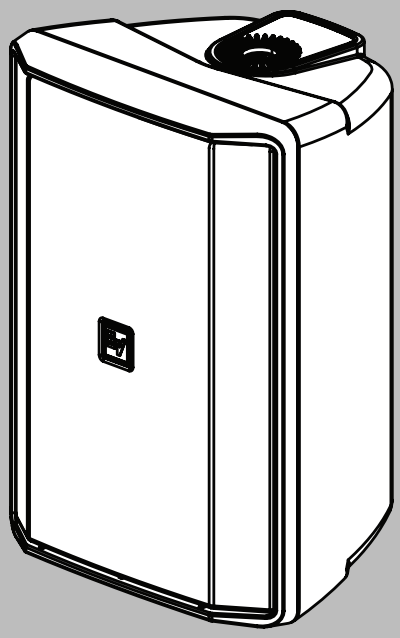
Electro-Voice

EVIDn PoE Surface Mount S Series - X Models

EVIDn-S5XB, EVIDn-S5XW



en Installation manual

PRELIMINARY

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1 Safety

1.1 Suspension

Warning!

Suspending any object is potentially dangerous and should only be attempted by individuals who have a thorough knowledge of the techniques and regulations of suspending objects overhead. Electro-Voice strongly recommends that loudspeakers be suspended taking into account all current national, federal, state, and local laws and regulations. It is the responsibility of the installer to ensure all loudspeakers are safely installed in accordance with all such requirements. When loudspeakers are suspended, Electro-Voice strongly recommends the system be inspected at least once per year or as laws and regulations require. If any sign of weakness or damage is detected, remedial action should be taken immediately. The user is responsible for making sure the wall, ceiling, or structure is capable of supporting all objects suspended overhead. Any hardware used to suspend a loudspeaker not associated with Electro-Voice is the responsibility of others.

Safety point

As an added safety measure, it is suggested the user install an extra suspension point back to the building structural supports. This safety point should have as little slack as possible (less than 1-inch is preferable).

Caution!

The safety point (auxiliary support ring) is not intended for primary suspension of the loudspeaker. The safety point should only be used as a secondary safety point.

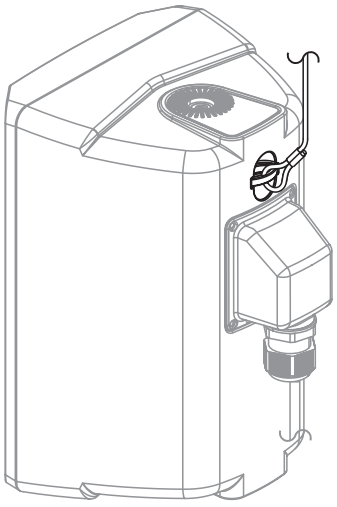
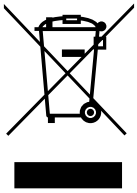


Figure 1.1: Redundant safety point

1.2 Notices

Old electrical and electronic equipment



This product and/or battery must be disposed of separately from household waste. Dispose such equipment according to local laws and regulations, to allow their reuse and/or recycling. This will help in conserving resources, and in protecting human health and the environment.

Copyright and disclaimer

FCC Supplier's Declaration of Conformity

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.
Changes or modifications not expressly approved by the party 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.

