

IMPORTANT:
Go to www.extron.com for the complete user guide, installation instructions, and specifications before connecting the product to the power source.

Product Description

The SB 33 A speaker is an under-the-display powered soundbar speaker for use in small-to-medium conference rooms. It features two 3" full range speaker drivers driven by an internal amplifier module. The SB 33 A accepts analog and unbalanced stereo input signals. Three individually buffered inputs are available so three separate sources can be connected without altering performance.

The SB 33 A speaker enclosure is adjustable to match the width of the display and is mounted under the display. It features an adjustable shelf to accommodate the mounting of a web cam or small conferencing camera. The SB 33 A is offered in six different sizes to accommodate screen sizes from 46" to 100" (117 - 254 cm), 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)
SB 33 A 82-90	82" – 90"	72" – 81" (182.8 cm – 205.7 cm)	32.25" (81.9 cm)
SB 33 A 90-100	90" – 100"	80" – 89" (203.2 cm – 226.1 cm)	36.25" (92.1 cm)

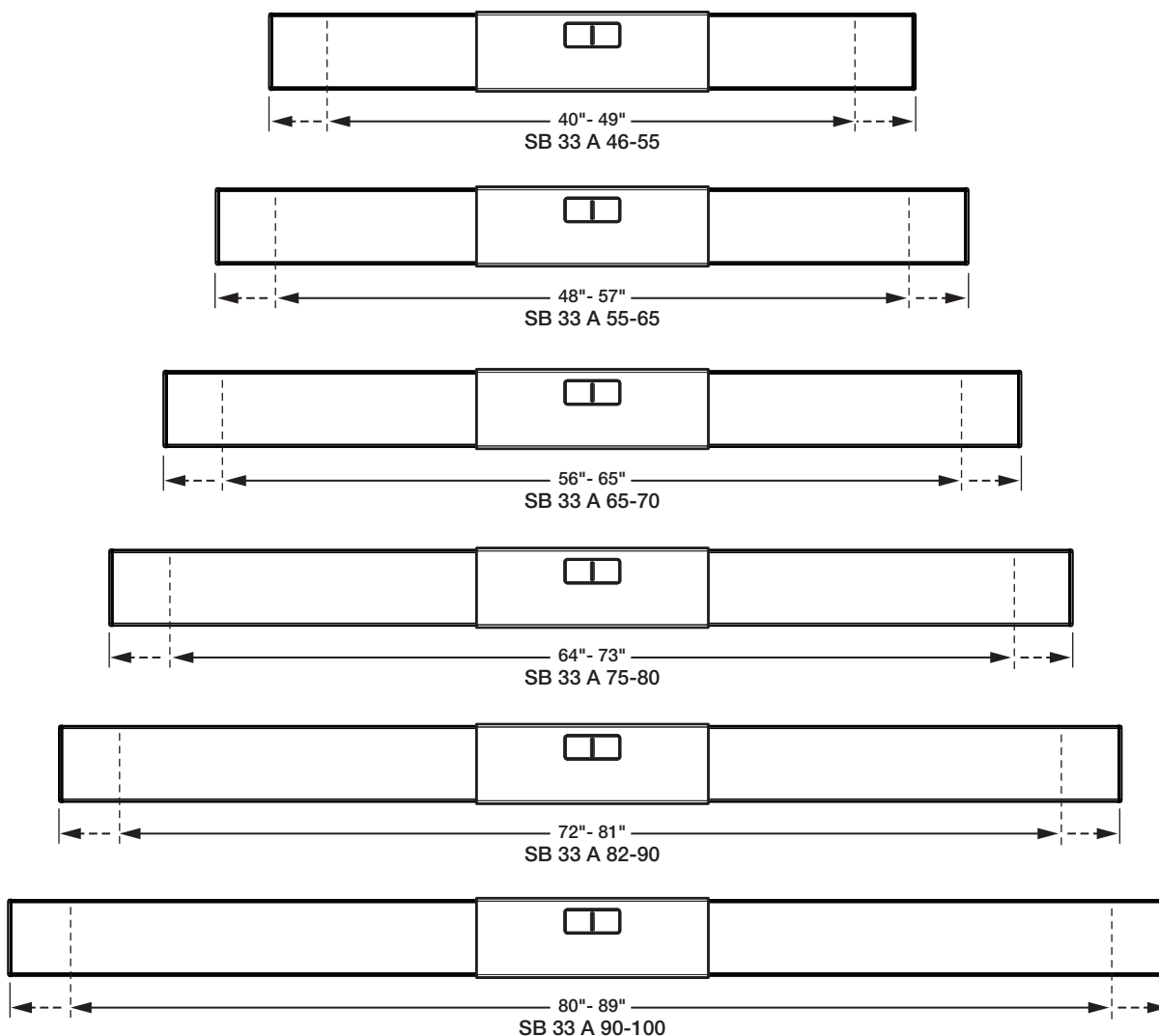


Figure 1. SB 33 A Series Model Options

SB 33 A Series • Setup Guide (Continued)

Installation Overview

The installation of the SB 33 A speaker uses the included wallplate to mark the wall where the SB 33 A is being 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.

Preparing the Mounting Location

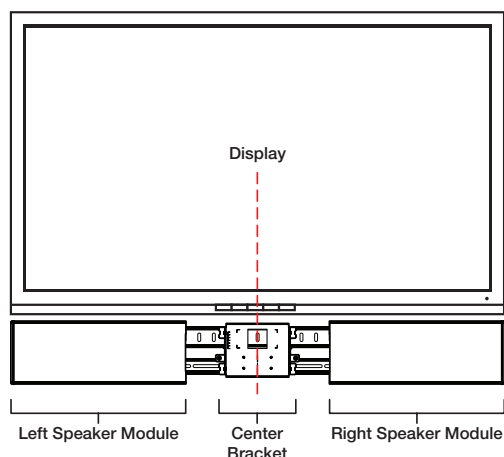


Figure 2. Display Screen and SB 33 A Alignment

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

Before starting the installation, remove the center section assembly from the packaging and do the following:

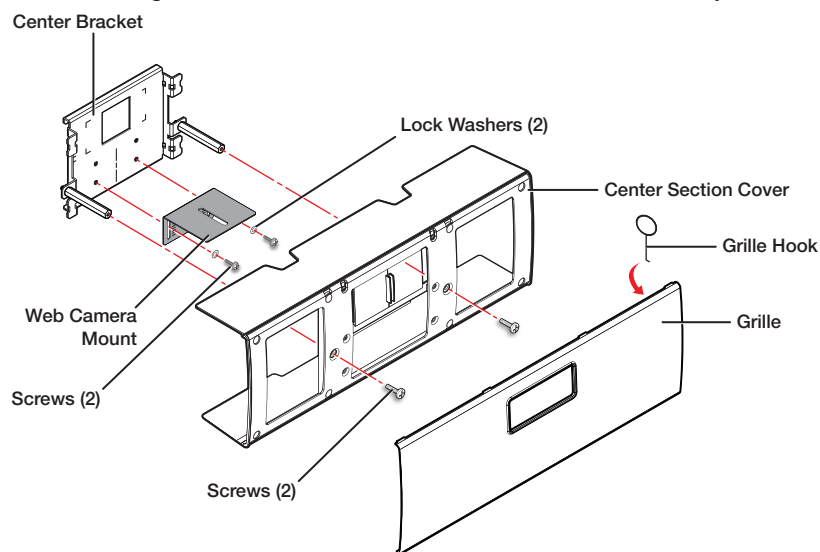


Figure 3. Disassembling the Center Section Assembly

1. Remove the front grille from the center section cover using a grille hooks.

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.

