

## CONTRACTOR SERIES

**CH1  
CH2  
CH4**



Looking for a quality, constant voltage and low impedance two channel amplifier for your restaurant, nightclub, retail store, school or house of worship projects? The Crown® "Contractor Series" amplifiers are designed just for you.

CH-Series amplifiers can directly drive "constant voltage" lines, so you can avoid the expense of adding step-up transformers for distributed loud-speaker systems.

All Contractor-Series amplifiers feature Crown's exclusive SST (System Solutions Topologies) expansion system. The SST expansion system makes it easy to tailor your amplifier to a specific application or to add future technology as it develops.

With an incredibly wide range of power and feature/benefits, Contractor-Series amplifiers give the professional sound contractor more options. Crown quality is available at the best dollar-per-watt ratio on the market.

For more details about the Crown Contractor 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](http://www.crownaudio.com).

### Specifications

Note: All measurements apply to amplifiers in stereo mode with 8 ohm loads and an input sensitivity of 26 dB gain, 1 kHz at 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.  
4 and 8 ohm Stereo.  
16 ohm (CH1) or 8 ohm (CH2) or 4 ohm (CH4) at 70V Stereo.  
4, 8 and 16 ohm Bridge.  
32 ohm (CH1) or 16 ohm (CH2) or 8 ohm (CH4) at 140V Bridge.  
64 ohm (CH1) or 32 ohm (CH2) at 200V Bridge.

### Features

- Drives multiple impedances, with both low impedance and high impedance outputs per channel.
- High-pass filter for each channel provides low-frequency roll off to eliminate step down transformer saturation when used in 70V distributed systems.
- Shallow chassis design, allowing for installation in most wall-mount racks.
- Rear panel detented level controls allow for accurate level settings and secure operation.
- "Contractor-Correct" barrier strip output connectors allow for quick and easy connection, regardless of the load.
- Advanced protection circuitry guards against: shorted outputs, open circuits, DC, mismatched loads, general overheating, high-frequency overloads and internal faults.
- Can be mounted in standard (19-inch (48.3-cm)) rack, shallow (14-inch (35.56-cm)) rack, or stacked on top of each other.
- Accurate, uncolored sound with very low distortion for the best in music and voice reproduction.
- Three-Year, No-Fault, Fully Transferable Warranty completely protects your investment and guarantees its specifications.
- Crown's Profit Protection Plan guarantees quick, no-questions-asked replacement of your covered Contractor Series amplifier should it fail at any time up to 6 months following date of installation.

### Voltage Gain, 1 kHz, 1.4V sensitivity:

30.5 dB (CH1) or 32.1 dB (CH2) or 34 dB (CH4) at 8 ohms.  
34 dB (CH1) or 34 dB (CH2) or 34 dB (CH4) at 70V.

### AC Line Requirements:

Note: North American units are 60 Hz only. All other models are 50/60 Hz. Voltages are  $\pm 10\%$ .

### AC Line Current:

100V: 7.6A (CH1) or 11.4A (CH2) or 8.5A (CH4).  
120V: 6.3A (CH1) or 9.5A (CH2) or 7.1A (CH4).  
230-240V: 3.5A (CH1) or 5.0A (CH2) or 3.7A (CH4).

**AC Line Connector:** Detachable 15A IEC connector with country-specific plug.

### Performance

**Frequency Response, 20 Hz to 20 kHz at 1 watt:**  $\pm 0.1$  dB (CH1, CH2) or  $\pm 0.25$  dB (CH4).

**Phase Response:**  $\pm 15$  degrees deviation from linear phase from 20 Hz to 20 kHz at 1 watt.

**Signal to Noise Ratio, A-Weighted:** Better than 105 dB (CH1, CH2) or 102 dB (CH4) below rated 1-kHz power.

**Total Harmonic Distortion (THD), 1 kHz at rated power:** 0.5% or less true THD from 20 Hz to 20 kHz.

**Intermodulation Distortion (60 Hz and 7 kHz at 4:1):** Less than 0.1% (CH1, CH2) or 0.5% (CH4) at rated power to 30 dB below rated power at 8 ohms.

**Damping Factor (8 ohm):** Better than 400 (CH1, CH2) or 700 (CH4) from 10 Hz to 400 Hz.

**Crosstalk, 20 Hz to 20 kHz:** Better than 50 dB below rated power.

**Common Mode Rejection (CMR):** Better than 40 dB from 20 Hz to 1 kHz.

**DC Output Offset (shorted Input):**  $< \pm 10$  mV.

CH1	* 1 kHz Power
4 ohm Stereo (per channel)	<b>450W</b>
8 ohm Stereo (per channel)	<b>275W</b>
70V Stereo (per channel)	<b>300W</b>
8 ohm Bridge-Mono	<b>900W</b>
140V Bridge-Mono	<b>600W</b>

\* 1 kHz Power: refers to maximum average power in watts at 1 kHz with 0.5% THD.

CH2	* 1 kHz Power
4 ohm Stereo (per channel)	<b>660W</b>
8 ohm Stereo (per channel)	<b>400W</b>
70V Stereo (per channel)	<b>600W</b>
8 ohm Bridge-Mono	<b>1,320W</b>
140V Bridge-Mono	<b>1,200W</b>

\* 1 kHz Power: refers to maximum average power in watts at 1 kHz with 0.5% THD.