2 Introduction

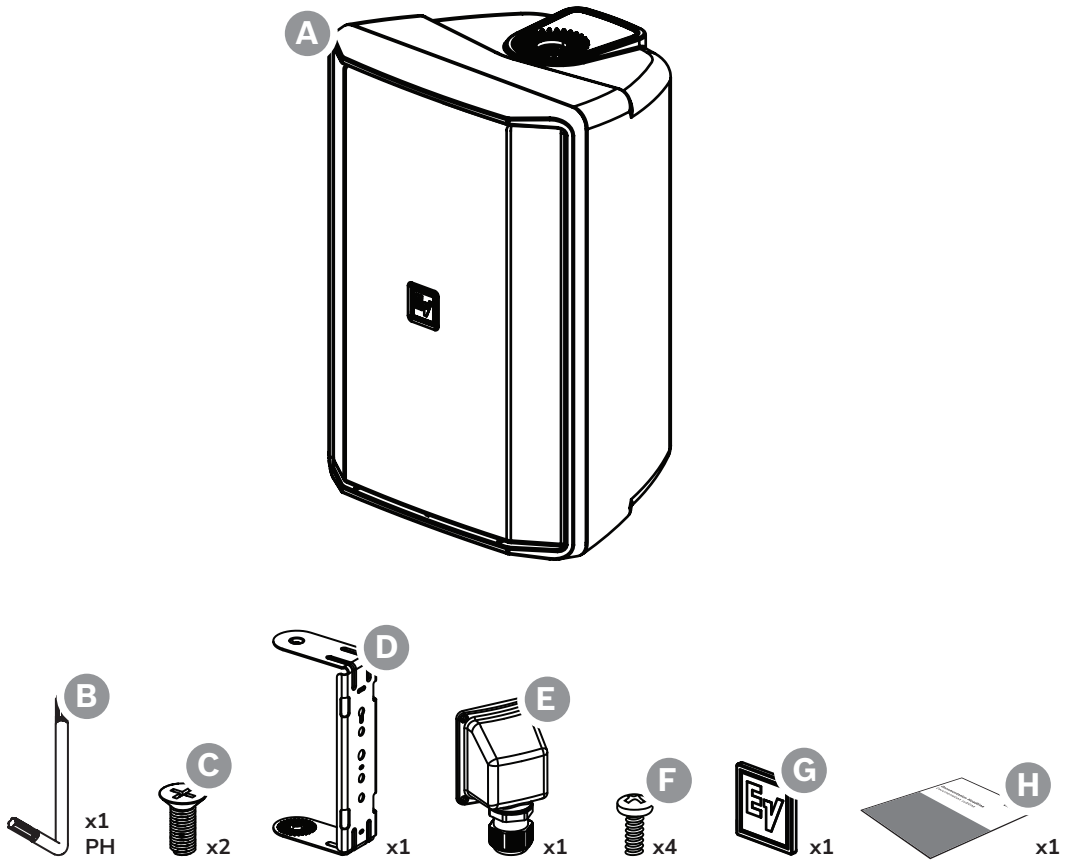
Thank you for purchasing EVIDn PoE Surface Mount Loudspeakers. Read through this manual to familiarize yourself with features, applications, and precautions before you use these products.
EVIDn is a family of PoE-enabled loudspeakers for professional installed-audio applications. Each loudspeaker uses a single Ethernet connection for power, audio, control, and monitoring, reducing system complexity and simplifying installation on standard network infrastructure.
Each EVIDn loudspeaker includes onboard amplification and DSP for model-specific tuning and everyday system optimization. The built-in Web UI provides direct access to core device settings such as level, EQ, input selection, zones, network settings, logs, and diagnostics.
EVIDn loudspeakers can be used as standalone endpoints or as part of a larger networked audio system. Compatibility with standard PoE switching and Audio-over-IP protocols such as Dante and AES67 supports both distributed installations and scalable multi-room deployments.
During commissioning, the Web UI supports device discovery, verification, and local configuration. Once settings are stored in the loudspeaker, the device operates independently and recalls the stored configuration at startup.
The EVIDn Surface mount series, from Electro-Voice, is a line of compact, high-performance, two-way, full-range PoE+ surface mount speakers, with excellent wide and uniform coverage, and outstanding performance. Their design makes these practically invisible for use in background and foreground music, paging, and sound reinforcement applications, making EVIDn Surface mount ideal for indoor and outdoor applications, such as restaurants, bars, patios, retail, fitness clubs, hospitality, theme parks, leisure venues, and others. The EVIDn Surface mount series combines weather-resistant construction with flexible mounting options for a wide range of indoor and outdoor surface-mount applications.
The EVIDn Surface mount models are IP65 rated, designed to withstand the toughest weather conditions.

2.1 System features

- Designed for PoE+ and PoE
- Carefully engineered for the toughest weather conditions (IP65)
- Long throw 5.25" (133 mm) woofer housed in a UL 94-5VB fire rated ABS plastic for extended LF performance down to 55 Hz

2.2 Parts included

Make sure that all parts are included and not damaged. If the packaging or any parts are damaged, contact your shipper. If any parts are missing, contact your Sales or Customer Service Representative.



Item	Quantity	Component
A	1	Speaker
B	1	Allen wrench
C	2	Safety screws for the U-Bracket
D	1	U-bracket
E	1	Weather cover
F	4	Weather cover screws
G	1	Grille logo (spares)
H	1	Quick installation guide

Table 2.1: Components list

2.3 Network and PoE requirements

EVIDn loudspeakers require a PoE-enabled Ethernet network connection for power, audio, control, and monitoring.

