L-Acoustics 4-channel Amplified Controller

Control4 Driver Documentation

Driver version 3 (July 2024)

Get support at: avcontrol@l-acoustics.com

Introduction

Thank you for downloading the L-Acoustics 4-channel amplified controller driver for Control4. This driver has been created by L-Acoustics to allow Control4 dealers to integrate L-Acoustics systems in a Control4 home automation environment. It exposes the essential commands and parameters that apply to residential applications of L-Acoustics systems: power mode (On/Standby), mute, gain, input selection (AVB, AES/EBU, ANALOG), input-to-output routing and front panel backlight.

Release notes

- **Version 3** - July 2024
  - Add compatibility with L-Acoustics firmware 2.13
- **Version 2** - December 2022
  - Improvement: New device command SET_INPUT_SOURCE
  - Fixed: Volume always at 0dB when using Core X controllers
- **Version 1** - October 2021
  - Initial release

Important notes

Sound systems compatibility

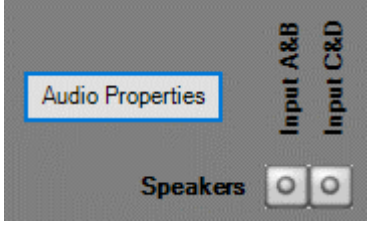
This driver is dedicated for controlling residential **STEREO** sound systems from L-Acoustics Creations.
This typically applies to the following Archipel sound systems: FIJI, HAWAII, TAHITI and SKY, but can also include bespoke systems matching these requirements.

This driver does not natively work with sound systems using more than one amplified controller, and does not offer mutiple zones control from one single driver instance.

However there is a possibility to link multiple drivers together in order to control a stereo sound system comprised of multiple amplified controllers. See the **Linking Multiple Drivers** section of the present document.

Input selection: output disconnected

There is always one input selected on the device, even when the matrix input selection buttons are grey (for example after turning the room off).
The current input is the last one selected. This can be verified with the driver property 'Channel 1 Routing'.



The last input is still selected

Depending on the connection scheme of the project, it may be necessary to programmatically mute the output when the room is turned off (for example when one of the inputs is connected to a DJ mixer not controlled by Control4).

Gain management

Information for the L-Acoustics engineer doing the system calibration

This driver overwrites the User Gain parameters of the connected amplified controller for adjusting the audio volume.
The L-Acoustics engineer doing the system calibration must not use the User Gain parameters for tuning the gain balance between loudspeakers. Instead he should use the group parameters of LA Network Manager.

Device compatibility

- This driver is compatible with the following products: LA2Xi LA4X LA12X
- Minimum firmware version: 2.8.3.2 (Drive System Release of September 2017)
- Maximum firmware version: 2.13.x.x

How to identify the device

SDDP is not available. The IP address of the device should be entered manually in the Identify window of Composer Pro.

By default, the amplified controllers for residential systems are set to automatic IP mode (DHCP client).
If static IP mode is required for the device, consult with the L-Acoustics engineer of the project or the system reseller.

Properties

Name	Description
	Read-Write
Log Level	Defines the level of details in the logs generated by this driver
Log Mode	Enables log writing to Composer Pro Lua console output

Name	Description
	('Print') and/or controller log file ('Log')
Maximum Channel Gain	Defines the maximum system gain (in dB) when the room volume is at 100% Minimum: -50 dB / Maximum: 0 dB
	Read-Only
Connected To Network	The TCP socket between the Control4 processor and the amplified controller is established.
Device Type	Model of the connected amplified controller (e.g. LA2Xi)
Firmware Version	Current firmware version of the connected amplified controller (e.g. 2.11.5.6)
Power Mode	Current power mode of the connected amplified controller • ON: the amplified controller is ready to operate • STANDBY: the amplified controller is in standby
Current Preset Name	Number and name of the preset currently loaded on the connected amplified controller
Input Source*	Current input source of the connected amplified controller • AVB: the audio signal comes from Ethernet • XLR: the audio signal comes from the XLR or Phoenix TB on the rear panel
Input Mode A&B*	Current Input Mode of the A&B input section of the connected amplified controller • DIGITAL: A&B input section is set on AES/EBU mode (XLR or Phoenix TB labeled 'AES/EBU IN A&B') • ANALOG: A&B input section is set on ANALOG mode (XLR or Phoenix TB labeled 'ANALOG IN A' and 'ANALOG IN B')
Input Mode C&D*	Current Input Mode of the C&D input section of the connected amplified controller • DIGITAL: C&D input section is set on AES/EBU mode (XLR or Phoenix TB labeled 'AES/EBU IN C&D') • ANALOG: C&D input section is set on ANALOG mode (XLR or Phoenix TB labeled 'ANALOG IN C' and 'ANALOG IN D')
Channel [N] Routing	Current matrix routing for the channel [N] of the amplified controller (A, B, C, D or a combination of these inputs).

