AUROR●RA

AUORA MOBILE
APP MANUAL

Mobile Version 1.7.1

Aurora Software Version 1.9.0

TABLE OF CONTENTS

INTRODUCTION

Aurora is a standalone, plug-and-play sound reactive lighting controller. Aurora analyzes audio in real-time to generate dynamic lighting designs.

Innovate in your industry. Public spaces are seeking new ways to connect people in an increasingly digital world. Choose sophisticated interactive lighting that engages audiences and positions you as an innovator.

Connect people. Spark deeper connections with a "heads-up" social platform. Encourage audiences to create lasting memories with their voices, motions, and social media interactions. Increase visitor turnout and keep audiences coming back for more.

Avoid unnecessary costs and steep learning curves. Nobody should have to hire programming experts to create memorable experiences. Aurora creates interactive lighting out-of-the-box. Easily customize lighting effects using the Aurora Mobile App. Reconfigure the platform to reinvent displays year after year.

The Aurora Mobile App Manual is designed for non-technical users installing interactive lighting for the first time, as well as experienced technicians integrating Aurora Pro with protocols like DMX, KiNET or Art-Net.

GUIDE OVERVIEW

The Aurora App Manual describes:

- How to Install the Aurora Mobile App
- How to Connect to your Aurora's wifi network
- How to view your Aurora's Device Information
- How to configure Aurora's Device Settings
- How to use Live Control
- How to use Show Control
- Aurora Mobile App Specifications, best practices and troubleshooting

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Pro-Tip:

Reading the Aurora Mobile App Quick Start Guide is highly recommended before reading this manual

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Questions?

Additional support for the Aurora Mobile App is available at support.limbicmedia.ca or contact support@limbicmedia.ca

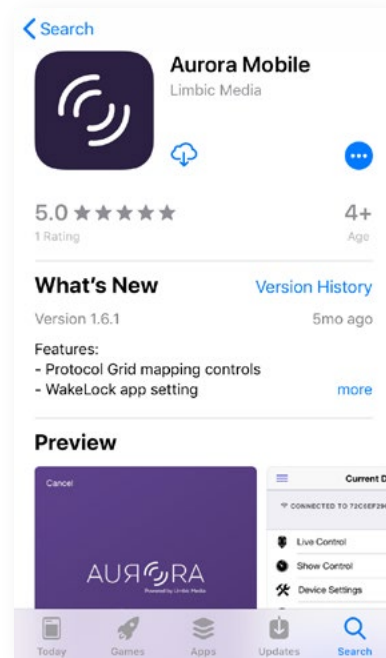View other documents at support.limbicmedia.ca/guidesmanuals

ABOUT THE AURORA APP

Features:

- Easy to use UI for consumer-level users
- Enables wireless control of Aurora Pro and Aurora SE
- Operates on iOS and Android

Installation:

1. Go to the app store
2. Search for "Aurora Limbic Media"
3. Download the app
4. Install the app
5. You're done!

CONNECTING TO AURORA

Connecting to Aurora's wifi network

Before you connect the Aurora Mobile App to your Aurora, your mobile device needs to be connected to your Aurora's wifi network.

Method

1. Know your Aurora's hostname. Your Aurora should be labeled with its hostname
2. Go into your phone's wifi settings
3. Find the wifi network that matches your Aurora's hostname
4. Connect to your Aurora's wifi network.
5. Enter the default password "myaurora" (SE only).
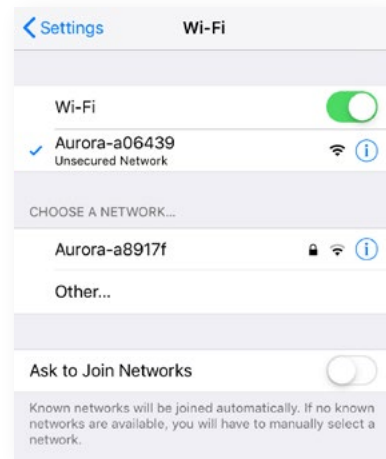
Note:

Android users may have to disable mobile data in order to connect to Aurora.


