mono	655W	605W

*1 kHz Power: refers to maximum average power in watts at 1 kHz with 0.1% THD.

**20 Hz–20 kHz Power: refers to maximum average power in watts from 20 Hz to 20 kHz with 0.1% THD.

MA-1202

	*1 kHz Power	**20 Hz–20 kHz Power
2 ohm Dual (per ch.)	675W	585W
4 ohm Dual (per ch.)	480W	450W
8 ohm Dual (per ch.)	310W	295W
4 ohm Bridge-Mono	1,300W	1,130W
8 ohm Bridge-Mono	970W	895W

*1 kHz Power: refers to maximum average power in watts at 1 kHz with 0.1% THD.

**20 Hz–20 kHz Power: refers to maximum average power in watts from 20 Hz to 20 kHz with 0.1% THD.

MA-2402

	*1 kHz Power	**20 Hz–20 kHz Power
2 ohm Dual (per ch.)	1,050W	850W
4 ohm Dual (per ch.)	800W	750W
8 ohm Dual (per ch.)	520W	505W
4 ohm Bridge-Mono	2,070W	1,670W
8 ohm Bridge-Mono	1,585W	1,485W

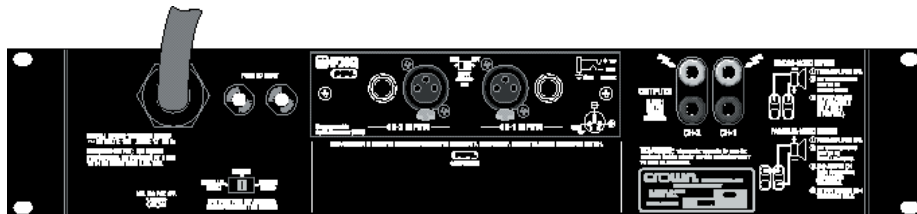
*1 kHz Power: refers to maximum average power in watts at 1 kHz with 0.1% THD.

**20 Hz–20 kHz Power: refers to maximum average power in watts from 20 Hz to 20 kHz with 0.1% THD.



MA-602 MA-1202 MA-2402

MA-2402 is shown below. MA-602 and MA-1202 omit the reset buttons.



Controls

Enable: A front-panel push button used to turn the amplifier on and off.

Level: A front-panel 31-detent rotary control for each channel used to control the output level.

Stereo/Mono: A three-position back-panel switch used to select Stereo, Bridge-Mono or Parallel-Mono mode.

Sensitivity: A three-position switch inside the PIP™ compartment used to select the input sensitivity for both channels: 0.775 volts or 1.4 volts for standard 1 kHz power, or a 26 dB voltage gain.

Reset (MA-2402 only): A back-panel push button for each channel used to reset the circuit breaker that protects each power supply.

Indicators

Enable: An amber front-panel indicator that shows the on/off status of the low-voltage power supply.

Signal/IOC: A green front-panel indicator for each channel that flashes to show amplifier output. If a channel's output waveform differs from its input by 0.05% or more, the indicator flashes brightly to show distortion. This function provides proof of distortion-free performance. In Parallel-Mono mode, the Channel 2 light stays on.

ODEP: An amber front-panel indicator for each channel that shows thermal-dynamic energy reserve. Normally, each ODEP indicator is lit to show available reserve energy. In the rare event that a channel has no reserve, its indicator will dim in proportion to ODEP limiting. An ODEP indicator may also turn off under other conditions.

Input/Output

Input Connector: Two balanced 1/4-inch (6.35-mm) phone jacks on the back panel and two balanced three-pin female XLR connectors on the factory-installed PIP2-FXQ.

Input Impedance (Nominal): 20 k ohms, balanced; 10 k ohms, unbalanced.

Maximum Input Level: 9 Vrms.

Input Sensitivity: 0.775 volts for standard 1 kHz power, 1.4 volts for standard 1 kHz power, or a 26 dB voltage gain.

Output Connectors: Two sets of color-coded 5-way binding posts (for banana plugs, spade lugs or bare wire).

Output Impedance: Less than 10 milliohms in series with less than 2 microhenries.

DC Output Offset: (Shorted input) < ±10 millivolts.

Output Signal

Stereo: Unbalanced, two-channel.

Bridge-Mono: Balanced, single-channel. Channel 1 controls are active; Channel 2 should not be used.

Parallel-Mono: Unbalanced, single-channel. Channel 1 controls are active; Channel 2 controls are bypassed.

Protection

Macro-Tech amplifiers are protected against shorted, open or mismatched loads; overloaded power supplies; excessive temperature; chain destruction phenomena; input overload damage; and high-frequency blowups. They also protect loudspeakers from input/output DC and turn-on/turn-off transients.

If unreasonable operating conditions occur, the patented ODEP circuitry will proportionally limit the drive level to protect the output transistor stages, particularly in the case of elevated tem-

perature. Transformer overheating will result in a temporary shutdown of the affected channel; when it has cooled to a safe temperature, the transformer will automatically reset itself. Controlled slew-rate voltage amplifiers prevent RF burnouts. And input overload protection is provided by current-limiting resistance at the input.

Turn On: Four-second delay with no dangerous transients. Delay time can be changed (contact Crown's Technical Support Group).

Accessories

Crown PIP and PIP2 modules including IQ-PIP modules, which allow networking via HiQnet or TCP/IQ.

Construction

Steel chassis with durable black power-coat finish, aluminum front panel with Lexan overlay, and specially designed flow-through ventilation from front to side panels.

Cooling: Internal heat sinks with forced-air cooling for rapid, uniform heat dissipation.

Dimensions: EIA Standard 19-inch (48.3-cm) rack mount width (EIA RS-310-B), 3.5 inches (8.9 cm) high, 16 inches (40.6 cm) deep behind the mounting surface and 2.5-inch (6.3-cm) protrusion in front of the mounting surface.

Weight:

MA-602: 39 lb, 9 oz (17.9 kg) net.
44 lb (19.9 kg) shipping weight.

MA-1202: 44 lb, 1 oz (20.0 kg) net.
47 lb (21.3 kg) shipping weight.

MA-2402: 51 lb, 12 oz (23.5 kg) net.
65 lb (29.5 kg) shipping weight.

Center of gravity is 6 inches (15.2 cm) behind front mounting surface.



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Crown's Three-Year, No-Fault, Fully Transferable Warranty

Crown offers a Three-Year, No-Fault, Fully Transferable Warranty for every new Crown amplifier—an unsurpassed industry standard. With this unprecedented No-Fault protection, your new Crown amplifier is warranted to meet or exceed original specifications for the first three years of ownership. During this time, if your amplifier fails, or does not perform to original specifications, it will be repaired or replaced at our expense. About the only things not covered by this warranty are those losses normally covered by insurance and those caused by intentional abuse. And the coverage is transferable, should you sell your amplifier.

See your authorized Crown dealer for full warranty disclosure and details. For customers outside of the USA, please contact your authorized Crown distributor for warranty information or call 574-294-8200.