

# ALX-D SERIES

COLUMN ARRAY LOUDSPEAKERS

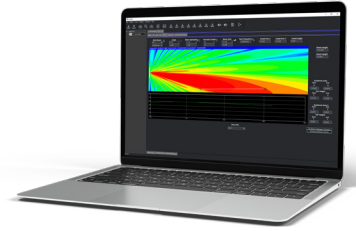
SOFTWARE USER GUIDE



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# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS

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#### OVERVIEW

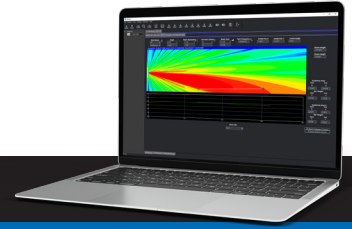
This user manual focuses on connecting and configuring devices in the Aimline software application including networking, DSP, individual control, group control, settings export/import, offline virtual devices, and more.

Detailed hardware installation, along with instructions to cascade multiple ALX-D modules, is covered in the [Aimline ALX-D Series Installation Guide](#).

This User Manual was authored primarily using Aimline software version 1.4.

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## CONNECTING WINDOWS PC, ALX-D MODULES TO AIMLINE NETWORK

The factory default IP address for **all** ALX-D devices is 192.168.10.10 for device control. **Caution:** Each ALX-D leader module to be connected to the control network must be added one at a time and set to a unique static IP address before connecting additional modules. Failure to do so will result in network communication errors.

**Note:** The bottom-most module is the "leader" module for an entire ALX-D combined loudspeaker column. This module receives a single network connection (data and Dante) to the upstream audio system, as well as power for all loudspeakers in the column via AC mains.

Do the following to connect an ALX-D leader module to a control network.

1. Connect the Ethernet port on the Windows computer hosting Aimline software to a network switch using standard Cat5e cable.
2. Set the PC network adapter to a fixed IP address in the range: 192.168.10.XX. (**Figure 1**)
3. Connect the Ethernet port DATA-IN of the ALX-D leader module (primary, bottom) to the network switch using standard Cat5e cable.
4. Change the IP address of the ALX-D loudspeaker from 192.168.10.10 to a unique address. See **Changing IP Address of Aimline Loudspeaker** on page 6.
5. Repeat steps 3–4 for each ALX-D leader module to be added to the network, powering each and changing its IP address **before** adding another ALX-D module to the network.

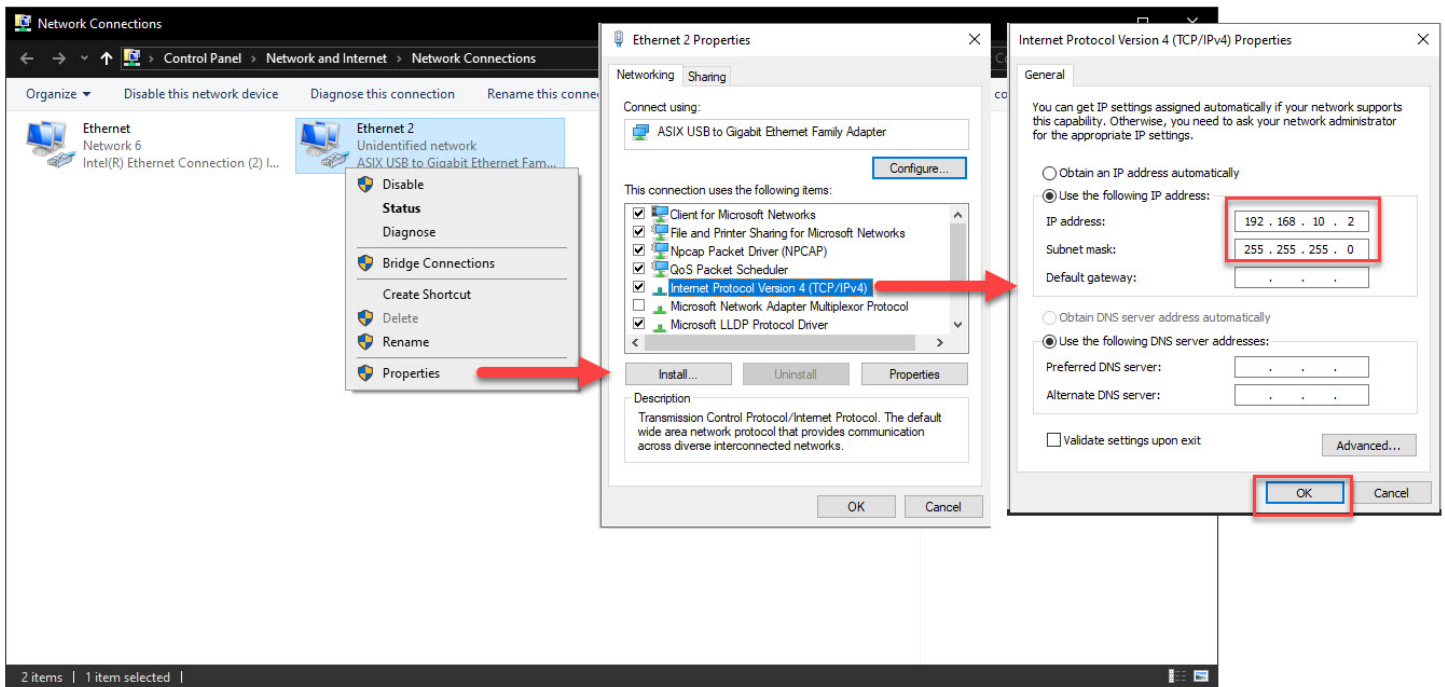
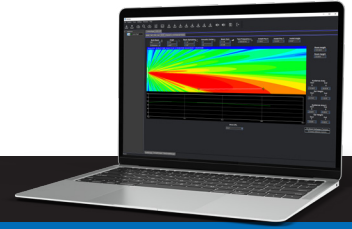


Figure 1

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## CONNECTING LOUDSPEAKERS TO AIMLINE SOFTWARE

### Discovering Airline Loudspeakers

- To discover Airline ALX-D devices, open the **Scan Network** window using one of the following methods. (Figure 2)
  - Select the **Scan Network** option on the Welcome screen, available when the Airline application is first opened.
  - Select the **magnifying glass** icon in the main toolbar.
  - Right-click the **Devices** folder in the left pane and then select **Scan Network**.

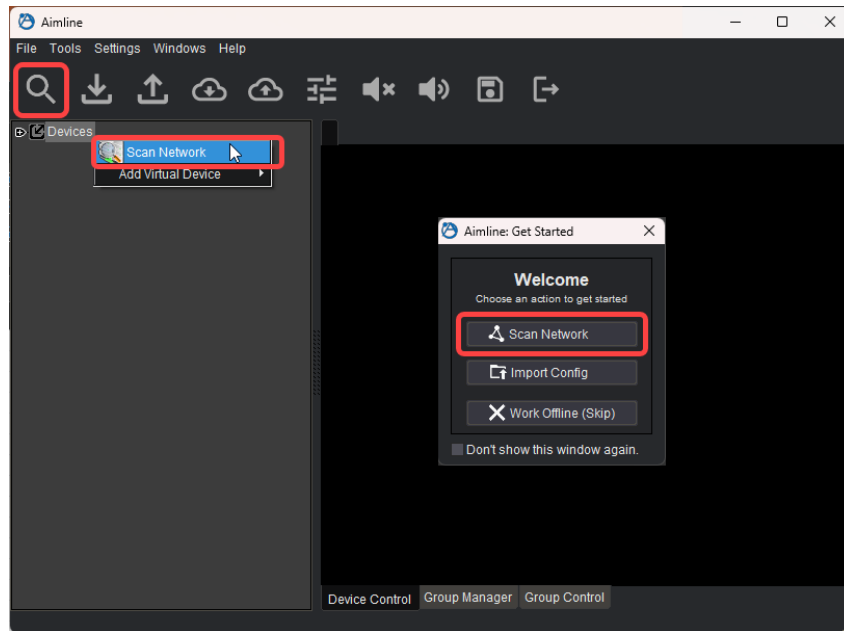


Figure 2

- When the Scan Network window opens, an Auto Scan function searches the network for accessible Airline devices. (Figure 3) A list of online devices appears in the Discovered Devices section.
  - To repeat this scan, select the **Auto Scan** button.
  - To manually select and scan a range of IP addresses, click the **Enable Manual Scan** button.
- To add the devices to the project for configuration and control, select the **Add All** button. **Note:** If devices do not appear, it is likely a network problem. Use the **IP Config** window to scan the network for devices out of valid IP range and make corrections. See the topic **Changing IP Address of Airline Loudspeaker** on page 6.

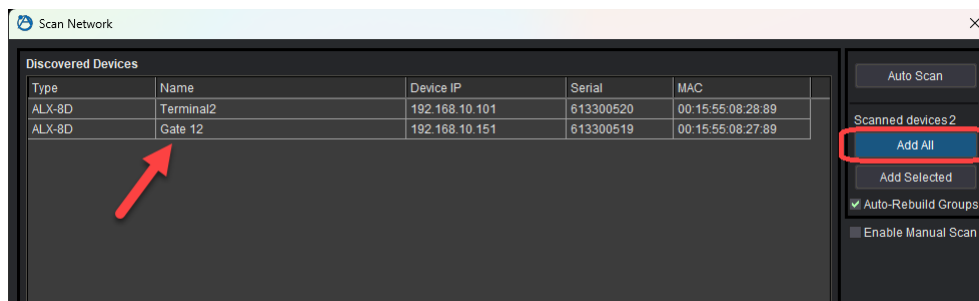


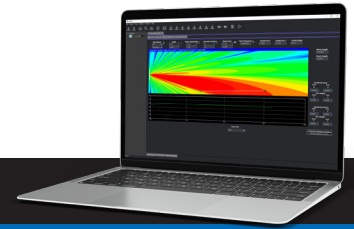
Figure 3

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## CONNECTING LOUDSPEAKERS TO AIMLINE SOFTWARE (CONTINUED)

### Discovering Aimline Loudspeakers (continued)

Once added, the Aimline device will appear in the Devices section on the left and will show a blue 'Online' indicator when the connection is valid. (Figure 4)

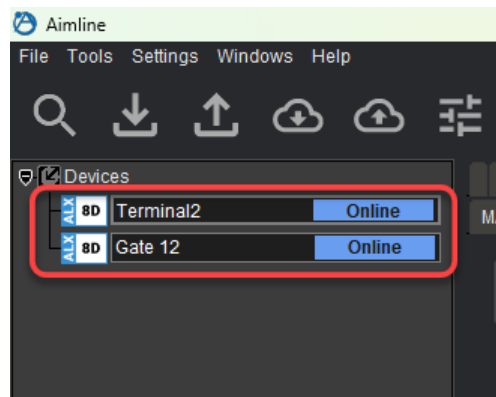


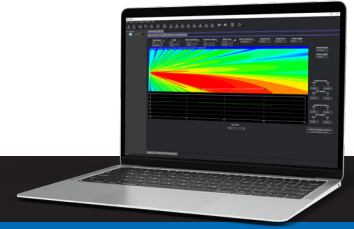
Figure 4

To begin configuring devices, double-click on a device in the list to open its settings. See the section **Device Manager (Loudspeaker Settings)** on page 10.

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## CONNECTING LOUDSPEAKERS TO AIMLINE SOFTWARE (CONTINUED)

### Changing IP Address of Aimline Loudspeaker

Because all ALX-D devices ship with the same static IP address (192.168.10.10) for device control, each ALX-D leader module to be connected to the network must be added one at a time and set to a unique static IP address before connecting additional leader modules. Failure to do so will result in network communication errors.

1. To change the default IP address of the leader loudspeaker, do one of the following.
  - Click to expand the **Tools** tab in the top row and then select **IP Config.** (Figure 5)
  - In the **Scan Network** window, select the **IP Config** button.

**Note:** The IP address cannot be changed to DHCP.

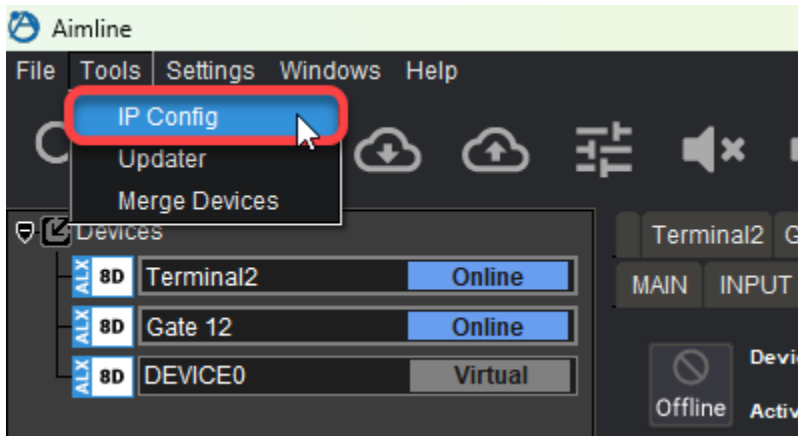


Figure 5

2. In the **IP Config** tool, ensure the appropriate network adapter is selected in the **Network Adapters** tab at the top of the page. (Figure 6)
3. When the target device appears in the list, double-click the IP address of the device you wish to change.

**Note:** This operation uses broadcast messages and may be blocked by some network security software. If the device does not appear in the list, be sure to disable your computer's firewall.

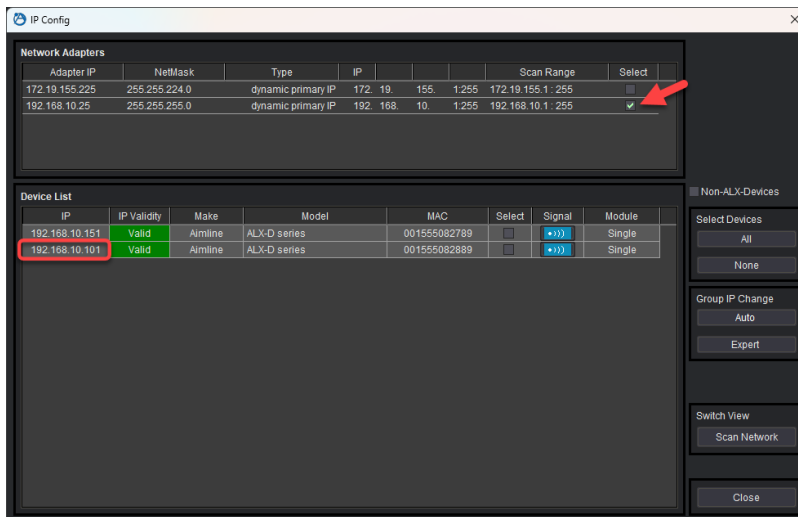
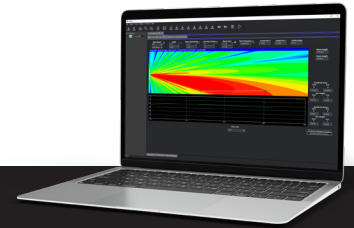


Figure 6

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## COLUMN ARRAY LOUDSPEAKERS



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## CONNECTING LOUDSPEAKERS TO AIMLINE SOFTWARE (CONTINUED)

### Changing IP Address of Aimline Loudspeaker (continued)

4. In the **Change IP** window, type the desired IP address, then click **OK** to save. (Figure 7)

**Note:** For larger columns that are created by cascading multiple modules together (ALX-16D and larger), only the leader (bottom) module's IP address can be accessed and changed. Each cascaded follower module will inherit the same IP address as the leader module but incremented by "1" in the final octet. For example, if the leader module were set to 12.168.10.21, the cascaded modules would end in .22, .23, .24, etc.

5. Manually cycle power to the loudspeaker for the new IP address to apply. **Note:** This may require a rescan of the network, as well.

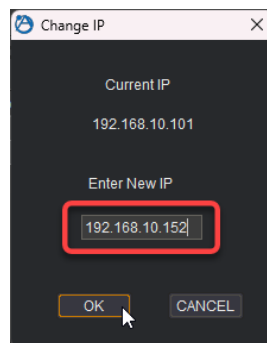
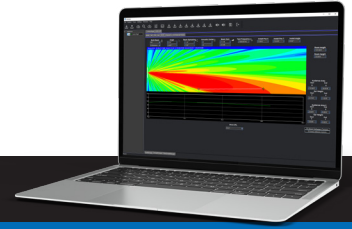


Figure 7

# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS

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## CONNECTING LOUDSPEAKERS TO AIMLINE SOFTWARE (CONTINUED)

### Renaming a Loudspeaker

Each device can be renamed for easy management and organization of the project.

To rename a device:

1. In the **Devices** window, right-click the loudspeaker and select **Edit** from the drop-down list.
2. In the **Device Settings** dialog box, type the new name for the device in the **Device name** field. (Figure 8)  
**Note:** Duplicate names are not allowed and will be prevented.
3. When finished, click **OK**. (Figure 8)

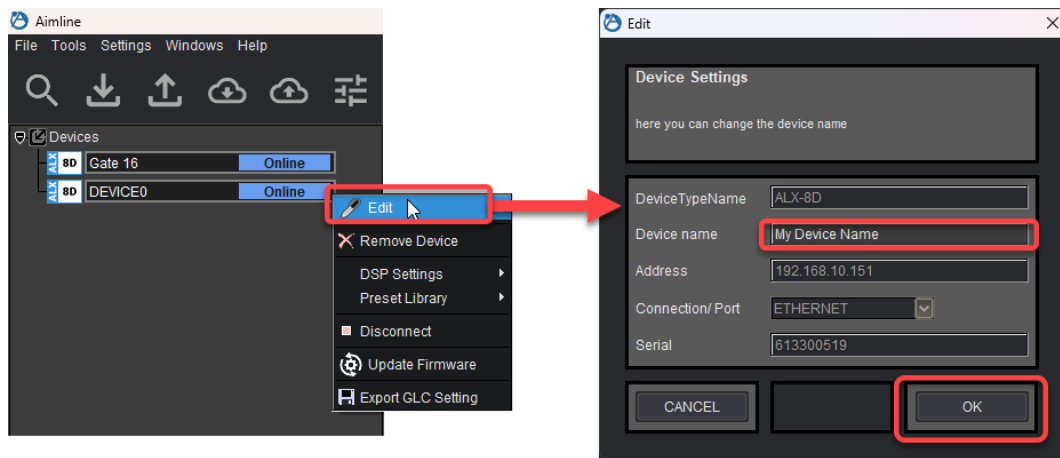
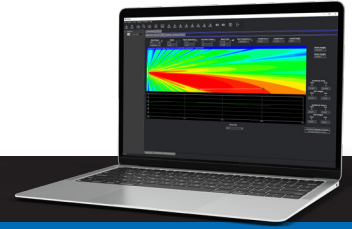


Figure 8

# ALX-D SERIES

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## CONNECTING LOUDSPEAKERS TO AIMLINE SOFTWARE (CONTINUED)

### Reconnecting Aimline Loudspeaker to Network

If the connection between Aimline software and a device is lost, the indicator next to the device in the Devices list will turn red and read "Offline". (Figure 9)

**Note:** Connection loss is usually caused by (1) removing power from the device, (2) a change in network infrastructure settings, or (3) closing and reopening a laptop. Anything that severs the connection between an ALX loudspeaker and the controlling computer will require reconnection.

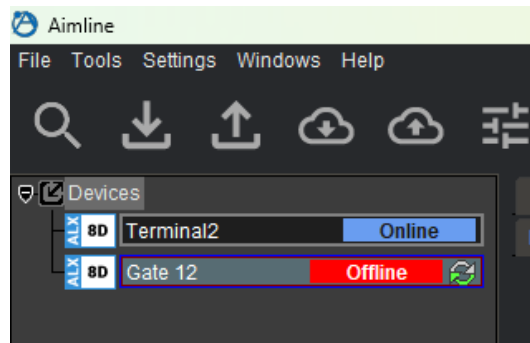


Figure 9

1. To reconnect to the device, do one of the following. (Figure 10)
  - Click the **Reconnect** button (circular arrow button) to the right of the offline indicator.
  - Right-click the loudspeaker and select the **Reconnect** option from the drop-down list.
2. When the reconnection is successful, the devices status will show "Online". If the connection is unsuccessful, check the power/network settings and try again.

