

6-Room + 2 Audio System

The Crestron® [C2N-AMP-6X100](#) and [C2NI-AMP-6X100](#) are versatile and cost-effective multiroom audio systems designed for small to moderate-sized houses, condominiums, and businesses. Its integrated multichannel power amplifier provides ample power for up to six rooms, which can be expanded with additional C2N-AMP-6X100 units, or by connecting external amplifiers to the two extra line-level room outputs.

The C2N-AMP-6X100 and C2NI-AMP-6X100 are functionally identical. For simplicity within this guide, the term "C2N-AMP-6X100" is used except where noted.



Install

Refer to the [Safety Instructions](#) (Doc. 6607) prior to installation.

The C2N-AMP-6X100 can be placed on a table or installed in a rack.

Place on a Table

Place the C2N-AMP-6X100 on a table or stack on top of another device.

Rack Installation

The C2N-AMP-6X100 occupies 2U of rack space. Use a # 1 Phillips screwdriver to remove the three screws from the front part of each side panel. Attach the two included rack ears to the device with the 6 included screws as shown in the illustration on the following page. Then mount the device into the rack using four rack mounting screws (not included).



In the Box

- 1 C2N(I)-AMP-6X100 6-Room + 2 Audio System

Additional Items

- 2 Bracket, Rack Ear, 2U (2034434)
- 2 Connector, 4-Pin (2003576)
- 6 Connector, 4-Pin, Right-Angle (2003584)
- 1 Label, Custom, Identification (4509950)
- 1 Label, Filler Strip, Cardstock, 11.9 in. x 0.4 in. (4520506)
- 1 Label, Filler Strip, Cardstock, 7.9 in. x 0.4 in. (4520508)
- 6 Screw, 6-32 x 5/16 in., Undercut Head, Phillips (2007223)

C2N-AMP-6X100 Only

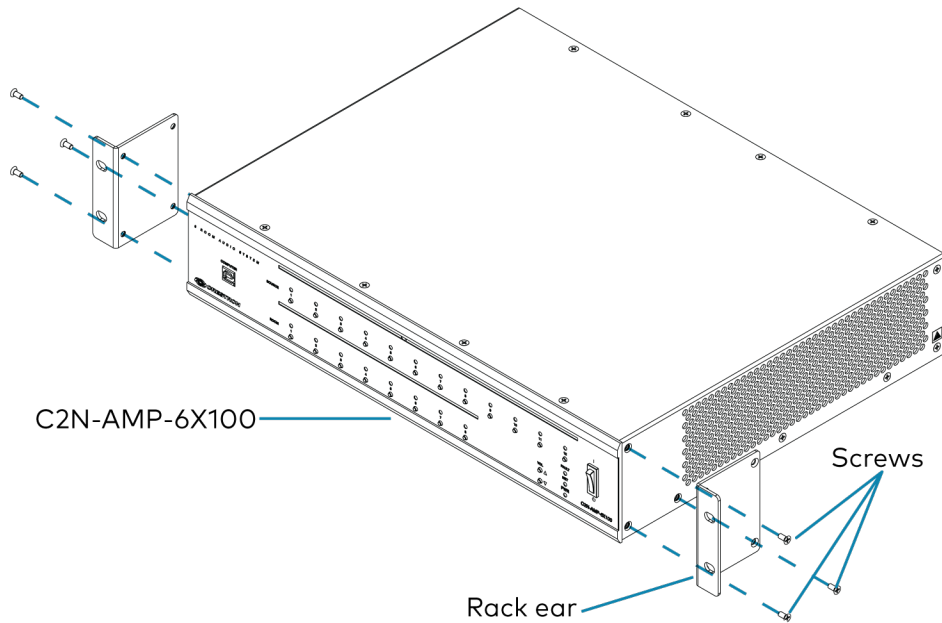
- 1 Power Cord, 6 ft 7 in. (2 m) (2001134)

C2NI-AMP-6X100 Only

- 1 Power Cord (varies by country)

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Attach Rack Ears



Rack Mounting Safety Precautions

Elevated Operating Ambient Temperature: If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient temperature. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (T_{ma}) specified by the manufacturer.

Reduced Airflow: Installation of the equipment in a rack should be such that the amount of airflow required for safe operation of the equipment is not compromised.

Mechanical Loading: Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.