2. Remove the center section cover from the center bracket standoffs by removing the two screws.
3. Remove 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.

Wallplate

The wallplate for the SB 33 A 46-55, SB 33 A 55-65, SB 33 A 65-70, and SB 33 A 75-80 models ships as a single piece that is 36.5" long (see figure 4).

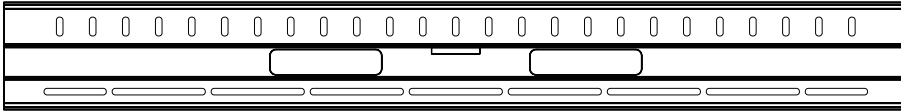


Figure 4. Wallplate for the SB 33 A 46-55, 55-65, 65-70, and 75-80 Models

The wallplate for the SB 33 A 82-90, and SB 33 A 90-100 models ships as two pieces, each 28" long, a joining bracket and four 5/16" black, flat top machine screws (see figure 5). They are assembled, as shown below, to create a wallplate that is 56" long.

NOTE: The two parts of the wallplate are not identical. One part has a bubble level incorporated into it. This should be on the left side when viewed from the front (see figure 5).

To assemble the wallplate for the SB 33 A 82-90, and SB 33 A 90-100 models:

1. Place the two parts of the wallplate side-by-side, with the part containing the bubble level on the left side when viewed from the front.
2. Place the joining bracket over the front of the join as shown above.
3. Insert the screws from the back, through the wallplate, and into the joining bracket.
4. The screws should be inserted loosely until all four are in place.
5. Tighten the screws to secure both halves of the wallplate so that the assembly is rigid.

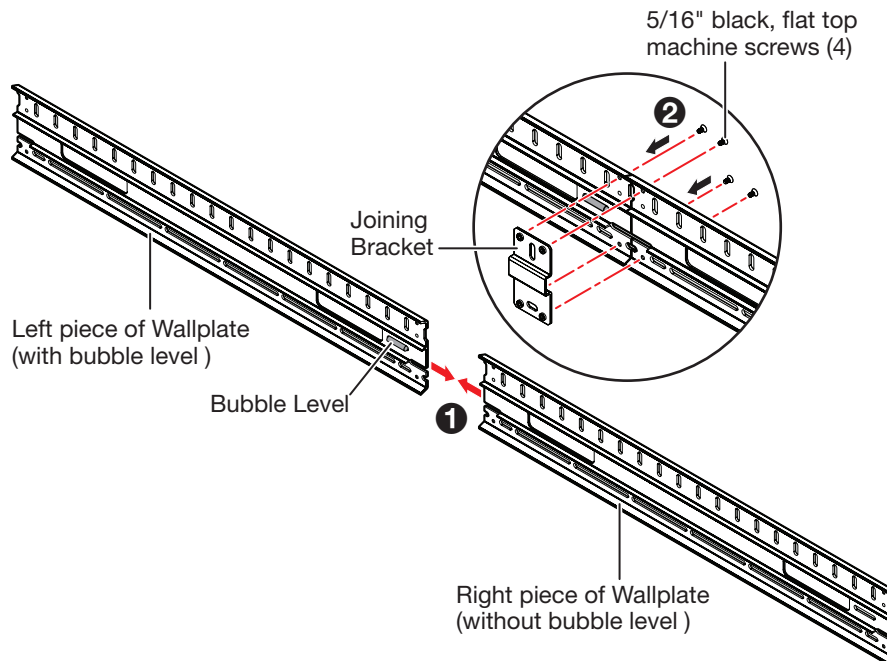


Figure 5. Assembling the Wallplate for the SB 33 A 82-90, and 90-100 Models

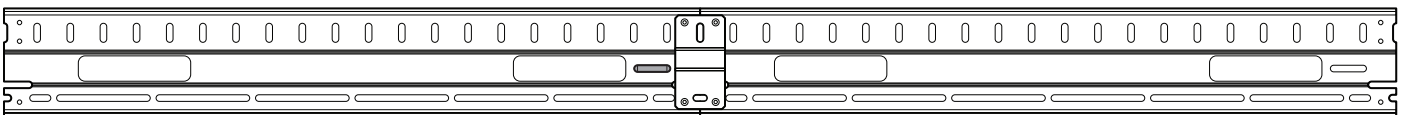


Figure 6. Wallplate for SB 33 A 82-90, and 90-100 Models After Assembly

The illustrations in the following sections show how to mount an SB 33 Series model using the shorter wallplate. Mounting the larger SB 33 models with the longer wallplate is identical.

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Installing the Wallplate on a Non-masonry Wall

NOTE: When attaching the wallplate to masonry, see [Installing the Wallplate on a Masonry Wall](#) on page 5.

1. Position and level the included wallplate under the display screen (see [figure 8](#) on page 5).
2. Mark the locations of the wall studs through the top vertical slots and bottom horizontal slots where four 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.

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 wallplate.

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 inch (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 (see figure 7 on the following page).

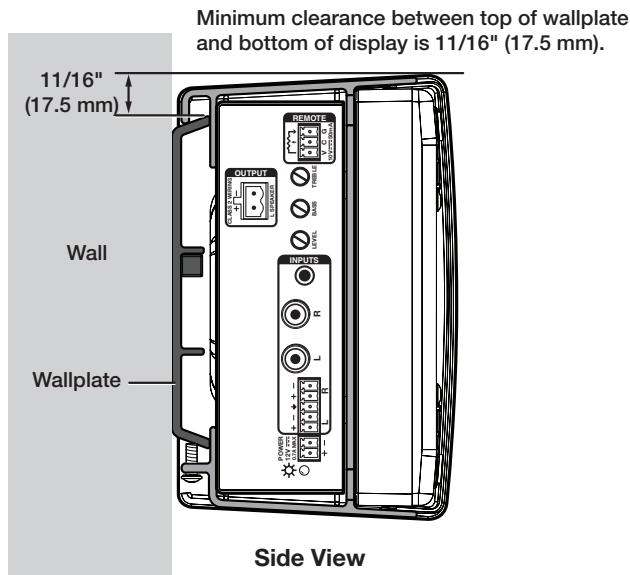


Figure 7. Positioning the Wallplate

3. If necessary, cut a hole in the wall to route cables to the SB 33 A speaker.
4. Drill four pilot holes through the marked locations on the wall.
5. Attach 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.

