

AMP-X300

X Series Amplifier

The Crestron® AMP-X300 is a compact, versatile amplifier that can be configured for use on a flat surface or installed in a 1 RU rack space. The supplied joining plates enable two amplifiers to be ganged together in a single rack space.



In the Box

- 1 AMP-X300, X Series Amplifier
- Additional Items**
- 4 Plate, Joining (2055198)
- 8 Screw, 8-32 x 5/16 in., Flat Head, Phillips, Black (2055195)
- 4 Screw, 6-32 x 3/8 in., Undercut Head, Phillips (2055196)
- 4 Foot, Adhesive, Black (2055200)
- 2 Rack Ear Assembly, 1U, Quarter-width (2055197), includes Bracket, Rack Ear, 1U (2055199)
- 2 Connector, Speaker (2055206)
- 4 Connector, Input (2055207)
- 1 Connector, 2-Pin (2003574)
- 1 Power cord (2055205)



Assemble

Prepare for Installation

The amplifier can be installed in a rack, mounted on a surface, or placed on a surface.

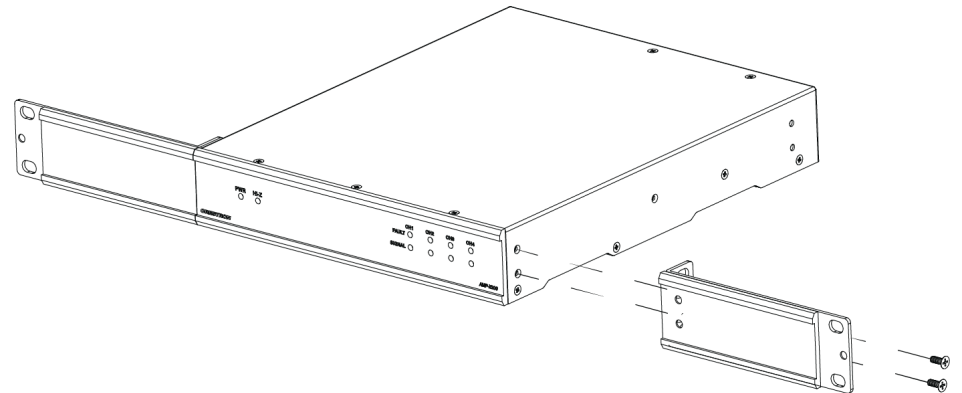
Rack Installation

Before an amplifier can be installed in a rack, rack ears must be attached.

Single Amplifier

Attach the rack ears to the amplifier with the four included 6-32 x 3/8 in. screws.

Attach Rack Ear, Single Amp



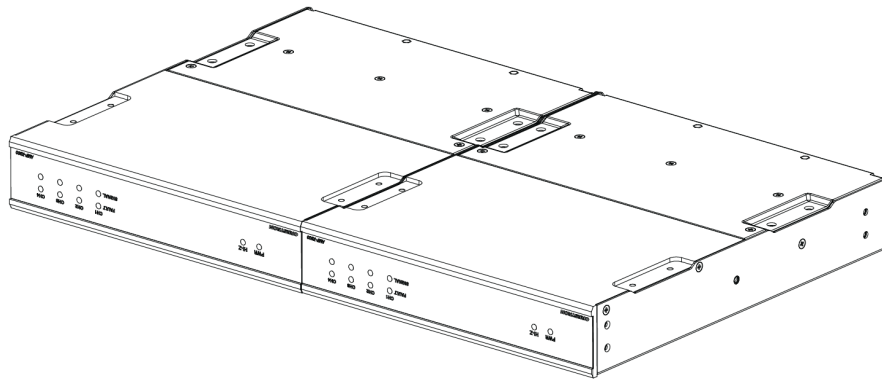
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Ganged Amplifiers

Two amplifiers can be ganged together while occupying only 1 RU of rack space. When ganged together, the amplifier assembly occupies the entire width of the rack.

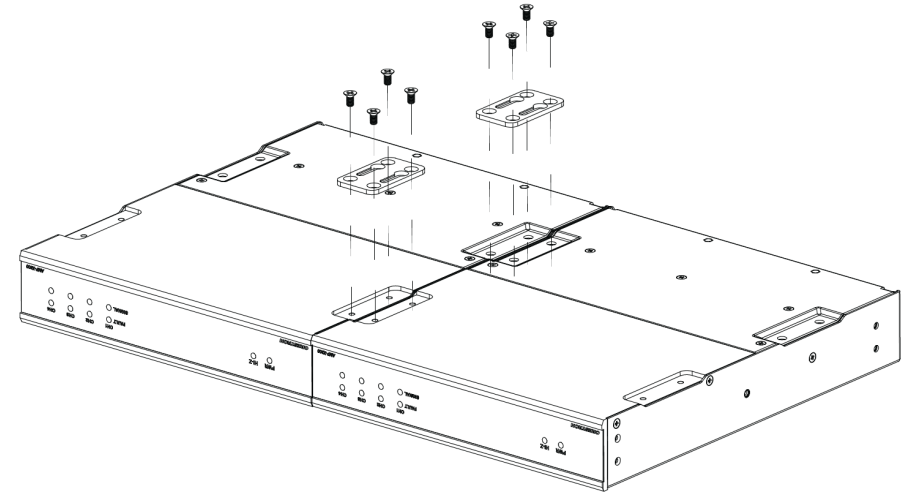
1. Place amplifiers upside-down and adjacent to each other, on a flat surface.

