



Installation Instruction **LB CONTROL App**

Software for configuring and controlling
network-enabled LB devices

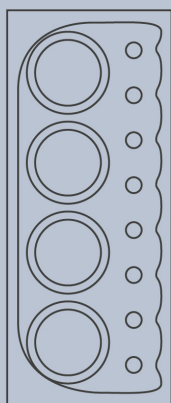
pure listening 

WELCOME TO LB CONTROL

VERSION 3.0



LINE ARRAYS



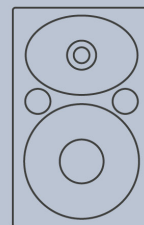
AMPLIFIERS



SOUNDBARS



DISPLAY
SPEAKERS



ACTIVE
SPEAKERS



Content

1. Description / New Features	3
2. Supported Devices	4
3. Installation	5
4. OVERVIEW Window	6
5. DEVICE Window	7
5.1 DEVICE Window / General Functions	7
5.2 DEVICE Window / PA-S Series Compact Amplifiers	7
5.3 DEVICE Window / PA-Series 19"-Amplifiers	8
5.4 DEVICE Window / PA-Series with Beam Steering for DE Plan 800 AIArray	9-11
5.5 DEVICE Window / DL-A and SB-A Display Speakers and Soundbars	12
5.6 DEVICE Window / DL-A 2.4 and DLX-A 2.8 Display Speakers with Beam Steering	13
5.7 DEVICE Window / ZL-A Series Line Arrays with Beam Steering	14
5.8 DEVICE Window / Active Speakers and Subwoofers	15
6. Channel Windows	16-17
7. Network Commands	18-29



LB CONTROL App
www.lb-lautsprecher.de/en/download-software

pure listening 

1. LB CONTROL 3.0 App

A new version of our software for configuring and controlling all of our network-enabled amplifiers and active speakers. Using network commands, all devices can be controlled and monitored, for example, via media control systems. The appropriate user interface appears depending on the device type.



What's new

- LB CONTROL 3.0 now runs in its own window
- Improved network functionality for device discovery and communication
- **Speaker presets** for all LB speakers in amplifiers with DSP
- **Routing matrix** with gain settings in amplifiers with DSP
- **Beam steering** simulation for invisible line arrays (DE Plan 800 AIArray)
- Advanced beam steering functions for the ZL-A Series
- Advanced beam steering functions for the DL-A 2.4 and DLX-A 2.8 display speakers
- New network commands for controlling and monitoring our network-enabled devices
- Output of status messages in JSON format
- Name changes and IP addresses are saved immediately
- Network Mode: For supported new devices, choose between "Separate" and "Switched" modes for DSP and Dante.
- Reset the devices' network settings by performing 5 x power cycles (5 seconds off/on each time); static IP addresses are deleted and DHCP is reactivated
- Reset the devices to factory settings by performing 10 x power cycles (5 seconds off/on each time)

Upon request, we are happy to create project-specific presets.

Please note!

- All existing Generation 2 LB devices are supported by the new LB CONTROL 3.
The new features will then be available for these devices as well.
- All existing Generation 2 LB devices require a firmware update to be opened in the LB CONTROL 3.
- Existing presets are automatically converted to the new LB CONTROL 3 format during the firmware update and can continue to be used. To be safe, however, we recommend saving a backup of the presets on your PC.
- Existing presets saved on your PC are also automatically converted to the new format when loaded into LB CONTROL 3 and can continue to be used.
- Current LB devices with firmware version 3 are displayed in the old LB CONTROL 2, but cannot be edited.

Attention!

- LB devices with the new LB CONTROL 3 firmware are displayed in older software versions, but cannot be operated.
We therefore recommend switching to LB CONTROL 3 and updating all existing devices.

2. Supported Devices

The following devices are supported by the new LB CONTROL 3.0:

PA-S Series Compact Amplifiers

PA-S 250 DSC 2 x 50 Watt

PA-S 2100 DSC 2 x 100 Watt

PA-S 2200 DSC 2 x 200 Watt

PA-S 250 PoE 2 x 50 Watt mit PoE



PA Series 19"-Amplifiers

PA 2100 DSC 2 x 100 Watt

PA 2200 DSC 2 x 200 Watt

PA 2400 DSC 2 x 400 Watt

PA 2800 DSC 2 x 800 Watt

PA 4100 DSC 4 x 100 Watt

PA 4200 DSC 4 x 200 Watt

PA 4400 DSC 4 x 400 Watt

PA 4800 DSC 4 x 800 Watt

PA 6100 DSC 6 x 100 Watt

PA 6200 DSC 6 x 200 Watt

PA 6400 DSC 6 x 400 Watt

PA 6800 DSC 6 x 800 Watt

PA 8100 DSC 8 x 100 Watt

PA 8200 DSC 8 x 200 Watt

PA 8400 DSC 8 x 400 Watt

PA 8800 DSC 8 x 800 Watt



Display Series

DL-A 2.0 DSC Display Speakers

DL-A 2.2 DSC Display Speakers

SB-A 2.0 DSC Soundbars

SB-A 2.2 DSC Soundbars

DL-A 2.4 AIArray Display Speakers with Beam Steering

DLX-A 2.8 AIArray Display Speakers with Beam Steering



ZL-Series

ZL-A 100 AIArray Line Array with Beam Steering

ZL-A 125 AIArray Line Array with Beam Steering

ZL-A 200 AIArray Line Array with Beam Steering

ZL-A 250 AIArray Line Array with Beam Steering



DE Plan Series

DE Plan 800 AIArray invisible Line Array



Subwoofers

SUB 40 FA Active subwoofer with minimal installation depth

SUB 40 A FLEX Active Subwoofer

B 12 BA Active high-performance Subwoofer



3. Installation

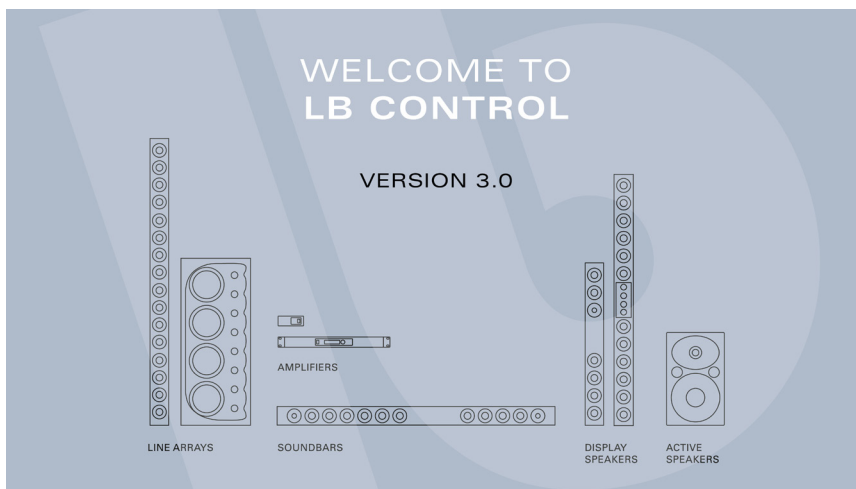
The LB CONTROL app is available for download on our website. Versions for Windows and Mac OS are available. Follow the installation steps during the installation process.

An icon for launching the app will be placed on your desktop.

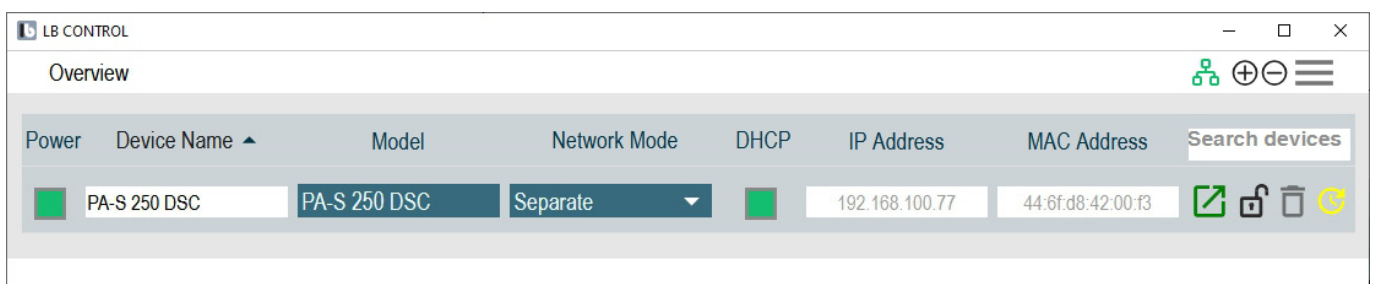


LB CONTROL

When you open the app, the following window appears for 3 seconds, displaying the current version number:



The Overview window will then open:



4. OVERVIEW Window

When you launch the LB CONTROL app, the Overview window opens. All LB devices detected on the network are displayed here. You can also use the menu to add virtual demo devices, for example, to simulate beam steering or create presets.

The screenshot shows the 'Overview' window of the LB CONTROL application. It features a table of detected devices with columns for Power, Device Name, Model, Network Mode, DHCP, IP Address, and MAC Address. Annotations point to various UI elements:

- Devices can be sorted by device type, model, IP address, or MAC address**: Points to the 'Device Name' column header.
- On some new devices, you can choose between a separate network and a switched network for DSP and Dante.**: Points to the 'Network Mode' column.
- Network status. Right-clicking the mouse opens the subnet scan**: Points to the network status icon in the top right.
- Zoom, also using [Ctrl]+[+] / [-], for all windows**: Points to the zoom controls in the top right.
- Menu:**
 - Entering a fixed IP address
 - Subnet scan
 - Adding demo devices
 - Version info
- Search the device list**: Points to the 'Search devices' button.
- Assigning Device Names**: Points to the 'Device Name' column.
- Turning Devices On/Off**: Points to the 'Power' column, with a note: 'The checkboxes indicate three states: Red = Off, Yellow = Sleep, Green = Active'.
- DHCP (automatic assignment of an IP address from the DHCP server on the network)**: Points to the 'DHCP' column.
- MAC address**: Points to the 'MAC Address' column.
- If necessary, static IP addresses can be assigned; in that case, DHCP must be disabled.**: Points to the 'IP Address' column.
- Delete Device**: Points to the trash icon.
- Device locked (opens the Lock menu)**: Points to the lock icon.
- Open Device (DEVICE Window)**: Points to the magnifying glass icon.
- Firmware Update**: Points to the yellow update icon.

