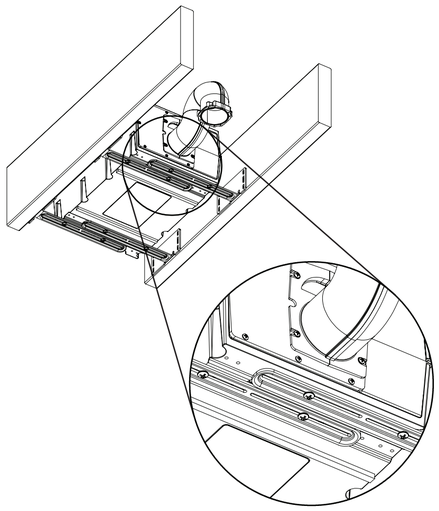
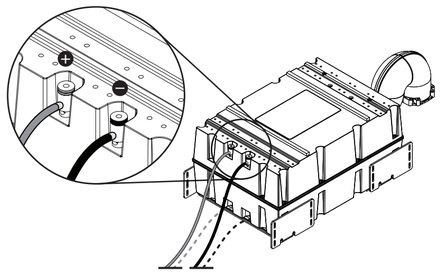


08 Wiring The Subwoofer

Connect the speaker wire via the push style binding posts on the enclosure. Based on the chosen port tube location, the binding posts may be above or below the center seam of the subwoofer cabinet. Ensure the (+) and (-) terminals are wired with the correct polarity, and confirm the connection is fully seated and secure before moving on. NOTE: The binding posts can accommodate up to 12ga wiring.

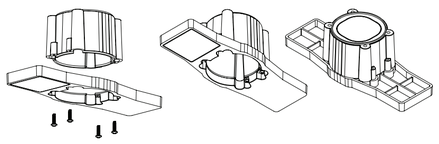


NOTE: Binding Posts may be on the top or bottom of the cabinet depending on the required cabinet orientation.

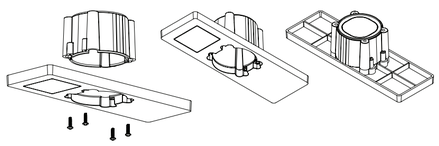
09 Cutting Out and Aligning The Port Opening

Drywall Cutout Sizing Chart	
Vent Style Sub	**Cutout Size**
Open Style Vent (2x8)	8.27" x 3.07" (210mm x 78mm)
Minimal Style Vent (3x10)	9.97" x 3.13" (253mm x 79.5mm)
*Supplied cutout template tapers to 2.27" (58mm) at the ends. Use listed cutout dimensions if not using the template.	

OPEN STYLE (2X8) PORT PROTECTOR TEMPLATE

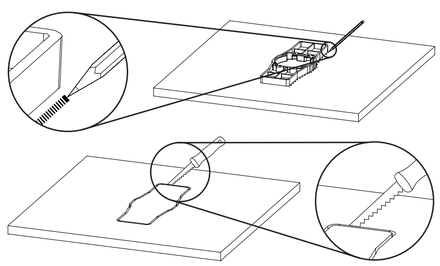


MINIMAL STYLE (3X10) PORT PROTECTOR TEMPLATE

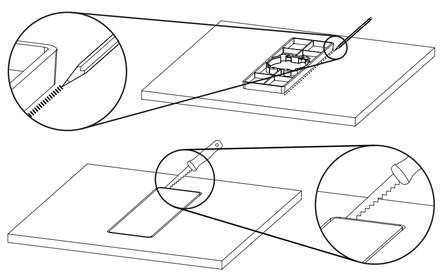


a. On a free piece of drywall, use the Cutout Template as a guide to trace out the opening for the port. Cut out the opening in the drywall according to the traced line. The Cutout Template can now be used to test fit the accuracy of the cut out.