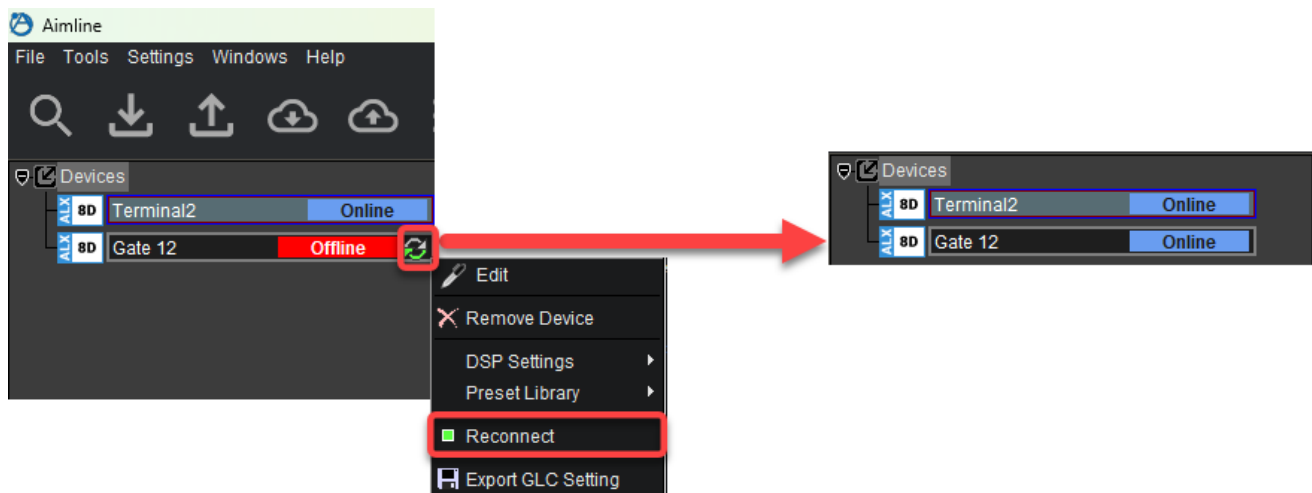
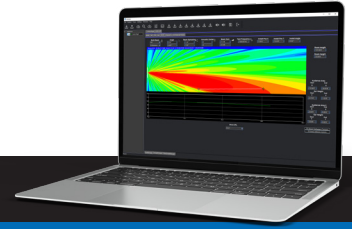


Figure 10

# ALX-D SERIES

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### DEVICE MANAGER (LOUDSPEAKER SETTINGS)

To view and configure device configuration parameters such as DSP and Beam settings, double-click on the desired loudspeaker in the **Devices** list to open the device control window contained within the **Device Control** tab. (Figure 11)

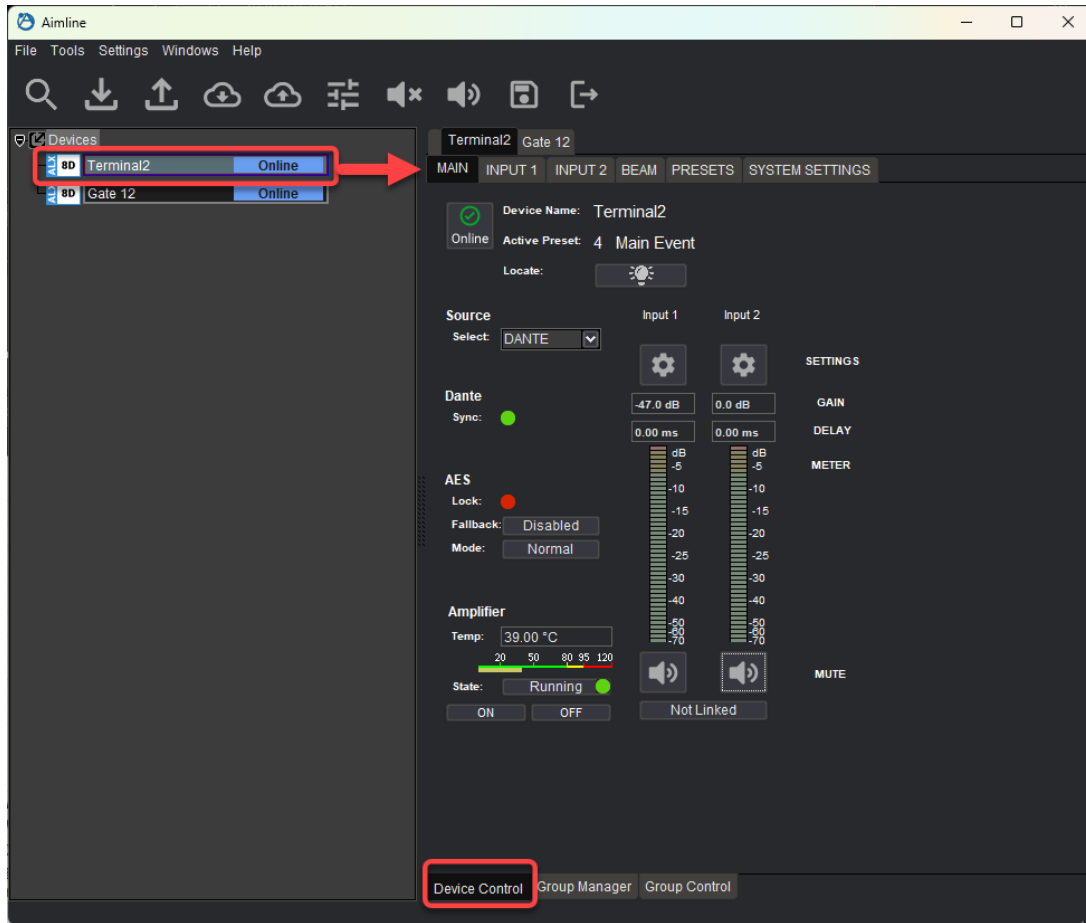


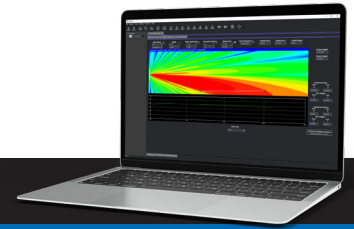
Figure 11

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## DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

The device control window includes tabs for each loudspeaker configuration and control options. (Figure 12)

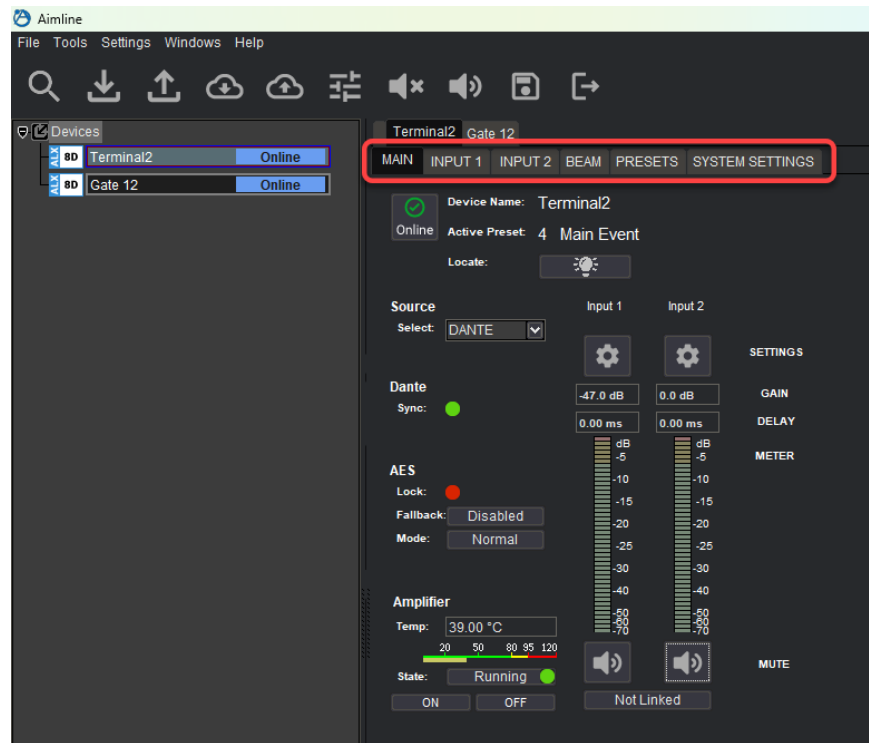


Figure 12

The ALX-D consists of the following tabs:

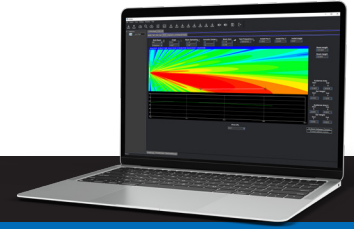
- Main
- Input 1 (EQ)
- Input 2 (EQ)
- Beam
- Presets
- System Settings (System, Amp Test)

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# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS

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## DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

### Main tab

The **MAIN** tab offers an overview of the device settings and gives direct access to the Mute, Gain, Source Select, and Delay functions. (Figure 13)

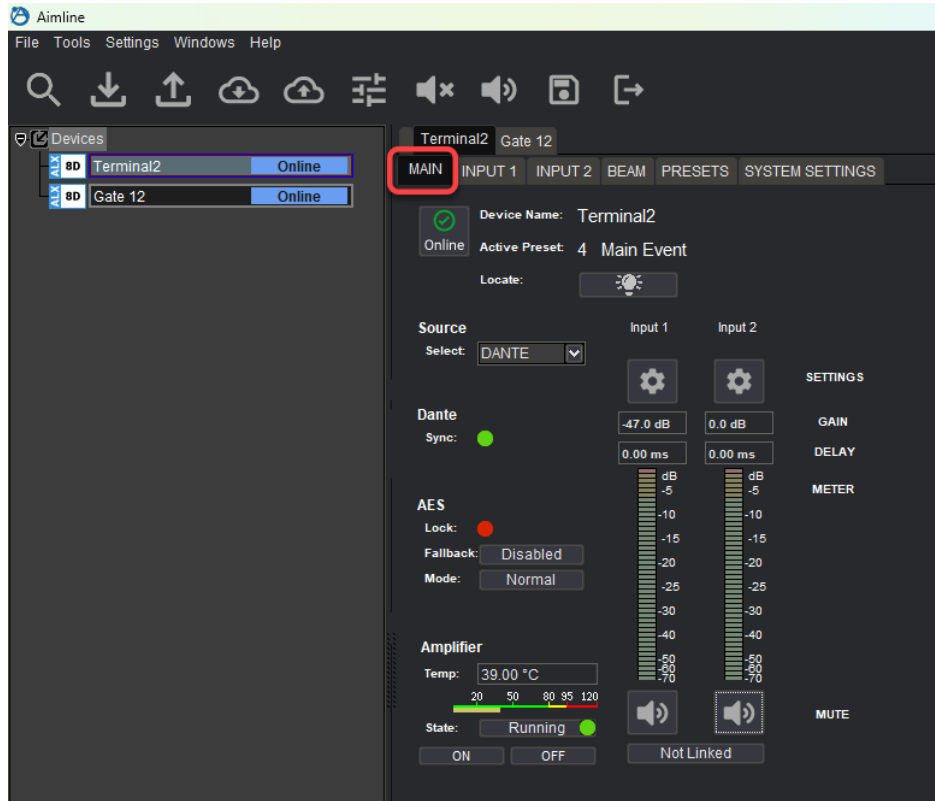


Figure 13

#### Source

- Select between Analog, Dante, and AES input signals.

#### Locate

- The Locate button, when pressed, flashes a blue “locate” indicator behind the loudspeaker grille to the lower right of the square AtlasIED badge.
- To change the length of time the LED flashes, go to the **System Settings** tab.

#### Dante

- **Sync** – When a valid Dante connection is made with the ALX, the sync indicator will turn green. When there is no valid Dante connection, the indicator will turn red.

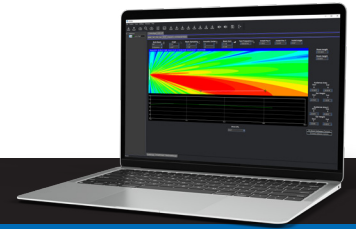
#### AES

- **Lock** – The Lock indicator shows PLL lock for the AES input.
  - Red = No PLL lock
  - Green = PLL lock obtained

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# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS



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## DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

### Main tab (continued)

#### AES (continued)

- **Fallback** – The Fallback function allows the AES signal to be used as an automatic backup when the selected source loses signal and there is still signal detected on the AES input. Toggling the Fallback button will switch between Enabled and Disabled states.
  - **Enabled** = Automatically switch from selected source to AES source when the selected source has no signal and the AES source does have a signal.
  - **Disabled** = No automatic source switch-over.

#### Amplifier

- **Temp** – Indicates the internal temperature of the amplifiers.
- **State** – Indicates the mode in which the internal amplifiers are operating, including:
  - Running (bright green) = The amplifiers are on and able to pass signal.
  - Standby (dim green) = The amplifiers have been turned off. Use the ON button to turn it back to Running mode.
  - PowerUp (bright green) = The amplifiers are in their boot-up sequence and should transition to Running mode within a few seconds.
  - Error (red) = The amplifiers are in an error state. Try power cycling the unit. If problems persist, contact AtlasIED.
- **Amplifier ON / OFF** – The amplifier can be manually turned on or off by clicking on the respective ON / OFF buttons. **Note:** When clicking the ON button, allow 3 seconds for normal operation to resume.

#### Input 1 and 2

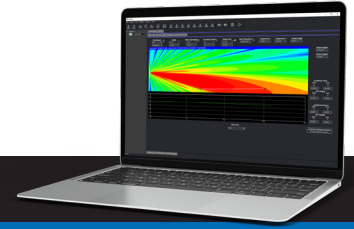
- **GAIN** – Indicates the Read-only indication of summary input gain. This represents a summation of the device gain (from the Input 1 / Input 2 tabs as well as any Group gain applied).
- **DELAY** – Read-only indication of summary input delay. This represents a summation of the device delay (from Input 1 / Input 2 tabs) as well as any Group delay applied.
- **METER** – Input audio meter readings are displayed in the vertical meter. This meter indicator is duplicated on the associated Input 1 / Input 2 tabs.
- **MUTE** – Output channel mute buttons. Click the button to toggle between mute (red) and unmute (gray). The mute button is duplicated on the associated Input 1 / Input 2 tabs and will follow the Group mute state, if applicable.
- **Link** – The Link button toggles between Linked and Not Linked states. When linked, the Gain, Mute, and Input EQ control settings made to one channel will be applied to the other.

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# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS

### SOFTWARE USER GUIDE



## DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

### Input 1 / Input 2 tabs

The Input 1 and Input 2 tabs provide access to Input Gain, Delay, and EQ settings. (Figure 14) Adjustments are made in real time and can be heard instantaneously.

**Note:** Input settings can be linked by clicking **Link** in the Main tab immediately below the mute buttons. When the inputs are linked, both channels will receive the same filter settings.

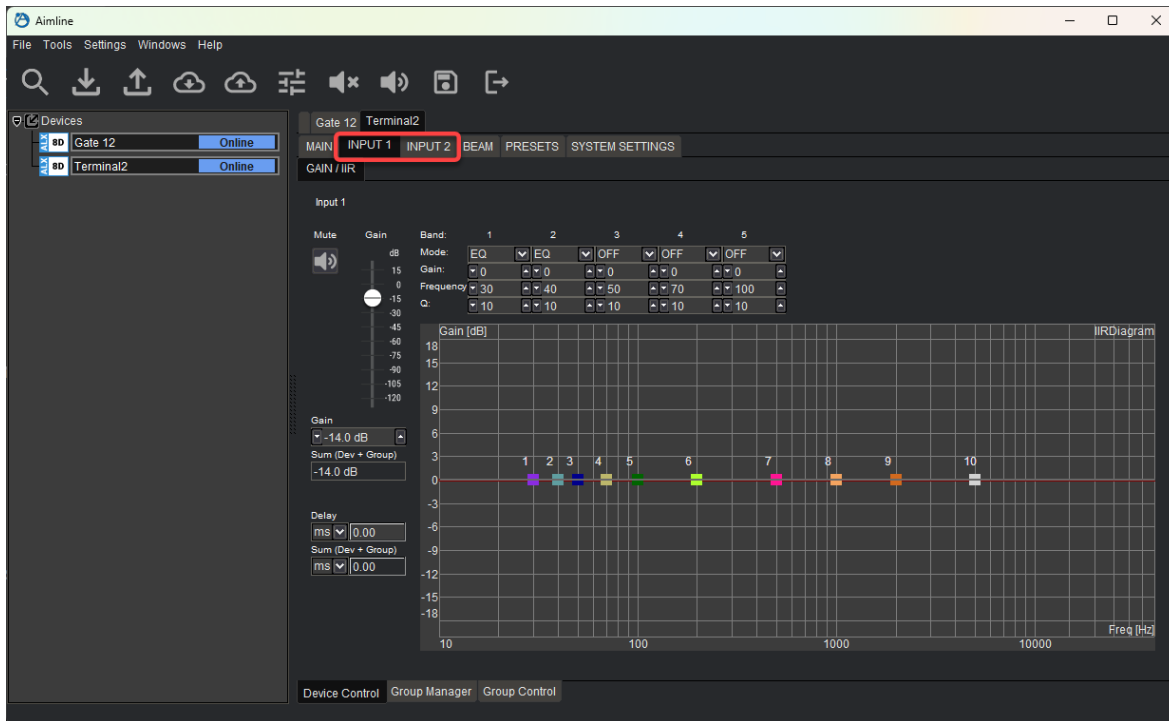


Figure 14

### Filter Band Mode

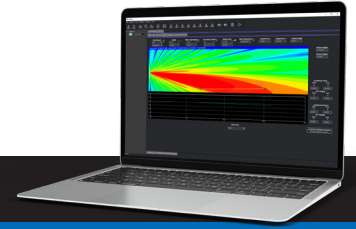
Each input has up to five filters that can be applied at the device level. There are five additional filters (6–10) that can be applied in Group settings.

- **Off** – Filter band disabled.
- **EQ** – Equalizer (parametric)
- **HP** – High Pass filter
- **LP** – Low pass filter
- **H-SH** – High Shelf filter with fixed Q.
- **L-SH** – Low Shelf filter with fixed Q.
- **H-SHQ** – High Shelf filter with adjustable Q
- **L-SHQ** – Low Shelf filter with adjustable Q.
- **ALLP 1** – All Pass filter 1.
- **ALLP 2** – All Pass filter 2

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# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS



### SOFTWARE USER GUIDE

## DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

### **Filter Band Gain**

Each input has up to five filters that can be applied at the device level. There are five additional filters (6–10) that can be applied in Group settings.

- Apply up to +/- 15 dB of gain to the associated filter band.
- Use the up/down arrows to step by 1 dB increments or type in values in 0.1 dB increments.

### **Filter Band Frequency**

- Select the center frequency of the associated filter band.
- The range of the center frequency is 20 Hz–20 kHz.
- Use the up/down arrows or type in the desired frequency center.

### **Filter Band Quality (Q)**

- Change the Q of the associated band to widen or narrow the filter.
- The Q value can be set between 0.5 (wide) and 10 (narrow).
- Use the up/down arrows to select or type in the desired Q value in increments of 0.001.

### **Input Channel Mute**

- Input channel mute buttons. Click the button to toggle between mute (red) and unmute (gray).
- The mute button is duplicated on the Main tab.

### **Input Channel Gain**

- The gain of the input channel can be adjusted using the vertical gain slider, the up/down arrows, or by typing in a gain value.
- The range of the gain control is -90 dB to +15 dB in increments of 0.1 dB.
- A read-only indication of this gain value, along with any Group gain, is also shown on the Main tab.
- The Summary gain box indicates the sum of the Input gain and the Group gain.
- Maximum total delay time is 1500 ms.

### **Input Channel Mixer**

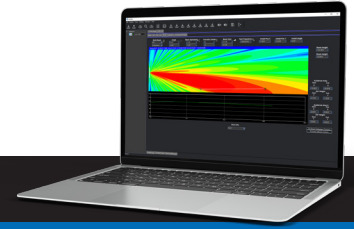
- Input audio meter readings are displayed in the vertical meter.
- This input mute button is duplicated on the Main tab.

