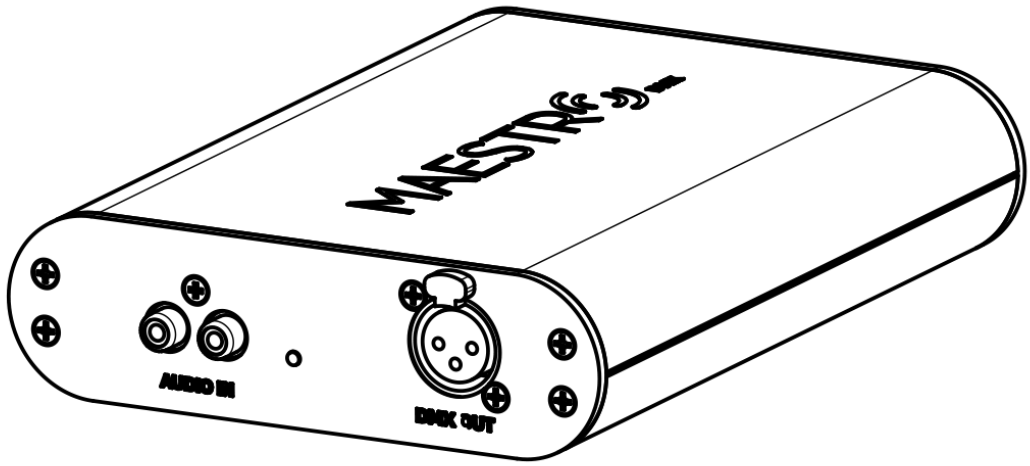
MaestroDMX User Manual

Software V1.5 (Jan 2026)



Introduction

MaestroDMX is intelligent lighting for live performance, delivering responsive light shows in minutes without laptops, MIDI sync, or weeks of programming. It analyzes music in real time to unify every fixture into one cohesive, hands-free system so you can stay focused on the performance, not the setup.

Built for the busy performer who wants to set it and forget it, and for the expert who wants deeper control, MaestroDMX gives you an easy-to-use web app to shape the look, override when needed, and fine-tune the show on your terms.

Contents

Guide Overview

The MaestroDMX User Manual provides comprehensive instructions and information for users. It covers the following topics:

- Physical Setup of MaestroDMX Lighting Controller:
    - Learn how to properly install and set up the MaestroDMX lighting controller to ensure efficient and safe operation.
- Software Updates for MaestroDMX:
    - Discover the process for upgrading the MaestroDMX software to access the latest features and enhancements.
- Navigating and Using the MaestroDMX Web App:
    - Gain insights into how to effectively navigate and utilize the MaestroDMX Web App to control and manage your DMX lighting stage.
- Use a 3rd Party MIDI Controller to control MaestroDMX.
- Control MaestroDMX via Open Sound Control (OSC)
- Basic Troubleshooting:
    - Find solutions to common issues and challenges that may arise during the use of the MaestroDMX system.
- Safety, Certifications, and Hardware Specifications:
    - Understand essential safety precautions, certifications, and detailed hardware specifications to ensure the secure and compliant operation of your MaestroDMX lighting control system.

This manual is your comprehensive guide to maximizing the functionality and safety of your MaestroDMX lighting controller.

Questions?

Additional support for MaestroDMX is available at https://maestrodmx.com/pages/support or contact support@maestrodmx.com

Getting Started

Join The Community

Connect with the MaestroDMX community to get feedback, support, and inspiration:

- The 'MaestroDMX Users Helping Users' Facebook Group.
- The MaestroDMX Youtube Channel.
- The MaestroDMX users Discord Server.
- The MaestroDMX Forum Forum

What's In The Box

- MaestroDMX hardware unit
- Attached WiFi dongle
- Informational insert + sticker
- 2m USB-A to USB-C cable

Core Features

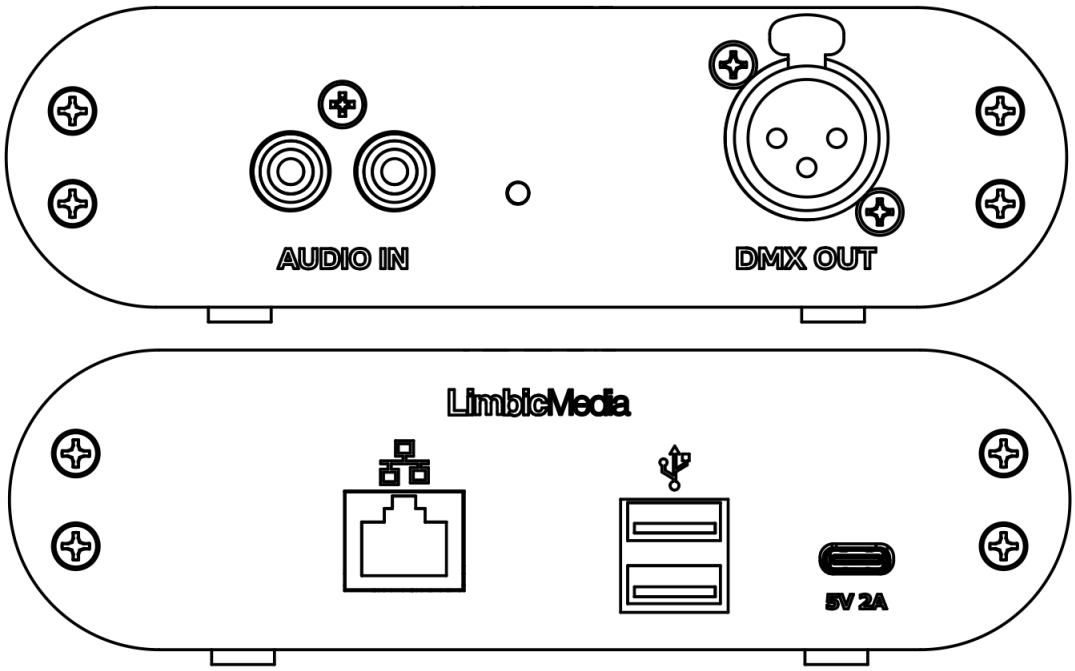
MaestroDMX is an incredibly powerful platform with all the features required to run amazing light shows with no lighting programming needed.

- Real-time, autonomous, music-driven lighting control
- Low-latency performance with advanced audio analysis
- Hands-off autonomous decision-making network
- Intelligent control of RGBWAmUV color, Pan/Tilt, and Dimmer channels, Color Wheels, Gobos, Lazers, and most DMX effects.
- Harness FINE 16-bit control
- Manual control of Fog/Haze, FX Trigger, Strobe, Blackout, Blinder, & Global Brightness
- Save 'Snapshots' of your fixture's effects and trigger them based on musical events
- One universe of DMX control
- Direct RCA stereo audio inputs or connect any USB audio interface
- Exhaustive online DMX fixture profile library plus the ability to create, save, and share custom fixtures
- MIDI and OSC control
- Choose from a variety of parameterized lighting patterns/color palettes based on mood and energy level
- Dial in combinations of patterns, palettes, and parameters to build cues
- Add cues to a show playlist
- Define and trigger static scenes/looks
- Use fixture groups for more control (ex: wash only fixtures)
- Connect and control MaestroDMX from any web browser over Wi-Fi or Ethernet
- Build, save, and share any number of Stages, Shows, and Fixture Profiles
- Define Pan/Tilt center positions and limit ranges
- Layout fixtures linearly or in a 2D grid for mapped effects
- Enable/disable solo fixtures
- Set static values for any fixture's channels on a stage

Hardware Connectivity

MaestroDMX is an easy to set up autonomous lighting controller that can be set up and functioning within minutes.

Connector Interface



1. Power connector

   5V USB-C power port. 2 A max input current. Provides power to the MaestroDMX and attached USB devices.

   NOTE: When MaestroDMX is powered on the same device as theaudio output e.g. a laptop, it can cause a "ground loop" that will introduce noise and affect the performance of the system. Avoid this by powering MaestroDMX from a different device or power source or by using an inline ground loop isolator.
2. USB 2.0 Type A connectors (500mA max per port)

   Two USB-A ports are available for a Wi-Fi dongle, MIDI, an external audio interface, and software updates via a USB flash drive.

   NOTE: Do not use the USB-A ports for anything other than the above-mentioned uses.
3. Ethernet connector

   The ethernet connector provides a hardwire connection from a computer/tablet to the MaestroDMX as an alternative to connecting over Wi-Fi. The ethernet port can also be used to connect to an OSC-based control device or an external Art-Net universe.
4. Line in / RCA audio connector

   The Audio connector allows MaestroDMX to receive audio. MaestroDMX expects a stereo consumer line-level input signal (-10dBV max).

   NOTE: Standard XLR to RCA cables are not recommended due to higher voltage that can over drive the audio circuit and cause audio failure.
5. DMX OUT

DMX OUT connects lighting fixtures via a DMX cable directly to the MaestroDMX (1x Universe, 512 channels).

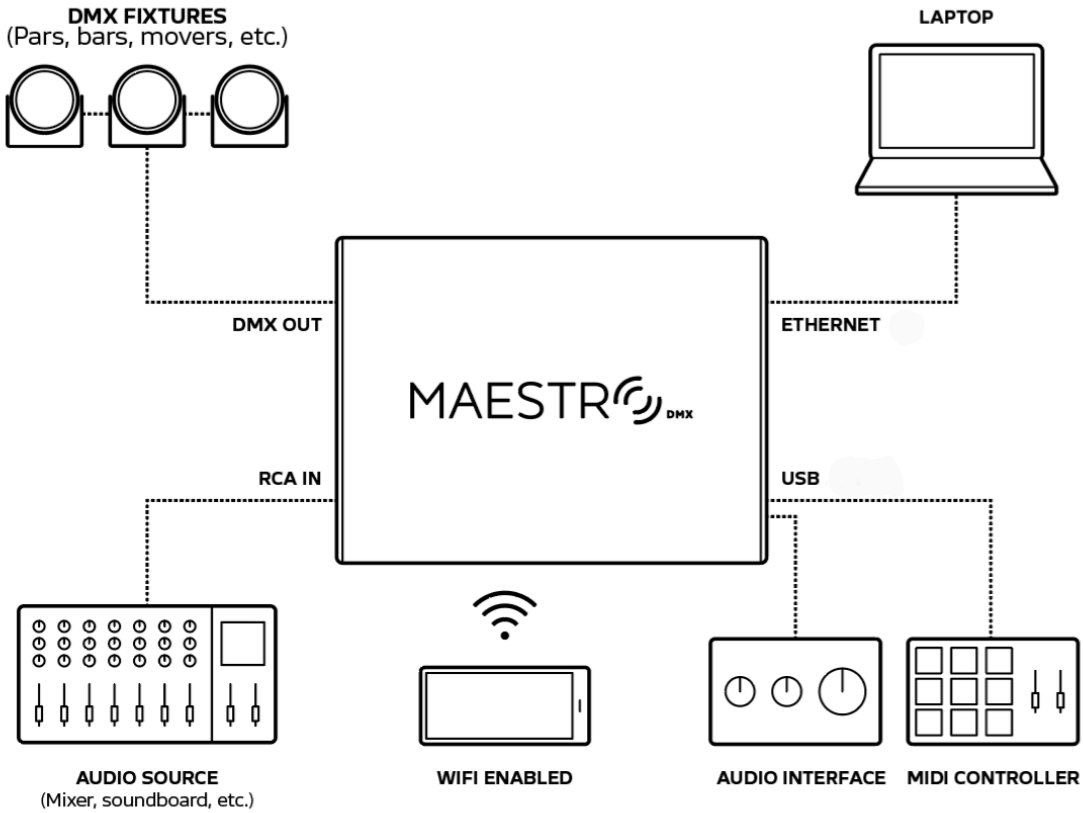
6. Indicator Light

   The indicator light on the device serves as a visual guide to its status. Different colors and blinking patterns convey important information:

   - **Solid Red** – The device is powered on and booting.
   - **Solid Blue** – The Maestro is running, but no audio is present or the audio level is very low.
   - **Solid Green** – An audio signal is present at an acceptable level.
   - **Solid Amber** – The audio level is approaching clipping but remains within acceptable limits.
   - **Solid Red (Clipping)** – The audio signal has reached clipping levels and distortion may occur.
   - **Blinking White** – A software update is in progress. Wait until the light changes to blue (running with no audio) or green (running with audio present).

Example System Setup

MaestroDMX offers seamless lighting control, providing flexibility in its placement as long as it remains connected to a power source, audio input, and your DMX fixtures.



Required Materials:

To get started, ensure you have the following materials on hand:

- Power source 5VDC USB-C (10W minimum)
- RCA Audio cable
- Ethernet cable (optional, for internet connectivity while using MaestroDMX)
- DMX cable
- DMX lights
- PC, Tablet, or Smartphone to connect to the MaestroDMX Web App
- Music player device (mixer, laptop etc)

Installation Steps:

Follow these steps to set up your MaestroDMX:

- Power Connection:
  - Plug your MaestroDMX into its power source to provide it with electrical power (USB-C).
- Audio Cable Connection:
  - Connect an audio cable to the MaestroDMX, ensuring a secure connection and a sufficient distance from any potential noise sources.
- DMX Cable Connection:
  - Plug your DMX cable into the MaestroDMX to establish communication with your DMX lights.
- PC/Tablet/Phone Connectivity:

        - Connect your PC/tablet or phone to MaestroDMX either through an Ethernet cable or a Wi-Fi connection, depending on your preference and requirements. Ethernet is recommended for a more reliable/mission-critical connection.
    - USB: Optional external audio interface and /or MIDI controller
        - Plug your MIDI controller or Audio interface into the MaestroDMX

Updating MaestroDMX Software

Ensure the MaestroDMX stays up to date and takes advantage of the latest features and all improvements, follow these steps to update the software:

Updating Software for Units Running Under V1.4 or Lost Connection

If your MaestroDMX unit is running software version 1.3.2 or lower (eg, v1.3.1, v1.3, v1.2, etc) or to reconnect usinga reset package, then follow the routine below using the USB drive. If the MaestroDMX unit is already running v1.4 and users have connection, an USB stick isn't nessecary to update, see the next section for instructions.

IMPORTANT: Before proceeding, ensure you have backed up any important settings you wish to keep (stages, fixture profiles, and shows).

1. Download Software:
    - Visit maestrodmx.com/pages/support from a computer to download the most current software package for MaestroDMX.
    - Save the downloaded software package to a USB stick for easy transfer.
    - **IMPORTANT**: The USB stick must be formatted to FAT32.
2. Insert USB Stick:
    - Insert the USB stick containing the software bundle into an available USB port on your MaestroDMX device.
    - **IMPORTANT:** The USB WiFi dongle must be plugged in during the software update process to ensure MaestroDMX enables the USB WiFi dongle
3. Restart MaestroDMX:
    - Turn off the MaestroDMX unit by unplugging it from power and waiting 10 seconds.
    - Power up the MaestroDMX unit by plugging the power back in.
    - Allow a few minutes for the software to load. During this time, observe the indicator light on your MaestroDMX.
    - First, the light will turn RED, then a WHITE blinking light indicates that the software is loading.
    - **WARNING: DO NOT UNPLUG THE POWER DURING THE UPDATE**
4. Successful Update:
    - Once the indicator light turns BLUE (or GREEN if it is receiving audio), it signifies that the software update is complete and successful.
5. Remove USB Stick:
    - Unplug the USB stick from the MaestroDMX unit.
    - 6. Restart MaestroDMX:
    - Turn off the MaestroDMX unit by unplugging it from power and waiting 10 seconds.
    - Power up the MaestroDMX unit by plugging the power back in.

7. Verify:

- Open the MaestroDMX Web App in a new browser window and verify that the software has updated. Check via the ‘System’ -> ‘System Info’ page.
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NOTE: Please open the MaestroDMX Web App in a new browser window after updating the software to avoid caching issues.
IMPORTANT: In some cases, certain USB sticks do not load the software properly, and the update does not complete. If this happens, please try another USB stick.

Updating Software for Units Running v1.4 or Higher

If the MaestroDMX unit is running software v1.4 or higher, then users can update the software ‘over the air’ via the MaestroDMX WebApp.

IMPORTANT: Before proceeding, back up any important or custom settings (stages, fixture profiles, and shows).