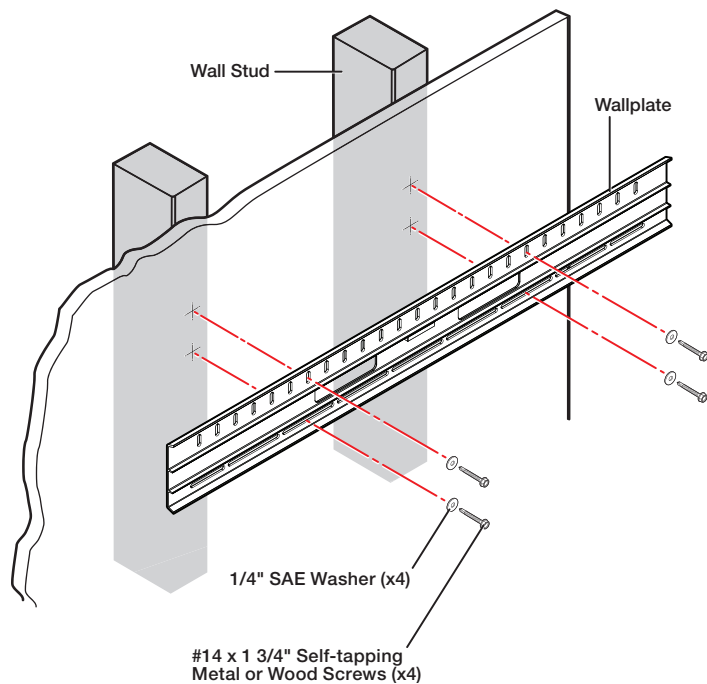


Figure 8. Attaching the Wallplate to Studs

Installing the Wallplate on a Masonry Wall

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

1. Follow [steps 3 and 4](#) of “Installing the wallplate on a non-masonry wall” starting on page 4.

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.

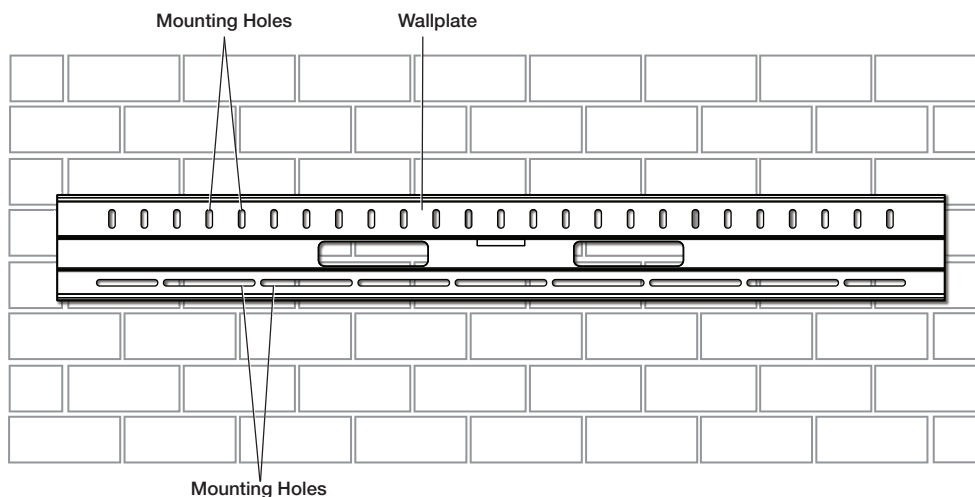


Figure 9. Positioning the Wallplate on Masonry

NOTE: 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.

SB 33 A Series • Setup Guide (Continued)

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.

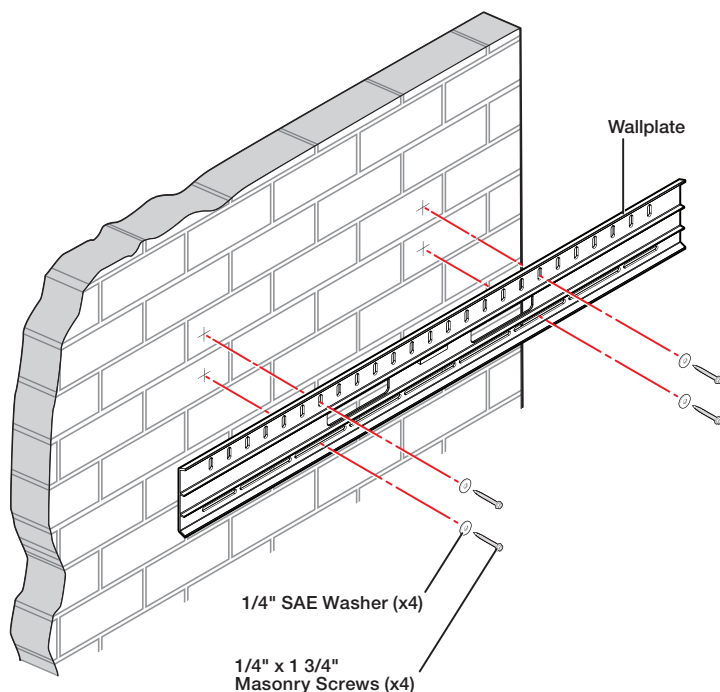


Figure 10. Attaching the Wallplate to Masonry

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

Installing the Wallplate to a Display VESA Mount

Extron offers two VESA mount kits (optional) that can be used to secure the soundbar to the display VESA mount:

- **SMK V SB 33 Plus** — For use with SB 33 A 46-55, SB 33 A 55-65, SB 33 A 65-70, and SB 33 A 75-80 models. For complete instructions, see the *SMK V SB 33 Plus Installation Guide* at www.extron.com.
- **SMK V SB 33 82-100** — For use with SB 33 A 82-90 and SB 33 A 90-100 models. For complete instructions, see the *SMK V SB 33 82-100 Installation Guide* at www.extron.com.

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 of the wallplate (figure 11, ①) and slide it to left end of the wallplate (②) so that the left end of the speaker assembly is aligned with the left end of the display.

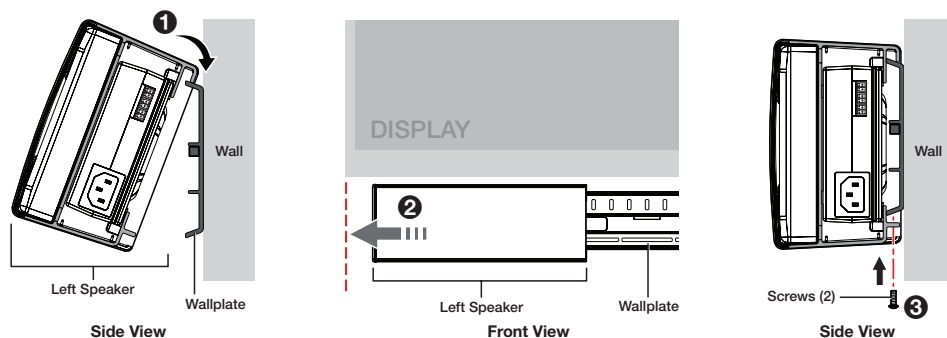


Figure 11. Attaching the Left Speaker to the Wallplate

2. Tighten the set screws on (③) the bottom of the left speaker assembly to the bottom rail of the wallplate.

NOTE: The the 82-90 and 90-100 models have three set screws. All other models have two set screws.

3. Hook the top clasp edge of the right speaker assembly over the top rail of the wallplate (figure 12, ①) and slide it to right end of the wallplate (②) so that the right end of the speaker assembly is aligned with the right end of the display.