Power	Device Name	Model	Network Mode	DHCP	IP Address	MAC Address	Search devices
☐		Demo DLX-A 2.8 D...		☒	1	1	
☐		Demo DL-A 2.4 DS...		☒	2	2	
☐		Demo ZL-A 250 AIA...		☒	3	3	
☐		Demo DL-A 2.2 DSC		☒	4	4	
☐		Demo Subwoofer		☒	5	5	
☐		Demo PA-S Series		☒	6	6	
☐		Demo DL-A 2.0 DSC		☒	7	7	
☐		Demo SB-A 2.2 DSC		☒	8	8	
☐		Demo SB-A 2.0 DSC		☒	9	9	
☐		Demo ZL-A 100 AIA...		☒	10	10	
☐		Demo ZL-A 125 AIA...		☒	11	11	
☐		Demo ZL-A 200 AIA...		☒	12	12	
☒	FP Test	PA-S 250 DSC	Separate	☒	192.168.100.144	44:6f:d8:42:00:51	
☒	PA-S 250 DSC	PA-S 250 DSC	Separate	☒	192.168.100.77	44:6f:d8:42:00:13	

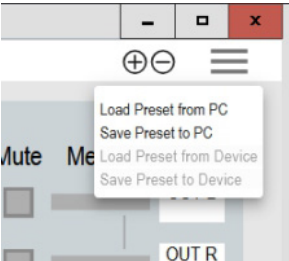
CAUTION: If a device with an internal switch is set to "Switched," you must ensure that neither of the two network ports is connected to the same network! This can cause a network loop, which may overload the network or even cause it to crash.

The latest firmware versions are automatically downloaded from the LB server and are available for updates. When newer firmware is available for a device, the firmware update button turns yellow. When upgrading from LB CONTROL 2 to LB CONTROL 3, firmware updates are mandatory; otherwise, the devices cannot be opened. All older Generation 2.0 devices are supported by LB CONTROL 3, and the new features are available. During the firmware update, all presets are automatically converted to the new format. Nevertheless, all saved presets should be backed up on a PC before the update.

5. DEVICE Window

Depending on the device type, different device windows open.

5.1 DEVICE Window / General Functions

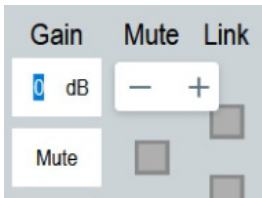


Zoom, also using [Ctrl]+[+] / [-], for all windows

Menu: Loading and Saving Presets

- Load Preset from PC
- Save Preset to PC
- Load Preset from Device
- Save Preset to Device

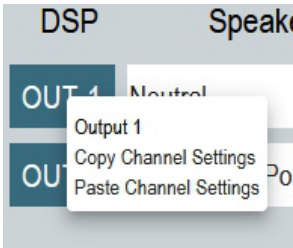
Gain Adjustment (all inputs and outputs)



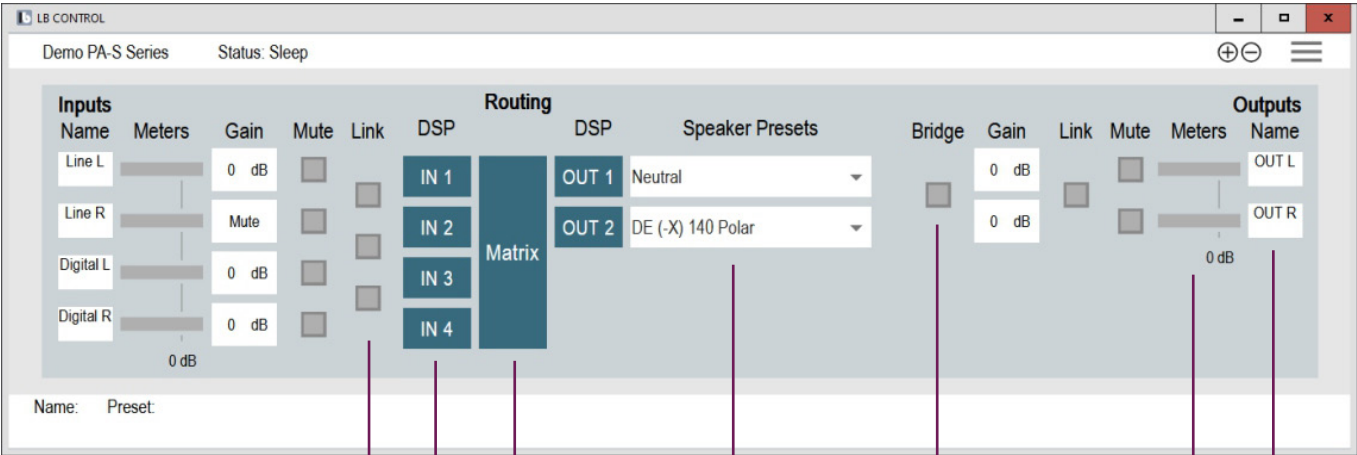
Left-clicking on the input field opens the +/- buttons for gain adjustment

Right-clicking on the input field toggles between 0 dB and Mute

Copying Channel Settings: Copy/Paste by Right-Clicking on the DSP Fields

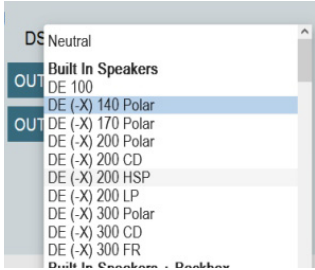


5.2 DEVICE Window / PA-S Series Compact Amplifiers



Link: The settings for the first channel are applied to the other linked channels. These are displayed in white. Only the input mixer for linked output channels can be edited by right-clicking.

Selects speaker presets for all LB speakers. Gain, EQ, and limiter are adjusted automatically.



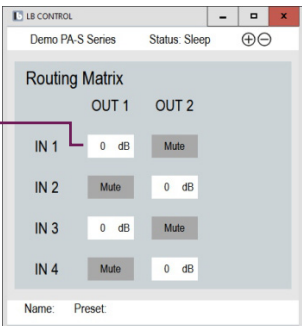
Names for inputs and outputs can be entered directly.

The meters display the level (green) and the gain reduction (yellow).

Bridge links the two channels. The second channel is inverted. Settings can only be adjusted on the first channel.

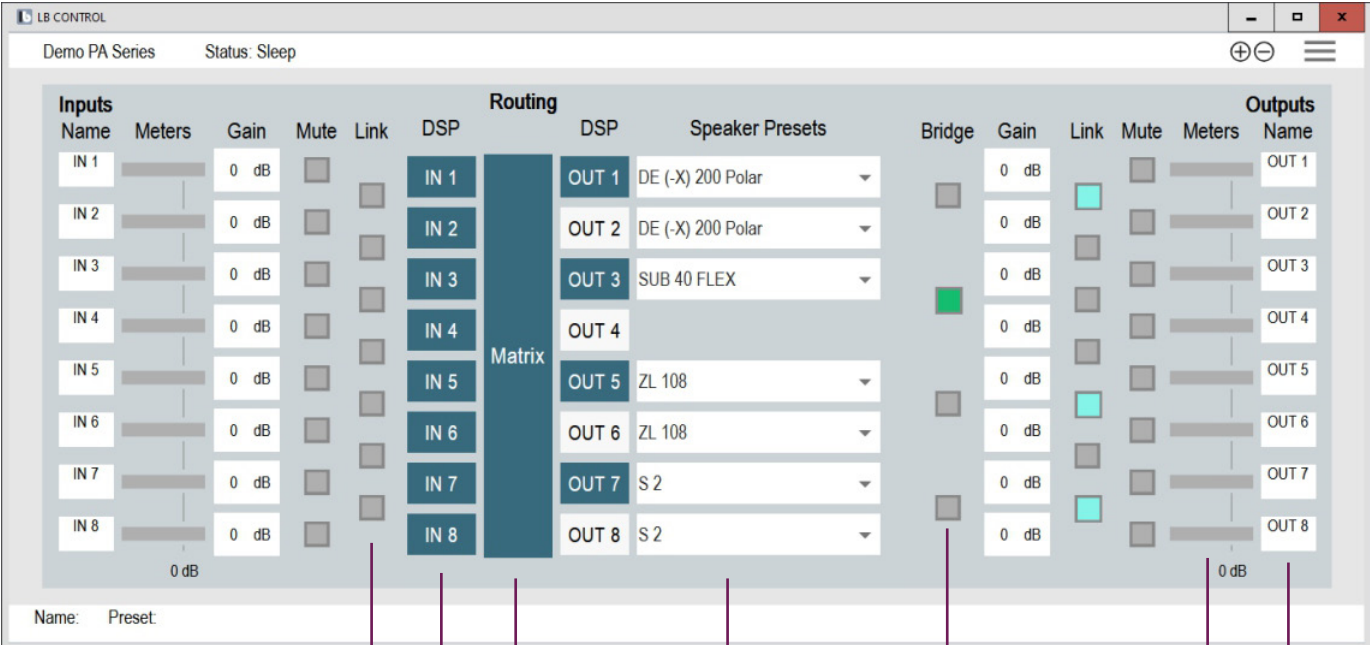
In the DSP, you can open the individual input and output windows to adjust additional parameters.