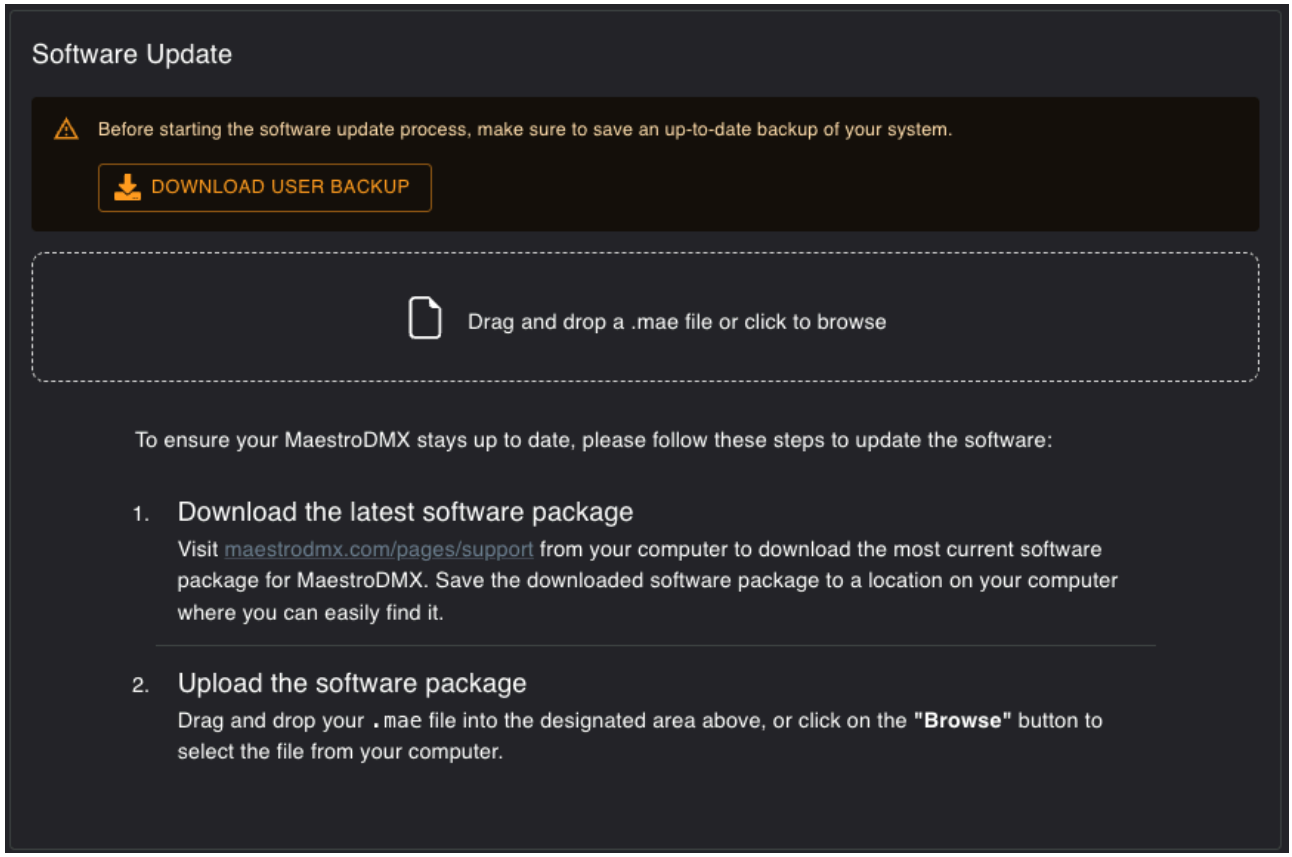
1. Navigate to ‘System’ -> ‘Software Update’
2. Download the latest software package:
    a. Visit maestrodmx.com/pages/support from your computer to download the most current software package for MaestroDMX. Save the downloaded software package to a location on your computer where you can easily find it.
3. Download a backup of user settings (stages, shows, fixtures, etc)
4. Upload the software package:
    a. Drag and drop ther .mae file into the designated area above, or click on the "Browse" button to select the file from your computer.
    b. Allow a few minutes for the software to load. During this time, observe the indicator light on your MaestroDMX.
    c. First, the light will turn RED, then a WHITE blinking light indicates that the software is loading.

5. Verify:

- Open the MaestroDMX Web App in a new browser window and verify that the software has updated. Check via the ‘System’ -> ‘System Info’ page.

6. Restart MaestroDMX:

- Turn off the MaestroDMX unit by unplugging it from power and waiting 10 seconds.
- Power up the MaestroDMX unit by plugging the power back in.

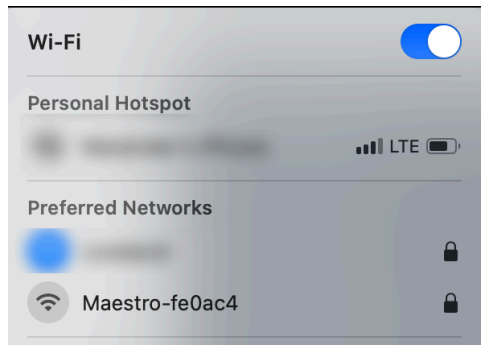


Initial Connection to MaestroDMX via Any Device

Connect to the MaestroDMX Web App either over its dedicated WiFi network or via a hardwired ethernet connection.

Wireless Connection

After the MaestroDMX is powered on the USB dongle will serve up its own network with the SSID: Maestro-XXXXXX. Your MaestroDMX unit will have a unique string of 6 characters to replace the XXXXXX.



SSID: Maestro-XXXXXX

Network password: 'mymaestro'

Connecting to the Web App

Once users have established a connection to the MaestroDMX, whether through a wired or wireless connection, follow these steps to access the MaestroDMX Web App:

- Open your device's web browser (PC, tablet or smartphone).
- In the browser's address bar, enter the following URL: http://maestro.local or scan the
- Alternatively, if you encounter connection issues, enter http://192.168.37.1 into the browser for a wireless connection to the web app or http://10.0.0.200 for a hardwired Ethernet connection to the Web App.

- After entering the URL, you will be directed to the MaestroDMX Web App interface.

IMPORTANT: **It is not recommended to rely on a direct WiFi connection to the MaestroDMX unit for performances where a persistent connection to the unit is required. Noise in the RF environment may cause disconnections.**

Advanced Wifi and Hardwired Connections

WIFI

Navigate to 'System'->'Networking'->'WIFI' to access the Wifi settings.

On the WiFi settings page, users have the option to:

- Set up MaestroDMX to create its own network that your device (computer, tablet, etc) can connect to. This is the default behavior. Here you can also set the SSID (network name) and password.
- Connect MaestroDMX to an existing local wireless network (such as your home wifi). This allows you to connect to MaestroDMX as long as your device is connected to your local network.

WiFi Settings

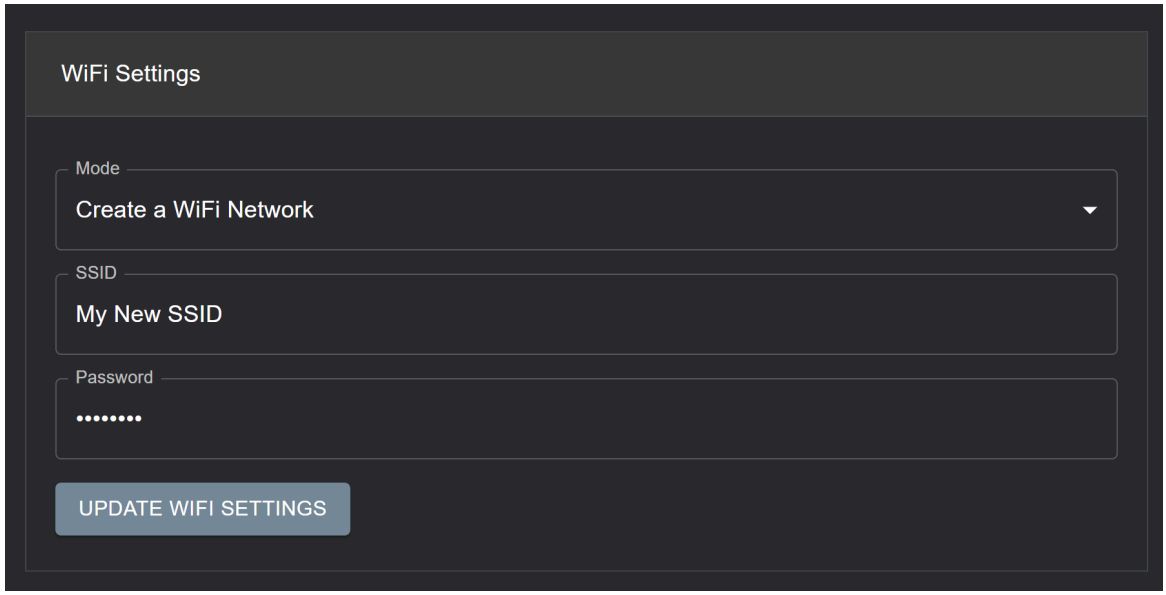
Within the WiFi Settings, users have the option to switch between two distinct modes: "Create a WiFi Network" and "Connect to an Existing WiFi Network", such as your local router.

Note: Please be aware that modifying WiFi settings may require a few minutes, and users may experience a temporary disconnection from the web app.

Create a WiFi Network

By default, Maestro serves up its own network with a unique SSID labeled as "Maestro-XXXXXX." In this mode, users have the flexibility to personalize the SSID and modify the password for the Maestro network. To achieve this:

1. Switch into "Create a WiFi Network" mode
2. Input a preferred SSID of your choice
3. Specify a password that grants access to your Maestro network
4. Click "Update WiFi Settings" to apply the changes
5. Connect your device to the new MaestroDMX WiFi network
6. Close the MaestroDMX app and re-open it in a new browser window



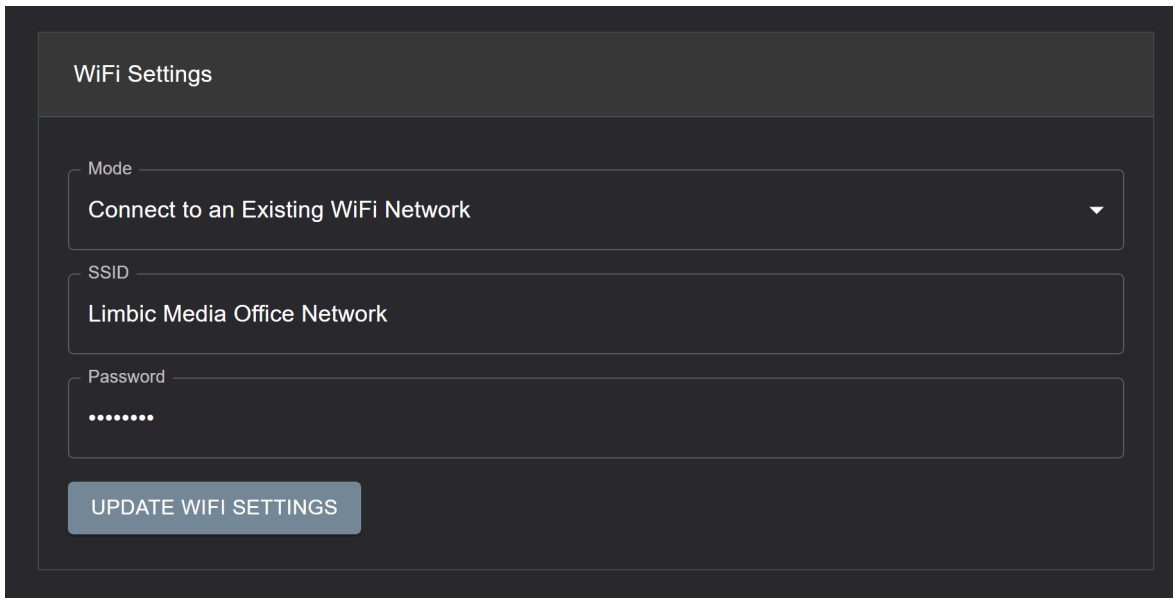
Warning: In the event of a forgotten password, the only means of connecting to the Maestro will be through an Ethernet connection or by installing a network reset package available on the Software Updates page. This will reset the password to 'mymaestro'.

Note: Users have the flexibility to modify SSIDs and passwords as often as needed.

Connect to an Existing WiFi Network

This mode provides a straightforward connection between MaestroDMX and personal devices by connecting Maestro to an existing local network that your device is also connected to, such as a home wifi network for example. To achieve this:

1. Switch into 'Connect to an Existing WiFi Network' mode
2. Enter the SSID of the desired network
3. Input the network password
4. Click 'Update WiFi Settings' to finalize the configuration
5. Connect your device to the local WiFi network
6. Close the MaestroDMX web app and re-open it in a new browser window

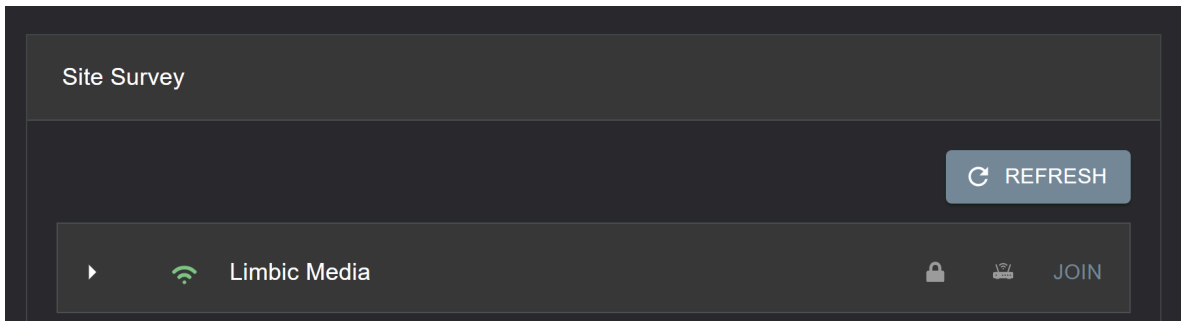


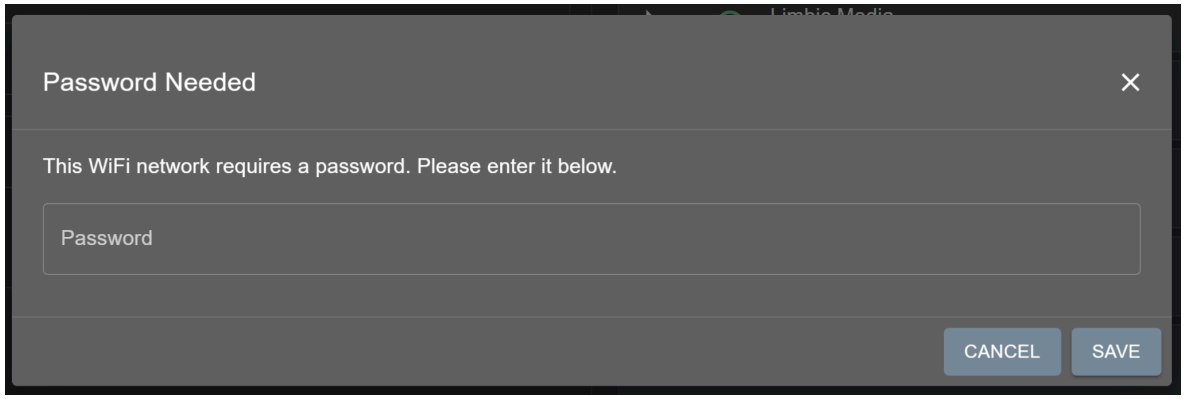
Warning: In the event of a forgotten password, the only means of connecting to the Maestro will be through an Ethernet connection or by installing a network reset package available on the Software Updates page. This will reset the password to 'mymaestro'.

Site Survey

The site survey provides a list of networks in the vicinity, along with pertinent details and signal strength information. It also offers an alternative method to connect Maestro to an existing network. Simply choose the “Connect to an Existing Network” mode, then click “Join” next to the desired network.

NOTE: Be sure to close the MaestroDMX app and re-open it in a new browser window.