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## DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

### Beam tab

The Beam tab allows for beam steering control of the ALX-D loudspeaker as well as predictive analysis tools to help configure and design the beam steering configuration. (Figure 15)

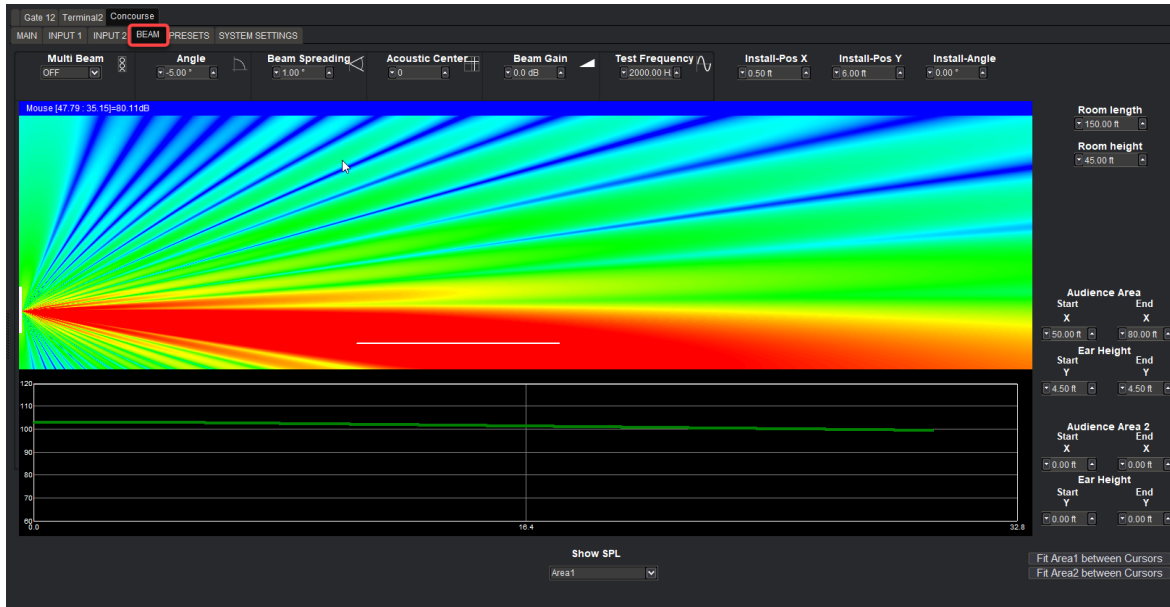


Figure 15

The ALX-D can be set up for single- or dual-beam operation, and each beam can be configured with the following settings:

- Angle
- Beam Spreading
- Acoustic Center
- Beam Gain

### Analysis Tools

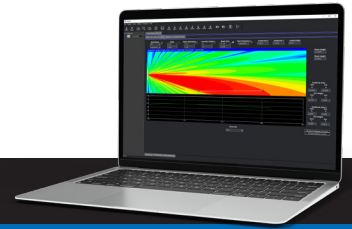
The analysis tools allow for predictive analysis of SPL for listening areas based on the position of the loudspeaker and listener areas. The tools provided for predictive analysis are:

- Test Frequency
- Install Position X
- Install Position Y
- Install Angle
- Room Length
- Room Height
- Audience Area 1
- Audience Area 2
- SPL Plot

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## COLUMN ARRAY LOUDSPEAKERS



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## DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

### Beam tab (continued)

#### Multi Beam

- Activating Multi Beam allows the loudspeaker to be split into two beams. This is often used to split the beam between floor seating and balcony seating or similar venue configuration.
- When Multi Beam is activated, a second row of settings for Angle, Beam Spreading, Acoustic Center, and Beam Gain appear. (Figure 16)

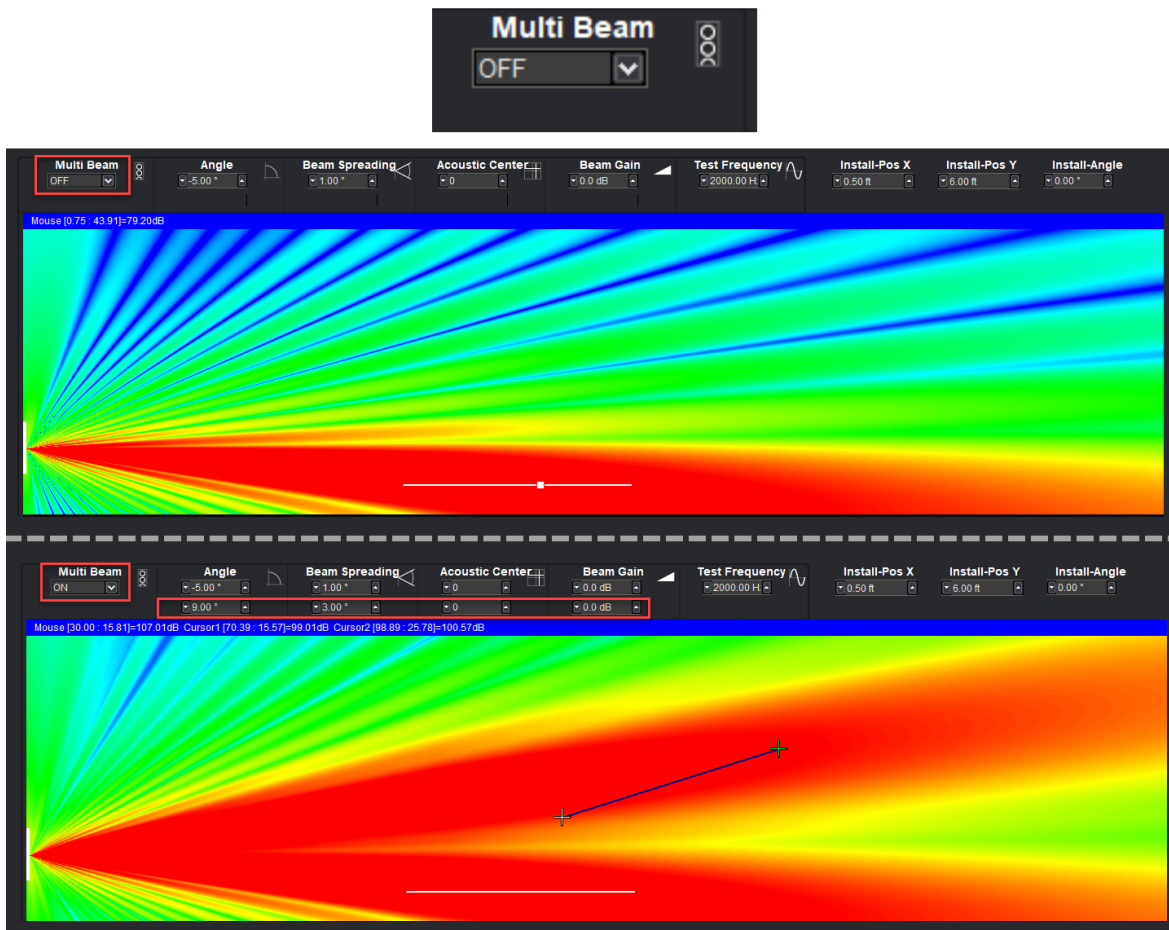


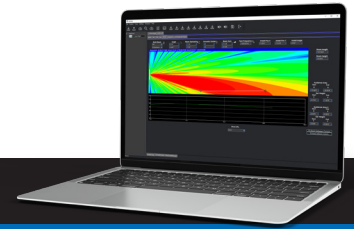
Figure 16

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## DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

### Beam tab (continued)

#### Angle

- Specifies the angle of the beam. (Figure 17) Using the Up arrow, the angle of the acoustic beam moves up; using the Down arrow, the angle moves down.
- Angle can be adjusted between  $-45^{\circ}$  (downward) and  $+45^{\circ}$  (upward).

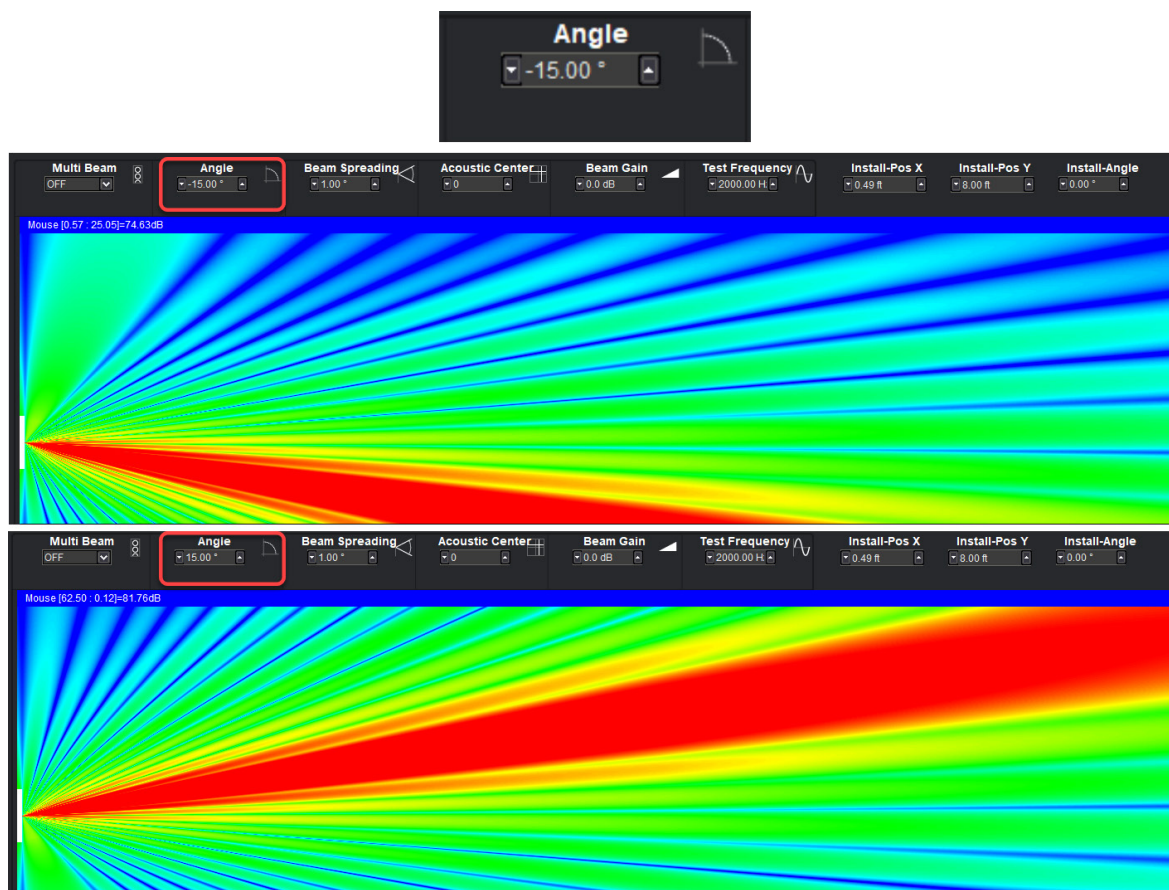
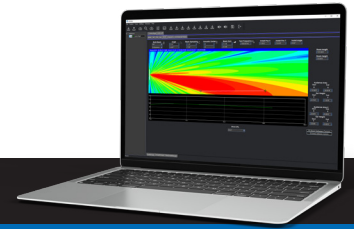


Figure 17

(CONTINUED ON NEXT PAGE)

# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS



### SOFTWARE USER GUIDE

## DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

### Beam tab (continued)

#### Beam Spreading

- Specifies the opening angle for each beam. (Figure 18)
- Beam Spreading can be adjusted between 1° (narrow) and 60° (wide).

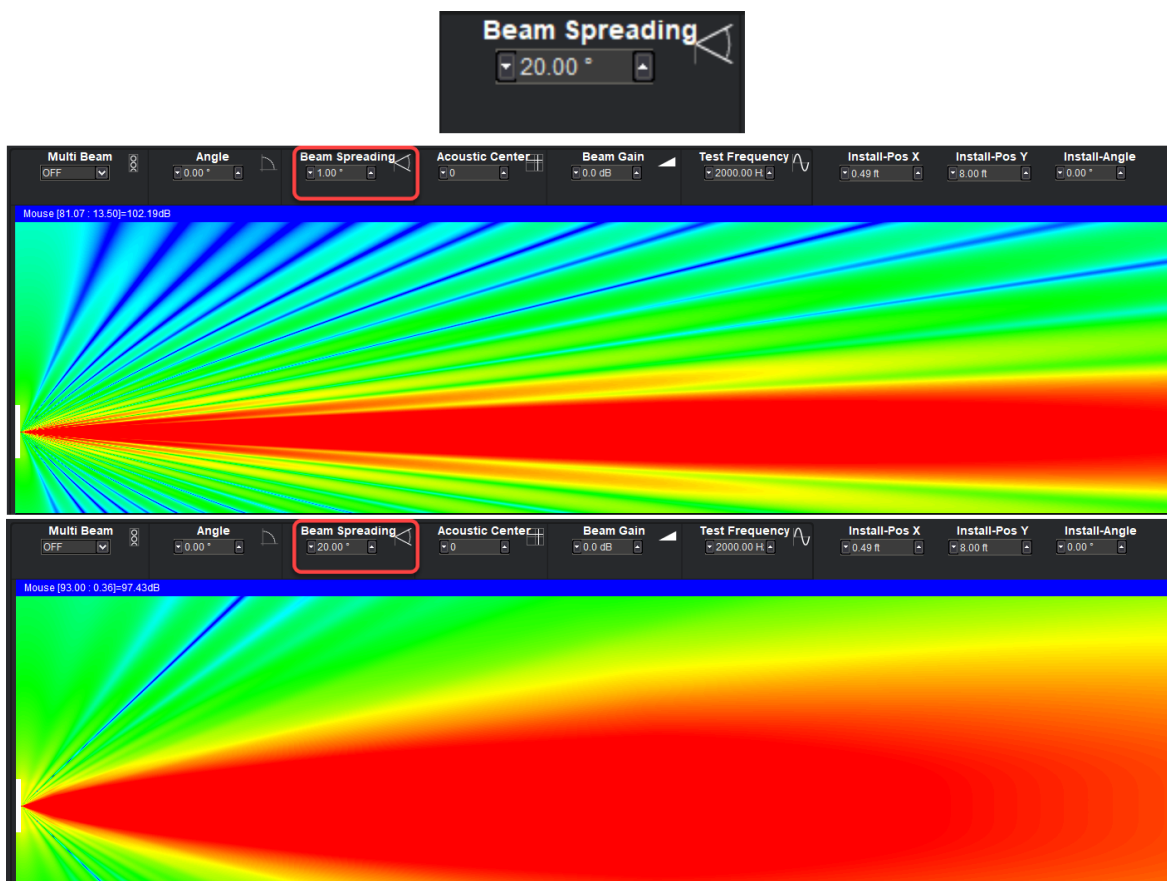


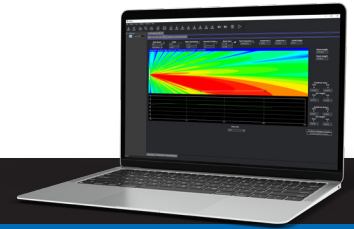
Figure 18

(CONTINUED ON NEXT PAGE)

# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS

### SOFTWARE USER GUIDE



## DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

### Beam tab (continued)

#### Acoustic Center

- Specifies the acoustic center. (**Figure 19**) This can be moved up and down using the Up and Down arrows, respectively.
- The Acoustic Center can be adjusted from -100 (bottom of column) to +100 (top of column) in increments of 10.

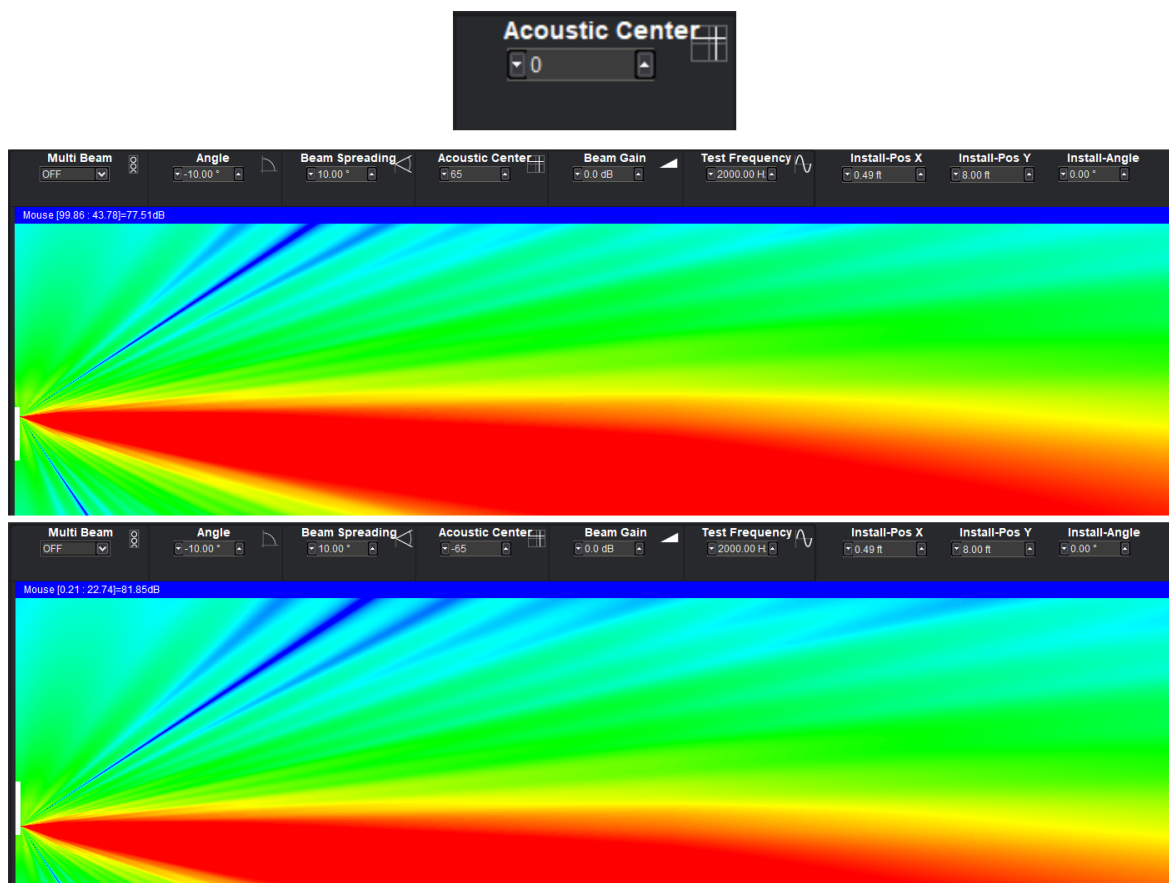
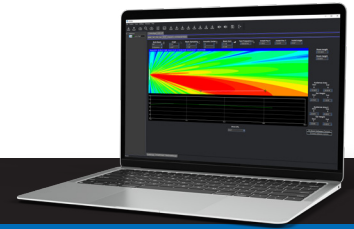


Figure 19

(CONTINUED ON NEXT PAGE)

# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS



### SOFTWARE USER GUIDE

#### DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

##### Beam tab (continued)

###### Beam Gain

- Specifies the gain (volume) for each beam. (Figure 20)
- Beam gain can be adjusted between -30 dB and +10 dB.

