ALX-D SERIES

COLUMN ARRAY LOUDSPEAKERS

ALX-D SERIES

COLUMN ARRAY LOUDSPEAKERS

INSTALLATION GUIDE

INTRODUCTION

This installation manual provides procedures for:
- Installing ALX-4D and ALX-8D loudspeakers
- Constructing and installing ALX-16D, ALX-24D, ALX32D, ALX-40D, and ALX-48D loudspeakers
- Mounting the loudspeakers using one of the following
  - Method A: L-bracket Kit
  - Method B: Multiflex Bracket Kit
  - Method C: Flush Mount Kit
  - Method D: Speaker Stand Adapter

The ALX-D Series Column Array Loudspeakers consists of the following models:
- ALX-4D
- ALX-8D
- ALX-16D
- ALX-24D
- ALX-32D
- ALX-40D
- ALX-48D

The ALX-4D and ALX-8D can be used as standalone units, each shipped with an L-Bracket Mounting Kit; the externally facing cable connectors are provided to supply AC mains power, Ethernet, and optional audio input and output sources. The internal network and power cabling are housed within the module enclosure to facilitate the joining and wiring of additional modules for future needs.

Using the ALX-8D as a base, the rest of the models are assembled by connecting two or more (up to six) additional loudspeaker modules together using the appropriate number of ALX-D Connection Kits:
- ALX-16D = 2x ALX-8D + 1x ALX-D Connection Kit + L-Bracket Mount
- ALX-24D = 3x ALX-8D + 2x ALX-D Connection Kit + L-Bracket Mount
- ALX-32D = 4x ALX-8D + 3x ALX-D Connection Kit + L-Bracket Mount
- ALX-40D = 5x ALX-8D + 4x ALX-D Connection Kit + L-Bracket Mount
- ALX-48D = 6x ALX-8D + 6x ALX-D Connection Kit + L-Bracket Mount

After connecting the modules and cables, mount the combined loudspeaker column using either:
- L-Bracket Mounting Kit (kit included with loudspeaker modules along with fasteners and related hardware),
- Multiflex Mount Kit (optional kit with fasteners and related hardware), or
- ALX Wall Mount Kit (optional kit with fasteners and related hardware)
- ALM SM8 Speaker Stand Mount (optional kit with fasteners and related hardware)

ALX-D SERIES

COLUMN ARRAY LOUDSPEAKERS
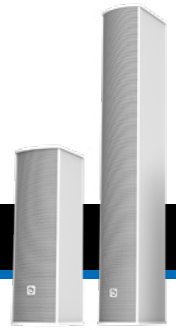
INSTALLATION GUIDE

TABLE OF CONTENTS

ALX-D SERIES

COLUMN ARRAY LOUDSPEAKERS

LOUDSPEAKER JOINING AND WIRING

This section applies to ALX-D models ALX-16D, ALX-24D, ALX-32D, ALX-40D, and ALX-48D.

SUMMARY OF STEPS – Loudspeaker Joining and Wiring

- **Step 1** – Remove decorative loudspeaker endcaps
- **Step 2** – Install replacement joiner endcaps
- **Step 3** – Remove connector plate covers
- **Step 4** – Slide the other coupling plate in grooves
- **Step 5** – Feed Interlink power and Interlink Ethernet cables through endcap opening
- **Step 6** – Align joining loudspeaker modules and feed cabling
- **Step 7** – Connect the cascading Interlink power and Interlink Ethernet cables to the Top loudspeaker module
- **Step 8** – Secure the loudspeaker modules together with the joiner plate
- **Step 9** – Reattach the connector covers
- **Step 10** – Connect remaining loudspeaker modules together
- **Step 11** – Connect wires to bottom Leader module
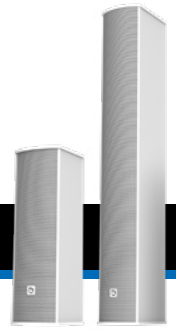- **Step 12** – Remove badge from Top speaker (optional)

TOOLS REQUIRED – Column Array Installation

- Phillips screwdriver
- 5mm Allen wrench
- T20 Torx Driver
- T25 Torx Driver
- Wire strippers

ALX-D SERIES

COLUMN ARRAY LOUDSPEAKERS

LOUDSPEAKER JOINING AND WIRING (CONTINUED)

Step 1 – Remove decorative loudspeaker endcaps

When cascading any two loudspeaker modules, the Bottom module should only have the top endcap removed, and the Top module should only have the bottom endcap removed relative to one another.

Remove the existing endcaps by removing the four (4) screws affixing each endcap to the loudspeaker. Set these screws aside for use in the next step.
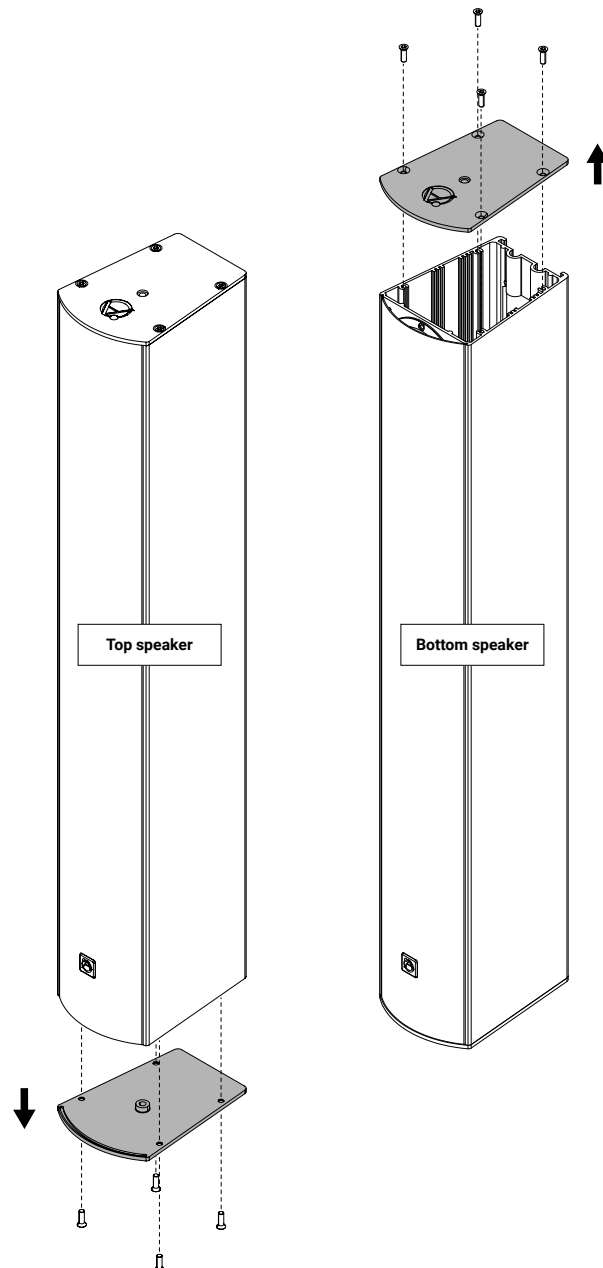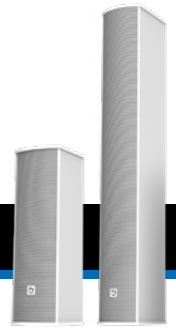
Figure 1: Removing endcaps

ALX-D SERIES

COLUMN ARRAY LOUDSPEAKERS

LOUDSPEAKER JOINING AND WIRING (CONTINUED)

Step 2 – Install replacement joiner endcaps

For each endcap removed a joiner endcap must be installed to allow mechanical connection to the cascaded module(s). There are two types of plates: one with holes and one with pegs. In order for proper joining to take place the correct plates need to be used to mate with one another.

- Bottom of Top speaker: Affix the joiner plate with holes to the bottom section of all modules intended to be cascaded with a module below it.
- Top of Bottom speaker: Affix the joiner plate with pegs to the top section of all modules intended to be cascaded with a module above it.

For each plate use the four (4) screws set aside from the previous step to affix the proper joiner plate to loudspeaker module endcaps.
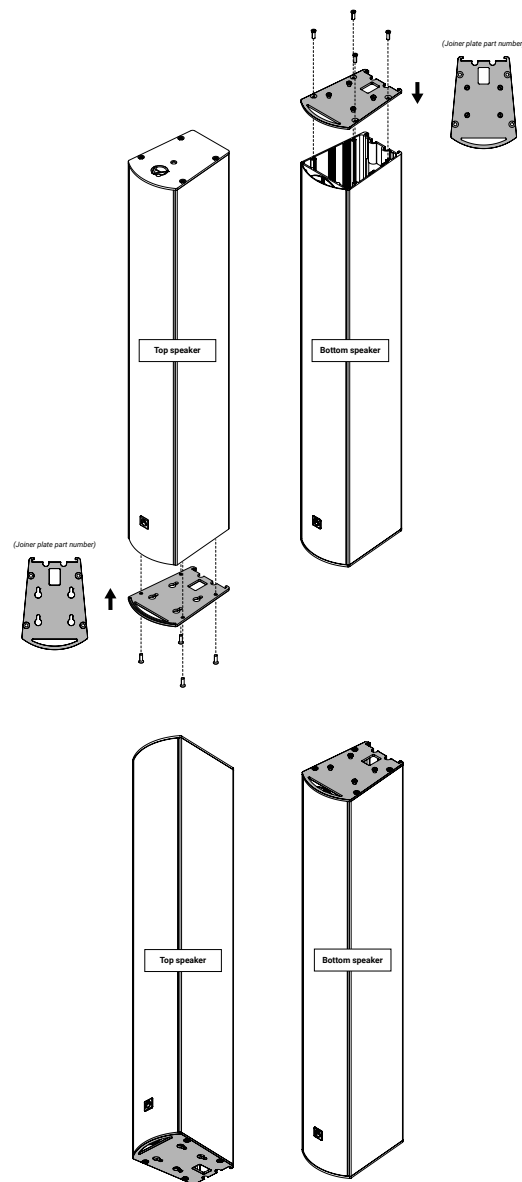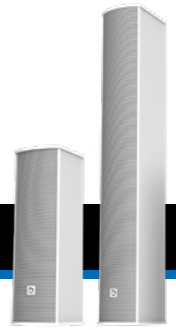

Figure 2: Installing joiner endcaps

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1601 JACK MCKAY BLVD.
ENNIS, TEXAS 75119 U.S.A.

