

SB 33 A Series

Adjustable Width Sound Bar



Safety Instructions

Safety Instructions • English

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Introduction

This section gives an overview of the Extron SB 33 A Series Sound Bar Speaker. Topics include:

- [About this Guide](#)
- [Overview](#)
- [Features](#)
- [Application Examples](#)

About this Guide

This guide describes the installation and set up of the SB 33 A Series Speaker.

NOTE: Observe all applicable building codes and local ordinances when installing the SB 33 A speaker.

In this guide, the terms “speaker” and “sound bar” are used interchangeably to refer to the SB 33 A Series Sound Bar Speaker.

Product Description

The SB 33 A is an adjustable-width sound bar speaker for use in small-to-medium conference rooms. It will feature two 3" full range speaker drivers, driven by an internal amplifier module. The SB 33 A speaker accepts balanced and unbalanced stereo input signals on three individually buffered inputs.

The SB 33 A is configurable for use with an internal webcam using the built-in adjustable shelf and window with a built-in door. It can also be configured to mount a PTZ camera with optional shelf, or configured for no camera with the optional blank center grille. The SB 33 A sound bar enclosure is adjustable to match the width of the display and is mounted under the display. The SB 33 A will be offered in four different sizes to accommodate screen sizes from 46" to 80", as shown in the table below.

Option	Fit Display Size (diagonal)	Fit Display Width	Speaker Module Width
SB 33 A 46-55	46" — 55"	40" — 49" (101.6 cm — 124.5 cm)	16.25" (41.3 cm)
SB 33 A 55-65	55" — 65"	48" — 57" (121.9 cm — 144.8 cm)	20.25" (51.4 cm)
SB 33 A 65-70	65" — 70"	56" — 65" (142.2 cm — 165.1 cm)	24.25" (61.6 cm)
SB 33 A 75-80	75" — 80"	64" — 73" (162.6 cm — 185.4 cm)	28.25" (71.8 cm)

Figure 1. SB 33 A Series Table

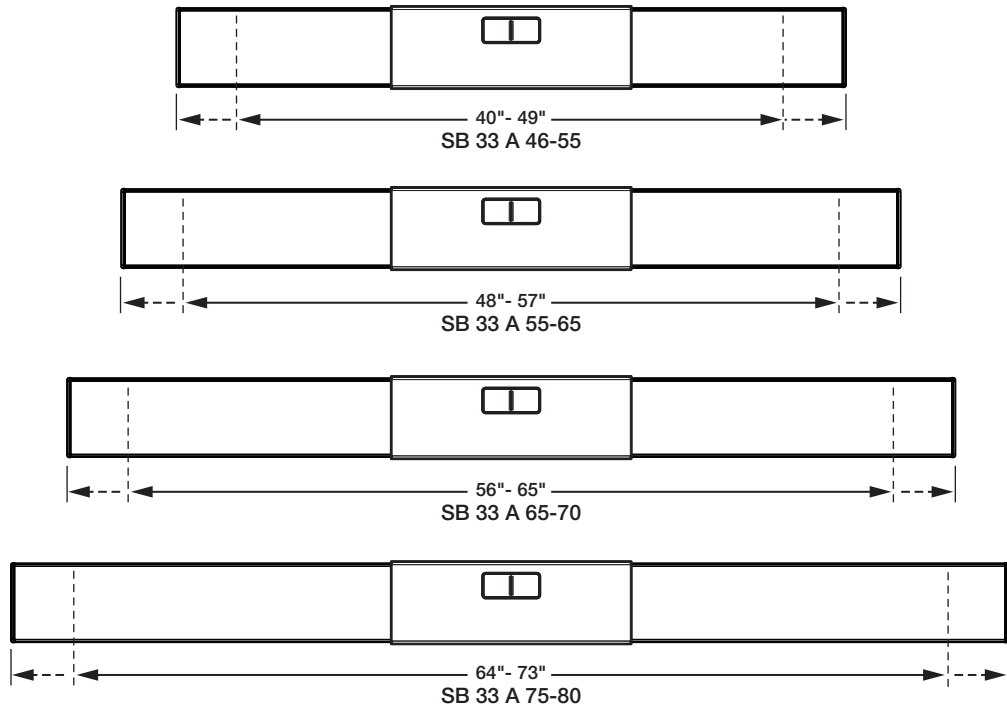


Figure 2. SB 33 A Series Model Options

The SB 33 A supports mounting directly to the wall under the display using the included wallplate. It can also be attached to an articulating display mount using the optional VESA mounting kit.

Features

- **Provides enhanced audio quality for collaboration spaces**
- **Adjustable width to match the display** — Perfectly matches the width of any display from 46" to 80"
- **Configurable for an internal webcam, a PTZ camera, or no camera** — Suitable for self-contained huddle spaces or video conference rooms
- **3" (76 mm) full-range drivers with a tuned port for bass extension** — Optimized for collaboration applications
- **Frequency range: 100 Hz to 20 kHz**
- **Internal Extron ENERGY STAR qualified Class D amplifier** — High performance stereo amplifier with CDRS, automatic clip limiter, and auto power-down with fast power-up
- **Compatible with VCM series volume and mute controllers** — Can be used without a control system
- **Compatible with select MLC controllers that include VCM volume and mute ports**
- **Internal level, bass, and treble adjustments** — Once set, these controls are hidden and protected from tampering
- **Optional VESA mounting kit**
- **ADA compliant when used with the included wall bracket** — Protrudes less than four inches from the wall

Application Example

The following diagram shows a typical SB 33 A Series installation.

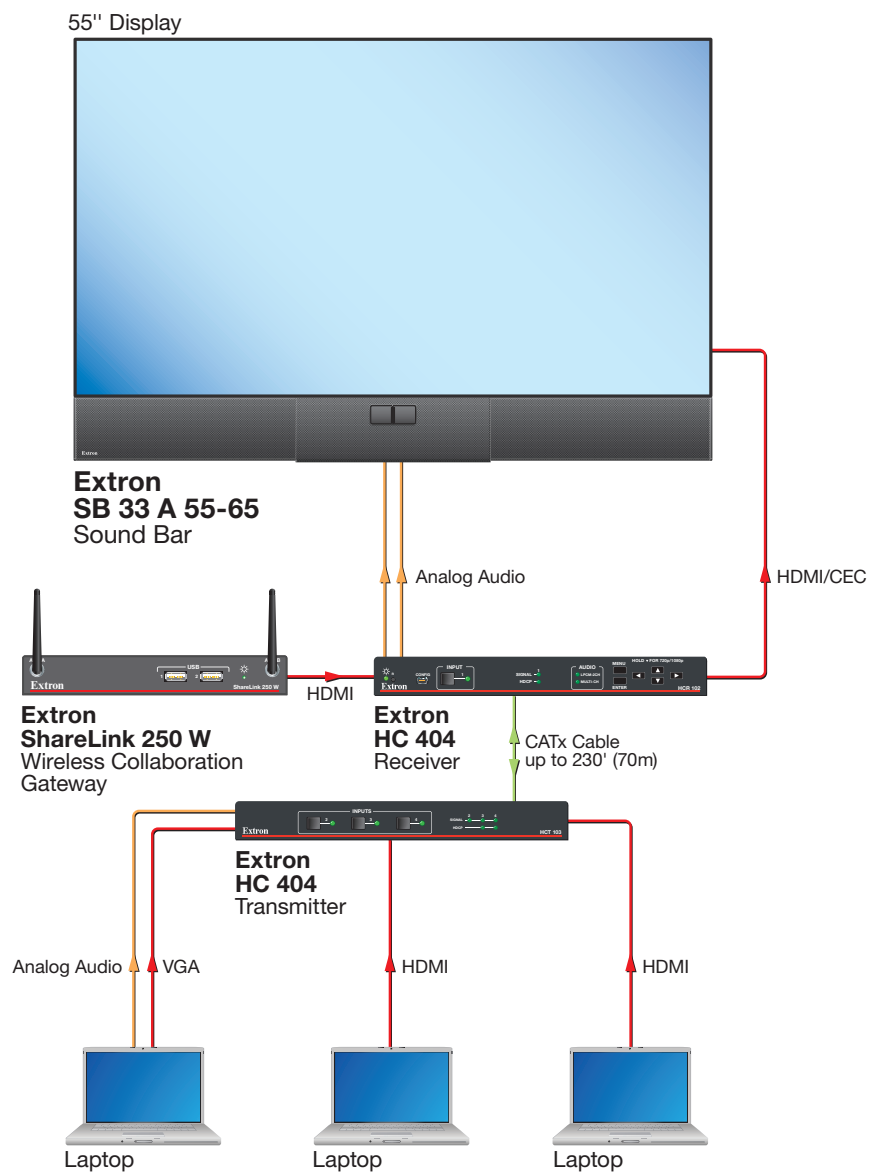


Figure 3. An Example of a SB 33 A System Installation

Installation

Topics covered in this section of the guide include the following:

- [Installation Overview](#)
- [Mounting Instructions](#)
- [SMK V SB 33 VESA Mounting Kit](#)

Installation Overview

The installation of the SB 33 A speaker includes using the included wallplate to mark the wall where the SB 33 A will be mounted. After the wallplate is attached to the wall the SB 33 A is then attached to the wallplate. The following section describes the mounting procedure for safely and securely mounting the speaker.

NOTE: Install the wallplate onto wall material using common installation methods with applicable hardware dictated per local building code.

Mounting Instructions

WARNING: Risk of personal injury or property damage. The final installation should be able to continuously support the speaker weight. The final installation should also be able to support any short term overloading. Since applications can vary considerably, it is assumed that the installer will exercise good judgment when selecting the mounting location, method, and hardware. Installation and service must be performed by authorized personnel only.

AVERTISSEMENT : Risque de dommages corporels ou matériels.

L'installation finale doit pouvoir supporter en permanence le poids de l'enceinte. L'installation finale doit également supporter toute surcharge temporaire. Étant donné la possibilité d'évolution considérable des applications, il est supposé que l'installateur fera preuve de discernement lors de la sélection de l'emplacement, du mode, et du matériel de montage. L'installation et la maintenance du système doivent être exclusivement effectuées par le personnel autorisé.

NOTE: Observe all applicable building codes and local ordinances when installing the SB 33 A speaker.

Installing the Wallplate on a Non-masonry Wall

NOTE: When attaching the wallplate to masonry, see Installing the [Wallplate on a Masonry Wall](#) in the following section.

1. Position and level the included wallplate (see figure 4) under the display screen (see figure 5) and mark the locations of the wall studs through the top vertical slots and bottom horizontal slots where screws (not included) will secure the SB 33 A speaker wallplate to the wall.

NOTES:

- If the wallplate cannot be attached to two studs, the wallplate can be offset such that one side of the wallplate can be attached to one stud and the other end of the wallplate can be attached to the wall using two (not included) 1/4" Kap Toggles. If the stud must come down the middle of the wallplate, secure the wallplate to the stud using two screws and to the wall using two (not included) 1/4" Kap Toggles (one on the leftmost top slot and one on the rightmost top slot)
- The center of the wallplate does not need to be precisely aligned with the center of the display above it because the speaker module on either end of the wallplate can be adjusted on the wallplate.

2. If necessary, cut a hole in the wall to route cables to the SB 33 A speaker.

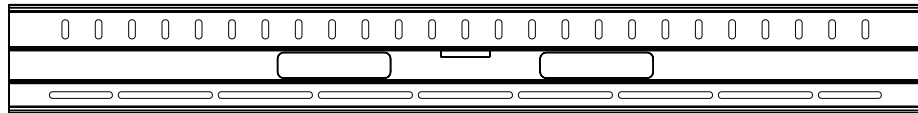


Figure 4. Positioning the Wallplate

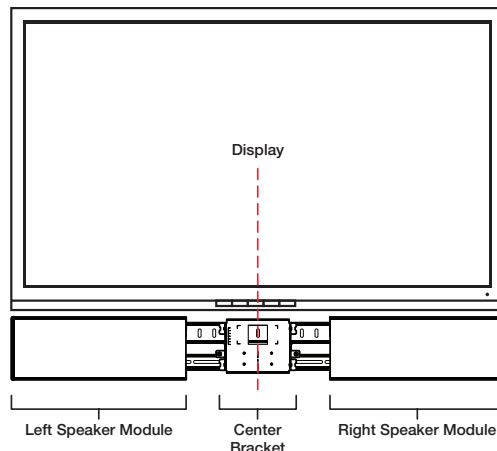


Figure 5. Display Screen and SB 33 A Alignment

NOTE: Assuming that the display screen is level, allow for some space between the bottom of the display screen and the top of the speaker because the speaker assemblies and the center bracket attach to the wallplate by hooking the top mounting clasps of the speaker assemblies and center bracket over the top mounting rail of the wall plate.