Circuit Overloading: Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.

Reliable Earthing: Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g., use of power strips).

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Connect

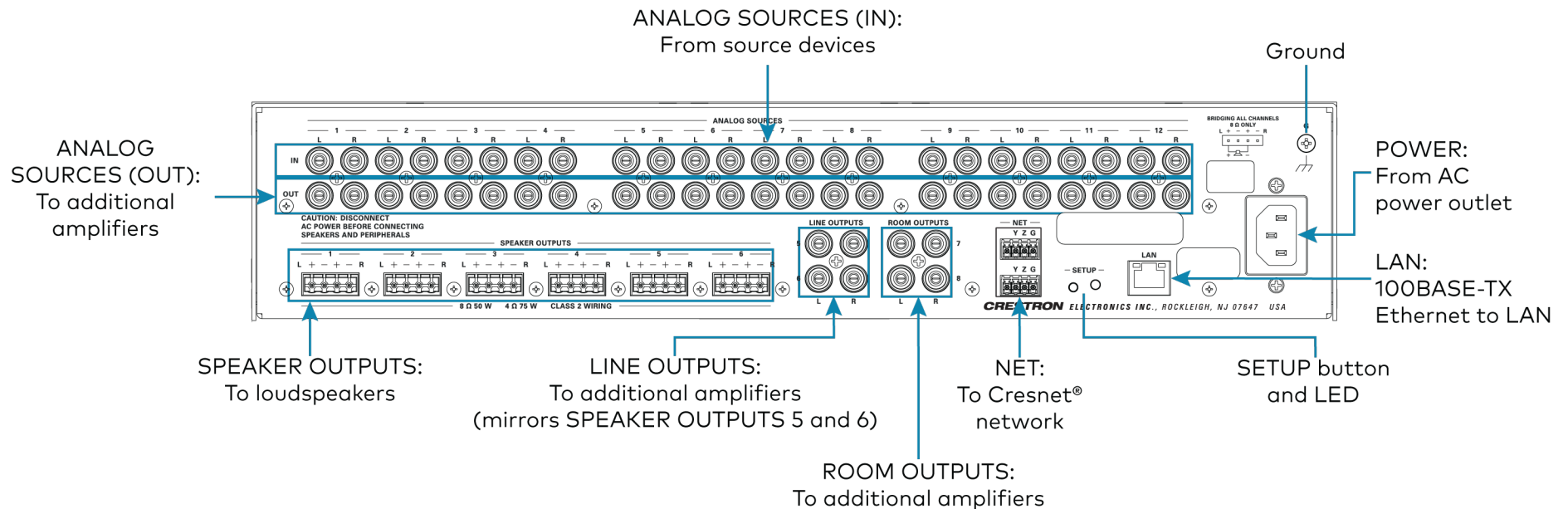
Connect the device as called out in the following illustrations. Connect power last.

WARNING: This amplifier is capable of delivering large amounts of undistorted power to the loudspeakers. Please use caution and adequate ear protection if listening to content at high volume levels as continued exposure to high sound pressure levels can cause permanent hearing impairment or loss.

CAUTION:

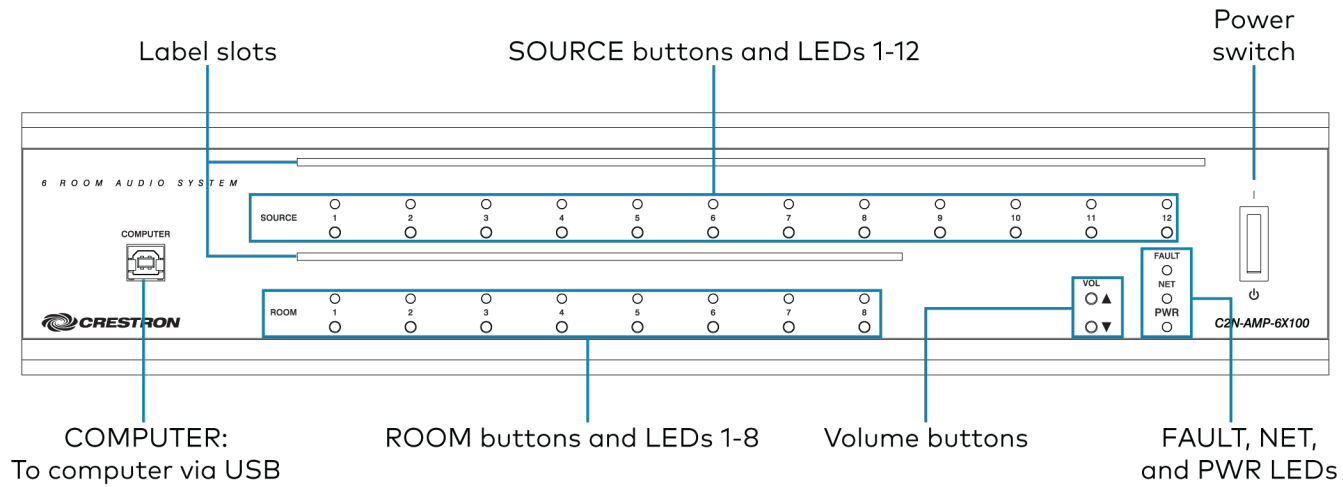
- Keep the device unplugged until all of the input, network, output, and speaker wiring is complete.
- Check the speaker cables for shorts and frayed wiring around the SPEAKER OUTPUTS connectors.