* Refer to the Owner's Manual of the connected L-Acoustics product for instructions on how to connect the device to AVB, AES/EBU or ANALOG audio sources.

Actions

Name	Description
Set Input Source to AVB / XLR	Change the Input Source of the connected amplified controller • AVB: the audio signal comes from Ethernet • XLR: the audio signal comes from the XLR or Phoenix TB on the rear panel
Set A&B Input Mode to DIGITAL / ANALOG	Change the A&B Input Mode of the connected amplified controller • DIGITAL: A&B input section is set on AES/EBU mode (XLR or Phoenix TB labeled 'AES/EBU IN A&B') • ANALOG: A&B input section is set on ANALOG mode (XLR or Phoenix TB labeled 'ANALOG IN A' and 'ANALOG IN B')
Set C&D Input Mode to DIGITAL / ANALOG	Change the C&D Input Mode of the connected amplified controller • DIGITAL: C&D input section is set on AES/EBU mode (XLR or Phoenix TB labeled 'AES/EBU IN C&D') • ANALOG: C&D input section is set on ANALOG mode (XLR or Phoenix TB labeled 'ANALOG IN C' and 'ANALOG IN D')

Device Specific Commands

Name	Description
SET_POWER_MODE	Set the power mode of the connected amplified controller, for saving energy and reducing noise when not in use. • ON: the amplified controller is active and audio is enabled • STANDBY: the amplified controller is sleeping and audio is disabled
SET_FRONT_PANEL_BRIGHTNESS	Change the brightness of the front panel LCD display and LEDs. • OFF: the front panel LCD display and LEDs are turned off (on LA4X and LA12X, the POWER and L-NET LEDs do not fully turn off) • LOW • MEDIUM • NORMAL (default) • HIGH
SET_INPUT_SOURCE	Set the Input Source of the amplifier, to select between XLR sources (Analogue, AES/EBU) and AVB streams.

Name	Description
	• XLR: select Analogue or AES/EBU input source • AVB: select AVB input source

Linking Multiple Drivers

Sometimes a stereo system is driven by more than one amplified controller (like Archipel sound systems TONGA and IBIZA). In this situation we want to synchronously control all amplifiers driving the sound system.
The paradigm of Control4 does not natively offer the combined control of multiple network devices as a single audio endpoint.
However, advanced programming allows to acheive such control thanks to variable events. See the following steps:

- Add one L-Acoustics 4-channel Amplified Controller driver to the project for each amplified controller.
- Choose one driver that will act as master for the other drivers (typically the smallest IP address), and name the drivers accordingly.
- In the **Programming** tab, select the master driver's first variable event (AUDIO_OUTPUT_01_INPUT).
- In the **Script** section of the 'When AUDIO_OUTPUT_01_INPUT changes' event, add 'Set to Value of' commands to copy the value of the variable from the master driver to each slave driver.
- Repeat the process for each variable of the master driver (OUTPUT_01_MUTE and OUTPUT_01_VOLUME_LEVEL).

Once the programming is done, all slave drivers should mimic the mute, volume and routing behavior of the master driver.
Use the master driver for your connections.
Should device specific commands (SET_POWER_MODE and SET_FRONT_PANEL_BRIGHTNESS) be implemented using the programming tab, don't forget to apply commands to all drivers at once.