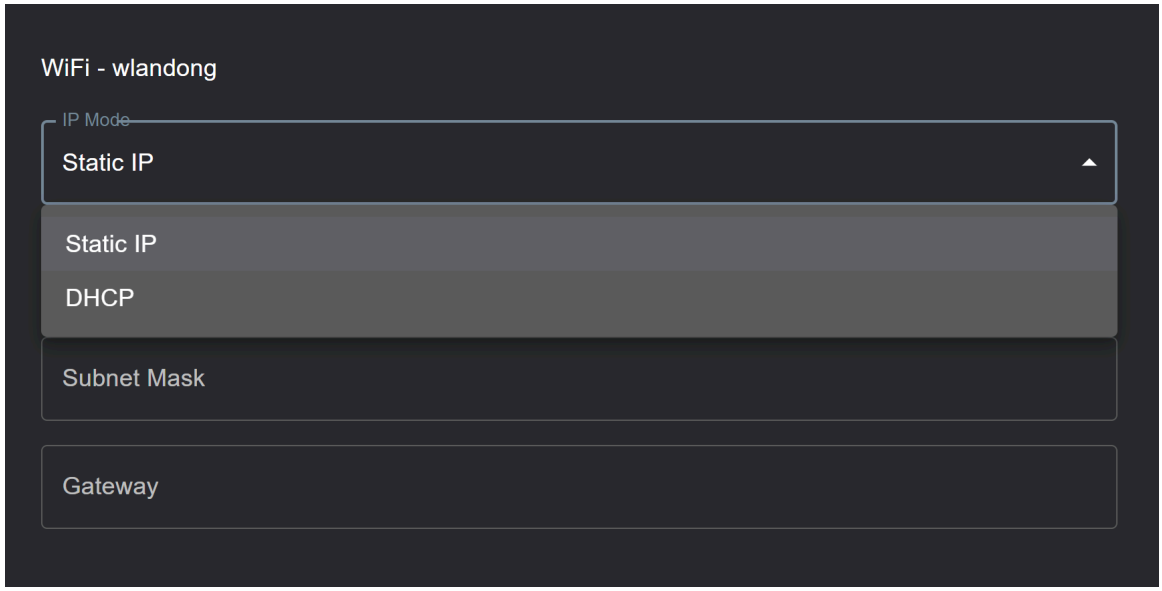




Setting Static vs DHCP

For wireless connections, MaestroDMX offers two IP modes: Static IP and DHCP. Before configuring, ensure you switch to "Connect to an Existing Network" mode in the Wi-Fi settings page.

NOTE: The WiFi interface will only show up if MaestroDMX is connected to a local network



DHCP Mode:

1. In DHCP mode, the Maestro is automatically assigned an IP address, subnet mask, and gateway.
2. Devices on the same network as the Maestro can connect to the web app by entering the assigned IP address into the browser.

Static IP Mode:

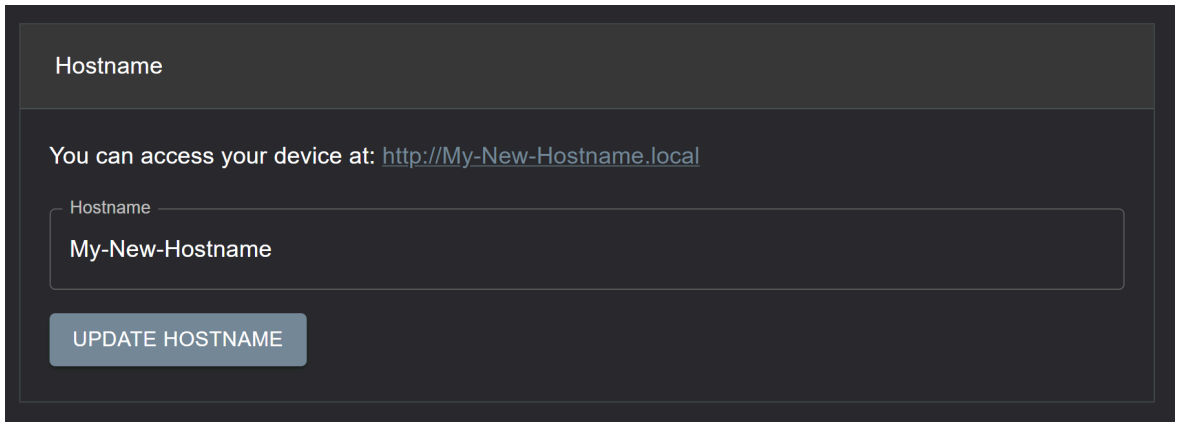
1. Switch to Static IP mode.
2. Enter a static IP address within a valid range of your network, ensuring it doesn't conflict with other devices.
3. Enter a subnet mask associated with your network.
4. Provide the gateway IP of your router.
5. Devices on the same network as the Maestro can connect to the web app by typing the manually set IP address into the browser.

Note: In addition to configured IP addresses, the web app can always be accessed by typing http://yourHostname.local into the browser.

Hostname

The hostname serves as Maestro's name and is the identifier in the URL used to access the web app. To update the hostname:

1. Enter a new hostname.
2. Click 'Update Hostname' to apply the changes.



Note: Please be aware that modifying Network and Hostname settings may require a few minutes, during which you may experience a temporary disconnection from the web app.

Hardwire Connections

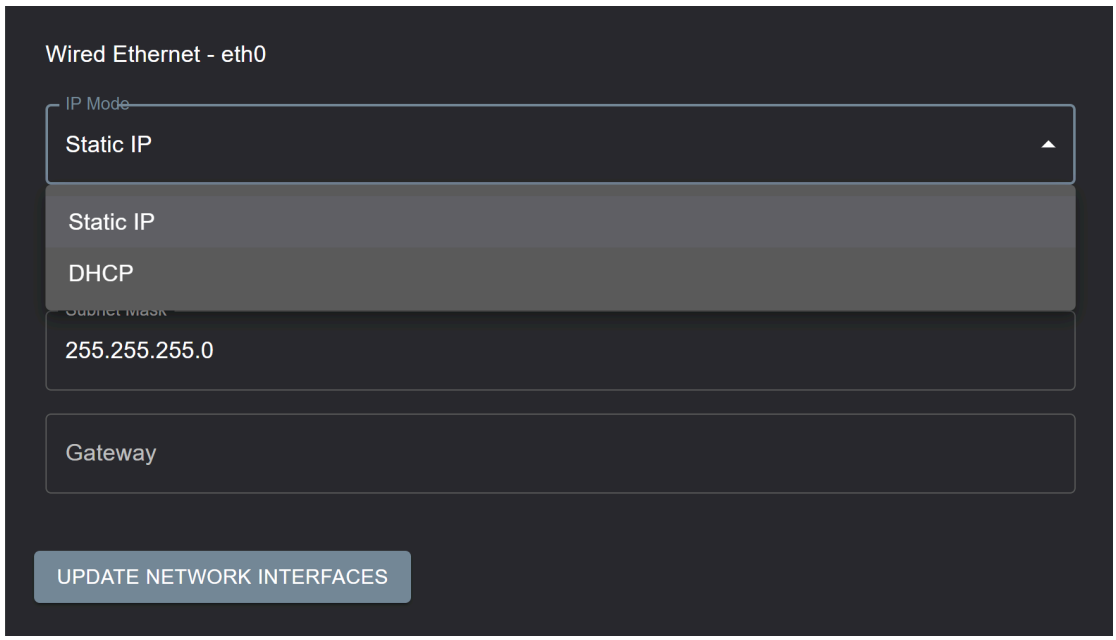
In MaestroDMX, navigate to 'System'->'Networking'->'LAN' to access the LAN settings.

The Local Area Network (LAN)Network page allows users to manage both wireless and hardwired network settings and offers the flexibility to customize the Maestro's hostname.

Note: Please be aware that modifying Network and Hostname settings may require a few minutes, during which you may experience a temporary disconnection from the web app.

Wired Ethernet

The Maestro offers two IP modes for Ethernet connections: Static IP and DHCP.



DHCP Mode - Best for using routers

1. Connect an Ethernet cable from the Maestro to a router.

2. Switch the IP Mode to DHCP.
3. Click "Update Network Interfaces."

In DHCP mode, the IP address, subnet mask, and gateway will be automatically assigned. Access the Maestro web app by entering the generated IP address into a browser. Ensure the device is either wirelessly connected or hardwired to the same network the Maestro is connected to.

Static IP Mode - Best for direct connection to personal device, such as a laptop

1. Switch to Static IP mode.
2. Enter an available IP address.
3. Click "Update Network Interfaces."

In Static IP mode, users can manually assign an IP address to the Maestro. By default, the Maestro is set to 10.0.0.200. Users can change the IP address to any available 10.0.0.XXX IP, where XXX can be any value up to 255. Note: Some IP addresses may already be reserved for other devices.

When in Static IP mode, connect to the Maestro by attaching an Ethernet cable from the Maestro to a personal device. Ensure you have properly configured the Ethernet settings on your device before attempting to connect to the Maestro's web app using your browser.

A hardwire connection can be established via Ethernet by entering the following settings into your computer or smart device's LAN port:

- IPv4 Manual Connection
- IP: 10.0.0.XX (XX can be anything EXCEPT .200 and .1, for example, 10.0.0.61 is fine)
- Subnet Mask: 255.255.255.0

Note: the process to do this will differ depending on the operating system type and version. Please consult your operating system's relevant documentation.

Warning: Please note that unexpected behavior may occur if both WiFi and Ethernet are configured with the same subnet ranges. For example, both WiFi and Ethernet cannot both have a 10.0.0.XXX IP address. If your wifi network uses 10.0.0.x range, select something different for your Ethernet range.

Access the web app by typing your chosen IP address into the browser.

Running The Web App

The MaestroDMX Web App is divided into five main pages, each serving a specific purpose::

- System
- Fixture Profiles
- Stages
- Control
- Show

Menu Banner

The top banner of the Web App shows the various pages for navigation of the application and also indicates any active snapshots, the audio input level status, and detected kick drum trigger.

System Settings

Configuring Audio

Navigate to 'System'-> 'Audio' to access Audio settings.

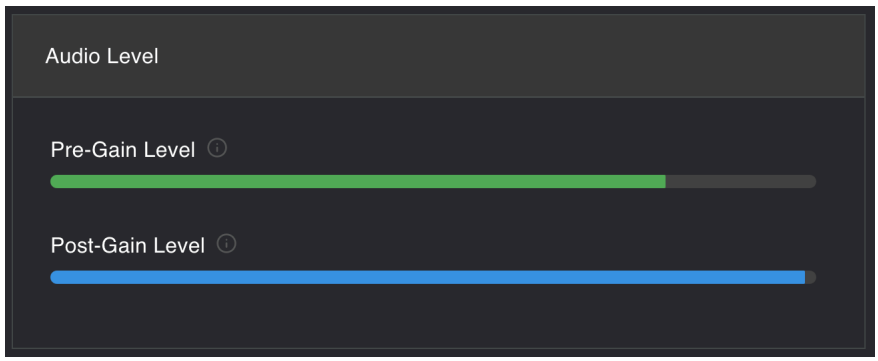
Correct calibration of audio is critical to the functioning of MaestroDMX. Take the time to understand and learn how to use this section.

Pre-Gain Level

The Pre-Gain level displays the original audio input level. The display meter has three color states:

- **Blue**: either there is no audio input or it is too low in volume
- **Green**: audio input is within an acceptable range
- **Yellow**: audio input is in the upper end of the acceptable range
- **Red**: The audio input is too loud and needs to be reduced

IMPORTANT: Ensure that ther incoming audio feed turns the panel LED on the MaestroDMX unit or the Pre-Gain level in the Web App green.



Post-Gain Level

Post-gain refers to the auto-gain applied to the audio input. In general, this level should be near the top of the range when music is playing.

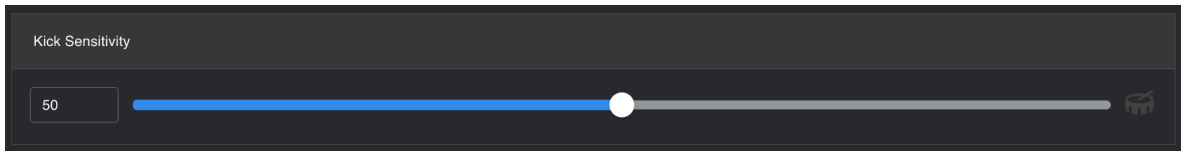
Kick Sensitivity (Default: 50)

IMPORTANT: MaestroDMX's algorithms require a reliable presence and/or detection of the kick drum from the musical input.

The Kick Sensitivity control is used to calibrate the detection of kick drum-based triggers depending on different styles of music. Here are some ranges:

- Electronic dance music: 0 - 50
- Rock, Metal, Etc (music with real drumkits): 50 - 75
- Live Music (depending on the mix): 50 - 100

NOTE: If the Kick Sensitivity is too low, MaestroDMX may miss kick drums, and conversely if the level is too high there may be false positives (incorrect triggers from other bass sounds). **In general, it is better practice to get false positives than to miss kick drums altogether**. Keep an eye on the detected triggers throughout your event.



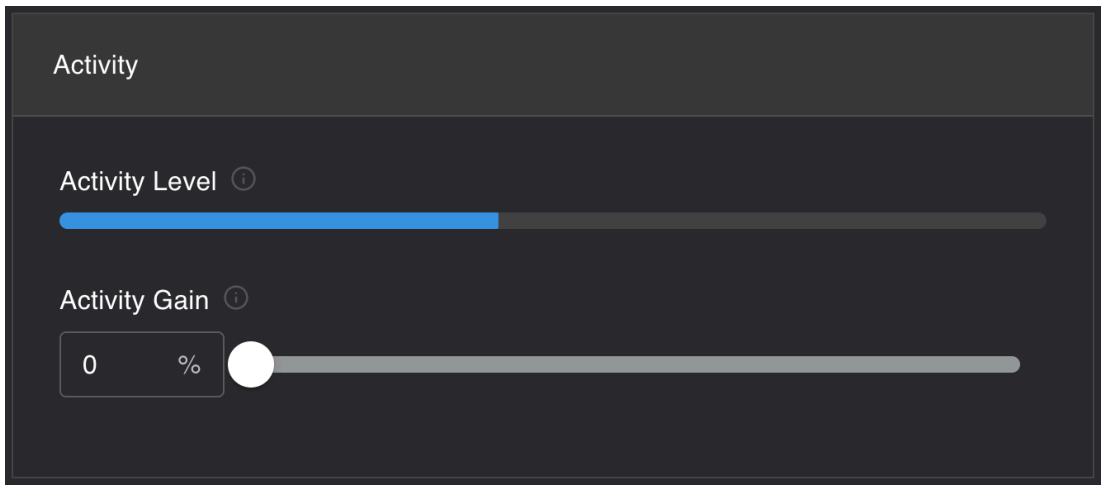
Activity Level

Activity Level tracks how exciting the music is at any given moment. MaestroDMX's algorithms and AI use the Activity Level to determine how exciting the lighting output should be.

Activity Gain (Default: 0)

Adjusting Activity Gain allows you to calibrate the Activity Level for different music environments. For pre-recorded, produced music Activity Gain is best set to 0. However, for live music, you may need to increase the Activity Gain, since live music does not have the same quality of production as recorded music.

To be clear, the Activity Level is not the same as the audio input level. This is a measure of the excitement of the music rather than the volume of the music, however, they are related.



IMPORTANT: To calibrate the Activity Level, play the most intense section of music (ie loud metal, rock, or chainsaw dubstep) Adjust the Activity Gain and make sure that the Activity Level reaches close to the top of the scale. For more relaxed music the Activity Level should be lower.

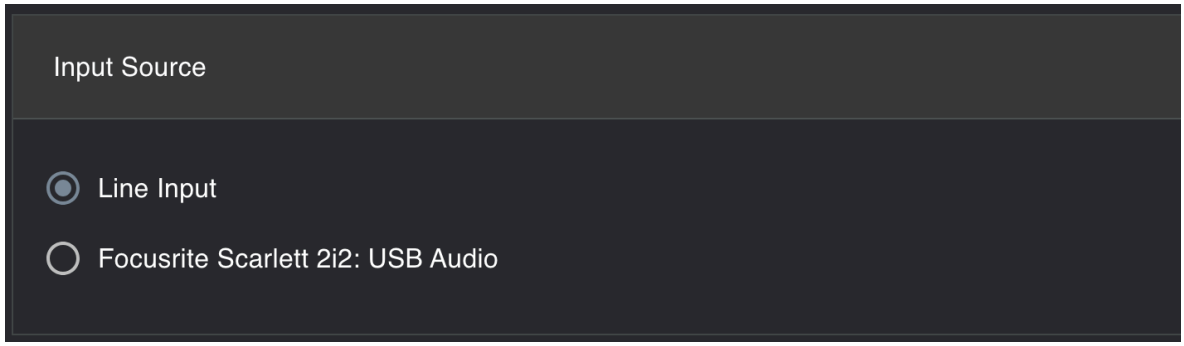
Input Source

Select the audio input source. By default, MaestroDMX only has a single line-level input source that comes in via the RCA connector on the front panel.