Position amplifiers together



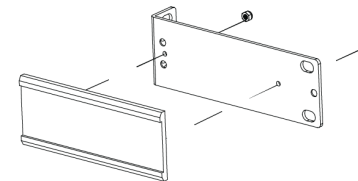
2. Use a Phillips screwdriver to gang the amplifiers together with two of the included joining plates and the eight included 8-32 x 5/16 in. screws.

Attach joining plates



3. Use a wrench or M5.5 socket to remove the nuts from the rack ears.

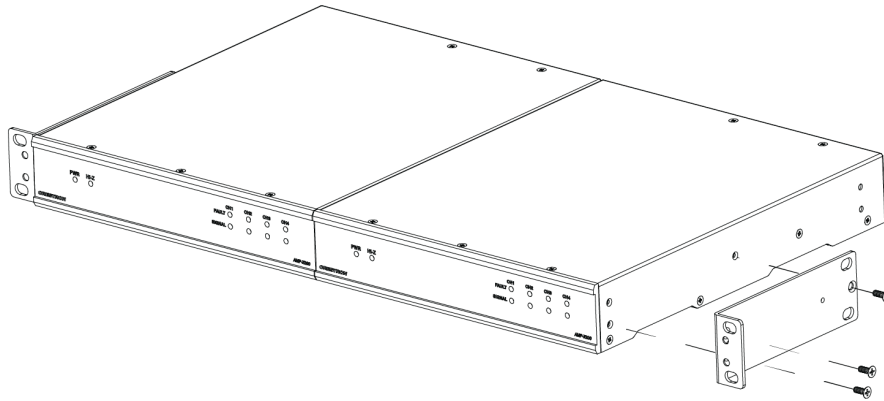
Remove nuts from rack ear



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- Turn over the amplifier assembly and attach the rack ears to each side of each amplifier with six 6-32 x 3/8 in. screws.

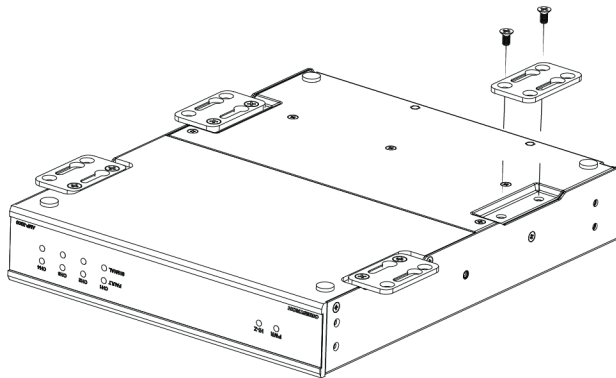
Attach Rack Ear, Double Amp



Surface Mount

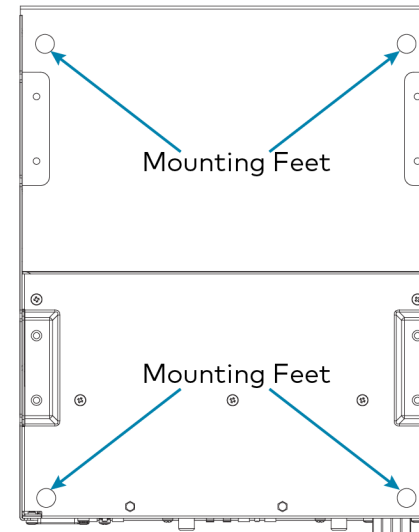
Use the eight included 8-32 x 5/16 in. screws to attach the four joining plates to the amplifier.

Attach joining plates



Surface Placement

Attach the four included feet if the amplifier is to be placed on a flat surface.



X Series Amplifier



Install

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

WARNING: To prevent bodily injury when mounting or servicing the unit in a rack:

- When mounting the unit into a partially filled rack, load the rack from the bottom to the top with the heaviest component at the bottom of the rack.
- If the rack is provided with stabilizing devices, install the stabilizers before mounting or servicing the unit in the rack.

NOTE: Observe the following rack mount installation guidelines:

- **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).

