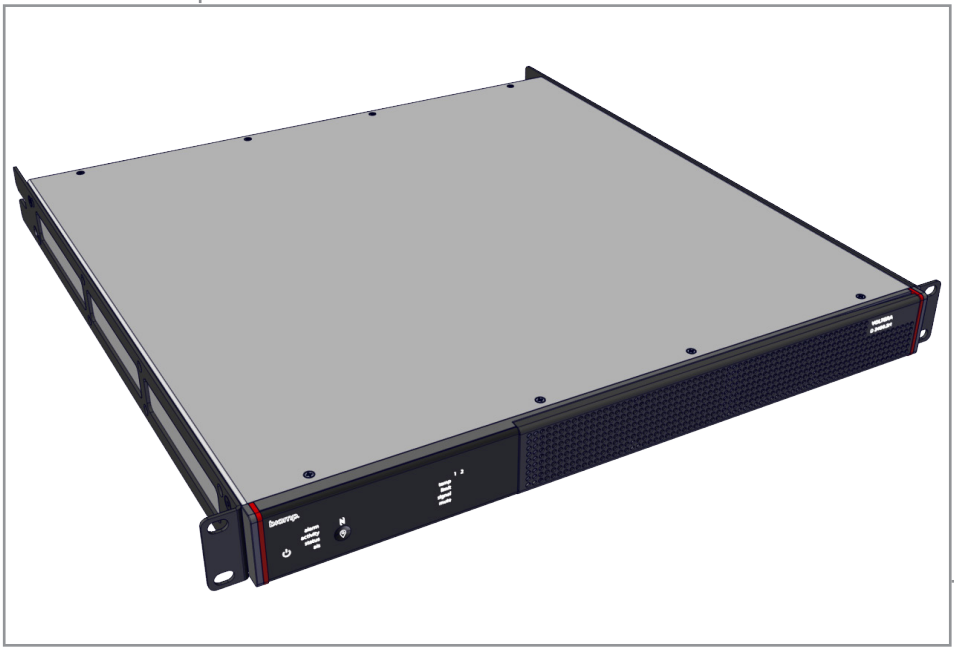
VOLTERA™

HARDWARE INSTALLATION AND SETUP GUIDE



D SERIES

D 600.4M
D 1200.2M D 1200.4M
D 2400.2M D 2400.4M
D 4800.2M D 4800.4M

AMPLIFIED LOUDSPEAKER CONTROLLER

INSTALLATION CONSIDERATIONS

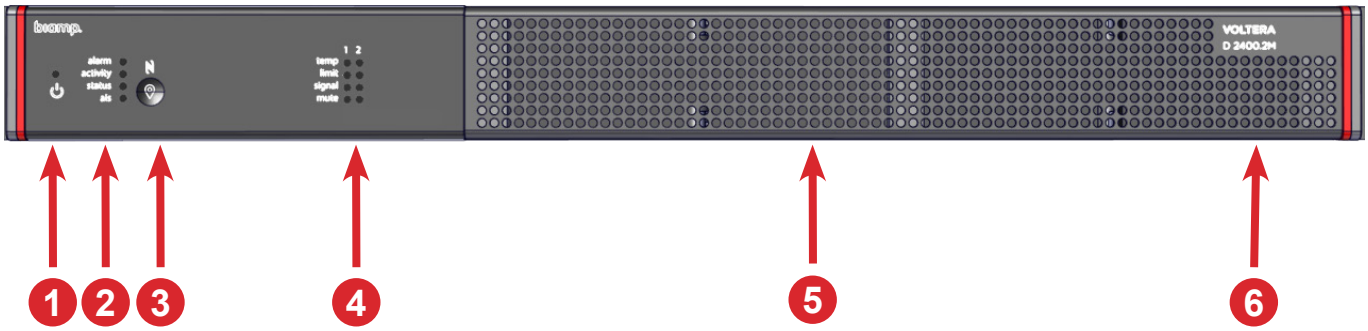
- Install the device away from heat sources, such as vents, radiators, heat registers, and stoves.
- Do not exceed the maximum ambient operating temperature of 32° to 104°F (0° to 40°C).
- Avoid installing near water or steam.
- See the product datasheets on biamp.com for each Voltera device's specifications.
- See pages 11 and 12 for information on where to access software, training, and support for the amplified loudspeaker controller.