External Audio Interface

You can also connect an external USB audio interface to MaestroDMX. This can be useful when you need to send a balanced signal or directly connect microphones. To activate the external audio input, be sure to select it on the Web App.

NOTE: Only inputs 1 & 2 of the USB interface will be used by MaestroDMX.



Troubleshooting Audio Input

Some common issues can cause trouble when trying to connect your music to MaestroDMX. Here are some things to try.

Issue: No audio is coming into MaestroDMX

- Check that your audio source is playing (mixer, laptop, etc).
- Try a different RCA cable.
- Confirm that the audio input on the Audio page is running in the green zone.

Issue: I am not playing music, however, MaestroDMX registers a non-zero audio input level

- Check that your cable is plugged into MaestroDMX AND your audio source on the other side. A 'hanging' cable will produce noise.
- Avoid a ground-loop issue by running audio from a different source than the power for MaestroDMX. For instance, running audio and power from your laptop can cause noise issues.

Issue: I am still having noise on the input

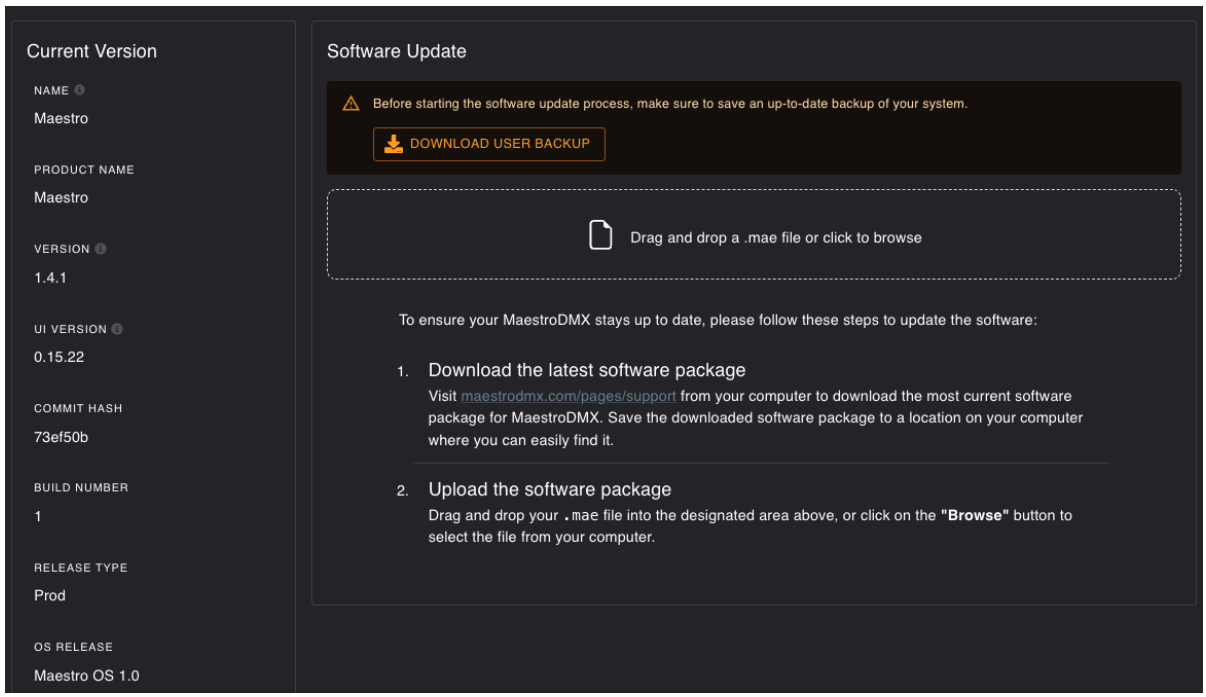
- Check that your audio source is not producing a noisy signal.
- Contact www.maestrodmx.com/support

NOTE: Standard XLR to RCA cables are not recommended due to higher voltage that can over drive the audio circuit and cause audio failure.

Software Update And System Information

Navigate to 'System'-> 'Software Update' to access System information, and in-app Software Update, etc.

The System Information section allows you to review essential details about the MaestroDMX system. Additionally, you can initiate software Updates from this section if necessary.



Backup/Restore And Factory Reset

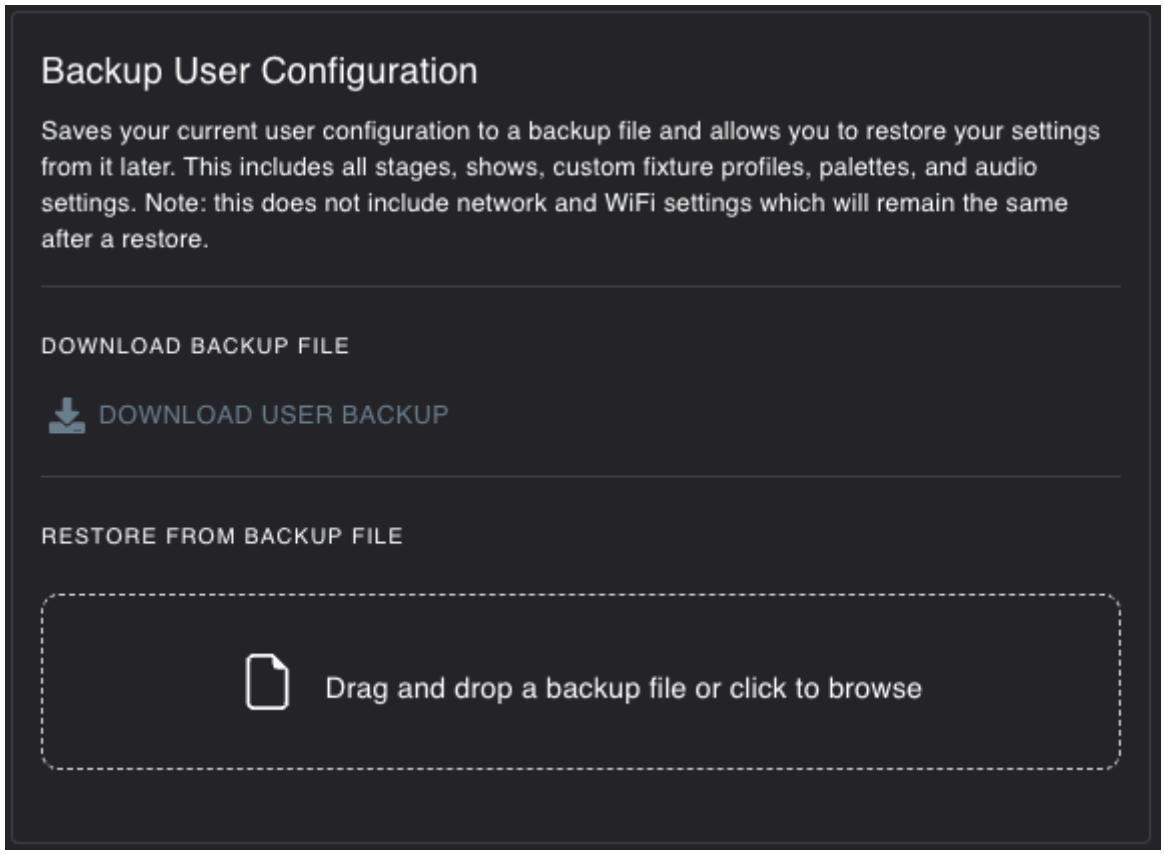
Navigate to ‘System’->’Backup And Restore’ to save/load your system settings or to factory reset your MaestroDMX unit.

Back Up All of Your Data

‘Backup User Configuration’ saves your current user configuration to a backup file and allows you to restore your settings from it later. This includes all stages, shows, uploaded fixture profiles, color palettes, FX Palettes, and audio settings.

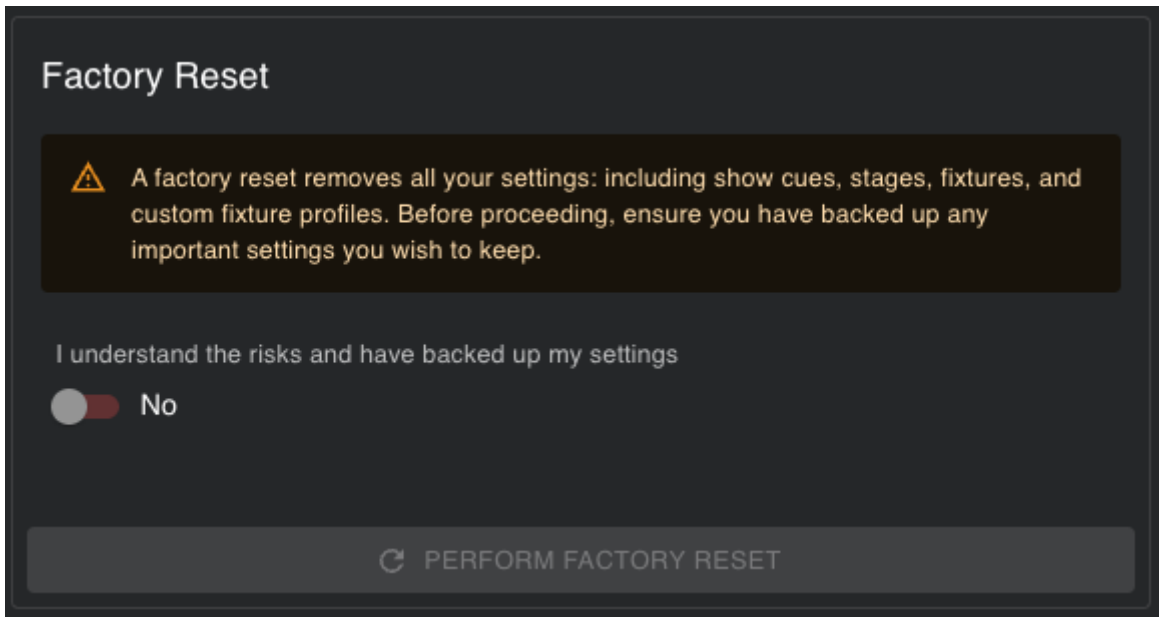
You can use this backup file at a later time to either restore your current MaestroDMX unit or to sync up another unit with the same settings.

Note: this does not include network and WiFi settings, which will remain the same after a restore.



Factory Reset

A factory reset removes all your settings, including show cues, stages, fixtures, and user fixture profiles. Before proceeding, ensure you have backed up any important settings you wish to keep.



IMPORTANT: Factory Reset will erase any Stages, User Fixture Profiles, Shows, FX Palettes, and Color palettes that you have created. Be sure to download a user backup before.

Fixture Profiles and DMX Control

Fixture Profiles Overview

To have MaestroDMX control your DMX fixtures it first needs to have the corresponding fixture profiles saved into its fixture profile library. The Fixture Profiles page on the MaestroDMX Web-App displays your fixture profile's library. By default, there are some basic generic built-in profiles here. However, most likely you will need to get the latest profiles to match your lights.

To get started:

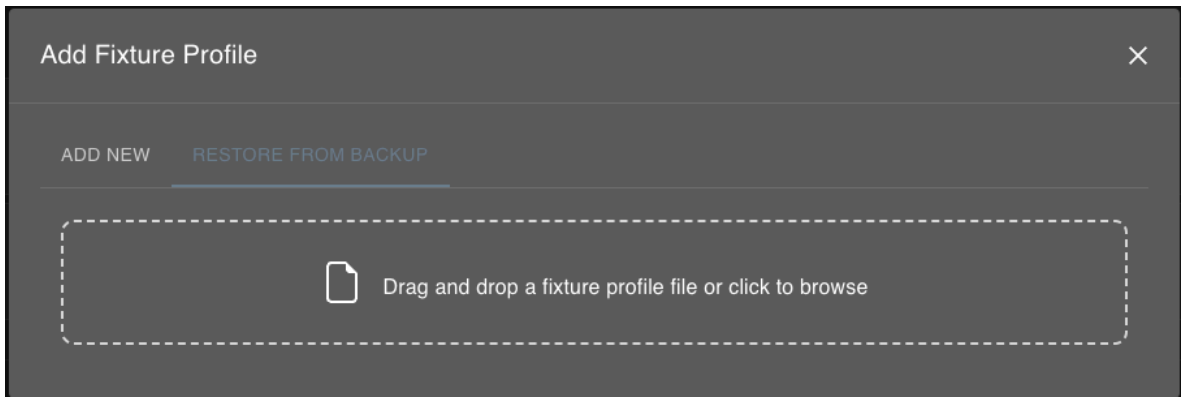
- Please visit the MaestroDMX Fixture Profile Webpage
- Search for your DMX fixtures via name and manufacturer
- Download and save the latest fixture profiles for your DMX lights

The fixture profiles will be downloaded and saved to a .json file format which can then be uploaded to MaestroDMX's fixture profile library via the MaestroDMX Web-App.

NOTE: If your fixture is unavailable on the webpage, you can create the profile yourself or contact support for help. For more information on creating fixture profiles yourself, see the heading "Creating Fixture Profiles" below.

Uploading Fixture Profiles To The Library

If you have a JSON formatted fixture profile file you can upload it or restore it to the fixture profile library. In the top right corner of the Fixture Profile page is a 3-dot menu "ADD" button. Click here and navigate to "+ Add Profile". In the pop-up dialog select "Restore From Backup" to upload the JSON file.



NOTE: For each fixture profile you will need to repeat this process.

Any fixture profiles that have been added will now be available in your fixture profile library and can be added to the stage.

Understanding Attributes In MaestroDMX

This section will help you with building or modifying a fixture profile. If you have already retrieved your profiles from the fixture profile website and want to jump to setting up a stage and running a show you can skip forward to 'Stages'.

As you may know, DMX fixture channels have many attribute types. For example, pan, tilt, color wheel, gobo, etc. It is important to understand that MaestroDMX classifies attribute types into either Dynamic or Static. Dynamic attributes are controlled autonomously by MaestroDMX's intelligent algorithms while Static attributes are set to an editable single value for the lifetime of the Stage.

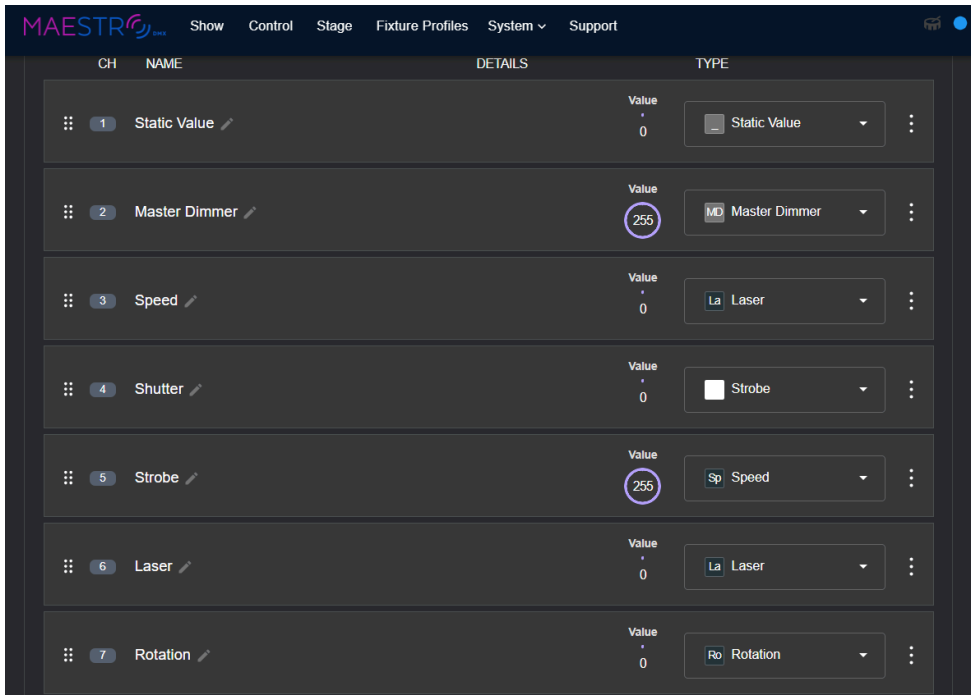
NOTE: As MaestroDMX develops, the following list will evolve and more attributes will come under the control of MaestroDMX.