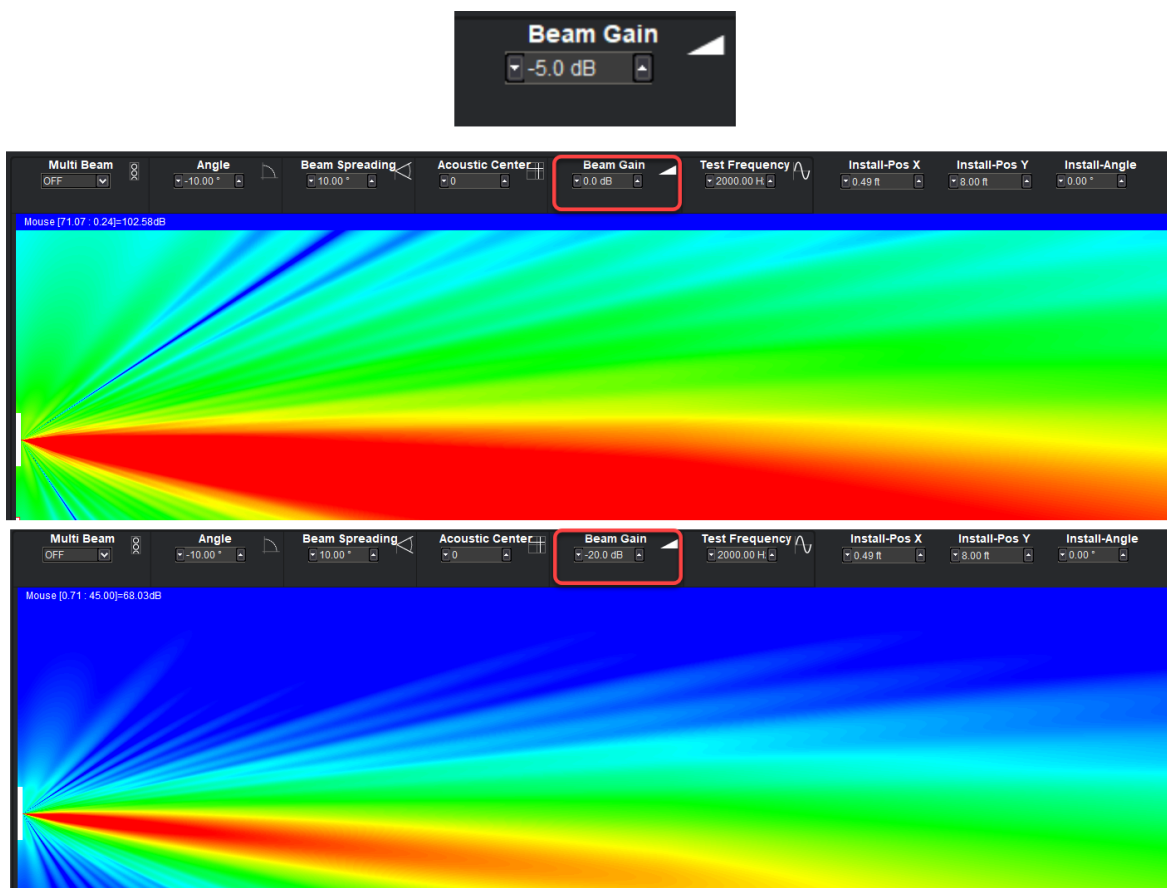


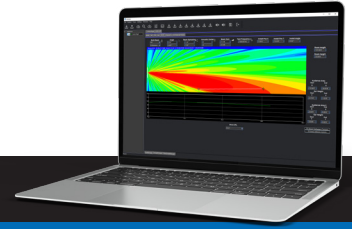
Figure 20

(CONTINUED ON NEXT PAGE)

# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS

### SOFTWARE USER GUIDE



## DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

### Beam tab (continued)

#### Test Frequency

- Specifies the frequency to be used for Beam plot predicted measurements. (Figure 21)
- Test Frequency can be adjusted between 1 kHz and 8 kHz, with 2 kHz as the default.

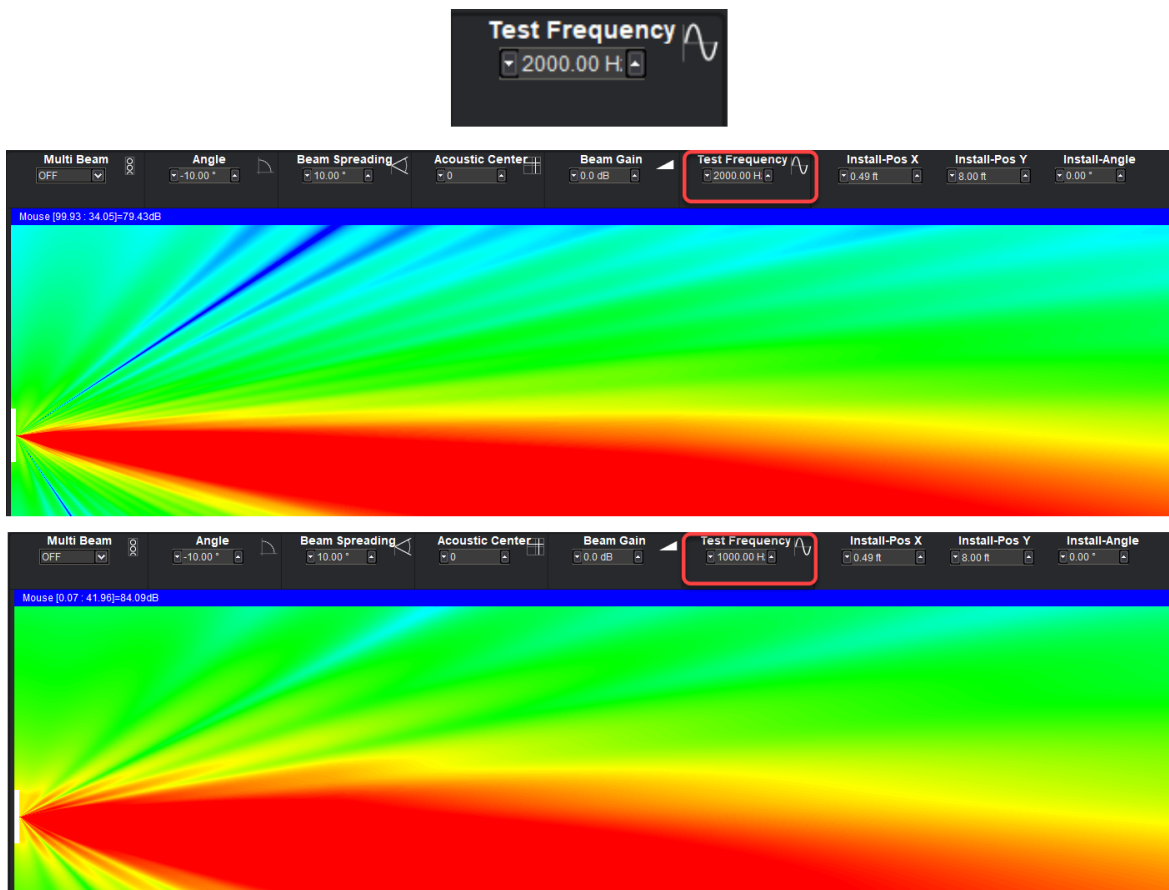
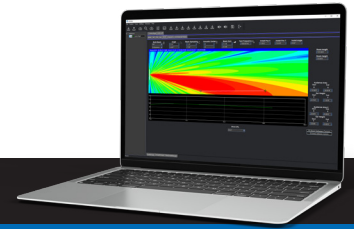


Figure 21

(CONTINUED ON NEXT PAGE)

# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS



### SOFTWARE USER GUIDE

## DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

### Beam tab (continued)

#### Install-Pos X

- Enter the installed horizontal position of the ALX-D loudspeaker as the distance from the wall. (Figure 22)
- The x-value will be visible on the Beam plot, moving the speaker left or right within the space.

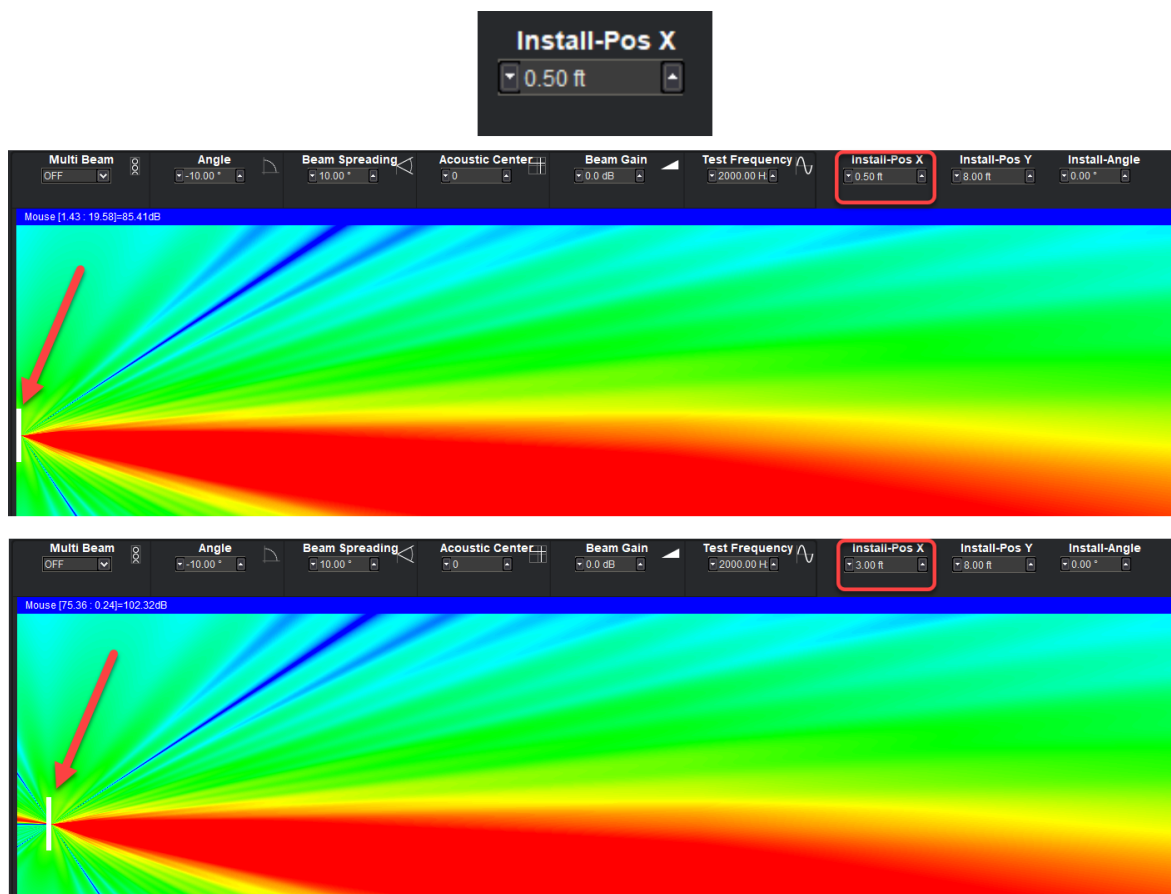


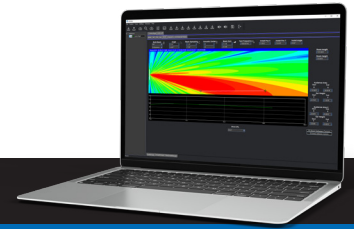
Figure 22

(CONTINUED ON NEXT PAGE)

# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS

### SOFTWARE USER GUIDE



## DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

### Beam tab (continued)

#### Install-Pos Y

- Enter the installed vertical position of the ALX-D loudspeaker as the height from the floor to the bottom of the loudspeaker enclosure. (Figure 23)
- Adjusting the y-value will be visible on the Beam plot, moving the speaker up or down within the space.

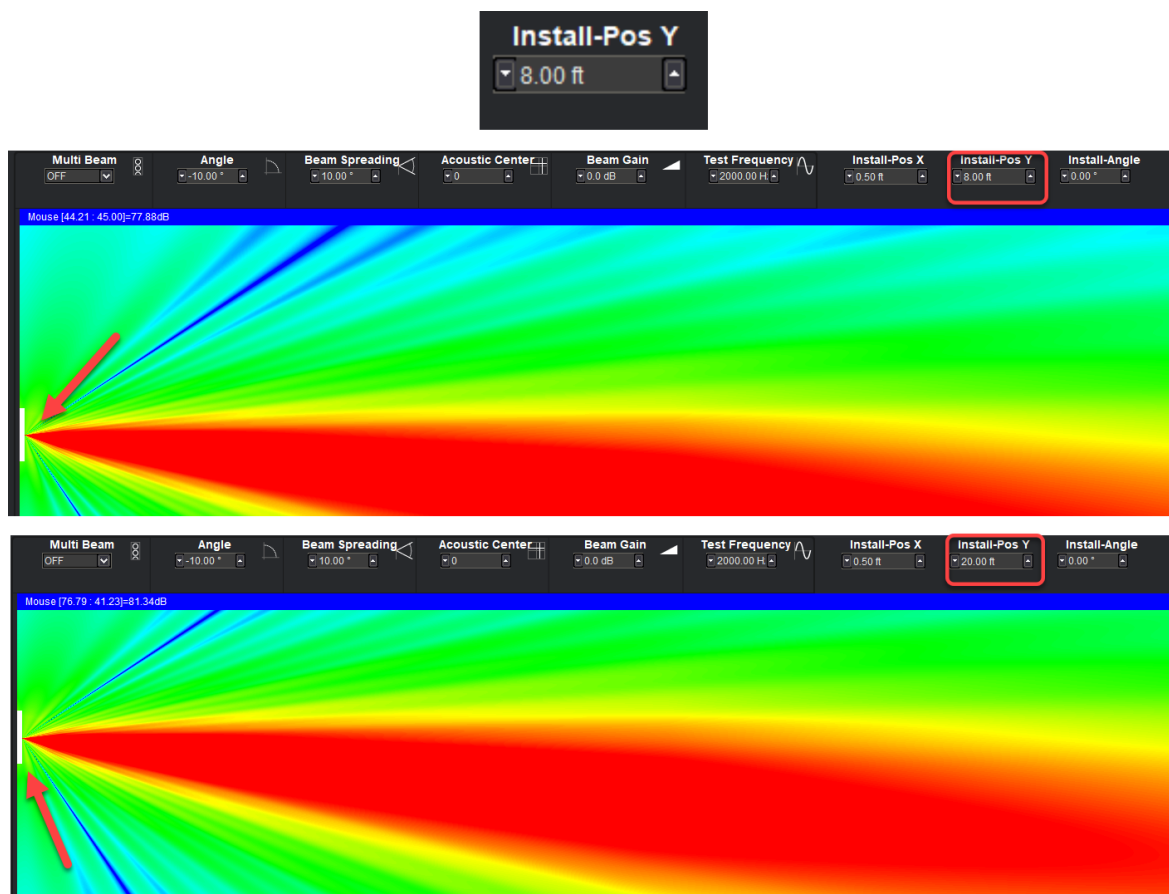
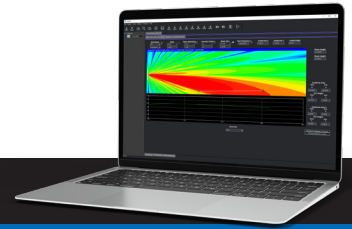


Figure 23

(CONTINUED ON NEXT PAGE)

# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS



### SOFTWARE USER GUIDE

## DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

### Beam tab (continued)

#### Install-Angle

- Enter the installed angle of the ALX-D loudspeaker if the loudspeaker is mounted in at an angle: downwards or upwards. When using standard L-brackets or surface mount brackets, this angle should be set to 0 degrees. (Figure 24)
- Adjusting the angle will be visible on the Beam plot angling the loudspeaker up (positive) or down (negative).

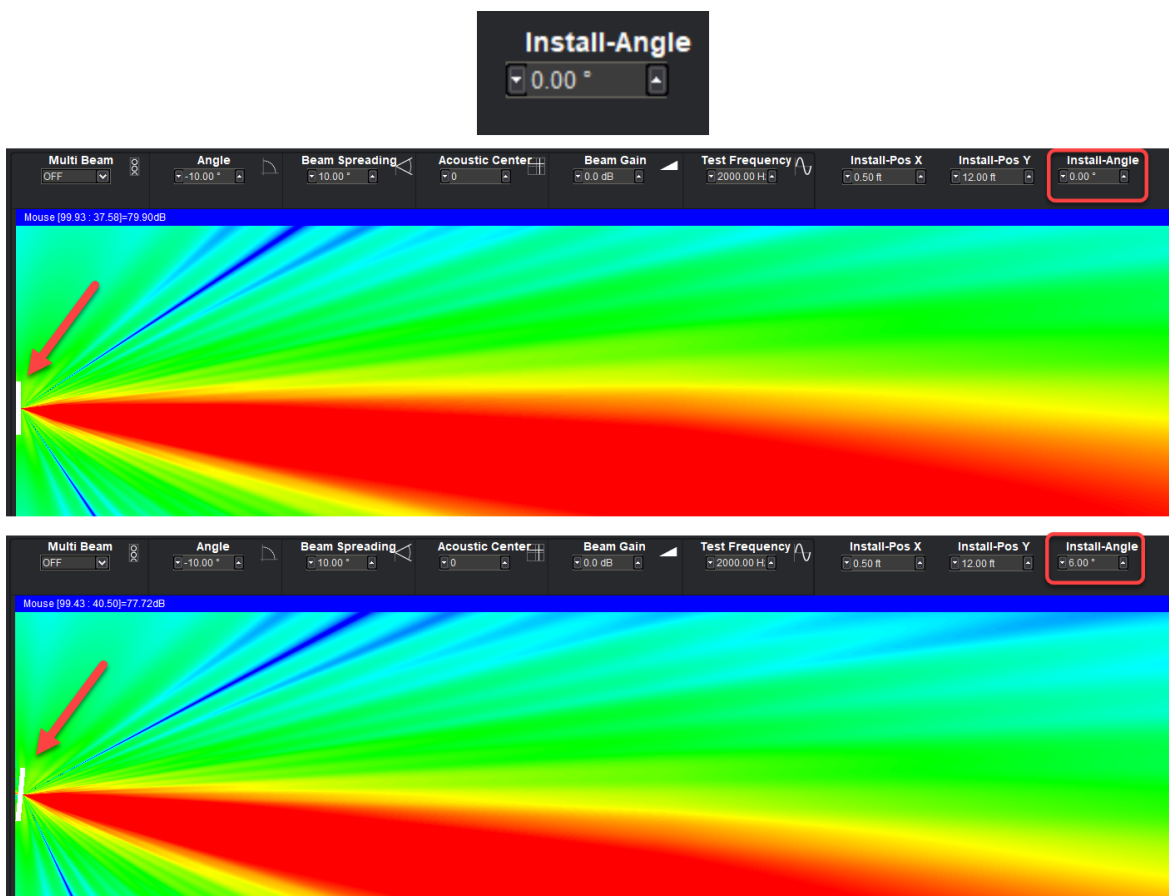
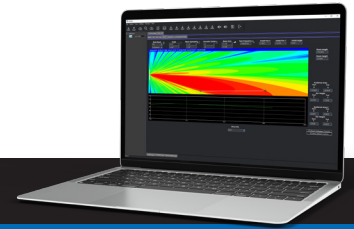


Figure 24

(CONTINUED ON NEXT PAGE)

# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS



### SOFTWARE USER GUIDE

## DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

### Beam tab (continued)

#### Room length

- Enter the room length measurement. (Figure 25)
- Adjusting the room length will automatically scale the Beam plot along the x-axis to match room length.

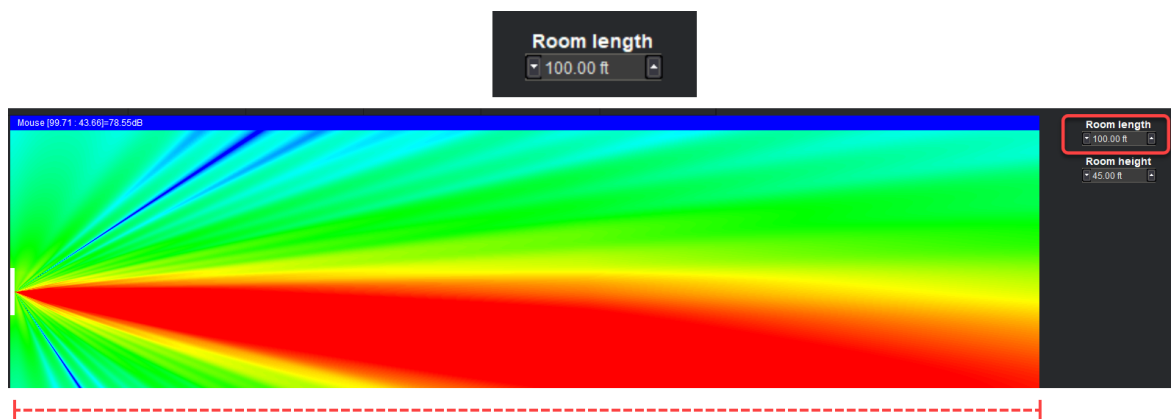


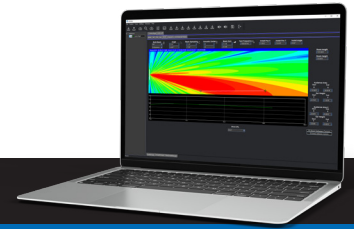
Figure 25

(CONTINUED ON NEXT PAGE)

# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS

### SOFTWARE USER GUIDE



## DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

### Beam tab (continued)

#### Room height

- Enter the room height. (**Figure 26**)
- Adjusting the room height will automatically scale the Beam plot along the y-axis to match room height.