TELEPHONE: (800) 876-3333
SUPPORT@ATLASIED.COM

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LOUDSPEAKER JOINING AND WIRING (CONTINUED)

Step 3 – Remove connector plate covers

On the backside of each loudspeaker module, remove the top and bottom connection plate covers by removing the four (4) screws holding it in place. Set the plates and screws aside for use in a later step.

Note: There are four (4) cylindrical foam pieces underneath the cover plate, inserted in each rear channel next to the cover plate screws. These foam pieces are needed to seal the channel openings underneath the cover plate. Keep the foam pieces together with the cover plate and cover plate screws.
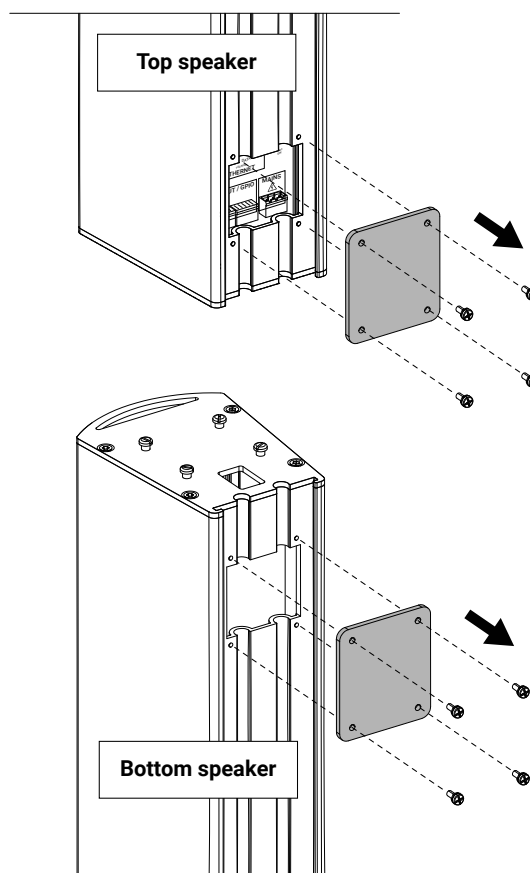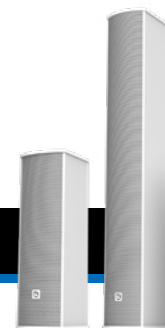
Figure 3: Removing connector plate covers

ALX-D SERIES

COLUMN ARRAY LOUDSPEAKERS

LOUDSPEAKER JOINING AND WIRING (CONTINUED)

Step 4 – Slide the other coupling plate in grooves

For each module pair to be joined, slide one joiner plate into the slotted grooves of the Bottom module. This part will remain loose for now but will be used in a later step to permanently secure the adjacent modules together.
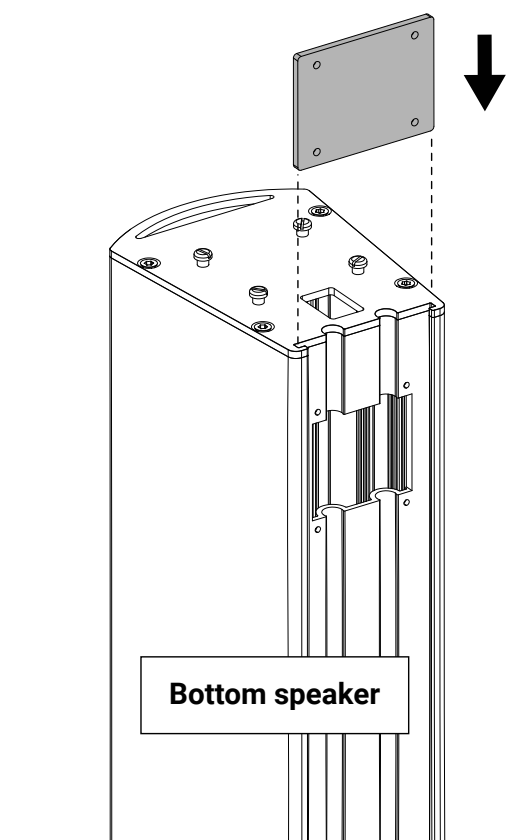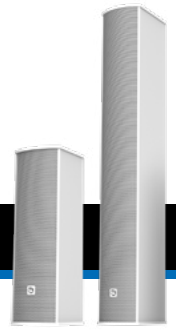
Bottom speaker

Figure 4: Sliding each coupling plate into grooves

8

ALX-D SERIES

COLUMN ARRAY LOUDSPEAKERS

INSTALLATION GUIDE

LOUDSPEAKER JOINING AND WIRING (CONTINUED)

Step 5 – Feed Interlink power and Interlink Ethernet cables through endcap opening

Using the cable opening on the Bottom loudspeaker, feed both the power and network cables through the hole in the top endcap. These will later be fed through the bottom of the joining module endcap.

Note: Each loudspeaker module includes pre-connected THRU cables for both power and network. These hidden cables are connected from the input connector at the bottom of the speaker and accessible through the cable cover towards the top of the module.
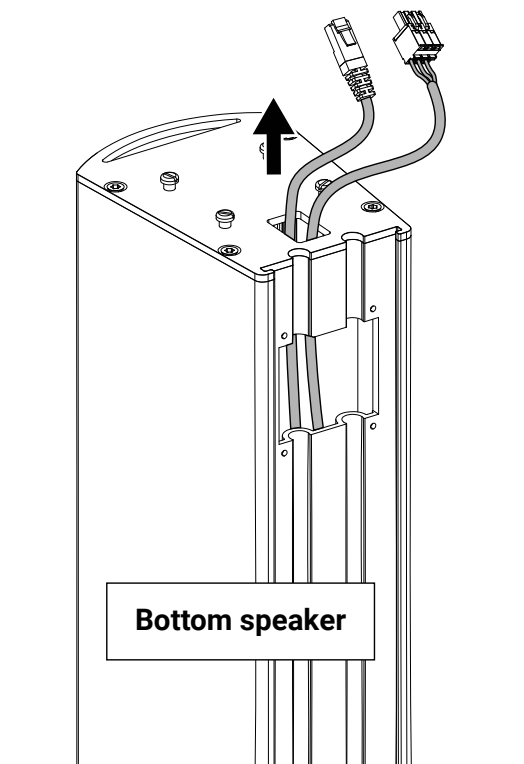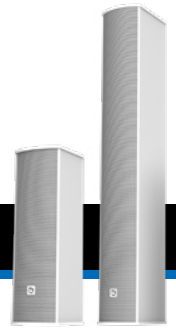
Bottom speaker

Figure 5: Feeding power, network cables through endcaps

9

LOUDSPEAKER JOINING AND WIRING (CONTINUED)

Step 6 – Align joining loudspeaker modules and feed cabling

First, on a flat surface place the joining Top and Bottom modules in close proximity and feed the power/network THRU cables of the Bottom module to the connector cavity of the Top module.

Next, align the opposite endcaps of both modules so the endcap holes fit around the pegs, then slide forward until the fronts are aligned.

Warning: At this point, the loudspeaker modules are not securely connected together. This step should be performed on the floor or other large, flat, secure surface until properly secured in a later step.
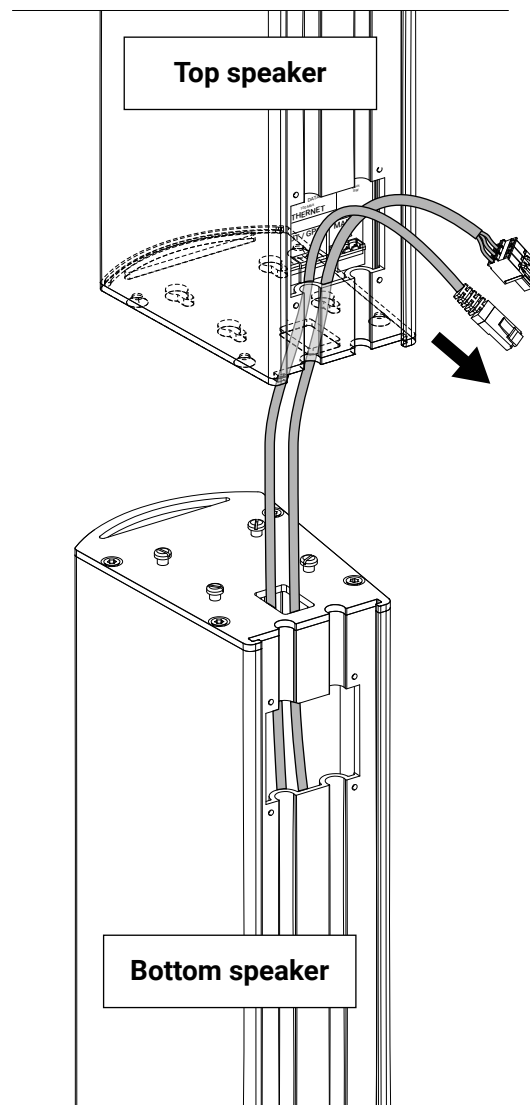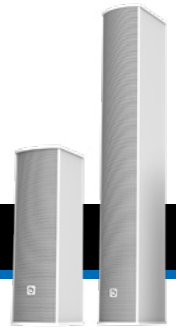

Figure 6: Aligning loudspeaker modules

(Step 6 continues on next page)

10

ALX-D SERIES

COLUMN ARRAY LOUDSPEAKERS

LOUDSPEAKER JOINING AND WIRING (CONTINUED)

Step 6 – (continued)