Pro-Tip:

Pro Tip: If you can't find Aurora's wifi network in the list of available connections on your phone, turn your phone's wifi off then back on. If this doesn't work, power cycle Aurora or your mobile device and try again.

Connecting the Aurora Mobile App to Aurora

To unlock the true power of Aurora, you need to connect the Aurora Mobile app to your Aurora.

Method

1. Open the app, the connect Menu should appear.
2. When the Discovered Aurora field turns purple and displays your Aurora's hostname, touch it to connect your app to Aurora. The Password Dialogue will appear.
3. Aurora's default password is "aurora". Enter this password, or your custom password.
4. You may want to touch the Remember Password toggle to make the connection process easier in the future.
5. Touch the Connect button.
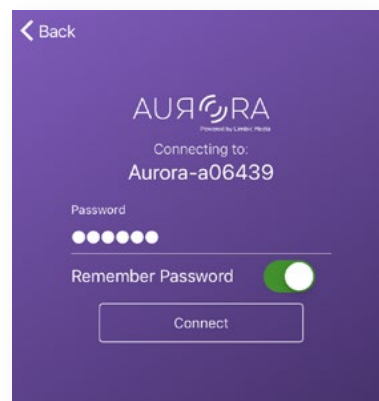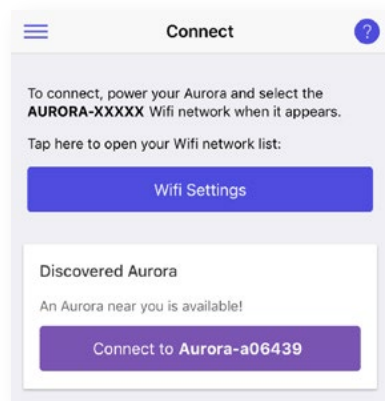
Viewing your Aurora's Device Information

Method

1. From the Current Device menu, touch Device Information. The Device Information menu will appear. Here you can see specific information about about your Aurora such as the software version and hostname.
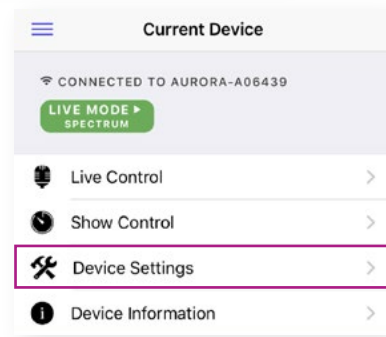
SECURITY SETTINGS

Changing your Password

Aurora's come from the factory with the password "aurora". If you would prefer to keep anyone who has a mobile device from being able to change the settings on your Aurora, you can change your password so only you have access to your Aurora.

Method
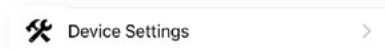
1. Crom the Current Device menu, Navigate to Device Settings then to Security.
2. Fill in your current password, your new password, and confirm your new password.
3. Touch apply

Remember Password Function

If you would prefer not to fill in your password every time you connect the Mobile App to your Aurora, you can enable the Remember Password option.

Method

1. Navigate from Current Device to Device settings then to Security.

2. Touch the Remember Password toggle to enable Remember Password.

3. Alternately, you can touch the remember password toggle while connecting to your device.

AUDIO SETTINGS

Selecting Audio Input Source

Aurora has various audio inputs. Select the correct audio input to achieve audio reactivity.

Method

1. From the Current Device menu, navigate to Device Settings, then to Audio Control.

2. Under Input Source, you will find a list of all the available audio inputs.

3. Touch the input source you plan to use for your installation.

Checking Audio Input Level and Adjusting Gain

Setting the audio gain correctly is paramount for a beautiful installation.

Method

1. From the Current Device menu, navigate to Device Settings, then to Audio Control.

2. Check the Audio Level and Post Gain Level displays. These will give you an indication of your input level and whether it needs to increase or decrease.

3. Select Auto-Gain on or off to suit your installation. Generally Auto Gain is appropriate for musical settings and Manual Gain is appropriate for public interaction, although, expert users may prefer manual gain even in musical settings.