NOTE: To allow sufficient clearance between the top of the SB 33 A and the display screen above it, allow for at least a minimum clearance of 11/16 inches (17.5 mm) between the highest part of the top rail of the wallplate and the top of the speaker, as shown below. The display screen should not encroach into this area above the top rail.

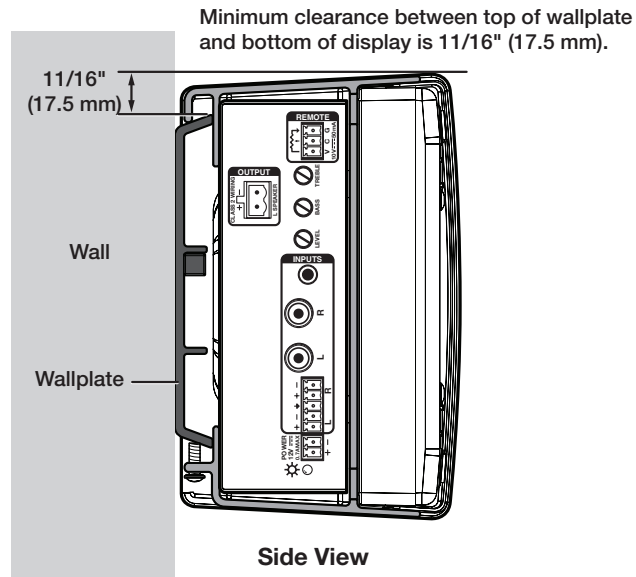


Figure 6. Positioning the Wallplate

- Before starting the installation, remove the center section assembly from the packaging and disassemble as indicated in the following order:

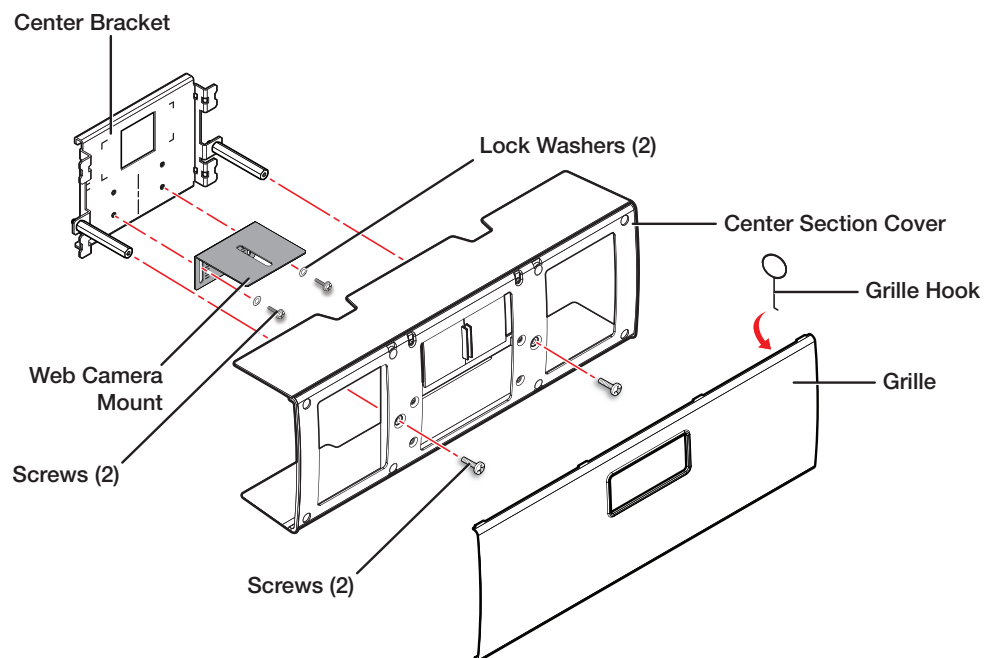


Figure 7. Disassembling the Center Section Assembly

- a. The front grille from the center section cover using a grille hook.
 - b. The center section cover from the center bracket standoffs by removing the 2 screws
 - c. The web camera mount from the center bracket (if necessary) by removing the two screws and lock washers that attach it to the center bracket.
4. Drill four pilot holes through the marked locations on the wall.
 5. Screw the wallplate to the wall studs using four #14 x 1 3/4" self-tapping wood or metal screws and four 1/4" SAE washers into the pilot holes.

NOTE: Use wood or metal screws depending on whether the studs are wood or metal.

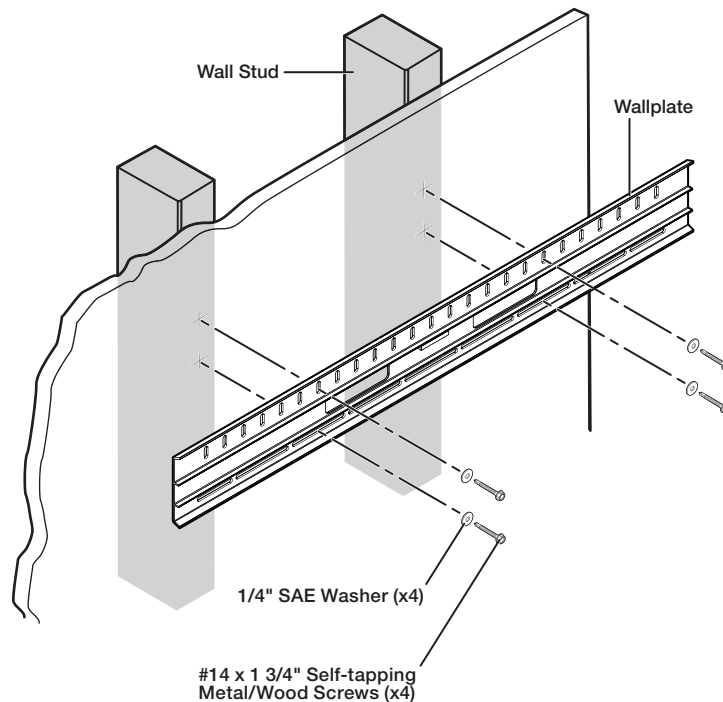


Figure 8. Attach the Wallplate to Studs

Installing the Wallplate on a Masonry Wall

Mount the wallplate on a brick, stone, or concrete wall by doing the following:

NOTE: The center of the wallplate does not need to be precisely aligned with the center of the display above it because the speakers on either end of the wallplate may still be adjustable on the wallplate.

1. Follow **steps 1 to 3** of [Installing the wallplate on a non-masonry wall](#) on page 5.

NOTE: Because masonry installation does not involve wall studs, position the wallplate so that the mounting holes will evenly distribute the weight of the SB 33 A.

2. Using a masonry drill bit, drill four pilot holes in the masonry wall at the locations you marked in step one.

NOTE: If you drill the pilot hole too shallow, the screw head might break off while it is being fastened into the hole.

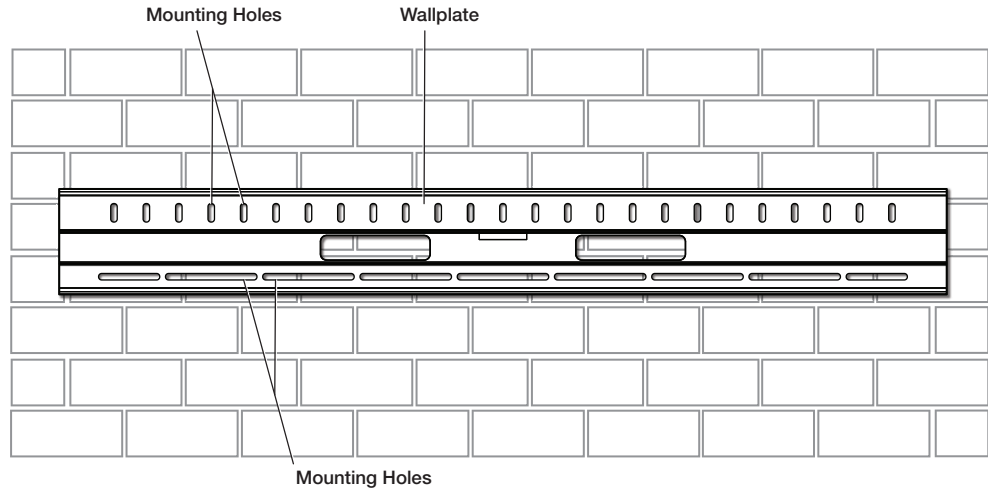


Figure 9. Positioning the Wallplate on Masonry

3. For each pilot mounting hole:
 - a. Insert a 1/4" x 1 3/4" masonry screw through a 1/4" SAE washer.
 - b. Position the wallplate over the pilot holes
 - c. Insert each screw and washer through the wallplate and into the pilot hole.

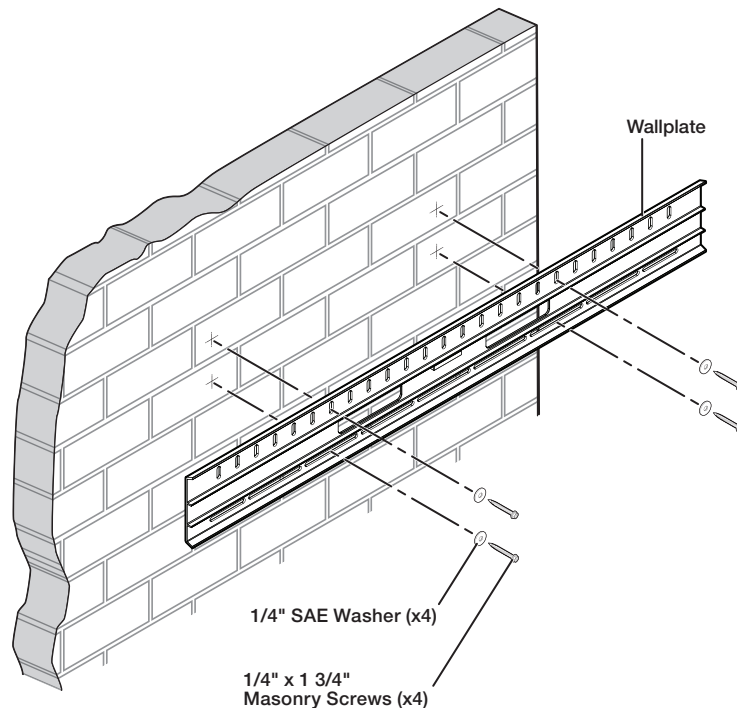


Figure 10. Attaching the Wallplate to Masonry

- d. Securely tighten the four screws to the wallplate.

Attaching the SB 33 A to the Wallplate

ATTENTION:

- When attaching either speaker assembly or the center section to the wallplate, avoid damaging or scratching the speaker assembly and center section cover.
- Lorsque vous fixez les enceintes ou la section centrale à la plaque murale, prenez garde à ne pas endommager ni à rayer les enceintes et le couvercle de la section centrale.

1. Hook the top clasp edge of the left speaker assembly over the top rail ❶ in figure 11 of the wallplate and slide it to left end of the wallplate ❷ so that the left end of the speaker assembly is aligned with the left end of the display.

Tighten the 2 set screws ❸ on the bottom of the left speaker assembly to the bottom rail of the wallplate.

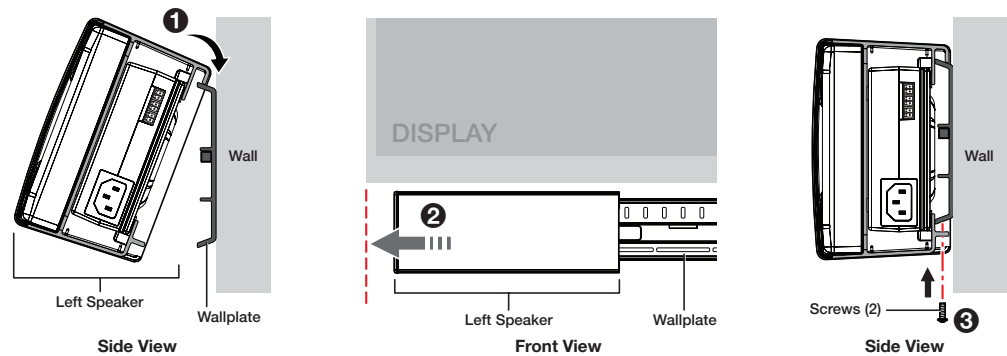


Figure 11. Attaching the Left Speaker to the Wallplate

2. Hook the top clasp edge of the right speaker assembly over the top rail ❶ in figure 12 of the wallplate and slide it to right end of the wallplate ❷ so that the right end of the speaker assembly is aligned with the right end of the display.