C2N-AMP-6X100 rear panel



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C2N-AMP-6X100 front panel



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Connect Devices

The C2N-AMP-6X100 connects to a Crestron control system and Cresnet devices over Ethernet or Cresnet.

LAN Port

Connect the LAN port to a LAN to communicate with a Crestron control system over Ethernet.

NET Port

Connect the NET ports to other Cresnet devices to communicate with a Crestron control system over Cresnet.

Connect Audio Sources

ANALOG SOURCES IN 1 - 12 receive unbalanced analog audio through RCA connectors.

Connect Audio Outputs

ANALOG SOURCES OUT 1 - 12

ANALOG SOURCES OUT 1 - 12 are paralleled with their respective inputs for connection to additional C2N-AMP-6X100 units or external audio preamplifiers or receivers through RCA connectors.

LINE OUTPUTS 5 and 6

LINE OUTPUTS 5 and 6 provide stereo line-level audio outputs through RCA connectors. The outputs mirror the signals sent to SPEAKER OUTPUTS 5 and 6.

ROOM OUTPUTS 7 and 8

ROOM OUTPUTS 7 and 8 provide stereo line-level audio outputs for rooms 7 and 8 through RCA connectors.

SPEAKER OUTPUTS 1 - 6

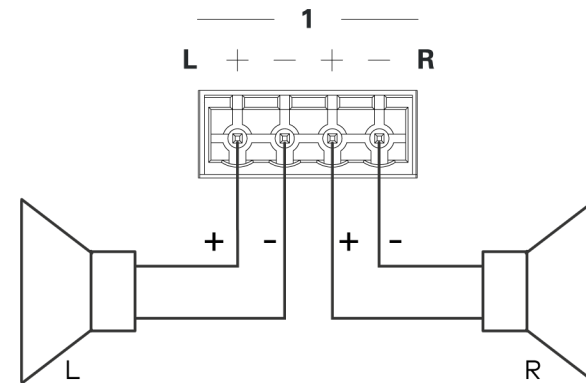
Speakers outputs can be configured and wired for stereo, bridged stereo, mono, or bridged mono operation. Each output's mode of operation is set independently (unless it is part of a bridged pair) with Crestron programming software such as SIMPL Windows. For details, refer to the programming software's help file.

Stereo Operation

Use stereo operation to send a stereo signal to a speaker output with separation of the left and right audio channels.

Connect a speaker output as shown for stereo operation.

Stereo wiring



NOTE: When signals are routed to room 5 or 6, their respective LINE OUTPUT connectors carry the same signals.

