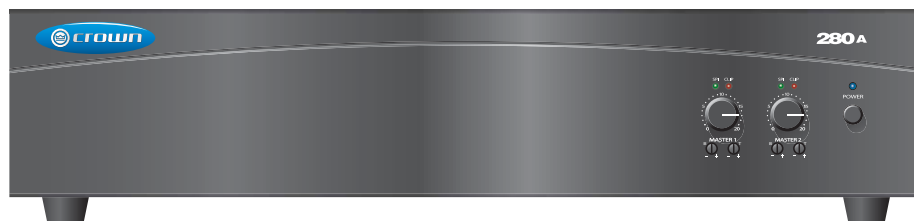


**COMMERCIAL AUDIO SERIES**

**180A**  
**280A**  
**1160A**



The Crown® 180A, 280A, and 1160A are high-value amplifiers for commercial and industrial audio. They provide 4-ohm and constant-voltage outputs (70V and 100V). The amps are part of Crown's Commercial Audio Series, which also includes mixers and mixer-amps. These low-cost units provide all necessary features in a simple building-block format.

The amplifiers vary in their number of inputs, number of outputs, and power range:

- 180A has 1 input and one 80W power amplifier for single-zone systems.
- 280A has 2 inputs and dual 80W power amplifiers for two-zone systems.
- 1160A has 1 input and one 160W power amplifier for single-zone systems.

Some applications include schools, hospitals, factories, restaurant/retail, houses of worship, fitness facilities, A/V boardrooms, prisons, and small offices. Typical uses are paging, background music, security and evacuation instructions.

The sound system can be upgraded as a facility expands. For example, you can add more mixers for more inputs, or add more power amps (or mixer-amps) to handle more zones.

## Specifications

### Performance

**Frequency Response** (at 1 watt from 4-ohm tap): 70 Hz to 19 kHz +/- 1 dB.

**Frequency Response** (at line out): 20 Hz to 20 kHz +/- 1 dB.

**Power Bandwidth** (at 4-ohm tap, 2 dB below maximum 1 kHz power): 50 Hz to 20 kHz with < 0.5% THD

**Signal to Noise Ratio** (ref. to rated power, master volume at minimum): 85 dB.

**DC Output Offset:** < ±5 mV.

**THD:** Less than 0.5% at rated power at 1 kHz.

**Input Sensitivity** (for full output at maximum gain): 800 mV.

**Input Impedance (nominal):** 100 kilohms.

### Minimum Load Impedance:

100V output: 160 ohms.

70V output: 80 ohms.

4-ohm output: 4/8 ohms.

**Crosstalk (all controls at "10"):** -70 dB at 1kHz.

**Line Output Level (nominal):** 1V into 10 kilohms.

### AC Line Voltages Available:

100V 50/60 Hz

120V 60 Hz

220V 50/60 Hz

230V 50/60 Hz

240V 50/60 Hz

## Features

- 1 or 2 inputs, 1 or 2 amplifier output channels.
- Ideal for commercial and industrial use
- Balanced Phoenix-type line inputs; touch-proofed screw-terminal speaker outputs
- Advanced protection system includes output current limiting, DC protection, circuit breaker/fuse, and thermal protection; details available online at [www.crownaudio.com](http://www.crownaudio.com)
- Three-Year, No-Fault, Fully Transferable Warranty completely protects your investment and guarantees its specifications

## 180A

\*1 kHz Power

Minimum guaranteed power into 4 ohms or 70V/100V output **80W**

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

## 280A

\*1 kHz Power

Minimum guaranteed power per channel into 4 ohms or 70V/100V output **80W**

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

## 1160A

\*1 kHz Power

Minimum guaranteed power into 4 ohms or 70V/100V output **160W**

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

**Operating Temperature/Humidity:** 0° C to 40° C at 95% relative humidity (non-condensing).

**Storage Temperature:** -20° C to 85° C.

## Front Panel Controls and Indicators

**Power Switch:** Pushbutton on-off switch. The power switch does not affect the 24V DC auxiliary power input.

**Power Indicator:** Blue LED indicates power on.

**Output Signal Presence Indicator:** Green LED, one for each output channel, illuminates when output signal level exceeds 100 mV (45 dB below full power) from the 4-ohm tap.

**Clip Indicators:** Red LED, one per output channel. Illuminates at threshold of audible distortion.

**Master Volume Controls:** One per output channel. Detented potentiometer with knob.

**Tone Controls:** Bass and Treble non-detented potentiometers on each channel. Bass ±10 dB at 100 Hz, Treble ±10 dB at 10 kHz.

## Back Panel Controls and Connectors

**Reset Switch:** Resets the circuit breaker that protects the power supply. 220/230/240V units have a fuse instead.

**AC Power Inlet:** Detachable IEC.

**Auxiliary Power Input:** 2-position terminal strip for 24 VDC (±10%) backup power. Accepts up to 14 AWG terminal forks.