Static Attributes

A static attribute will send a constant single value from 0-255 to the fixtures channel. This value can be edited and will be displayed in the fixture profile on the left of the type dropdown menu.

The following attributes are static continuous values:

- MASTER DIMMER, STATIC VALUE, LASER, STROBE, ROTATION, SPEED, SHUTTER



Dynamic Attributes

a Dynamic Attribute refers to a parameter type that changes continuously or fluidly—rather than staying fixed. Think of it like a dial or slider that can move through a wide range of values

List of Dynamic Attributes

The following attributes are autonomously controlled by MaestroDMX:

LED Color Control

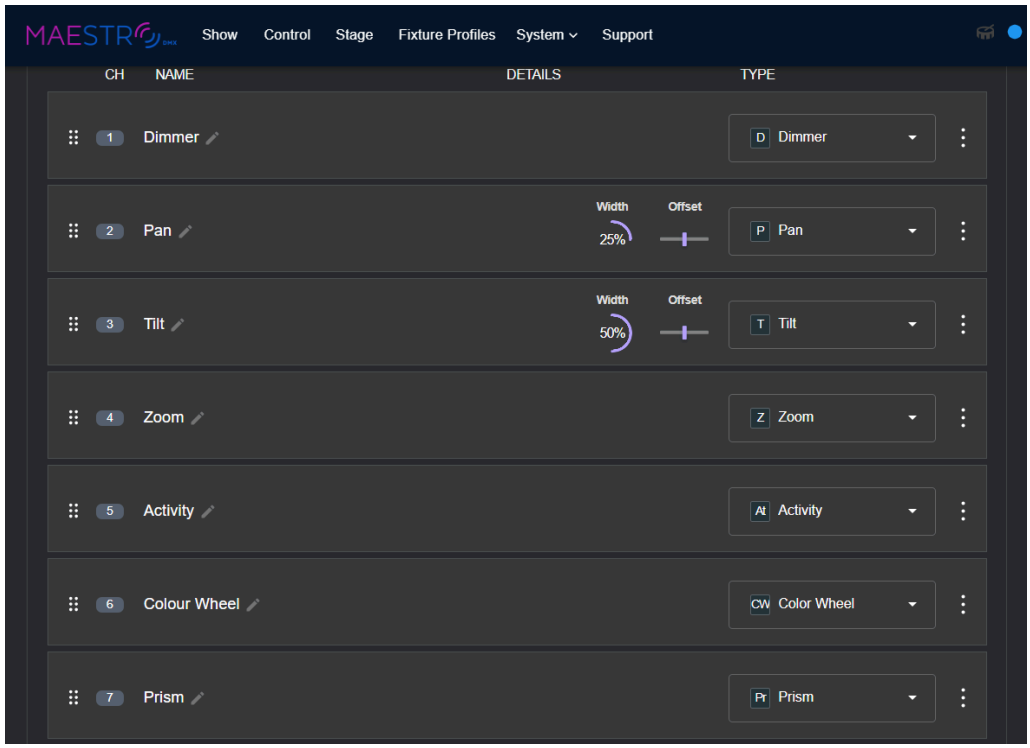
- RED, GREEN, BLUE, COOL WHITE*, WARM WHITE*, AMBER, UV

- CYAN, MAGENTA, YELLOW, KEY
- HUE, SATURATION, VALUE

*COOL WHITE and WARM WHITE are currently the same attribute

Function

- DIMMER, PAN, TILT, ZOOM, ACTIVITY, COLOR WHEEL, GOBO, PRISM, PRESET



Editing Dynamic Attributes

For all **Dynamic** types: PAN, TILT, ZOOM, ACTIVITY, LED Color Control, etc you can define the following Attribute Properties:

- **Output Range**: Limits the range in which this channel can operate.
- **Smoothing:** This will add more steps to a channel which can help if movement or colour fading feels clunky. This will slow down the dynamic speed of the attribute.
- **Invert Value:** This will invert the channel data eg 1-255 will be 255-1
    - Note: Maestro will add mirroring and symmetry automatically, you likely will not need to invert at the attribute level (such as pan/tilts on movers).

Uniquely to PAN and TILT types you can define the following Attribute Properties:

- **Offset:** defines the pan or tilt center point
- **Width:** defines the pan or tilt range of motion around the center point

For Effect button control types:

- **ON:** Only available for FOG, BLACKOUT and EFFECT channel types. When triggered via the SHOW page's Trigger Button, the ON value will be set
- **OFF:** Only available for FOG, BLACKOUT and EFFECT channel types. When triggered via the SHOW page's Trigger Button, the OFF value will be set

Trigger Attributes

- FOG ON/OFF, FOG VOLUME, FOG SPEED, BLINDER, EFFECT, BRIGHTNESS

The 'Blinder', 'Blackout' and 'Effects' attributes can be controlled in real-time via the corresponding Trigger Buttons on the Show page.

Using the ACTIVITY Attribute Type

The Musical Activity Level, as viewed on the Audio page, is directly connected to the ACTIVITY attribute type. This gives you the ability to connect a measure of how exciting the music is to any DMX channel. For example, you could set ACTIVITY to:

- The rotation speed of a fixture(s) to have it speed up and slow down with the music.
- The dimmer levels of a group of fixtures have them get brighter or darker with the music.
- The intensity or movement of a laser effect.

Using MASTER DIMMER vs DIMMER vs BRIGHTNESS Types

When looking at the built-in fixture profile you will see that both MASTER DIMMER and DIMMER attribute types are used. When the MASTER DIMMER type is used, it is generally set to '255' when a fixture mode has a dimmer channel along with LED color channels such as RGBW, etc. In this case, MaestroDMX takes care of the dimming via the levels of the color channels. This can be useful to set the relative brightness between fixtures.

However, if you are using a fixture profile with a dimmer channel AND it uses a color wheel and does NOT have any LED color control (RGBW etc), then the DIMMER attribute type is used. The DIMMER type is intelligently controlled by MaestroDMX and will pulse the dimmer on the fixture in sync with the music.

The 'Global Brightness' located on the top of the 'Show' is directly mapped to the BRIGHTNESS attribute. Giving users the ability to control any DMX channel with the 'Global Brightness' slider.

Using GOBO and PRISM Types

MaestroDMX allows autonomous control of GOBO and PRISM attribute types. Before a GOBO or PRISM channel can be controlled by MaestroDMX, the GOBO and/or PRISM channels of your fixture profile must have steps defined. The specific ranges can be found in the fixture profile's DMX specification available from the manufacturer.

A step has the following properties:

- The name of the specific gobo or prism effect at a specific DMX channel value.
- A range of DMX values correlates to the effect.
- Enabled toggle status.

Use 'ADD STEP' to add a new step and click the garbage icon to remove the step. **Be sure to SAVE once you have made changes.** The image below shows an example of the GOBO channel, however, the setting up of a PRISM channel is the same.

NOTE: Use ‘ENABLE/DISABLE ALL’ to toggle the gobo steps as needed.

Once your GOBO and/or PRISM channels are configured, MaestroDMX will autonomously trigger the steps based on changes in the music.

Using COLOR WHEEL Types

As of software v1.1 MaestroDMX allows autonomous synchronization of a fixture's COLOUR WHEEL attribute to the internal RGB colour space. Before a COLOR WHEEL channel can be controlled by MaestroDMX, the COLOR WHEEL channel of your fixture profile must have color wheel steps defined. To define a color, you must set the DMX range and choose a close

representation of the color from the color picker. The specific colors for each step can be found in the fixture profile's DMX specification available from the manufacturer/user manual.

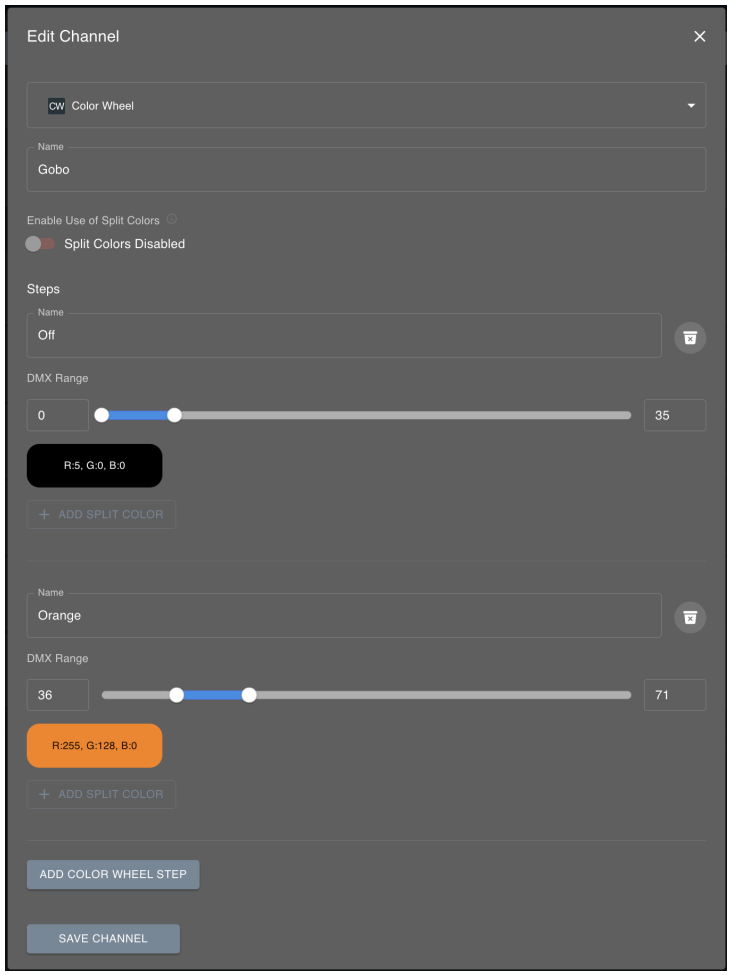
NOTE: As of software V1.2 the COLOR WHEEL attribute is being used for any channels that have colors specified such as: Color Wheels, Derbys, and Lasers.

Use 'ADD STEP' to add a new step and click the garbage icon to remove the step. **Be sure to SAVE once you have made changes.**

Follow these instructions for defining a colour step

- Give the colour a name for your reference.
- Using the manuals specifications, define the DMX range each step uses.
- Select a colour from the colour picker for MaestroDMX to read. The colour picker has HEX, RGB and 14 common colours to help you define the colour.
- Add a split colour for lights that use multiple colours in single steps.

Once your color steps are defined, MaestroDMX will autonomously synchronize the colors on your COLOR WHEEL channel with the internal color palettes.



Dealing With Undefined Colours

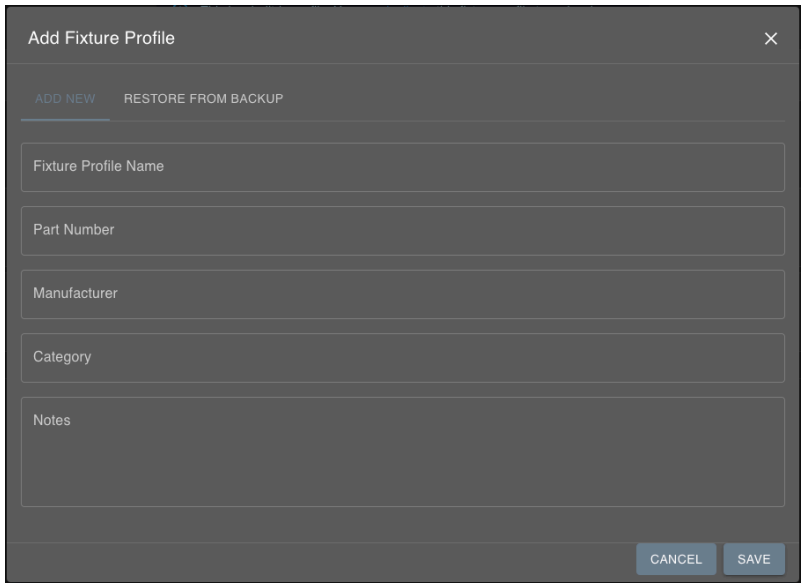
Some fixture manufacturers do not define the color at each step, i.e. the manual may say 'color 1, color 2, color 3…etc'. In this case, you will have to visually discover the colors by putting the fixture on your stage and using the Override Channel Value in the colour wheel editor. This way

you can visually verify and take note of the colors at each step. When each step is defined you can save this mode to the existing profile. Read more in [Patcher: editing fixtures in a stage.]

Creating & Modifying Fixture Profiles

Creating a New Fixture Profile

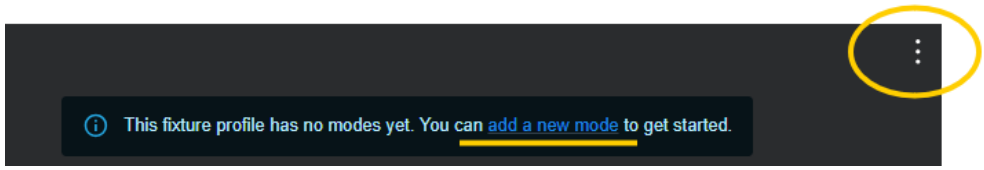
In the top right corner of the Fixture Profile page is a 3-dot menu button. Click here and navigate to "+ Add Profile", then select "ADD NEW".



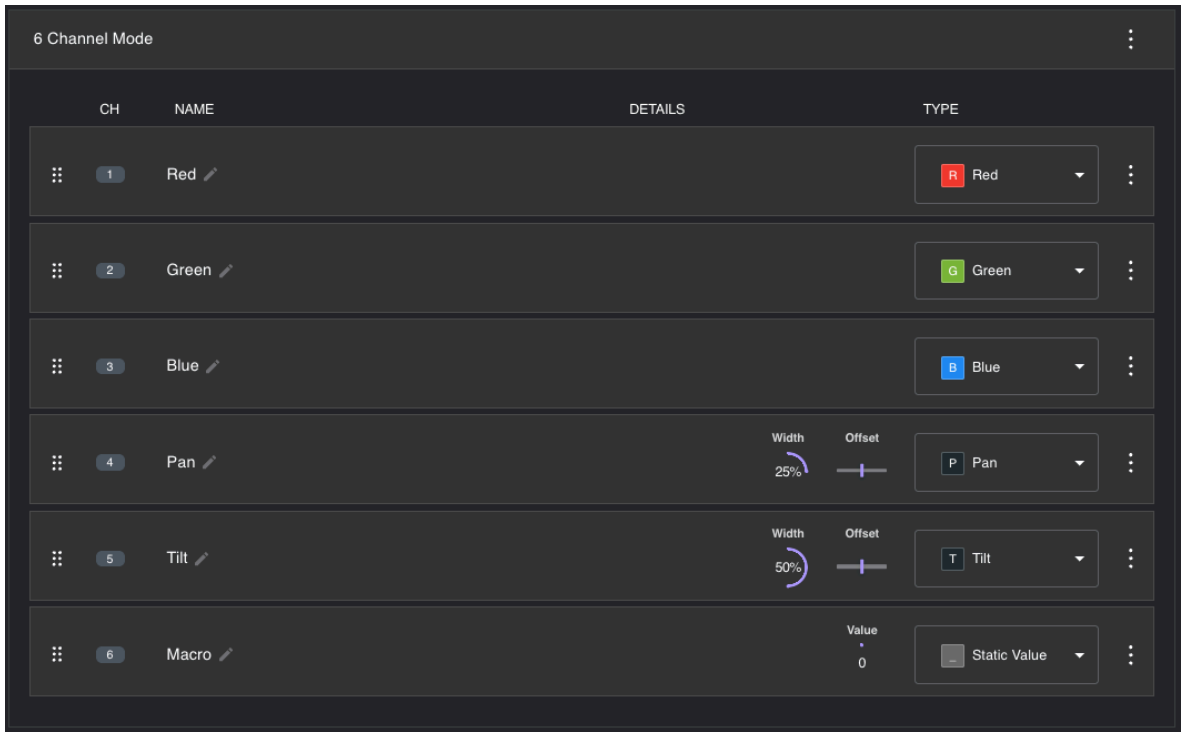
1. Add your fixture profile, enter relevant information, and save.

   Note: The "Upload Profile File" tab allows users to upload previously created fixture profiles. Find a wide selection of [fixture profiles here.]