Mount into a Rack

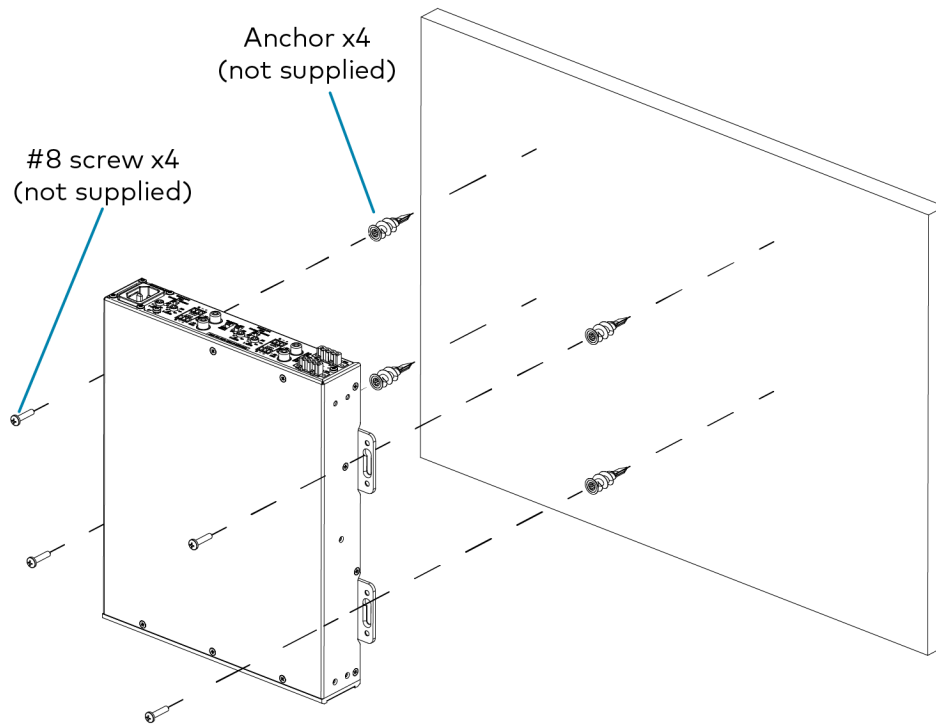
Each amplifier occupies 1 RU of rack space. Mount the device with the rack ears attached into the rack using four mounting screws (not included).

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Mount on a Flat Surface

Use #8, flat head screws and appropriate anchors (not supplied) to secure the amplifier to a mounting surface.

Mount on a flat surface



Place on a Flat Surface

Place the amplifier on a flat surface.



Connect

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

CAUTIONS:

- 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 output connectors.

NOTES:

- Ensure that 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 table of specifications on the product web page .

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Speaker Mode Selection Switch

The AMP-X300 can be configured to work with 4 Ω and 8 Ω (low impedance and/or LoZ) loads or a distributed audio (high impedance and/or Hi-Z) 70/100 V system.

- **LoZ:** Set the switch to **LoZ** to use the amplifier with a 4 Ω or 8 Ω low impedance loudspeaker.
- **70V:** Set the switch to **70V** to use the amplifier in a 70 V distributed audio system.
- **100V:** Set the switch to **100V** to use the amplifier in a 100 V distributed audio system.

LoZ Modes Selection Switch

When operating in LoZ mode, the AMP-X300 outputs can operate in stereo, as summed outputs or bridged outputs. Set the LoZ Modes selection switch to the desired setting and connect the outputs as required.

- **STEREO:** When set to **STEREO**, the input signals received on inputs **CH1**, **CH2**, **CH3**, and **CH4** are sent to their respective outputs. Gain controls 1, 2, 3, and 4 are all independently adjustable, respective to the output channel.
- **SUM:** When set to **SUM**, input signals sent to **CH1 IN** and **CH2 IN** are summed and sent to outputs **CH1** and **CH2**, and input signals sent to **CH3 IN** and **CH4 IN** are summed and sent to outputs **CH3** and **CH4**. Gain controls 1, 2, 3, and 4 are all independently adjustable, respective to the output channel.
- **BRIDGE:** When set to **BRIDGE**, an input signal sent to **CH1 IN** is sent out to the bridged **CH1** and **CH2** outputs for high-power applications. An input signal sent to **CH3 IN** is sent out to the bridged **CH3** and **CH4** outputs for high-power applications. Gain control 1 adjusts the signal sent to the bridged **CH1** and **CH2** outputs while Gain control 3 adjusts the signal sent to the bridged **CH1** and **CH2** outputs.

NOTE: When set to **BRIDGE**, **CH1 IN** and **CH2 IN** are summed together. **CH3 IN** and **CH4 IN** are also summed together and gain controls 2 and 4 are disabled.