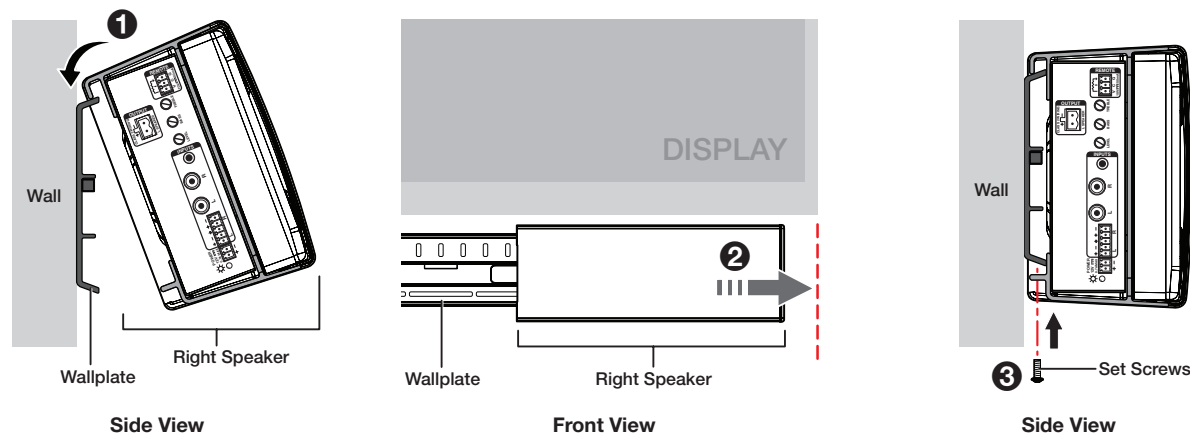


Figure 12. Attaching the Right Speaker to the Wallplate

4. Tighten the set screws on the bottom of the right speaker assembly (③) to the bottom rail of the wallplate.

NOTE: The the 82-90 and 90-100 models have three set screws. All other models have two set screws.

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- 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 (see figure 13).

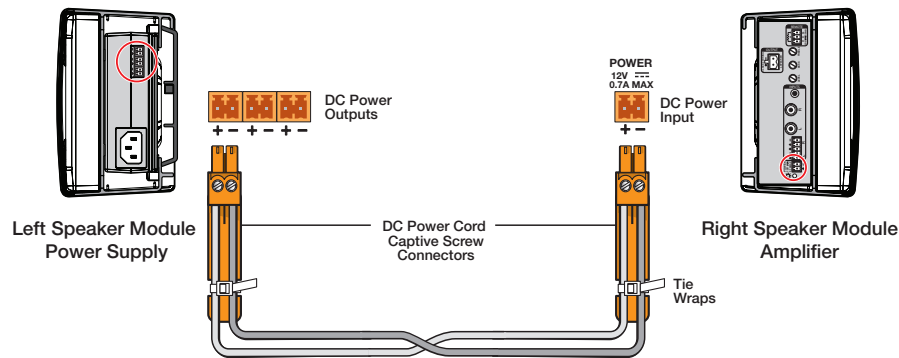


Figure 13. Power Supply to Amplifier Cable Routing

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.

- Route the supplied speaker cable from the left speaker module to the left speaker output of the amplifier (figure 14, ②).

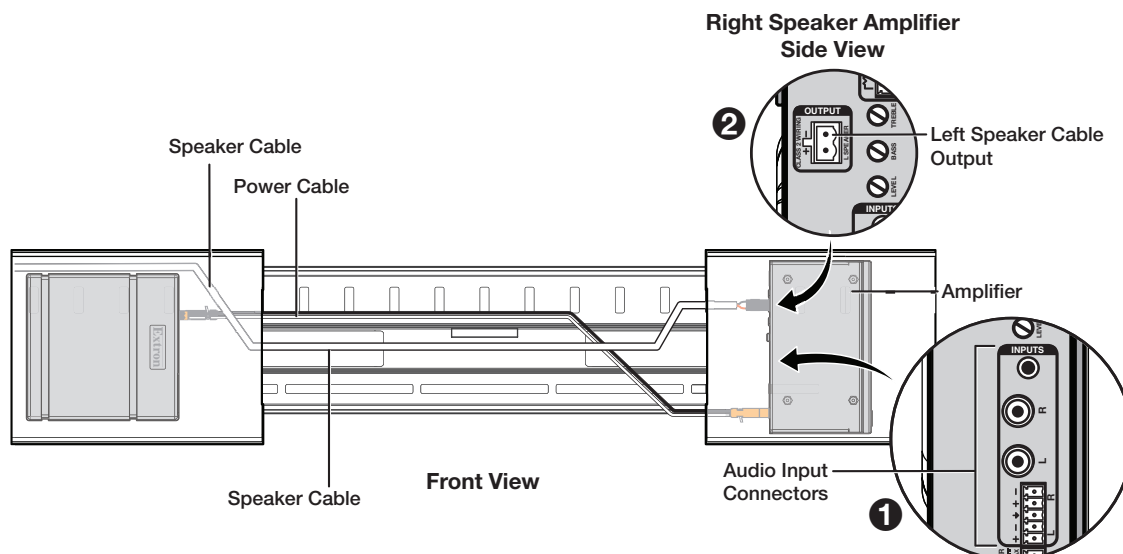


Figure 14. Left Speaker Cable Routing

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

7. Hook the top clasp edge of the center bracket over the top rail (figure 15, ❶) of the wallplate and slide it to center of the display.

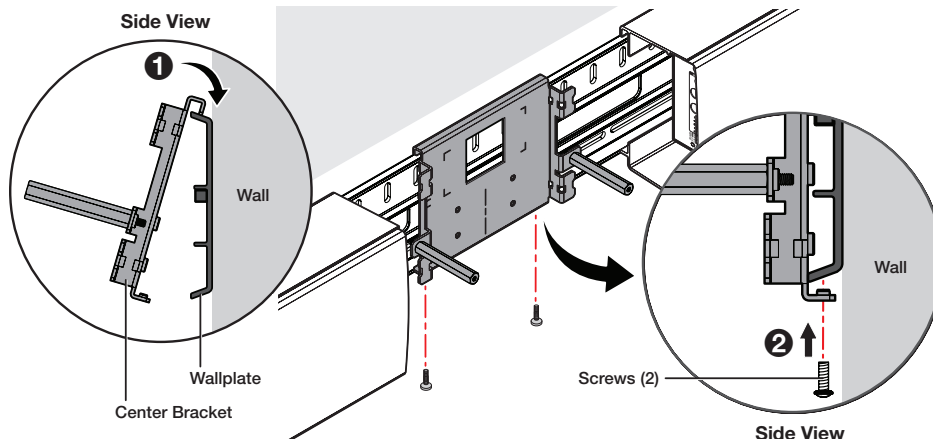


Figure 15. Installing the Center Bracket to the Wallplate

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

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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 (figure 16, **A**) and a DC power output connector (**B**) that routes power to the amplifier.