2. Click the menu button or 'add a new mode' text to add a new mode, and enter the number of channels and a name, then save.



3. Each channel in your newly added mode will save automatically, and can be re-ordered and assigned a name and attribute type. The Details section shows specific channel settings. Refer to your fixture's DMX specification for necessary information to help you choose the right type for each channel.



4. Click a channel's 3-dot menu button to edit the channel. Depending on the type of Attribute assigned to the channel, different Attribute Properties will be displayed on the left of the type.

5. Click "Save Channel"

Repeat steps 3-5 for each channel and repeat steps 2-5 to create more modes. Refer to Understanding Attribute types for more information.

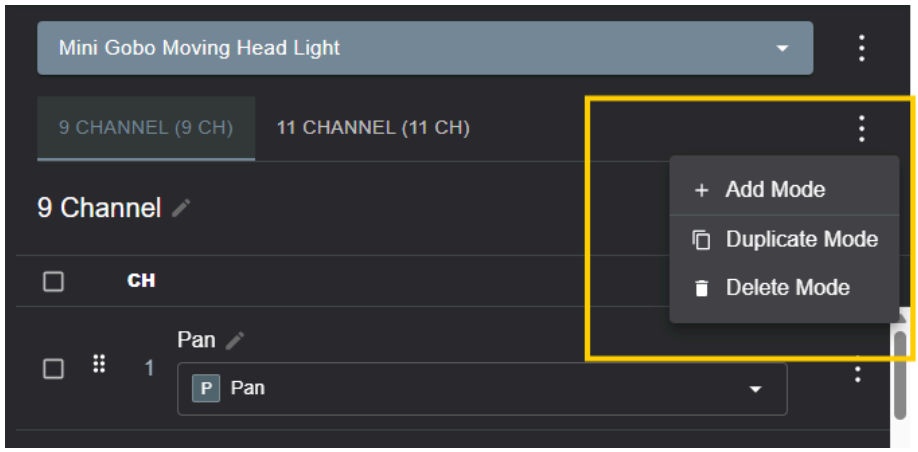
Modifying Existing Fixture Profiles

Both built-in and user-created fixture profiles can be modified. Modifying a built-in fixture can be useful for creating templates that are more specific to your setup.

To modify a built-in fixture, search for the desired fixture and click "duplicate fixture profile," then follow the below steps.

Adding Modes

Locate and click the top-level menu button underneath the fixture name and manufacturer. Click '+ add mode.'



Changing a fixture's name and manufacturer

In the 3-dot menu next to the fixture name click “Edit Fixture Profile”. In the pop-up window, you can change your fixture profile’s name and manufacturer.

Downloading a Fixture Profile

The top-level menu button beside the fixture name and manufacturer also provides the functionality to download a fixture. Downloading a fixture can be useful if you want to share a fixture you created on your device or have a backup in case of a Factory Reset or a system malfunction.

Duplicate Fixture Profile

The same menu button also allows users to duplicate their fixtures. This feature is used to duplicate and modify fixtures other than the fixtures found in the built-in library.

Deleting Fixture Profiles

The final section of the menu button allows users to delete their fixtures. Once a fixture is deleted it cannot be restored.

Adding Channels to Modes and Deleting Modes

Click on a mode. In the 3-dot menu button located beside the right side of the Mode name users can:

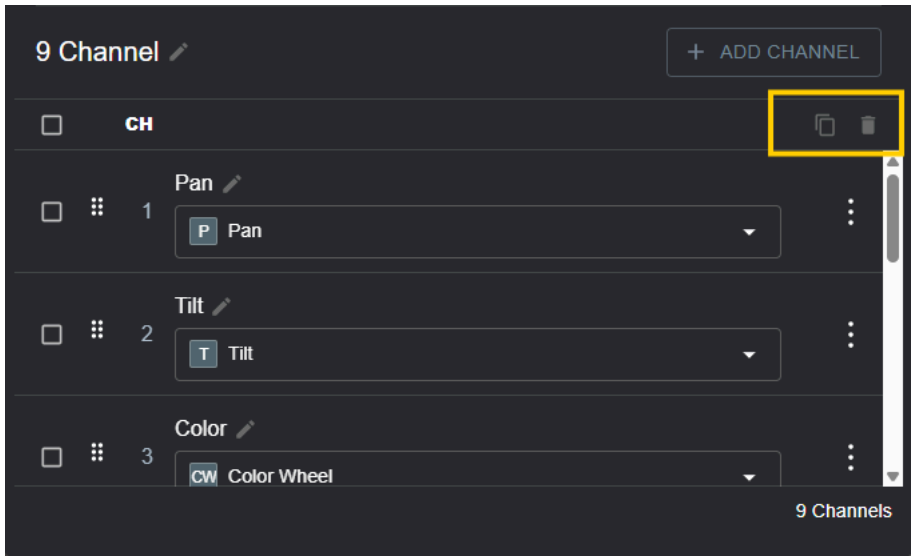
- Add mode
- Duplicate mode
- Delete Mode

Once a mode is deleted it cannot be restored.

Changing Channel Name and Type, Duplicating Channels, and Deleting Channels

In the 3-dot menu button located on each channel, users can change channel type, name, and static value settings by clicking “edit channel”. Similarly, channels can be duplicated and deleted with the same menu button. Once a channel is deleted, it cannot be restored.

With version 1.5 there are selectable boxes next to each channel for multi-select. Hitting the top box will automatically select all boxes in that mode and allow for quick deletion or duplication. Use the icons on the top right to duplicate or delete any selected fixtures.



Next to the select boxes on each channel is a grab box that users can drag and drop the channel to re-order the channels. The rest of the channels will automatically re-order themselves around whichever placement is arranged.

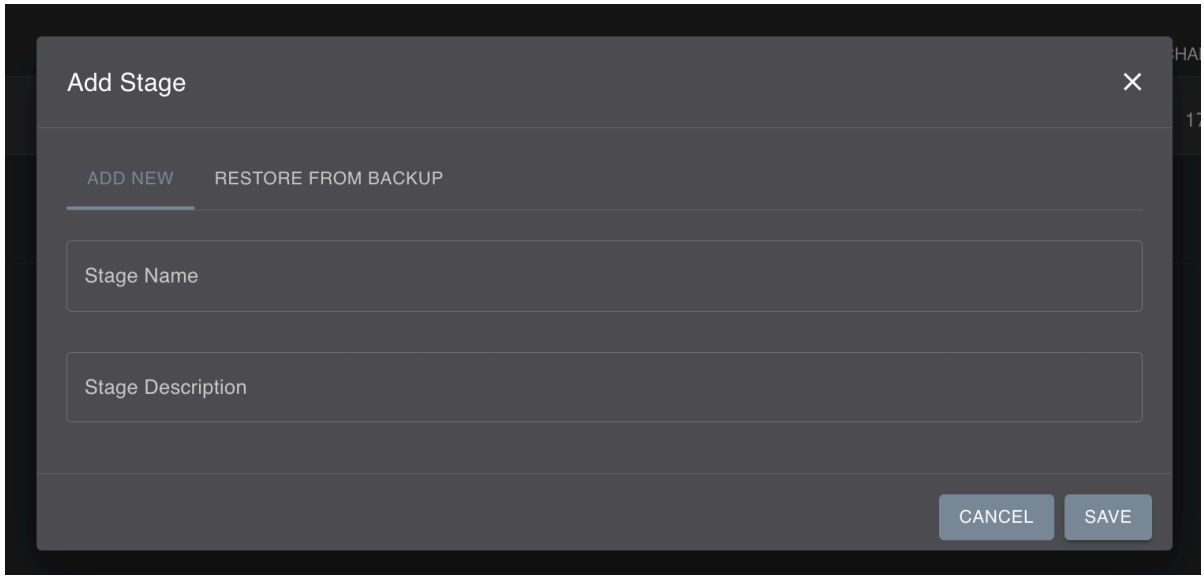
Stages

Creating a Stage

The stage is where you 'patch' your fixtures, telling MaestroDMX which addresses your lighting fixtures are set to, which fixture groups they belong to, and how they are mapped or arranged to reflect the positions of the fixtures in real life. It is very important to correctly set up your stage otherwise your light show will not work as expected.

TIP: Typically you want each of your fixtures set to their own unique address spanning an address space that does not overlap with other fixtures. For example, a 3-channel RGB fixture set to channel 1 will take up channels 1-3 out of the total 512 channels available in the universe. Then you would want to make sure that no other fixtures are overlapping those first 1-3 channels.

Click the 3-dot menu in the top right corner and select '+Add Stage'. A dialogue will pop up where you can name the stage or upload a stage using the "Restore from Backup" tab.



Using this 3-dot menu you can also:

- ‘Edit Stage’ - Change the name and description of the stage
- Duplicate, Delete, and Download the stage

Saving and Restoring Stages

NOTE: It is highly recommended to download your stages and save them in a safe place. They will download to your device as a JSON formatted file. The downloaded stage file has all the information to restore your stage including:

- Stage name and description
- **Patcher**: Addressed fixtures on the stage and which fixture groups they belong to
- **Layout**: Pixel and mover mapping (1D and2D) for each fixture group
- **Control**: Any Snapshots including the ‘Fixture Default’
- **Global**: Any FX Palettes being used in Live Control or any Cues in the Show.

To restore a stage use the ‘Restore Stage From Backup’ tab on the ‘Add Stage’ dialog.

Art-Net Overview

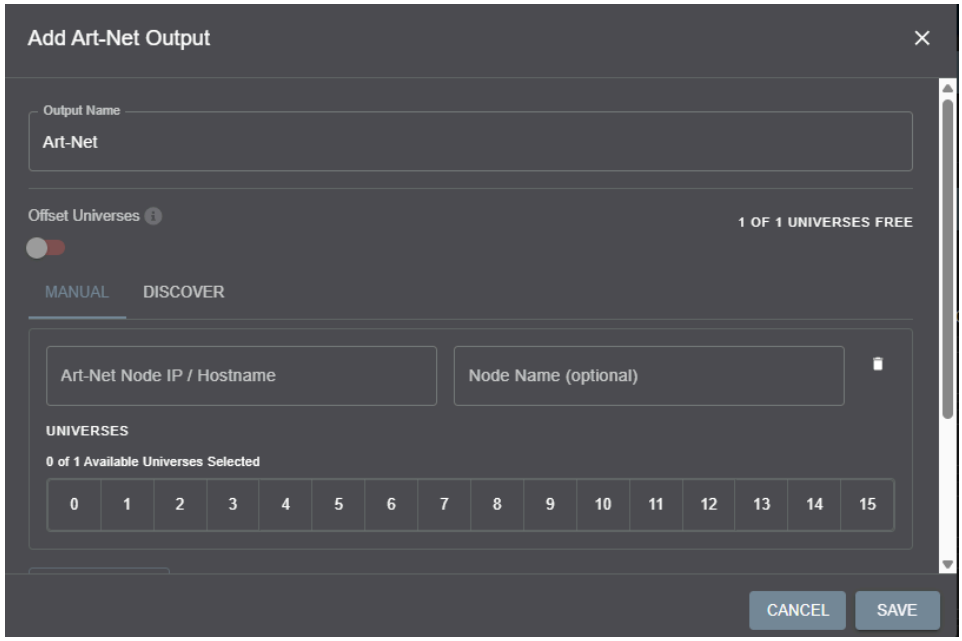
Art-Net is an Ethernet-based protocol for controlling professional lighting fixtures, allowing DMX universes to be transmitted over a single network cable. With the Version 1.5 release, using the Ethernet port on the MaestroDMX unit, MaestroDMX can now send data to an additional universe. This means that fixtures with more complex DMX setups—whether they use higher channel counts or larger quantities of fixtures —can be fully controlled by a single MaestroDMX.

There are many ways to translate Ethernet to DMX but most need some sort of DMX converter like this one-

PK night BiDirectional Art-Net to DMX converter

Adding An Art-net Universe

In the Stage tab there is the option to add an output to the stage using Art-Net. Using the 3-dot Menu next to the Internal DMX dropdown, select ‘Add Output’.



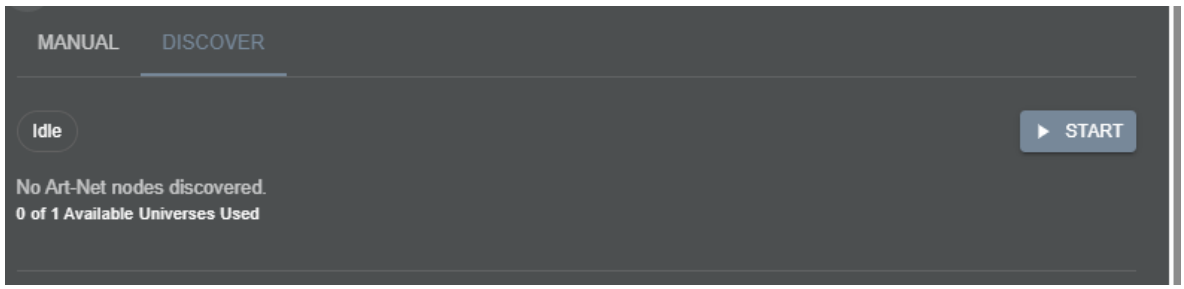
Users can define the Art-Net universe manually-

- Name the universe
- Define its IP address
- Name and add Nodes
- Decide which Universe of DMX
- Enable or Disable Art-Net output

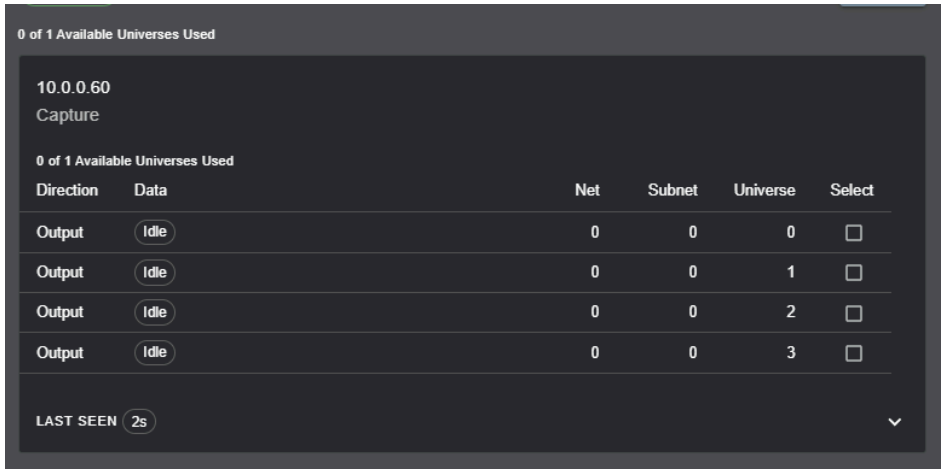
Offset Universes - This toggle allows the first universe to be defined as either Universe 0 or Universe 1. Different software and Art-Net interfaces can vary on what the first universe will be; use this toggle to help MaestroDMX line up with users' needs.

Use the ‘Add Node’ to send the Art-Net data to multiple devices with different IP addresses.

Users can also easily find and connect to Art-Net Nodes using Discover



Hit the start button, and MaestroDMX will scan for available nodes. This generally takes about 20 seconds and will populate the window with any found information.

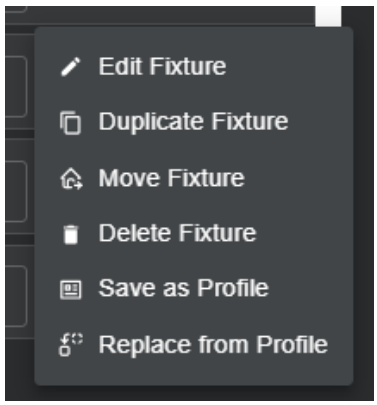


The IP Address and Name of the discovered nodes will be shown. Users have the option to select which universe of DMX data is sent.

Once a node is selected, it can be edited to change the IP address or name of the universe and add more nodes to the selected universe using the manual tab.

Unpatched Fixtures and Moving Fixtures Between Universes

Once the Art-Net Universe is made, users can add fixtures to the Art-Net Universe and move fixtures from the existing DMX stage over to the Art-Net stage.
By hitting the 3 dot menu next to any fixture you will see a list of options to affect that specific fixture.



Using the ‘Move Fixture’ option will allow the fixture to be placed on either the DMX universe or Art-Net universe stages and can be re-addressed to fit onto the different stages.