INCLUDED IN THE BOX

- Voltera D M Series device
- 2 Rear Rack support brackets
- 2 Logic IO mating plugs
- Audio input mating plugs
  - 2 plugs for 2 channel amps
  - 4 plugs for 4 channel amps
- Euroblock connector plugs for the amplified outputs (yellow)
  - 2 plugs for 2 channel amps
  - 4 plugs for 4 channel amps
- Detachable IEC power cord
- 2 M6x15mm mounting screws
- Cable ties
- Product Documents

DEVICE LAYOUT

FRONT PANEL LAYOUT



FRONT PANEL INDICATORS AND DESCRIPTIONS

1. Power indicator
2. System indicators
3. Locate button / NFC tag
4. Channels status display. (The number of channels varies by device model)
5. Detachable grille
6. Device model identifier

POWER LED INDICATOR

Off:
No mains or PoE power

Green:
The device is on with mains or PoE power

Yellow:
The device is in sleep mode

Red:
N/A

DEVICE LAYOUT

SYSTEM LED INDICATORS

	Off:	Green:	Yellow:	Red:
Alarm:	No unit alarm conditions present	N/A	Unit has minor alarm condition	Unit has major alarm condition
Activity:	Not in any other state.	Unit is an active part of an active system	N/A	Unit is part of an inactive system
Status:	N/A	Received all configuration information and ready	Ready to receive configuration information	Unit is not ready to receive configuration information
AIS:	No unit in system has alarm conditions present	N/A	Any unit in the system has minor alarm condition	Any unit in the system has major alarm condition

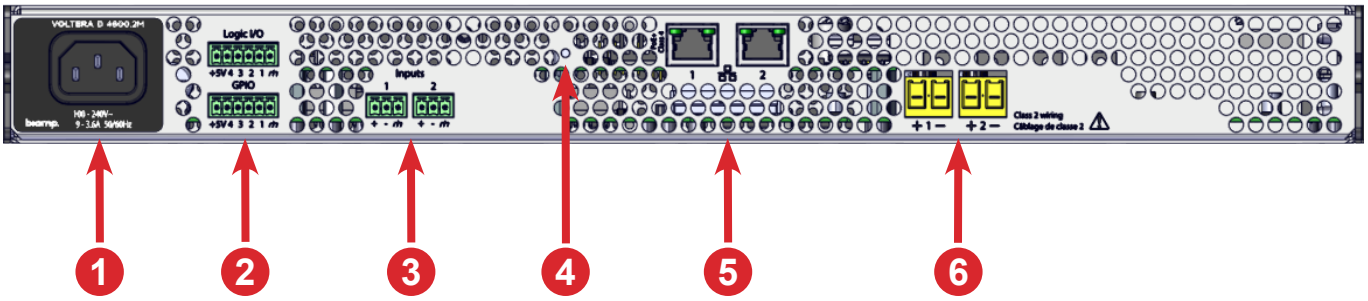
CHANNEL LED INDICATORS

	Off:	Green:	Yellow:	Red:
Temp:	Channel temp below 85% of the allowed temperature range	N/A	Channel temp between 85% and 90% of the allowed temperature range	Channel temp is above 90% of the allowed temperature range
Limit:	Channel is within limits	N/A	Channel limiting low	Channel limiting med/high
Signal:	No signal present	Signal level between -60dBr and -6dBr	Signal level between -6dBr and -1dBr	Signal within 1dB or above the threshold level (-1dBr to 6dBr)
	Note: Signal levels are all relative to the selected loudspeaker profile thermal limiter threshold.			
Mute:	Channel is unmuted	N/A	N/A	Channel is muted

DEVICE LAYOUT

There may be aesthetic differences between device models such as the number of ventilation holes. The location, function, and quantity of rear panel ports for devices, with the same number of channels, are the same regardless of these differences.