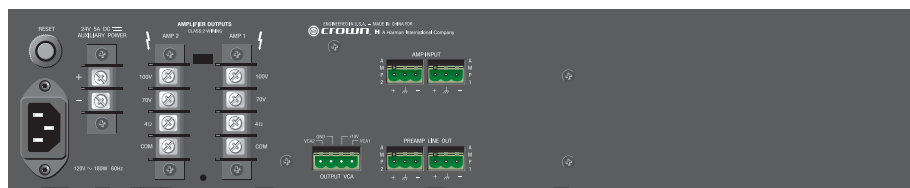
**Amplifier Outputs Connectors:** One per channel, 4-position terminal strip with COM (Common), 4 ohms, 70V and 100V terminals. Accepts up to 10 AWG terminal forks. Non-touch cover included.

**Output VCA Connector:** One for every two channels, 4-pin Phoenix-type connector for two VCA control lines of +10 VDC and ground. Compatible with Crown 1-VCAP and 4-VCAP modules.



INSTALLED

180A  
280A  
1160A



280A back panel. 180A and 1160A are similar except for the number of channels.

**Line Out Connector:** One 3-pin balanced Phoenix-type connector per output channel. Post master, pre-VCA. Level controlled by master volume control.

**Amp Input Connector:** 3-pin Phoenix-type, high-impedance balanced, one per amplifier channel.

**Cooling**  
Convection cooled.

**Protection**

**Current Limit Protection:** Included.

**Thermal Limit Protection:** Over-temperature thermal cutout.

**DC-Fault Load Protection:** Included.

**Included Accessories**

- Power cord
- Detachable rack ears
- Screws for rack ears
- Non-touch cover for output connectors
- Phoenix-type connectors
- Spade lugs

**Optional Accessories**

- 1-VCAP remote volume control for one channel.
- 4-VCAP remote volume control for four channels.

**Dimensions**

EIA Standard 19-inch (48.3-cm) rack mount width (EIA RS-310-B) with rack ears, 3.5-inch (8.9-cm) height and 12.2-inch (31.0-cm) depth behind the mounting surface (not including non-touch cover). 4.1 inches (10.5 cm) high including feet. 13.9 inches (35.2 cm) deep from front of knobs to back of non-touch cover.

**Weight**

**Net Weight:**

- 180A: 21.0 lb (9.5 kg)
- 280A: 25.3 lb (11.5 kg)
- 1160A: 25.3 lb (11.5 kg)

**Shipping Weight:**

- 180A: 26.0 lb (11.8 kg)
- 280A: 30.3 lb (13.7 kg)
- 1160A: 30.3 lb (13.7 kg)



H A Harman International Company

Crown International  
1718 W. Mishawaka Rd.  
Elkhart, IN 46517-9439  
TEL: 574-294-8200  
FAX: 574-294-8FAX  
www.crownaudio.com

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

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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.

**COMMERCIAL AUDIO SERIES**

# 660A



The Crown® 660A is a six-channel amplifier for commercial and industrial audio. It provides 4-ohm and constant-voltage outputs (70V and 100V) on channels 1 through 4, and 4-ohm outputs on channels 5 and 6.

The 660A has six inputs and six 60W power amplifier channels for multi-zone systems. It can drive different types of speakers in different areas of a facility.

Some applications include schools, hospitals, factories, restaurant/retail, houses of worship, fitness facilities, A/V boardrooms, 5.1 surround systems, courtrooms, and prisons. Typical uses are paging, background music, security and evacuation instructions.

The amp is part of Crown's Commercial Audio Series, which also includes mixers and mixer-amps. These low-cost units provide all necessary features in a simple building-block format.

The sound system can be upgraded as a facility expands. For example, you can add more mixers for more inputs, or add more power amps (or mixer-amps) to handle more zones.

## Specifications

### Performance

**Frequency Response** (at 1 watt from 4-ohm tap): 70 Hz to 19 kHz +/- 1 dB.

**Frequency Response** (at line out): 20 Hz to 20 kHz +/- 1 dB.

**Power Bandwidth** (at 4-ohm tap, 2 dB below maximum 1 kHz power): 50 Hz to 20 kHz with < 0.5% THD.

**Signal to Noise Ratio** (ref. to rated power, master volume at minimum): 85 dB.

**DC Output Offset:** < ±5 mV.

**THD:** Less than 0.5% at rated power at 1 kHz.

**Input Sensitivity** (for full output at maximum gain): 800 mV.

**Input Impedance (nominal):** 100 kilohms.

### Minimum Load Impedance:

100V output: 160 ohms.

70V output: 80 ohms.