Routing Matrix
You can create connections between inputs and outputs by right-clicking to set them to 0 dB or mute. You can set individual gain levels by left-clicking in the input fields.



Right-clicking toggles between 0 dB and Mute in all gain input fields

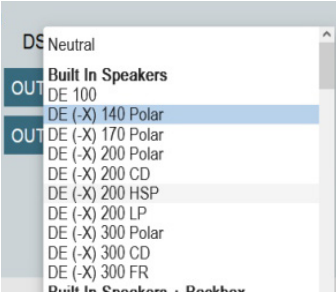
5.3 DEVICE Window / PA-Series 19"- Amplifiers



Link: The settings for the first channel are applied to the other linked channels. These are displayed in white. Only the input mixer for linked output channels can be edited by right-clicking.

In the DSP, you can open the individual input and output windows to adjust additional parameters.

A selection of speaker presets for all LB speakers. Gain, EQ, and limiter are automatically set to the correct levels.



The meters display the level (green) and the gain reduction (yellow).

Names for inputs and outputs can be entered directly

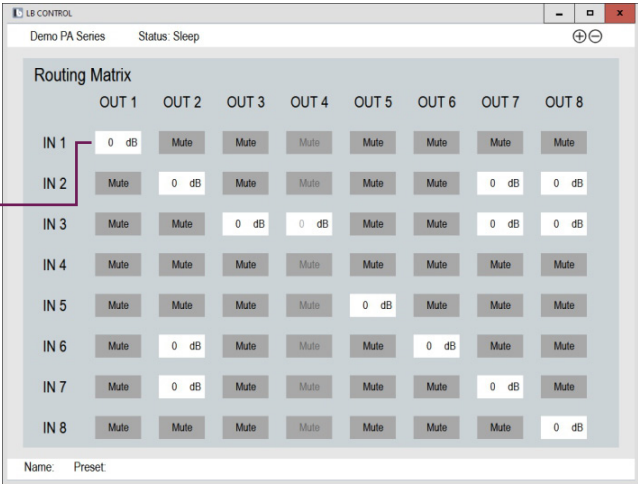
Bridge links the two channels. The second channel is inverted. Settings can only be adjusted on the first channel.

Routing Matrix

Connections between inputs and outputs can be created by right-clicking to set them to 0 dB or mute. By left-clicking in the input fields, you can adjust individual gain levels.



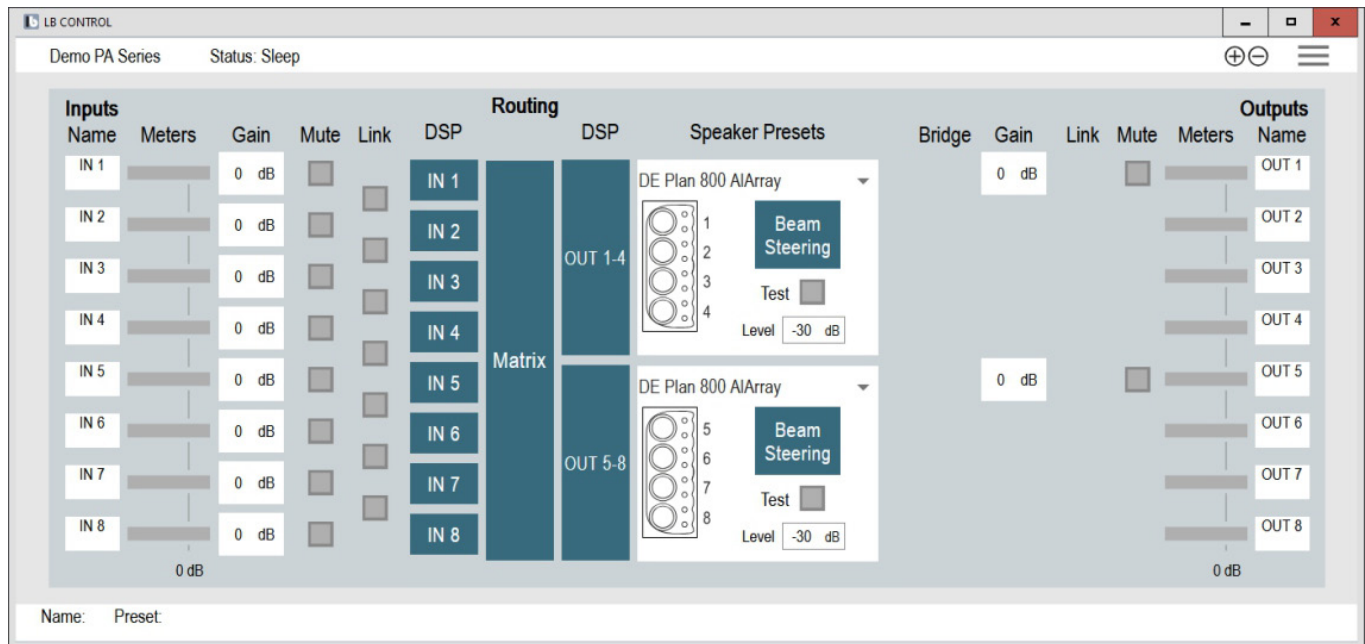
Right-clicking toggles between 0 dB and Mute in all gain input fields



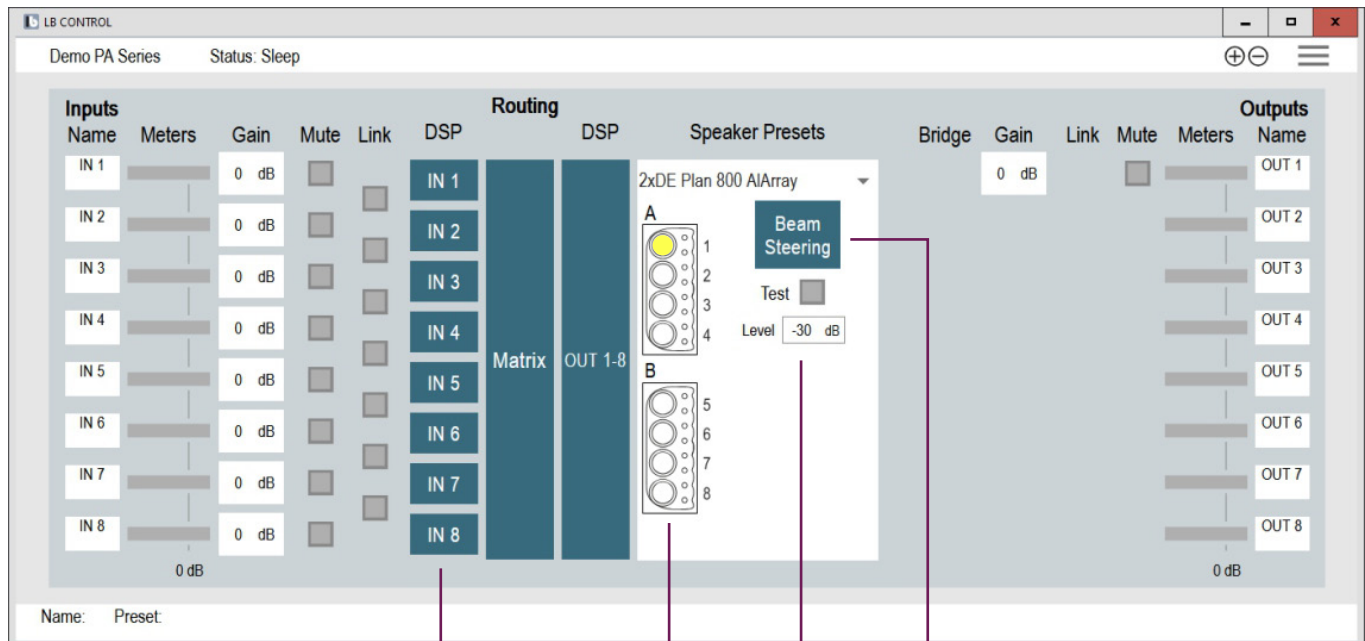
5.4 DEVICE Window / PA-Series with Beam Steering for DE Plan 800 AIArray

To operate our invisible line arrays, you can select the appropriate speaker presets for individual or coupled DE Plan 800 AIArrays in the 4- to 8-channel amplifiers of the PA Series. Beam steering can be simulated and adjusted for these. Each DE Plan 800 AIArray requires four amplifier channels.

8-channel amplifier with two separate DE Plan AIArray speakers (stereo setup)



8-channel amplifier with two coupled DE Plan AIArray speakers



Opens the channel windows. In the DSP, you can open the individual input windows to adjust additional parameters.

The test procedure is indicated by the yellow marker for each group

Left-clicking on "Beam Steering" opens the Beam Steering window.