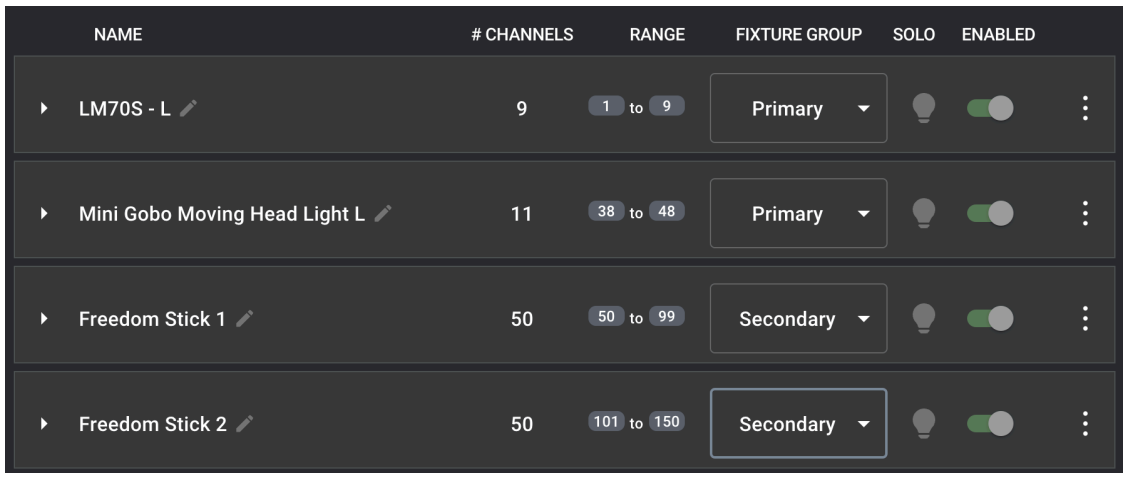
When an Art-Net universe is deleted, users will have the option to either delete the fixtures on that universe from the stage or move them to the unpatched universe. Keeping the fixtures in the unpatched universe is especially handy if the fixtures have Snapshots or FX Palettes associated with them. From the Unpatched universe, users can move the fixtures to their DMX output or keep them unpatched and unused in the meantime.

Patcher: Adding Fixtures to a Stage

Setting up the Patcher correctly is critical to the success of your light show and is typically the first step in getting your stage prepared.

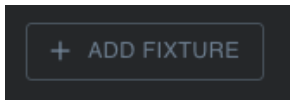
The Patcher allows you to do the following:

- Add fixture modes from the fixture profile library to the stage
- Specify the address of each fixture
- See unpatched fixtures
- View a list of fixtures on the stage and the address ranges in the DMX universe that each fixture occupies
- Drill down into any channels of your fixture to make edits or set static values
- View Channel mode and what DMX data each channel is sending
- Duplicate/delete fixtures from your stage
- Enable/disable and solo any fixture(s)
- Set the fixture group of each fixture

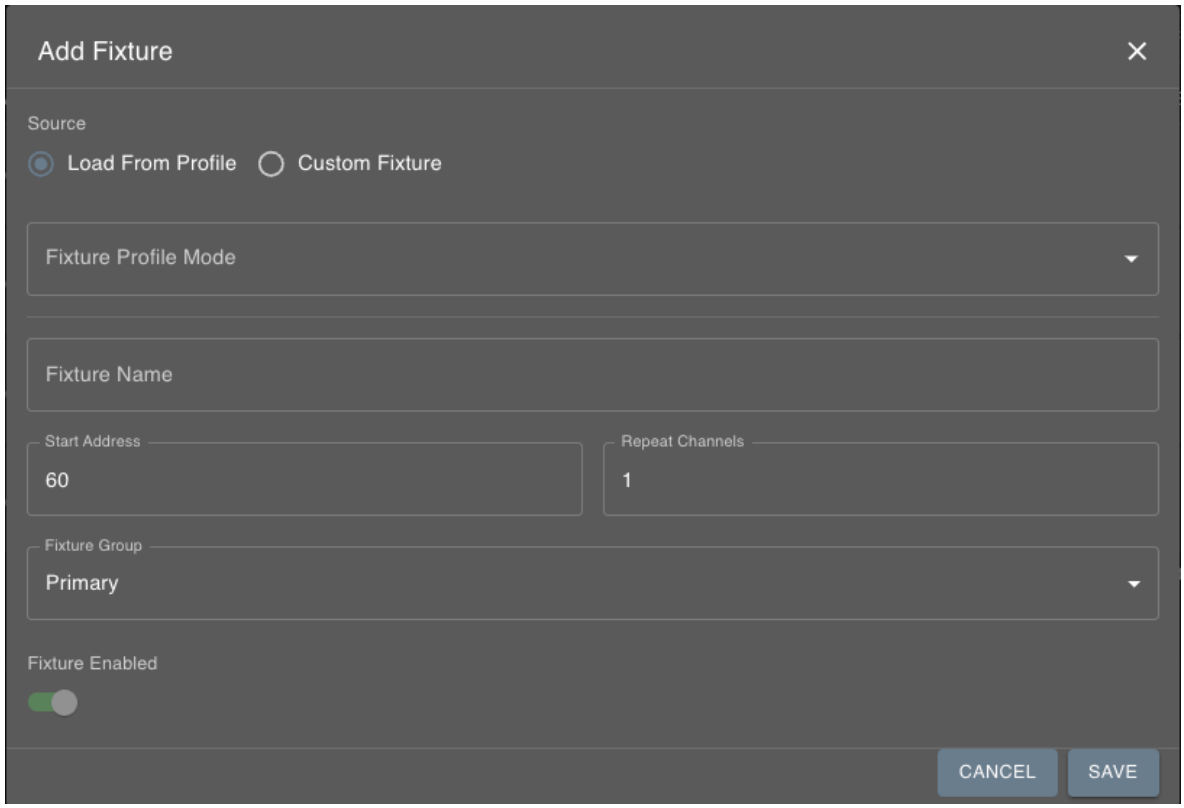


Adding Fixtures To A Stage

In the Stage page there are two tabs. Patcher and Layout. Make sure to be in the patcher to begin. Click '+ ADD FIXTURE' to add a fixture to the stage.

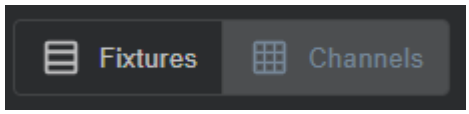


1. Choose "Load from Profile" (a fixture from the profile library) or "Custom Stage Fixture" (on-the-spot creation of a fixture)
2. Assign your fixture to a fixture group.
3. Set the starting address of the fixture
4. Specify any repeats
5. Click 'Save'



NOTE: “Repeat Fixture Channels” allows you to add multiples of the same fixture to the patcher. This can be useful if for example, you have 10 of the same mover fixtures and you want them all to have the same offset and width or static values on a particular channel. Keep in mind that any fixtures in the repeated set will not be able to be placed individually in the layout; they will all be treated as a single fixture.

Viewing channels



Use the Fixture/Channel toggle to switch between the view of your fixture patch to a live DMX output chart. This allows you to view the DMX output currently being sent to each channel, see what type of channel, and see empty/unpatched channels.

Each fixture is labeled at the beginning of the channel group with a 3-dot menu above the last channel of the fixture that will offer fixture-related menu options. If the fixture name is clicked, it will navigate to the control page with that fixture loaded.

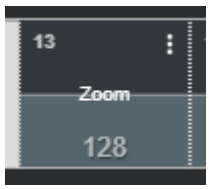
Each of the channels are colour-coded.

Static channels appear as a dull grey and fill up with a light grey as they output more value.

Dynamic channels are blue-grey, and the values will fluctuate automatically with the music/MaestroDMX patterns.

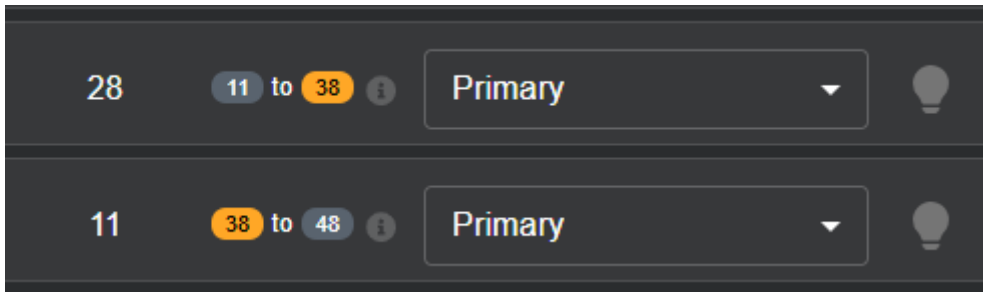
Red, Green, Blue, UV, Amber, White, Magenta, Yellow, and Cyan channels will flow dynamically, and the colour of the chart will reflect the colour of the channel.

Each box will show the address it relates to at the top left. The name of the channel in the middle and the numerical value between 0-255 being output at the bottom. The 3-dot menu will give you fixture-related options for the overall fixture that the channel belongs to.



If two channels overlap DMX, that box will have a striped appearance.

This shows that there is DMX overlapping and that this address and the fixtures attached will likely misbehave. Overlapping DMX will also be flagged as yellow in the fixture view of the Patcher.

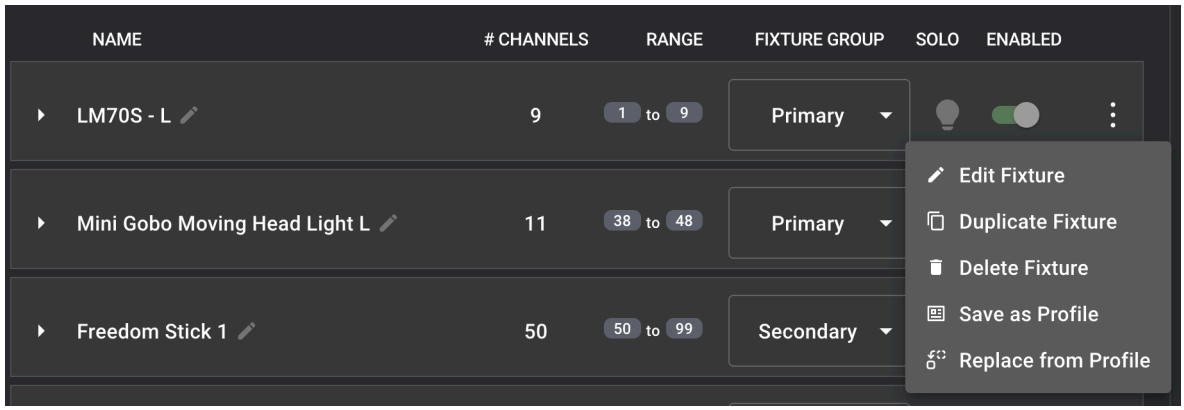


An information icon will also appear next to the ranges to tell you which fixture is overlapping the DMX range.

Editing Fixtures In The Patcher

Clicking on the 3-dot menu on any individual fixture provides various options:

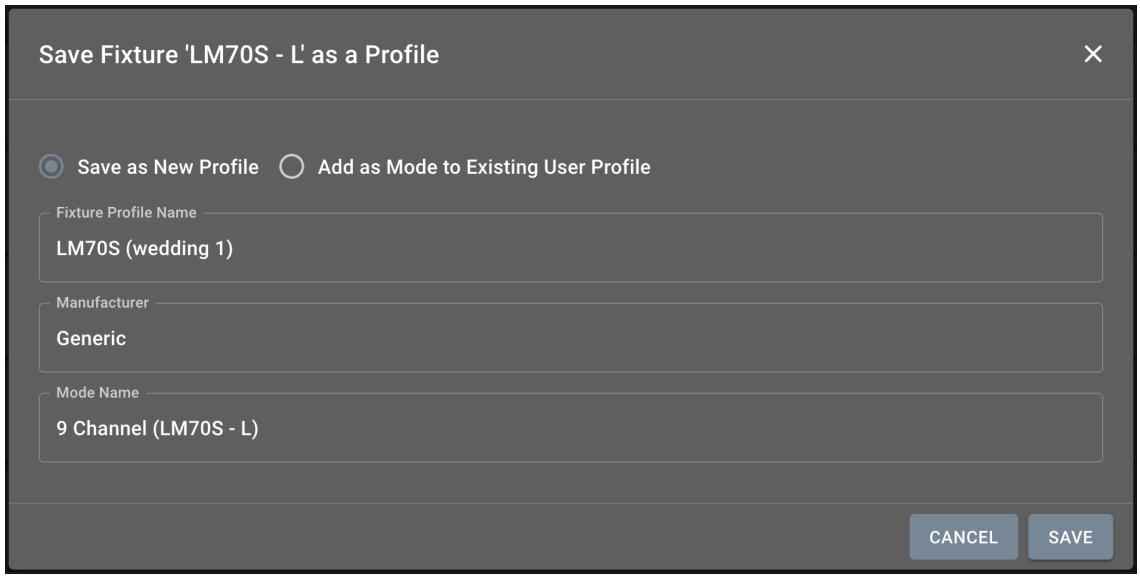
- Edit Fixture: name, address, fixture group, enable/disable
- Duplicate/Delete fixture
- Save as Profile & Replace from Profile



Clicking the arrow on the left provides a dropdown of all the fixtures channels. Users can edit the values and dynamic ranges of each channel however this is more intuitive to do from the Control Tab. Any edits you make from patcher will affect the individual fixture and not the profile stored in your fixture library.

Save as Profile & Replace from Profile

‘Save as Profile’ allows you to make any edits to the fixture within the patcher/control and save those in a profile in your fixture profile library.



You have the option to save the specific fixture in the patcher as either a new fixture profile or to add it as a new channel mode to an existing profile.

Layout: Fixture Groups and Mapping

The Layout page allows you to do the following:

- Position the fixtures in each fixture group on the stage (either linearly or in a 2D grid)
- View the pixel and mover counts in each fixture group
- Enable/disable fixture groups
- Enable/disable and Solo individual fixtures
- Edit/delete fixtures from the stage (any changes are updated in the Patcher and Controls page)

Fixture Groups

Fixture Groups give you the ability to set different lighting effects, and mappings to different sets of fixtures. Harnessing the power of Fixture Groups correctly can really step up your light show.

Use Cases For Fixture Groups

Here are some ideas on how to use Fixture Groups:

- Setup a static ‘wash’ Cue that is only applied to a specific set of fixtures on your stage. Then trigger that Cue during your show on demand.
- Apply different color palettes to different sets of fixtures to create ‘blocky’ type effects
- Use ‘Allow Blackout’ to have groups of fixtures turn off in sync with the music to create more dynamic effects

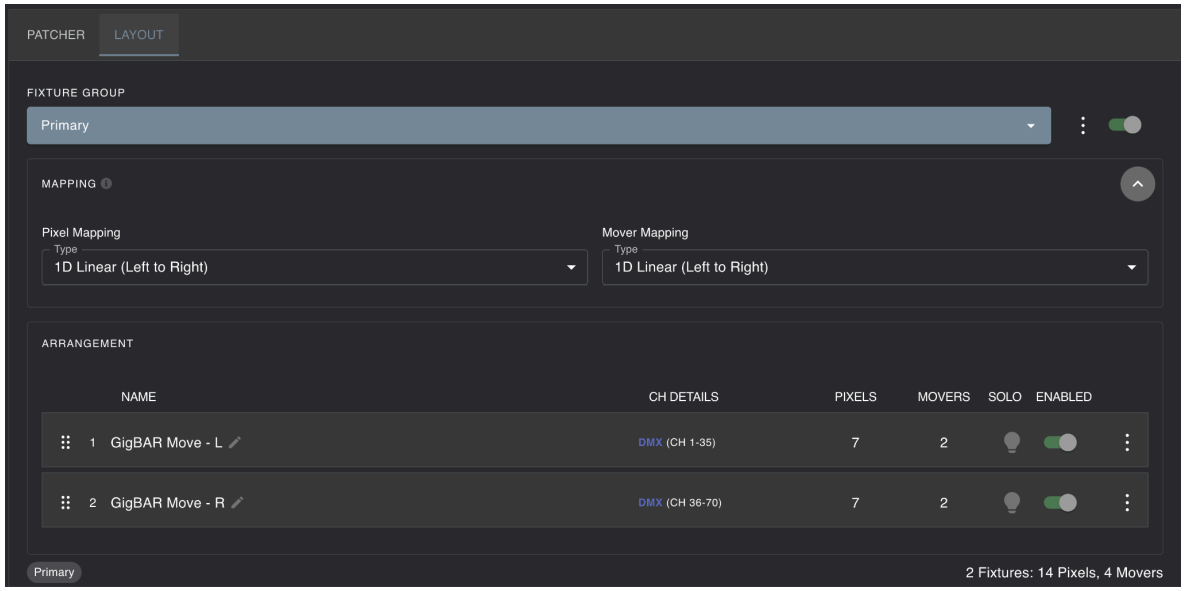
MaestroDMX provides plenty of flexibility with 4 Fixture Groups.