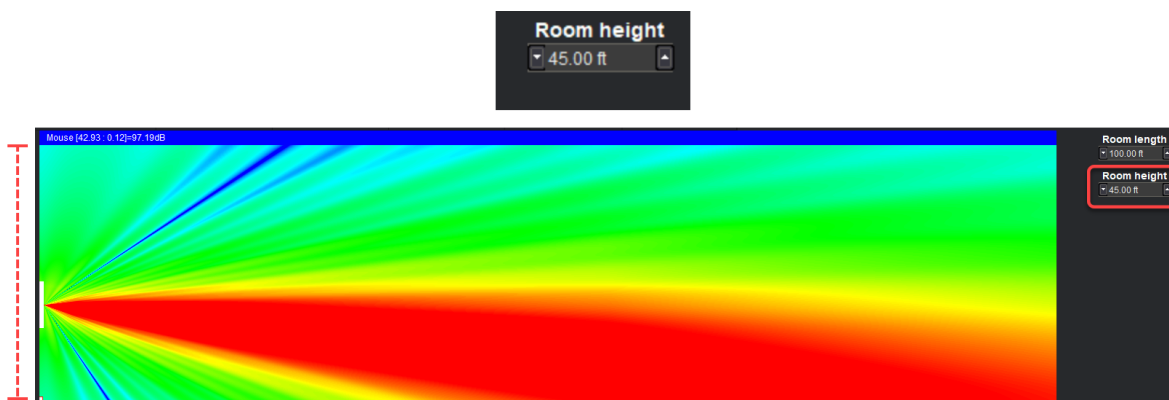


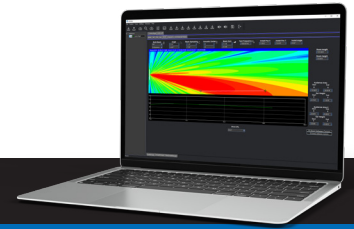
Figure 26

(CONTINUED ON NEXT PAGE)

# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS

### SOFTWARE USER GUIDE



## DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

### Beam tab (continued)

#### Audience Area 1 & 2

It is possible to view SPL measurements within a defined listening area. Two listening areas can be defined, each with its own settings, to represent the listening space. (Figure 27)

To view the SPL plots, you must set up at least one listening area using the following parameters:

- **Start X** – The distance from the edge of the room to the start of the listening area
- **End X** – The distance from the edge of the room to the end of the listening area
- **Start Y** – The distance from the floor to the listening height at the start of the listening area
- **End Y** – The distance from the floor to the listening height at the end of the listening area

If appropriate for the design, repeat this procedure for a second listening area, such as a split-beam configuration for floor and balcony seating.

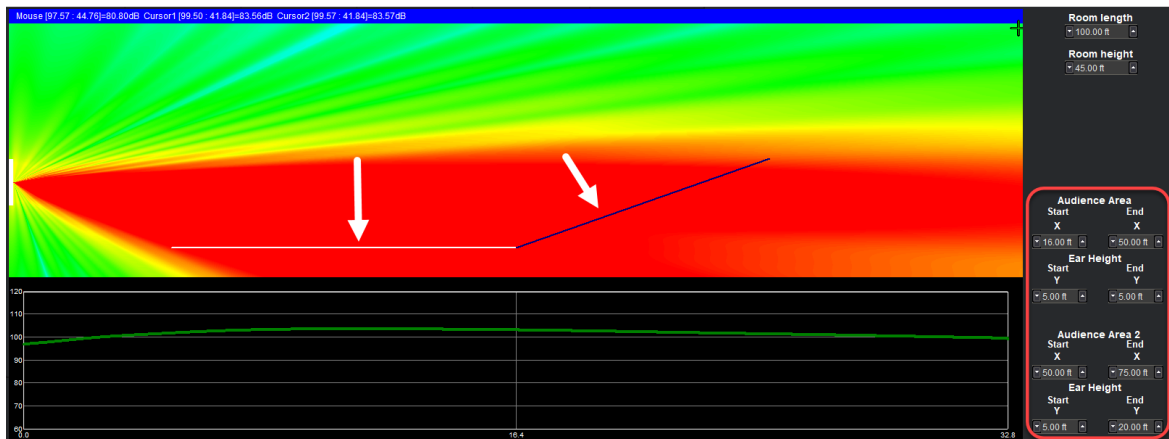


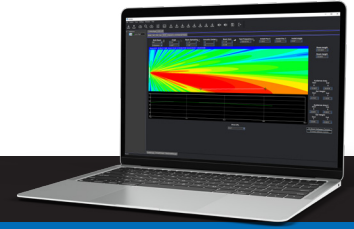
Figure 27

(CONTINUED ON NEXT PAGE)

# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS

### SOFTWARE USER GUIDE



## DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

### Beam tab (continued)

#### SPL Plot

After defining listening areas, the predicted SPL plot across the listening area can be viewed. (Figure 28) This plot is useful to help configure specific beam settings, assisting in ensuring even sound coverage across the listening area.

To view measurements:

1. Select a listening area (Area 1 or Area 2) from the Show SPL drop-down list. The measurements from the chosen listening area will show in green.
2. Hover over the area with the mouse pointer to show detailed X-Y coordinate information as well as apply a positional point overlay on the Beam plot.

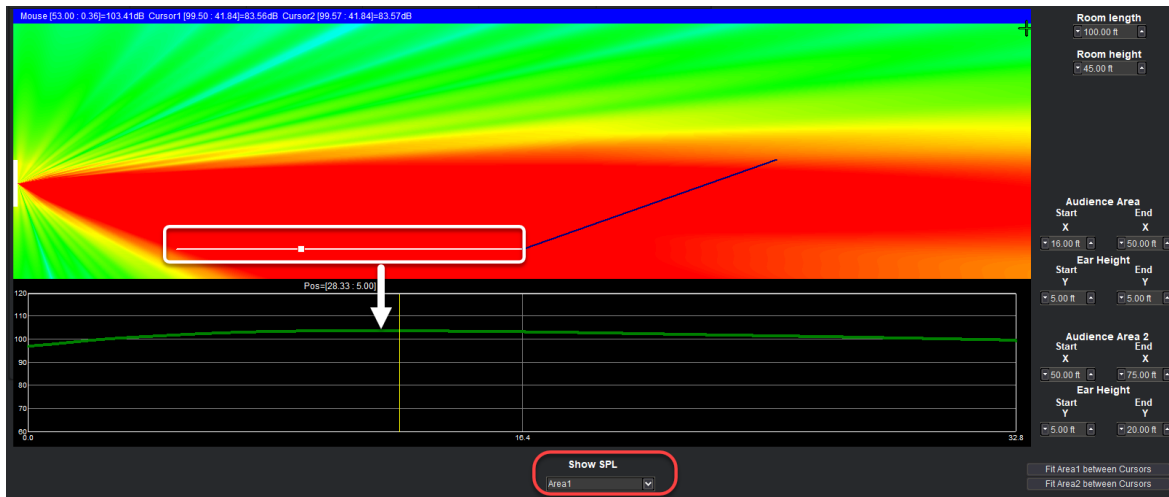
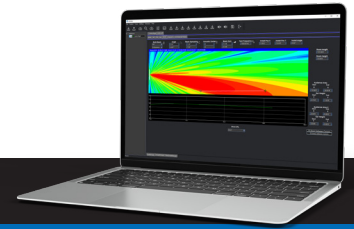


Figure 28

# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS



### SOFTWARE USER GUIDE

## DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

### Presets tab

Presets allow for most device settings to be easily stored and recalled. (Figure 29) Each device can store up to 24 presets. The Presets tab allows for storing, editing, and loading of Presets.

The following are saved within a Preset

- Input 1 EQ, Gain, and Delay settings
- Input 2 EQ, Gain, and Delay settings
- Beam settings

The following are *not* saved within a Preset.

- Source Selection
- Network settings
- Input Gain Offset

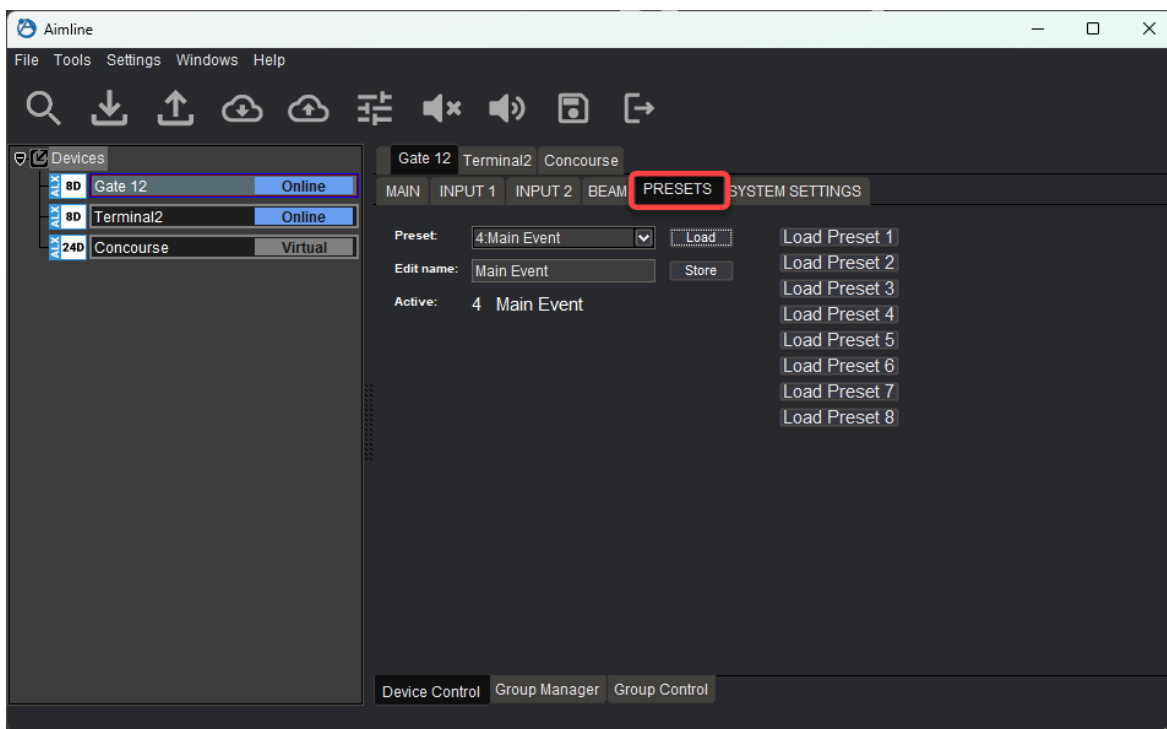


Figure 29

### Presets tab features

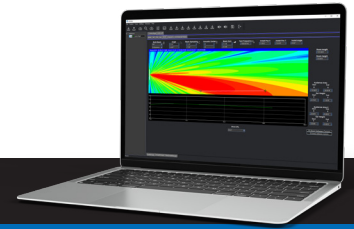
The Presets tab contains the following features.

- **Preset dropdown** – Use the drop-down list to select one of 24 preset slots.
- **Load** – Click the **Load** button to recall the settings of the selected preset slot.
- **Store** – Click the **Store** button to save the current device settings to the selected preset slot. Use the **Edit Name** input field to give this preset a name before storing.
- **Active** – Displays the currently selected preset.
- **Quick Recall Buttons** – The eight buttons on the right side (Load Preset 1–8) will load the preset associated with the number. This is useful for single-click comparisons between presets.

(CONTINUED ON NEXT PAGE)

# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS



### SOFTWARE USER GUIDE

## DEVICE MANAGER (LOUDSPEAKER SETTINGS) (CONTINUED)

### Presets tab (continued)

#### Presets tab features (continued)

It is possible to load presets via a network UDP command. Refer to **Recalling Presets Using Network UDP Commands** on page 48.

### System Settings tab

The System Settings tab consists of two sub-tabs: **System** and **Amp Test**. (Figures 30, 31)

**System sub-tab** – Allows for the following adjustments.

- **Input Gain Offset** – Adjust the input gain of the incoming audio signal.
- **Locate LED Time** – Adjust the amount of time the Locate LED will blink when pressed.
- **Locate button** – When pressed, a blue LED in the far bottom-right of the loudspeaker face will blink for a short amount of time.
- **Error LED Behavior** – Select the behavior for the Signal (Locate) LED.
  - **LED\_Off** – The LED will always remain off.
  - **Error\_LED** – The LED will be illuminated when there is an error/fault in the system.
  - **LED\_On** – The LED will remain illuminated (solid) indefinitely.

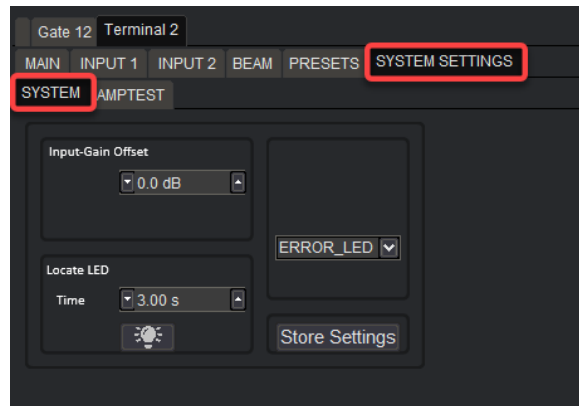


Figure 30

**Amp Test sub-tab** – The information in the Amp Test panel can be used to help troubleshoot hardware issues when consulting with AtlasIED Technical Support.

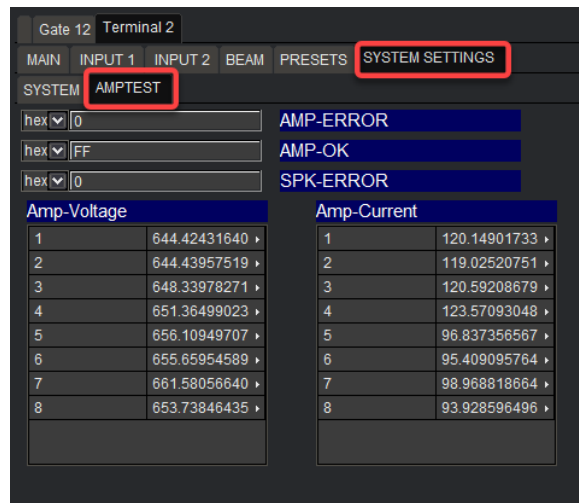
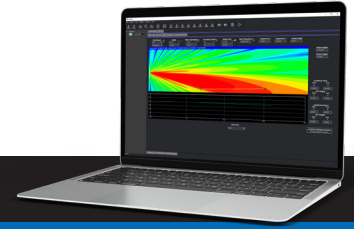


Figure 31

# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS



### SOFTWARE USER GUIDE

## LOUDSPEAKER GROUPS

### Grouping Summary

When managing multiple loudspeakers in a unified system, it may be helpful to create a Group to perform global changes simultaneously. Aimline software allows individual loudspeaker input channels to be assigned to a Group for unified control of:

- Input Gain
- Mute
- Input EQ
- Delay

The **Group Manager** and **Group Control** tab windows are used to configure this capability.

- **Group Manager tab** – Create Group control objects and assign them to input channels from multiple loudspeakers, and perform basic level and delay control of the Group.
- **Group Control tab** – Once a Group has been created, the Group Control window allows for simultaneous control of certain group parameters, specifically Gain, Mute, Delay, and EQ.

**Note:** It is recommended that all loudspeakers be configured individually prior to creating Groups.

### Add Devices to Group Manager Canvas

The Group Manager canvas contains all discovered and virtual devices and is where Groups can be created and assigned to ALX devices. (Figure 32)

**Note:** If a device is removed from the canvas, it can be added again by dragging the loudspeaker icon (not the text) to the light gray area.

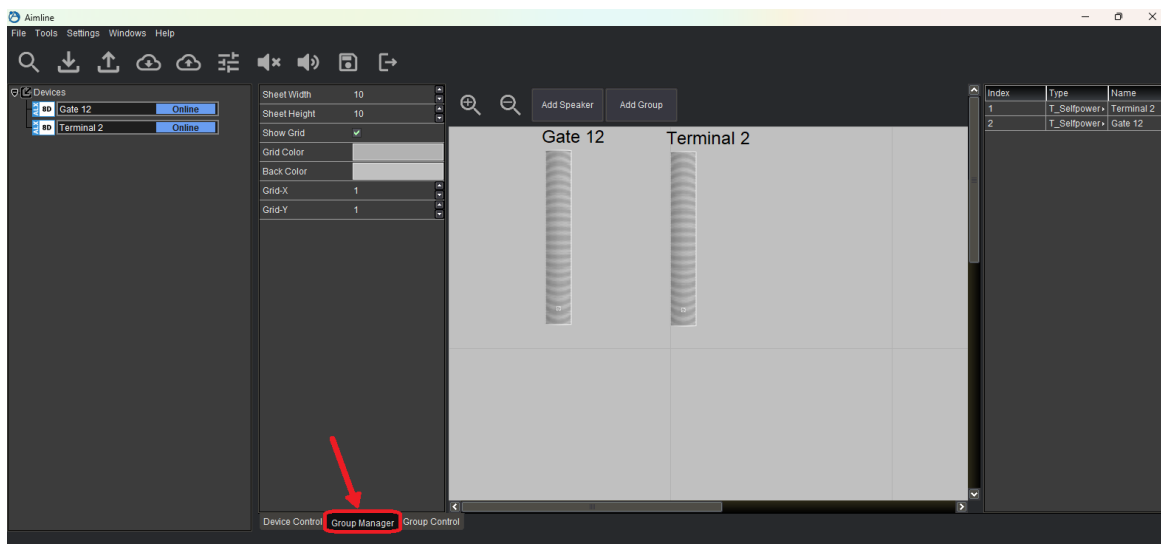


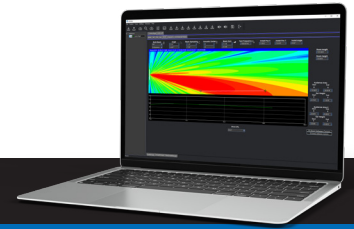
Figure 32

(CONTINUED ON NEXT PAGE)

# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS

### SOFTWARE USER GUIDE



## LOUDSPEAKER GROUPS (CONTINUED)

### Create a Group and Assign Loudspeaker Channels

To create a group, do the following.