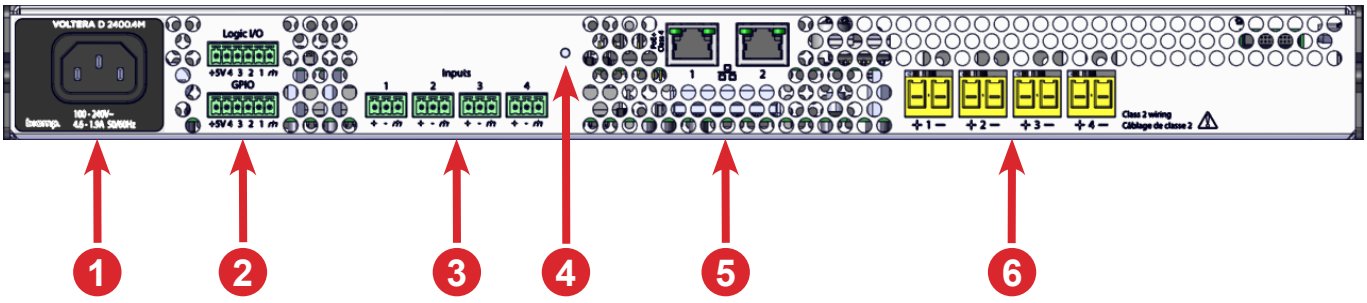
REAR PANEL LAYOUT: D 1200.2M, D 2400.2M, & D 4800.2M



REAR PANEL PORTS AND DESCRIPTIONS

1. Power inlet
2. Logic input / output connectors
3. Line level inputs
4. Factory reset pinhole
5. RJ-45 Ethernet ports
6. Loudspeaker outputs

REAR PANEL LAYOUT: D 600.4M, D 1200.4M, D 2400.4M, D 4800.4M



REAR PANEL PORTS AND DESCRIPTIONS

1. Power inlet
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5. RJ-45 Ethernet ports
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INSTALLATION

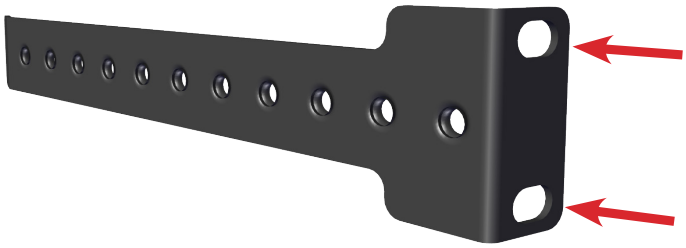
19-INCH SERVER RACK

Perform the procedures described to install the device in an AV equipment rack.

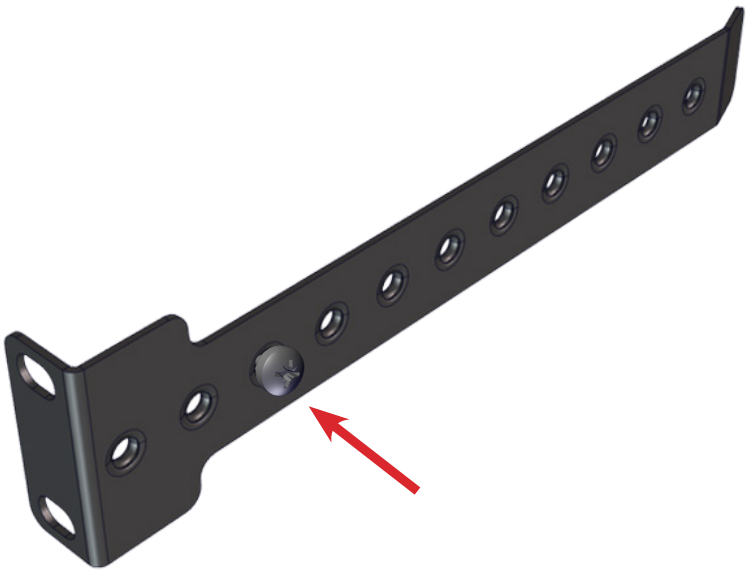
1. Verify the installation rack space meets the listed requirements in the Installation Considerations section of the title page.