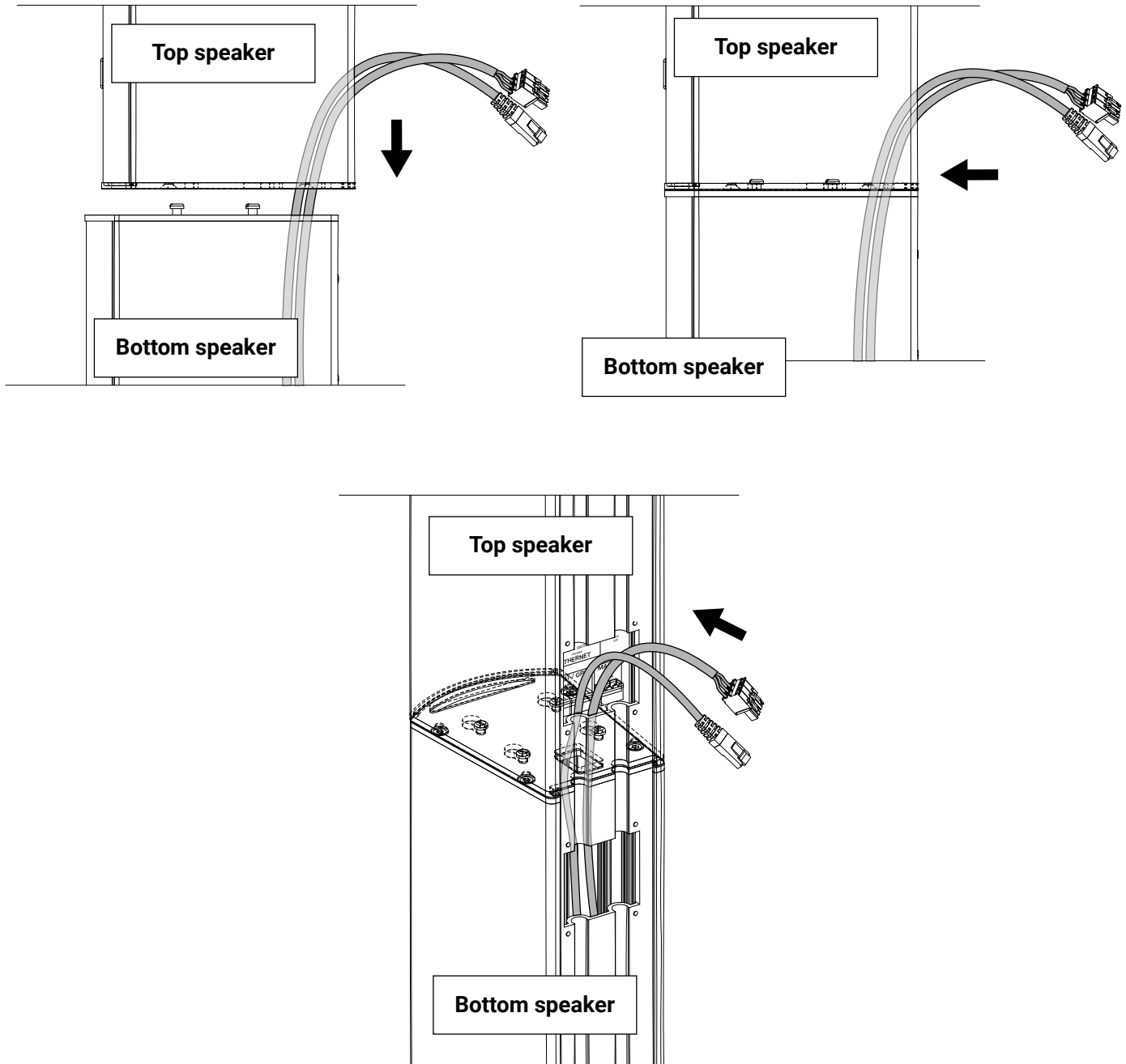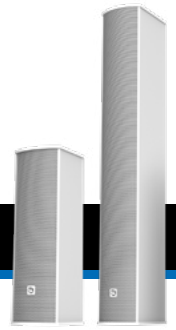Figure 7: Feeding cabling through joined loudspeaker modules

LOUDSPEAKER JOINING AND WIRING (CONTINUED)

Step 7 – Connect the cascading Interlink power and Interlink Ethernet cables to the Top loudspeaker module

With the wires fed through the opening from the previous step, connect the network cable to the DATA-THRU port, and the power cable to the MAINS port. Place any remaining cable slack back through the cavity into the Bottom module.

Note: Be sure to use the DATA-THRU network port and not the DATA-IN network port. The IN port is only used with the bottom-most module connected to facility network systems.
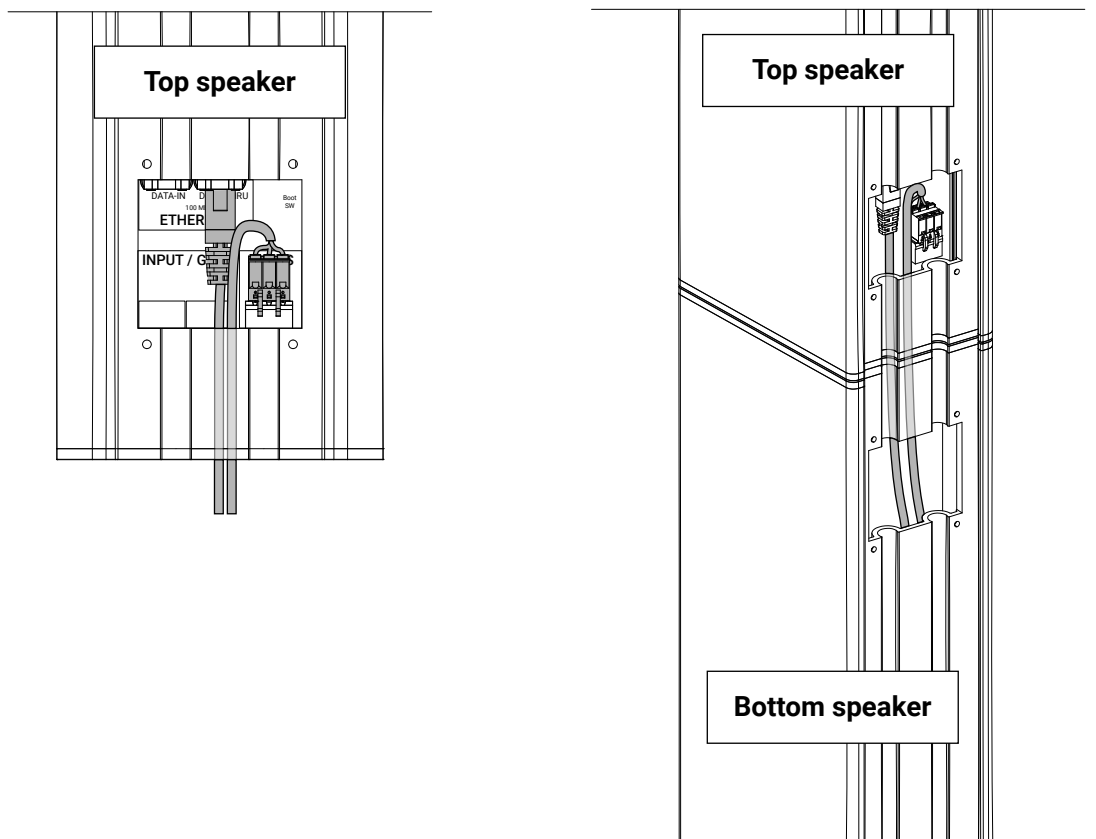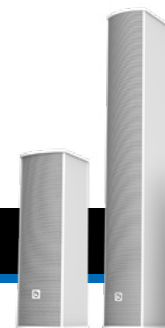

Figure 8: Connecting cascaded power and network cables to Top loudspeaker module

ALX-D SERIES

COLUMN ARRAY LOUDSPEAKERS

LOUDSPEAKER JOINING AND WIRING (CONTINUED)

Step 8 – Secure the loudspeaker modules together with the joiner plate

Slide the joiner plate from Step 4 up to bridge across both Top and Bottom modules. Secure the modules together by tightly securing the four (4) included screws; two (2) on top and two (2) on bottom.
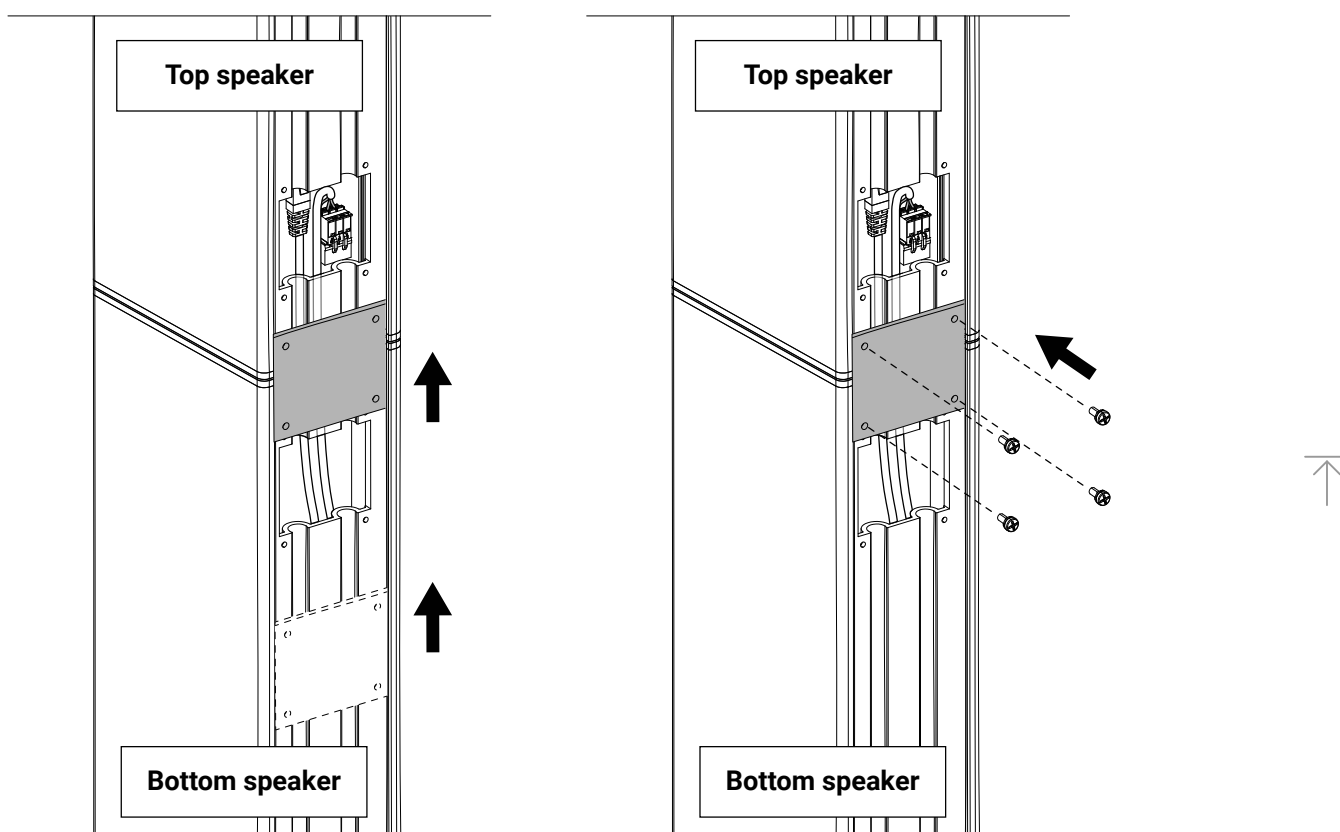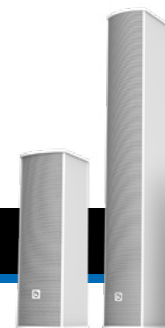