OPEN STYLE (2X8) CUTOUT TEMPLATE



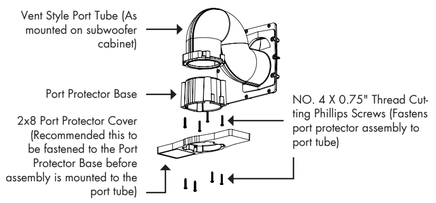
MINIMAL STYLE (3X10) CUTOUT TEMPLATE



b. Once the opening has been cut out and confirmed as accurate, the Cutout Template can now be used as a temporary Port Protector, preventing debris or other foreign objects from entering the port during the installation of the ceiling. The Cutout Template, now Port Protector, fastens to the Port Tube via (2) No. 4 x 0.75" Phillips head screws found in the trim kit carton. Confirm the Port Protector is securely fastened.

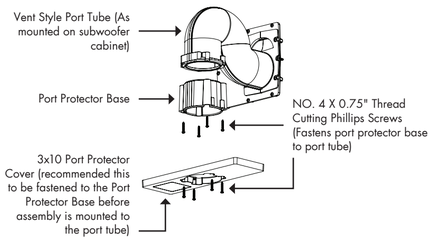
PORT PROTECTOR ASSEMBLY FOR OPEN STYLE (2X8) VENT TRIM

Assembly shown as would be installed on Subwoofer cabinet after hole is cut out in ceiling material, prior to ceiling installation.



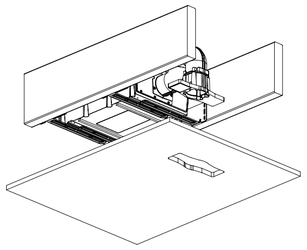
PORT PROTECTOR ASSEMBLY FOR MINIMAL STYLE (3X10) VENT TRIM

Assembly shown as would be installed on Subwoofer cabinet after hole is cut out in ceiling material, prior to ceiling installation.

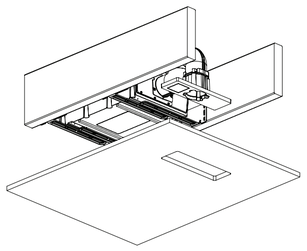


c. Using the Port Protector as a locating guide, raise the drywall into place so the cut out is positioned directly over the Port Protector. Confirm the drywall cut out is correctly aligned with the Port Protector, and the drywall is adequately seated against the bottom faces of the joists. Confirm there are no obstructions or loose debris that will generate unwanted noise.

OPEN STYLE (2X8) PORT PROTECTOR TEMPLATE

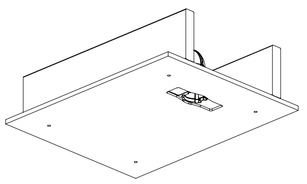


MINIMAL STYLE (3X10) PORT PROTECTOR TEMPLATE

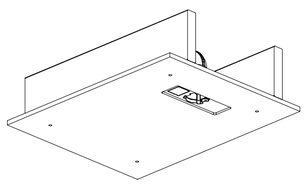


e. Fasten the drywall to the ceiling joists, ensuring the drywall panel is adequately seated and fully secured.

OPEN STYLE (2X8) PORT PROTECTOR TEMPLATE W/ DRYWALL INSTALLED



MINIMAL STYLE (3X10) PORT PROTECTOR/TEMPLATE W/ DRYWALL INSTALLED



10 Vent Style Trim Finishing

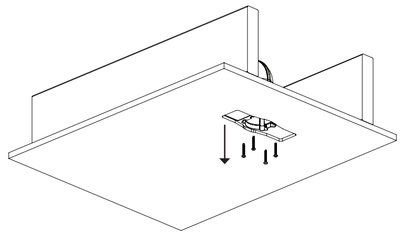
Critical Step: Use the following chart to select the required number of trim ring spacers necessary to complete the installation.

Ceiling Panel Thickness	Number of Trim Ring Spacers
1/2"	None
5/8"	1
3/4"	2
7/8"	3

Open Style (2x8) Vent Trim:

NOTE: If you wish to paint the 2x8 Open Style Vent Trim piece, you may find it beneficial to paint it before securing it to the port tube in the ceiling.

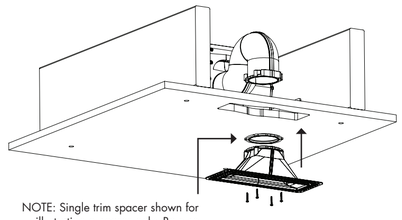
For the final trim stage, the Port Protector can now be removed (if installed previously).