4-ohm output: 4/8 ohms.

**Crosstalk (all controls at "10"):** -70 dB at 1kHz.

### Load Impedance:

Ch. 1-4: 4 ohms and 70V/100V.

Ch. 5-6: 4 ohms.

## Features

- Six inputs, six 60W amplifier output channels; 4-ohm and 70V/100V outputs
- Ideal for commercial and industrial use
- Balanced Phoenix-type line inputs; touch-proofed screw-terminal speaker outputs
- Advanced protection system includes output current limiting, DC protection, circuit breaker/fuse, and thermal protection; details available online at [www.crownaudio.com](http://www.crownaudio.com)
- Three-Year, No-Fault, Fully Transferable Warranty completely protects your investment and guarantees its specifications

### AC Line Voltages Available:

100V 50/60 Hz

120V 60 Hz

220V 50/60 Hz

230V 50/60 Hz

240V 50/60 Hz

**AC Voltage Tolerance:** +10%/-20%.

**Operating Temperature/Humidity:** 0° C to 40° C at 95% relative humidity (non-condensing).

**Storage Temperature:** -20° C to 85° C.

### Front Panel Controls and Indicators

**Power Switch:** Pushbutton on-off switch.

**Power Indicator:** Blue LED indicates power on.

**Output Signal Presence Indicator:** Green LED, one for each output channel, illuminates when output signal level exceeds 100 mV (45 dB below full power) from the 4-ohm tap.

**Clip Indicators:** Red LED, one per output channel. Illuminates at threshold of audible distortion.

**Volume Controls:** One per output channel. Detented potentiometer with knob.

**Tone Controls:** Bass and Treble non-detented potentiometers on each channel. Bass ±10 dB at 100 Hz, Treble ±10 dB at 10 kHz.

### Back Panel Controls and Connectors

**Reset Switch:** Resets the circuit breaker that protects the power supply. 220/230/240V units have a fuse instead.

**Input Connectors:** Detachable 3-pin Phoenix-type, high-impedance balanced, one per channel.

**AC Power Inlet:** Detachable IEC.

**Amplifier Outputs Connectors:** One per channel, 4-position terminal strip with COM (Common), 4 ohms, 70V and 100V terminals for channels 1-4 and one 4-position terminal strip (4 ohms, + and - for each channel) for channels 5 and 6. Accepts up to 10 AWG terminal forks. Non-touch cover included.

**VCA Connector:** Each pair of channels has a 4-pin Phoenix-type connector for two VCA control lines of +10 VDC and ground. Compatible with Crown 1-VCA and 4-VCA modules.

### Cooling

Convection cooled.

### Protection

**Current Limit Protection:** Included.

**Thermal Limit Protection:** Over-temperature thermal cutout.

**DC-Fault Load Protection:** Included.

**Turn On/Turn Off:** No thumps or pops.

### Included Accessories

Power cord

Detachable rack ears

Screws for rack ears

Non-touch cover for output connectors

Phoenix-type connectors

Spade lugs

## 660A

\*1 kHz  
Power

Minimum guaranteed power into 4 ohms or 70V/100V output

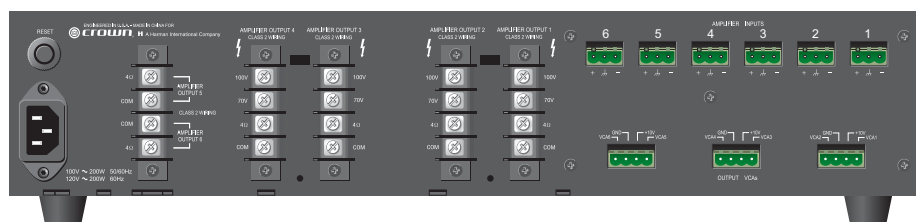
**60W**

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



INSTALLED

# 660A



660A back panel

### Optional Accessories

- 1-VCAP remote volume control for one channel.
- 4-VCAP remote volume control for four channels.

### Dimensions

EIA Standard 19-inch (48.3-cm) rack mount width (EIA RS-310-B) with rack ears, 3.5-inch (8.9-cm) height and 12.2-inch (31.0-cm) depth behind the mounting surface (not including non-touch cover). 4.1 inches (10.5 cm) high including feet. 13.9 inches (35.2 cm) deep from front of knobs to back of non-touch cover.

### Weight

- Net Weight:**  
30.3 lb (13.7 kg)
- Shipping Weight:**  
35.3 lb (16.0 kg)



H A Harman International Company

Crown International  
1718 W. Mishawaka Rd.  
Elkhart, IN 46517-9439  
TEL: 574-294-8200  
FAX: 574-294-8FAX  
[www.crownaudio.com](http://www.crownaudio.com)

### 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.

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

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