

**AMP-150-70/AMP-150-100/AMP-225/AMP-1200-70/AMP-1200-100/
AMP-2100/AMP-2100-70/AMP-2100-100
Modular Amplifiers**

The Crestron® Modular Amplifier Series can be configured for individual module use on a flat surface or ganged together (one or more modules) with the slide-lock system for installation in a 1U rack space. The amplifiers are functionally similar to each other with varying capabilities. For simplicity within this guide, the term “amplifier” is used except where noted.

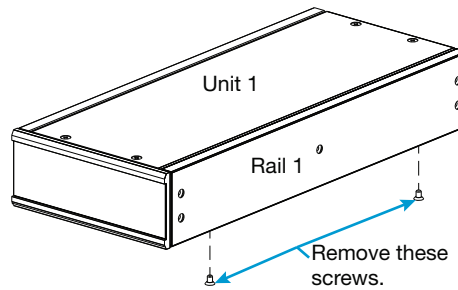
DO Assemble the Device

If a single amplifier is to be used on a flat surface, refer to “Placing onto a Flat Surface.” Otherwise, continue below for instructions on creating an amplifier assembly that can be placed in a standard equipment rack. The only tools needed are a #1 or # 2 Phillips screwdriver, and a 1/4" nut driver.

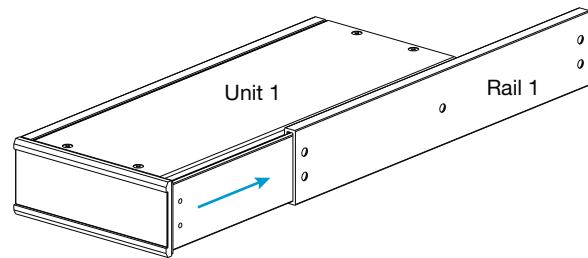
Gang Amplifiers Together

Perform the following procedure to gang amplifiers together. Refer to the diagrams.

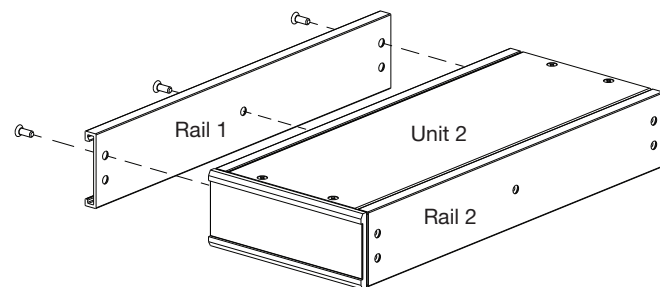
1. Remove the two screws securing rail 1 to the amplifier (unit 1).



2. Remove rail 1 from unit 1 by sliding it off the side of the amplifier.

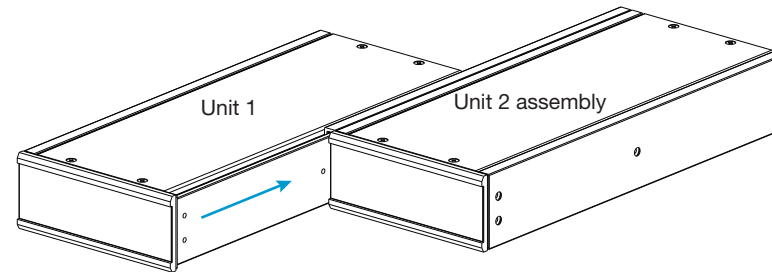


3. Attach rail 1 to unit 2 using the three included Phillips-head screws. Make sure that the screw holes on the underside of rail 1 are on the bottom.

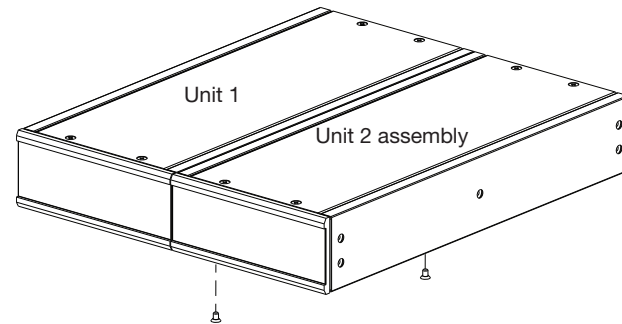


NOTE: Do not remove rail 2.

4. Slide unit 1 into the unit 2 assembly.



5. Secure unit 1 to the unit 2 assembly with the two screws removed in step 1.



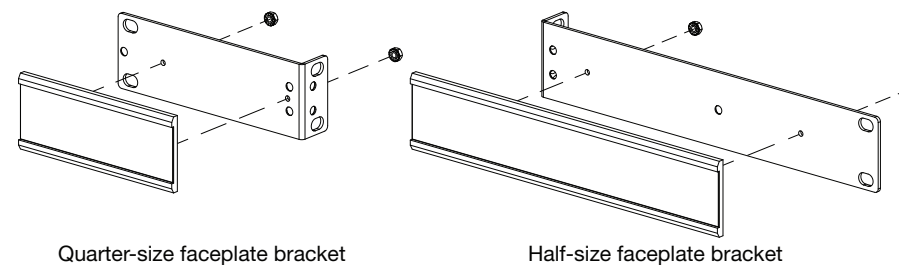
6. Repeat steps 1 through 5 for additional amplifiers.