After removing the port protector, you can now fasten the 2x8 Open Style Vent Trim with the required number of Spacers to the Port Tube with the same screws that were holding the Port Protector in place.

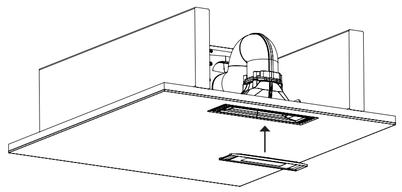
NOTE: Be sure to include the required number of spacers as detailed in the chart above.

Fasten the required number of trim ring spacers and 2x8 Open Style Vent Trim to the Port Tube.

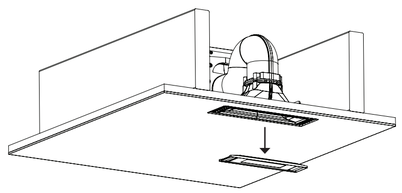


NOTE: Single trim spacer shown for illustration purposes only. Be sure to include the required number of spacers as detailed in the chart above.

The 2x8 Finishing Cover should now be installed using the included double sided tape. Once the Finishing Cover has been installed, the Vent Trim is now prepped for the mudding/finishing and painting process.

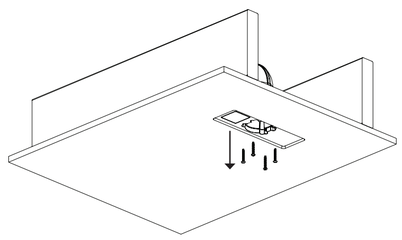


After the finishing work has been completed, simply remove the Finishing Cover and the installation is now complete.



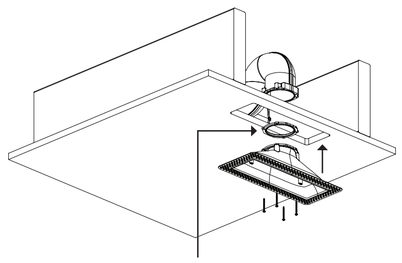
Minimal Style (3x10) Vent Trim:

For the final trim stage, the Port Protector can now be removed (if installed previously).



After removing the port protector, you can now fasten the 3x10 Minimal Style Vent Trim and the required number of spacers to the Port Tube with the same screws that were just holding the Port Protector in place.

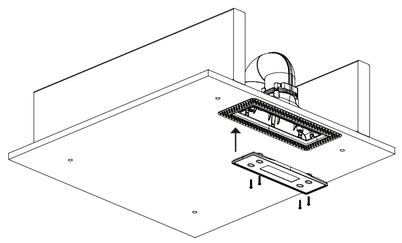
NOTE: Be sure to include the required number of spacers as detailed in the chart above.



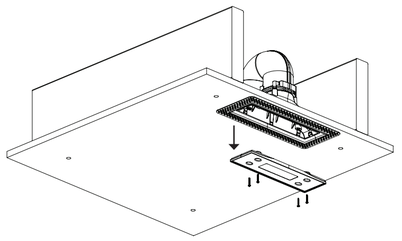
NOTE: Single trim spacer shown for illustration purposes only. Be sure to include the required number of spacers as detailed in the chart above.

After installing the 3x10 Minimal Style Vent Trim, affix the 3x10 Finishing Cover with the supplied NO. 4 X 0.75" Thread Cutting Phillips Screws and the surface is now prepped for mudding/finishing and painting.

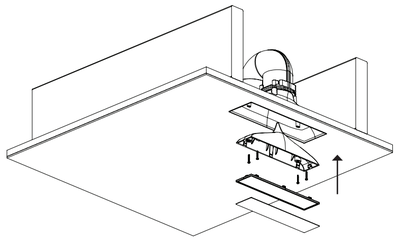
NOTE: If using a drywall ceiling material, we recommend painting the 3x10 Minimal Style Vent Trim Insert (installed in the next step) now, prior to it being installed.



After completing mudding/finishing and painting, remove the Finishing Cover.



Install the 3x10 Minimal Style Vent Trim Interior using the same screws that were holding the Finishing Cover in place. Then press and clip in the 3x10 Minimal Style Vent Trim Face. If using a hard surface ceiling material like Wood or Stone etc. you can affix that material to the Vent Trim Face to achieve a seamless look. If using a drywall ceiling material, affix the 3x10 Minimal Style Vent Trim Face Insert to complete the installation.