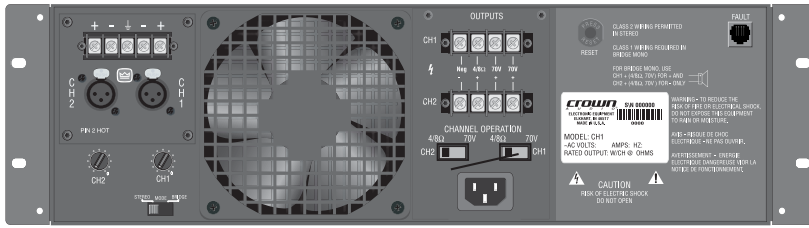
CH4	* 1 kHz Power
2 ohm Stereo (per channel)	<b>1,400W**</b>
4 ohm Stereo (per channel)	<b>1,200W</b>
8 ohm Stereo (per channel)	<b>600W</b>
70V Stereo (per channel)	<b>1,200W</b>
4 ohm Bridge-Mono	<b>2,800W**</b>
8 ohm Bridge-Mono	<b>2,400W</b>
140V Bridge-Mono	<b>2,400W</b>

\* 1 kHz Power: refers to maximum average power in watts at 1 kHz with 0.5% THD.  
\*\* $\geq 200$ V line voltage provides 1800W (2 ohm stereo) and 3600W (4 ohm bridge-mono).



INSTALLED

CH1  
CH2  
CH4



### Controls

**Level:** A detented rotary level control for each channel located on the rear panel.

**Power:** An on/off rocker switch located on the front panel.

**Mode:** A two-position switch located on the back panel which, when turned to "Stereo," operates the amplifier as two independent channels. When "Bridge" is selected, the amplifier bridges the two output channels for twice the output voltage.

**Channel Operation Switch:** A two-position switch located on the back panel which, when turned to 4/8 Ohm, sets the amplifier to drive low-impedance speaker loads. Turning the switch to 70V sets the amplifier to drive distributed high-impedance speaker loads and inserts a 70 Hz high-pass filter into the signal chain to prevent step-down transformer saturation.

### Indicators

**Signal:** A green indicator for each channel which flashes when a very low-level signal (> -40 dBm) is present at input. May be used for troubleshooting cable runs.

**Clip:** A red indicator for each channel which turns on when distortion becomes audible in the amplifier output.

**Fault:** A red indicator for each channel which indicates amplifier has muted output. Normally off. Status may be monitored remotely by plugging into back-panel RJ-11 Fault jack.

**Power:** A blue indicator that turns on when the amplifier has been turned on and has power.

### Input/Output

**Input Connector (standard module):** One per channel, 3-pin female XLR connector, in parallel with a barrier strip termination.

**Input Stage:** Input is electronically balanced and employs precision 1% resistors.

**Input Impedance (nominal):** 20 k ohms, balanced. 10 k ohms, unbalanced.

**Input Sensitivity:** Channel independent. Factory set at 1.4 volts for standard 1 kHz, 8 ohm power. 26 dB gain and 0.775 volt sensitivity available as a Service Option.

**Output Impedance:** See Figure 1.

**Output Connectors:** Four-terminal touch-proof barrier block, one per channel.

### Output Signal:

**Stereo:** Unbalanced, two-channel.

**Bridge-Mono:** Balanced, single-channel. Channel 1 controls are active; Channel 2 should be turned down.

### Protection

Contractor Series 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, large or dangerous DC offsets and turn-on/turn-off transients.

### Options

**Service Options:** SST-4622, SST-3632, SST-4632—custom two-channel crossover networks with equalization and delay purposely engineered for use with JBL model 4622, 3632 and 4632 cinema speakers. SST-SBSC 3632T, SST-SBSC 4632T—custom three-channel crossover networks with CD-horn equalization and mono-summed low-frequency outputs similarly designed for use with JBL model 3632T and 4632T cinema speakers.

### Construction

Rugged steel chassis is formed into a durable package, then finished with environmentally friendly powder coat for long life and ease of maintenance.

**Cooling:** Proportional speed fan in CH1 and CH2; 3-speed fan in CH4.

### Dimensions:

**Width:** EIA Standard 19-inch rack mount (EIA RS-310-B).

**Height:** 5.25 inches (13.34 cm).

### Depth (behind front mounting surface):

**CH1 and CH2:** 12.25 inches (31.11 cm) to back of amplifier.

**CH4:** 16.25 inches (36.56 cm) to back of amplifier.

**CH4:** 17.5 inches (14.45 cm) from back of front rack ears to back of speaker-terminal cover.

### Net Weight:

**CH1:** 40.6 lb (18.4 kg).

**CH2:** 48.3 lb (18.5 kg).

**CH4:** 33.4 lb (15.1 kg).

For shipping weight, add 6 lb (2.7 kg).

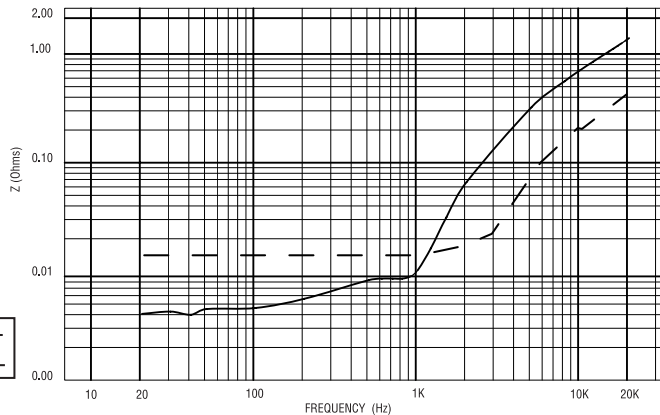


Figure 1 CH1, CH2, and CH4 Output Impedance

### 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.



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