Figure 9: Securing the loudspeaker modules together using joiner plate

LOUDSPEAKER JOINING AND WIRING (CONTINUED)

Step 9 – Reattach the connector covers

Reattach the cable covers and cylindrical foam pieces removed in Step 3 using the same four (4) screws each that were initially securing them in place.
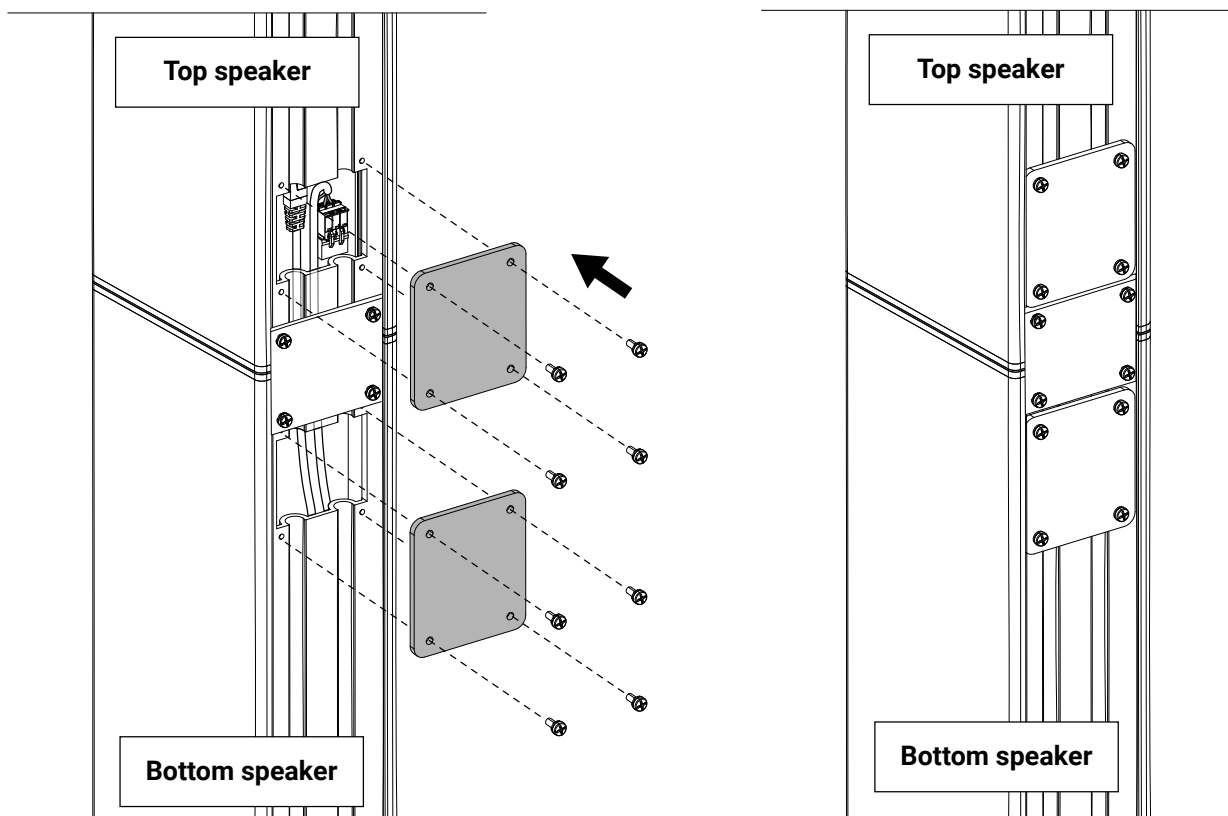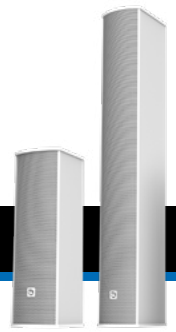

Figure 10: Reattaching the connector covers

LOUDSPEAKER JOINING AND WIRING (CONTINUED)

Step 10 – Connect remaining loudspeaker modules together

Repeat steps 1-9 for all remaining module pairs. The top-most module for the loudspeaker configuration will not require any additional cascading. The bottom-most Leader module will be wired in the next step to upstream devices and AC mains.
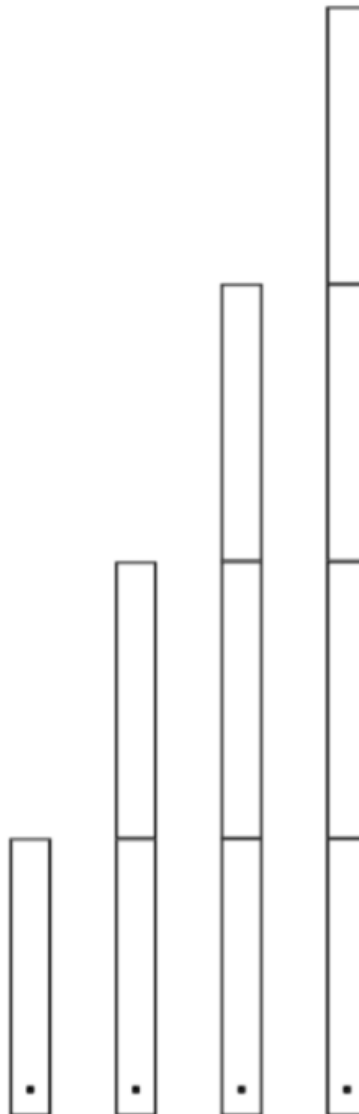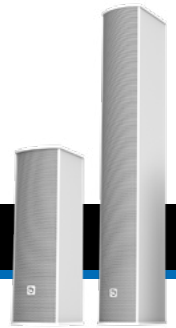

Figure 11: Connecting remaining loudspeaker modules together

ALX-D SERIES

COLUMN ARRAY LOUDSPEAKERS

LOUDSPEAKER JOINING AND WIRING (CONTINUED)

Step 11 – Connect wires to bottom Leader module

The bottom-most module is the Leader module for the entire ALX-D configuration. This module receives a single network connection (data and Dante) to the upstream audio system, and well as power for all modules via AC mains.
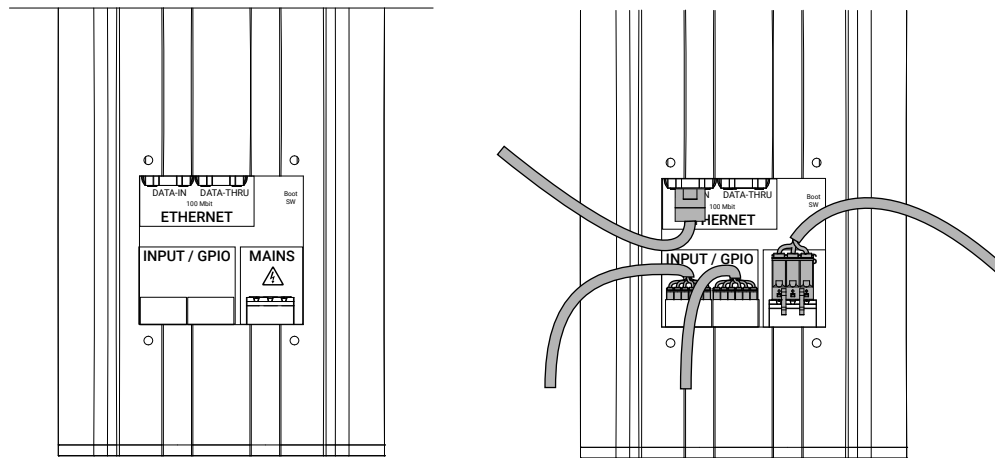

Figure 12: Connecting Leader loudspeaker module to Ethernet, audio input/output, and AC mains

Mains (required): The installer is responsible for providing the mains power cable to power the product using the provided 3-Pin Phoenix plug. The mains power cable is to be not less than ordinary tough rubber sheathed to IEC 60245-1 (designation 60245 IEC 53), or not lighter than ordinary PVC sheathed to IEC 60227-1 (designation 60227 IEC 53). The minimum power cable outside diameter is to be no less than 8mm. Power cable wiring should be a minimum of 18AWG or 0.75mm2 cross-sectional area, rated to 6A.

Using the included connector and appropriate AC mains cable, connect the Line, Neutral, and Ground wires to the correct pin on the connector. When ready to power the unit, insert the AC mains connector to the loudspeaker. Depending on the installation it may be best to make this connection last after wall mounting.

Ethernet (required): Connect the upstream network control and Dante cable to the DATA-IN port of the Leader module. The DATA-THRU connections should only be used with the cascaded Follower modules described in Step 7.

Input/GPIO (optional): If using analog audio, AES/EBU digital audio, or GPIO functions, use the included connector to properly wire the signal(s) to the Leader module. These inputs will be ignored on cascaded Follower modules.
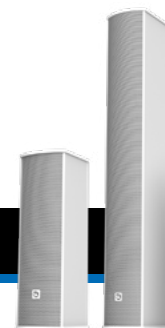
For proper strain relief of the input cables and mains power cable, route the cables downward into the channels on the rear of the enclosure. For the mains power cable, compliance standards and regulation require that ½ the diameter of the sheath of the power cable is inside the unit to provide proper pull-out coverage. Reattach cover plate as described in Section 9 of the previous section.