Tighten the 2 set screws ❸ on the bottom of the right speaker assembly to the bottom rail of the wallplate.

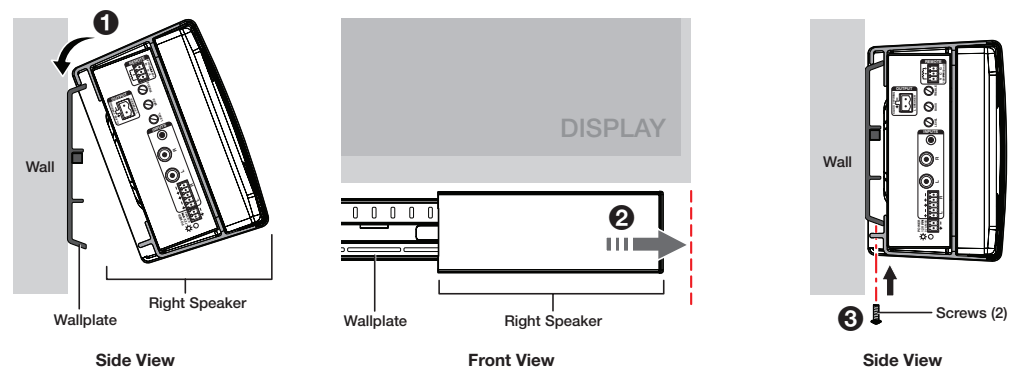


Figure 12. Attaching the Right Speaker to the Wallplate

3. Route the supplied power cable from the power supply in the left speaker enclosure to the power input connector of the amplifier in the right speaker enclosure.

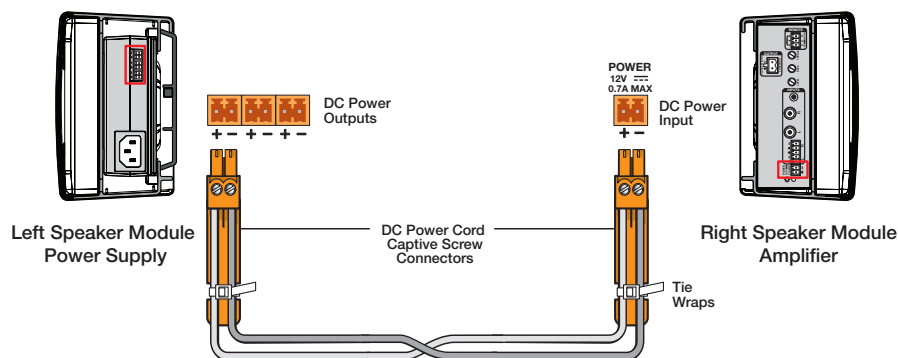


Figure 13. Power Supply to Amplifier Cable Routing

ATTENTION:

- Always use a power supply supplied by or specified by Extron. Use of an unauthorized power supply voids all regulatory compliance certification and may cause damage to the supply and the end product.
- L'utilisation d'une source d'alimentation non autorisée annule toute certification de conformité réglementaire, et peut endommager la source d'alimentation et l'unité.
- The installation shall be in accordance with the applicable provisions of National Electrical Code ANSI/NFPA 70, article 725 and the Canadian Electrical Code part 1, section 16.
- Cette installation doit toujours être conforme aux dispositions applicables du Code américain de l'électricité (National Electrical Code) ANSI/NFPA 70, article 725, et du Code canadien de l'électricité, partie 1, section 16.
- The length of the exposed wires in the stripping process is **critical**. The ideal length is 3/16 inches (5 mm). Any longer and the exposed wires may touch, causing a short circuit between them. Any shorter and the wires can be easily pulled out even if tightly fastened by the captive screws.
- La longueur des câbles exposés est **primordiale** lorsque l'on entreprend de les dénuder. La longueur idéale est de 5 mm (3/16 inches). S'ils sont trop longs, les câbles exposés pourraient se toucher et provoquer un court-circuit. S'ils sont trop courts, ils peuvent être tirés facilement, même s'ils sont correctement serrés par les borniers à vis.

NOTE: Do not tin the wires. Tinned wire does not hold its shape and can become loose over time.

4. Route the supplied speaker cable from the left speaker module to the left speaker output of the amplifier (②), as shown below.

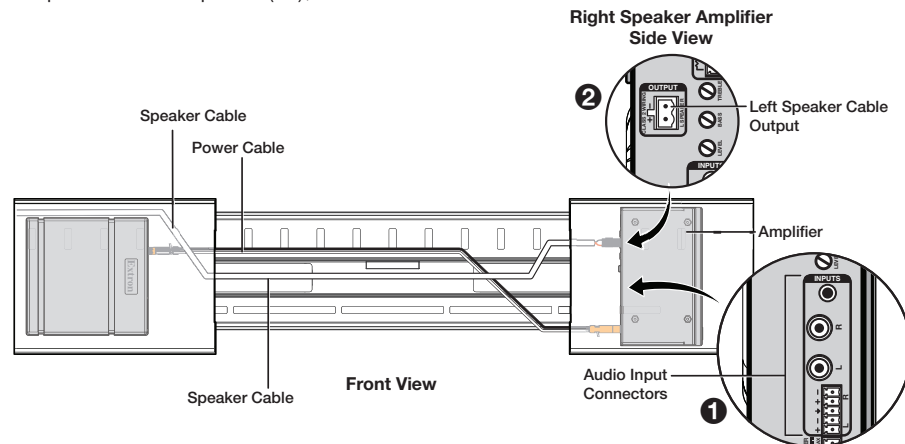


Figure 14. Left Speaker Cable Routing

5. Hook the top clasp edge of the center bracket over the top rail (①) of the wallplate and slide it to center of the display.

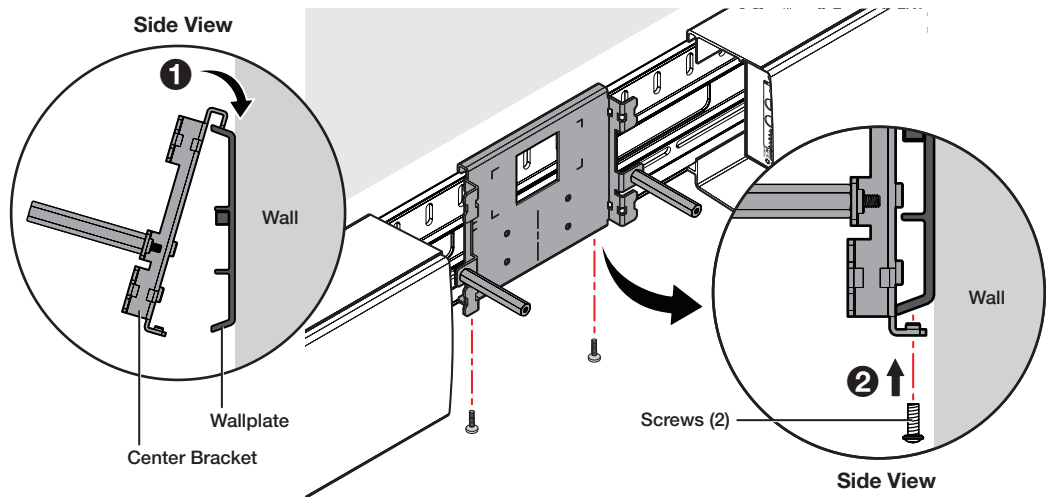


Figure 15. Center Bracket to Wallplate Installation

Tighten the two set screws (②) on the bottom of the center bracket to the bottom rail of the wallplate.

NOTE: If a camera is to be mounted to the center bracket, see [Mounting a Camera](#) before proceeding to the next step.

Mounting a Camera

The SB 33 A speaker can accommodate a camera mounted to the center bracket. A small webcam can be mounted behind the center cover, and a larger PTZ camera can be mounted in front of the center cover using an optional PTZ camera shelf.

NOTE: If mounting a PTZ Camera, please go to [Mounting a PTZ Camera with optional PTZ camera shelf](#) section. Both the webcam camera shelf and the PTZ camera shelf use the same two attaching screws and lock washers.

Camera mounting behind the front cover

A webcam can be installed using the included webcam shelf.

1. Install the webcam shelf by attaching it to the center bracket using 2 screws going through the 2 vertical slots on the shelf and into two mounting holes in the bracket. There are 2 pairs of available holes in the bracket. The shelf height can be adjusted by positioning the screws in the shelf slots ❶.

NOTE: For cameras that require more overhead clearance, the webcam shelf can be inverted (see Option 2 below right).

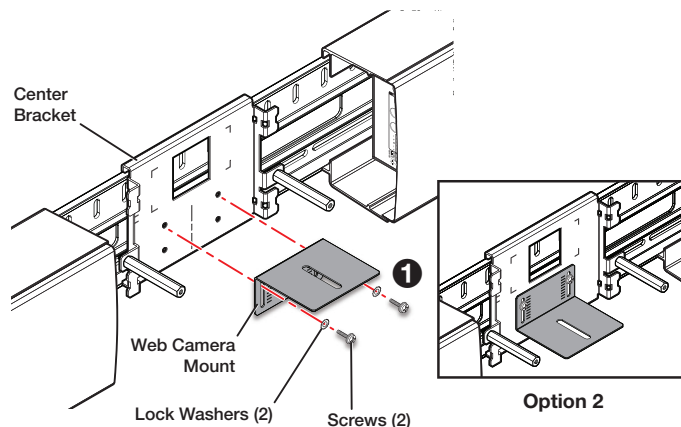


Figure 16. Inverting the Webcam Shelf

2. A screw is inserted in the bottom slot of the shelf ❷ to secure the webcam.

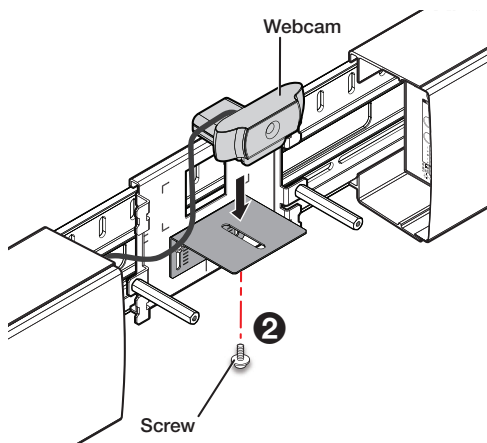


Figure 17. Securing the Webcam to Shelf

3. See [Attaching Power and Audio Sources to the SB 33 A](#) on page 15 to continue the installation.

Mounting a PTZ camera with optional PTZ camera shelf

A larger PTZ camera that takes up more space can be installed in front of the front cover using the optional PTZ camera shelf. Follow the steps below.

ATTENTION:

- The PTZ camera cannot exceed 4 lbs. (1.81 kg).
- La caméra PTZ ne peut peser plus de 1,81 kg (4 lb).

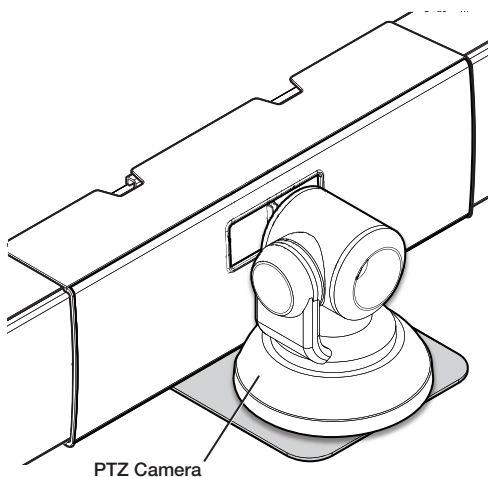


Figure 18. PTZ Camera on PTZ Camera Shelf

1. Install the PTZ camera shelf by attaching it to the center bracket using two screws and lock washers going through the vertical slots on the shelf and into two mounting holes in the bracket. There are two pairs of available holes in the bracket. The shelf height can be adjusted by positioning the screws in the shelf slots.