MAN7004

Rev. 0

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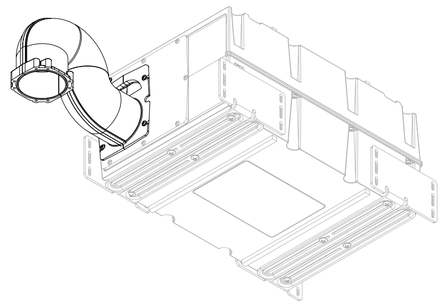
www.martinlogan.com

Variable Aperture Subwoofer with Vent Style Trim

Installation Instructions

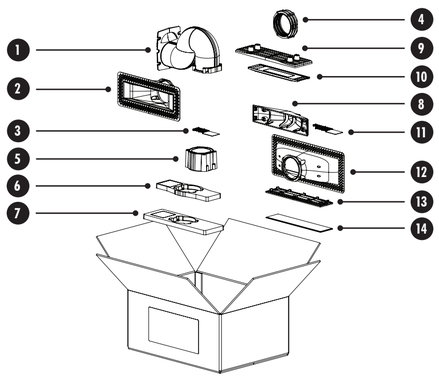


SCAN QR CODE FOR DIGITAL INSTALLATION RESOURCES

MARTIN LOGAN®

01 Parts List

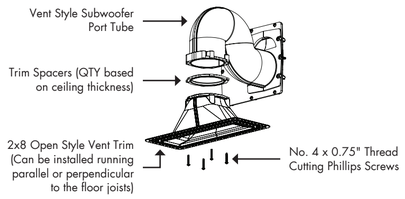
VENT STYLE TRIM ACCESSORY KIT



1. Vent Style Port Tube (Must be installed in place of the existing port tube)
2. 2x8 Open Style Vent Trim
3. Trim Hardware Bag
4. Port Tube Spacers
5. Cutout Template / Port Protector Base
6. 2x8 Port Protector Cover (used with Port Protector Base) / Cutout Template
7. 3x10 Port Protector Cover (used with Port Protector Base) / Cutout Template
8. 3x10 Minimal Style Vent Trim Interior
9. 3x10 Finishing Cover
10. 2x8 Finishing Cover
11. Port Cover Hardware Bag
12. 3x10 Minimal Style Vent Trim Exterior
13. 3x10 Minimal Style Vent Trim Face (Non-drywall, solid ceiling materials can be affixed to this for a seamless look)
14. 3x10 Minimal Style Vent Trim Face Insert (attaches to 13 for a smooth paintable surface)

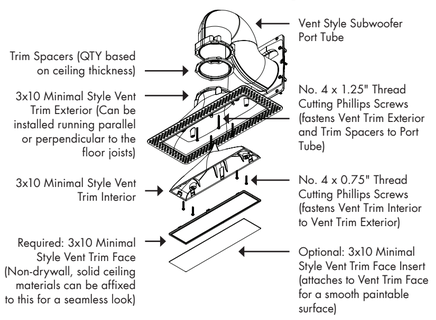
SUBWOOFER PORT TUBE ASSEMBLY 2X8 OPEN STYLE VENT TRIM

These components to be fastened to port tube assembly after subwoofer cabinet is installed and hole is cut in ceiling.



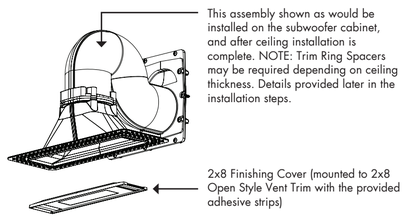
SUBWOOFER PORT TUBE ASSEMBLY 3X10 MINIMAL STYLE VENT TRIM

These components to be fastened to port tube assembly after subwoofer cabinet is installed and hole is cut in ceiling.