The system requires:

- A PoE+ (IEEE 802.3at) network switch or PoE+ injector.
  - A PoE (IEEE 802.3af) network switch or PoE injector can also be used.
- Shielded category 5e or higher Ethernet cable (RJ45).
- Maximum Ethernet cable length: 100 m (328 ft).

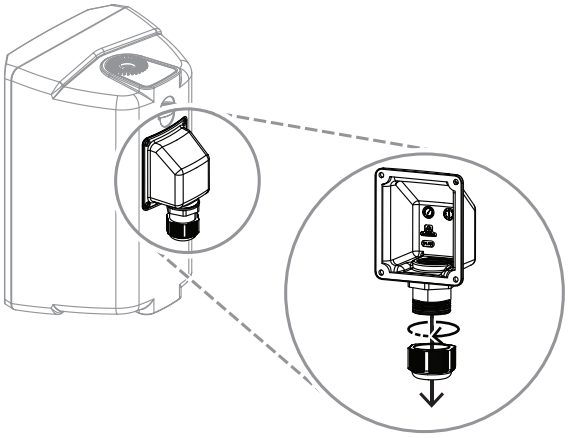
For full acoustic performance, Electro-Voice recommends a PoE+ (IEEE 802.3at) power source.

3 Installation and connection

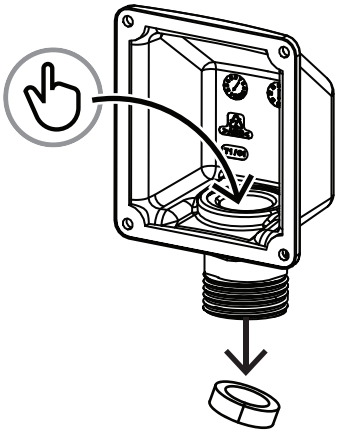
3.1 Connecting the speaker

To **connect the speaker:**

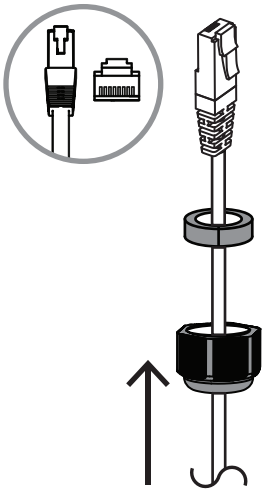
1. Loosen the **gland nut** from the **weather cover** (E).



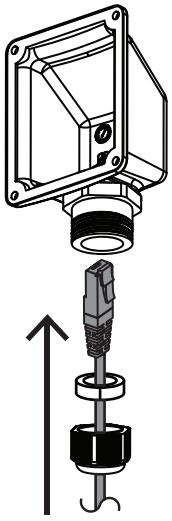
2. Using the tip of your finger, remove the **sealing ring** from the cable gland opening.



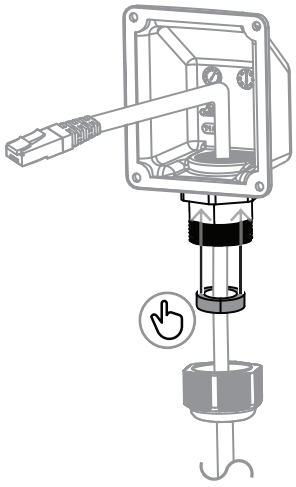
3. Slide the **gland nut** and the **sealing ring** onto the **Ethernet cable**.



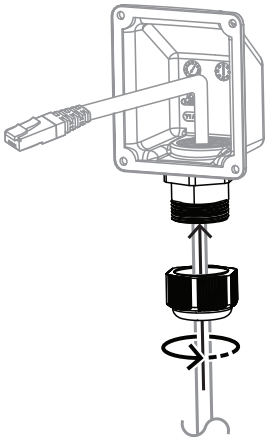
4. Push the **Ethernet cable** through the cable gland opening.



5. Using the tip of your finger, press the **sealing ring** into the cable gland opening.



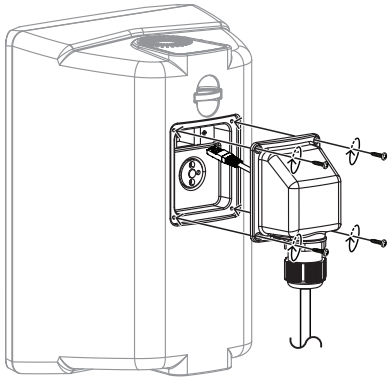
6. Tighten the **gland nut**.



Notice!
Ensure the sealing ring is installed correctly and the gland nut is tightened securely to maintain the IP65 rating of the loudspeaker.