ALX-D SERIES

COLUMN ARRAY LOUDSPEAKERS

LOUDSPEAKER JOINING AND WIRING (CONTINUED)

Step 12 – Remove badge from Top speaker (optional)

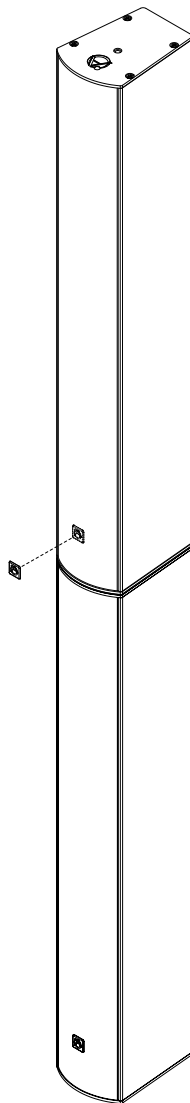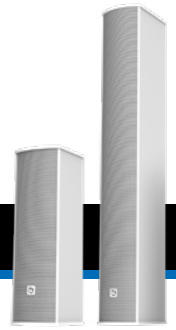Remove redundant badges by carefully peeling badge stickers off except for bottom badge.

Figure 13: Removing badge from Top speaker (optional)

MOUNTING METHOD A: L-BRACKETS

SUMMARY OF STEPS – Mounting Method A: L-Brackets

- **Step 1** – Attach brackets to wall
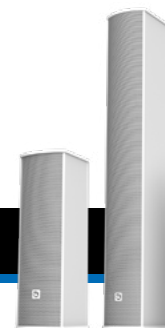- **Step 2** – Attach speaker to brackets

IMPORTANT SAFETY CONSIDERATIONS

When installing AtlasIED loudspeakers, the following precautions should always be observed:

- All AtlasIED products must be used in accordance with local, state, federal, and industry regulations. It is the owner's and user's responsibility to evaluate the reliability of any mounting method for their application. Mounting should only be carried out by experienced professionals.

- Use mounting hardware that has been rated to meet or exceed the weight being hung.

- Make sure to attach mounting hardware to the building's structural components (studs or joists), and not just to the wall surface. Verify that the building's structure and the anchors used for the installation will safely support the total weight of the mounted loudspeakers.

- Use mounting hardware appropriate for the material where the loudspeaker will be installed.

MOUNTING METHOD A: L-BRACKETS)

Step 1 – Attach brackets to wall

Attach the L-brackets to the wall with appropriate hardware for the mounting surface and weight of ALX-D configuration.
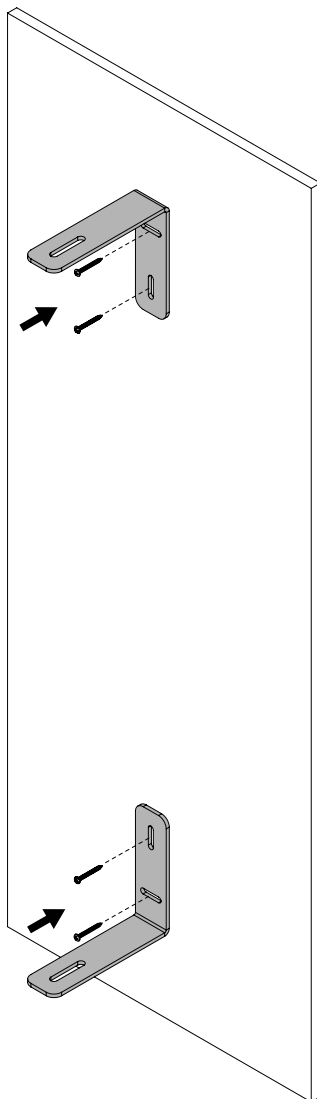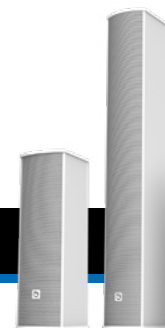
Figure 14: Attaching the brackets to the mounting surface

MOUNTING METHOD A: L-BRACKETS (CONTINUED)

Step 2 – Attach loudspeaker to brackets

Slide the speaker into the brackets and attach them using two (2) locking screws. You can also tilt the loudspeaker module right or left depending on installation needs.
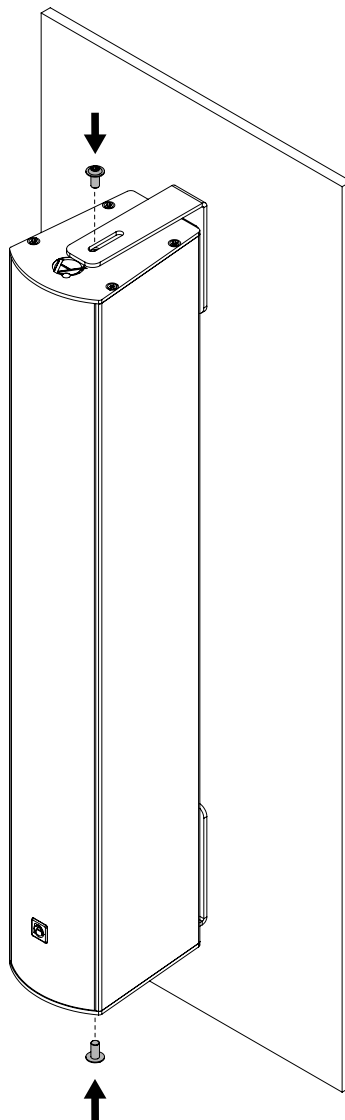
Figure 15: Attaching the loudspeaker module to brackets and locking in place

MOUNTING METHOD B: MULTIFLEX BRACKETS

Use this method for ALX-4D and ALX-8D; see Step 9 for ALX-16D installations.

Note: The multiflex 10 and 20 mounting brackets are only to be used with ALX-4D, ALX-8D, and ALX-16D

SUMMARY OF STEPS – Mounting Method B: Multiflex Brackets

- **Step 1** – Remove loudspeaker module Top or Bottom endcap and connector cover
- **Step 2** – Slide adaptor plate into grooves on the rear of enclosure
- **Step 3** – Determine placement of the adapter plate, secure with screws
- **Step 4** – Replace the endcap
- **Step 5** – Attach loudspeaker-side of the multiflex bracket to the adapter plate
- **Step 6** – Attach multiflex mounting bracket to the wall
- **Step 7** – Attach loudspeaker-side bracket to wall-side bracket
- **Step 8** – Attach the two brackets together using the supplied washers and screws
- **Step 9** – Optional: Cascading loudspeaker module mounting

MOUNTING METHOD B: MULTIFLEX BRACKETS

Step 1 – Remove one loudspeaker module endcap and connector cover

Select either the top or bottom endcap and corresponding connector cover and remove (bottom endcap and connector cover shown below).
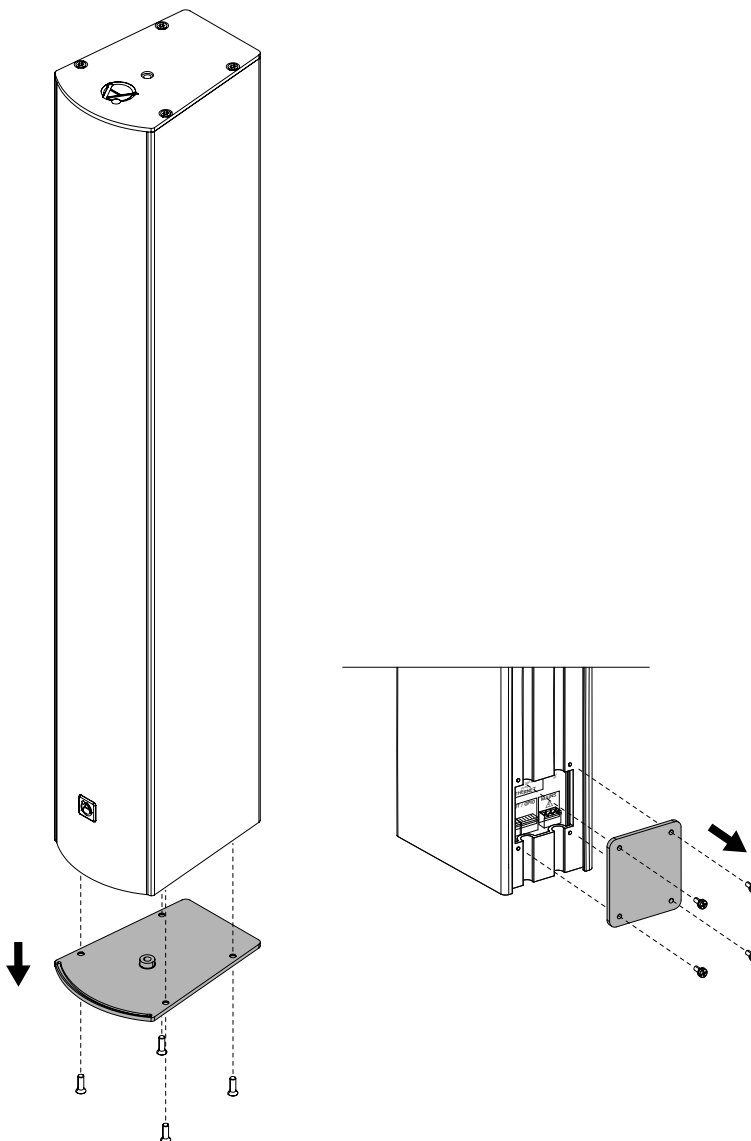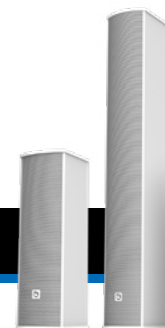
Figure 16: Removing loudspeaker module top or bottom endcap, connector cover

MOUNTING METHOD B: MULTIFLEX BRACKETS (CONTINUED)