4. If you have disabled Auto-Gain, move the Gain Boost slider up and down to set an appropriate gain level. Expose Aurora to a sound typical for your installation and move the gain slider up and down until you achieve a desirable reaction from Aurora.
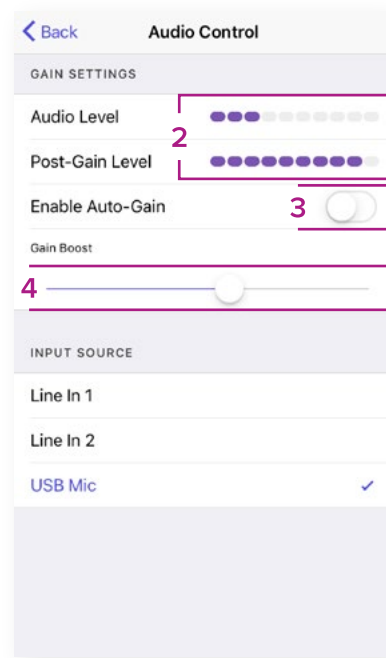
SETTING UP LIGHTING PROTOCOLS

Aurora can control RGB LEDs using three protocols: Native, DMX, and NDB. Each of these protocols can be configured in-app.

It's important that Aurora knows how many LEDs are connected to it, and what configuration they are connected in. This allows Aurora to display its light show correctly. If Aurora's protocols are not configured correctly, it may display dark or discoloured pixels, or it may display only a fraction of the light show it's generating in real time. Make sure that your protocols are configured correctly to get the most out of Aurora.

Grid Mapping

By default, Aurora assumes that all Led Pixels are arranged in a 2D grid where each LED pixel strand is extended in a straight line and all strings run parallel to each other. If your lights are not arranged this way, you can tell aurora how your lights are arranged using Grid Mapping. There are four options: Zig Zag, Wrap, Reverse Zig Zag, and Reverse Wrap.

- Zig Zag is used when the Led pixel strands are turned back on themselves such that each second row of lights runs in the opposite direction to the rows next to it. This is useful if you have few long LED pixel strands, for example, if you have four runs of 100 and want to make a 25 x 16 canopy.

- Wrap is used in situations where all the strands run in the same direction, for example, wrapping a tree trunk

Method

1. Enable grid mapping
2. Select the grid mapping type that matches your installation.
3. Enter a Segment Length. This is the number of lights that are in a single strand before the strand turns back on itself, or overlaps the last row of light. Then tap the "Apply" button.

Native Protocol (Aurora Pro Only)

The Native protocol controls lights that are connected directly to Aurora Pro.

Method

1. Navigate from the Current Device menu to Device Settings then to Protocols.
2. Touch the Native toggle to enable the Native Protocol.
3. Navigate into the Native protocol menu.
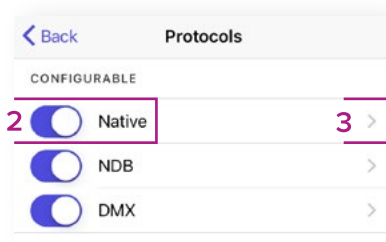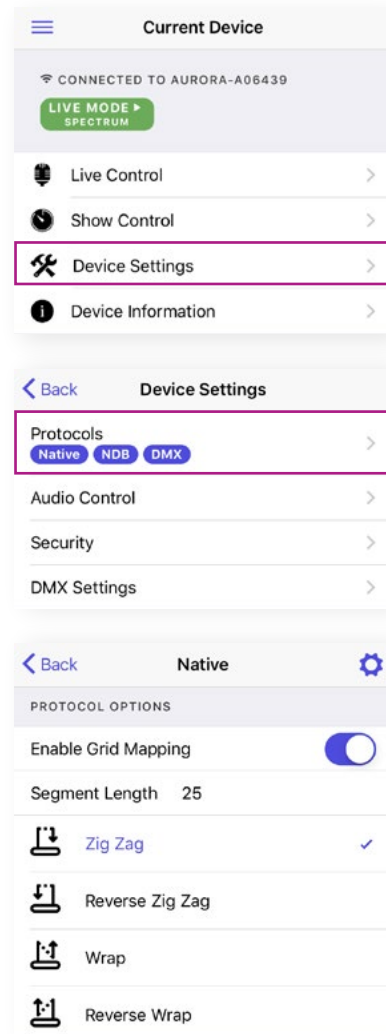
4. Touch a port row to access that port's configuration. Fill in a new number of pixels and press close. The lights connected to that port will update.