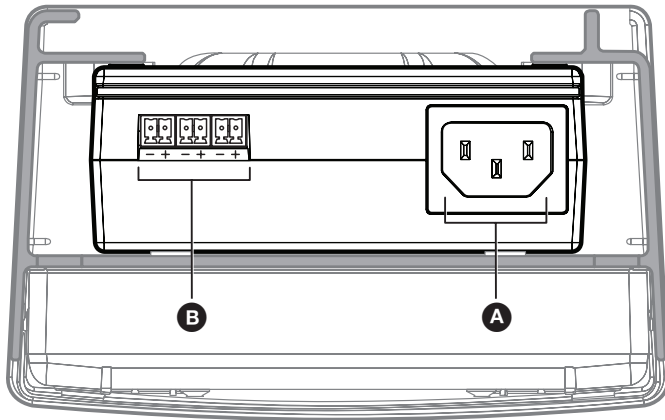


Figure 16. Left Speaker Module to Show AC Input and DC Output Power Connectors of the Power Supply

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.

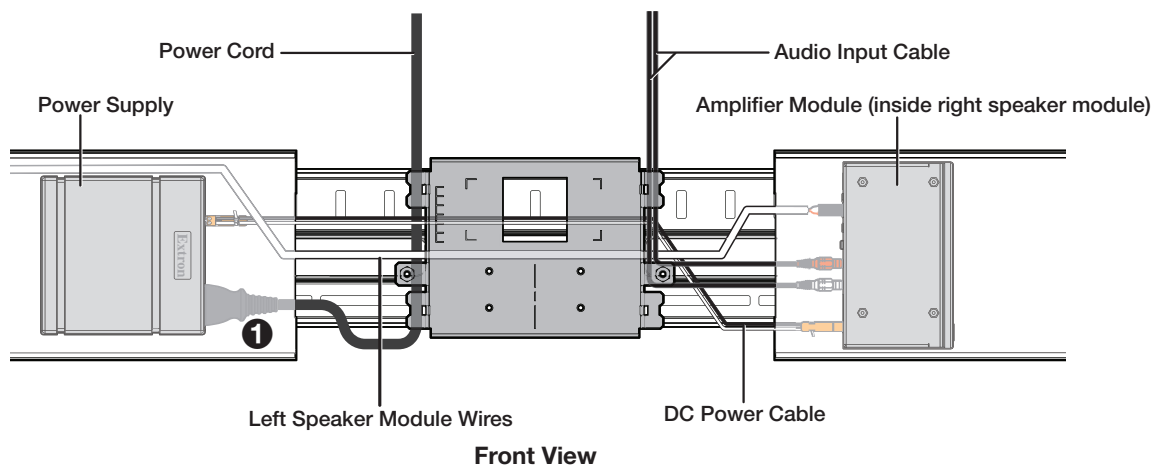


Figure 17. Speaker and DC Power Cable Routing

1. Secure the power and speaker cables to the SB 33 A wiring access points as shown in figure 18, below.

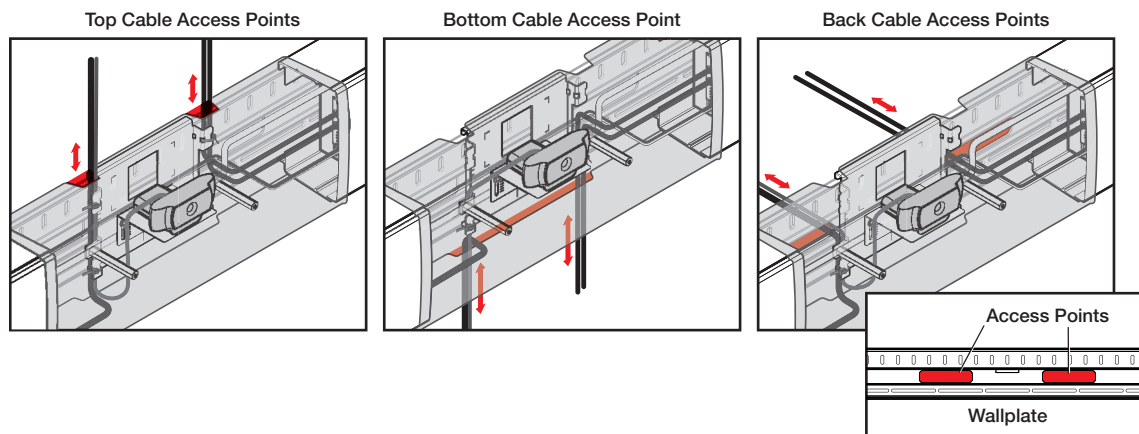


Figure 18. Power and Speaker Cable Routing

2. Use zip ties to secure cables to the cable tie-off points located on the center bracket, as shown in figure 19.

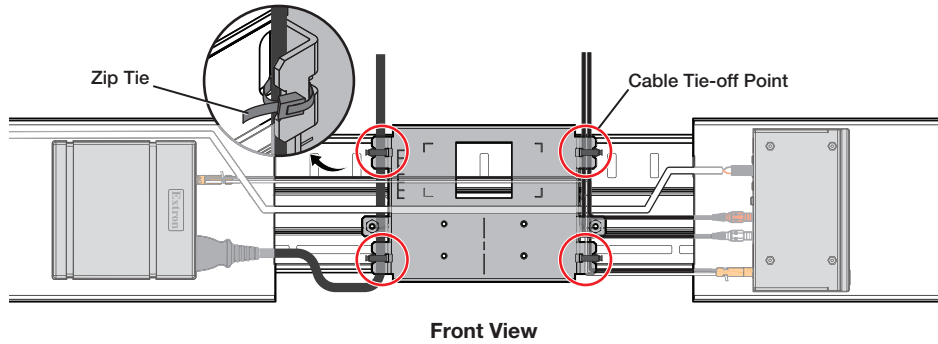


Figure 19. Securing Cables with Zip Ties

3. Route the audio cable from the display to the audio input connectors of the power amplifier in the right speaker assembly (figure 20, ❶). See the cable access points illustration in [figure 18](#) on page 10.