1. Click the **Add Group** button at the top of the canvas. (Figure 33) This will add a Group object to the canvas.

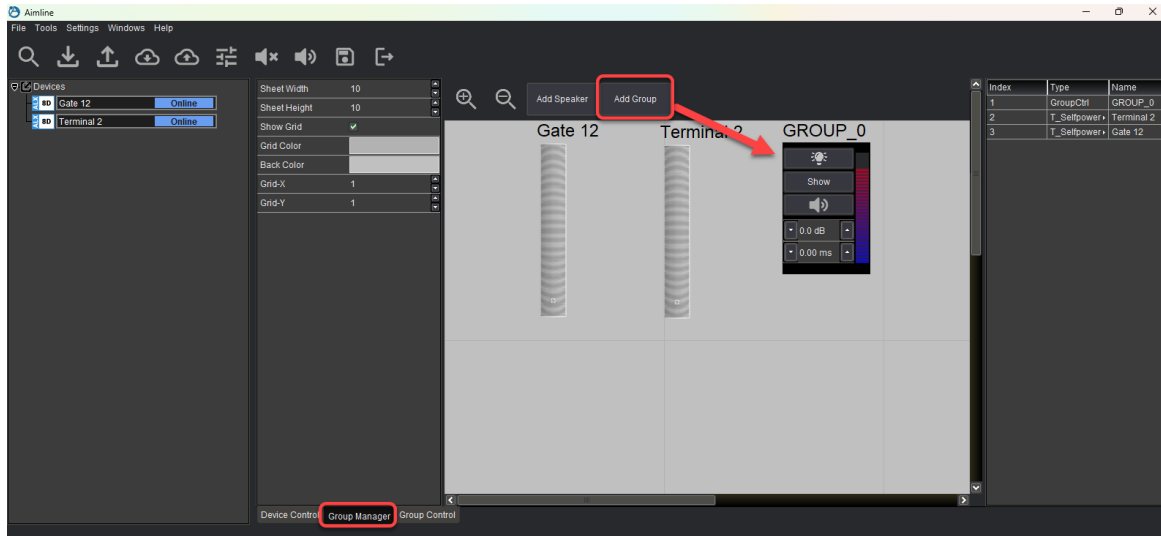


Figure 33

2. Click on the frame of the group to expose its properties in the left **Properties** pane. (Figure 34)
3. Type a descriptive name for the group in the **Name** section.
4. When finished, press **Enter**. The new name appears above the group icon in the canvas.

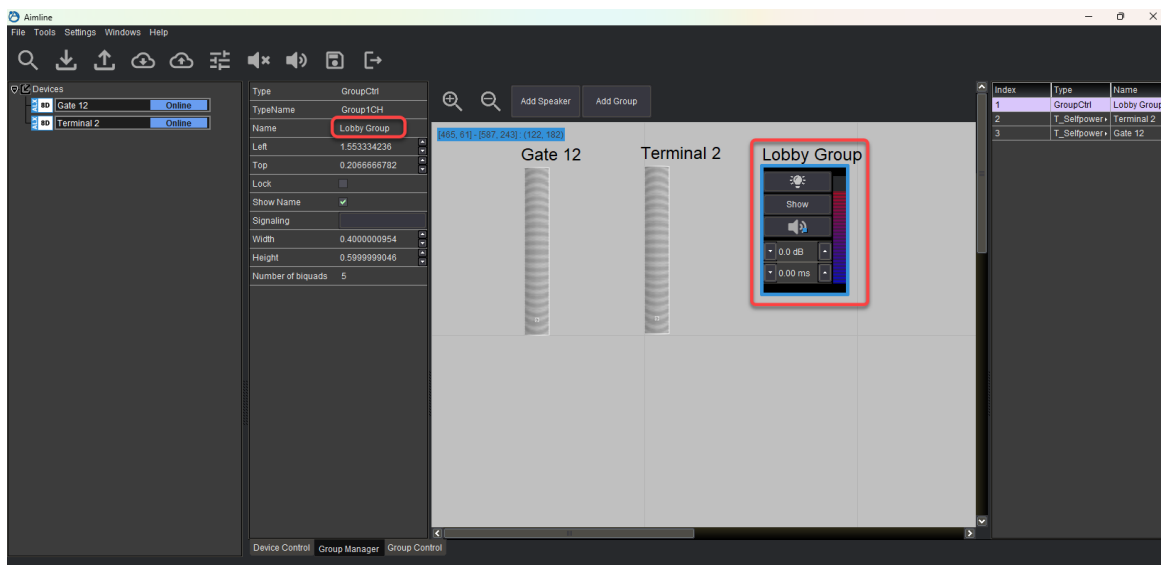


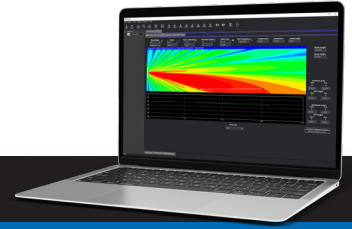
Figure 34

(CONTINUED ON NEXT PAGE)

# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS

### SOFTWARE USER GUIDE



## LOUDSPEAKER GROUPS (CONTINUED)

### Create a Group and Assign Loudspeaker Channels (continued)

Next, the Group control needs to be assigned loudspeakers to control.

To assign a loudspeaker to a Group control, do the following.

1. Click on a group frame to select it.
2. Click **Show Channels** at the top of the canvas. (Figure 35) This brings up input channel representations as overlays on the loudspeaker images. They are gray when not included in the group.

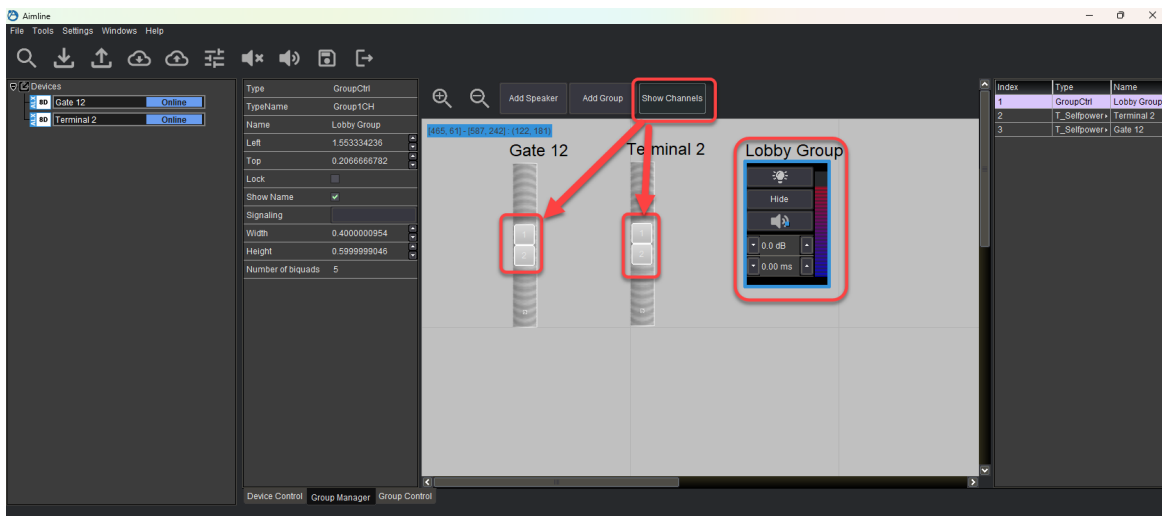


Figure 35

To assign loudspeaker channels to a group, click to select the desired input channels. The selected channels will be highlighted to indicate they are part of the group. (Figure 36) In this example, Channel 1 from both the Gate 12 and Terminal 2 loudspeakers are now assigned to the Lobby Group.

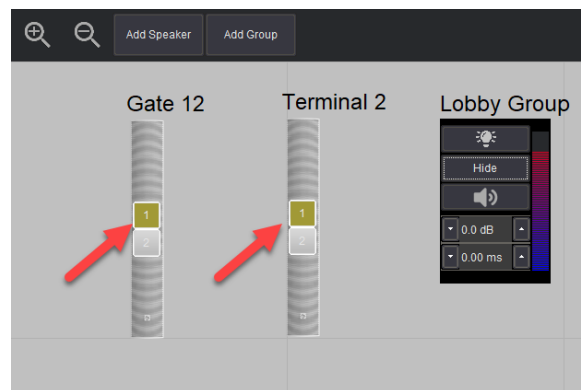
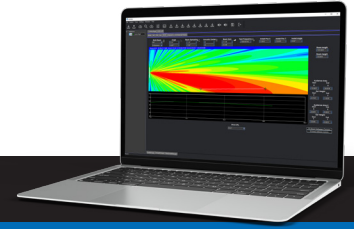


Figure 36

(CONTINUED ON NEXT PAGE)

# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS



### SOFTWARE USER GUIDE

## LOUDSPEAKER GROUPS (CONTINUED)

### Create a Group and Assign Loudspeaker Channels (continued)

The Group control object can now be used to simultaneously adjust settings on all loudspeaker input channels assigned to it. (Figure 37)

These settings include:

- **Locate** – Pressing the Locate (lightbulb) button will place each device assigned to this Group in the Locate state (a blinking an LED on the loudspeaker).
- **Show/Hide** – Show and hide loudspeaker channel inclusion.
- **Mute** – Pressing this button will toggle the Mute state of all devices assigned to this Group.
- **Gain** – Raise and lower input gain level for all channels assigned to this Group.
- **Delay** – Expand and reduce input delay for all channels assigned to this Group.

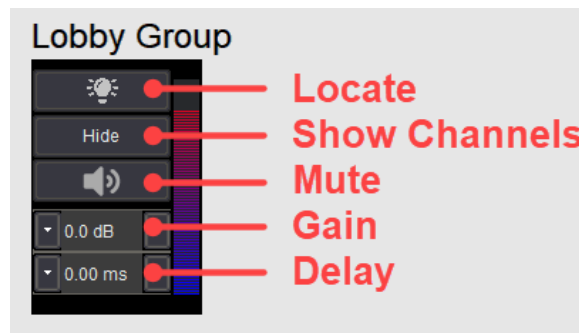


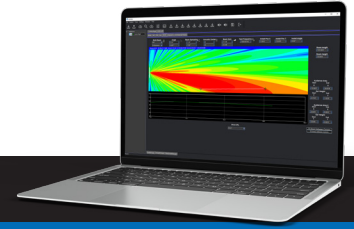
Figure 37

**Note:** Multiple Group controls can be created. However, a channel should only be assigned to a single Group and will not operate correctly when assigned to multiple Groups.

# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS

### SOFTWARE USER GUIDE



## LOUDSPEAKER GROUPS (CONTINUED)

### Controlling a Group

To make changes to settings for all devices within a group, do the following.

1. Select the **Group Control** button at the bottom of the page. (Figure 38)
2. Select the group you want to control by clicking on its tab at the top of the page. **Note:** A group must be selected in order to show the group controls.

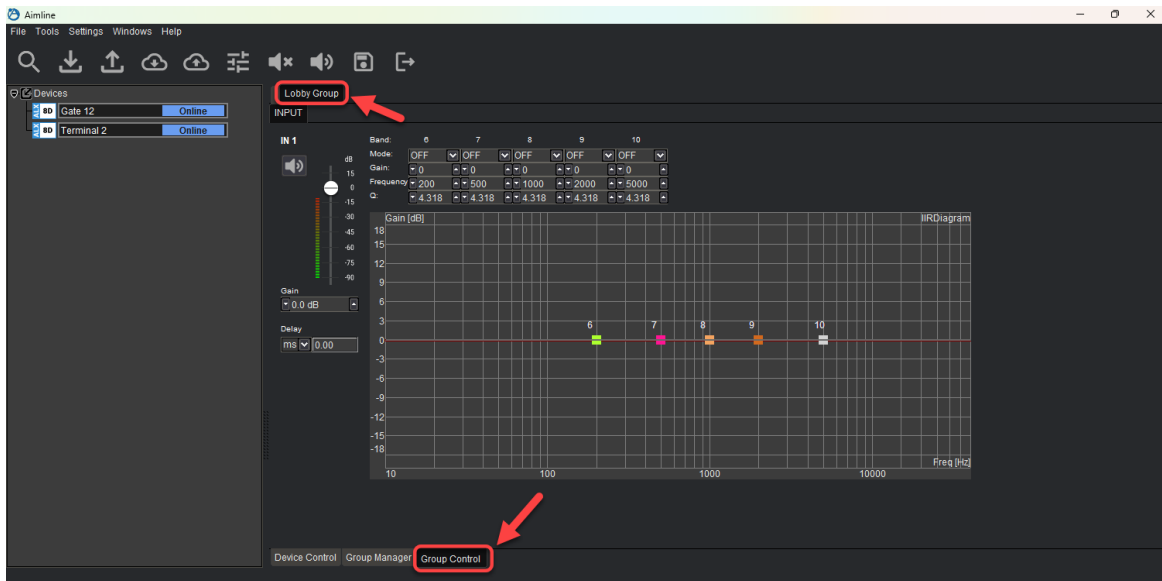


Figure 38

Each Group tab includes controls for Gain, Mute, Delay, and EQ. The available filters, 6–10, are in addition to the five filters available for individual device control. (Figure 39).

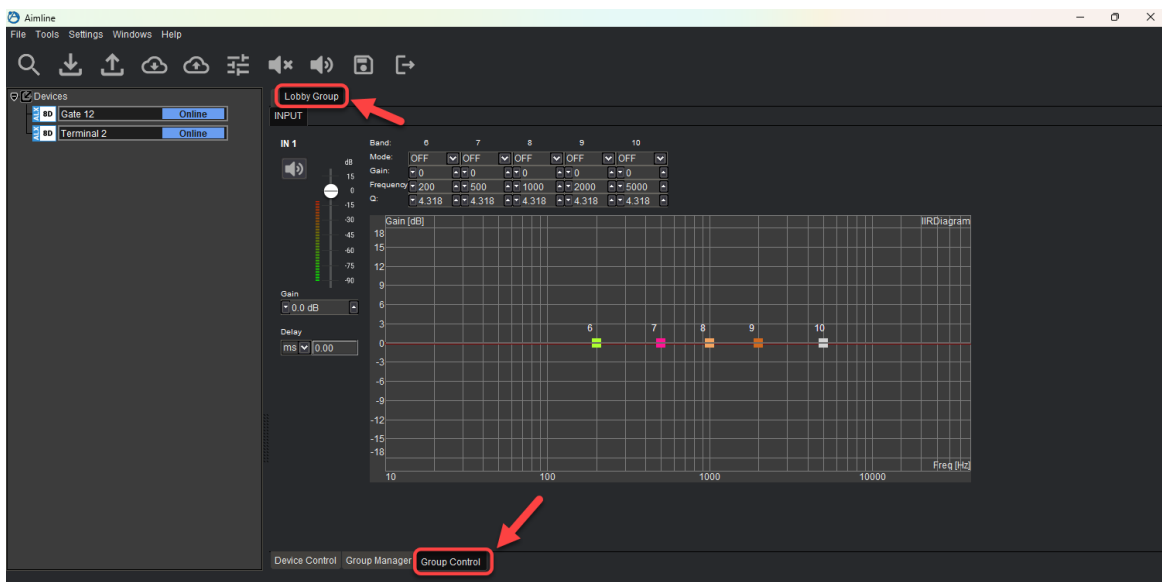


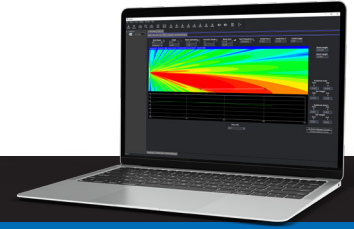
Figure 39

(CONTINUED ON NEXT PAGE)

# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS

### SOFTWARE USER GUIDE



## LOUDSPEAKER GROUPS (CONTINUED)

### Controlling a Group (continued)

Adjustments made in this Group control will apply to the individual device channels assigned to the Group. EQ settings made in this Group panel will appear on the individual device panel as EQ bands 6–10. (Figure 40)

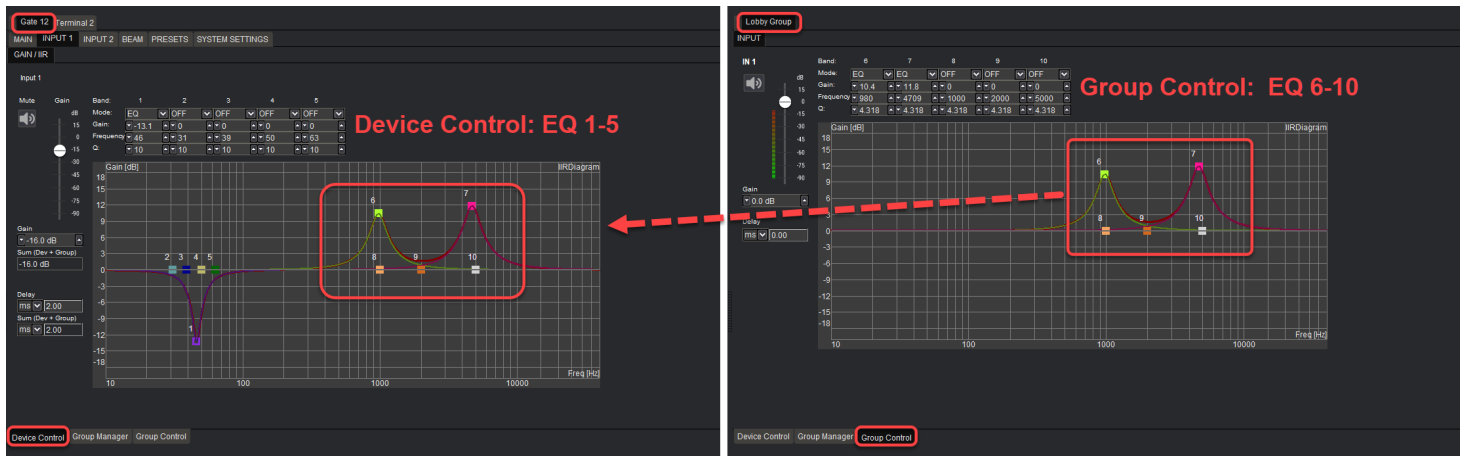
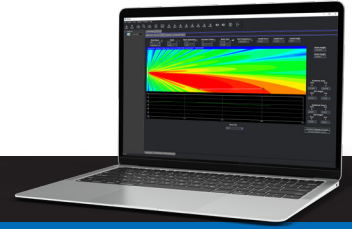


Figure 40

# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS

### SOFTWARE USER GUIDE



### STORING DEVICE PARAMETERS

When all parameters have been properly configured, click the **Store Device Parameters** button (floppy disk icon) near the top of the page. (Figure 41) This will ensure that all parameter settings in the GUI are written to the device.

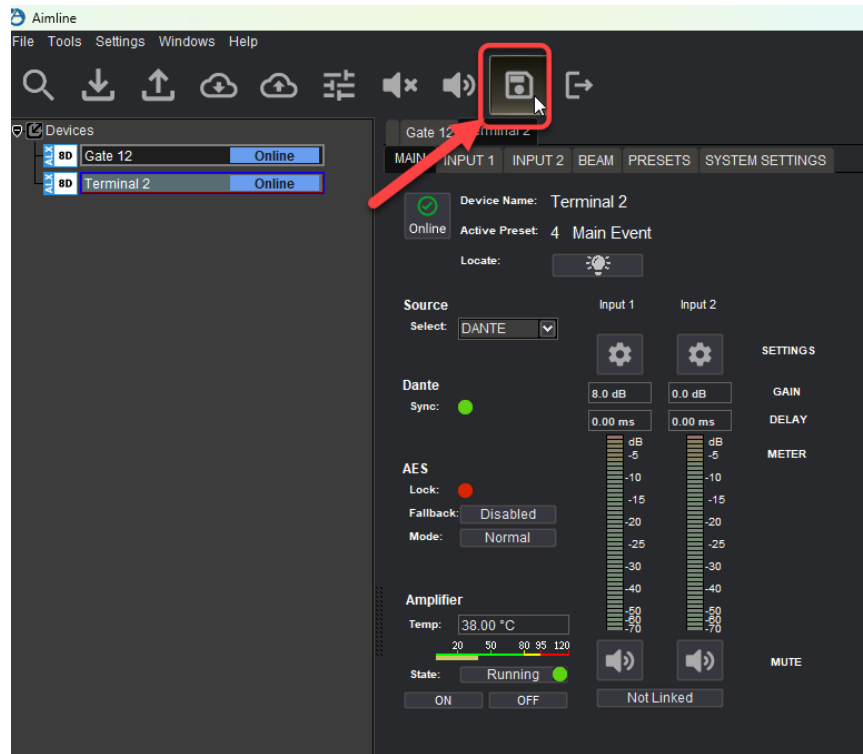
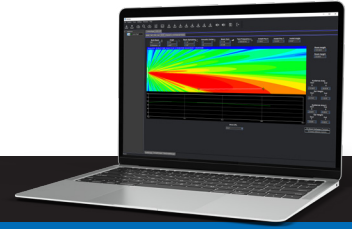


Figure 41

# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS

### SOFTWARE USER GUIDE



## SAVING AND LOADING DEVICE SETTINGS

Settings can be saved and transferred between individual devices. To do so, you must first determine which types of settings to share and then select the appropriate option according to category.