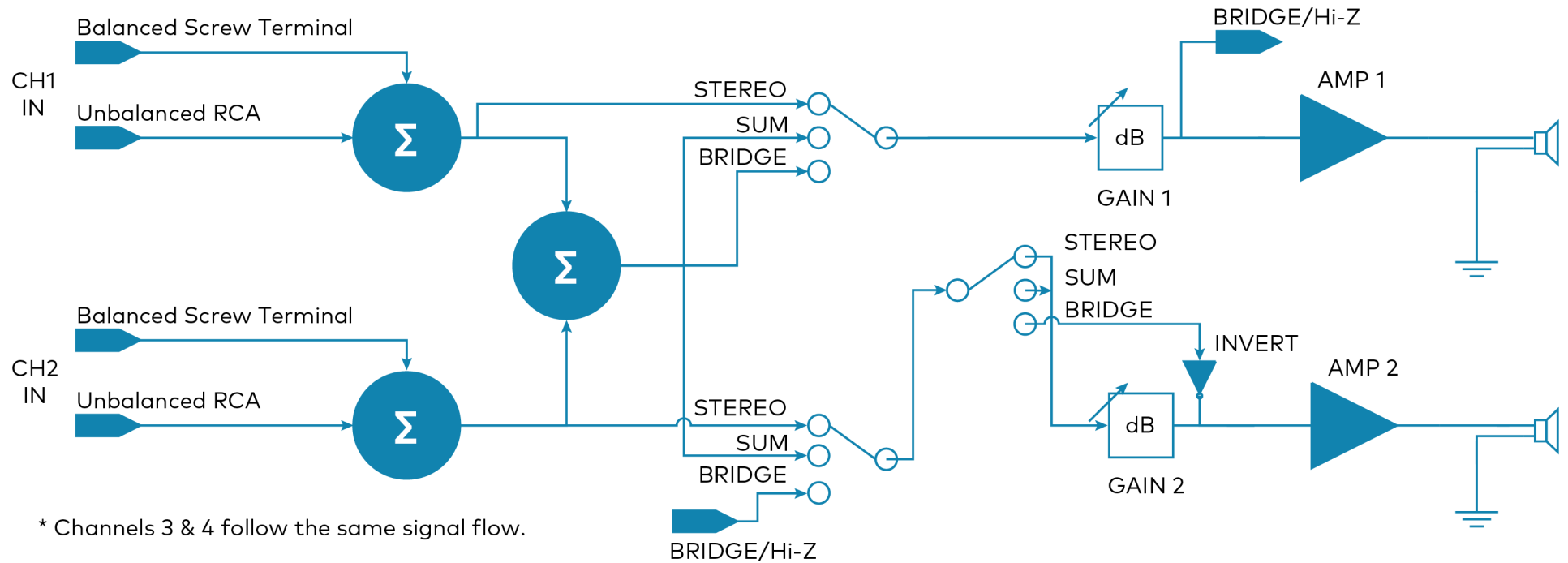
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Signal Flow Diagrams

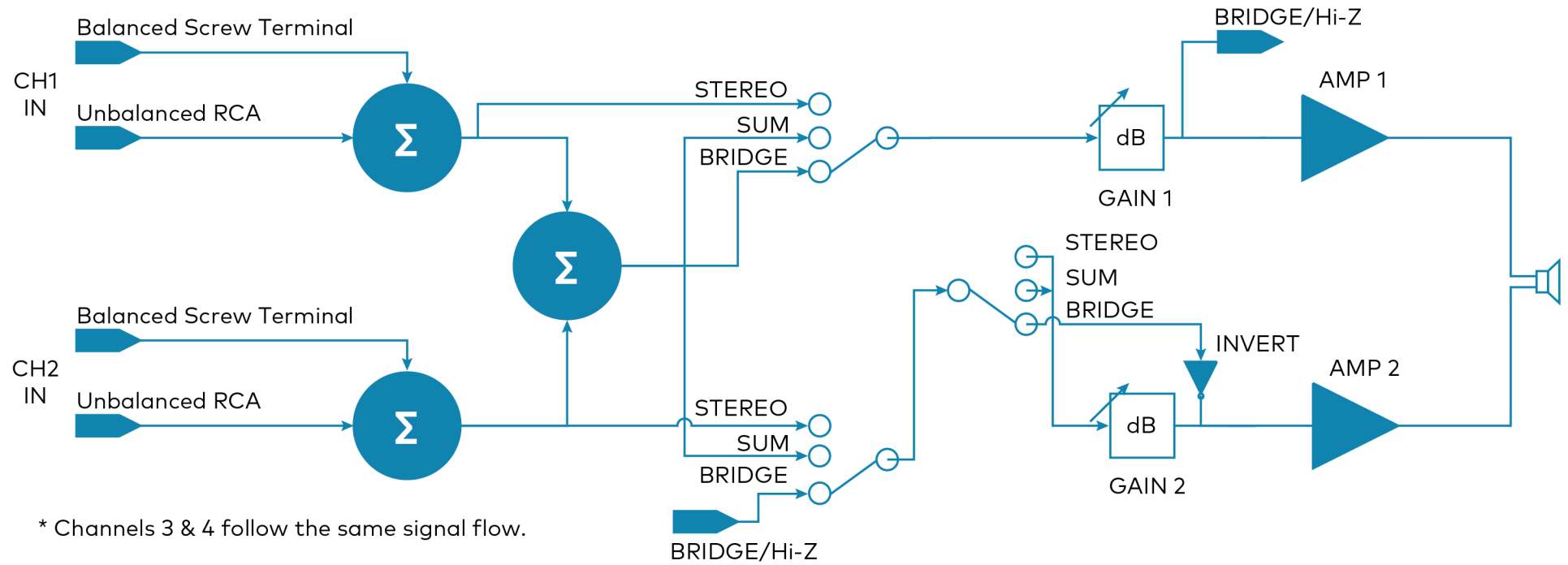
Refer to the following diagrams for details on stereo, summed, bridged, and Hi-Z signal flows.