Note: The included rear support brackets are designed to work in racks that have a rear rack rail that is 280 to 600mm (about 11 to 23.5 inches) behind the front rail. If the rack rails are less than 430mm (about 17inches), mount the supports in the opposite direction.

2. Secure the included rear support brackets to the server rack.



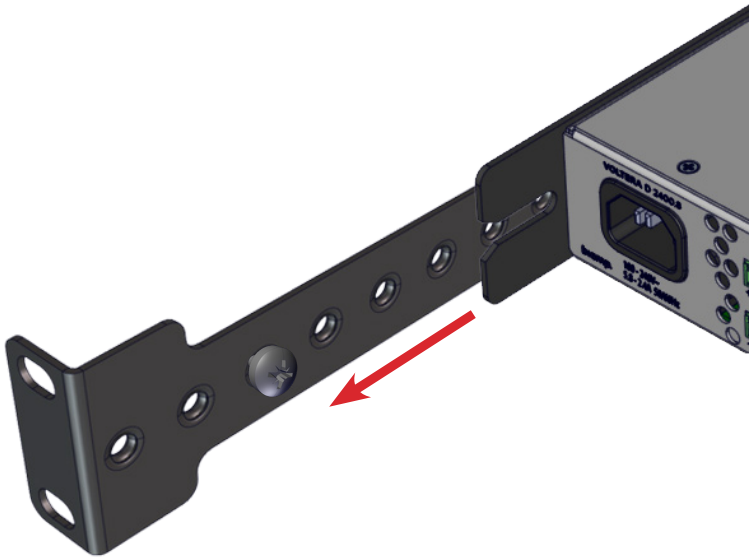
3. Screw the M6 mounting screw into the appropriate hole for both rear support brackets. Leave enough room between the head of the screw and rear bracket for the slotted end of the mounting brackets.



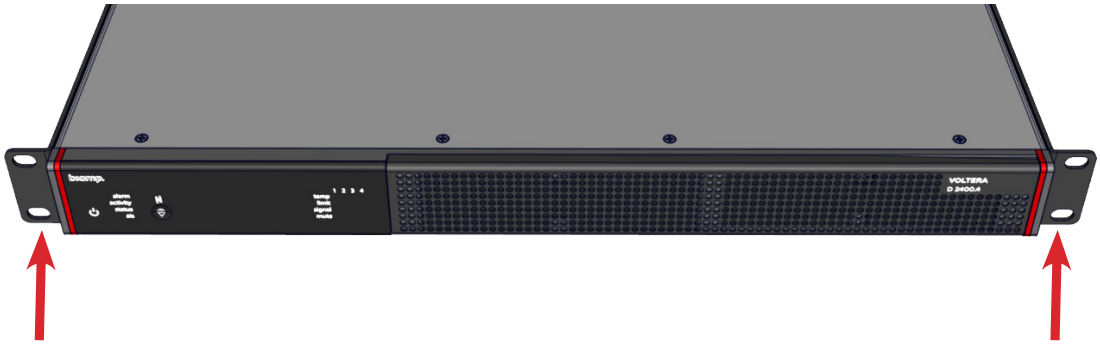
INSTALLATION

19-INCH SERVER RACK

4. Place the device in the rack using the slotted ends of the mounting brackets and securing the device to the rear support brackets using the M6 mounting screws.



5. Secure the mounting plate to the server rack.



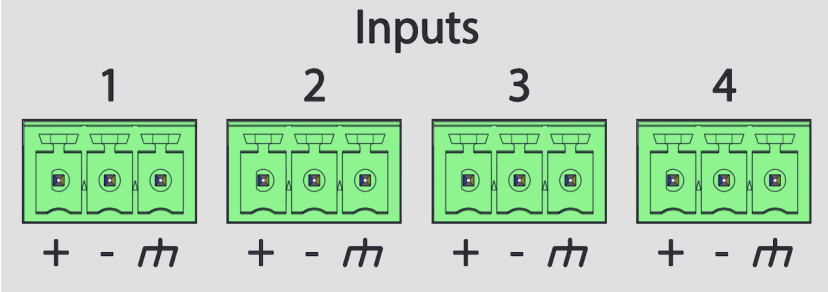
Advance to the Connections procedures on page 7.