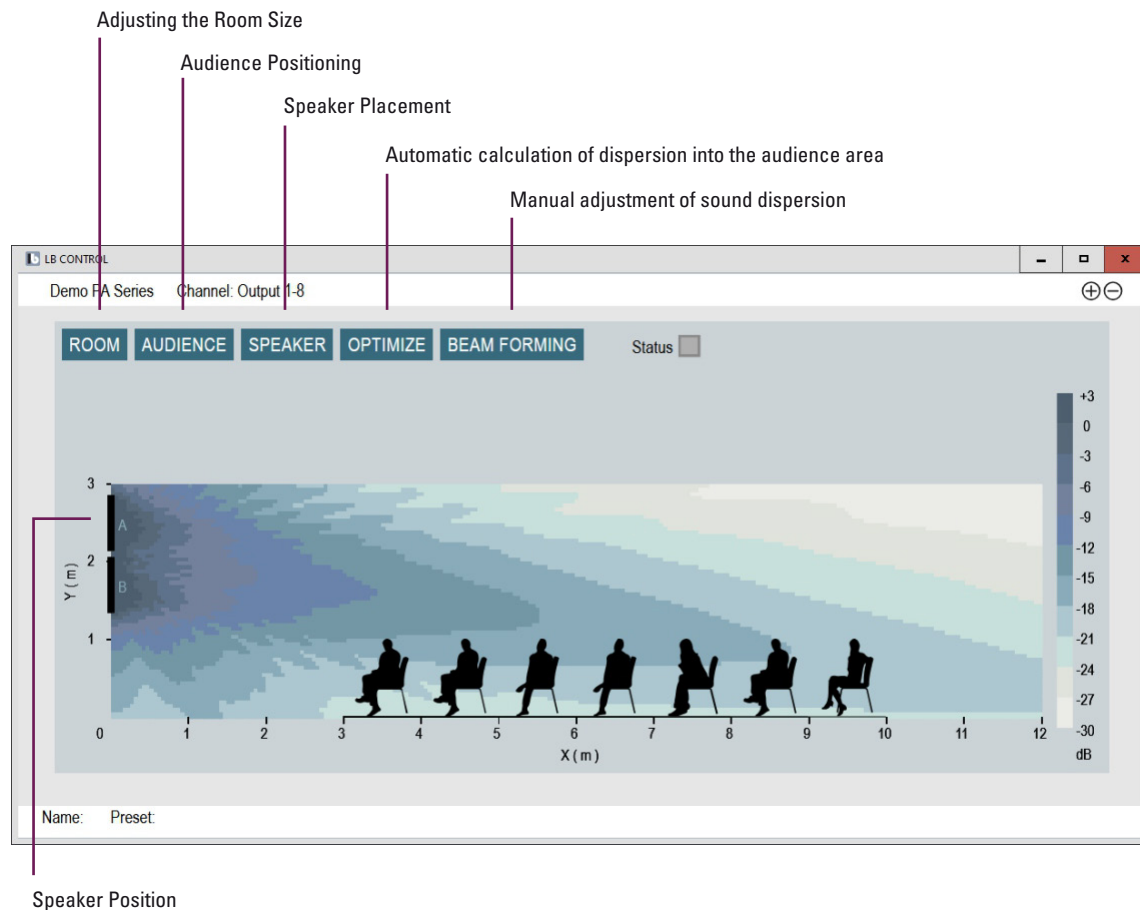
Test to verify that the line arrays are functioning properly: The test signal (pink noise) is played sequentially through the speaker groups from top to bottom. This allows you to verify that the groups are in the correct order.

5.4 DEVICE Window / PA-Series with Beam Steering for DE Plan 800 AIArray

To operate our invisible line arrays, you can select the appropriate speaker presets for individual or paired DE Plan 800 AIArrays in the 4- to 8-channel amplifiers of the PA Series. Beam steering can be simulated and adjusted for these.

Each DE Plan 800 AIArray requires four amplifier channels.

Beam steering window for two paired DE Plan 800 AIArrays mounted in the wall. The calculation shows the vertical sound propagation (direct sound) in the range from 500 Hz to 5 kHz.



Entering the room depth and height

ROOM	AUDIENCE	SPEAKER	OPTIMIZE	BEAM FORMING
Length	12 m	Height	3 m	

Enter the location of the audience area. You can create up to three areas.

ROOM	AUDIENCE	SPEAKER	OPTIMIZE	BEAM FORMING				
Level 1	X Start	3 m	Y Start	0 m	X End	10 m	Y End	0 m
Level 2	X Start	0 m	Y Start	0 m	X End	0 m	Y End	0 m
+								

Adds a public area

Deletes a public area

Entering Speaker Positions

ROOM	AUDIENCE	SPEAKER	OPTIMIZE	BEAM FORMING	Status
Wall	Ceiling	Position (Center A) X=0 (Wall) Y=	2.5 m	Speaker Height 0.72 m	Speaker A/B Distance 0.8 m

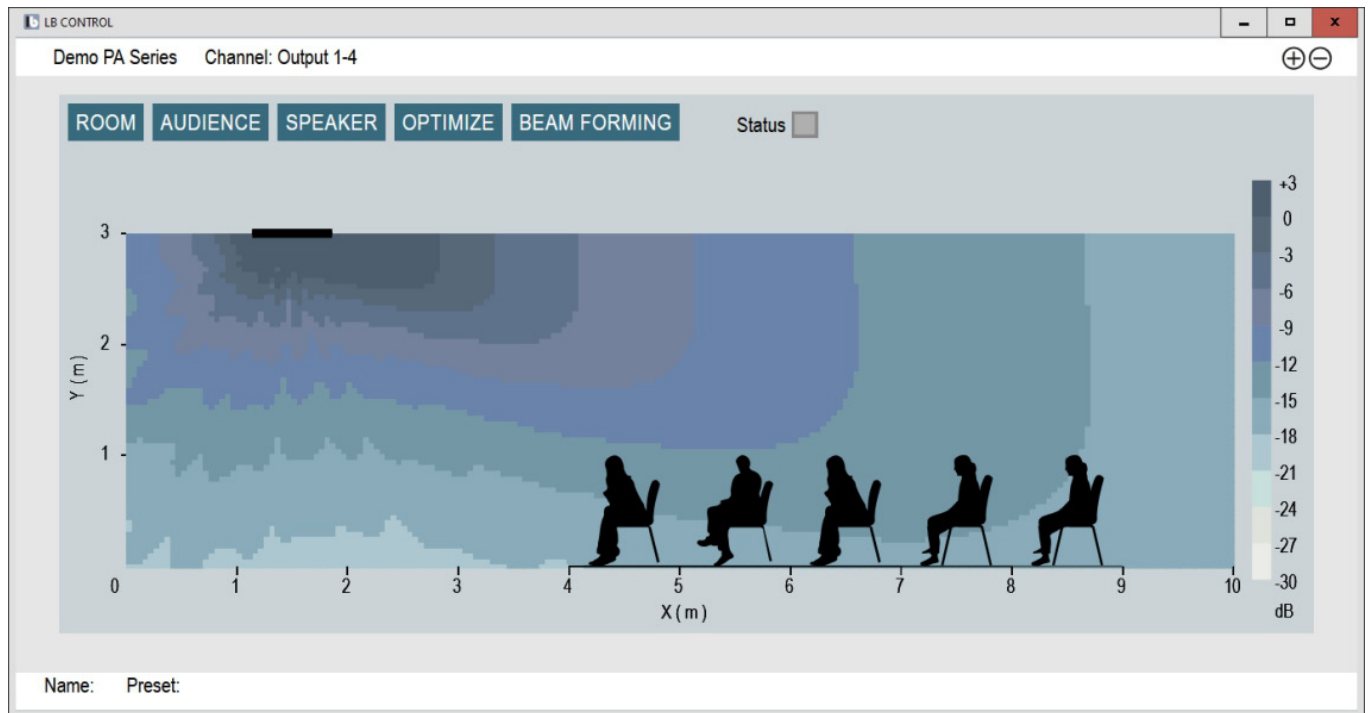
The speakers can be installed in the wall or ceiling

Enter the position of the top or left speaker (center)

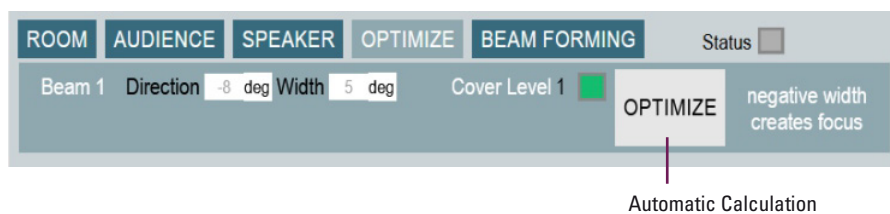
Enter the distance from the center of one speaker to the center of the other

5.4 DEVICE Window / PA-Series with Beam Steering for DE Plan 800 AIArray

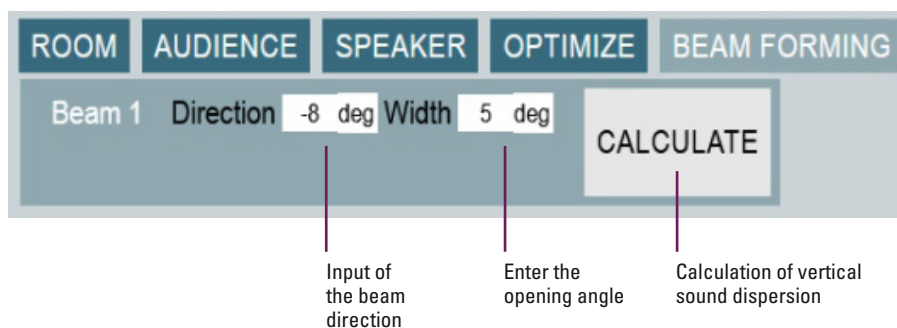
Beam steering window with a DE Plan 800 AIArray mounted in the ceiling.