Stereo and Sum Modes Signal Flow



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Bridge and Hi-Z Modes Signal Flow



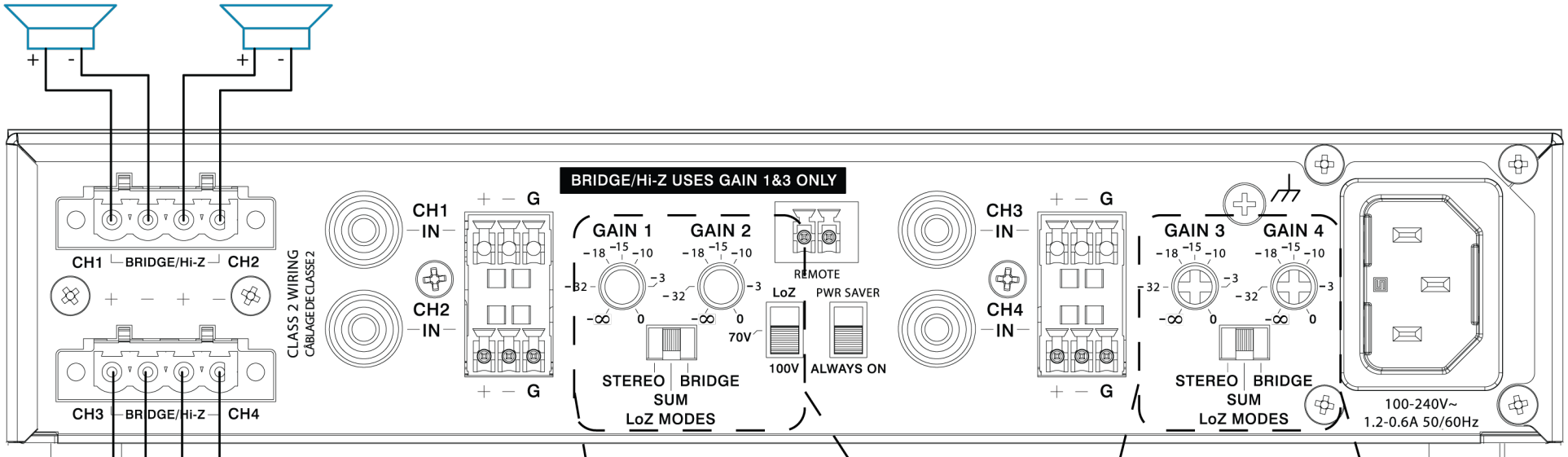
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Output Wiring Options

The AMP-X300 can be configured for low impedance (LoZ) stereo operation over two or four channels and high impedance (70 V or 100 V) operation over two channels. Refer to the following diagrams for details.

X Series Amplifier

4 Channel x up to 75 W Bridged Output (Low Impedance)



Speaker Mode: LoZ

LoZ MODES: STEREO

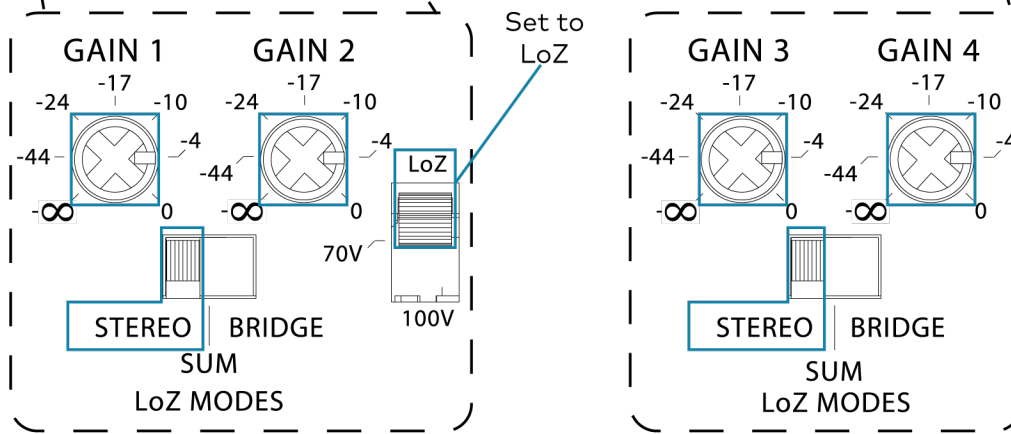
GAIN 1, 2, 3, & 4: Set to optimize amplifier output levels.