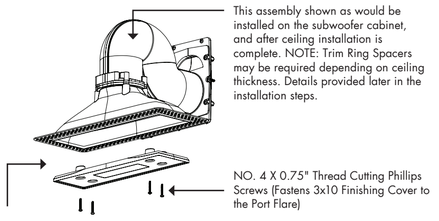
FINISHING COVER ASSEMBLY FOR 2X8 OPEN STYLE VENT TRIM

These components to be fastened to port tube assembly after subwoofer cabinet is installed and hole is cut in ceiling.



FINISHING COVER ASSEMBLY FOR 3X10 MINIMAL STYLE VENT TRIM

These components to be fastened to port tube assembly after subwoofer cabinet is installed and hole is cut in ceiling.

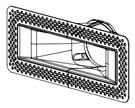


02 Installation Preparation: Part Selection

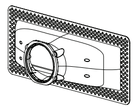
Note: If the ceiling material is over 1/2" thick, locate the included trim ring spacers and keep them in a safe location as they will be required in later steps.

Vent Style Trims: The Variable Aperture Subwoofer has 2 different Vent Style Trim choices when installed with the Vent Style Port Tube option. NOTE: The Vent Style Port Tube must be installed in place of the default Port Tube when using Vent Style Trim.

i. **2x8 Open Style Vent Trim:** This trim option closely mimics open style HVAC fixtures, like diffusors, and can be painted if desired.

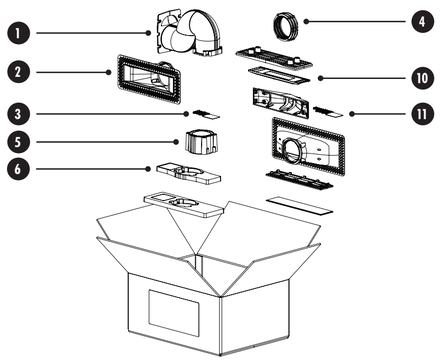


i. **3x10 Minimal Style Vent Trim:** A sleek, rectangular outline where the center is finished with your actual ceiling material, ensuring a perfect match regardless of surface type.

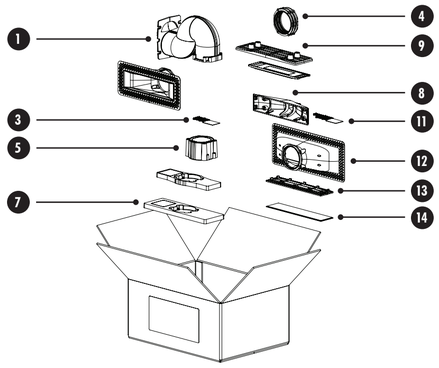


Locate the trim components based on the desired Vent Style.

a. For the 2x8 Open Style Vent locate the following according to the Parts List:
   1. Vent Style Port Tube (Must be installed in place of the existing port tube)
   2. 2x8 Open Style Vent Trim
   3. Trim Hardware Bag
   4. Port Tube Spacers
   5. Cutout Template / Port Protector Base
   6. 2x8 Port Protector Cover (used with Port Protector Base) / Cutout Template
   10. 2x8 Finishing Cover
   11. Port Cover Hardware Bag



b. For the 3x10 Minimal Style Vent locate the following according to the Parts List:
   1. Vent Style Port Tube (Must be installed in place of the existing port tube)
   3. Trim Hardware Bag
   4. Port Tube Spacers
   5. Cutout Template / Port Protector Base
   7. 3x10 Port Protector Cover (used with Port Protector Base) / Cutout Template
   8. 3x10 Minimal Style Vent Trim Interior
   9. 3x10 Finishing Cover
   11. Port Cover Hardware Bag
   12. 3x10 Minimal Style Vent Trim Exterior
   13. 3x10 Minimal Style Vent Trim Face (Non-drywall, solid ceiling materials can be affixed to this for a seamless look)
   14. 3x10 Minimal Style Vent Trim Face Insert (attaches to 13 for a smooth paintable surface)