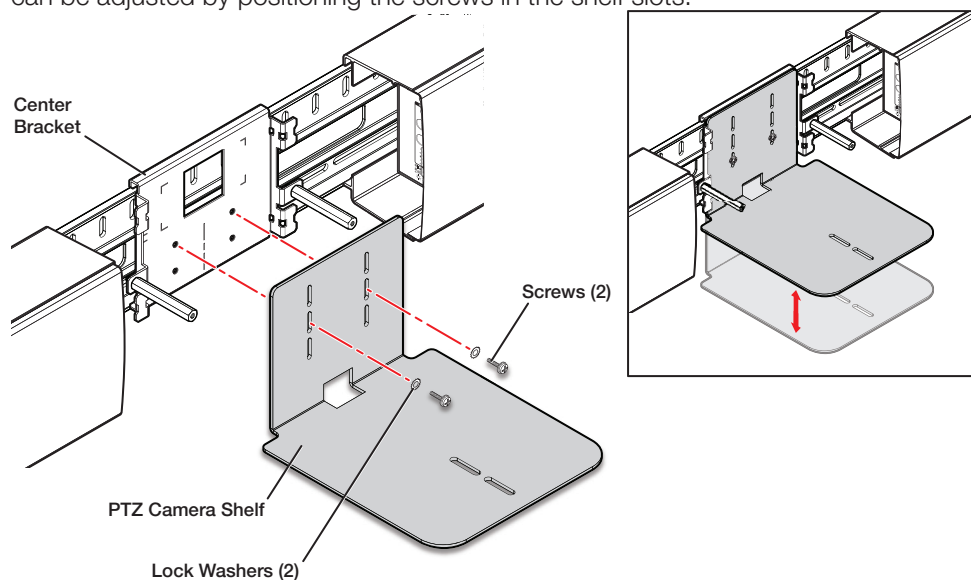


Figure 19. Attaching the PTZ Camera Shelf

2. To install a PTZ camera, follow the steps below:

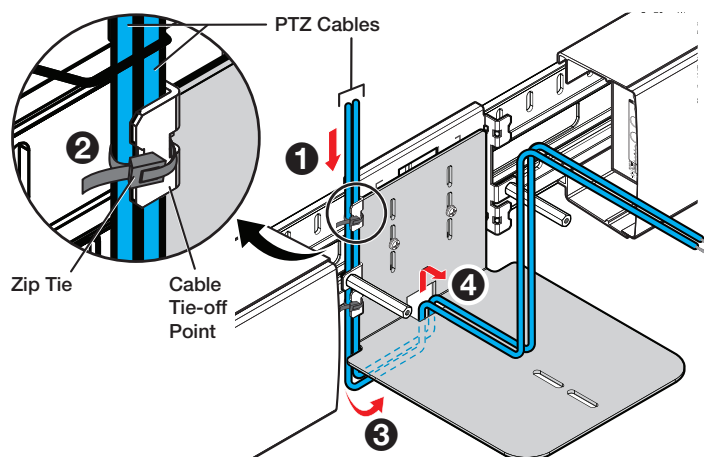


Figure 20. Routing the PTZ Camera Cable

- a. Route the PTZ cable to the PTZ camera through the center section cover (1) and along a center bracket cable tie-off point (2).
- b. Route the cable to the camera shelf (3).
- c. Route the cable through the access hole at the rear of the camera shelf (4).
3. See [Attaching Power and Audio Sources to the SB 33 A](#) on page 15 before continuing with the next steps.
4. If the optional blank grille is being installed, see [Attaching the optional blank grille](#) on page 19.
5. Slide the center section cover over the center bracket and attach the two cover screws to the center bracket standoffs being careful not to overtighten the screws.

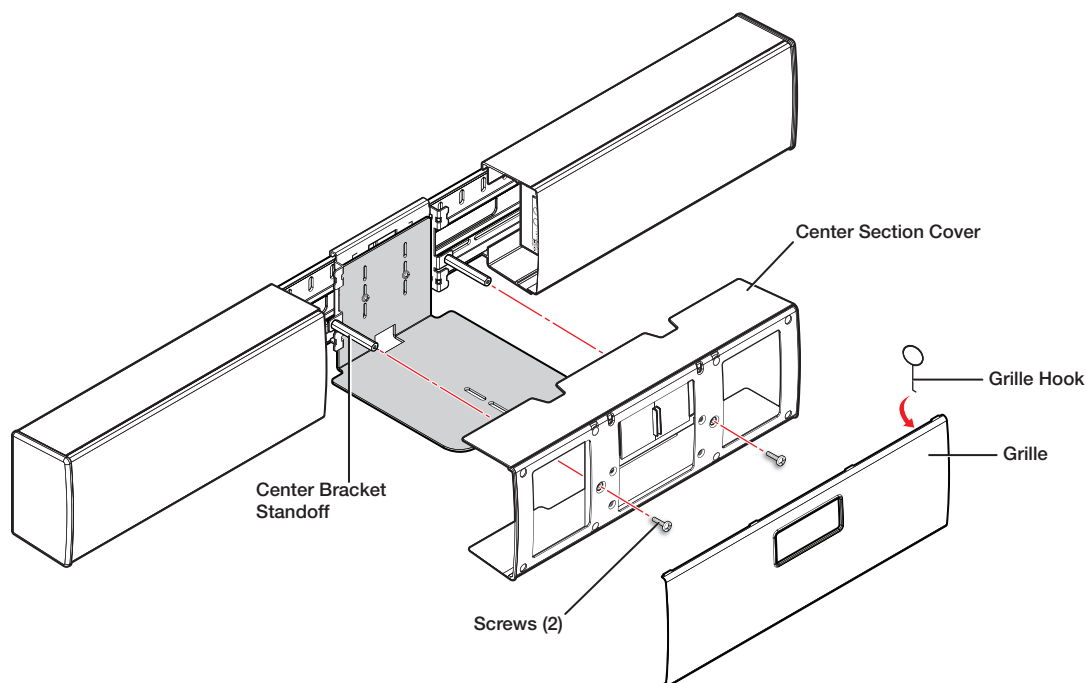


Figure 21. Attaching the Center Section Cover

6. Attach the grille to the center section cover. See the illustration above.

NOTE: Two grille hooks are included to facilitate grill removal while avoiding damage to the grille. It is best to insert the hook along the top or bottom outer edge of the grille, as shown above.

7. Route the cable to the PTZ camera (❶) and attach it to the camera. See the figure below.
8. Place the camera on the shelf and attach it to the shelf with the mounting screw (❷). See the figure below.

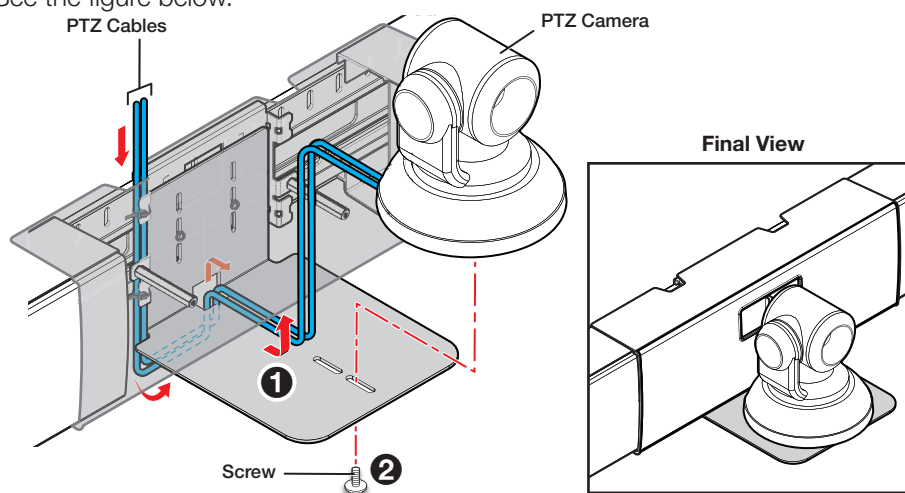


Figure 22. Attaching the PTZ Camera to the Shelf

Attaching Power and Audio Sources to the SB 33 A

The SB 33 A has a power supply for the amplifier housed in the left speaker enclosure. The power supply has an AC power input connector (A) and a DC power output connector (B) that routes power to the amplifier. See the illustration below.

**Left Speaker/Power Supply
(Side View)**

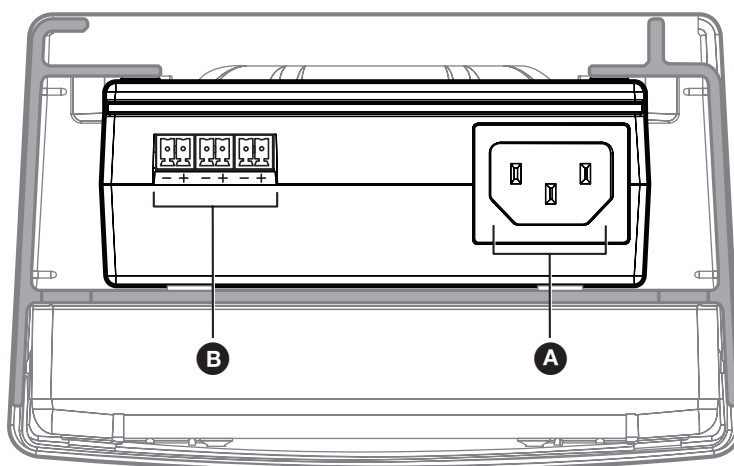


Figure 23. AC Input and DC Output Power Connectors

This section describes how the power and audio sources are attached to the SB 33 A, as shown in the following steps.

NOTE: Speaker and DC power cables must be routed before attaching the center bracket to the wallplate. See the previous section.

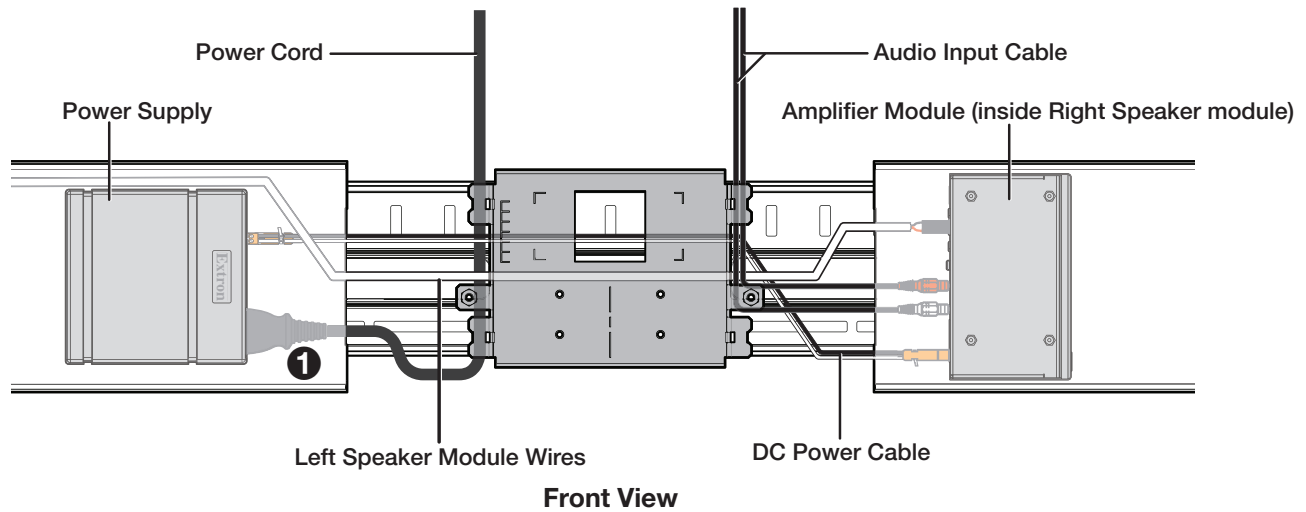


Figure 24. Speaker and DC Power cable routing

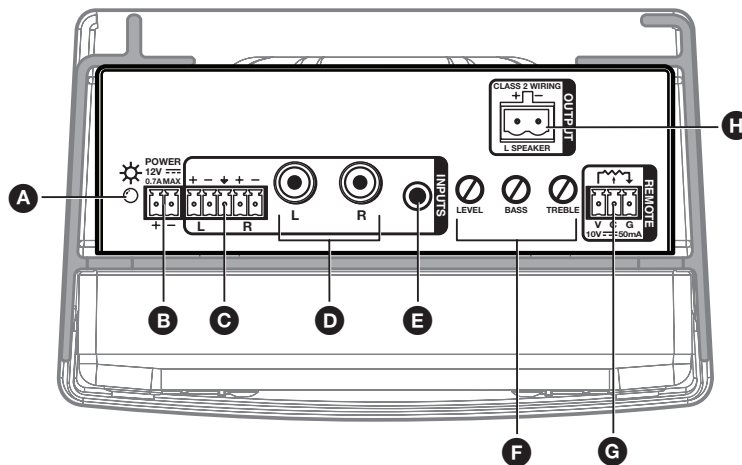


Figure 25. SB 33 A Amplifier Front Panel

- | | |
|---|---|
| A Power LED | E 3.5 mm unbalanced stereo input jack |
| B Amplifier power supply connector | F Level, bass, and treble potentiometers |
| C Captive screw balanced or unbalanced audio input connector | G Remote volume control connector |
| D RCA unbalanced stereo input connectors | H Left Speaker output receptacle (to left speaker) |

For a detailed description of the above connectors go to the [SB 33 A Internal Amplifier Front Panel \(inside right speaker module\)](#) section of the Operation chapter on page 27.