CONNECTIONS

PORTS / TERMINALS

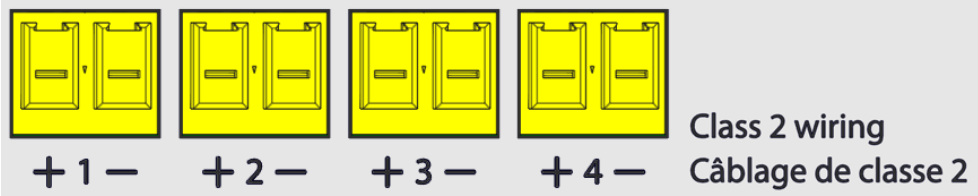
Connect the amplified loudspeaker controller to the input and output devices in the AV system, as well as any voltage control, and input / output logic. See the descriptions in this section for details.

CONNECT THE INPUT DEVICES TO THE LINE LEVEL INPUTS



Connect input AV devices to the 3-pin inputs. The number of inputs varies by device model.

CONNECT THE LOUDSPEAKERS TO THE OUTPUTS

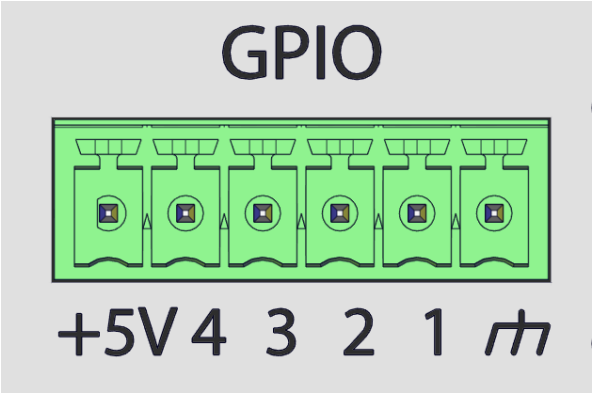


When connecting speakers to the outputs keep the following points in mind.

- The number of outputs varies by device model.
- To minimize power loss, use a speaker cable of appropriate gauge for the load impedance.
- Use the supplied euro-block plugs to connect loudspeaker outputs.
- If stranded speaker wire is used, be sure to incorporate all strands into the connector, as stray strands can short to the adjacent terminal or chassis.
- Do not leave excessive bare wire outside the terminals, as this can lead to shorts.

CONNECTIONS

OPTIONAL: CONNECT THE GENERAL PURPOSE INPUT / OUTPUT



Pin Functions

Note - the pin functions are factory set.

- Pin 1 Input: Mute all / Active low
- Pin 2 Output: Health status / Fault exists if low
- Pin 3 Output: Sleep mode status / Unit asleep if low
- Pin 4 Input: Sleep mode / In sleep mode when low

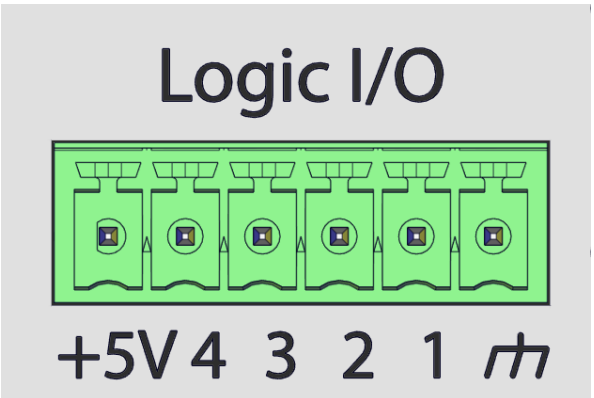
Potential: These ports are not potential-free. External relays may be needed to prevent ground loops depending on the application.