7. Connect the **Ethernet cable** to the speaker.

8. Insert the **four screws** (F) into the weather cover (E).
   – Loosely tighten the four screws (F) to keep the weather cover (E) in place.
9. Tighten all **four screws** (F) to secure the weather cover (E).
   – Ensure the weather cover (E) is secure.



3.2 Installing the speaker

For safety, ensure the mounting surface supports more than the weight of the speaker. Use only industry-accepted fasteners and mounting methods when mounting the U-Bracket. Consult an expert if you are unsure.

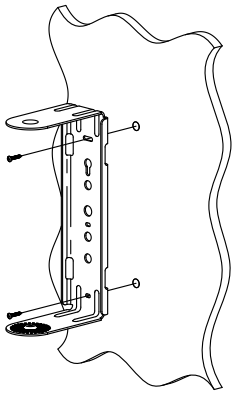
Warning!
Use a support system which has sufficient wind load strength to comply with the applicable codes and standards.
Disregarding this warning could result in damage to the product and major injury or possibly death may occur.

Caution!
It is the installer's responsibility to determine and use the proper mounting hardware for the wall construction type.
Disregarding this caution could result in damage to the product and personal injuries may occur.

Notice!
Connections shall not be made with rigid conduit but with flexible conduit or wiring only.

Installing the U-Bracket
To **install the U-bracket** (D):
1. Draw a level **line**.
2. Align **screw holes** on the level line.

1. Install **two mounting screws** to secure the U-Bracket (D) to the wall.



Installing the speaker

Safety point

As an added safety measure, it is suggested the user install an extra suspension point back to the building structural supports. This safety point should have as little slack as possible (less than 1-inch is preferable).

Caution!

The safety point (auxiliary support ring) is not intended for primary suspension of the loudspeaker. The safety point should only be used as a secondary safety point.

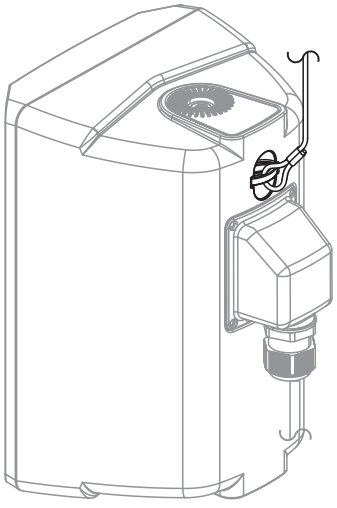


Figure 3.1: Redundant safety point

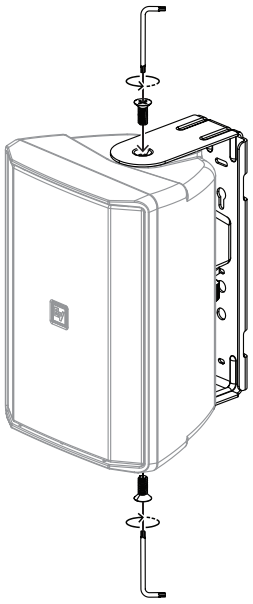
To **install the speaker**:

1. Connect the **speaker**.
   - Refer to *Connecting the speaker, page 9*.

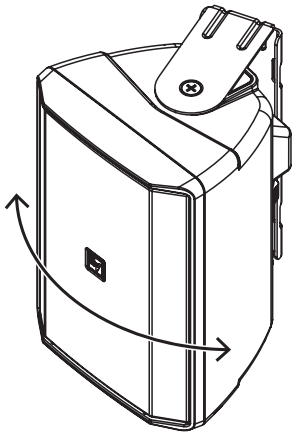
Notice!

Ensure the Ethernet cable is routed so that it is not pinched and that the cable bend radius complies with the cable manufacturer's recommendations.

2. Insert the **two safety screws** (C) into the U-Bracket (D) mounting points.
   – Loosely tighten the two safety screws (C) using the Allen wrench (B).



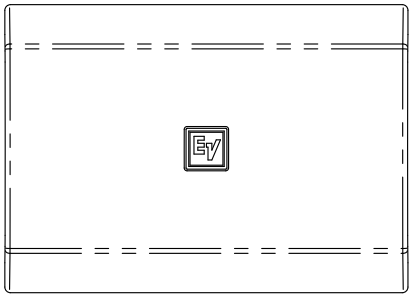
3. Aim the **speaker**.



4. Tighten the **two safety screws** (C) to secure the U-Bracket (D) to the speaker.
   – Ensure the speaker is secured to the U-Bracket (D).