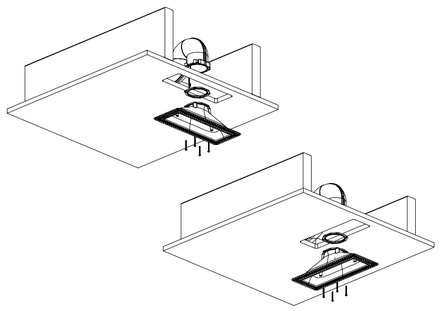


03 Installation Preparation: Port Tube Configuration and Subwoofer Placement

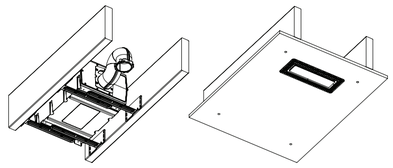
Vent Style Port Tube Installation

Critical Step: The Vent Style Subwoofer Trim requires the Vent Style Port Tube to be installed in place of the default Subwoofer Port Tube. See the following steps about adjusting the port tube offset. Since adjusting the port offset requires removal of the default Port Tube, we recommend replacing the default Port Tube with the Vent Style Port Tube at the same time. If using the default center port offset, the port tube can be replaced at this time to help determine proper placement, or left off for greater access to the mounting brackets (Vent Style Port Tube would then be installed after the mounting brackets have been secured).

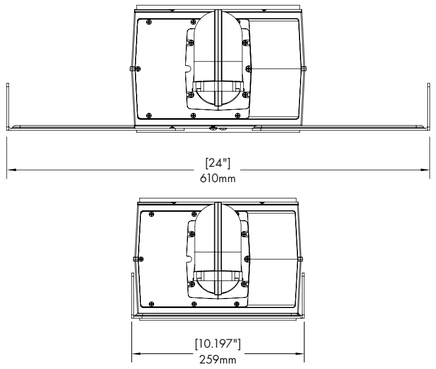
The following illustrations are shown with the required Vent Style Port Tube and the Vent positioned **perpendicular** to the floor joists, the Vent can also be installed **parallel** to the joists.



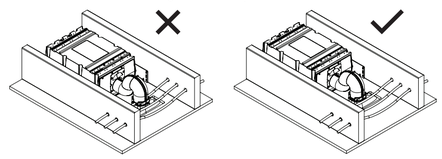
a. The placement of the port tube attached to the subwoofer cabinet ultimately determines the location of the visible subwoofer grille once the ceiling surface is in place:



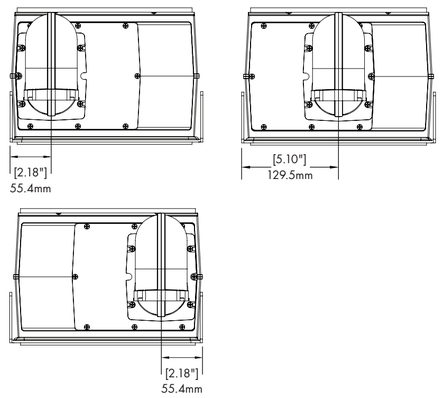
b. Determine the desired location of the port tube between the ceiling joists or wall studs. Variable Aperture Subwoofers support joist spacing from 12 – 24" on center with an adjustable bracket width of 10.197 – 24." To accommodate wider joist spacing, additional wood blocking can be fastened to the existing joists to bridge the gap. NOTE: This subwoofer is not designed to fit in a standard 2x4 wall cavity and requires additional clearance. The overall subwoofer depth is 6.87" when oriented for in-wall use. For illustrative purposes, these instructions assume the subwoofer is being installed into a ceiling.



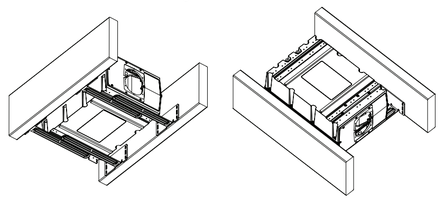
c. Observe and note any existing obstructions or site conditions that may prevent the subwoofer cabinet from being installed in a particular direction.



d. Now that the location of the subwoofer enclosure has been determined, the offset of the port tube can now be adjusted if needed. In the default configuration the port tube is centered, with an equal amount of cabinet width on either side. If required, the port can also be adjusted to exit near the left or right edge of the cabinet, providing closer placement to the adjacent joist.