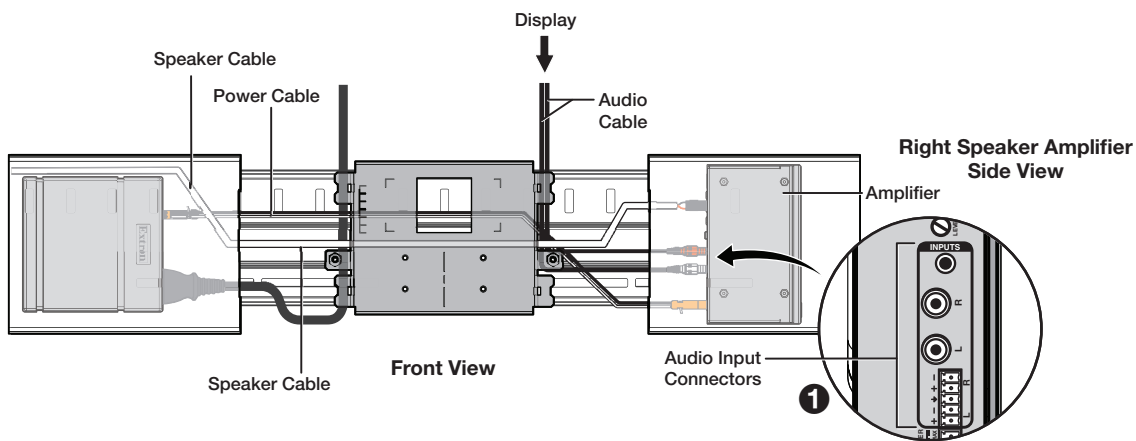


Figure 20. Routing Speaker Cables from the Display

4. Connect the power cord to the power supply in the left speaker assembly (figure 21, ❶), as shown below.

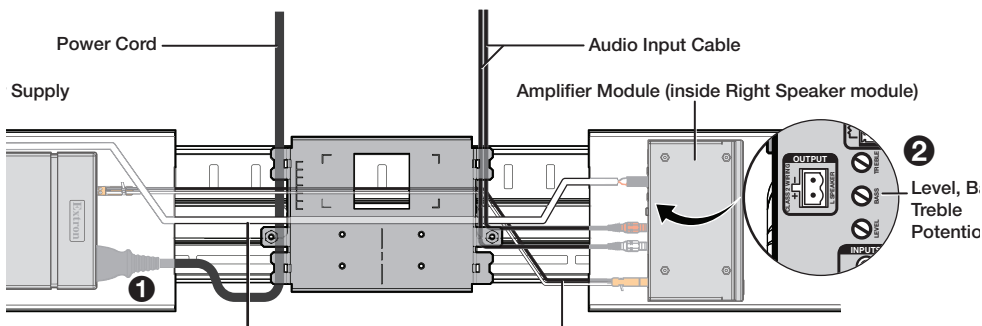


Figure 21. Connecting Power to the Power Supply

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

NOTE: If a web camera or PTZ camera is to be mounted to the center bracket, see [Mounting a Web Camera](#) on page 13 or [Mounting a PTZ Camera with Optional PTZ Camera Shelf](#) on page 14 before proceeding to the next step.

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.

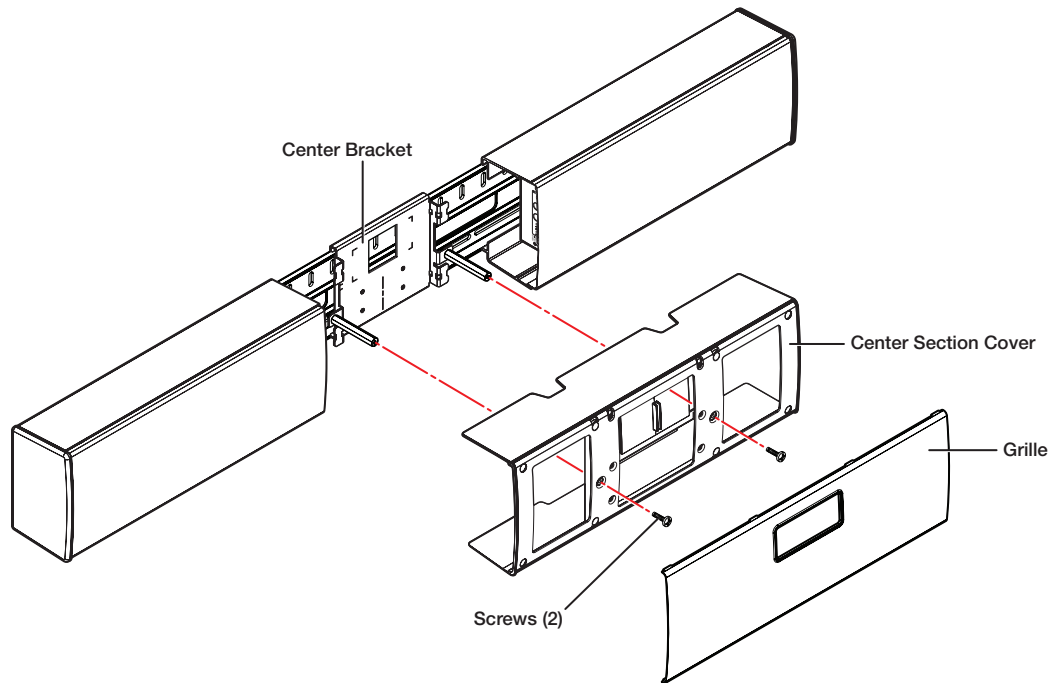


Figure 22. Attaching the Center Section Cover and Grille

2. Attach the grille to the center section cover. Six magnets hold the grille in place (see figure 22).

NOTES:

- 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.
- If the optional blank grille is being installed instead, see [Attaching the Optional Blank Grille](#) on page 16.

Mounting a Web Camera

If mounting a PTZ camera, please go to [Mounting a PTZ Camera with Optional PTZ Camera Shelf](#) on page 14.

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

A webcam can be installed using the included webcam shelf as follows:

1. Install the webcam shelf by attaching it to the center bracket using two screws inserted through the two 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 23, ①).

For cameras that require more overhead clearance, the shelf can be inverted to accommodate taller webcams. See Option 2 of figure 24, below.

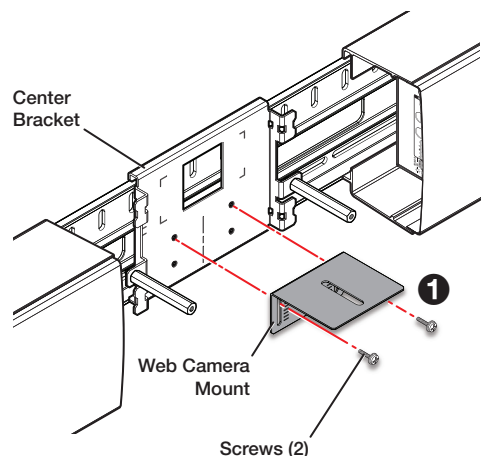


Figure 23. Inverting the Webcam Shelf

2. Insert a screw in the bottom slot of the shelf (figure 24, ②) to secure the webcam.

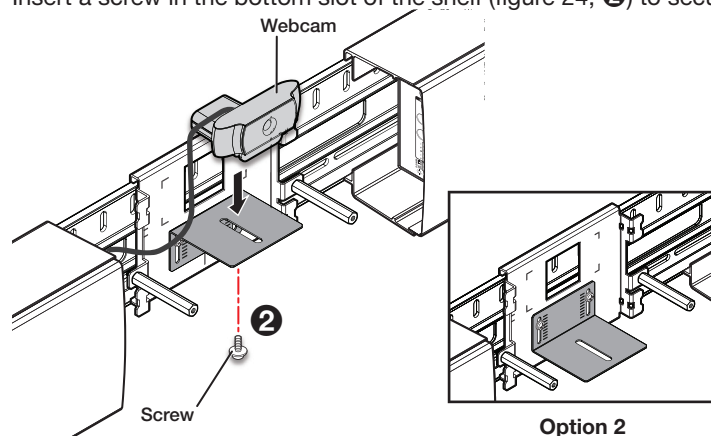


Figure 24. Securing the Webcam to the Shelf

3. See [Attaching the Center Section Cover](#) on page 12 to continue the installation.

SB 33 A Series • Setup Guide (Continued)

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).