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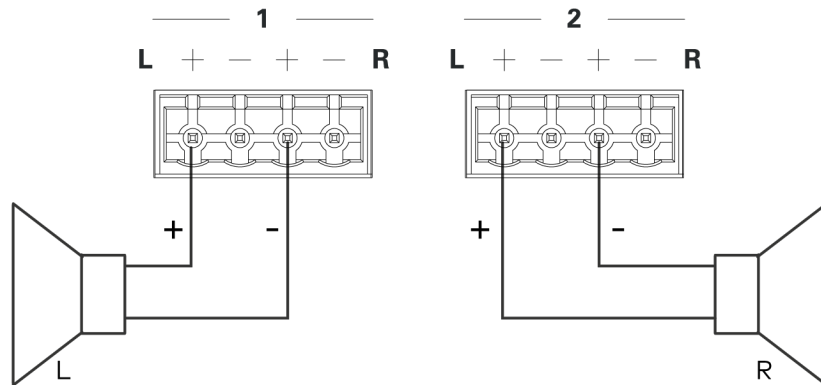
Bridged Stereo Operation

Use bridged stereo operation to pair speaker outputs for use in high-power applications (up to 150 W to an 8 ohm speaker) while maintaining separation of the left and right audio input channels. The C2N-AMP-6X100 can enable the following SPEAKER OUTPUT pairs for bridged stereo operation.

- SPEAKER OUTPUT 1 paired with SPEAKER OUTPUT 2
- SPEAKER OUTPUT 3 paired with SPEAKER OUTPUT 4
- SPEAKER OUTPUT 5 paired with SPEAKER OUTPUT 6

Connect a pair of speaker outputs as shown for bridged stereo output.

Bridged stereo wiring



NOTES:

- Two adjacent room outputs are required. SPEAKER OUTPUT 1 is paired with SPEAKER OUTPUT 2. SPEAKER OUTPUT 3 is paired with SPEAKER OUTPUT 4. SPEAKER OUTPUT 5 is paired with SPEAKER OUTPUT 6.
- To adjust the volume of a pair of bridged speaker outputs, select **ROOM 1** for control of speaker outputs 1 and 2, **ROOM 3** for control of speaker outputs 3 and 4, or **ROOM 5** for control of speaker output 5 and 6. For instructions on adjusting volume, refer to [Adjust Room Volume](#).
- When bridged signals are routed to paired room 5 and 6, LINE OUTPUT 5's L connector carries the left channel signal and LINE OUTPUT 6's L connector carries the right channel signal. The right LINE OUTPUT connectors do not carry signals.

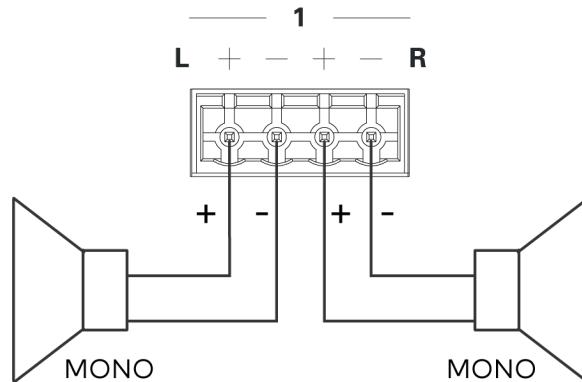
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Mono Operation

Use mono operation to sum the left and right input channels to a mono signal that is sent to both channels of a speaker output.

Connect a speaker output as shown for mono operation.

Mono wiring



NOTE: When signals are routed to room 5 or 6, the respective left and right LINE OUTPUT connectors carry the same mono signal.

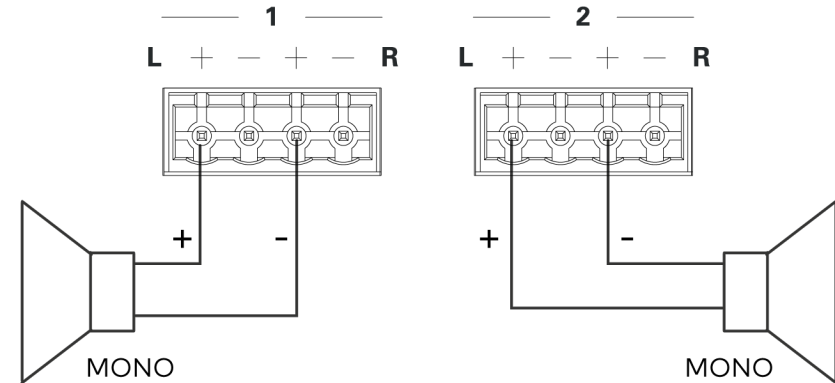
Bridged Mono Operation

When set for bridged mono operation, C2N-AMP-6X100 sums the left and right input channels to a mono signal and sends the signal to both channels of a paired speaker output for high-power applications (up to 150 W to an 8 ohm speaker). The C2N-AMP-6X100 can enable the following SPEAKER OUTPUT pairs for bridged mono operation.