3.3 Replacing the logo

An additional logo is included, horizontal installation is shown.

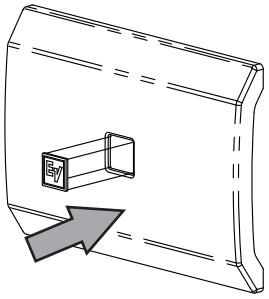


To **replace the logo**:

1. Remove the existing **logo**.
2. Clean the **surface** with alcohol.

3. Align the **logo** (G) with the square guide.

1. Align the **logo** (G) with the logo recess on the grille.
2. Remove the **paper backing**.
3. Insert the **logo** (G).
   – Press firmly to ensure the logo (G) is applied.



3.4 U-Bracket installation options

Using a U-Bolt

The U-Bracket can be mounted using a standard 2-inch or 4-inch U-Bolt.

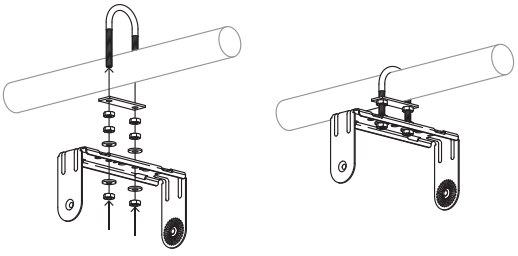


Figure 3.2: U-Bolt — 2-inch

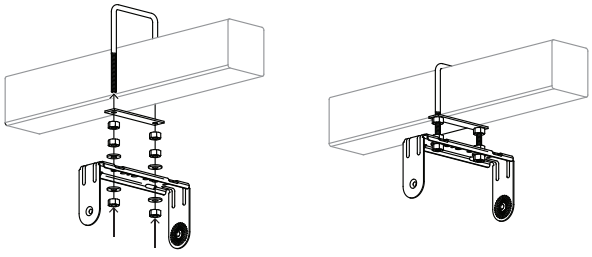


Figure 3.3: U-Bolt — 4-inch

Using a threaded rod

The U-Bracket can be installed to a threaded rod.

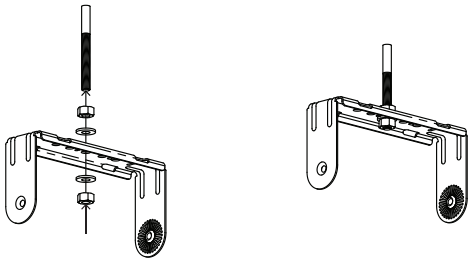


Figure 3.4: Threaded rod

Using a pole mount

The U-Bracket can be installed to a pole mount using steel band clamps.

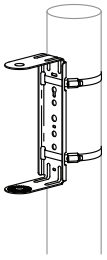


Figure 3.5: Pole mount

Using a junction box

The U-Bracket can be installed to a junction box using a 0.25” rubber grommet (not included) for wiring.

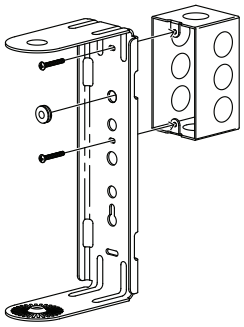


Figure 3.6: Junction box

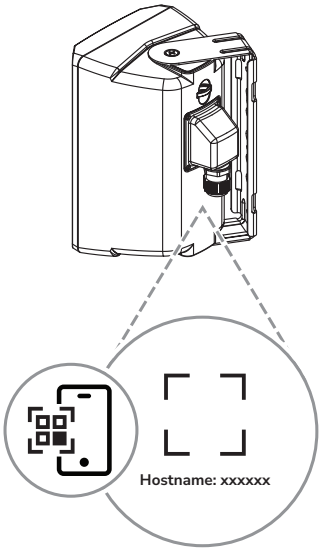
4 Operation

The loudspeaker includes an integrated web server for system monitoring and basic configuration.

- To access the Web UI, connect the loudspeaker to a PoE-enabled network.

Each EVIDn loudspeaker includes:

– A sticker on the device with a unique URL and QR code for the specific loudspeaker



– A sticker on the box with a unique URL and QR code for the specific loudspeaker

The unique URL is based on the device's MAC address and is added during manufacturing.

To access the web server, scan the QR code on the speaker or enter one of the following in a web browser:

– **http://<hostname>.local**

– The device IP address

The hostname is printed on the device and has the following format: EVIDn-xxxxxx.

For more information on operating the speaker, refer to EVIDn Operating manual.