Pin Data

- When activated, the ports are tied to GND through a FET transistor. (Also known as an open drain)
- +5V reference limited to 150mA

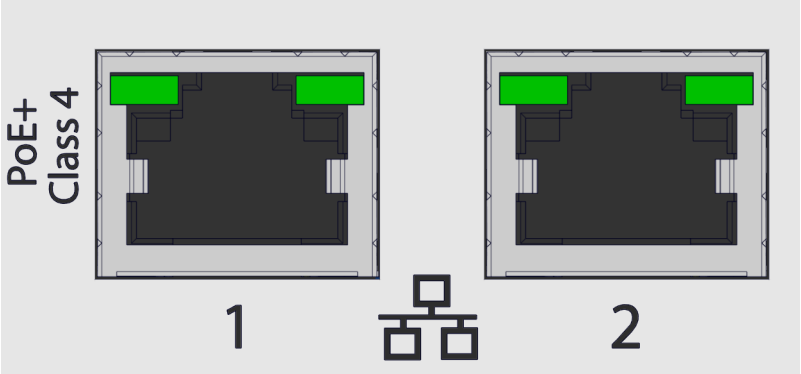
CONNECTIONS

OPTIONAL: CONNECT THE LOGIC INPUT / OUTPUT



These Logic I/O connections can be used as either inputs or outputs. They can be assigned to actions within Tesira software using Logic Input and Logic Output.

CONNECT THE RJ-45 ETHERNET PORTS



Connect network port 1 to a PoE+ switch to enable quick recovery of audio when the mains supply is temporarily lost. Audio from the device, including from the analog inputs, is not available while the device is powered from PoE+. Powering the device requires a compliant PoE+ class power source or above.

If using single cable mode for networking:

- Use port 1. Select Converged Control and Media port mode in software network settings.

If using separated networks:

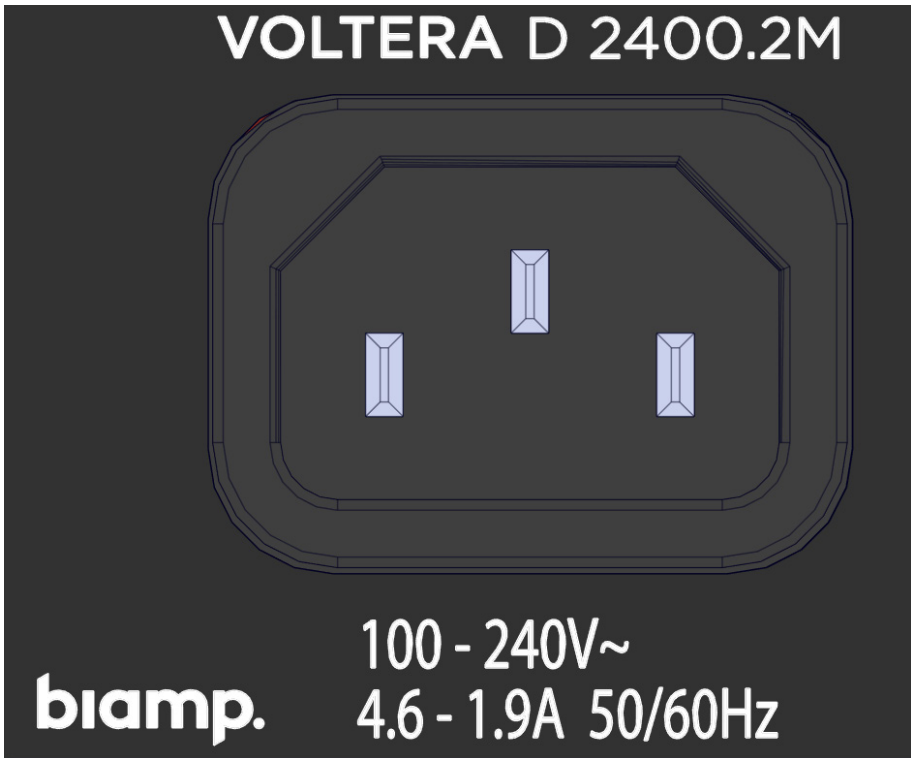
- Use port 1 for control and port 2 for media. Select Dedicated Control and Media port mode in software network settings.