1. Wiring access points for the power and speaker cables to the SB 33 A are shown below.

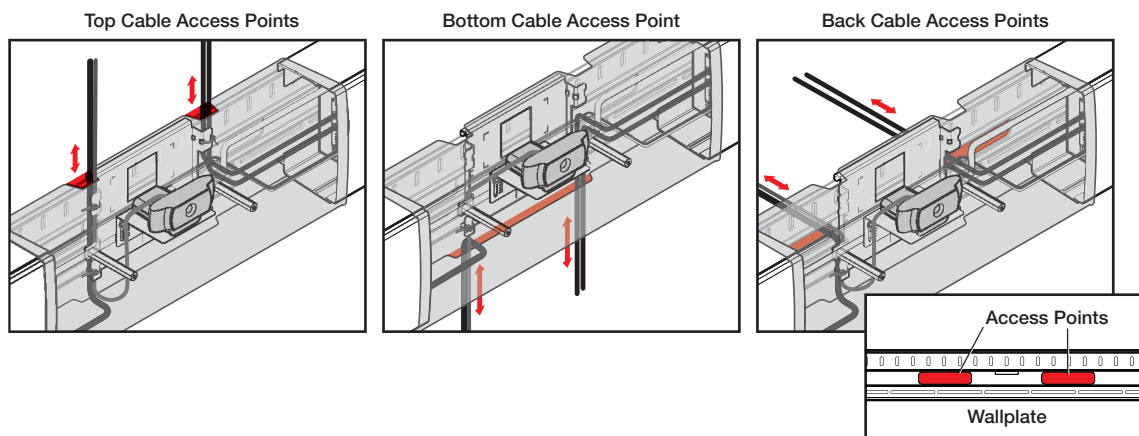


Figure 26. Power and Speaker Cable Routing

Cables can be secured with zip ties to cable tie off points located on the center bracket, as shown below.

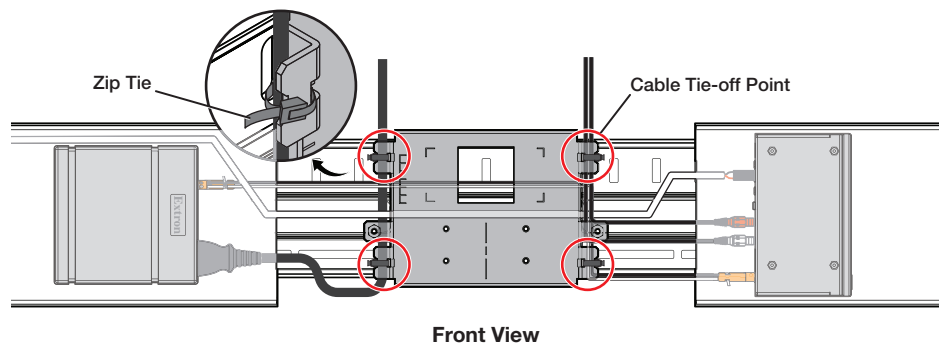


Figure 27. Securing Cables with Zip Ties

2. Route the audio cable from the display to the audio input connectors of the power amplifier (1) in the right speaker assembly. See the cable access points illustration in **step 1**.

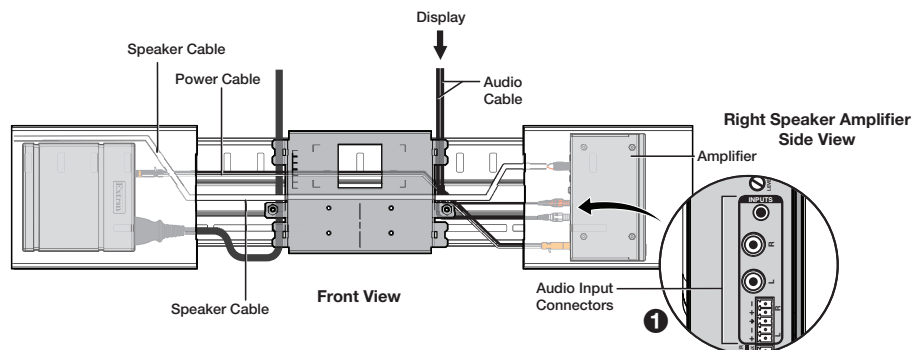


Figure 28. Routing Speaker Cables from the Display

3. Connect the power cord to the power supply in the left speaker assembly (❶), as shown below.

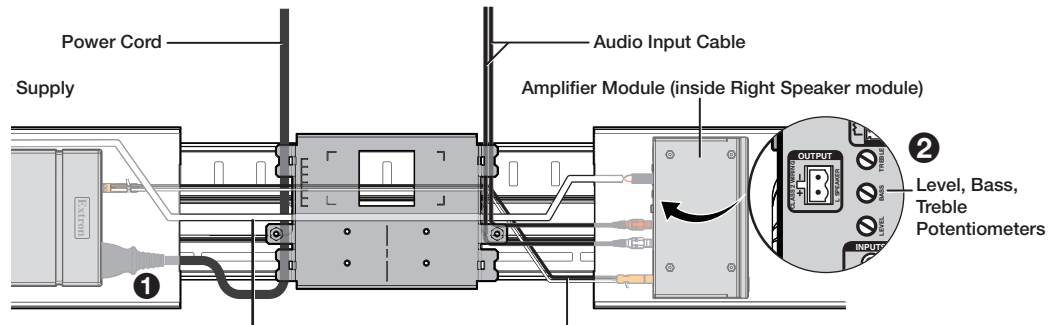


Figure 29. Connecting Power to the Power Supply

4. Set the level, bass, and treble potentiometers shown above (❷) appropriately.

Attaching the Center Section Cover

1. Slide the center section cover over the center section and attach the two cover screws to the center bracket standoffs being careful not to overtighten the screws.

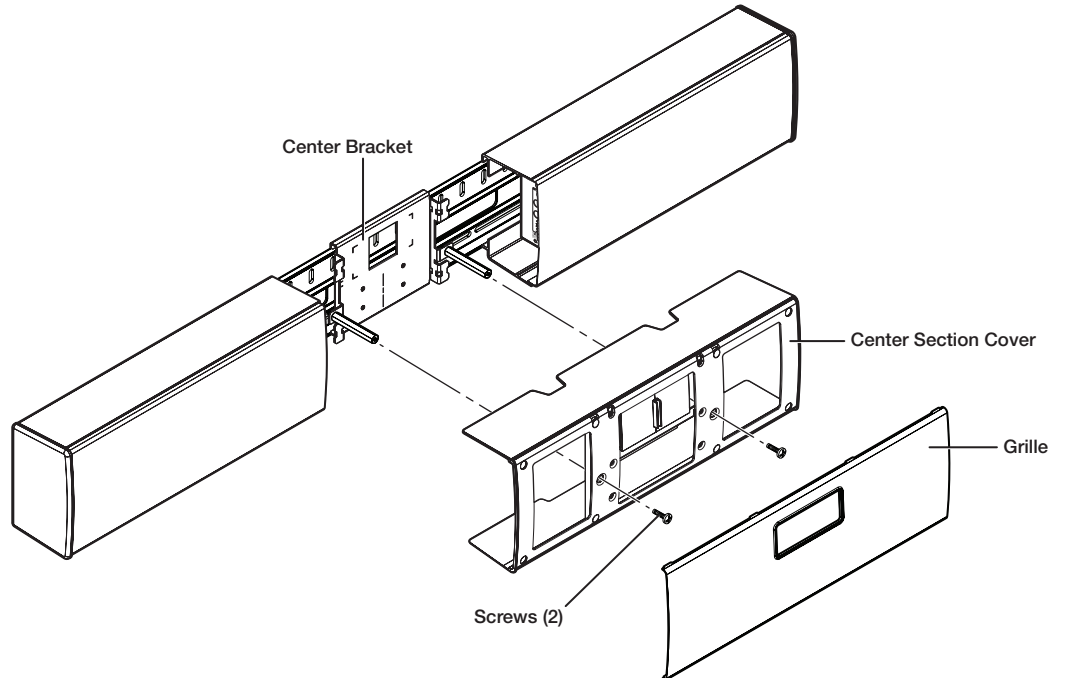


Figure 30. Attaching the Center Section Cover and Grille

2. Attach grille to the center section cover (see the above illustration).

NOTE: Two grille hooks are included to facilitate grill removal while avoiding damage to the grille. It is best to insert the hook along the outer edge of the grille.

Attaching the Optional Blank Grille

The optional blank grille can be attached to the center section cover by following the steps below.

1. If a grille is attached, use the grille hooks to remove the grille.

NOTE: Two grille hooks are included to facilitate grille removal while avoiding damage to the grille. It is best to insert the hook along the outer edge of the grille.

2. Remove the four screws that attach the center section cover doors to the center section cover. Two door rails behind the cover and the sliding doors will be separated from the center section cover after the screws are removed.

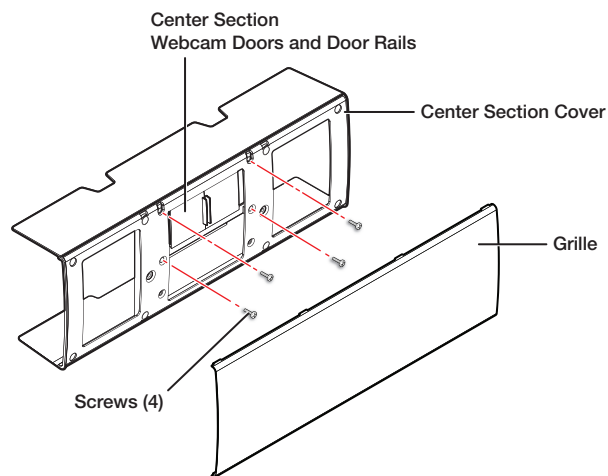


Figure 31. Attaching the Blank Grille

3. Remove the center section webcam doors and door rails (not shown).
4. Attach the blank grille to the center section cover.

SMK V SB 33 VESA Mounting Kit

The SMK V SB 33 VESA Mounting Kit allows the SB 33 A Series speaker to be attached to the same VESA display mount that supports the display device. This type of installation enables the SB 33 speaker to be aligned with the display for a visually aesthetic installation. The SB 33 front speaker surface can be adjusted flush with the front of the display. It can be adjusted forward, backward, up, down, and side-to-side.

Installation

VESA display mounts come in a variety of different styles, so these instructions for installing the SMK V SB 33 VESA Mounting Kit are variable. Please consult the installation guides for your specific VESA display mount and your display device before installing our kit. Follow the steps below to install the kit.

WARNING: Risk of personal injury or property damage. The final installation should be able to continuously support the speaker weight. The final installation should also be able to support short term overloading. Be sure to not exceed the load limit of the VESA mount, mounting surface, and SMK V SB 33. The maximum load limit of the SMK V SB 33 is 85 lb. (38 kg) Since applications can vary considerably, it is assumed that the installer will exercise good judgment when selecting the mounting location, method, and hardware. Installation and service must be performed by authorized personnel only.

AVERTISSEMENT : Risque de dommages corporels ou matériels. L'installation finale doit pouvoir supporter en permanence le poids de l'enceinte. L'installation finale doit également pouvoir supporter une courte surcharge. Veillez à ne pas dépasser la charge maximale du support de montage VESA, de la surface de montage, et de l'unité SMK V SB 33. La charge maximale du SMK V SB 33 est de 38 kg. Étant donné la possibilité d'évolution considérable des applications, il est supposé que l'installateur fera preuve de discernement lors de la sélection de l'emplacement, du mode, et du matériel de montage. L'installation et la maintenance du système doivent être exclusivement effectuées par un technicien agréé.

NOTE: Observe all applicable building codes and local ordinances when installing the SB 33 A speaker.

The SMK V SB 33 VESA Mounting Kit is composed of 2 long L-brackets, 2 short L-brackets, 6 bolts, 6 lock washers, 2 washers, and 6 wingnuts.

1. Install the wall mount portion of the VESA display mount onto the desired wall location. See the VESA display mount installation guide.

2. Position one long L-bracket of the SB 33 kit on the back of the display while aligning the bolt hole on the display with a slot on the L-bracket. Repeat this procedure for the other long L-bracket on the other side of the display.