5. To set all of the Native ports to the same value all at once, touch the gear icon in the top right corner of the screen. Fill in the new number of lights and touch Apply. All of the ports will update to the new number of pixels.

DMX Protocol

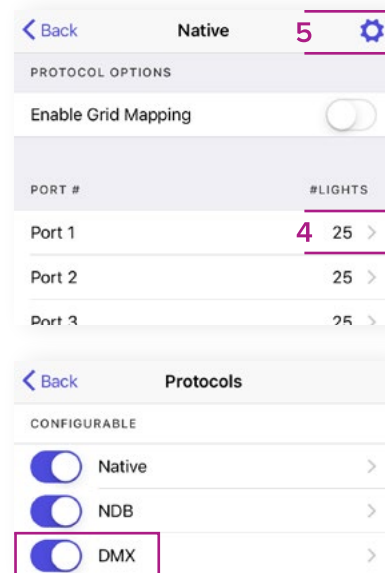DMX is a lighting control protocol that is ubiquitous in the stagecraft industry. Using this protocol allows Aurora to control powerful stage lights.

Create a new DMX Fixture Profile

If you are using a non-generic light fixture you may need to create a new lighting profile.

Method

1. Navigate into the Edit Profiles menu

2. Press the plus icon at the top right of the screen

3. Give your new profile a name.

4. Add a description and manufacturer if desired

5. Add enough attributes to match your fixture

6. Map Aurora's Red, Green and Blue pixel control to your fixtures addresses by touching the paintbrush and then a colour for each of your fixtures red, green, and blue channels.

7. Press the crosshair icon to add a name and set a static value for each of your fixtures' static address, then touch OK.

8. Touch Save to save your new fixture profile and navigate back to the DMX protocol menu
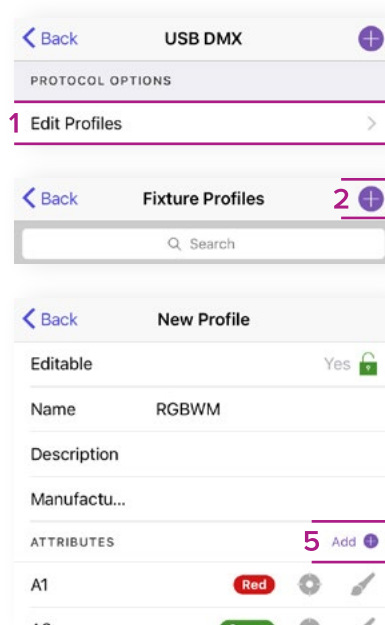
Create a New Fixture Group

Aurora organizes DMX fixtures into Fixture Groups. In these groups, you can add sets of fixtures and set their addresses so Aurora knows what how to control your fixtures.

Method

1. Touch the plus sign icon at the top right corner of the screen.

2. Give your new Fixture Group a name, and touch Save.

Adding Fixtures to Fixture Groups

Fixtures are the RGB pixels of DMX. Connect your fixture's Red, Green, and Blue control channels to Aurora's RGB control algorithm to achieve highly responsive and powerful lighting effects.

Method

1. Touch the name of a fixture group to enter its configuration.
2. Touch the Add icon to add new fixtures to your fixture group.
3. Enter the first address in your string of fixtures into the Address field.
4. Enter the number of fixtures into the Count field.
5. Leave the Universe field at 0. Currently Aurora can only control one universe of DMX fixtures.
6. Touch Back to navigate back to the Edit Group page, and your fixtures should light up.

NDB PROTOCOL

NDB stands for Network Distribution Box. Each NDB is matched with an independant power supply, and gets its control signal from Aurora using Ethernet cables. Using NDBs, you can use Aurora to control large numbers of lights, up to 25,000 pixels. For details on the connection process, refer to the Aurora SE or Aurora Pro manual.