These are:

**DSP Settings** – Allows the DSP settings from a *single* Preset to be saved and shared with other devices. DSP Settings file types include:

- **Gain.**
- **Delay**
- **EQ settings**
- **Beam settings**

**Preset Library** – Allows *all* 24 presets from one device to be saved and shared with other devices. Preset types files include:

- **Gain**
- **Delay**
- **EQ settings**
- **Beam settings**

### Option 1 - Exporting DSP Settings

To export DSP Settings from one device for importing to another, do the following. (Figure 42)

1. In the Devices pane, right-click the exporting device to open the drop-down menu.
2. In the menu, select **DSP Settings**.
3. Select **Export DSP Settings**.
4. In the **Export** window, type a name for the file in the **File** field.
5. Click **Save**.

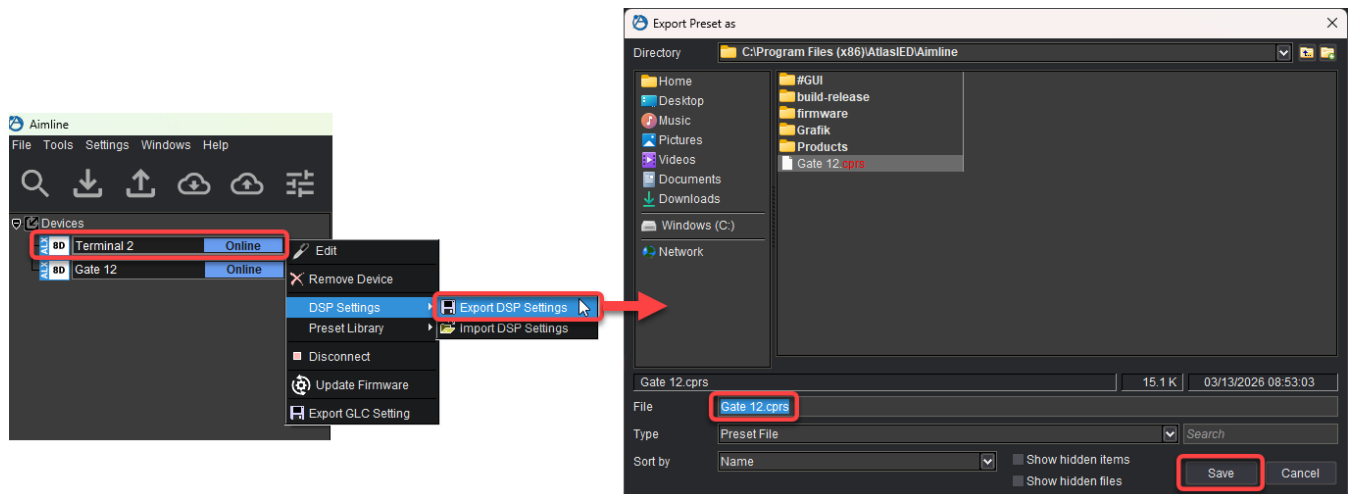


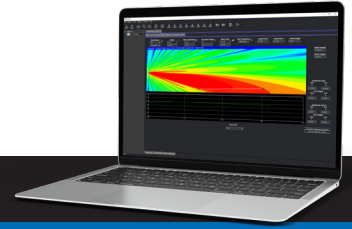
Figure 42

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# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS

### SOFTWARE USER GUIDE



## SAVING AND LOADING DEVICE SETTINGS (CONTINUED)

### Option 1 - Importing DSP Settings

To import DSP settings from a file, do the following. (Figure 43)

1. In the **Devices** pane, right-click the importing device to open the drop-down menu.
2. In the menu, select **DSP Settings**.
3. Select **Import DSP Settings**.
4. In the **Open Preset** window, click on the saved Preset.
5. Click **Open**. This will copy all included settings from the Preset file to the device.

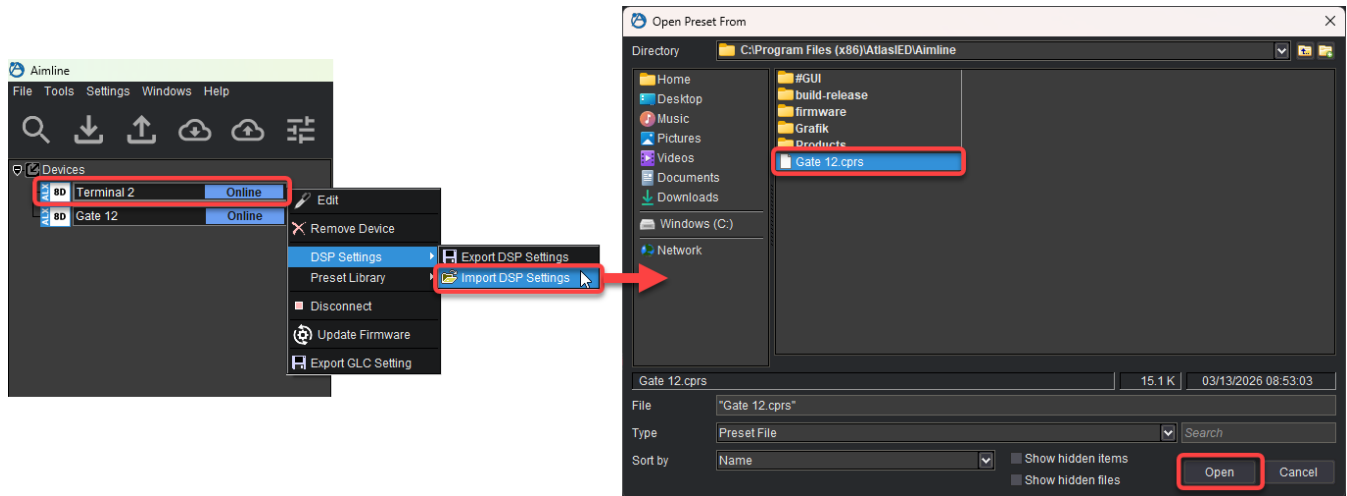


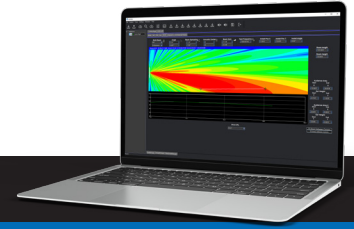
Figure 43

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# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS

### SOFTWARE USER GUIDE



## SAVING AND LOADING DEVICE SETTINGS (CONTINUED)

### Option 2 - Exporting Presets Library (all presets)

To export all 24 Presets from one device for importing to another, do the following. (Figure 44)

1. In the **Devices** pane, right-click the exporting device to open the drop-down menu.
2. In the menu, select **Preset Library**.
3. Select **Export Preset Library**.
4. In the **Export Preset Library as** window, select a location to save the file.
5. Type a name for the file in the **File** field.
5. Click **Save**.

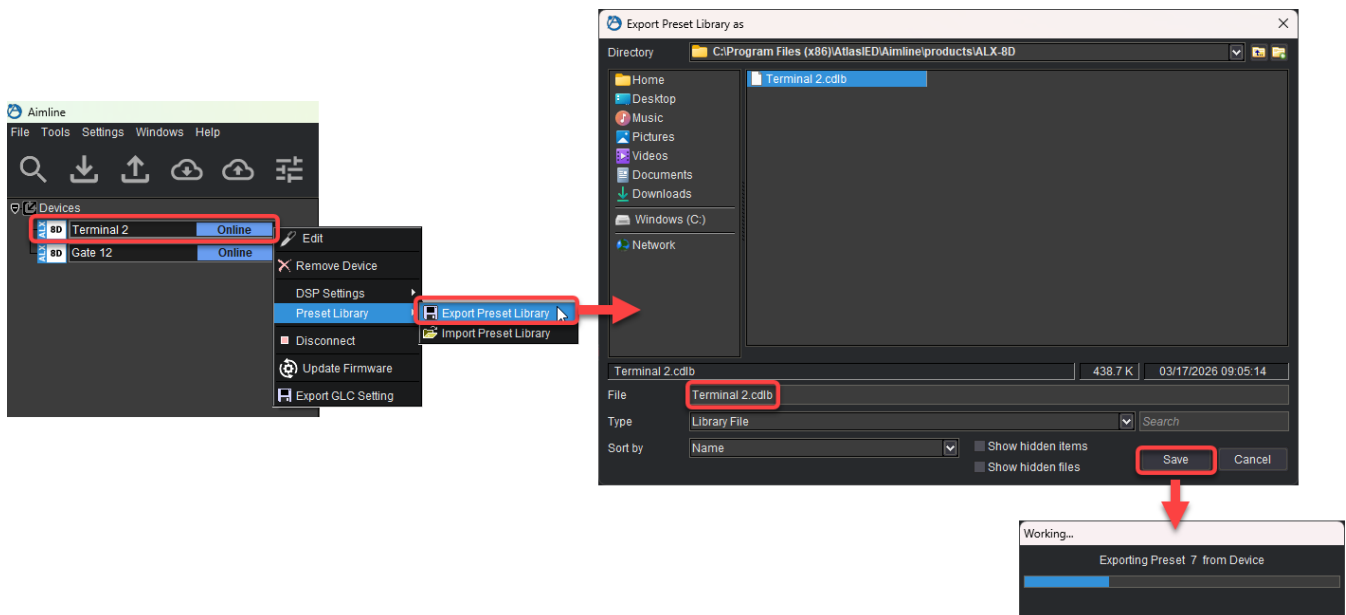


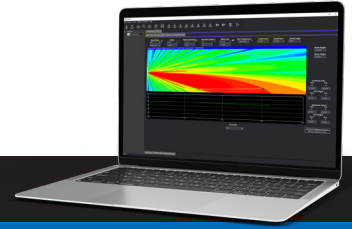
Figure 44

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# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS

### SOFTWARE USER GUIDE



## SAVING AND LOADING DEVICE SETTINGS (CONTINUED)

### Option 2 - Importing Presets Library

To import the library of Presets from a file, do the following. (Figure 45)

1. In the **Devices** pane, right-click the importing device to open the drop-down menu.
2. In the menu, select **Preset Library**.
3. Select **Import Preset Library**.
4. In the **Open Preset Library From** window, click on the saved Preset Library.
5. Click **Open**. This will copy all included settings from the Preset file to the device.

**Note:** For more information about Presets, see **Presets tab** on page 30.

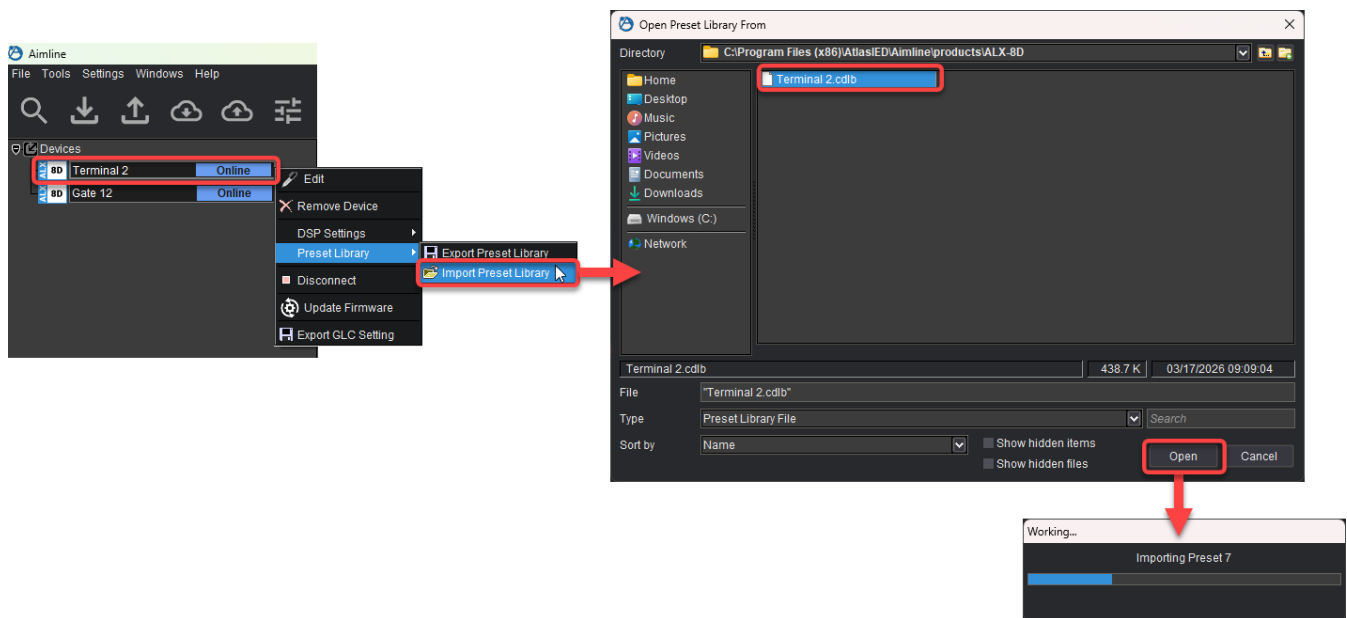
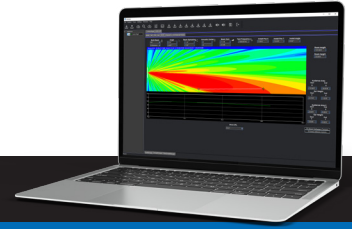


Figure 45

# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS



### SOFTWARE USER GUIDE

## USING AIMLINE SOFTWARE OFFLINE WITH VIRTUAL DEVICES

### Adding an Offline Virtual Device

To use Aimline software “offline” with no connected devices, use one of the following methods.

#### Right-click Menu

1. In the **Devices** pane, right-click to open the drop-down menu. (Figure 46)
2. In the menu, select **Add Virtual Device**.
3. Under **Devices**, select a model to add to the project.

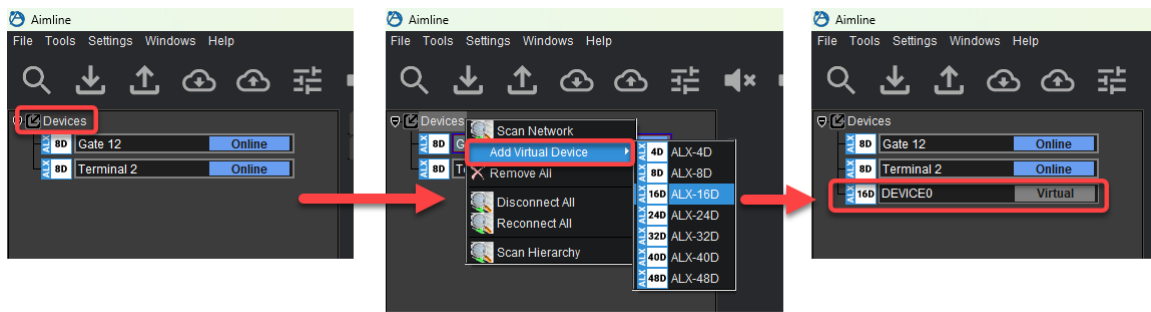


Figure 46

#### Group Manager

1. Click **Group Manager** at the bottom of the page. (Figure 47)
2. Right-click on a blank space within the canvas to open a drop-down menu.
3. Select a loudspeaker from the menu to add it to the page. The virtual device appears in the **Devices** pane as **DEVICE0** and can be renamed and managed as an offline device.

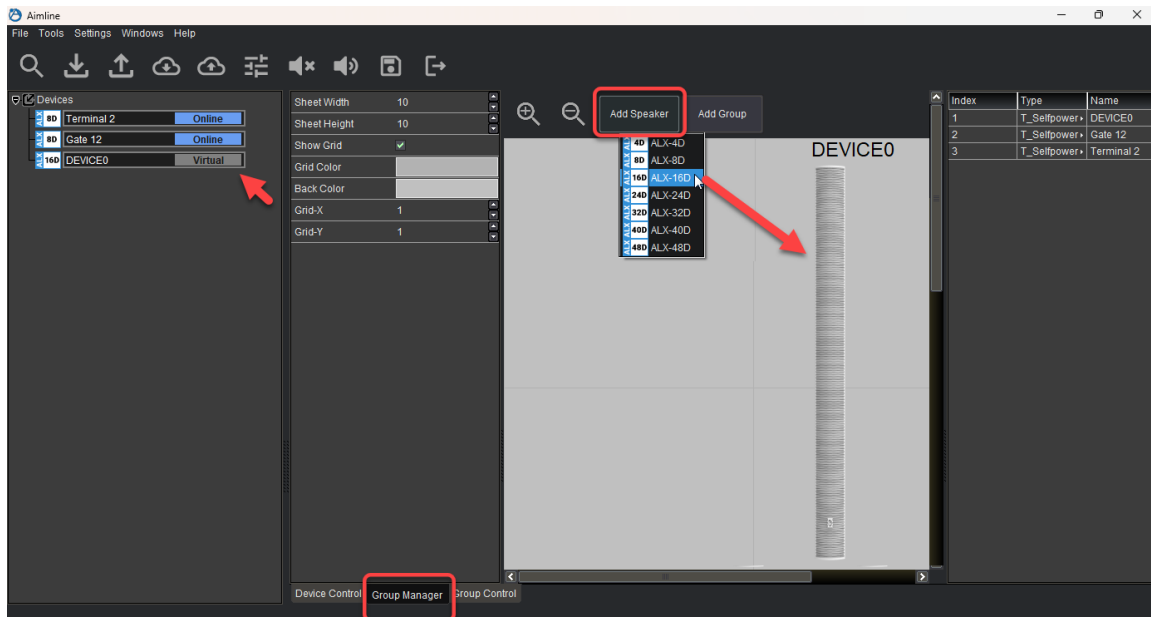
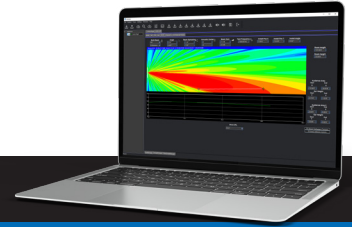


Figure 47

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# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS



### SOFTWARE USER GUIDE

## USING AIMLINE SOFTWARE OFFLINE WITH VIRTUAL DEVICES (CONTINUED)

### Configuring an Offline Virtual Device

Once added, the status of a virtual device will appear in the Devices pane as "Virtual". The device can be configured in the same manner as online devices.