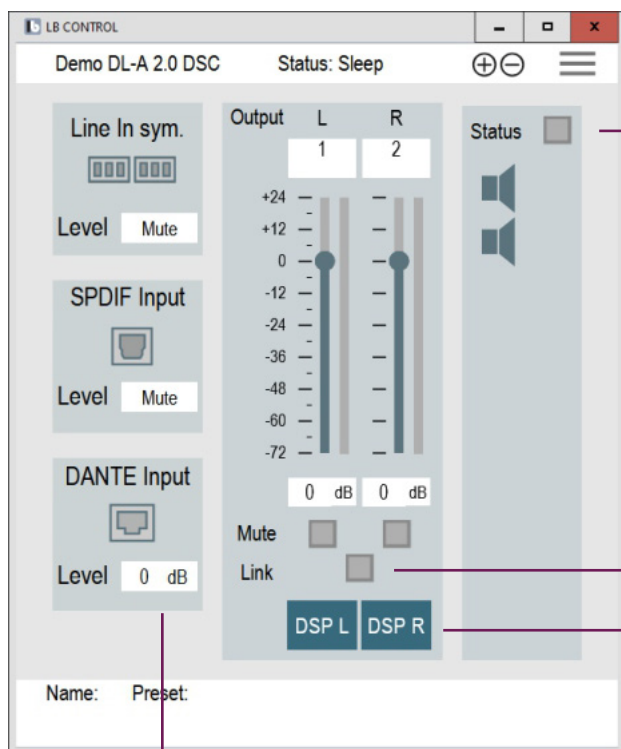
Automatic calculation of directional sound radiation toward the audience area (optimized to minimize volume differences within the audience area)



Manual entry of sound dispersion, including beam direction and beam angle



5.5 DEVICE Window / DL-A and SB-A Display Speakers and Soundbars



Displays the device status:

Red = Off
Yellow = Sleep
Green = Active

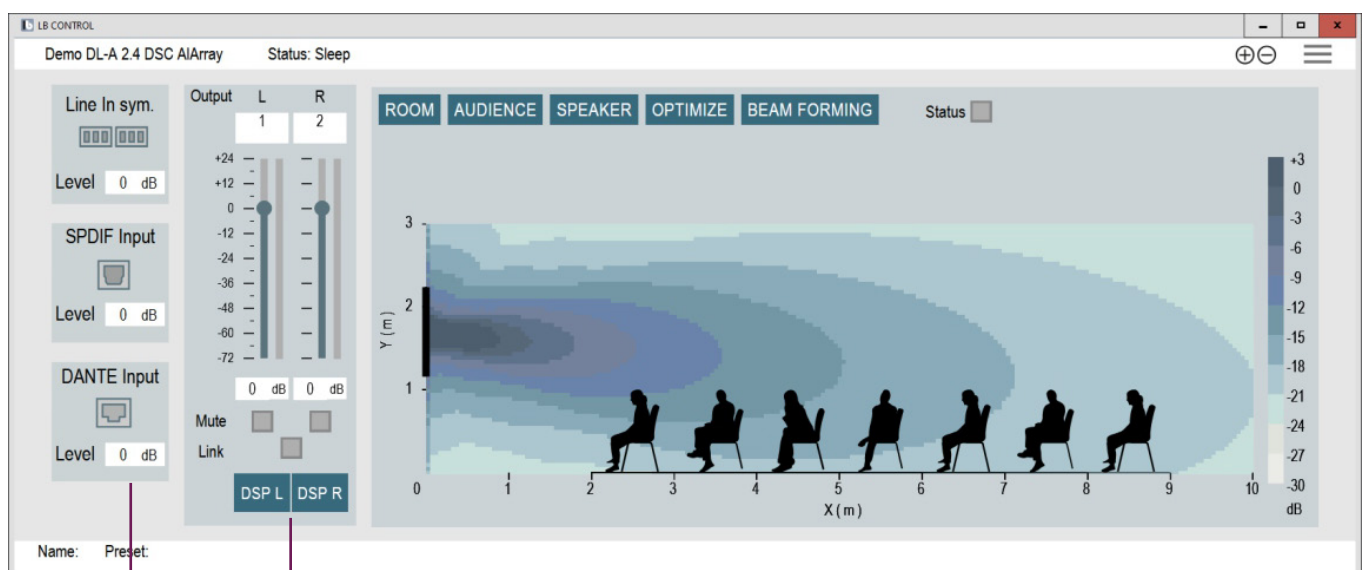
Link: The settings for the left channel are applied to the right channel. The right channel is displayed in white.

Opens the channel windows.
In the DSP, you can open the individual output channels to adjust additional parameters.

The inputs can be mixed. Right-clicking toggles between 0 dB and Mute. Left-clicking in the input fields allows you to set individual gain levels.

5.6 DEVICE Window / DL-A 2.4 and DLX-A 2.8 Display Speakers with Beam Steering

Beam Steering Window with DL-A 2.4 DSC AIArray

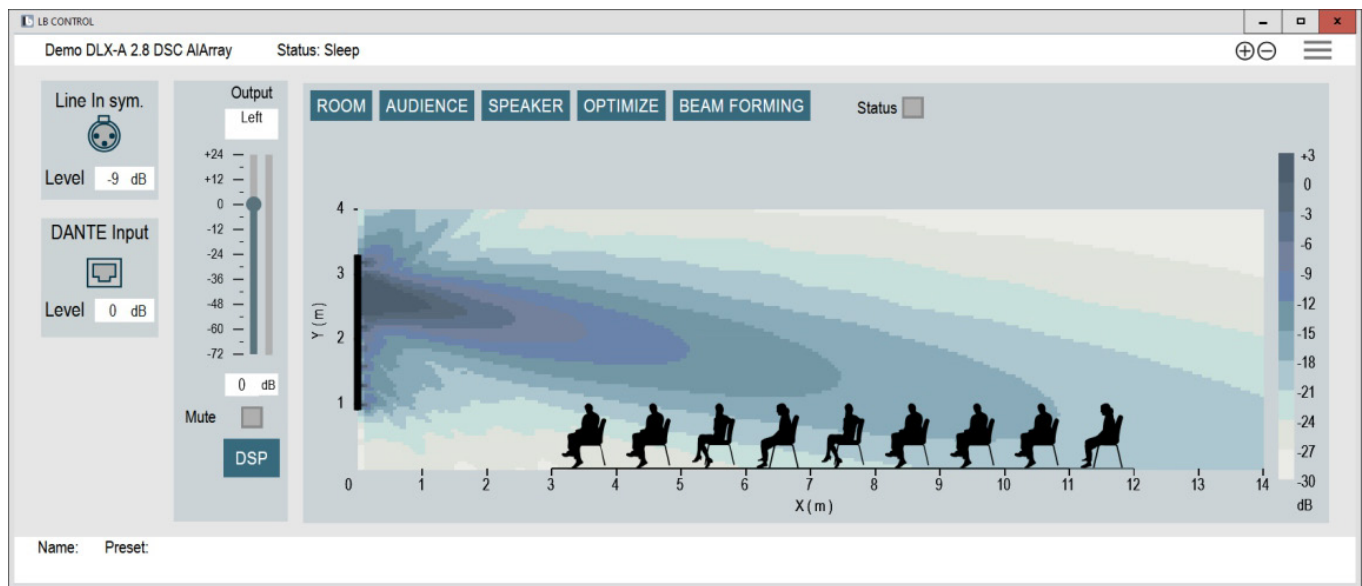


Open the channel windows to configure the individual output channels in the DSP.

The inputs can be mixed. Right-clicking toggles between 0 dB and Mute. Left-clicking in the input fields allows you to set individual gain levels.

5.6 DEVICE Window / DL-A 2.4 and DLX-A 2.8 Display Speakers with Beam Steering

Beam Steering Window with DLX-A 2.8 AIArray



Entering the room depth and height

ROOM AUDIENCE SPEAKER OPTIMIZE BEAM FORMING

Length 14 m Height 4 m

Enter the location of the audience area. You can create up to three areas.

ROOM AUDIENCE SPEAKER OPTIMIZE BEAM FORMING

Level 1 X Start 3 m Y Start 0 m X End 12 m Y End 0 m

+ ————— Adds a new level to the audience

Entering Speaker Positions

ROOM AUDIENCE SPEAKER OPTIMIZE BEAM FORMING

Position (Center) X 0 m Y 2.1 m Speaker Height 2.4 m

Enter the speaker's position (center)

The speakers can be installed in the wall or ceiling.

Enter the speaker's height for accurate display, even for non-standard lengths

Automatic calculation of directional sound dispersion toward the audience area (optimized to minimize volume differences within the audience area)

ROOM AUDIENCE SPEAKER OPTIMIZE BEAM FORMING Status

Beam 1 Direction -8 deg Width 5 deg Cover Level 1 OPTIMIZE negative width creates focus

Automatic Calculation

Manual entry of sound dispersion, including beam direction and beam angle

ROOM AUDIENCE SPEAKER OPTIMIZE BEAM FORMING

Beam 1 Direction -9 deg Width 20 deg CALCULATE

Input of the beam direction

Entering the opening angle

Calculation of vertical sound dispersion

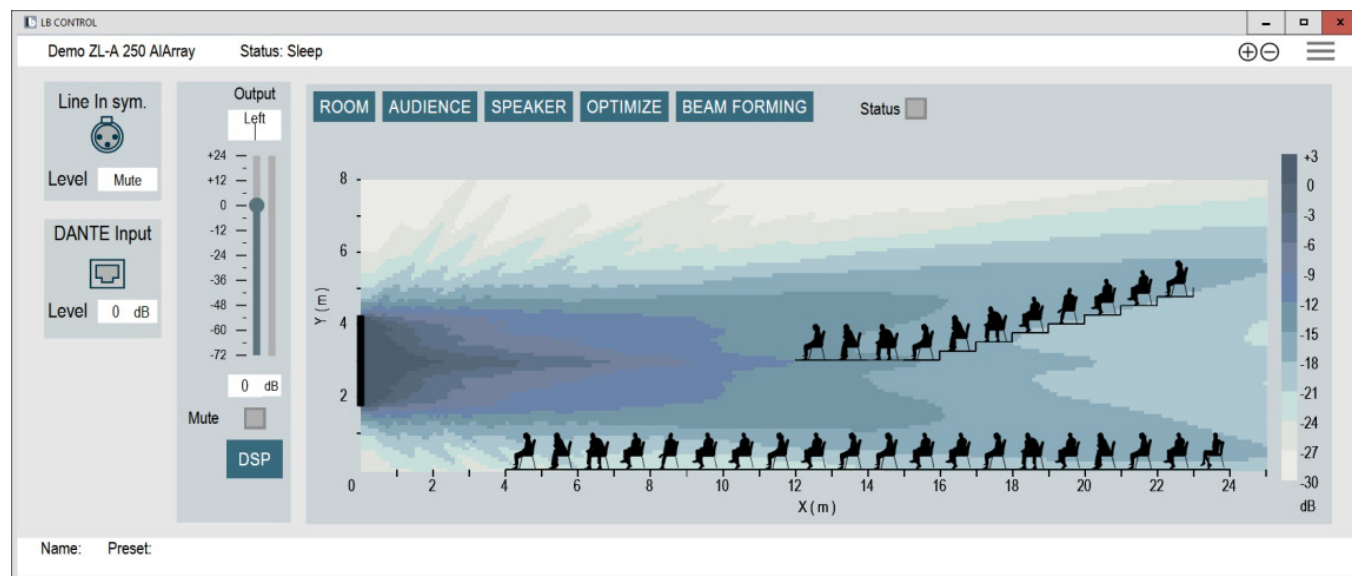
Adjustment ranges for beam direction and beam angle

DL-A 2.4 AIArray
Beam direction +/- 30°, beam angle 20°... 60°

DLX-A 2.8 AIArray
Beam direction +/- 30°, beam angle 10°... 50°

5.7 DEVICE Window / ZL-A Series Line Arrays with Beam Steering

Beam steering window with a ZL-A 250 AIArray



Entering the room depth and height

ROOM	AUDIENCE	SPEAKER	OPTIMIZE	BEAM FORMING
Length	25 m	Height	8 m	

Enter the location of the audience area. You can create up to three areas.