Configure for Rack Installation

Before an amplifier can be installed in a rack, additional hardware must be installed.

Assemble Faceplates

When an amplifier or group of amplifiers is not wide enough to mount in a rack, faceplates must be assembled to “widen” the amplifier to fit. Assemble a faceplate by attaching an extrusion plate to a quarter-width or half-width rack ear, as shown in the following diagrams. Secure the extrusion plate to the rack ear using a 1/4" nut driver and the included nuts.



Quarter-size faceplate bracket

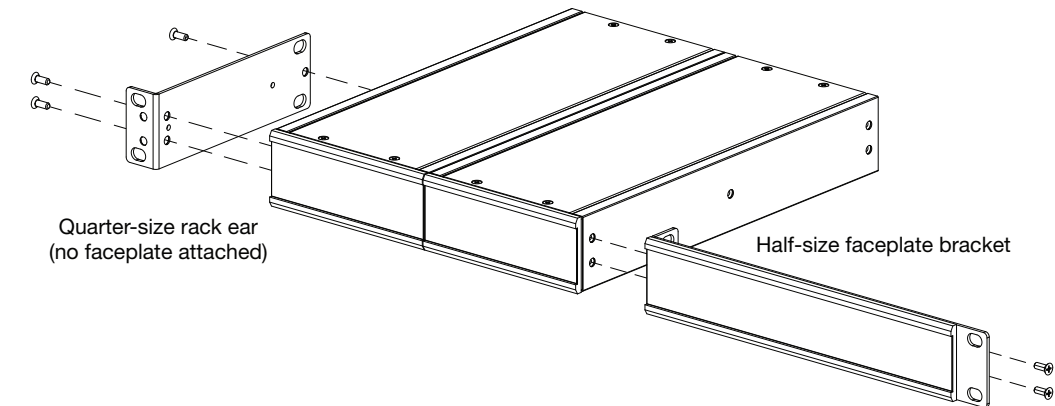
Half-size faceplate bracket

DO Check the Box

QUANTITY	ITEM	PART NUMBER
1	Attenuator Cover, Magnetic, Security	4525789
2	Bracket, Wall Mount	2046992
1	Connector, 5-Pin	2003577
1	Extrusion Plate, Half-Width	4525245
1	Extrusion Plate, Quarter-Width	4525244
4	Foot, 0.5" x 0.5" x 0.23", Adhesive	2002389
4	Nut, 04-40, Keps	2004878
1	Power Cord, 6' 7" (2 m)	2001134
1	Rack Ear, 1U, Half-Width	2046652
1	Rack Ear, 1U, Quarter-Width	2046651
6	Screw, 6-32 x 3/8", Undercut Head, Phillips	2007235
AMP-150-70, AMP-150-100, AMP-1200-70, and AMP-1200-100 Only		
1	Connector, 2-Pin	2044402
AMP-225, AMP-2100, AMP-2100-70, and AMP-2100-100 Only		
2	Connector, 2-Pin	2044402

Attach Rack Ears to Amplifiers

Attach the faceplate bracket(s) or rack ears, as required, to the amplifier(s). Refer to the following diagram for details.



NOTE: Do not attach faceplates to rack ears that are attached to the length of the amplifier.

DO Install the Device

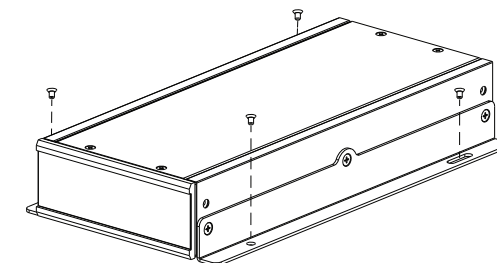
Once assembled, the amplifier can be mounted into a rack, mounted onto a flat surface, or placed onto a flat surface.

Mount into a Rack

Each amplifier occupies 1U of rack space. Using a #1 or #2 Phillips screwdriver, mount the device into the rack using four mounting screws (not included).

Mount onto a Flat Surface

1. Install the wall mount brackets with three Phillips-head screws (included) per side.
2. Secure the amplifier to a flat surface using four mounting screws (not included).