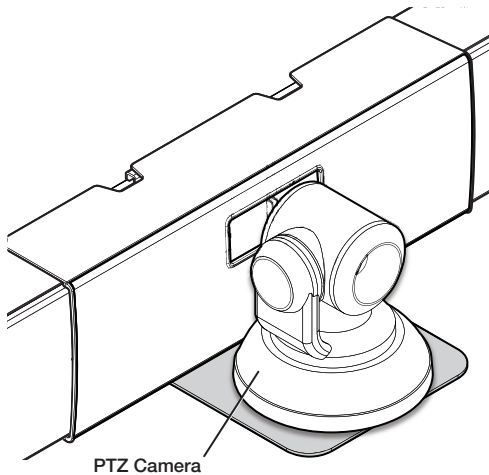


Figure 25. A PTZ Camera Installed on the PTZ Camera Shelf

1. Install the PTZ camera shelf by attaching it to the center bracket using two screws and lock washers with the screws inserted through vertical slots on the shelf and into two mounting holes in the bracket (see figure 26). There are two pairs of available holes in the bracket. The shelf height can be adjusted by positioning the screws in the shelf slots.

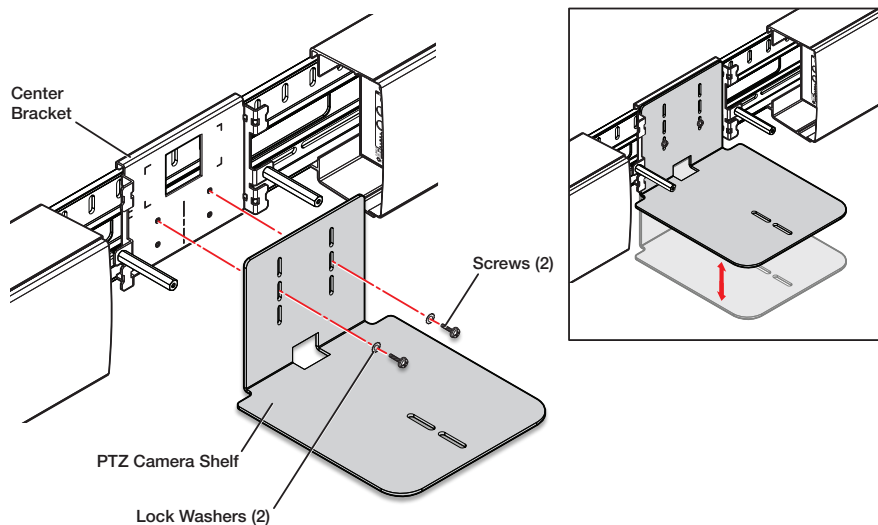


Figure 26. Attaching the PTZ Camera Shelf

To install a PTZ camera:

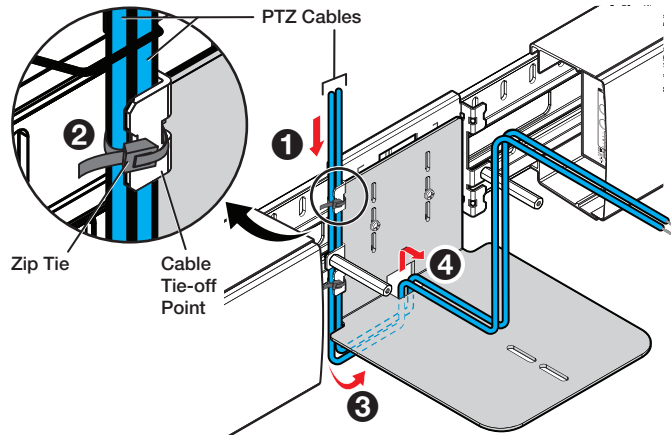


Figure 27. Routing the PTZ Camera Cable

- a. Route the PTZ cable to the PTZ camera through the center section cover (figure 27, ①) and along a center bracket cable tie-off point (②).
 - b. Secure the cables to the center section tie-off point using a zip tie.
 - c. Route the cable to the camera shelf (③).
 - d. Route the cable through the access hole at the rear of the camera shelf (④).
2. If the optional blank grille is being installed, see [Attaching the Optional Blank Grille](#) on the next page.
 3. Slide the center section cover over the center bracket and camera shelf. Attach the two cover screws to the center bracket standoffs being careful not to overtighten the screws.

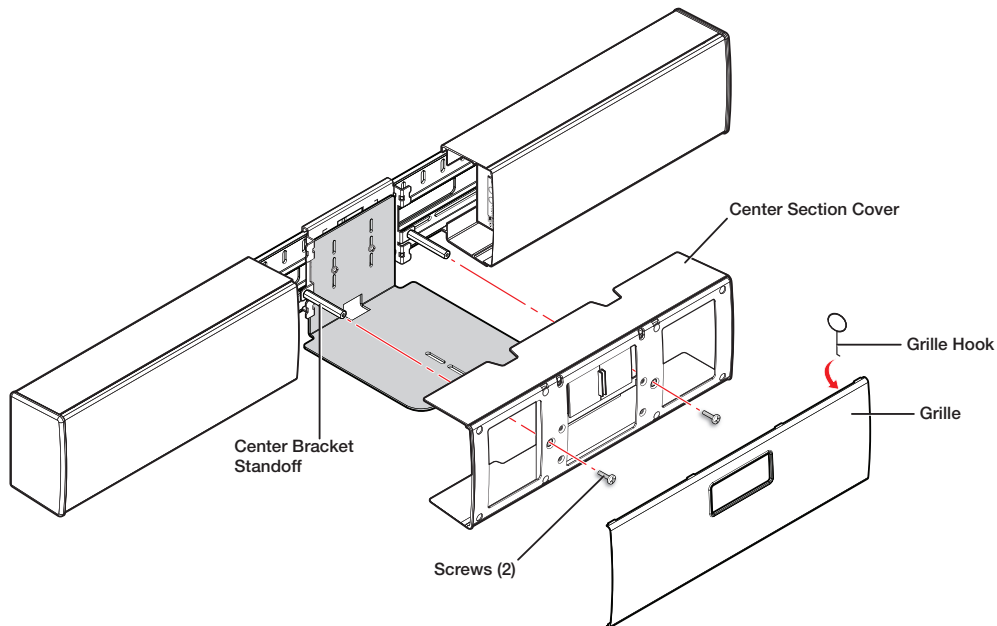


Figure 28. Attaching the Center Section Cover

4. Attach the grille to the center section cover (see figure 28).

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 top or bottom outer edge of the grille, as shown above.

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5. Route the cable to the PTZ camera (figure 29, ❶) and attach it to the camera.
6. Place the camera on the shelf and attach it to the shelf with the mounting screw (❷).

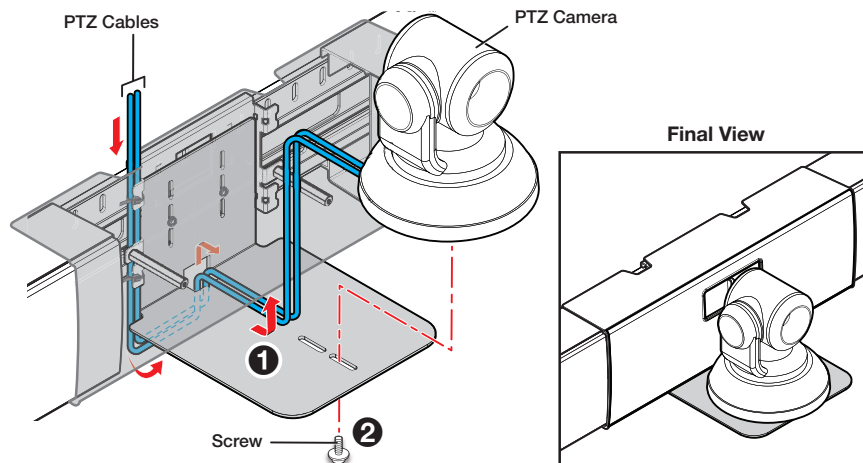


Figure 29. Attaching the PTZ Camera to the Shelf

Attaching the Optional Blank Grille

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

1. If the 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 separate from the center section cover after the screws are removed.