ROOM	AUDIENCE	SPEAKER	OPTIMIZE	BEAM FORMING
Level 1	X Start 4 m Y Start 0 m X End 24 m Y End 0 m			
Level 2	X Start 15 m Y Start 3 m X End 23 m Y End 5 m			
Level 3	X Start 12 m Y Start 3 m X End 15 m Y End 3 m			

Adds a new level to the audience

Deletes an audience level

Entering Speaker Positions

ROOM	AUDIENCE	SPEAKER	OPTIMIZE	BEAM FORMING
Position (Center) X	0 m	Y	3 m	Speaker Height 25 m

Enter the speaker's position (center)

The speakers can be installed in the wall or ceiling.

Enter the speaker's height for accurate display, even for non-standard lengths

Automatic calculation of directional sound dispersion toward the audience area (optimized to minimize volume differences within the audience area)

ROOM	AUDIENCE	SPEAKER	OPTIMIZE	BEAM FORMING
Beam 1	Direction -5.8 deg Width 2.1 deg	Cover Level 1 2 3		
Beam 2	Direction 6.1 deg Width 2 deg Gain	Cover Level 1 2 3		

Specify which beam is intended to cover which area

Automatic Calculation

Manual entry of sound dispersion, including beam direction and beam angle

ROOM	AUDIENCE	SPEAKER	OPTIMIZE	BEAM FORMING
Beam 1	Direction -5.8 deg Width 2.1 deg			
Beam 2	Direction 6.1 deg Width 2 deg Gain 0 dB			

Entering the beam directions

Enter the opening angle

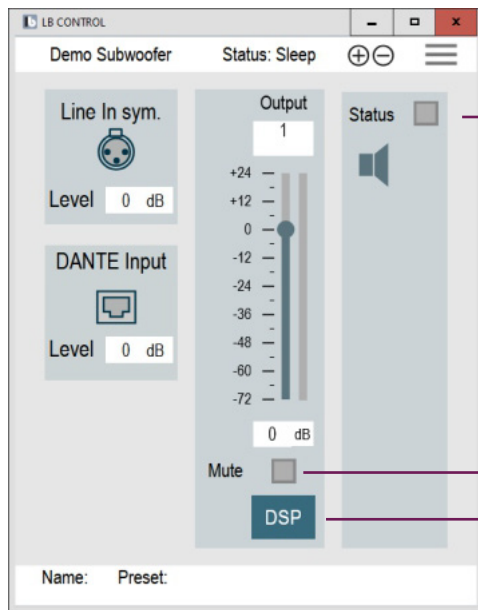
Level adjustment of the second beam relative to the first

Calculation of vertical sound dispersion

Adjustment ranges for beam direction and beam angle

ZL-A 100 AIArray through ZL-A 250 AIArray:
Beam direction +/- 45°, beam angle -20°... 60°

5.8 DEVICE Window / Active Speakers and Subwoofers



Displays the device status:

Red = Off
Yellow = Sleep
Green = Active

Link: The settings for the left channel are applied to the right channel.
The right channel is displayed in white.

Opens the channel windows. In the DSP, you can open the Output window to adjust additional parameters.



Right-clicking toggles between 0 dB and Mute in all gain input fields.

6. Channel Windows

In the channel windows, you can adjust the gain, filter, delays, and limiter for each channel.

Input window

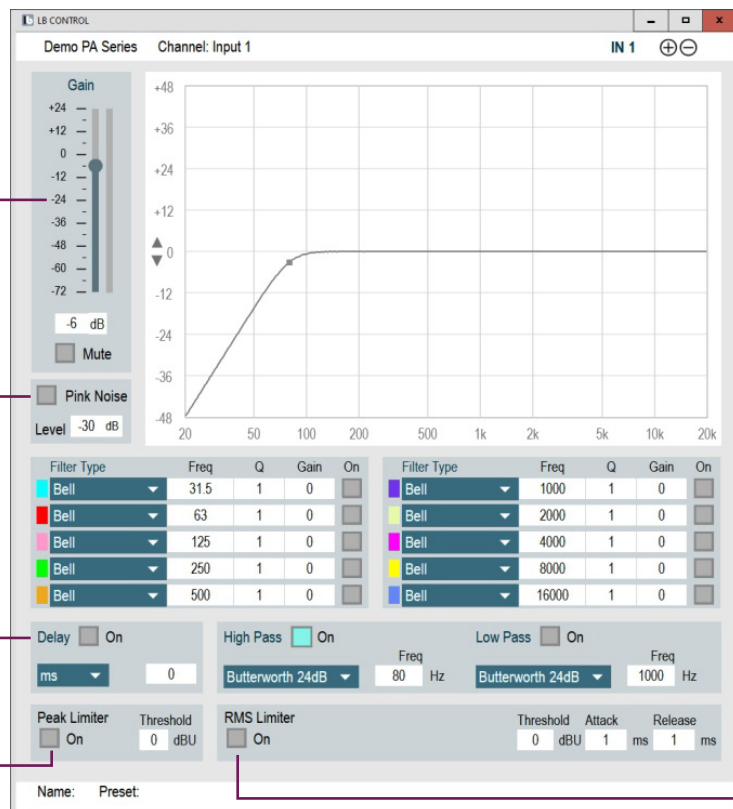
Amplifiers PA-S and PA Series

Input Gain + Level Meter

Test signal generator
with Pink Noise

Delay
Setting in ms, mm, or m. The maximum
delay depends on the device.

Peak Limiter
+4 dBu corresponds to full scale



RMS limiter with adjustable
attack and release times

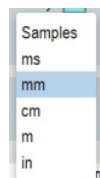
Output window

Amplifiers PA-S and PA Series

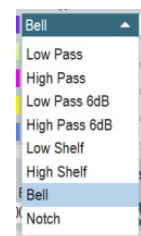
Input Gain + Level Meter

Invert: reverses the phase of the
channel by 180°

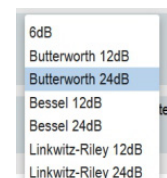
Delay
Depending on the device type



Parametric filters:
There are 10 filters
available for each channel



High-pass and low-pass
filters per channel



Peak Limiter
+4 dBu corresponds to full scale

RMS Limiter with adjustable
attack and release times

6. Channel Windows

In den Kanal-Fenstern werden Gain, Filter, Delays und Limiter für die einzelnen Kanäle eingestellt.

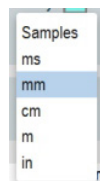
Input window

Amplifiers PA-S and PA Series with Speaker Presets

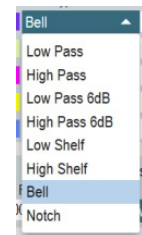
Input Gain + Level Meter

Invert: reverses the phase of the channel by 180°

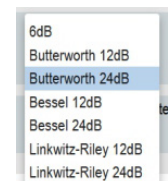
Delay
Depending on the device type



Parametric filters:
There are 10 filters
available for each channel



High-pass and low-pass
filters per channel



With Speaker presets, instead of Peak and RMS limiters,
a 4-band limiter is available that can limit the volume almost inaudibly. +4 dBU corresponds to full scale.

Output window

Display speakers, line arrays, active speakers and subwoofers

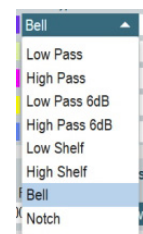
Input Gain + Level Meter

Test signal generator
with Pink Noise

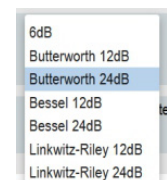
Delay
Setting in ms, mm, or m. The maximum
delay depends on the device.



Parametric filters:
There are 10 filters
available for each channel



High-pass and low-pass
filters per channel



Peak Limiter
+4 dBU corresponds to full scale

RMS Limiter with adjustable attack
and release times

7. LB CONTROL Network Commands

Network Commands Overview

All LB devices that can be controlled via LB CONTROL can also be controlled and monitored using network commands. To do this, an HTTP request consisting of the IP address and the command must be sent to the device. The device returns a JSON response containing the settings and parameters stored on the device. If this results in changes to parameters (e.g., muting a channel), it ensures that the desired settings were transmitted correctly.

The network commands are divided into two categories:

1. Reading parameters and status information
2. Modifying parameters and settings Some commands refer to an individual DSP channel. To address this channel, the channel index and channel type (I/O) are used.