5 Troubleshooting

Problem	Possible causes	Action
Loudspeaker does not power on	No PoE power available	Verify that the network switch or PoE injector supports IEEE 802.3af or IEEE 802.3at PoE and is powered on.
	Ethernet cable not connected properly	Verify that the Ethernet cable is fully inserted into the RJ45 connector and connected to the PoE source.
	Faulty Ethernet cable	Test with a known-good Cat5e or higher Ethernet cable.
	Switch power budget exceeded	Verify that sufficient PoE power is available for all connected loudspeakers.
Loudspeaker powers on but no audio is heard	Audio stream not routed to the loudspeaker	Verify Dante or AES67 routing in Dante Controller.
	Audio source muted	Verify the audio source and loudspeaker mute settings. Check signal indicators in the Web UI.
	Incorrect input configuration	Verify the selected input configuration and routing settings in the Web UI.
	Signal source unavailable	Verify that the Dante or AES67 source is active and transmitting audio. Verify audio routing in Dante Controller and confirm that input signal activity is present in the Web UI.
Loudspeaker powers on but output level is lower than expected	Loudspeaker operating with standard PoE (802.3af)	Use a PoE+ (802.3at) power source for full acoustic performance.
Questionable or intermittent output	Ethernet cable damaged or does not meet specifications	Inspect the Ethernet cable for damage. Replace the cable with a shielded Cat5e or higher Ethernet cable.
	Loose RJ45 connection	Verify that the Ethernet cable is fully inserted into the RJ45 connector at the loudspeaker and network equipment.
	Audio stream interruptions	Verify network connectivity and audio routing. Check Dante Controller and the loudspeaker Web UI for stream or fault indications.
	Unstable PoE power source	Verify that the connected PoE switch or PoE injector provides sufficient power and is operating correctly.
Buzzing, rattling, or unwanted noise	Loose mounting hardware or bracket components	Verify that the loudspeaker, mounting bracket, fasteners, and surrounding hardware are securely installed.
	Wall or mounting-surface vibration	Verify that the mounting surface is structurally suitable and tighten all mounting hardware. Apply suitable damping material as necessary to eliminate rattles.

Problem	Possible causes	Action
	Faulty upstream audio source or network audio device	Verify operation of the audio source and other devices in the audio signal path.
	Excessive gain or incorrect DSP settings	Review gain, EQ, and DSP settings in the Web UI and adjust as required.
Moisture inside the connection compartment	Cable gland or connection cover not installed correctly	Verify that all cable-entry seals, cable glands, and covers are properly installed and tightened.
Intermittent operation after outdoor exposure	Water ingress or damaged cable sealing	Inspect cable-entry points, seals, and external Ethernet cabling for damage or improper installation.
Intermittent audio or network connectivity	Ethernet cable damaged or does not meet specifications	Use a shielded Cat5e or higher Ethernet cable. Replace damaged cables.
	Excessive cable length.	Verify that the cable length does not exceed 100 m (328 ft).
Loudspeaker not accessible through the Web UI	Network connection not established	Verify Ethernet connections and network settings.
	Device IP address unknown	Use the hostname printed on the loudspeaker or access the device through the Rescue IP address.
	Corporate network restrictions.	Verify that local network policies permit access to the loudspeaker. Contact your IT administrator if necessary.
Loudspeaker cannot be discovered on the network	Network device not initialized	Verify that the loudspeaker receives PoE power and has completed startup.
	Network configuration issue	Verify switch operation, IP addressing, and physical network connections.
Configuration changes lost	Factory reset performed	Reconfigure the device and save settings as required.
Firmware update failed	Power or network connection interrupted during update	Repeat the firmware update procedure with a stable PoE and network connection. Do not interrupt power during the update.

If these suggestions do not solve your problem, contact your nearest Electro-Voice dealer or Electro-Voice distributor.