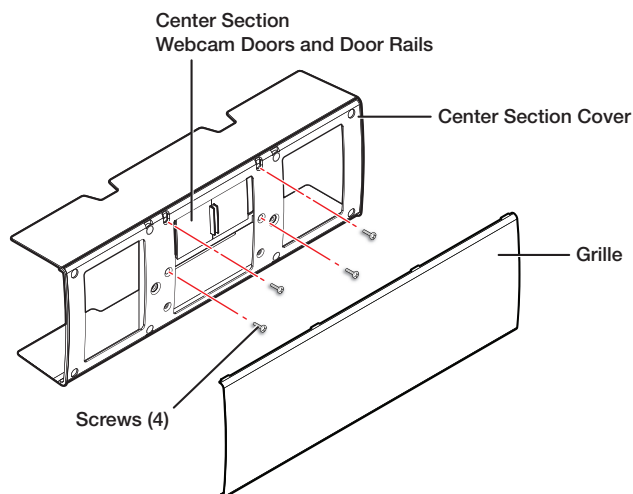
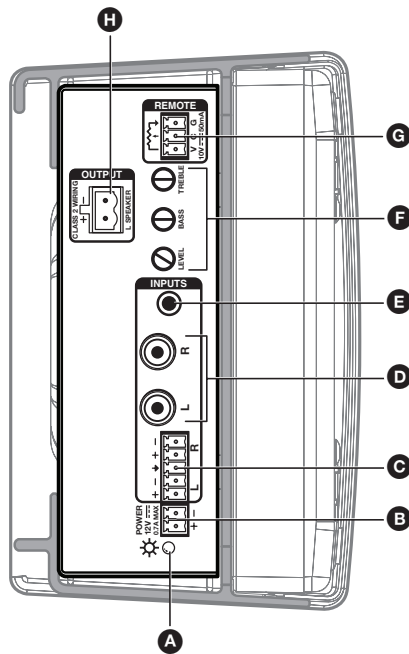


Figure 30. Attaching the Blank Grille

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

Operation

SB 33 A Amplifier Front Panel (inside right speaker)



A	Power LED
B	Amplifier power supply connector
C	Captive screw balanced or unbalanced audio input connector
D	RCA unbalanced stereo input connectors
E	3.5 mm unbalanced stereo jack
F	Level, Bass, and Treble potentiometers
G	Remote volume control connector
H	Left speaker output receptacle

Figure 31. SB 33 A Amplifier Front Panel

- A Power LED** — The LED lights green when the amplifier is receiving power and active. It lights amber when the unit is in standby (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 below. See the **Attention** on page 8 and **Note** on page 8 for important information about connecting wires to captive screw connectors.

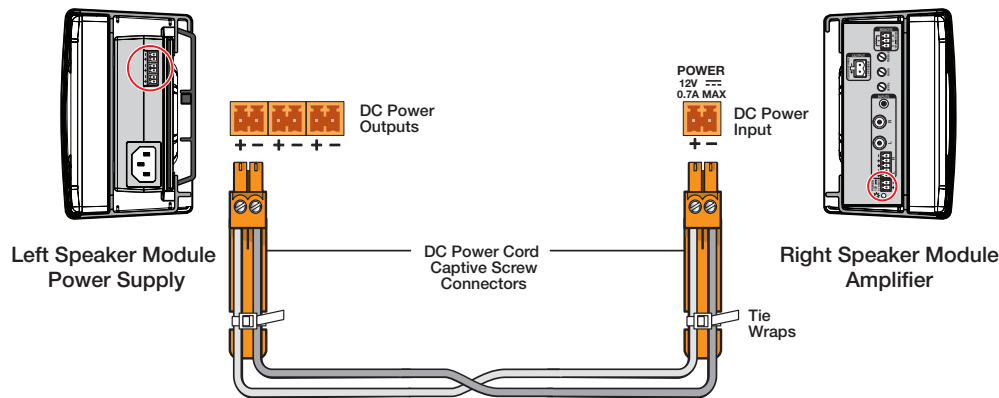


Figure 32. Power Supply to Amplifier Cable Connections

- C Captive screw 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 8 and **Note** on page 8 for important information about connecting wires to captive screw connectors.

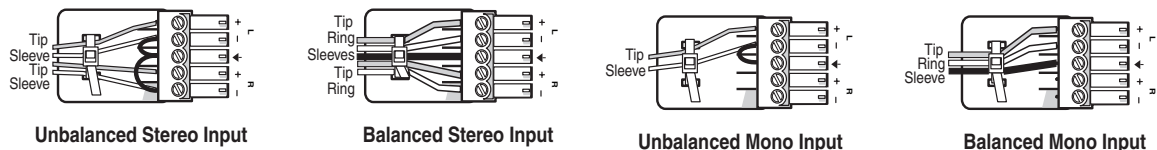


Figure 33. Wiring for Captive Screw Connector

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- D RCA unbalanced stereo input connectors** (see [figure 31](#) on the previous page) — These receptacles accept unbalanced, line level audio signals. If unused, the receptacles automatically terminate to lower the noise floor.

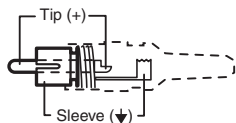


Figure 34. Wiring for RCA Connector

- E 3.5 mm unbalanced stereo input jack** — This input 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.

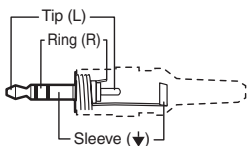


Figure 35. Wiring for TRS Connector

- F Level, Bass, and Treble potentiometers** — Use a small, flat screwdriver, such as an Extron Tweeker, to rotate these three front panel potentiometers to optimize input level, bass, and treble settings.



Figure 36. Level, Bass, and Treble Potentiometers

- G Remote volume control connector** — This 3-pin, captive screw port allows an audio controller to control volume levels and mute remotely. See the *SM 33 A Series User Guide*.

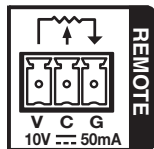


Figure 37. Remote Volume Control Connector

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

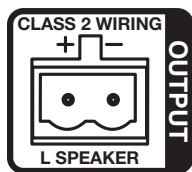


Figure 38. Left Speaker Output Receptacle

The amplifier produces up to 15 watts per channel.

See the [Attention](#) on page 8 and [Note](#) on page 8 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 créer de court-circuit dans les sorties de l'enceinte, afin d'éviter tout risque de détérioration de l'amplificateur.

For information on safety guidelines, regulatory compliances, EMI/EMF compatibility, accessibility, and related topics, see the **Extron Safety and Regulatory Compliance Guide** on the Extron website.