Examples:

- Input 1: „.../1/i/...“
- Output 5: „.../5/o/...“

NOTE: Not all devices have all parameters, as there are hardware differences (e.g., SteadyON, temperature sensors)

Overview of all Commands

Command	URL
Status	<IP>/status
	<IP>/status/<CH>/<i/o>
Levels	<IP>/levels
	<IP>/levels/<CH>/<i/o>
Stored Presets	<IP>/storedpresets
Info	<IP>/info
Lockstatus	<IP>/lockstatus
Get Input	<IP>/getinput
Settings	<IP>/settings
Logging	<IP>/log
Refresh	<IP>/cmds/refresh
Mute	<IP>/cmds/mute/<CH>/<i/o>
Unmute	<IP>/cmds/unmute/<CH>/<i/o>
Gain	<IP>/cmds/gain/<CH>/<i/o>/<VALUE>
Routing	<IP>/cmds/mixer/<CH OUT>/o/<CH IN>/<VALUE>
Select Preset	<IP>/cmds/preset/<PRESETINDEX>
Lock Preset	<IP>/cmds/preset/<PRESETINDEX>/lock/<true/false>
Power	<IP>/cmds/power/<on/off/sleep>
Reboot	<IP>/cmds/reboot/<background/initialize>
Set Input	<IP>/cmds/setinput/<line/spdif/dante>/<VALUE>
Set Pinknoise	<IP>/cmds/setinput/pinknoise/<CH IN>/<VALUE>
AutoON Settings	<IP>/cmds/settings/aon/<mode/settings/runtime>/<PARAM>

1. Read Parameter and Status Information

Status

The status network command returns the current power status ("on", "sleep" or "standby"), the selected preset number, and the status of the DSP channels.

Command: ``<IP>/status``

Overview:

- Power Status: ["on", "sleep", "standby"]
- PresetIndex: Integer from 0 bis 39
- Channel Status:
 - o Channel index and type ("i" for input, "o" for output)
 - o Label: String
 - o Gain: Float in [dB]; -72.0 corresponds to Mute
 - o Mute: Boolean
 - o Routing (outputs only): Float in [dB]; -36.0 corresponds to Mute

The channel status can also be read on a per-channel basis by appending the channel index and type to the command. For example, to read the status of output channel OUT2, use ``<IP>/status/2/o``.

Example: `http://192.168.0.101/status`

Return:

```
{
  „power“: „on“,
  „preset“: 0,
  „channels“: [
    {
      „channel“: 1,
      „type“: „i“,
      „label“: „IN 1“,
      „gain“: 0.0,
      „muted“: false
    },
    ...
    {
      „channel“: 1,
      „type“: „o“,
      „label“: „OUT 1“,
      „gain“: -5.2,
      „muted“: true,
      „mixer“: [0.0, -36.0, -36.0, -36.0, -36.0, -36.0, -36.0, -36.0]
    },
    ...
  ]
}
```

Levels

The Level network command returns the audio level and the limiter attenuation at the time of the query.

Command: ``<IP>/levels``

Overview:

- Channel index and type ("i" for input, "o" for output)
- Level: Channel level, floating-point in [dB]- Limit: Limiter attenuation, floating-point in [dB] (less than zero)
- DAC (outputs only): Level directly at the DAC, which also reflects the mute status.

The level can also be read per channel if the channel index and type are appended to the command.

For example, to read the OUT2 output channel, use ``<IP>/levels/2/o``.

Example: `http://192.168.0.101/levels``

Return:

```
{
```

```

„channels”: [
{
  „channel”: 1,
  „type”: „i”,
  „level”: -8.5,
  „limit”: -3.1
},
...
{
  „channel”: 1,
  „type”: „o”,
  „level”: -12.3,
  „limit”: 0.0,
  „dac”: -12.3
},
...
]
}

```

Available Presets

Command: ``<IP>/storedpresets``

The “Storedpresets” network command returns all presets stored on the device, along with their index and name, as well as the currently selected preset and whether a parameter modification has not yet been saved to the preset. This flag is also marked with an * in the Device window and – if available – is also shown on the display.

Overview:

- Preset index of the selected preset: Integer
- Modified flag: Boolean
- Available presets with index and name

Example: ``http://192.168.0.101/storedpresets``

Return:

```

{
  „selected”: 1,
  „modified”: false,
  „available”: {
    „0”: „Factory Preset”,
    „1”: „Party”
  }
}

```

Info

The info network command provides various pieces of information about the device that can be used for debugging purposes. The available parameters may vary depending on the device type. Command: ``<IP>/info``

Overview:

- Device information such as MAC address, device name,
- firmware versions,
- information about the selected preset,
- hardware status

Example: ``http://192.168.0.101/info``

Return:

```

{
  „name”: „PA-S Testdevice”,
  „device”: „PA-S 250 DSC”,
  „PCB”: „PA-S v11”,
  „MAC”: „44-6F-D8-42-00-51”,
  „hostname”: „LB-PA-S250DSC-420051”,
  „version”: {

```

```

    „BL“: „1.2.31“,
    „MCU“: „3.0.6“,
    „DSP“: „3.0.4“
  },
  „preset“: {
    „num“: 1,
    „name“: „F4“,
    „modified“: true
  },
  „power status“: {
    „mode“: „on“,
    „auto_on“: {
      „time_since_signal“: 0,
      „max_runtime“: 600
    },
    „steady_on“: false,
    „signal“: {
      „DSP“: „signal“,
      „Dante“: „on“,
      „SPDIF“: „no signal“
    }
  },
  „gui_connected“: true,
  „supply“: {
    „status“: {
      „digital“: „on“,
      „analogue“: „on“,
      „power“: „Ok.“
    },
    „vcc“: 24.2
  },
  „temperature“: {
    „values“: [35.8],
    „status“: „Ok.“
  },
  „network“: {
    „dhcp“: „auto“
  },
  „runtime“: „18:57:12“,
  „last boot“: „2026-06-12 16:47“
}

```

Lockstatus

The “Lockstatus” network command can be used to determine which functions are still permitted on a locked device

Command: `<IP>/lockstatus`

Overview:

- Device: Boolean, indicates whether the device is locked or not
- Network Commands: Boolean, indicates whether network commands are working
- Presets: Boolean per preset, indicating whether the preset is locked. If “false,” the preset can be selected despite being locked.

Example: `http://192.168.0.101/lockstatus`

Return:

```

{
  „device“: true,
  „allow commands“: true,
  „presets“: {
    „0“: true,
    „1“: false,
    „2“: false,

```

```

    „3“: true,
    ...
}

```

Input Module Gains

This command reads the gain settings for the various inputs. Depending on the hardware, the gains for the line, Dante, and SPDIF inputs are displayed, as well as the test signal settings for the input channel.

Command: ``<IP>/getinput``

Example: ``http://192.168.0.101/getinput``

Return:

```

{
  „input modules“: [
    {
      „channel“: 1,
      „type“: „i“,
      „line“: {
        „level“: 0.0,
        „mute“: false
      },
      „DANTE“: {
        „level“: -20.0,
        „mute“: false
      },
      „SPDIF“: {
        „level“: 0.0,
        „mute“: false
      },
      „Pink Noise“: {
        „level“: -30.0,
        „mute“: true
      }
    },
    {
      „channel“: 2,
      „type“: „i“,
      „line“: {
        „level“: 0.0,
        „mute“: false
      },
      „DANTE“: {
        „level“: -20.0,
        „mute“: false
      },
      „SPDIF“: {
        „level“: 0.0,
        „mute“: false
      },
      „Pink Noise“: {
        „level“: -30.0,
        „mute“: true
      }
    }
  ]
}

```

Device Settings

The device settings are retrieved using the “Settings” network command. This command displays the settings for the network, Auto-On, and logging.

Command: ``<IP>/settings``

Overview:

- Network:

- o DHCP Status (Auto or Static IP)
- o Configuration: if a switch is integrated, "switched" or "separate"
- AutoON:
- o Delay time without a signal before the device enters SLEEP mode
- o Mode: fast or energy-saving
- o Auto or Steady ON via firmware and DIP switches
- o Custom thresholds for analog and digital signal sources in [dB], at which the device wakes up from SLEEP mode
- Logging:
- Enabled only in debug mode
- Level of logs to be displayed

Example: `http://192.168.0.101/settings`

Return:

```
{
  „network“: {
    „DHCP“: „on“,
    „config“: „separate“
  },
  „auto_on“: {
    „max_runtime“: „0:10:00“,
    „mode“: „fast“,
    „software“: „auto on“,
    „dip_switch“: „auto on“,
    „threshold (a/d)“: [-60.0, -90.0]
  },
  „loglevel“: „warning“,
  „debug“: „off“
}
```

Logging

When debug mode is enabled, the device's last 20 log entries can be read.

Command: ``<IP>/log``

Command: ``<IP>/errlog``

Command: ``<IP>/savedlog``

2. Modifying Parameters and Settings:

All network commands that modify the device's parameters begin with ``<IP>/cmds/``. After the command is executed, the device returns the status as stored on the device, allowing you to verify that the desired command was executed as expected. If multiple channels are linked, all channels are modified and the status of all channels is returned. After sending network commands to change parameters, these changes are applied to the device immediately. However, the GUI is not refreshed until a few seconds later to prevent malfunctions and overload caused by a large number of consecutive network commands. The GUI refresh can also be triggered manually as follows:

Refresh GUI

This command forces the GUI to refresh so that changes made via network commands are immediately visible.

Command: ``<IP>/cmds/refresh``

Example: `http://192.168.0.101/cmds/refresh`

Return:

```
{
  „status“: „ok“
}
```

Mute / Unmute

This command mutes or unmutes the corresponding DSP channel. If multiple channels are linked, all channels are modified, and the status of all channels is returned.

Command MUTE: ``<IP>/cmds/mute/<CHIDX>/<CHTYPE>``

Command UNMUTE: ``<IP>/cmds/unmute/<CHIDX>/<CHTYPE>``

Overview:

- "mute" to mute, "unmute" to unmute
- <CHIDX>: Channel index
- <CHTYPE>: 'i' for input, "o" for output channel

Example: `http://192.168.0.101/cmds/mute/1/o` (OUT 1 and OUT 2 linked)

Return:

```
{
  „channels“: [
    {
      „channel“: 1,
      „type“: „o“,
      „label“: „OUT 1“,
      „muted“: true
    },
    {
      „channel“: 2,
      „type“: „o“,
      „label“: „OUT 2“,
      „muted“: true
    }
  ]
}
```

Gain

The Gain command sets the gain for a DSP channel to the desired decibel value. If multiple channels are linked, all channels are modified, and the status of all channels is returned.