Auto IP Config

Auto IP config is used in the connection process. When the Auto IP configuration toggle is switched on, Aurora will assign each NDB a unique IP address that is greater than 100.0.0.100. Aurora will also solve any IP conflicts. Refer to the Aurora Pro or Aurora SE user manual for more details on the connection process

Refresh NDB List

Touching the Refresh icon on the NDB List page will cause Aurora to re-establish a connection with each NDB on your network. It is necessary to refresh the list every time a new NDB is connected or disconnected from the network. If you have changed the configuration of an NDB using a method other than Aurora's app based user interface, touching refresh will also give Aurora an opportunity to read the NDBs configurati.

Identifying NDBs

Tapping on the lightbulb icon on the NDB List or the NDB Device page will cause that NDB to display a test pattern to let you know which lights are connected to each NDB
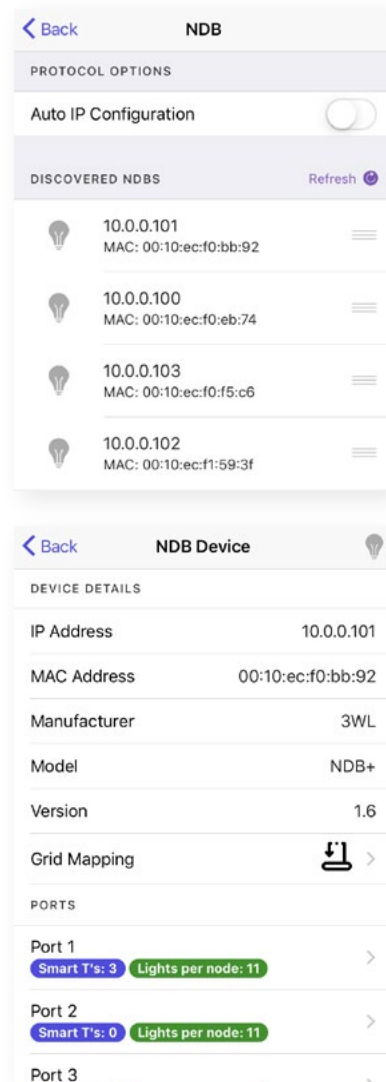
Configuring NDBs

Method

1. Identify the NDB you want to configure.
2. Touch this NDB in the list of Connected NDBs
3. Touch a port in the NDB Device page to edit it's configuration.
4. Enter the number of pixels per node. Here, a node refers to an NDB port or a smart T. If you aren't using smart Ts, you can set each port to any number under 230. If you are using Smart Ts, each port must have the same number of LED pixels per node or you can set a port to 0.
5. Exit the port's configuration page.
6. Repeat steps 2 to 4 for all ports.

LIVE CONTROL

Live control is Aurora's more simple control method. Live control lets you pick the palette, pattern, and parameters, and then keeps its settings until you change them. For descriptions of all the palettes patterns and parameters refer to the **Aurora Patterns & Lighting Parameter Effects Appendix** in this manual.

Playback

Play

Begin Live Mode Playback.

Stop

Causes Aurora fade to black.

Pause

Causes Aurora to stop in its tracks. The lights stay on but all motion stops.

Global Settings

Audio Reactivity

Toggle Audio Reactivity On and Off

Brightness

Affect Aurora's Overall Brightness.

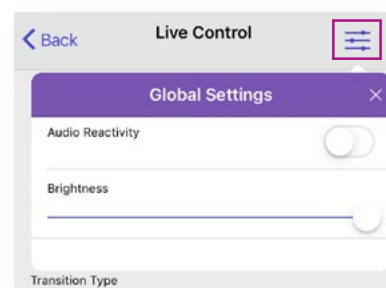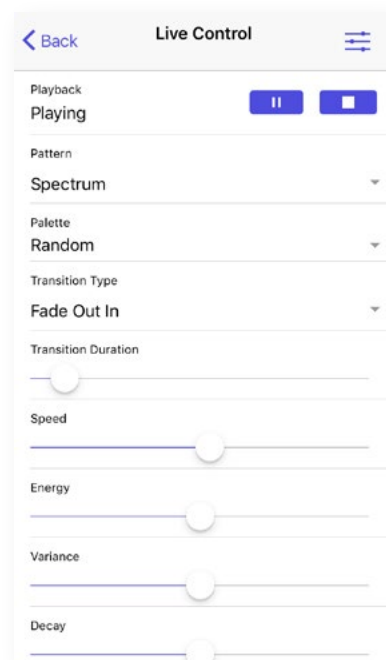## Patterns, Palettes, and Parameters

All patterns and palettes are available in the drop down menus. Parameters are controlled using sliders.

