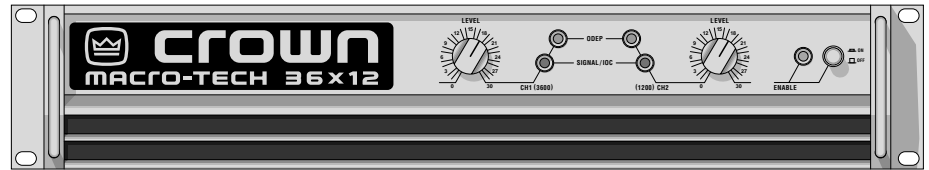


## MACRO-TECH SERIES

# MA-36x12



The Crown Macro-Tech Series is the defining standard for amplifier design today. No compromises, no gimmicks. Just brilliant engineering backed by superior manufacturing, support and an unsurpassed commitment to quality. Like all Crown amps, the defining characteristic of the Macro-Tech Series is sonic accuracy. A tight, rock-solid low end, with smooth, detailed highs and a well-defined midrange. In short, the most accurate reproduction of an audio signal you've ever heard. And because we put the quality of sound above all else, a Crown is the most coveted amplifier in the business.

When it comes to manufacturing amps, our work is based on one simple fact: there are no shortcuts to quality. And our Macro-Techs have proven it time and time again in some of the most demanding applications in the world.

Developing innovative products that meet your specific needs is what we're about. Our Macro-Tech 24x6 and 36x12 provide a practical solution to biamplified system applications such as stage monitors. Each amp combines a high- and medium-power module in a single, low-profile unit.

For more details about the Crown Macro-Tech Series, contact the Crown Technical Support Group at 800-342-6939 or 219-294-8200. Also, visit the Crown Audio website at [www.crownaudio.com](http://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:

<b>MA-36x12</b>		*1 kHz Power
<b>Channel 1 (3600)</b>		
2-ohm		<b>1,800W</b>
4-ohm		<b>1,565W</b>
8-ohm		<b>1,120W</b>
<b>Channel 2 (1200)</b>		
2-ohm		<b>675W</b>
4-ohm		<b>480W</b>
8-ohm		<b>310W</b>

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

### 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.
- PIP™ (Programmable Input Processor) connector accepts accessory modules that tailor the amplifier to suit specific applications.

- Convenient high- and medium-power channel design for biamplified systems such as stage monitors.
- Very low harmonic and intermodulation distortion results in the best dynamic transfer function in the industry.
- Balanced 1/4-inch (6.35-mm) phone jack inputs for each channel, with balanced XLR connectors on the standard PIP-FX module.
- Full protection from shorted, open and mismatched loads; general overheating; DC; high-frequency overloads; and internal fault conditions.
- Three Year, No-Fault, Fully-Transferable Warranty completely protects your investment and guarantees its specifications.

**Load Impedance:** Safe with all types of loads, even reactive ones. Rated for 2 to 16 ohms.

**Voltage Gain to 8-ohm load at rated output at 1 kHz, maximum level setting:**

**Channel 1 (3600):** 124.6:1 ±6% or 41.9 dB ±0.5 dB at 0.775-volt sensitivity; 69.2:1 ±6% or 36.8 dB ±0.5 dB at 1.4-volt sensitivity.

**Channel 2 (1200):** 64:1 ±6% or 36 dB ±0.5 dB at 0.775-volt sensitivity; 35.5:1 ±6% or 31 dB ±0.5 dB at 1.4-volt sensitivity.

20:1 ±6% or 26 dB ±0.5 dB at +26 dB sensitivity.

**Required AC Mains:** All units require 90 watts or less at idle. Current, voltage and frequency requirements are provided on the unit's back panel.

**AC Line Connector:** NEMA 5-15P.

### 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, 20 Hz to 20 kHz:

Better than 105 dB A-weighted or 100 dB unweighted 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 less than 0.1% at 20 kHz.

**Intermodulation Distortion (IMD):** (60 Hz and 7 kHz at 4:1) Less than 0.05% from 10 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.) Channel 1, greater than 30 volts per microsecond; Channel 2, greater than 13 volts per microsecond.

### 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.

**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:** A back-panel push button for each channel used to reset the circuit breaker that protects each power supply.

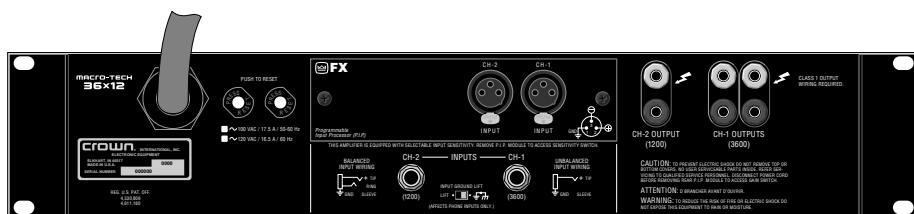
### Indicators

**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.

**ODEP:** Each channel has an amber front panel indicator that shows thermal-dynamic energy reserve. Normally, each ODEP indicator is lit to show available reserve energy. The indicator will dim proportionally as the energy reserve for its channel decreases. In the rare event

# MA-36x12



that a channel has no reserve, its indicator will turn off and the ODEP circuitry will limit the channel's output drive.

## Input/Output

**Input Connector:** Two balanced ¼-inch (6.35-mm) phone jacks on the back panel and two balanced three-pin female XLR connectors on the factory-installed PIP-FX.

**Input Impedance:** Nominally 20 k ohms, balanced. Nominally 10 k ohms, unbalanced.

**Maximum Input Level:** 13 volts peak.

**Input Sensitivity (for rated power at 1 kHz):** 0.775 volt, 1.4 volts, or a 26 dB voltage gain.

**Output Connectors:** Color-coded 5-way binding posts (for banana plugs, spade lugs or bare wire). Channel 1 (3600) has two pair of binding posts, and Channel 2 (1200) has one pair of binding posts.

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

**DC Output Offset:** (Shorted input)  $\pm 10$  millivolts.

**Output Signal:** Unbalanced, two-channel.

## 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 temperature. 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 modules including IQ-PIP modules. With the IQ-PIP-USP2 Adapter installed into the MA-36x12, the amplifier can accept the IQ-PIP-USP2 module.

## Construction

Steel chassis with durable black 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-inch (8.9-cm) height, 16-inch (40.6-cm) depth behind the mounting surface and 2.5-inch (6.3-cm) protrusion in front of the mounting surface.

**Center of Gravity:** Approximately 6 inches (15.2 cm) behind front mounting surface.

**Shipping Weight:** 59 lbs (26.8 kg).

## 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 219-294-8200.



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Specifications subject to change without prior notice. Latest information available at [www.crownaudio.com](http://www.crownaudio.com).

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