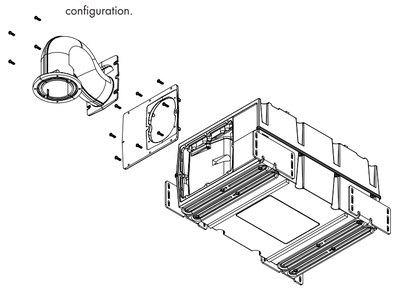


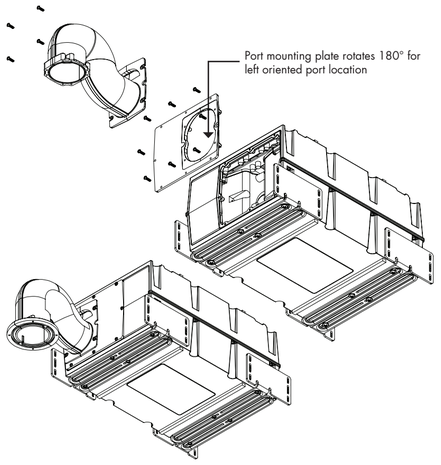
i. If the default centered port tube configuration works for your desired location, the port tube can be removed at this time to provide greater access to the mounting holes of the nearest mounting brackets.



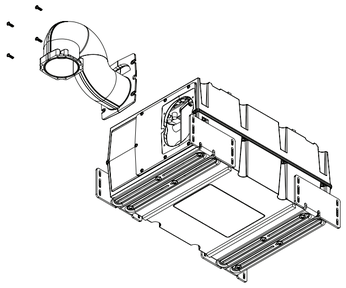
ii. If you want the port exiting closer to the left edge of the subwoofer (when facing the port side of the cabinet) the port tube and mounting plate can be adjusted.
   1. Remove and rotate the port mounting plate 180°, then reinstall the port mounting plate.
   2. For better access to the mounting brackets, we recommend waiting to reinstall the port tube until the cabinet is mounted to the joists.

iii. If you want the port exiting closer to the right edge of the subwoofer (when facing the port side of the cabinet) the port tube and mounting plate can be adjusted.
   1. Remove and reinstall the mounting brackets on the opposite side of the subwoofer cabinet. The cabinet should now be oriented 180° from the default configuration.

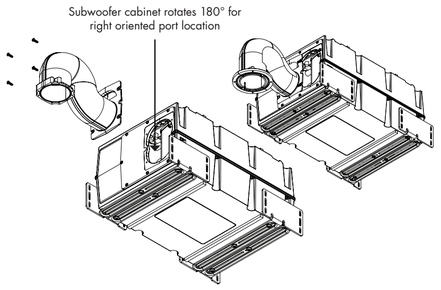




2. Remove and rotate the port mounting plate 180°, then reinstall the port mounting plate.

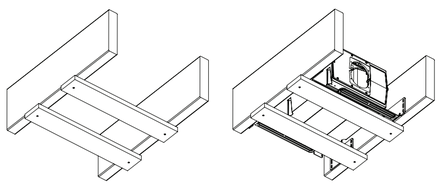


3. For better access to the mounting brackets, we recommend waiting to reinstall the port tube until the cabinet is mounted to the joists.



04 Installation Preparation: Temporary Subwoofer Support

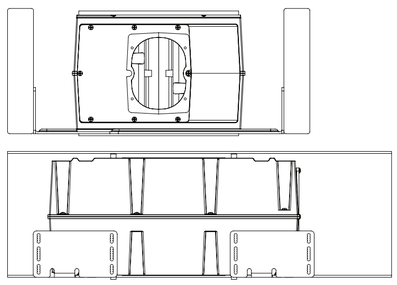
Temporarily fasten (2) pieces of scrap wood (EX: 2x4 or plywood) to the bottom faces of both adjacent joists at the approximate location where the subwoofer cabinet is to be installed. This will act as a temporary support for the subwoofer, making fastening the brackets to the joists easier. Since we recommend securing the outermost brackets to the joists first, then securing the innermost brackets, we recommend that these supports rest directly underneath the innermost brackets. This provides optimal access to the outermost brackets.



05 Putting The Subwoofer In Position

Raise the subwoofer cabinet up and ensure the cabinet is sufficiently resting on the support boards. Adjust the board placement if needed. Confirm the rough placement of the port hole is correct.