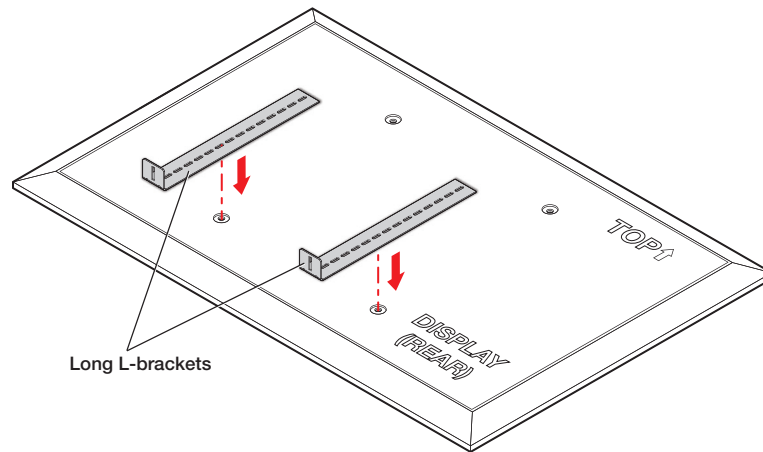


Figure 32. Positioning Long L-brackets on Display

3. Place the VESA display mount on top of the L-bracket while aligning the bolt hole of the display mount with the slot of the L-bracket and the bolt hole of the display. Repeat this procedure for the other long L-bracket on the other side of the display.

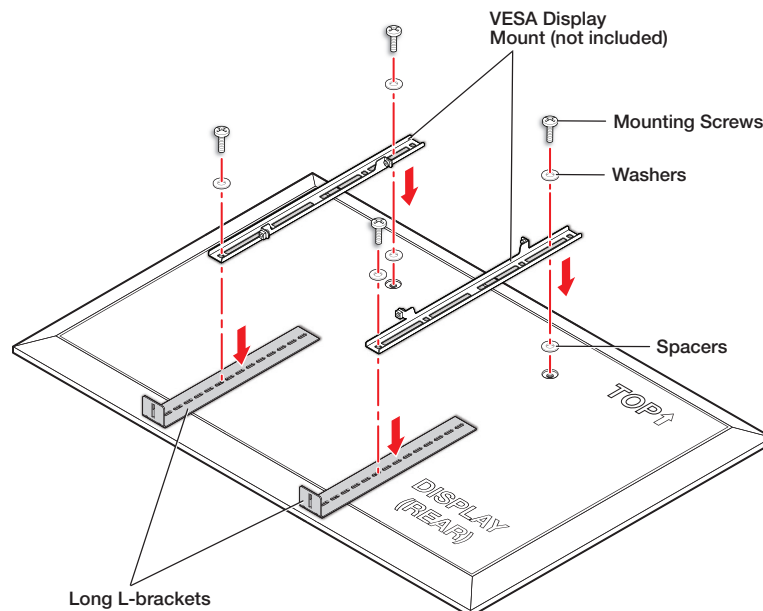


Figure 33. Aligning VESA Display Mount to Long L-brackets

4. Insert bolts through the VESA display mounts, the long L-brackets, and the display. Be sure to align the bolt holes of the VESA display mounts with the display mounting holes and insert the bolts. Tighten all 4 bolts. Spacers are provided if needed. See the illustration in **step 3**.

5. Position the short L-bracket under the long L-bracket that was installed in **step 4** above such that the L bends of each bracket are paired together. See the illustration below. Then install 1 bolt with a wingnut and lockwasher (included in the kit) so that the long L-bracket and short L-bracket are held together. Tighten the wingnut. Repeat this procedure for the other long L-bracket on the other side of the display.

NOTE: The short L-bracket may be reversed if the SB 33 speaker needs to be positioned further forward relative to the display above it. See the illustration below right.

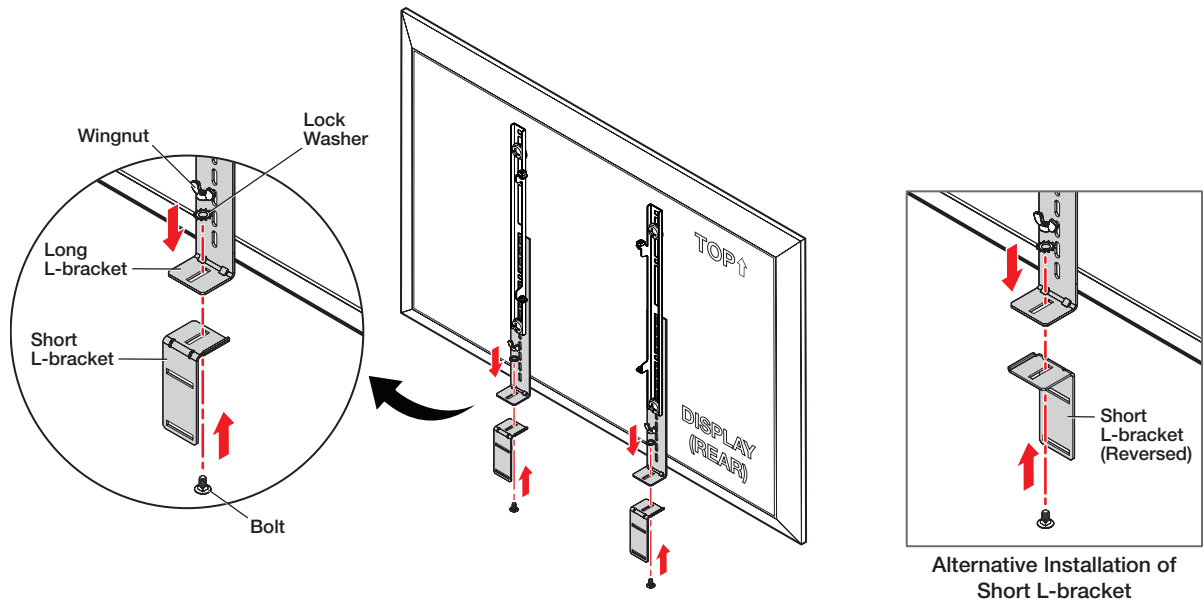


Figure 34. Attaching Short L-brackets

6. Install the SB 33 speaker wallplate to the short L-bracket using 2 bolts, 2 lock washers, and 2 wingnuts, as shown below. Repeat this procedure for the other short L-bracket on the other side.

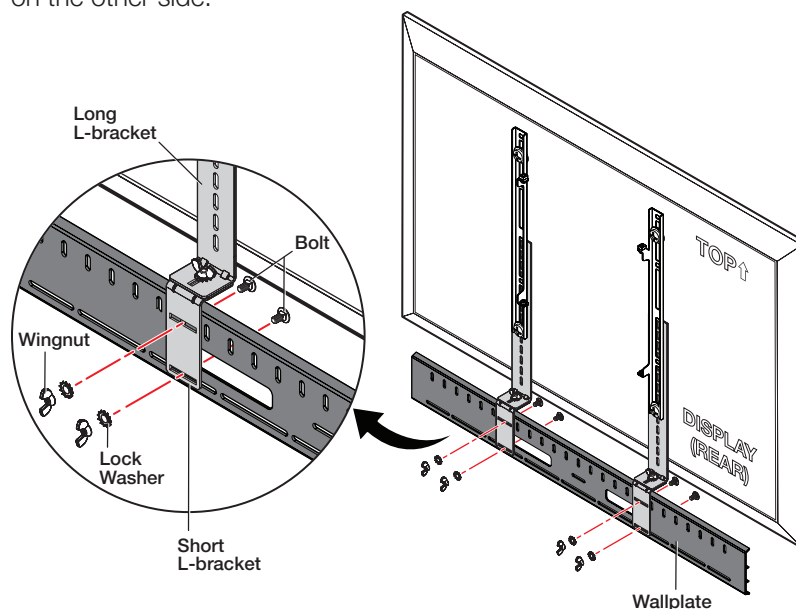


Figure 35. Installing Short L-brackets

7. To adjust the SB 33 vertically:
 - a. Loosen, but do not remove, the bolts that attach the long L-brackets to the display.

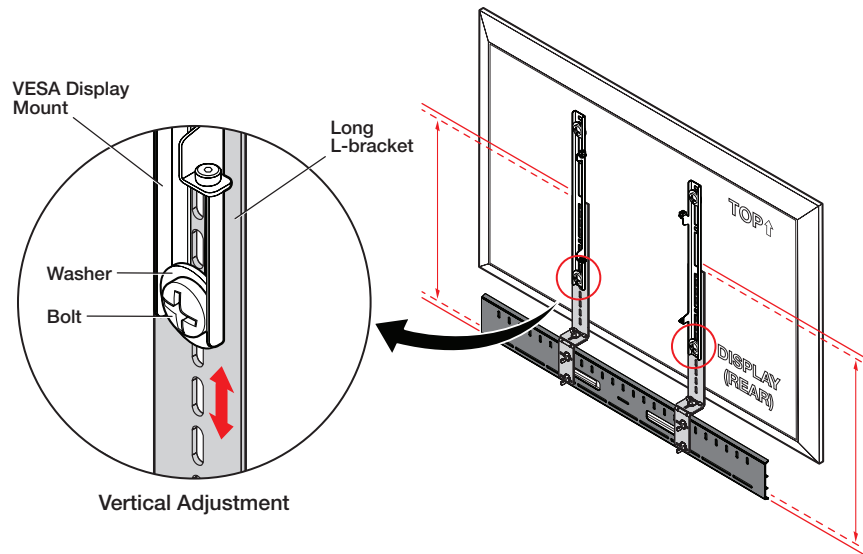


Figure 36. Loosening Long L-brackets Bolts

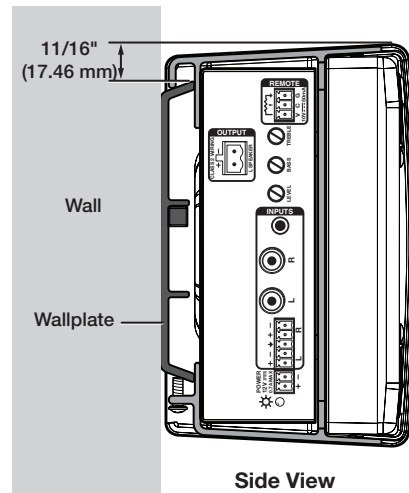
CAUTION: If the display is already attached to the wall, the display could detach from the VESA mount if this adjustment is made. It is highly recommended that this adjustment be done prior to attaching the display to the wall.

ATTENTION: Si l'écran est déjà fixé au mur, il peut être détaché du support de montage VESA si ce réglage est effectué. Il est vivement recommandé d'effectuer ce réglage avant de fixer l'écran au mur.

- b. Adjust the SB 33 to the desired distance from the display and then tighten the bolts.

NOTE: Assuming that the display screen is level, allow for some space between the bottom of the display screen and the top of the speaker because the speaker assemblies and the center bracket attach to the wallplate by hooking the top mounting clasps of the speaker assemblies and center bracket over the top mounting rail of the wall plate.

To allow sufficient clearance between the top of the SB 33 A and the display screen above it, allow for at least a minimum clearance of 0.69 inches (17.5 mm) between the highest part of the top rail of the wallplate and the top of the speaker, as shown below. The display screen should not encroach into this area above the top rail.



8. Fasten the display onto the VESA wall mount that was attached in **step 1**.
9. Install the SB 33 A speaker to the wallplate. If the alignment between the display and the SB 33 speaker needs to be adjusted, see the following section.