Patterns

Aurora's heart. Each pattern represents a scheme that Aurora uses to create its light shows in real time based on the audio input.

Palettes

Colour schemes that are mixed and matched with patterns to create specific moods and feelings.

Parameters

Allow you to fine tune your lighting display. A matched pattern and palette may only create the mood you're after if the parameters are set correctly.

SHOW CONTROL

Show control enables the user to create a playlist of cues. Each individual cue has all of the settings and flexibility of Live Mode and more. Show mode allows the user to create an environment where the lights not only react to sound, but also change how they react periodically.

Playback

Play

Begin Show Mode playback.

Stop

Causes Aurora fade to black.

Pause

Causes Aurora to stop in its tracks. The lights stay on but all motion stops.

Next

Skip to the next cue.

Previous

Skip to the previous cue.

Global Settings

As in Live Control, Global Settings allow the user to toggle Audio Reactivity or change the Brightness setting. In Show Mode, the user also has access to the Auto-Transition setting. Use Auto-Transition to change cues based on an audio input rather than a timer.

Silence Detection

Skips to the next cue when the audio input becomes silent

Boundary Detection

Skips to the next cue when the "energy" detected in the music shifts up or down significantly. This feature allows Aurora to change cues automatically when there is a change in the music.

Add or Edit Cue

Each cue can be edited independently.

Method

1. To add a cue, touch the plus icon in the top right corner of the screen. To edit a cue touch the middle part of the cue where the palette and pattern are specified. Once you get to the New Cue/Edit Cue screen everything that follows is the same.
2. Select a pattern using the Pattern drop down menu
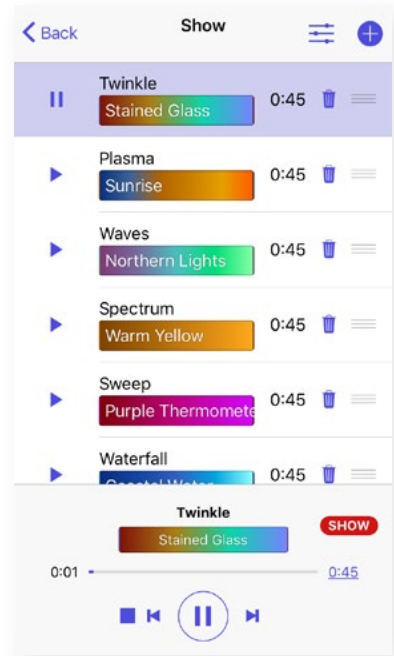
3. Select a palette using the Palette drop down menu

4. Scroll the parameter settings left and right to adjust them

5. Adjust the cue duration using the Duration menu

6. Adjust the Transition Duration to change how long it takes to transition from one cue to the next.

7. Change the duration type to affect how Aurora Transitions from one cue to the next.

8. To see what this cue looks like before you add it to your show, touch the Preview Toggle.
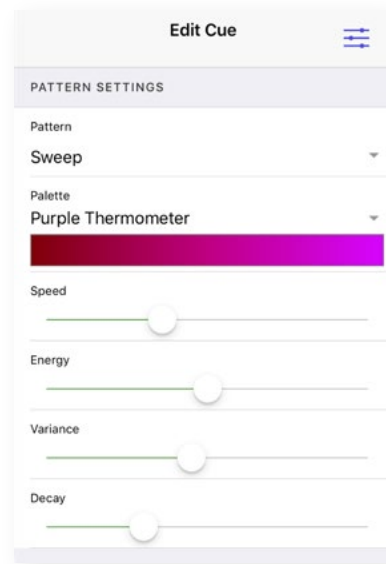
9. Touch Save to save your cue.

APP SETTINGS

In app settings you can access special features.