Confirm the bottom edges of the mounting brackets are aligned with the bottom of the joists. Ensure the bottom of the bracket does not extend down into the room beyond the bottom face of the floor joist.



06 Securing The Mounting Brackets

Required Trim Ring Spacers:

Ceiling Panel Thickness	Number of Trim Ring Spacers	Installation Notes
1/2"	None	Standard installation
5/8"	1	Standard installation
3/4"	2	Standard installation
7/8"	3	Standard installation
Less than 1/2"	None	Special Installation: Must be installed using shims between the bottom edge of the mounting brackets and the bottom face of the joists to establish the correct gap. These temporary shims will be removed once the subwoofer is securely mounted to the joists.

Shim/Gap Requirements for Thin Ceiling Panels:

- 3/8" ceiling panel thickness requires a 1/8" shim/gap.
- 1/4" ceiling panel thickness requires a 1/4" shim/gap.

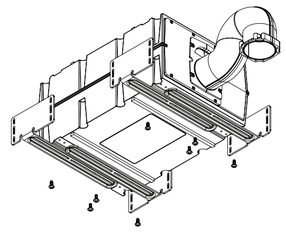
Please note the spacer and shim requirements. If installing the subwoofer in a thin ceiling as outlined above, the required shims must be installed at this time.

For other ceiling thicknesses, the trim spacers should be kept in a safe location as they will need to be added at the final stage of installation.

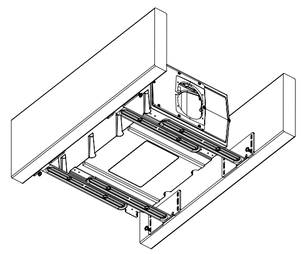
Confirm the bottom edges of the mounting brackets are aligned with the bottom of the joists. Ensure the bottom of the bracket does not extend down into the room beyond the bottom face of the floor joist.

Confirm the lateral placement (parallel with joists) of the subwoofer cabinet is correct. The cabinet placement will be determined by the desired location of the center point of the port:

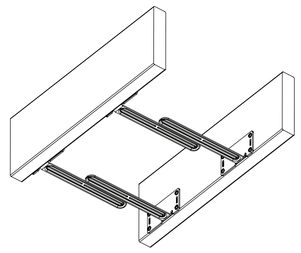
Adjust the spacing of the mounting brackets by loosening the screws fastening the brackets to the subwoofer cabinet. Extend the mounting brackets equally on each side of the cabinet so the distance between the brackets approximately matches the required joist spacing. Refasten the bracket screws 'finger tight' so that final adjustments can be made once the brackets are secured to the joists.



Once the lateral placement (parallel with joists) and vertical placement of the cabinet is determined to be correct, the mounting brackets can now be fastened to the joists. Note: If needed, the port tube can be removed at this time for improved access to the mounting bracket screw holes.



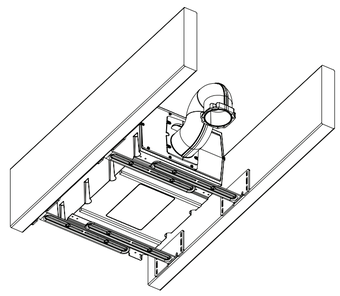
The vertical face of the mounting brackets should be fully contacting the adjacent joist face. Multiple screws can be used at either or both sets of the slotted mounting holes. We recommend using a minimum of (2) screws per bracket, placed as high and low as conditions permit, for a minimum total of (8) screws per subwoofer.



For better access to the innermost set of slotted mounting holes, the cabinet can be removed from the brackets temporarily via the mounting screws at the bottom of the cabinet. If removed, reinstall the cabinet once all brackets have been secured to the joists. We recommend leaving the cabinet screws finger tight at this stage to permit adjustment of the cabinet position.

07 Final Subwoofer Positioning

Now that the mounting brackets are secured to the floor joists, remove the temporary support boards and reinstall the port tube if previously removed. Use a laser level to confirm alignment of the port with other subwoofers and/or ceiling elements such as lighting etc.



To adjust the port tube location, loosen the mounting bracket screws on the underside of the cabinet and move the cabinet/port tube location to the desired position.

Once the port has been placed in the desired location, fully tighten the mounting bracket screws on the underside of the subwoofer cabinet.