Step 2 – Slide adaptor plate into grooves on the rear of enclosure

Using the grooves shown below as a guide, slide the adapter plate past the connector area.
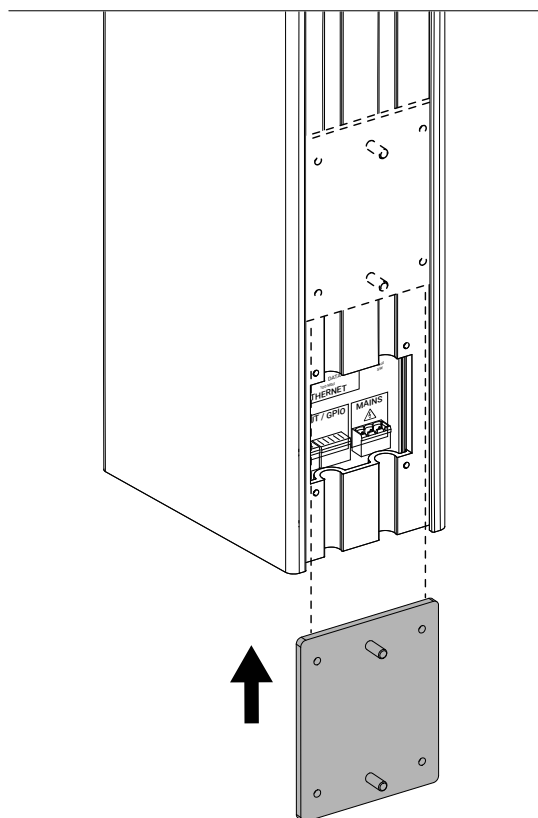
Figure 17: Sliding adaptor plate into grooves

MOUNTING METHOD B: MULTIFLEX BRACKETS (CONTINUED)

Step 3 – Determine placement of the adapter plate, secure with screws

Based on the specific installation needs, determine the placement of the adapter plate, Fasten the adapter plate into place using the four (4) provided screws.
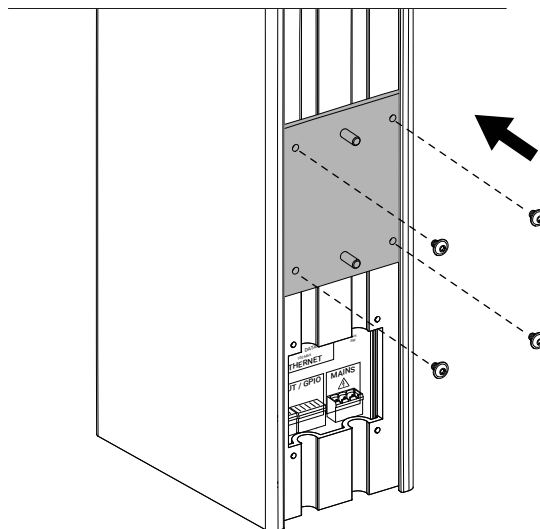
Figure 18: Determining adapter plate placement, securing with screws

MOUNTING METHOD B: MULTIFLEX BRACKETS (CONTINUED)

Step 4 – Replace the endcap

Replace the existing endcaps by removing the four (4) screws affixing each endcap to the loudspeaker.
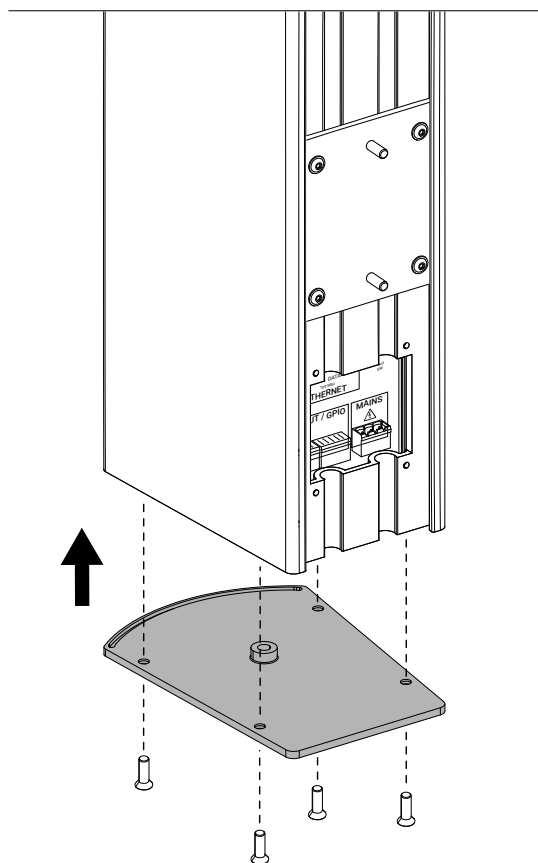
Figure 19: Replacing endcap

MOUNTING METHOD B: MULTIFLEX BRACKETS (CONTINUED)

Step 5 – Attach loudspeaker-side of the multiflex bracket to the adapter plate

Attach the loudspeaker-side of the multiflex bracket to the adapter plate using the pegs to help align them correctly. Tighten the two (2) locking washers and two (2) nuts to secure in place.
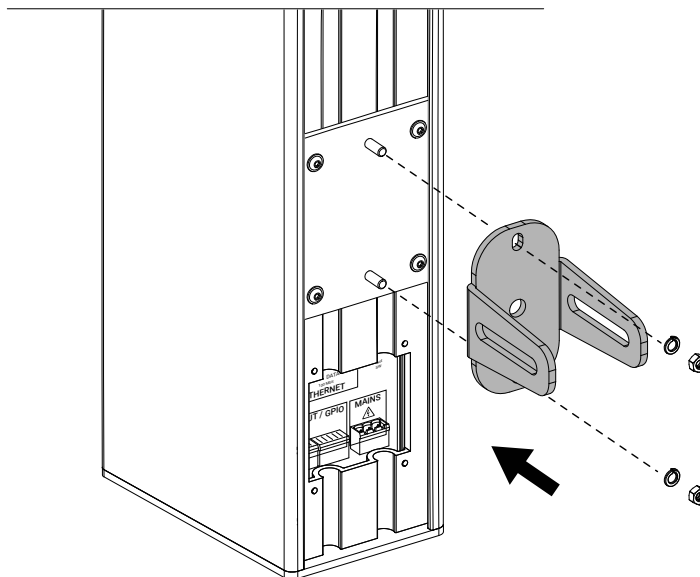
Figure 20: Attaching the loudspeaker-side of multiflex bracket

MOUNTING METHOD B: MULTIFLEX BRACKETS (CONTINUED)

Step 6 – Attach multiflex mounting bracket to the wall

Attach wall side of flex mount bracket to wall with appropriate hardware for the mounting surface. Attach to the wall using two (2) screws.
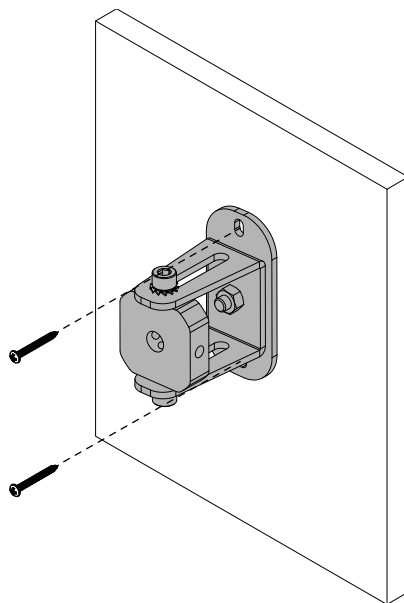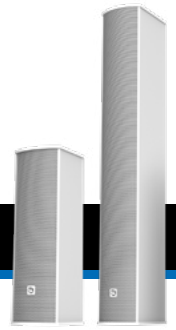

Figure 21: Attaching multiflex mounting bracket to wall

MOUNTING METHOD B: MULTIFLEX BRACKETS (CONTINUED)

Step 7 – Align loudspeaker-side bracket to wall-side bracket

Attach the loudspeaker to the wall-side bracket by aligning the slots in the loudspeaker bracket to the mounting holes on the wall bracket.
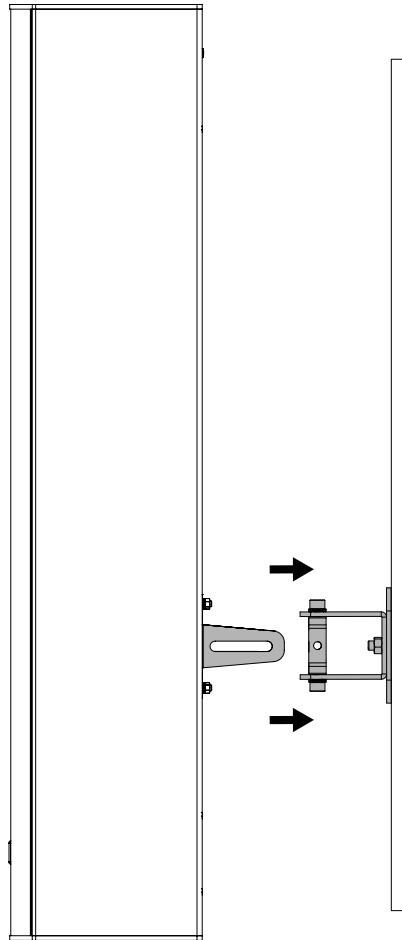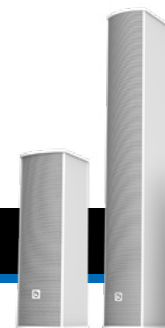Warning: At this point, the loudspeaker modules are not securely connected together until the next step.