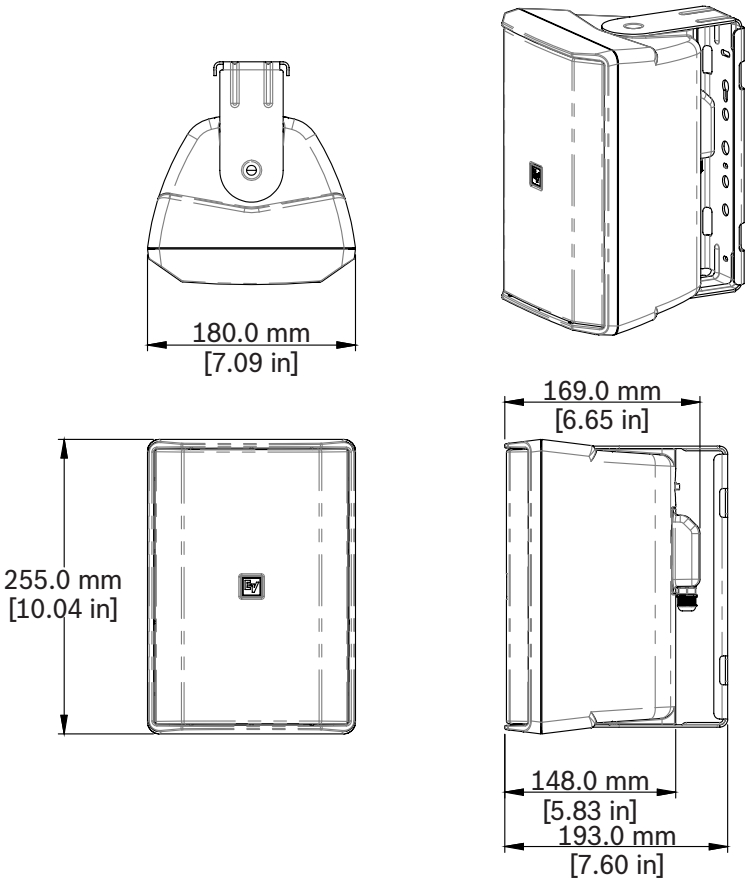
6 Technical data

[1]Half-space (wall mounting).
[2]Half-space (on wall) averaged 100 Hz - 10 kHz, 1 W.
[3]Without U-Bracket.

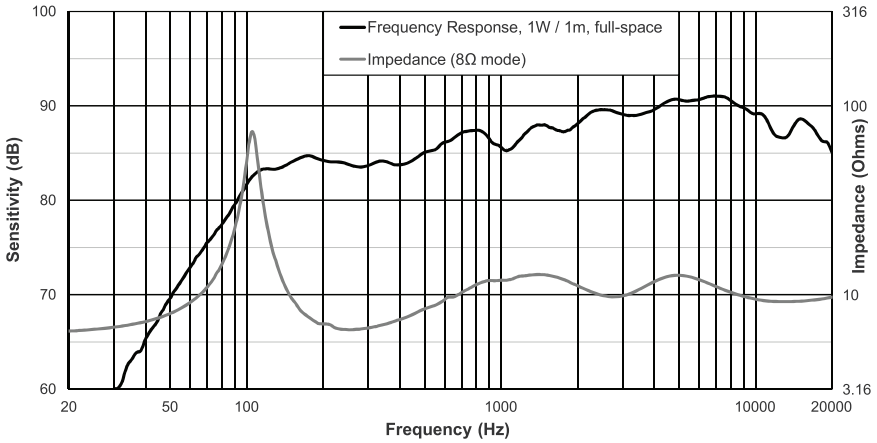
Frequency range (-10 dB) (Hz) [1]	50 Hz – 20,000 Hz
Maximum SPL (continuous) (dB)[2]	95 dB
Maximum SPL (peak) (dB)[2]	111 dB
Coverage angle HxV (°)	90° x 90°
LF transducer size (in)	5.25 in
HF transducer size (in)	0.75 in
Protocols / standards	Dante; AES67
Connector type	Shielded RJ45 (100 base-TX, 1000 base-TX)
Amplifier type	15W Class D amplifier
DSP features	Docker, Delay, PEQ, Low Shelf, High Shelf, Low Pass, High Pass, Notch, Low Shelf Q, High Shelf Q
PoE input	PoE IEEE 802.3af; PoE+ IEEE 802.3at
Power consumption (W)	PoE+: 30 W PoE: 15.4 W
Power on Idle (W)	4.5 W
Material	ABS (UL94V-0)
Grille material	Marine grade aluminum
Color	White; Black
Color (RAL)	RAL 9004 Signal black RAL 9003 Signal white
Dimensions (H x W x D) (in) [3]	10 in x 7.1 in x 5.8 in
Dimensions (H x W x D) (mm) [3]	255 mm x 180 mm x 148 mm
Weight (lb) [3]	5.3 lb
Weight (kg) [3]	2.39 kg
Shipping weight (lb)	6.7 lb
Shipping weight (kg)	3.05 kg
IP rating	IP65
Usage	Indoor; Outdoor
Operating temperature (°F)	-13 °F – 122 °F
Operating temperature (°C)	-25 °C – 50 °C
Safety agency ratings	IEC 62368-1, UL/CSA 62368-1