Command: ``<IP>/cmds/gain/<CHIDX>/<CHTYPE>/<GAINVALUE>``

Overview:

- <CHIDX>: Channel index
- <CHTYPE>: "i" for input channel, "o" for output channel
- <GAINVALUE>: Floating-point value in [dB]. For integers, the decimal place may be omitted. The values are internally limited to the valid range [-72; +24]

Example: `http://192.168.0.101/cmds/gain/3/i/-6.5`

Return:

```
{
  „channels“: [
    {
      „channel“: 3,
      „type“: „i“,
      „label“: „IN 3“,
      „gain“: -6.5
    }
  ]
}
```

Router

The Mixer command sets the routing of an input channel to an output channel to the desired decibel value. Linking output channels has no effect on the routing; only bridging two channels applies the routing to both channels. In all cases, the channel status of all linked channels is returned.

Command: ``<IP>/cmds/mixer/<CHIDX OUT>/o/<CHIDX IN>/<GAINVALUE>``

Overview:

- <CHIDX>: Channel index
- <CHTYPE>: "i" for input channel, "o" for output channel

- **<GAINVALUE>**: Floating-point value in [dB]. For integers, the decimal place may be omitted. The values are internally limited to [-36; 0]

Example: `http://192.168.0.101/cmds/mixer/3/o/2/-3` (Output 3 & 4 gelinkt)

Return:

```
{
  „channels“: [
    {
      „channel“: 3,
      „type“: „o“,
      „label“: „OUT 3“,
      „mixer“: [-36.0, -3.0, 0.0, -36.0, -36.0, -36.0, -36.0, -36.0]
    },
    {
      „channel“: 4,
      „type“: „o“,
      „label“: „OUT 4“,
      „mixer“: [-36.0, -36.0, -36.0, 0.0, -36.0, -36.0, -36.0, -36.0]
    }
  ]
}
```

Select Preset

This network command selects a preset stored on the device by its preset number. Any unsaved settings will be lost! After the preset is changed, the overview of the presets stored on the device is returned (see `[IP>/stored-presets`](#)).

Command: `[IP>/cmds/preset/<PRESETINDEX>](#)`

Overview:

- **<PRESETINDEX>**: Number of the preset to be loaded

Example: `http://192.168.0.101/cmds/preset/1`

Return:

```
{
  „selected“: 1,
  „modified“: false,
  „available“: {
    „0“: „Factory Preset“,
    „1“: „Party“
  }
}
```

Lock Presets

Individual presets can also be unlocked independently of the GUI. If the locking setting for a preset number is set to “false,” that preset can be selected via the GUI, the display (if available), or a network command, even when the device is locked. By default, all presets are locked (i.e., set to “true”) and cannot be selected when the device is locked. The factory preset (index 0) is always locked. The lock status overview is returned (see `[IP>/lockstatus`](#)).

Command: `[IP>/cmds/preset/<PRESETINDEX>/lock/<BOOLEAN>](#)`

Overview:

- **<PRESETINDEX>**: Number of the preset for which locking is to be set
- **<BOOLEAN>**: *true* or *false* to lock the preset

Example: `http://192.168.0.101/cmds/preset/3/lock/false`

Return:

```
{
  „device“: true,
  „allow commands“: true,
  „presets“: {
    „0“: true,
    „1“: false,
    „2“: false,
    „3“: false,
    ...
  }
}
```

Set Power

The Power network command sets the device to the selected power state, provided this is possible at the hardware level. Possible device states are “STANDBY”, “SLEEP”, and “ON”.

For example, if the “Steady ON” DIP switch is enabled, the “SLEEP” state is not possible and the device automatically switches to “ON.” In STANDBY (“off”) mode, most of the hardware is powered down so that the device consumes as little energy as possible. This includes, for example, the Dante module, the analog audio path, and amplifier channels. The device remains accessible via the network and can only be turned back on using the GUI in the Overview window or via a network command.

Command: ``<IP>/cmds/power/<POWERSTATUS>``

Overview:

- `<POWERSTATUS>`: „on“, „sleep“, „off“
- o ON: The device is fully powered on, as if an audio signal were detected
- o SLEEP: The device is put into sleep mode when no audio signal is present
- o STANDBY: Shuts down hardware modules to reduce power consumption
- Power: Returns the current power status (similar to the Status or Info network command)
- SteadyOn (if available): Returns the state of the DIP switch

Example 1: ``http://192.168.0.101/cmds/power/off``

Return:

```
{
  „power“: „standby“,
  „steady on“: true
}
```

Example 2: ``http://192.168.0.101/cmds/power/sleep``

Return:

```
{
  „power“: „on“,
  „steady on“: true
}
```

Reboot

The device can be restarted using a network command. A “background” reboot updates the firmware without interrupting audio playback; otherwise, a reboot occurs that reinitializes the device, similar to a power cycle.

Command: ``<IP>/cmds/reboot/<REBOOTMODE>``

Overview:

- `<REBOOTMODE>`: „background“ or „initialize“

Example: ``http://192.168.0.101/cmds/reboot/initialize``

Return:

```
{
  „status“: „ok“
}
```

Set input

For active systems with multiple input modules (e.g., Dante or SPDIF), the gains of the modules can also be adjusted via a network command. As with the GUI, the level changes equally for all input channels.

The level of the test signal for the input channels can also be adjusted per channel via a network command. However, this feature can only be enabled via the GUI.

Depending on the hardware, the gains of the line, Dante, and SPDIF inputs are returned, as well as the test signal settings for the input channel (see also `

Command: `

Command: `

Overview:

- `<INTYPE>`: „line“, „spdif“, „dante“
- `<GAINVALUE>`: Float value of the gain in [dB]. For whole numbers, the decimal place can be omitted. The values are internally limited to the valid range [-72; +24].

Example 1: `

Return:

```
{
  „input modules“: [
    {
      „channel“: 1,
      „type“: „i“,
      „line“: {
        „level“: 0.0,
        „mute“: false
      },
      „DANTE“: {
        „level“: -5.0,
        „mute“: false
      },
      „SPDIF“: {
        „level“: 0.0,
        „mute“: false
      },
      „Pink Noise“: {
        „level“: -30.0,
        „mute“: true
      }
    },
    {
      „channel“: 2,
      „type“: „i“,
      „line“: {
        „level“: 0.0,
        „mute“: false
      },
      „DANTE“: {
        „level“: -5.0,
        „mute“: false
      },
      „SPDIF“: {
        „level“: 0.0,
        „mute“: false
      },
      „Pink Noise“: {
        „level“: -30.0,
        „mute“: true
      }
    }
  ]
}
```

Example 2: `

Return:

```
{
  „input modules“: [
    {
      „channel“: 1,
```

```

    „type“: „i“,
    „line“: {
      „level“: 0.0,
      „mute“: false
    },
    „DANTE“: {
      „level“: -5.0,
      „mute“: false
    },
    „SPDIF“: {
      „level“: 0.0,
      „mute“: false
    },
    „Pink Noise“: {
      „level“: -40.0,
      „mute“: true
    }
  },
  {
    „channel“: 2,
    „type“: „i“,
    „line“: {
      „level“: 0.0,
      „mute“: false
    },
    „DANTE“: {
      „level“: -5.0,
      „mute“: false
    },
    „SPDIF“: {
      „level“: 0.0,
      „mute“: false
    },
    „Pink Noise“: {
      „level“: -30.0,
      „mute“: true
    }
  }
]
}

```

Changing Device Settings

All changes to the settings are reflected in the device settings at ``<IP>/settings` . The Auto-ON and logging settings are saved on a preset-by-preset basis. This means that different presets can have different settings.`

Auto ON

Command ``<IP>/cmds/settings/aon/<AON SETTING>/<AON PARAMETER>``

Overview:

- `<AON SETTING>`: „mode“
- o `<AON PARAMETER>`: „fast“, „efficient“
- `<AON SETTING>`: „setting“
- o `<AON PARAMETER>`: „auto“, „steady“
- `<AON SETTING>`: „runtime“
- `<AON PARAMETER>`: Time in seconds (integer) that the device remains powered on without a signal.

Example: ``http://192.168.0.101/cmds/settings/runtime/1200``

Return:

```

{
  „network“: {
    „DHCP“: „on“,
    „config“: „separate“
  }
}

```

```

},
„auto_on“: {
  „max_runtime“: „0:20:00“,
  „mode“: „fast“,
  „software“: „auto on“,
  „dip_switch“: „auto on“,
  „threshold (a/d)“: [-60.0, -90.0]
},
„loglevel“: „warning“,
„debug“: „off“
}

```

Logging

Example: `

Overview:

- <LOGLEVEL>: „error“, „warning“, „info“, „debug“

Network

Network settings should be changed via the Overview window in the GUI.

CAUTION: If a device with an internal switch is set to “Switched,” you must ensure that neither of the two network ports is connected to the same network! This can cause a network loop, which may overload the network or even cause it to crash.

Command: `

Command: `

LB CONTROL App
www.lb-lautsprecher.de/en/download-software



**LB Lautsprecher
und Beschallungstechnik GmbH**

info@lb-lautsprecher.de
www.lb-lautsprecher.de
www.feiner-hoeren.de
[@LB_Audio_Components](https://www.instagram.com/LB_Audio_Components)



Phone +49 89 1893109-0 · Fax -29
Kapellenstr. 10
85622 Feldkirchen / near Munich

2026. Errors and omissions excepted.
© LB Lautsprecher und Beschallungstechnik GmbH