Place onto a Flat Surface

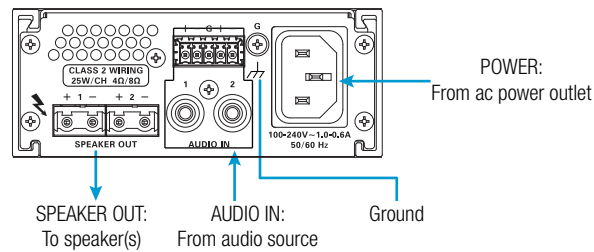
Attach the included feet to place the amplifier(s) on a flat surface.



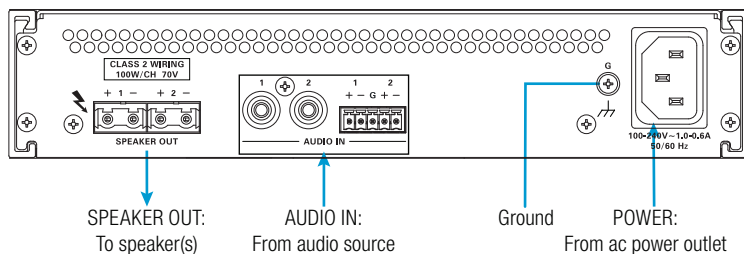
DO Connect the Device

Make the necessary connections as called out in the following diagrams. Connect power last.

AMP-150-70, AMP-150-100, and AMP-225 (AMP-150-100 shown)



AMP-1200-100, AMP-1200-70, AMP-2100, AMP-2100-70, and AMP-2100-100 (AMP-2100-100 shown)



CAUTION:

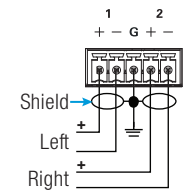
- Keep the device unplugged until all of the input and speaker wiring is complete.
- Check the speaker wires for shorts and frayed wiring around the SPEAKER OUT connectors.

NOTES:

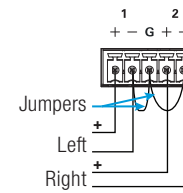
- On the AMP-150 and AMP-1200, the left and right inputs are summed to the output of the amplifier.
- Ensure the unit is properly grounded by connecting the chassis ground lug to an earth ground (building steel).
- To prevent overheating, do not operate this product in an area that exceeds the environmental temperature range listed in the product's table of specifications on the Crestron website (www.crestron.com/Products/audio/amplifiers/audio-amplifiers-modular-amplifiers).

When connecting an input signal, use either the RCA connection or the 5-pin terminal block connector. The 5-pin terminal block connector can be connected to balanced and unbalanced sources. Refer to the following diagrams for connecting a source.

Wiring for Balanced Input



Wiring for Unbalanced Input



DO Operate the Device

Apply Power

To turn the amplifier and audio outputs on, connect the included power cord to the power connector on the rear of the amplifier.

LED Operation

The LEDs on the front panel provide the following information:

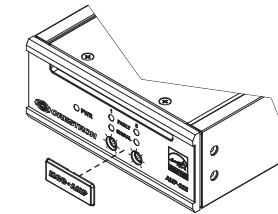
LED	DESCRIPTION
PWR	Green: The amplifier is operating normally. Amber: The amplifier is asleep.
FAULT	Red: There is a fault on the indicated channel.
SIGNAL	Green: An audio signal is present. Red: The audio signal is clipped.

Adjust the Signal Levels

WARNING: This amplifier is capable of delivering high 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.

Each input has its own signal level control that can be adjusted as necessary to balance the sound between inputs or to accommodate different audio sources. To adjust the level of an input, follow this procedure:

- If the magnetic attenuator cover is installed, remove it from the front of the amplifier.



- Use a Phillips screwdriver to turn the knob clockwise to increase the signal level or counterclockwise to reduce the signal level.
- Attach the magnetic attenuator cover.

DO Learn More

Visit the website for additional information and the latest firmware update. To learn more about this product, use a QR reader application on your mobile device to scan the QR images.

Crestron Electronics

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As of the date of manufacture, the product has been tested and found to comply with specifications for CE marking.



These products are Listed to applicable UL® Standards and requirements tested by Underwriters Laboratories Inc. Ces produits sont énumérés aux normes applicables et les exigences UL par Underwriters Laboratories Inc.



This symbol indicates a potential shock hazard.

This equipment is not suitable for use in locations where children are likely to be present.

Federal Communications Commission (FCC) Compliance Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

CAUTION: Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Industry Canada (IC) Compliance Statement

CAN ICES-3(B)/NMB-3(B)

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).

Electrical Connection

"This product must be connected to an earthed mains socket-outlet."

- Finland:** "Laitte on liitettävä suojamaadoituskoskettimilla varustettuun pistorasiaan."
- Norway:** "Apparatet må tilkoples jordet stikkontakt."
- Sweden:** "Apparaten skall anslutas till jordat uttag."

The specific patents that cover Crestron products are listed at www.crestron.com/legal/patents.

Certain Crestron products contain open source software. For specific information, please visit www.crestron.com/opensource.

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This document was written by the Technical Publications department at Crestron.

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The product warranty can be found at www.crestron.com/warranty.