- SPEAKER OUTPUT 1 paired with SPEAKER OUTPUT 2
- SPEAKER OUTPUT 3 paired with SPEAKER OUTPUT 4
- SPEAKER OUTPUT 5 paired with SPEAKER OUTPUT 6

Connect a pair of speaker outputs as shown for bridged mono output.

Bridged mono wiring



NOTES:

- Two adjacent room outputs are required. SPEAKER OUTPUT 1 is paired with SPEAKER OUTPUT 2. SPEAKER OUTPUT 3 is paired with SPEAKER OUTPUT 4. SPEAKER OUTPUT 5 is paired with SPEAKER OUTPUT 6.
- To adjust the volume of a pair of bridged speaker outputs, select **ROOM 1** for control of speaker outputs 1 and 2, **ROOM 3** for control of speaker outputs 3 and 4, or **ROOM 5** for control of speaker output 5 and 6. For instructions on adjusting volume, refer to [Adjust Room Volume](#).
- When bridged signals are routed to paired room 5 and 6, the LINE OUTPUT L connectors carry the mono signals. The LINE OUTPUT R connectors do not carry signals.

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Label Buttons

The **SOURCE** and **ROOM** buttons can be customized with the included labels and label inserts.

1. Apply the peel-and-stick labels to the appropriate locations on the label inserts.

NOTES:

- The label locations must match the locations set in the programming software.
- For the best appearance, the labels should cover the white guidelines on the label inserts.

2. Carefully slide the label inserts into the label slots.



Operation

The C2N-AMP-6X100 can be controlled from the front panel.

Power

- Move the **POWER** switch to **I** to turn on the C2N-AMP-6X100.
- Move the **POWER** switch to **⏻** to turn off the C2N-AMP-6X100.

Status LEDs

- **PWR:** The **PWR** LED indicates standby or booting up (amber), or power (green).
- **NET:** The **NET** LED indicates communication with a Cresnet system.
- **FAULT:** When lit, the **FAULT** LED indicates a temperature, DC, or over current fault condition.

Route Sources

Select sources and rooms to connect to the selected source. Multiple rooms can be connected and disconnected from a source.

Select a Source

Press a **SOURCE** button. The associated **SOURCE** LED will light.

NOTE: If a room is already connected to the source, its associated **ROOM** LED will light.

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Connect a Room to a Source

With a source selected, press any **ROOM** button to connect it to the source. The associated **ROOM** LED will light.

NOTES:

- If SPEAKER OUTPUTS 1 and 2 are bridged, the **ROOM 1** button and LED act in unison with the **ROOM 2** button and LED.
- If SPEAKER OUTPUTS 3 and 4 are bridged, the **ROOM 3** button and LED act in unison with the **ROOM 4** button and LED.
- If SPEAKER OUTPUTS 5 and 6 are bridged, the **ROOM 5** button and LED act in unison with the **ROOM 6** button and LED.

Disconnect a Room from a Source

Press a connected room's **ROOM** button to disconnect it from a source. The associated **ROOM** LED will turn off.

Adjust Room Volume

The volume level of a room is adjusted by placing the room in the Volume Control mode.

1. Press and hold the **ROOM** button of a connected room for 2 seconds to enter the Volume Control mode.
2. Press ▲ or ▼ to raise or lower the volume level in 1 dB increments or hold ▲ or ▼ to ramp the volume up or down in 1 dB/0.1 second increments.

NOTE: If the maximum or minimum volume level is reached, all of the LEDs will blink 3 times.

3. Press the **ROOM** button to exit the Volume Control mode.

NOTE: If ▲ or ▼ is not pressed for 10 seconds, the device will exit the Volume Control mode.



Visit the Product Page

Scan the QR code to visit the product page.

C2N-AMP-6X100



www.crestron.com/model/6506963

C2NI-AMP-6X100



www.crestron.com/model/6506964

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Additional Information

For information on RoHS declarations for the C2N-AMP-6X100, refer to the [C2N-AMP-6X100 Notice](#) (Doc. 8843).

Regulatory Models: C2N-AMP-6X100, C2NI-AMP-6X100

Original Instructions

The U.S. English version of this document is the original instructions. All other languages are a translation of the original instructions.

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