Theme

Set the theme to Noir or Default

App Wakelock

Enabling App Wakelock keeps the screen on and keeps the app active.

Send App Analytics

This feature sends anonymous usage data to Limbic Media to help us improve the app version to version.

Experimental Settings

Enabling Experimental Settings gives you access to the Advanced Search menu. This is an alternate way of connecting to Aurora as opposed to using the Connect Menu. Advanced Search is mostly useful when using Aurora in Station mode and when multiple Auroras are running on a single network.
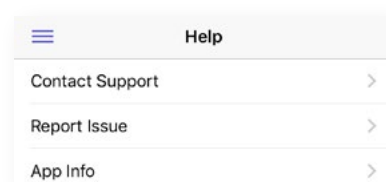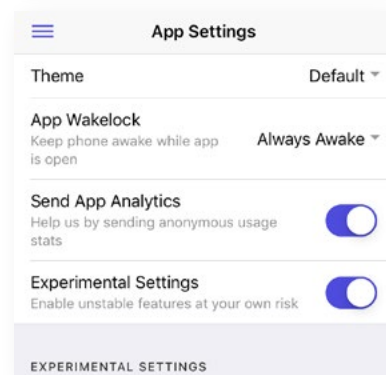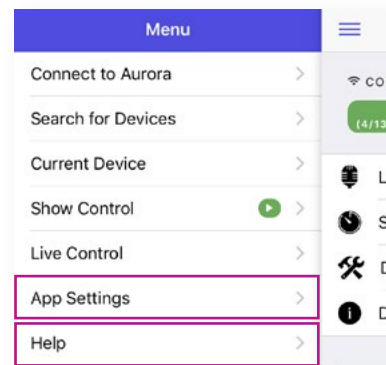
HELP

Contact Support

Limbic Media Contact information

Report Issue

Send reports directly to Limbic Media Support

App Info

Mobile App Version Code and other useful infomation

APPENDICES

Aurora Terminology

Cues

Cues are specific configurations of a pattern, palette, and parameters that can be saved and played in a Show.

LED Pixels

LED pixels refer to the RGB LED fixtures used in Aurora installations.

Mobile App Connection Modes

AP Mode

AP Mode establishes a one-to-one Wi-Fi connection between Aurora Pro and a mobile device.

Station Mode

Station Mode establishes a Wi-Fi connection between Aurora Pro and an existing external Wi-Fi network that a mobile device is connected to.

Palette

Palettes are the color schemes Aurora uses in its Patterns.

Parameter

Parameters control features of each pattern and palette such as speed, energy, variance, and decay. Parameters affect each pattern differently.

Pattern

Patterns are the foundation of Aurora lighting design. Patterns uniquely analyze incoming audio data and map the data into specific lighting behavior. Each pattern also reacts differently to lighting parameters. Playing with parameters for each palette is recommended to optimize light shows.

Performance Modes

Performance Modes determine how Aurora lighting data is controlled: in real-time (Live Control Mode), through predefined cue lists (Show Mode), or through third-party lighting protocols, such as DMX.

Live Control Mode

Live Control Mode allows users to change patterns, palettes, and parameters in real-time using the Aurora Mobile App.

Show Mode

Show Mode allows users to create and schedule a set of cues.

DMX IN Mode

DMX IN Mode allows users to access the functionality of Live Control Mode via a DMX controller or console. Refer to the **Aurora DMX Specification Appendix** for information.

Shows

A Show is a set of cues played in succession for specific time durations, set to run indefinitely or until an event is registered e.g. silence detection.

AURORA PRO PATTERNS & LIGHTING PARAMETER EFFECTS

Parameter Effects

Use the following table as a general guideline for parameter effects—Aurora patterns respond to each parameter differently.

Parameter	Effect
Brightness	Adjusts LED brightness from 0—100%
Transition	Transition time until next cue
Speed	Pattern speed across fixtures
Energy	The intensity of color range, brightness, and motion
Variance	Level of brightness control and contrast
Decay	Duration of LED to fade once activated

Parameter Effects on Aurora Patterns

The following tables describe how lighting parameters respond to each pattern. Use this guide when experimenting with Aurora to optimize lighting design for your installation.