EMC agency ratings	EN 55035, EN 55032, EN 50121-4, FCC Part 15 Class B, ICES-003
Protection	RMS output power limiter; Peak current limiter; Thermal fuse; Clip limiter; Rail limiter; Power limiter
LED indication	Off - OK Green Blinking - Identification Red - Error

6.1 Dimensions

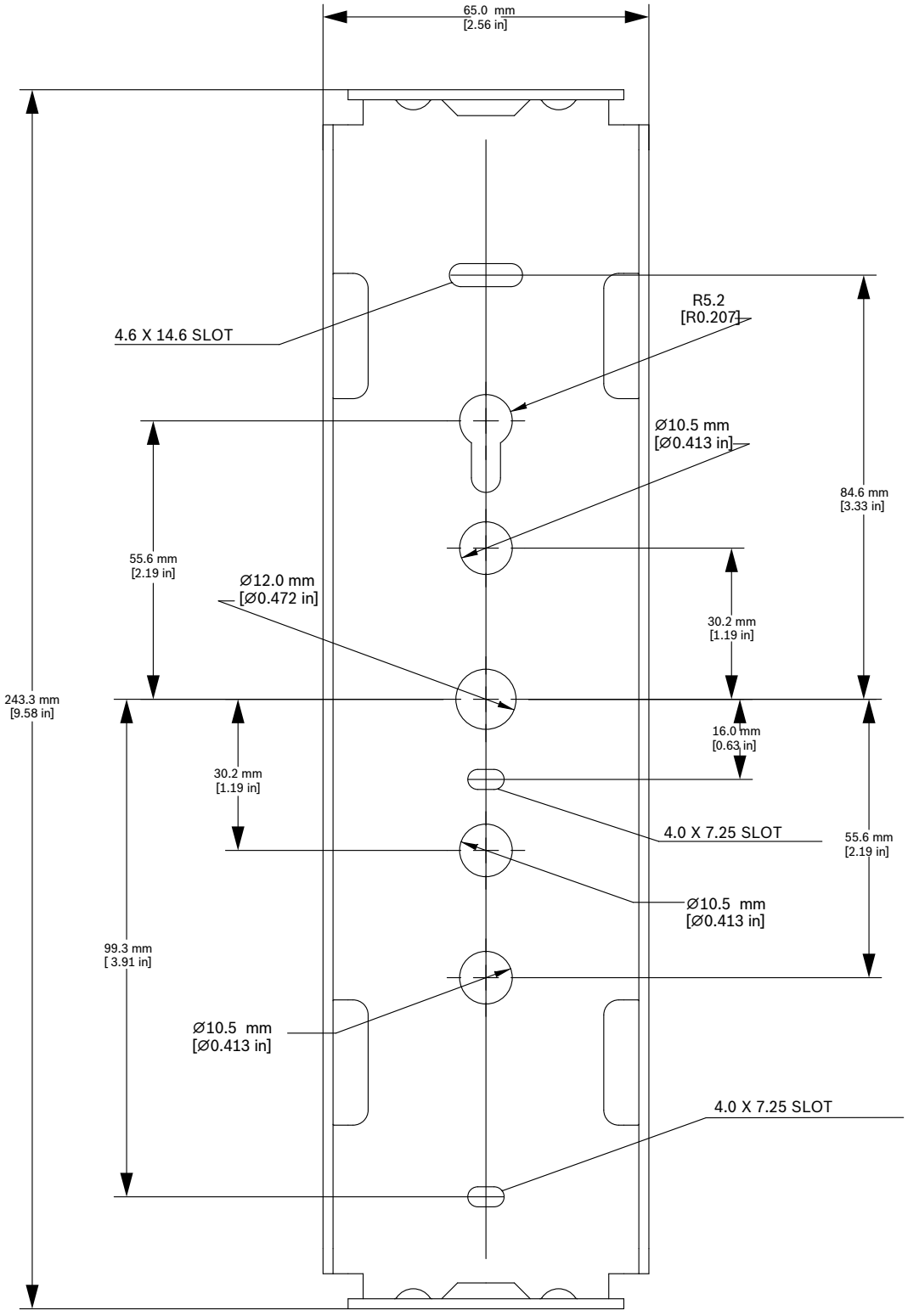


6.2 Frequency response and impedance



7 U-Bracket dimensions

The U-Bracket dimensions are not to scale and are for reference only.



PRELIMINARY

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