Figure 22: Attaching loudspeaker-side bracket to wall-side bracket

MOUNTING METHOD B: MULTIFLEX BRACKETS (CONTINUED)

Step 8 – Attach the two brackets together using the supplied washers and screws

Place the flat end of the swivel bracket onto the connector on the back of the loudspeaker. Use the UP arrow printed on the swivel bracket to properly align the bracket and connector. Use the two (2) included screws to secure the plate to the loudspeaker (Figure 4).
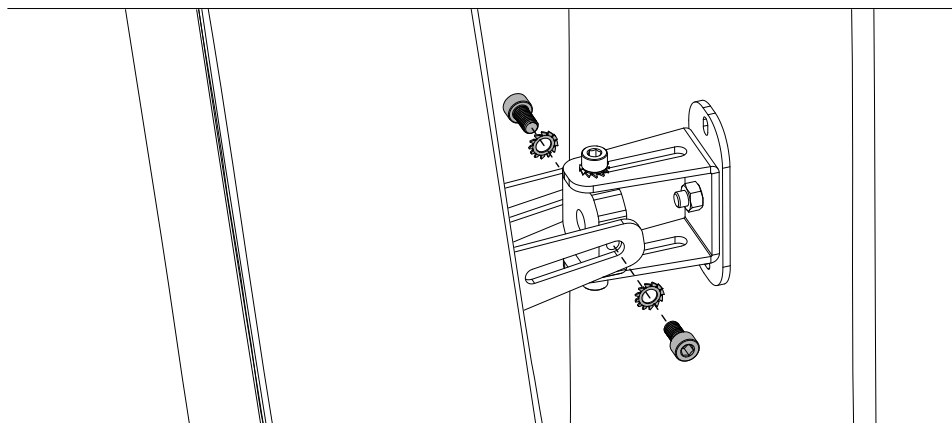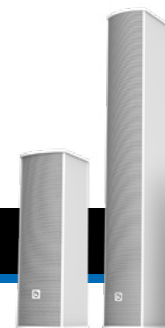

Figure 23: Attaching the two brackets together

ALX-D SERIES

COLUMN ARRAY LOUDSPEAKERS

MOUNTING METHOD B: MULTIFLEX BRACKETS (CONTINUED)

Step 9 – Optional: Cascading loudspeaker module mounting

If you require ALX-16D loudspeaker modules to be stacked/cascaded, use the multiflex 20 bracket on the Top loudspeaker and use the multiflex 10 bracket on the Bottom speaker.
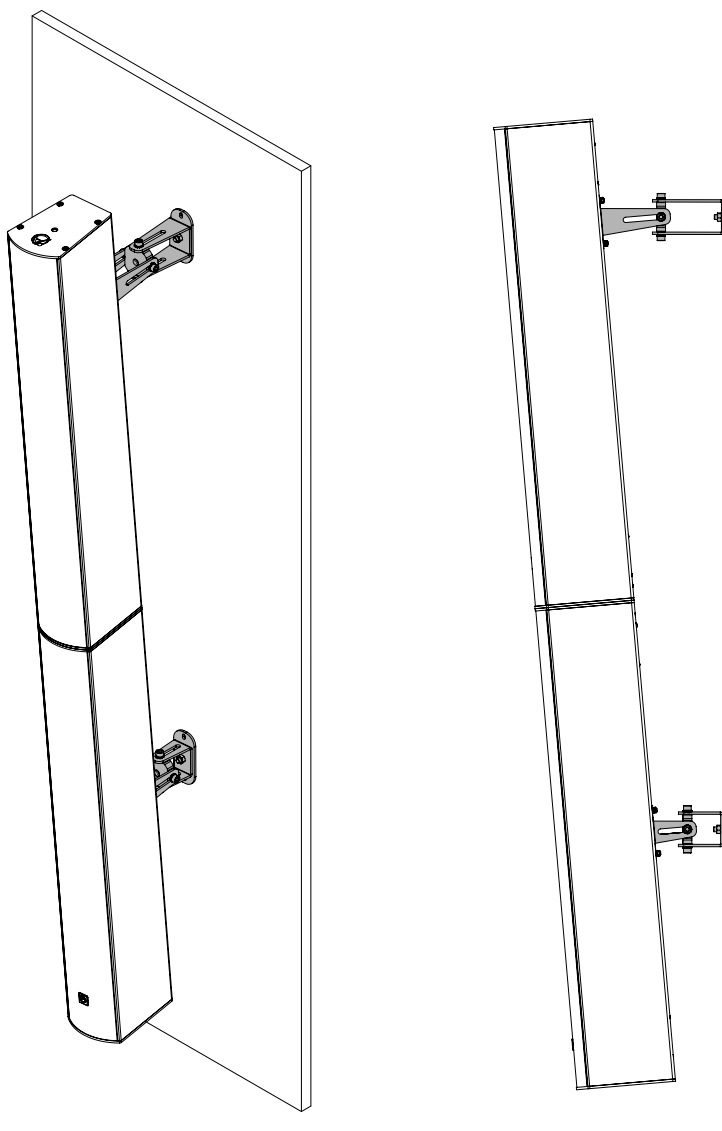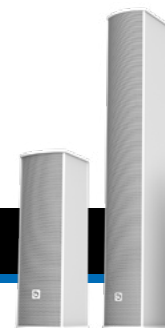
Figure 24: Cascading loudspeaker module mounting (optional)

ALX-D SERIES

COLUMN ARRAY LOUDSPEAKERS

MOUNTING METHOD C: FLUSH MOUNT

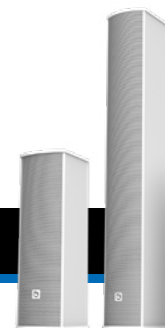**Note:** The flush mount bracket method is only to be used with ALX-4D and ALX-8D.

SUMMARY OF STEPS – Mounting Method C: Flush Mount

- **Step 1** – Remove connector cover plate from loudspeaker
- **Step 2** – Install flush mount bracket in place of top connection cover
- **Step 3** – Attach adhesive rubber foot to bottom connector cover
- **Step 4** – Attach wall-side bracket to mounting surface
- **Step 5** – Hang the loudspeaker module on the wall

MOUNTING METHOD C: FLUSH MOUNT

Step 1 – Remove connector cover plate from loudspeaker

The Flush Mount consists of a two-piece bracket. One piece attaches to the loudspeaker module and the other attaches to the wall.

Remove the top connector cover plate from the loudspeaker module by loosening and removing the four (4) screws.
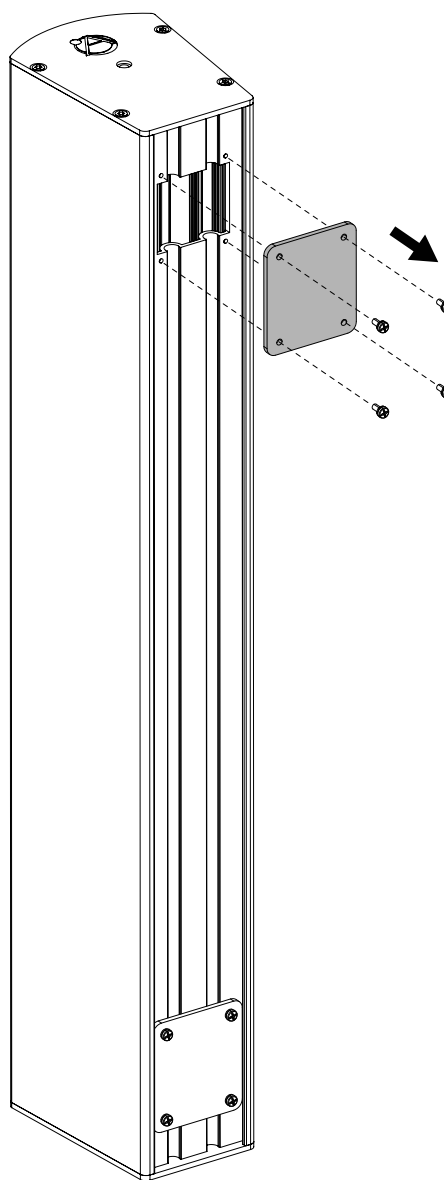
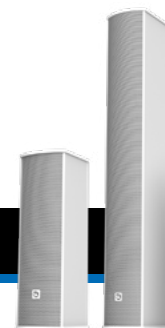Figure 25: Removing the top connector cover

MOUNTING METHOD C: FLUSH MOUNT (CONTINUED)

Step 2 – Install flush mount bracket in place of top connection cover

Install the loudspeaker-facing flush mount bracket using the four (4) screws from the previous step.
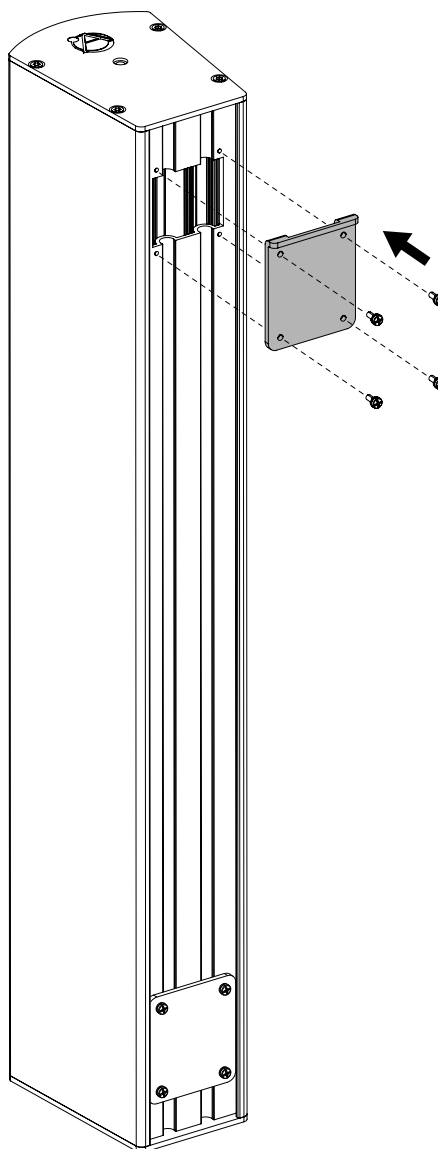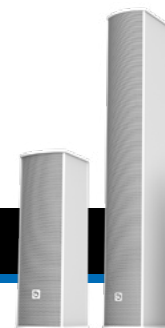
Figure 26: Install the loudspeaker-facing flush mount bracket

MOUNTING METHOD C: FLUSH MOUNT (CONTINUED)