#### Configuring Settings

Configure settings by double-clicking on the device in the **Devices** pane to access Beam and other DSP configurations. (Figure 48)

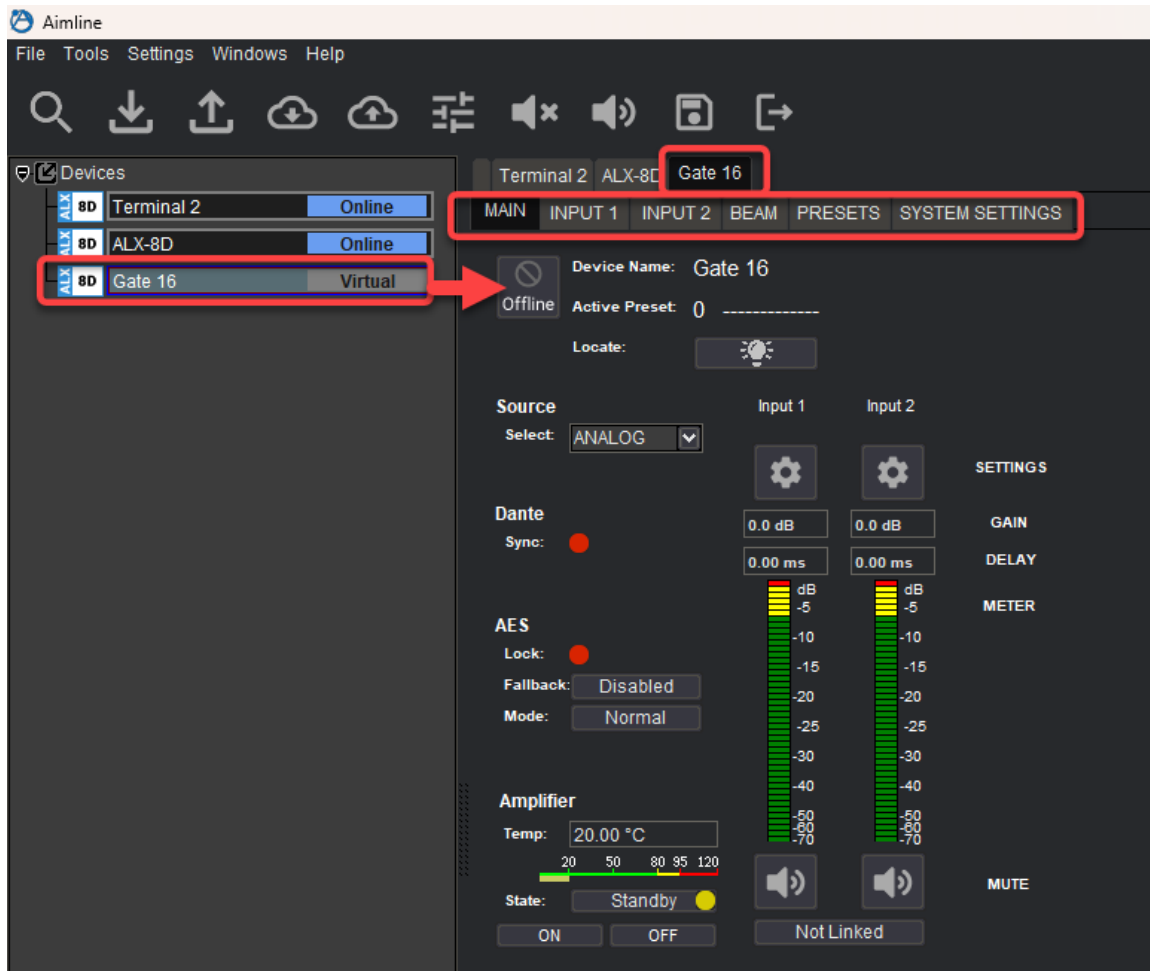


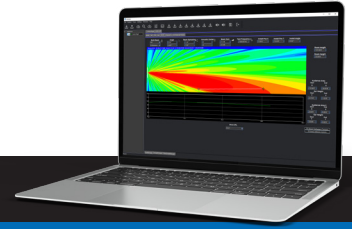
Figure 48

(CONTINUED ON NEXT PAGE)

# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS

### SOFTWARE USER GUIDE



## USING AIMLINE SOFTWARE OFFLINE WITH VIRTUAL DEVICES (CONTINUED)

### Merging Offline Virtual Device with Online Device

Offline Virtual devices are useful for preconfiguring a loudspeaker's settings. The saved configuration can then be written to (merged with) an online device.

To merge a Virtual device with an Online device, do the following. (Figure 49)

1. In the **Devices** pane, right-click on the Virtual device.
2. In the menu, select **Merge to Online**.
3. In the **Merge Devices** window, select a Virtual device from which to export settings. A list of compatible Online devices of the same model type will appear in the right pane.
4. Choose an Online device to which to import settings by clicking the **Add** button on the desired device row.
5. To perform the merge, click **Merge selected devices**. This will copy settings from the Virtual device to the Online device and remove the Virtual device from the project.

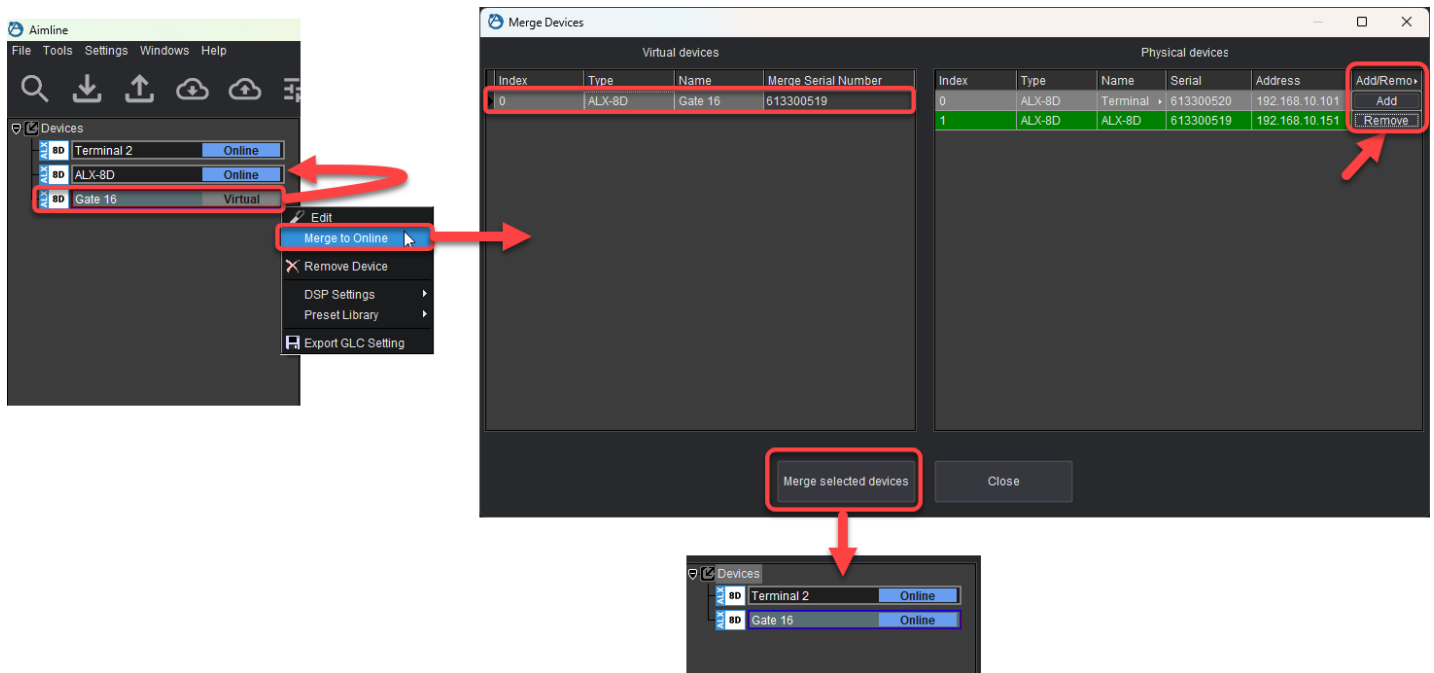


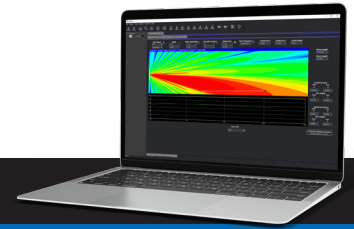
Figure 49

(CONTINUED ON NEXT PAGE)

# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS

### SOFTWARE USER GUIDE



## CONNECTING DANTE NETWORK AUDIO

You can change the network settings for the ALX Dante inputs using Dante Controller software available from Audinate. With Dante Controller software, you can assign Dante transmitters to Dante receivers. Each Airline ALX-D loudspeaker offers two (2) Dante receiver (Rx) inputs. **(Figure 50)**

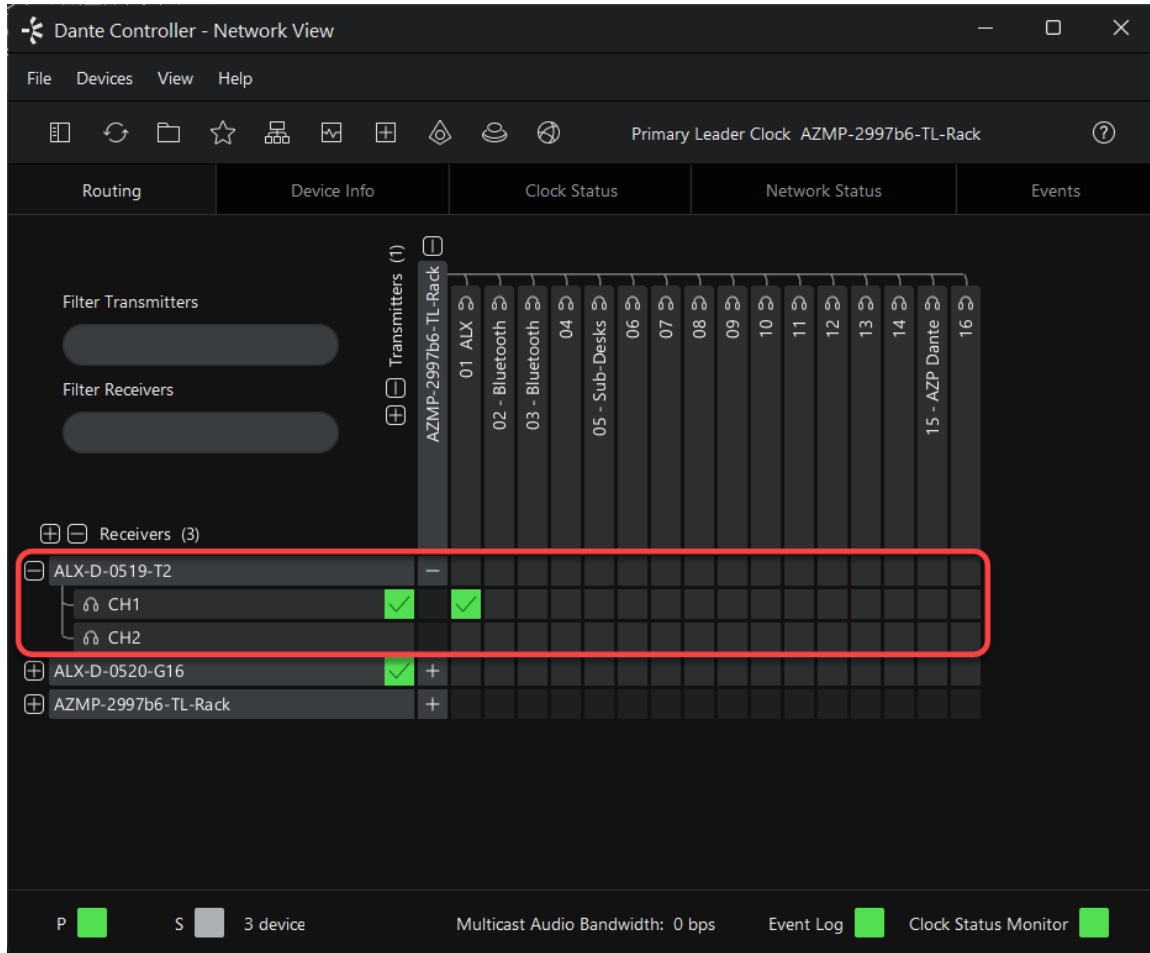
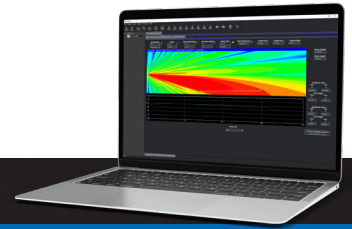


Figure 50

It is possible to change the network settings for the Dante cards from DHCP (the factory default) to a static IP address using Dante Controller software. This address must be different than the main ALX loudspeaker control IP address.

# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS



### SOFTWARE USER GUIDE

#### UPDATING DEVICE FIRMWARE

If the ALX-D firmware is out of date with the Aimline software, a prompt will appear when adding the device to the project advising of an available update. Alternatively, the Updater tool can be accessed in the top menu bar (**Tools > Updater**). (Figure 51)

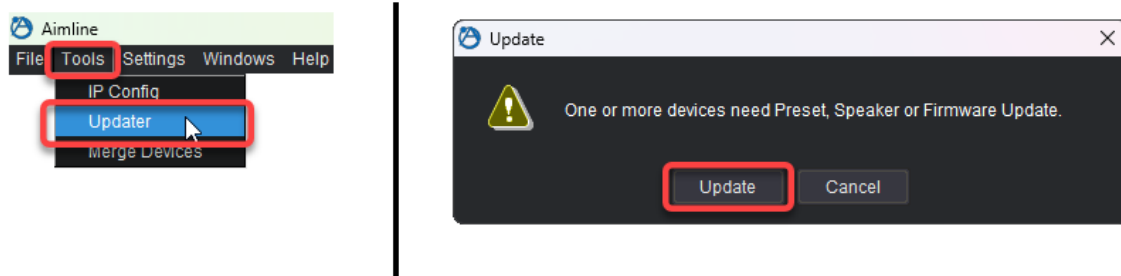


Figure 51

To update the firmware from the **Updater** window, do the following. (Figure 52)

1. The **Updater** window shows a list of each ALX-D loudspeaker. If an update is required for that device, the **Firmware** column will be red. If not, the column will be green.
2. Select each device to be updated by clicking the checkbox in its row under the **S (Select)** column.
3. Click the **Update** button to begin the firmware update process. This can take 2–3 minutes.  
**Note:** Do not power cycle or otherwise interrupt this process until it is complete.
4. When the firmware update is complete, power cycle the ALX-D loudspeaker(s) for the changes to take effect. It is also recommended to restart the Aimline software.

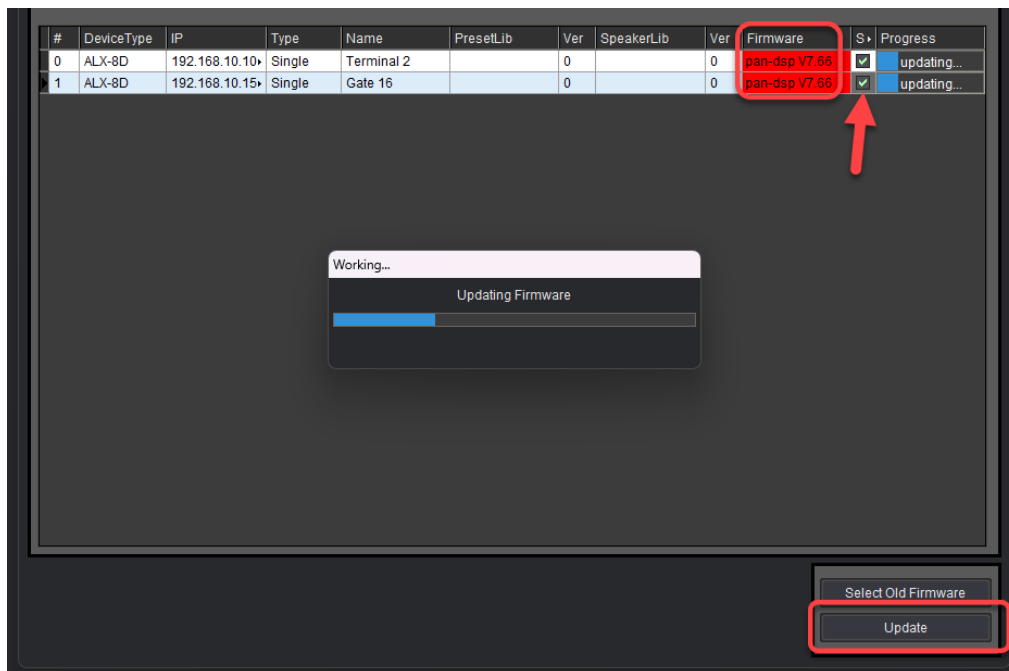
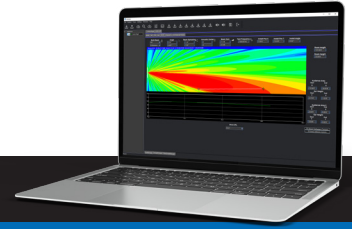


Figure 49

# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS



### SOFTWARE USER GUIDE

#### RECALLING PRESETS USING NETWORK UDP COMMANDS

Device Presets can be recalled using UDP commands from a controller on the same network using the following information.

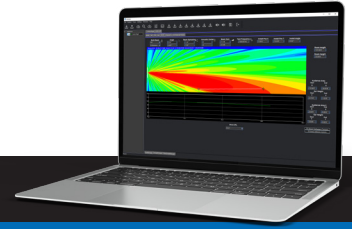
- The command must be sent to the IP address of the selected device.
- The UDP Port number for all Airline devices is **3022**.
- The command must follow the syntax: **#LOAD\_PRESET=preset\_number**.

**Example:** To recall **Preset 2**, send the command "#LOAD\_PRESET=2" on port 3022 to IP address 192.168.10.10.

# ALX-D SERIES

## COLUMN ARRAY LOUDSPEAKERS

### SOFTWARE USER GUIDE



### CASCADING ALX-D MODULES

Aimline ALX-8D modules can be cascaded to ALX-16D (two modules), ALX-24D (three modules), ALX-32D (four modules), ALX-40D (five modules), and ALX-48D (six modules) to build extended columns. (Figure 53)

For comprehensive information and instructions, see the [Aimline ALX-D Series Installation Guide](#).

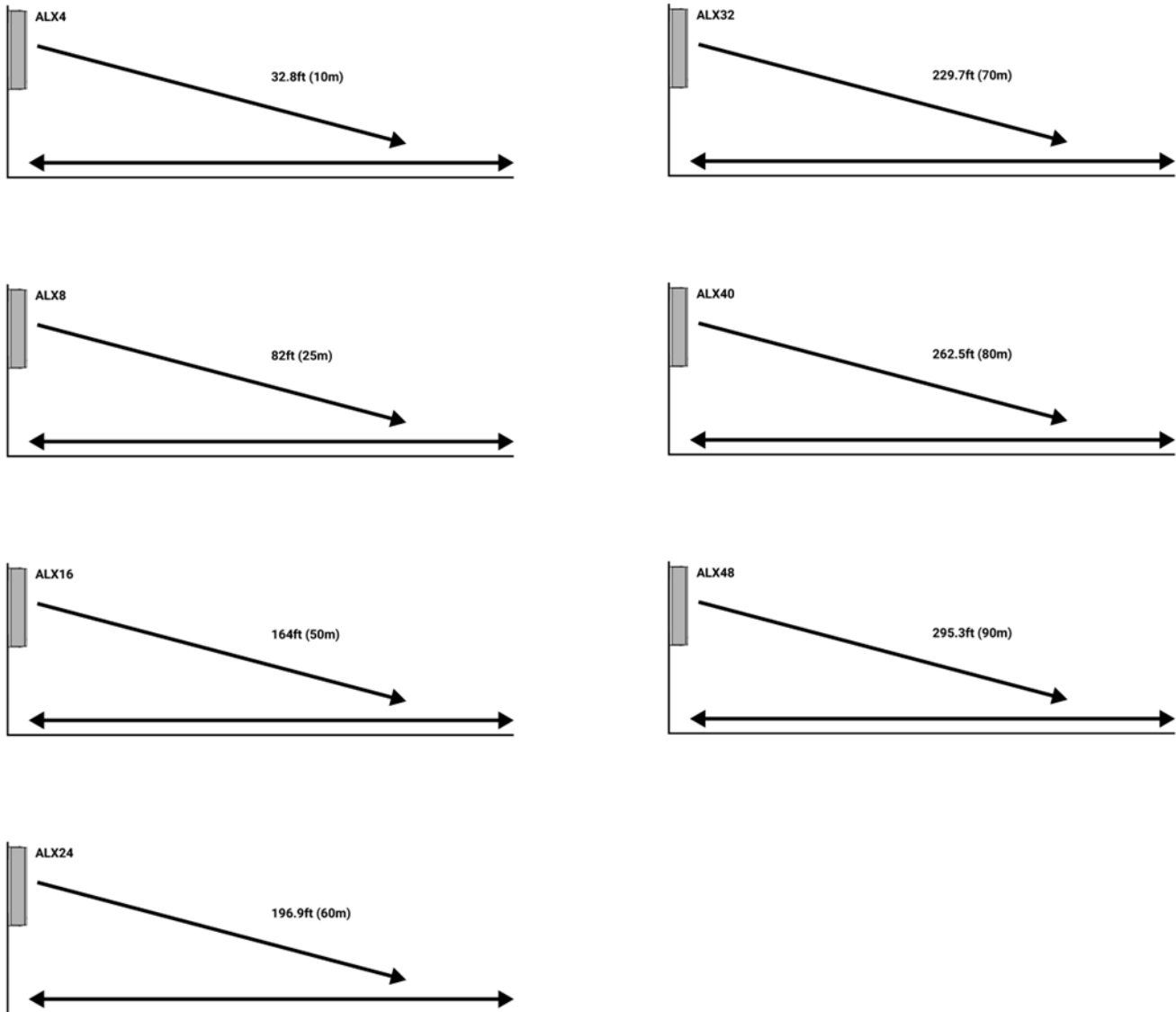


Figure 53