For additional information on how to use a Voltera Device's network ports, see the Voltera D and D M Networking article on Cornerstone.

CONNECTIONS

PLUG IN THE AMPLIFIED LOUDSPEAKER CONTROLLER

Always use the supplied detachable power cord, or an identical replacement with the current rating, with the amplified loudspeaker controller.



1. Attach the power cord to the power receptacle on the back of the device.

2. Plug the connected power cord into a grounded power outlet.

DEVICE SETUP

The device may be configured and controlled using either Tesira software or VenueTune software. See the Voltera D Software Configuration Options article on Cornerstone to help determine which software to use.

TESIRA SETUP

Tesira offers the ability to compile a custom configuration and hosting of control panels such as TEC-X 1000.

DOWNLOAD SITE

The software can be downloaded from biamp.com

- Click here: Tesira Software (biamp.com)

TESIRA HELP SYSTEM

The Tesira Software Help system provides instructions and overviews for using Tesira software. It is typically embedded on digital Tesira system devices and can also be found Online.

- Click here: Tesira Help System (Online)

SUPPORT ARTICLES

Technical support articles for Tesira Software can be found on Biamp's Cornerstone knowledge-base support site.

- Click here: Tesira - Biamp Cornerstone

TRAINING

Training courses for Tesira products and system core concepts are available Online.

- Click here: Biamp Training - In Person and Online Training, Certification Courses

Note: A device configured with Tesira software must be controlled using Tesira software.

DEVICE SETUP

The device may be configured and controlled using either Tesira software or VenueTune software. See the Voltera D Software Configuration Options article on Cornerstone to help determine which software to use.

VENUETUNE SETUP

VenueTune offers streamlined configuration and tuning by matching amplifiers with groups of loudspeakers.

DOWNLOAD SITE

The software can be downloaded from biamp.com.

- Click here: VenueTune Software (biamp.com)

VENUETUNE HELP SYSTEM

The VenueTune Software Help system provides instructions and overviews for using the VenueTune Design software.

- Click here: VenueTune Help System (Online)

SUPPORT ARTICLES

Technical support articles for VenueTune Software can be found on Biamp's Cornerstone knowledge-base support site.

- Click here: VenueTune - Biamp Cornerstone

TRAINING

Training courses for VenueTune are available Online.

- Click here: Biamp Training - In Person and Online Training, Certification Courses

Note: A device configured with VenueTune software must be controlled using VenueTune software.