Step 3 – Attach adhesive rubber foot to bottom connector cover

Attach the adhesive rubber foot to the bottom connector cover so the loudspeaker hangs parallel to the wall.
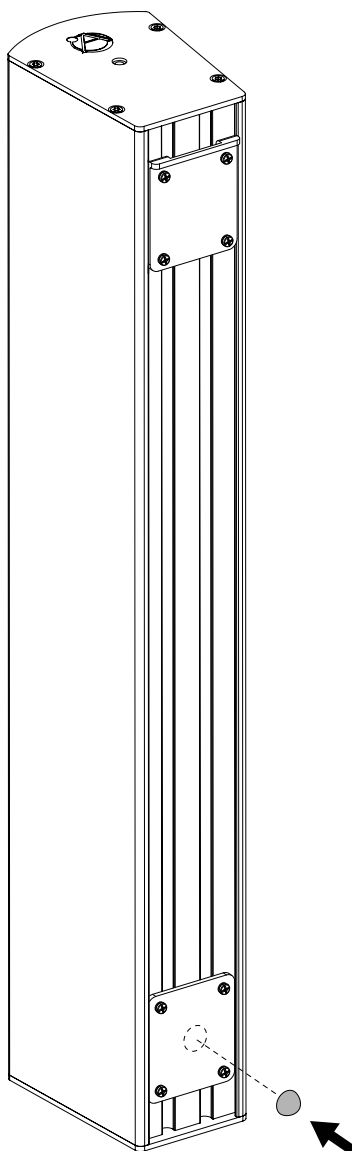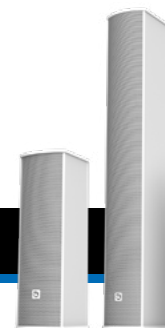
Figure 27: Attach adhesive rubber foot to bottom connector cover

MOUNTING METHOD C: FLUSH MOUNT (CONTINUED)

Step 4 – Attach wall-side bracket to mounting surface

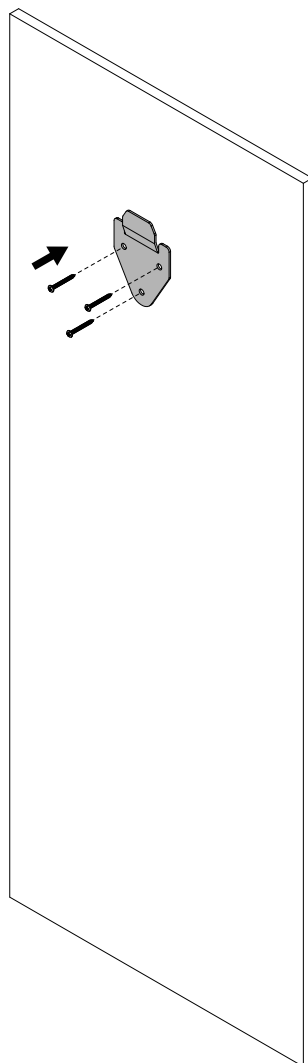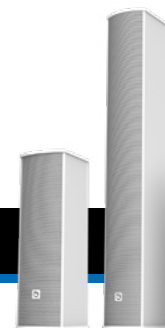Attach the wall-side bracket (cleat) using three (3) screws.

Figure 28: Attaching the wall-side bracket to mounting surface

MOUNTING METHOD C: FLUSH MOUNT (CONTINUED)

Step 5 – Hang the loudspeaker module on the wall

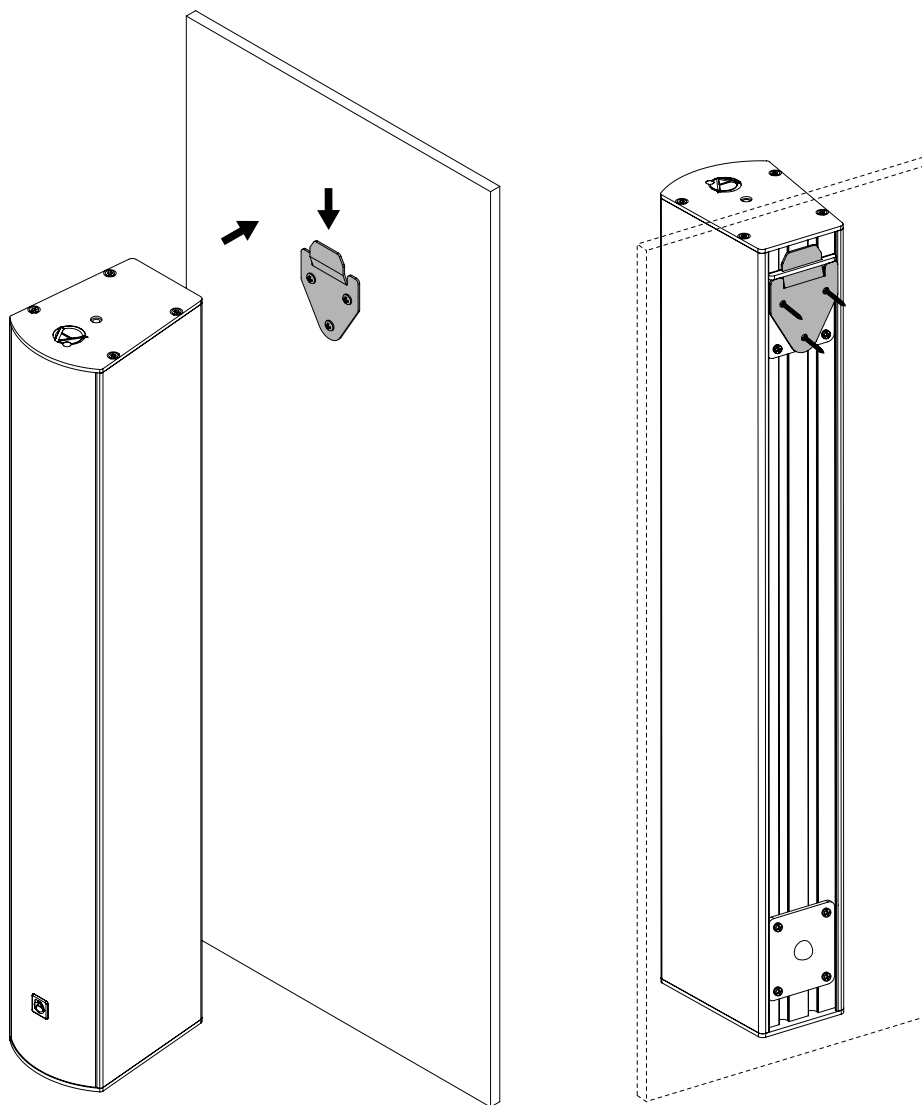Carefully slide the loudspeaker module down the wall until the two bracket pieces connect securely.
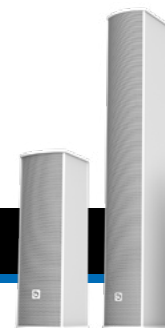

Figure 29: Hanging the loudspeaker module on the wall

ALX-D SERIES
COLUMN ARRAY LOUDSPEAKERS

MOUNTING METHOD D:
ALM SM8 SPEAKER STAND ADAPTER

Depending on installation needs for the ALX-4D and ALX-8D loudspeaker modules, use the ALM SM8 Speaker Mount adapter for 35mm tripod speaker stands.
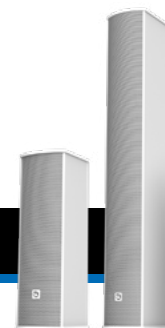
SUMMARY OF STEPS – Mounting Method D: ALM SM8 Speaker Stand Adapter

- **Step 1** – Thread the loudspeaker adapter into the bottom endcap until fully tightened

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ALX-D SERIES

COLUMN ARRAY LOUDSPEAKERS

MOUNTING METHOD D:
ALM SM8 SPEAKER STAND ADAPTER

Step 1 – Thread the loudspeaker adapter into the bottom endcap until fully tightened

Securely connect the ALM SM8 Speaker Stand Adapter to the loudspeaker module by turning the adapter clockwise until fully tightened.
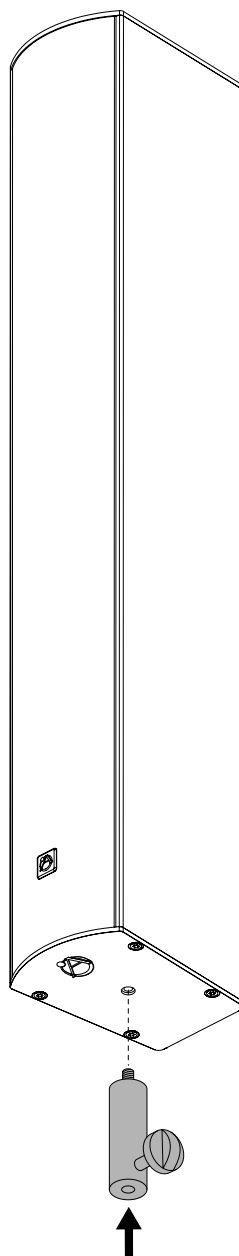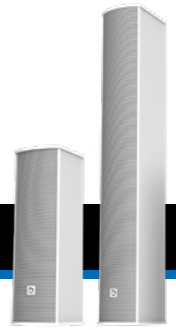

Figure 30: Threading the ALM SM8 adapter into the bottom endcap

38

ALX-D SERIES

COLUMN ARRAY LOUDSPEAKERS

MOUNTING METHOD D:
ALM SM8 SPEAKER STAND ADAPTER (CONTINUED)
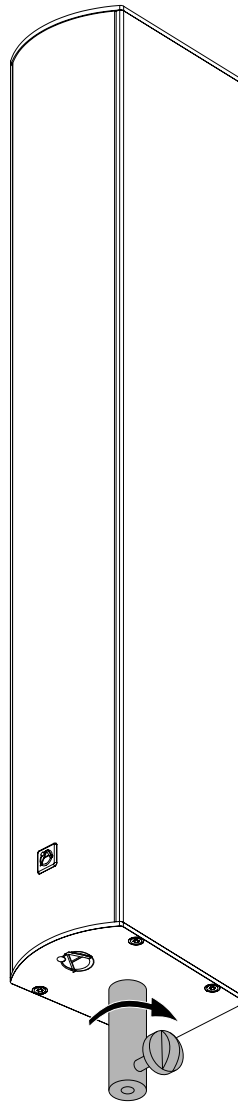
Step 1 – (continued)

Figure 31: Tightening the ALM SM8 Speaker Stand Adapter to the loudspeaker module

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1601 JACK MCKAY BLVD.
ENNIS, TEXAS 75119 U.S.A.

TELEPHONE: (800) 876-3333
SUPPORT@ATLASIED.COM

AtlasIED.com