ALTERNATE LoZ SETTING

LoZ MODES: SUM

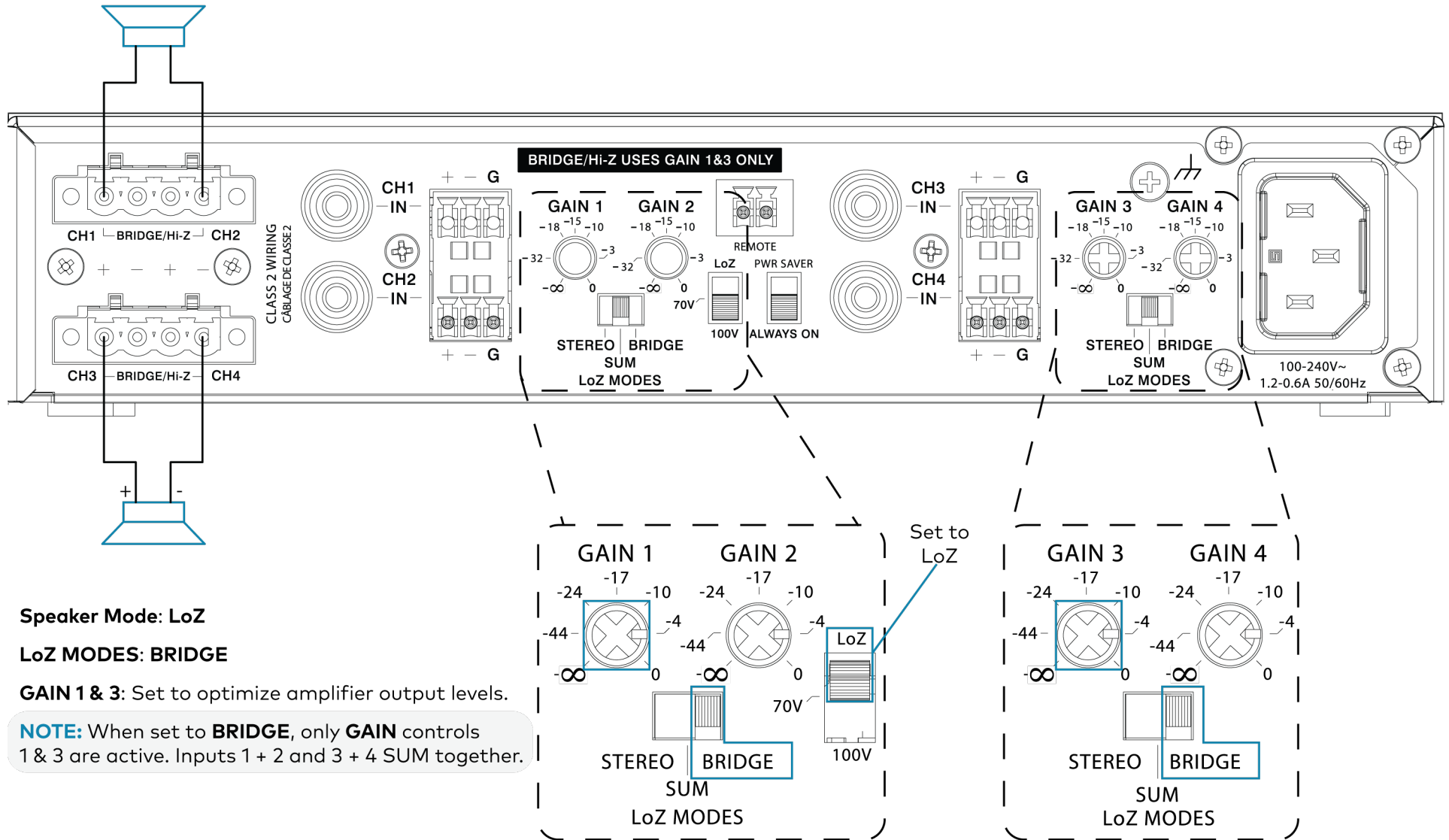
GAIN 1, 2, 3, & 4: Set to optimize amplifier output levels.

NOTE: Inputs 1+2 and 3+4 sum together.