In many patterns, lowering variance adds a baseline light activity with little or no audio input.

PATTERN: WAVES

Ideal For:
- Parties/shows
- Active, lively environments
- Music with a strong beat
- Clapping
- Chasers

PARAMETER CONTROL EFFECT		
Parameter	Audio Reactive	Non-Audio Reactive
Speed	Chaser speed	Chaser speed
Energy	Color and brightness	Color and brightness
Variance	Brightness variation	Brightness variation
Decay	Audio input to light mapping smoothness	N/A

PATTERN: SPECTRUM

Ideal For:
- Dynamic music, such as classical, jazz, and folk
- Loud voices/yelling
- Abstract visualization of frequencies
- Color sweep in non-audio reactive mode
- Reacting sensitively to low audio

Parameter	PARAMETER CONTROL EFFECT	
	Audio Reactive	Non-Audio Reactive
Speed	Pixel mapping	Sweep speed
Energy	Color and brightness	Color and brightness
Variance	Brightness variation	Brightness variation
Decay	Duration of LED to fade once activated	N/A

PATTERN: STARRY SKY

Ideal For:
- Dancing galaxy animation
- Most music, including rhythmic music with beats
- 2D or 3D fixture configurations

Parameter	PARAMETER CONTROL EFFECT	
	Audio Reactive	Non-Audio Reactive
Speed	Pulse speed	Pulse speed
Energy	Color and brightness	Color and brightness
Variance	Brightness variation	Brightness variation
Decay	Duration of LED to fade once activated	N/A

PATTERN: WATERFALL

Ideal For:
- Evoking a "waterfall" of sound
- Percussive music
- Clapping and other human interactions

Parameter	PARAMETER CONTROL EFFECT	
	Audio Reactive	Non-Audio Reactive
Speed	Waterfall speed	Waterfall speed
Energy	Color and brightness	Color and brightness
Variance	Brightness variation	Brightness variation
Decay	Audio input to light mapping smoothness	Burst smoothness

PATTERN: PLASMA

Ideal For:
- Evoking moving shapes
- Bass
- Frequencies <2000 Hz
- 2D and 3D fixture configurations

PARAMETER CONTROL EFFECT		
Parameter	**Audio Reactive**	**Non-Audio Reactive**
Speed	Movement speed	Movement speed
Energy	Brightness	Brightness
Variance	Shape	Shape
Decay	Audio input to light mapping smoothness	N/A

PATTERN: TWINKLE

Ideal For:
- Evoking an effect that disperses from a central point
- Most music; takes advantage of the full frequency range

PARAMETER CONTROL EFFECT		
Parameter	**Audio Reactive**	**Non-Audio Reactive**
Speed	N/A	Twinkle rate
Energy	Color and brightness	Color and brightness
Variance	Brightness variation	Brightness variation
Decay	Audio input to light mapping smoothness	Smoothness

PATTERN: SOLID COLOR

Ideal For:
- Non-audio reactive environments
- Simple displays with movement in one color

PARAMETER CONTROL EFFECT		
Parameter	**Audio Reactive**	**Non-Audio Reactive**
Speed	N/A	Pulse speed
Energy	N/A	Wave motion
Variance	N/A	Color (must be in the currently selected color palette)
Decay	N/A	
		Amplitude of pulse

PATTERN: FLASH BANG

Ideal For:
- Music with a strong beat
- Strobe lights in a non-audio reactive environment
- High impact displays

PARAMETER CONTROL EFFECT		
Parameter	Audio Reactive	Non-Audio Reactive
Speed	N/A	Strobe rate
Energy	Color and brightness	Color and brightness
Variance	N/A	N/A
Decay	Decay of flashes	Decay of flashes

PATTERN: SWEEP

Ideal For:
- High energy displays
- Music with a strong beat
- Clapping
- Evoking sinusoidal movement that changes speed and direction with beat onsets and strength

PARAMETER CONTROL EFFECT		
Parameter	Audio Reactive	Non-Audio Reactive
Speed	Movement speed	Movement speed
Energy	Color and brightness	Color and brightness
Variance	Brightness variation	Brightness variation
Decay	Wavelength	Wavelength

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