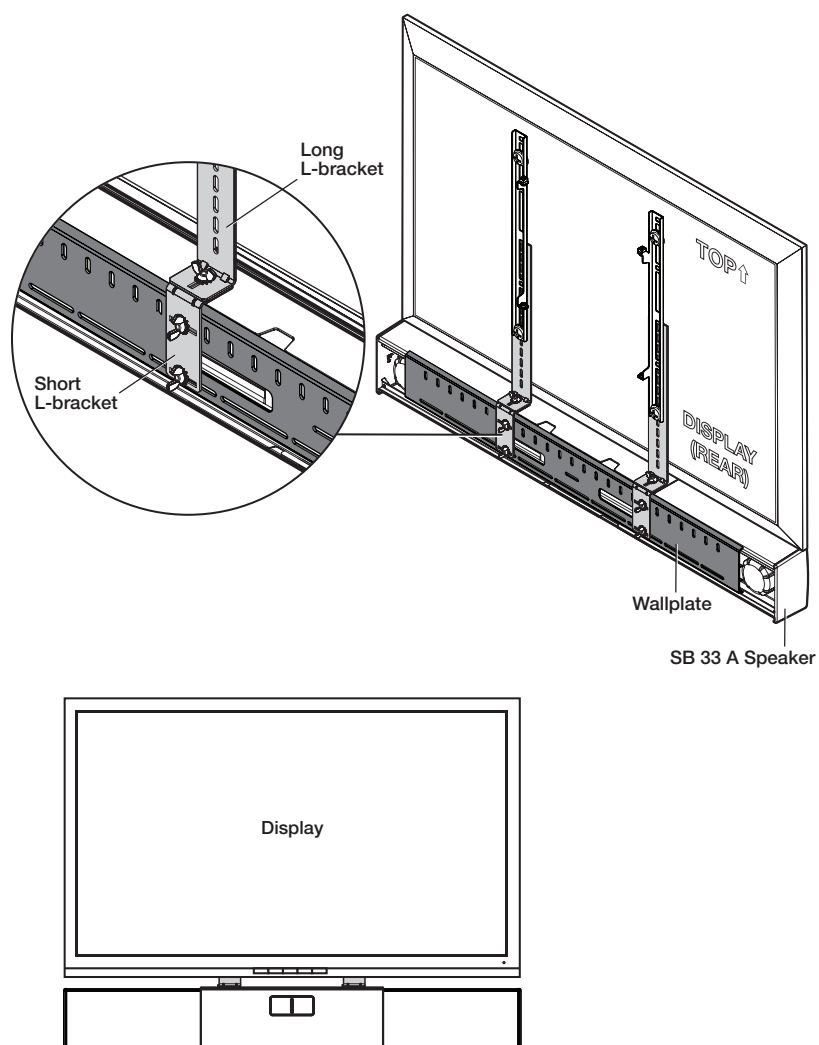


Figure 37. Installing the SB 33 A to the Wallplate

Aligning the SB 33 Speaker to the Display

The SMK V SB 33 VESA Mounting Kit can be adjusted to align the SB 33 speaker assembly relative to the front of the display, from front to rear (depth).

Front to rear (depth) adjustment

1. Loosen, but do not remove, the two wingnuts that attach the long L-brackets to the short L-brackets.

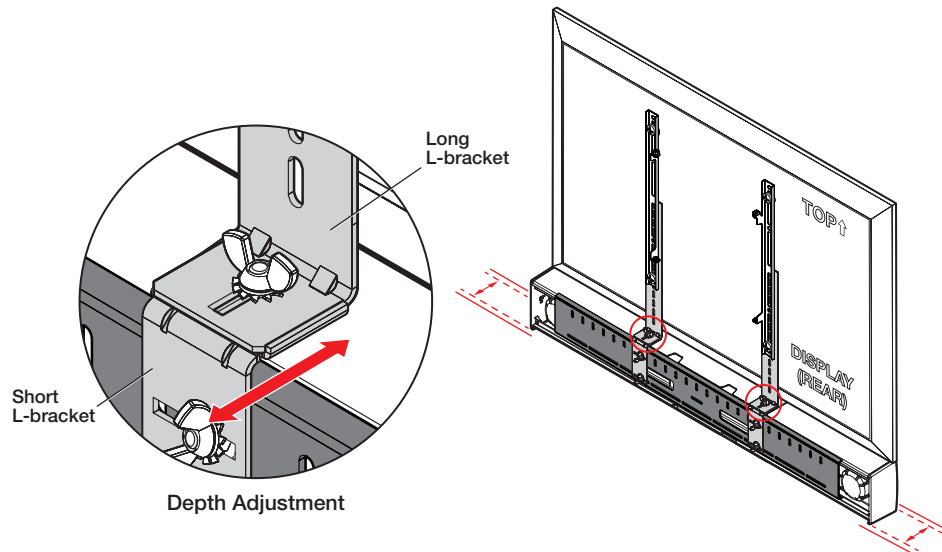


Figure 38. Front to Rear Depth Adjustment

2. Adjust the SB 33 either to the front or to the rear of the display and then tighten the wingnuts.

Operation

Topics covered in this section of the guide include the following:

- [SB 33 A Internal Amplifier Front Panel](#)
- [Front Panel Controls](#)

SB 33 A Internal Amplifier Front Panel (inside right speaker module)

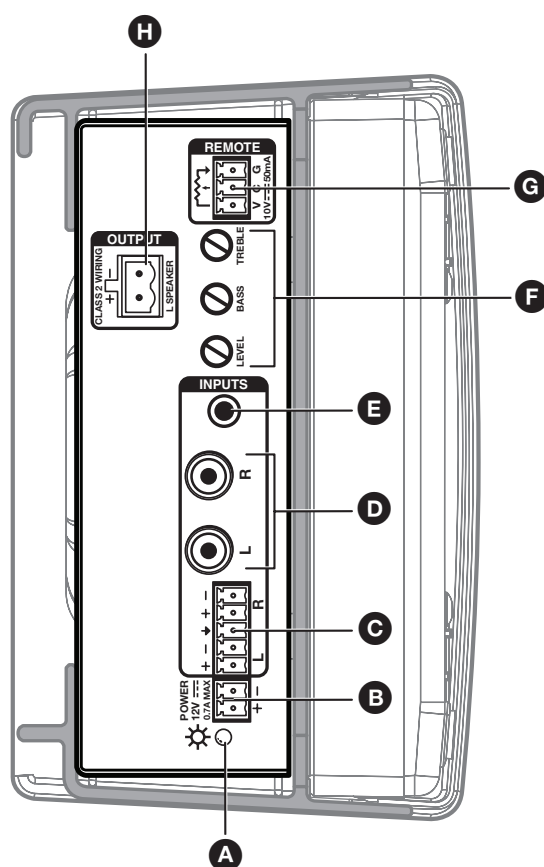


Figure 39. The Front Panel of the SB 33 A Amplifier

- | | |
|---|---|
| A Power LED | E 3.5 mm unbalanced stereo input jack |
| B Amplifier power supply connector | F Level, bass, and treble potentiometers |
| C Captive screw balanced or unbalanced audio input connector | G Remote volume control connector |
| D RCA unbalanced stereo input connectors | H Left Speaker output receptacle (to left speaker) |

- A Power LED** — The LED lights green when the amplifier is receiving power and active. It lights amber when the unit is powered down (after 25 minutes of inactivity).
- B Amplifier power supply connector** — Connect one end of the DC power cord to one of the two pole, 3.5 mm captive screw outlets on the power supply. Connect the other end into the power receptacle on the rear panel of the amplifier, as shown in figure 40 below. The power cord connectors are correctly wired when shipped.

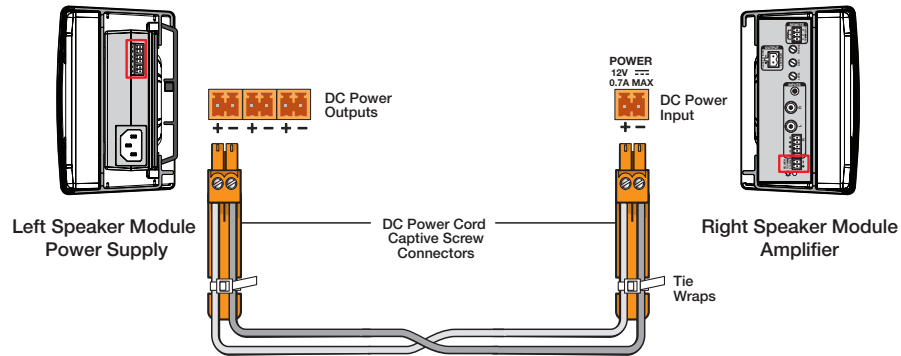
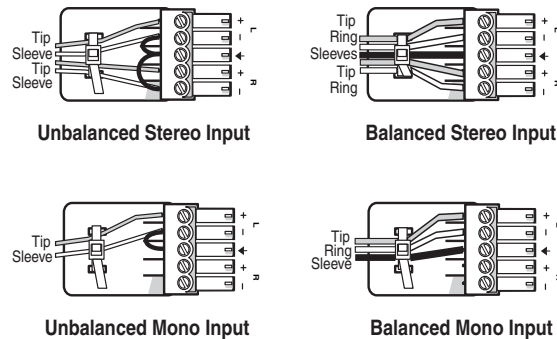
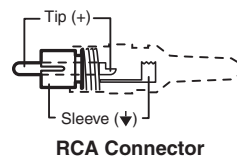


Figure 40. Power Supply to Amplifier Cable Connection

- C Captive screw balanced or unbalanced audio input connector** — This 5-pole 3.5 mm captive screw receptacle accepts line level, balanced or unbalanced, mono or stereo audio signals. See the **attention** (on page 10) and **note** (on page 10) for important information about connecting wires to captive screw connectors.

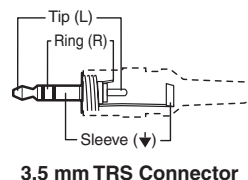


- D RCA unbalanced stereo input connectors** — These receptacles accept unbalanced, line level audio signals. The input can be stereo, using two RCA connectors, or mono, using a single RCA connector plugged into the left receptacle.

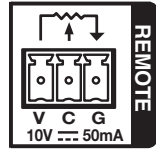


If unused, the receptacles automatically terminate to lower the noise floor.

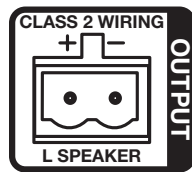
- E 3.5 mm unbalanced stereo input jack** — This input also accepts unbalanced, line level audio signals through a 3.5 mm tip-ring-sleeve (TRS) stereo connector. If unused, the receptacle automatically terminates to lower the noise floor.



- F Level, Bass, and Treble potentiometers** — Three front panel potentiometers are used to optimize input level, bass, and treble settings.
- G Remote volume control connector** — This 3-pin, captive screw port allows an audio controller to control volume and mute levels remotely. See **Remote Control Options** on page 11 if using a MediaLink controller.



- H Left Speaker output receptacle (to left speaker)** — This 2-pole, 5 mm screw lock captive screw receptacle is used to connect the amplifier to the left speaker.



The amplifier produces up to 15 watts per channel.

See the **attention** (page 5) and **note** (page 5) for important information about connecting wires to captive screw connectors.

ATTENTION:

- Do not short or ground the speaker outputs as this will damage the amplifier.
- Ne pas mettre à la terre ni provoquer de court-circuit dans les sorties de l'enceinte, afin d'éviter tout risque de détérioration de l'amplificateur.

Wiring for remote control

Options for remote control include the Extron VC 50, VCM 110 AAP, VCM 200 series, and MLA VC10 Plus. Third party 10k potentiometer volume controllers can also be connected to this port.

Figure 41 and the descriptions below show the wiring for the VCM 100 MAAP. Wiring other remote control connectors is similar.

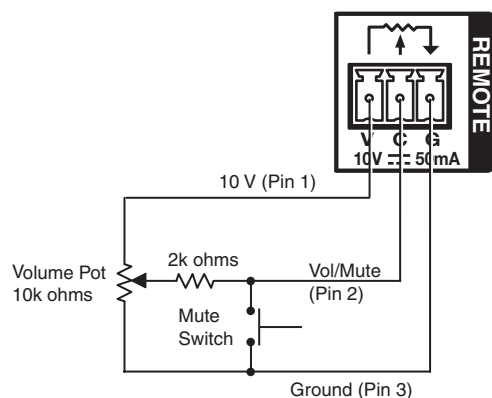


Figure 41. Remote Control Connector

- Pin 1 is for 10 VDC reference voltage output.
- Pin 2 (C) has two functions:
 - **Volume control:** it can be used as a variable voltage input between 0 and 10 VDC, with 0 V giving full attenuation and 10 V giving maximum volume.
 - **Mute:** it can be used for remote control muting. Sound is muted while this pin is shorted to ground.
- Pin 3 is for the ground connection.

NOTE: All nominal levels are at $\pm 10\%$.

Audio Output

This 2-pole, 5 mm screw lock captive screw receptacle is used to connect the amplifier to the left speaker. The amplifier produces up to 15 watts per channel.