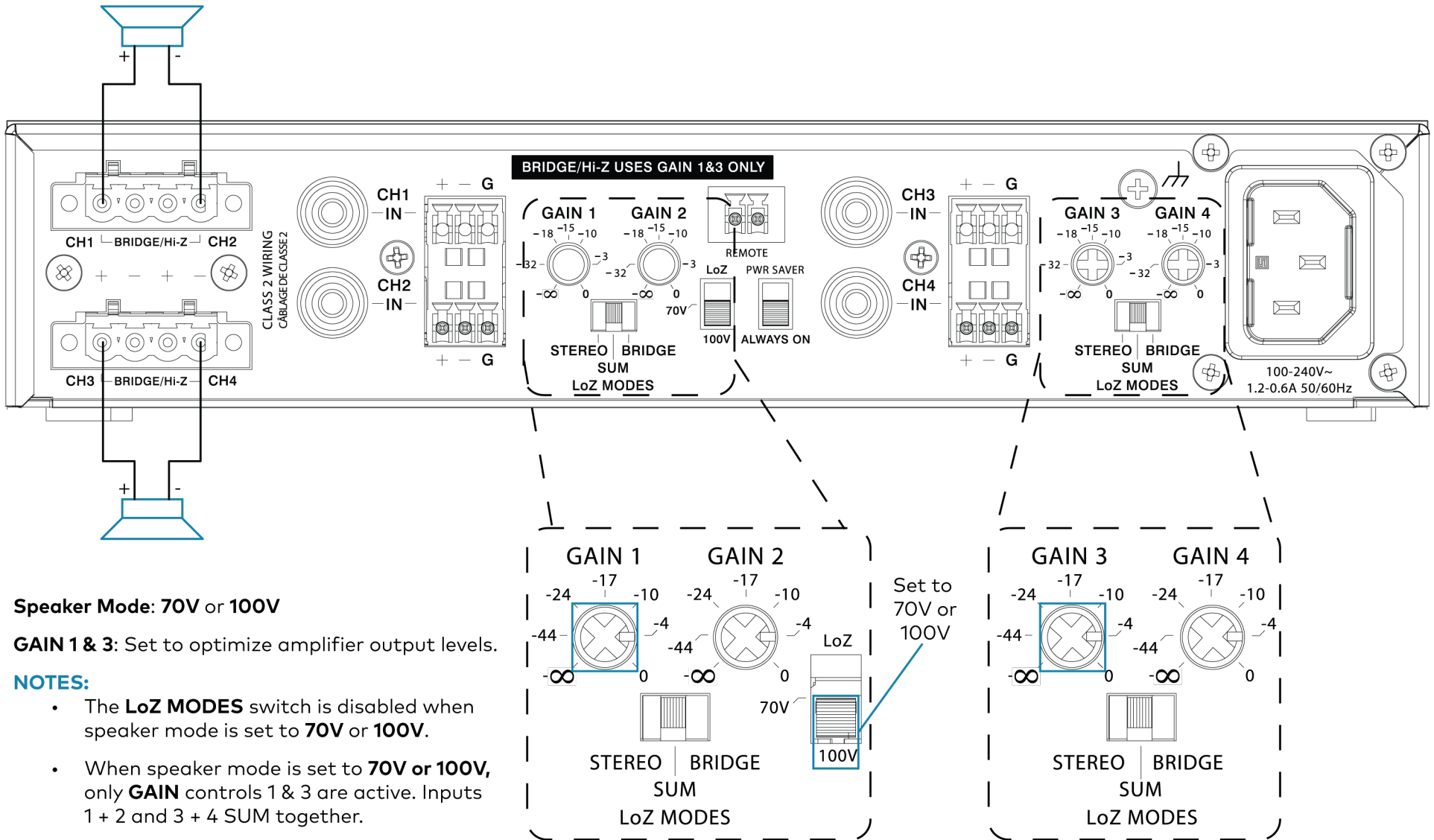
X Series Amplifier

2 Channel x up to 150 W Bridged Output (Low Impedance)



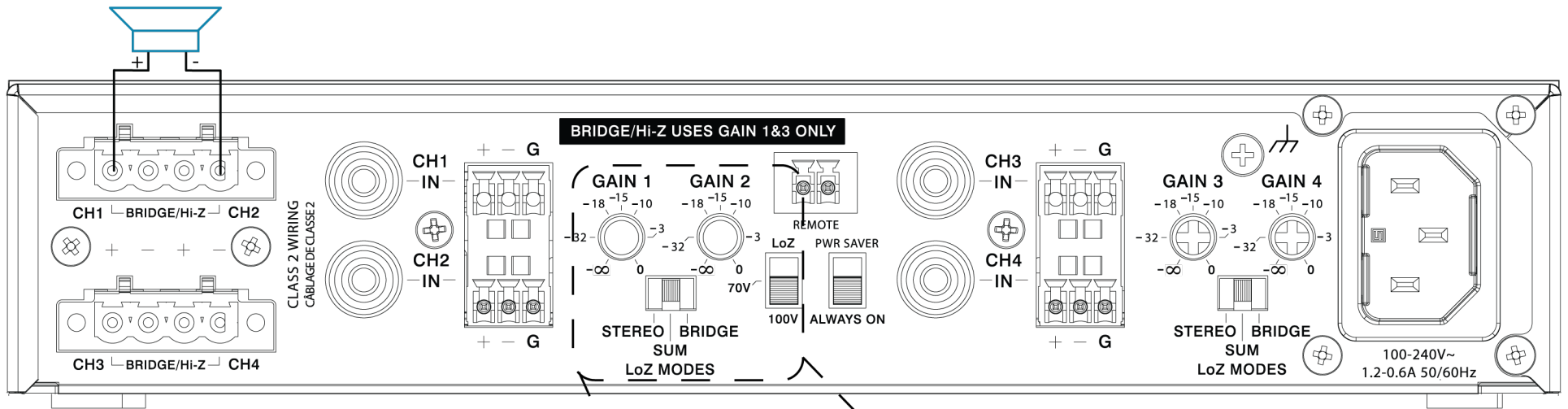
X Series Amplifier

2 Channel x up to 150 W Bridged Output (High Impedance)



X Series Amplifier

1 Channel x up to 300 W Bridged Output (Low Impedance)



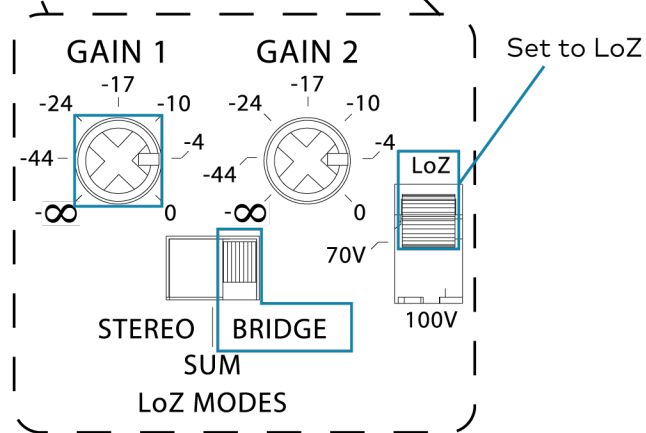
Speaker Mode: LoZ

LoZ MODES: BRIDGE

GAIN 1 & 3: Set to optimize amplifier output levels.