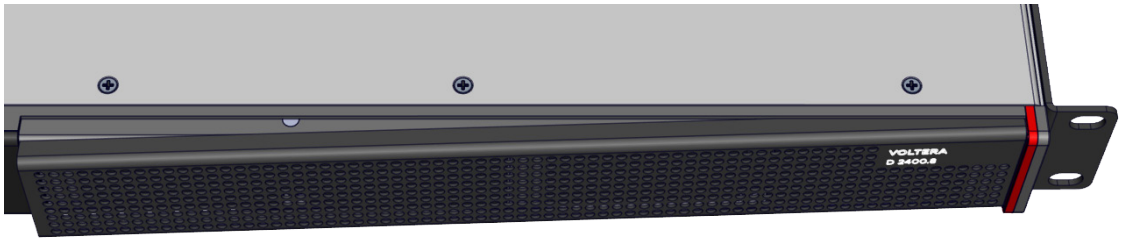
MAINTENANCE

DETACHABLE GRILLE

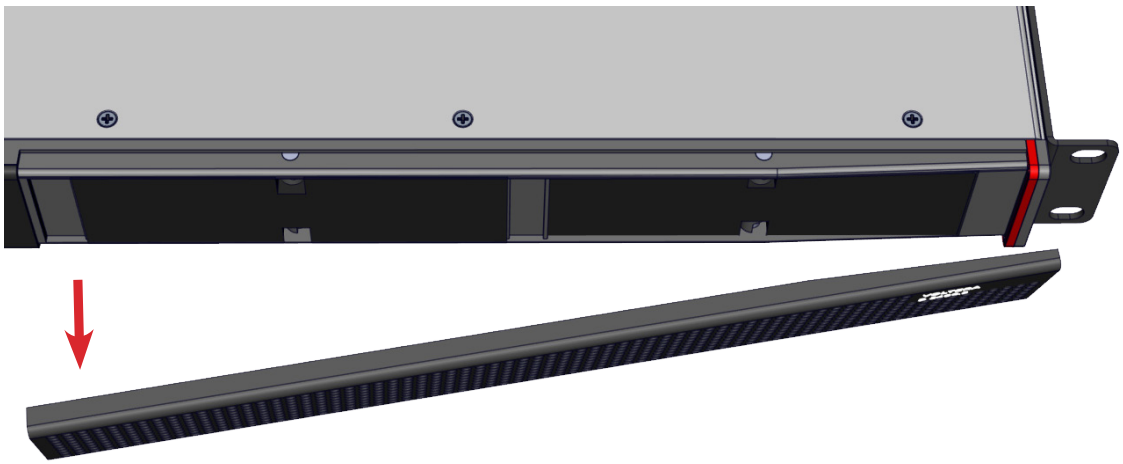
Remove the detachable grille to access and clean the two dust filters.

1. Begin by pressing the grille on the side that includes the amplified loudspeaker controller type indicator text.

2. The opposite side of the grille lifts away from the device for easy removal.



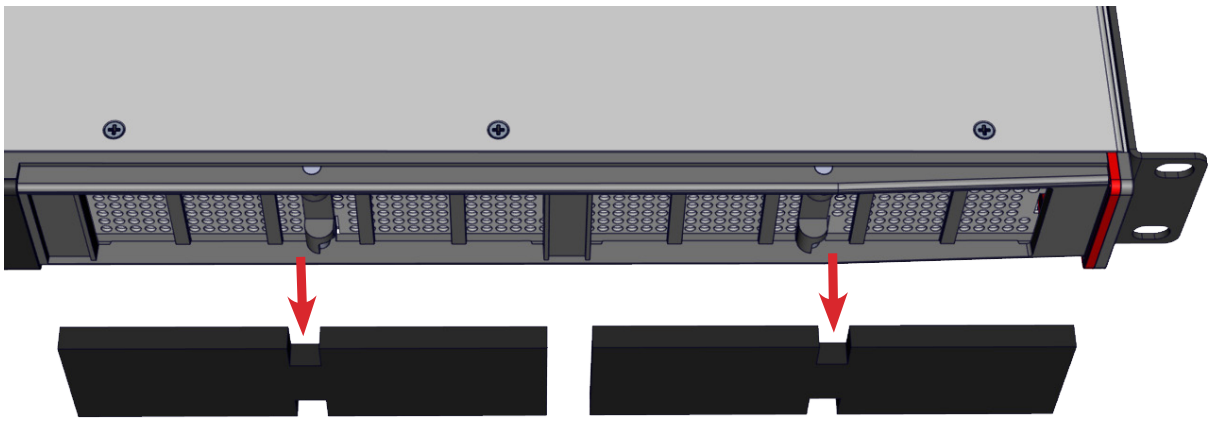
3. Use the lifted side to remove the grille from the device and proceed to the cleaning the dust filters steps on page 14.



MAINTENANCE

CLEANING THE DUST FILTERS

1. Remove the filters from the device.



2. Use a dry cloth to clean the chassis and the front panel.

3. Clean the filters using compressed air or wash with clean water to remove dust. If water is used, let the filters dry completely before reinstalling.

4. Reinstall the filters.

5. Carefully return the grille to the front of the device. Use the magnetic snap points and avoid pinch points.

Note: Air filter cleaning should be scheduled in accordance with the dust levels in the amplifier's operating environment.

For replacement filters visit products.biamp.com/home.

www.biamp.com

www.support.biamp.com

Support@biamp.com

9300 SW Gemini Drive Beaverton, OR 97008 USA

Warranty: biamp.com/legal/warranty-information

Safety & Compliance: biamp.com/compliance

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