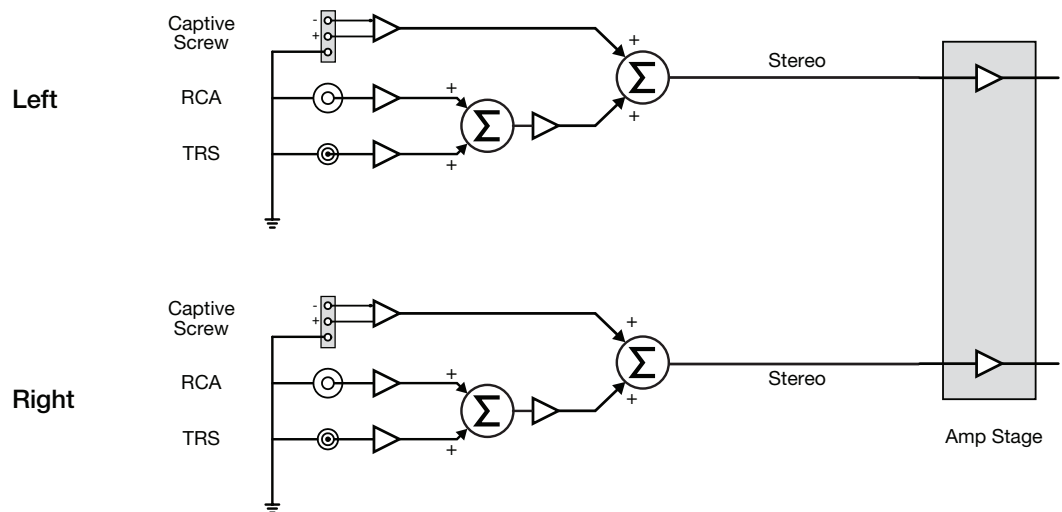
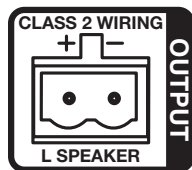


Figure 42. Amplifier Output Channels

Signal flow is as follows:

1. The SB 33 A sums and weights the left unbalanced signals from the TRS and RCA receptacles. This summed, unbalanced signal is then summed with the left balanced signal from the captive screw receptacle.
2. The right channel is handled in the same way.
3. The left and right stereo channels are sent to the left and right output amplifiers respectively

The captive screw, RCA, and TRS inputs are buffered.

Internal Adjustments

This section describes how to set the level, bass, and treble potentiometers on the SB 33 A (located on the panel inside the right speaker module).



Figure 43. Level, Bass, and Treble knobs (located inside right speaker module)

Setting Input Level

Adjust the amplifier input level as follows:

1. Unplug the Remote plug from the unit.
2. Set the volume of the audio source to its minimum level.
3. Turn the Level potentiometer fully counterclockwise to its minimum setting.
4. Set the volume of the audio source to its maximum level. No sound should come out.
5. Slowly increase the amplifier level by rotating the Level potentiometer clockwise until sound distortion starts. Lower the level slightly until the distortion disappears. At this setting, whatever the volume setting of the audio source, no clipping should occur.

Setting Bass and Treble

Adjust the amplifier bass and treble as follows:

1. Use the Bass potentiometer to increase or decrease the bass shelving ± 10 dB at 80 Hz and below.
2. Use the Treble potentiometer to increase or decrease the treble shelving ± 10 dB at 10 kHz and above.

NOTE: Turning the Bass or Treble potentiometers counterclockwise will decrease the output at the specified frequencies. Turning the potentiometers clockwise will increase the output. When the potentiometer is in the center, flat response is achieved.

Reference Information

Topics covered in this section of the guide include the following:

- **Defeating the Auto Power-down Timer**
- **Troubleshooting**

Defeating the Auto Power-down Timer

The auto power-down timer determines whether or not the amplifier enters standby mode. The amplifier powers down if the input signal remains below the input signal detection threshold for about 25 minutes.

The timer resets whenever the input signal exceeds the input signal detection threshold. Resetting the timer starts a new 25 minute countdown until the amplifier powers down. Resetting the timer also causes an amplifier that is already powered down to “wake up.”

There may be times when it is desirable to bypass the auto power-down timer. However, this should be done as a last resort. Examples of when defeating the auto power-down circuit might be required include:

- If the amplifier is used in a paging system. When the amplifier has already powered down, the first syllable might be cut off as the amplifier wakes up from standby mode.
- If the input signal is so quiet that the level remains below the input signal detection threshold for 25 minutes, the timer would cut the audio in the middle of playback by placing the amplifier into standby mode.

ATTENTION:

- The following procedure cannot be reversed and should be carried out as a last resort. Be certain that you need to defeat the auto power-down timer before continuing.
- La procédure qui suit est irréversible et doit être effectuée en dernier recours. Veuillez désactiver le temporisateur de mise hors tension automatique avant de continuer.

To defeat the auto power-down timer, follow these instructions:

1. Gain access to the front panel of the amplifier by removing the center section grille and then the center section cover (see **figure 30** on page 18).
2. Disconnect the power cable from the amplifier.
3. Disconnect all audio cables that attach to the amplifier.
4. Disconnect any connections to the remote input connector.

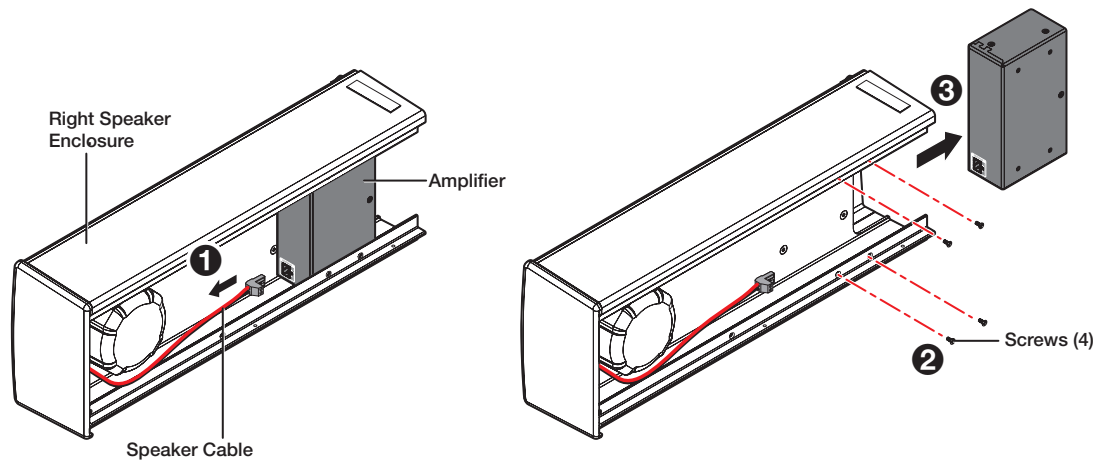


Figure 44. Disconnecting the Right Speaker Wire from the Amplifier

5. Loosen the two bottom screws that attach the right speaker enclosure to the wallplate and remove it.
6. Disconnect the speaker wire from the amplifier side ❶ that goes to the right speaker, as shown above.
7. Remove the 4 screws that attach the amplifier to the right speaker enclosure ❷, as shown above.
8. Remove the amplifier from the right speaker enclosure ❸, as shown above.
9. Remove the 5 screws that secure the top cover of the amplifier (there are 2 screws on each side panel and 1 on the top).

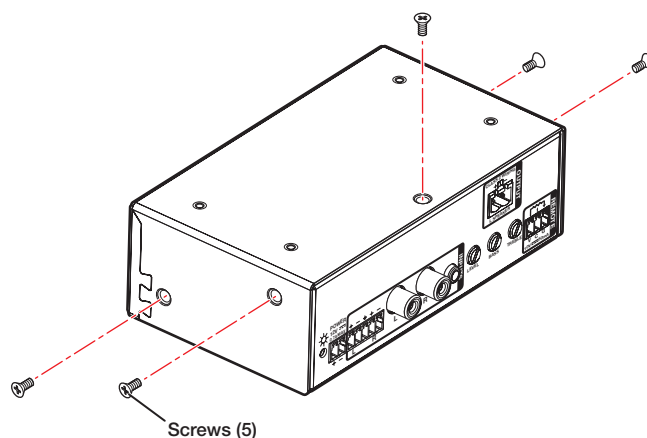


Figure 45. Removing the Top Cover of the Amplifier

ATTENTION:

- Exercise caution when removing the screws to avoid stripping the screw heads.
- Soyez prudent en retirant les vis afin d'éviter d'abîmer les têtes de vis.

10. Slide the cover forward a little then lift the cover straight up and place it out of the way. The circuit boards are now exposed at the back.

ATTENTION:

- Do not touch the electronic components or the connectors on the backplane or on the circuit boards without being electrically grounded.
- Ne pas toucher les composants électroniques ou les connecteurs sur la carte mère ou sur les circuits imprimés sans être électriquement relié à la terre.

11. Identify resistor R42 at the back of the bottom circuit board.

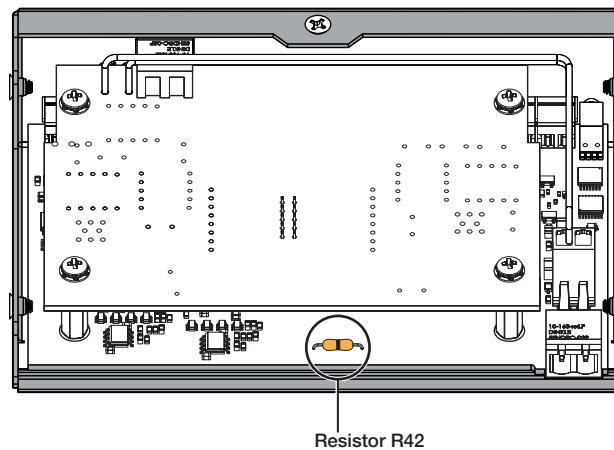


Figure 46. Removing the R42 Resistor

12. Remove the resistor using a pair of diagonal cutters to clip the wires attaching it to the circuit board.
13. Re-attach the top cover with the five screws that were removed in step 9.
14. Re-attach the amplifier to the right speaker enclosure using the four screws that were removed in step 7.
15. Re-attach the speaker cable from the right speaker.
16. Re-attach the right speaker enclosure to the wallplate and tighten the two bottom screws that were loosened in step 5.
17. Re-attach all power, VCM, and audio cables that were removed from the amplifier.
18. Re-attach the center section cover and center section grille that were removed in step 1.

Troubleshooting

Under different circumstances, the front panel LED lights green or amber to provide diagnostic information.

Amplifier Fails to Exit Standby Mode Promptly

Power LED Color	Problem Description	Problem Solution
Amber	No output signal.	No input detected: verify that there is an input signal. If a signal is present, raise the level of the source signal.
Green	No output signal.	The amplifier may be in mute mode. Check the Remote port.
Green or Amber	Slow to exit standby mode when a signal is present.	The input signal may be too weak. Raise the level of the source signal.

Amplifier Enters Standby Mode Too Early

Power LED Color	Problem Description	Problem Solution
Green or Amber	Enters standby mode early.	The input signal may be too weak. Raise the level of the source signal.

Extron Warranty

Extron Electronics warrants this product against defects in materials and workmanship for a period of five years from the date of purchase. In the event of malfunction during the warranty period attributable directly to faulty workmanship and/or materials, Extron Electronics will, at its option, repair or replace said products or components, to whatever extent it shall deem necessary to restore said product to proper operating condition, provided that it is returned within the warranty period, with proof of purchase and description of malfunction to:

**USA, Canada, South America,
and Central America:**

Extron Electronics
1230 South Lewis Street
Anaheim, CA 92805
U.S.A.

Asia:

Extron Asia Pte Ltd
135 Joo Seng Road, #04-01
PM Industrial Bldg.
Singapore 368363
Singapore

Japan:

Extron Electronics, Japan
Kyodo Building, 16 Ichibancho
Chiyoda-ku, Tokyo 102-0082
Japan

Europe:

Extron Europe
Hanzeboulevard 10
3825 PH Amersfoort
The Netherlands

China:

Extron China
686 Ronghua Road
Songjiang District
Shanghai 201611
China

Middle East:

Extron Middle East
Dubai Airport Free Zone
F13, PO Box 293666
United Arab Emirates, Dubai

Africa:

Extron South Africa
South Tower
160 Jan Smuts Avenue
Rosebank 2196, South Africa

This Limited Warranty does not apply if the fault has been caused by misuse, improper handling care, electrical or mechanical abuse, abnormal operating conditions, or if modifications were made to the product that were not authorized by Extron.

NOTE: If a product is defective, please call Extron and ask for an Application Engineer to receive an RA (Return Authorization) number. This will begin the repair process.

USA: 714.491.1500 or 800.633.9876

Asia: 65.6383.4400

Europe: 31.33.453.4040 or 800.3987.6673

Japan: 81.3.3511.7655

Africa: 27.11.447.6162

Middle East: 971.4.299.1800

Units must be returned insured, with shipping charges prepaid. If not insured, you assume the risk of loss or damage during shipment. Returned units must include the serial number and a description of the problem, as well as the name of the person to contact in case there are any questions.

Extron Electronics makes no further warranties either expressed or implied with respect to the product and its quality, performance, merchantability, or fitness for any particular use. In no event will Extron Electronics be liable for direct, indirect, or consequential damages resulting from any defect in this product even if Extron Electronics has been advised of such damage.

Please note that laws vary from state to state and country to country, and that some provisions of this warranty may not apply to you.