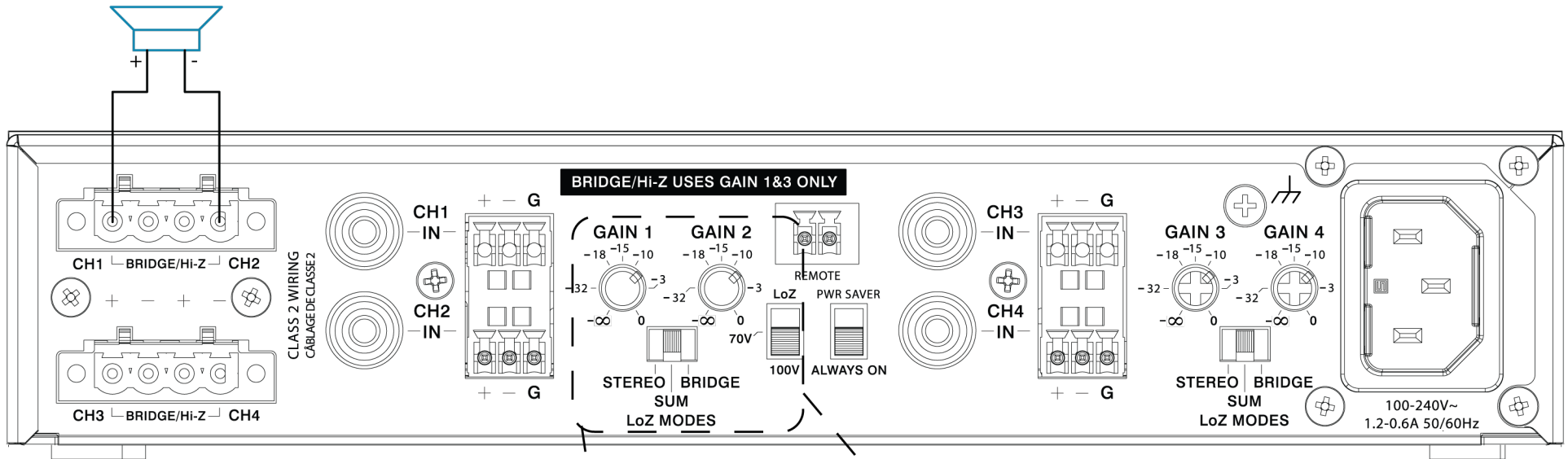
NOTES:

- When set to **BRIDGE**, only **GAIN** controls 1 & 3 are active. Inputs 1 + 2 and 3 + 4 SUM together.
- Connect the load to either CH1 & CH2 or CH3 & CH4.
- In **BRIDGE** mode, 300 W power can be output to a single connected load.



X Series Amplifier

1 Channel x up to 300 W Bridged Output (High Impedance)

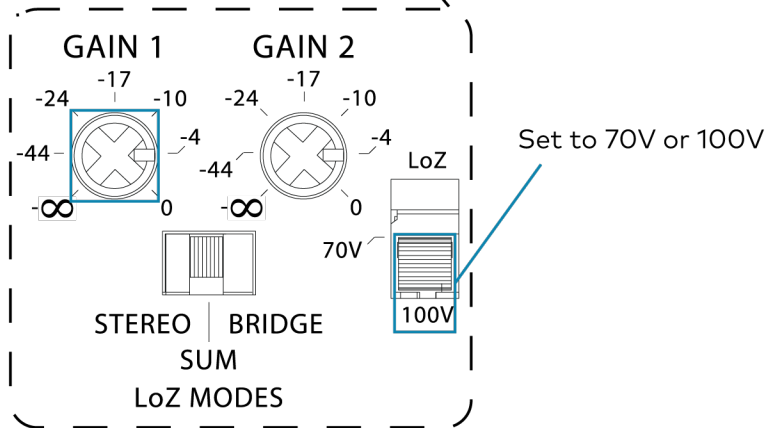


Speaker Mode: 70V or 100V

GAIN 1 & 3: Set to optimize amplifier output levels.

NOTES:

- The **LoZ MODES** switch is disabled when speaker mode is set to **70V** or **100V**.
- When speaker mode is set to **70V** or **100V**, only **GAIN** controls 1 & 3 are active. Inputs 1 + 2 and 3 + 4 SUM together.
- In **BRIDGE** mode, 300 W power can be output to a single connected load.



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Operation

Configuration

Each amplifier channel has its own gain control on the rear of the amplifier that can be adjusted to balance the sound between inputs or to accommodate different audio sources.

To configure a channel, a test signal must be sent to the amplifier while a Phillips screwdriver is used to adjust the amplifier's gain control (turn the gain control knob clockwise to increase the gain or counterclockwise to reduce the gain).

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.

1. Set the source's output signal level to maximum.
2. Set the amplifier's gain to the lowest setting (full counterclockwise).
3. Apply power to the amplifier.
4. Increase the amplifier's gain control until the desired volume level is reached in the audio playback zone.

NOTE: If clipping is exhibited in the playback audio, check the gain levels at the amplifier first. If the clipping is not remedied by adjusting the gain at the amplifier, troubleshoot at any other gain stage earlier in the audio chain.



Observe the LED Indicators

The LEDs on the front panel provide the following information:

LED Indicator	Color	Meaning
PWR	White	The amplifier is operating normally.
	Red	The amplifier has entered Standby (Power Saver) mode.
FAULT	Red	There is a fault or limiting on the indicated channel.
SIGNAL	White	An audio signal is present on the indicated channel.
	RED	There is a clipping on the indicated channel.



Visit the Product Page

Scan the QR code to visit the product page.

AMP-X300



www.crestron.com/model/6510866

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Additional Information

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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