Renaming Fixture Groups

You can rename your fixture groups by clicking the 3-dot menu on the right side of the Fixture Group selector drop-down on the ‘Layout’ tab on the ‘Stage’ page. Select ‘Edit Fixture Group’ to rename the group.

Pixel and Mover Mapping

Each Fixture Group provides the ability to map the fixtures within the group to the real world. Doing this well will greatly enhance your light show since MaestroDMX's Lighting Patterns use 1D and 2D mapped effects. Click the arrow toward the upper right side to open the Mapping controls.



The Mover Mapping will determine the layout of your pan/tilt movement, while the Pixel Mapping will determine the layout of your RGB, Color Wheel-based pixels.

IMPORTANT: Once you have mapped your stage (see below) you can use the Mapping Test Pattern, accessible on the Show page to check if the mapping is correct.

Mapping in 1D

By default, fixtures are placed in a 1-dimensional line, left to right or right to left. You can change the position by dragging each fixture in the Layout tab.

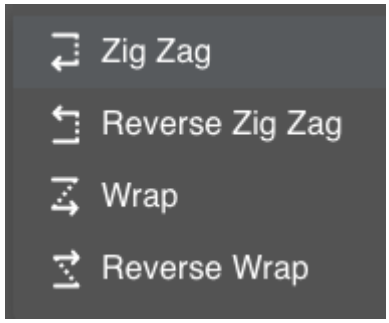
Mapping in 2D

MaestroDMX provides a limited way to map fixtures onto 2D grids. To access the mapping controls, expand the opposing arrow on the far right side of the layout page.

NOTE: 2D grid mapping assumes that you have fixtures in a grid with the same number of fixtures (pixels or movers) for each column and row. More precise 2D-pixel mapping support is part of our roadmap and will be supported in a future software release.

If you are running moving head lights in a 2D grid then you will need to set up a 2D mapping for both the pixels and movers independently to take advantage of the 2D geometry.

There are 4 types of 2D Grid mapping:



Zig Zag

Zig Zag will take the linear order specified in your Layout and 'snake' it back and forth to create the grid, starting from the top left and moving down.

Reverse Zig Zag

Reverse Zig Zag will take the linear order specified in your Layout and 'snake' it back and forth to create the grid, starting from the bottom left and moving up.

Wrap

Wrap will take the linear order specified in your Layout and add it to the grid sequentially by starting at the beginning of each row, starting from the top left and moving down.

Reverse Wrap

Reverse Wrap will take the linear order specified in your Layout and add it to the grid sequentially by starting at the beginning of each row, starting from the bottom left and moving up.

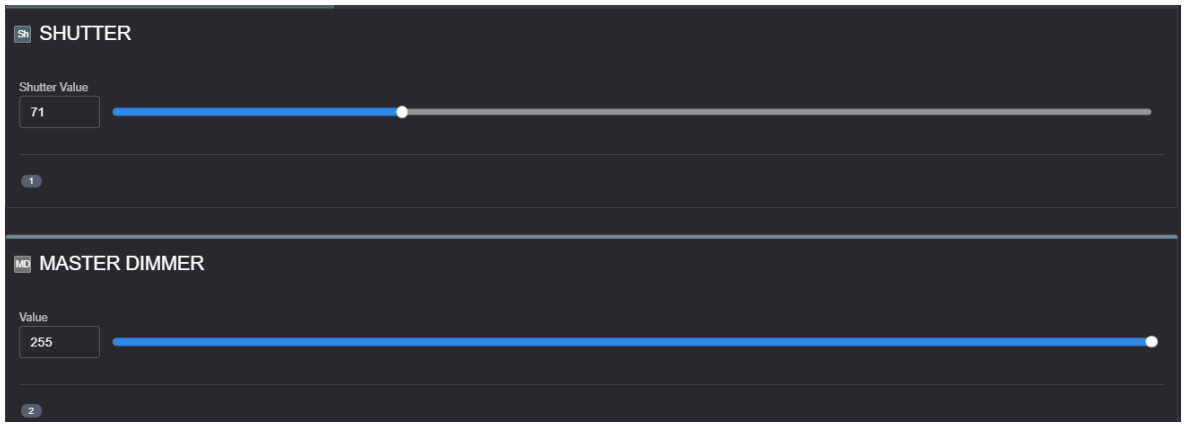
Segment Length

The 'Length' refers to the number of columns in your grid. Another way to understand this would be to figure out how many fixtures you have in a row along the horizontal from left to right. MaestroDMX will then automatically calculate how many rows you need and create a 2D Grid mapping.

Control And Snapshots

The Control page provides real-time control over any fixture's static channels and gives you the ability to create 'Snapshots' of your fixture settings to be recalled during your show using FX Palettes. Use the lightbulb icon to solo the current fixture, to hone in on each fixture one by one.

Static channels (not controlled by MaestroDMX) provide you with a control slider allowing you to set the DMX channel value. For instance, see the 'Shutter' and 'Master Dimmer' channels in the image below.



Dynamic fixture channels that are controlled by MaestroDMX attributes such as Pan, Tilt, Red, Green, Blue, etc, do not initially provide a control slider however you can use ‘Extended Controls’ to override a dynamic channel with static value.

Any changes made to the outputs of channels will be reflected by the bar above the channel that will fluctuate and represent the real time DMX data being sent in that instant.

Centering and Limiting Moving Heads

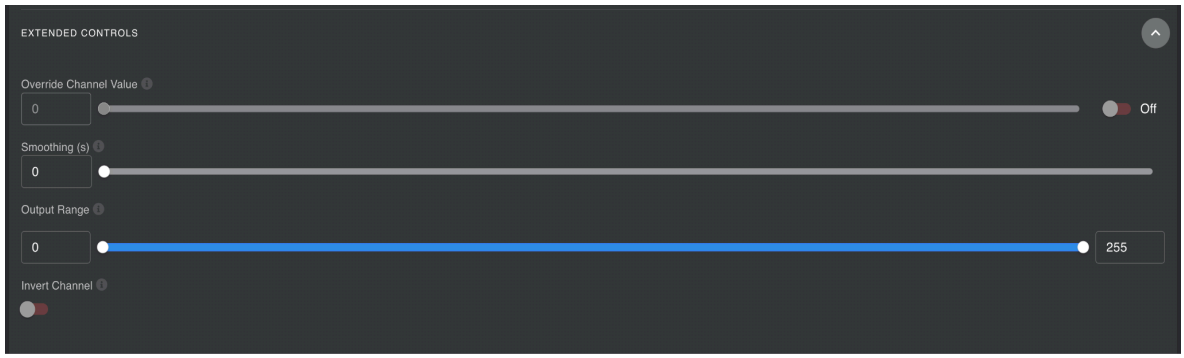
The Control page provides an interface to dial in your moving head’s positions including the center point and range using ‘offset’ and ‘width’. As you change the offset you can see your fixture re-centering in real-time. Any channel values set here under the ‘Fixture Default’ Snapshot will remain for the duration of the stage. You can create custom Snapshots to specify any number of different moving head positions that can be recalled later on in your Show. For instance, if you want some of your moving head lights to point at a wedding cake at a specific moment.

Extended Controls

Use the ‘Extended Controls’ arrow on the far right-hand side to access the following:

- Override Channel Value: Allows you to manually set the DMX value for any dynamic channel

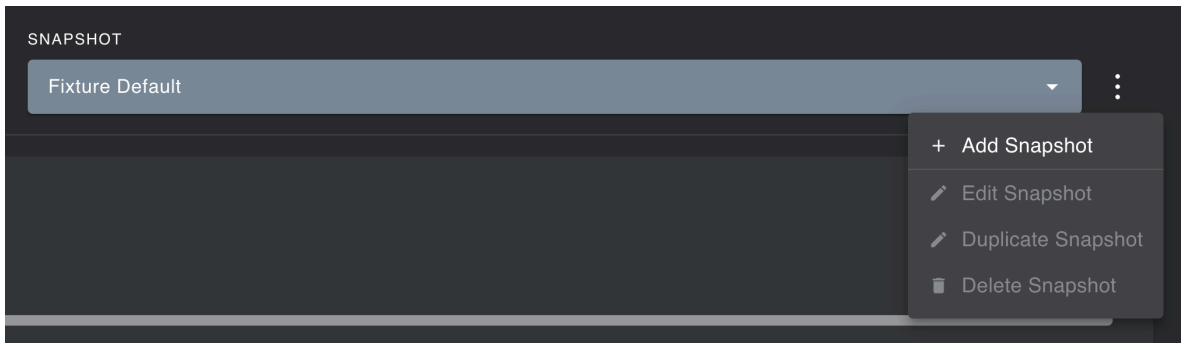
- Smoothing(s): In seconds, this is the level of smoothing that is applied to this channel when controlled by MaestroDMX. Smoothing can be useful if you want to slow down your movers for example
- Output Range: Limit the range of output for this DMX channel. This can be useful if you only want MaestroDMX to control a portion of this channel space



Snapshots

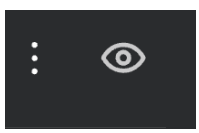
MaestroDMX gives you the ability to record 'Snapshots' of your fixture settings that can be recalled during your show using FX Palettes. FX Palettes is a very powerful feature that allows you to trigger any Snapshots that you have created based on events in the music or when a Show cue is triggered. So to reiterate, Snapshots are manual presets of your stage fixtures.

By default your Stage has a 'Fixture Default' Snapshot. To create a Snapshot click on the 3-dot menu to the right of the 'Snapshot' drop-down. In this menu, you can also Edit, Duplicate, and Delete your Snapshot.



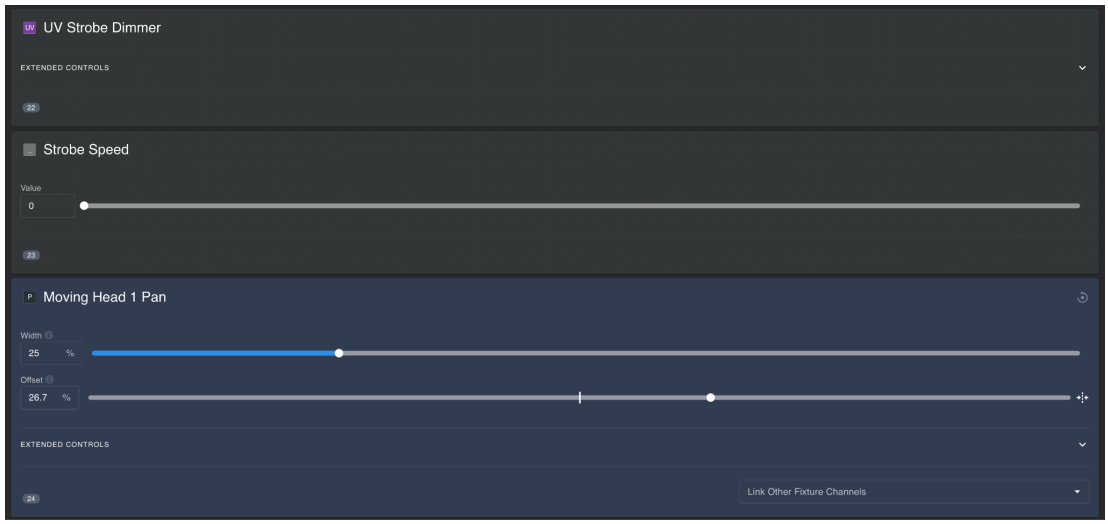
Once you have created a Snapshot, an 'eye' icon will appear to the right of the Snapshot drop-down. Toggle this icon to preview any Control changes you make to fixtures for the currently selected Snapshot.

IMPORTANT: A reminder that you must click the 'eye' icon at the top right of the Control page in order to see the current Snapshot on the stage.

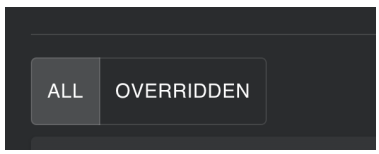


Now you can go ahead and make changes to the selected fixture. Channels that are overridden from the Fixture Default have special properties, they will:

- Turn blue in the UI.
- Provide a ‘Revert’ icon that looks like a circular arrow in the top right corner of the channel
- Give you the option to ‘Link Other Fixture Channels’ of the same type



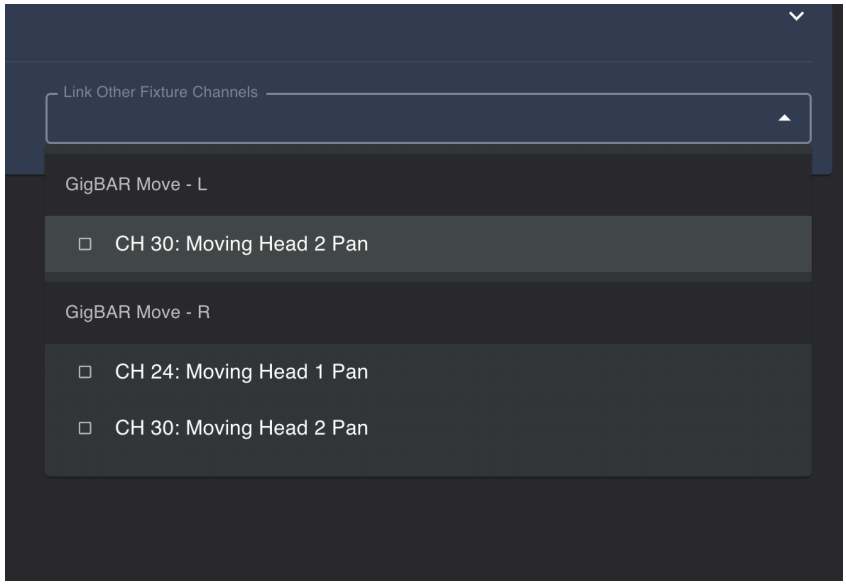
At the top of the Control page you will also have the ability to view only overridden channels of the selected fixture.



Link Other Fixture Channels

Creating a Snapshot gives you the ability to link together channels of the same type across similar fixtures on the Stage. For example, if you want to set the Pan Offset for all of your movers of the same model. This saves you from having to individually set each channel. Click the selection box for any channels that you want to link.

Currently (v1.4) it is not possible to Link channels together for the ‘Fixture Default’ Snapshot.



Running A Show

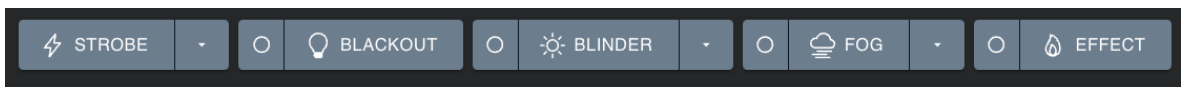
Show Page Overview

The Show page is the main interface that you'll use while operating MaestroDMX. This is where the magic happens. The Show page allows you to perform the following:

- Control the global brightness of the stage
- Trigger buttons to control: BLACKOUT, BLINDER, STROBE, FOG (or Haze), & EFFECT
- Define Patterns, Colour Palettes, FX Palettes, and Parameters to control the light show for each fixture group
- Perform 'Live' or build Cues that can then be sequenced in a Show
- Observe MaestroDMX's status when actions are triggered by a MIDI or OSC controller (See MIDI Specification and OSC Specification).

Trigger Buttons

The trigger buttons enable you to trigger common effects on your dmx fixtures. The following are available:



- BLACKOUT: All lights turn off.
- BLINDER: All LED fixtures turn full white. Color wheel-based fixtures will go to a white wheel if specified. Also, Any channel type that is set to BLINDER will get set to the ON level and return to the OFF level when the button is released. Can be used for Binder-based fixtures that you only want to turn on when the button is pressed.

- STROBE: All lights will strobe.
- FOG: Any DMX channel type that is set to FOG ON/OFF will get set to the ON level and return to the OFF level when the button is released.
- EFFECT: Any channel type that is set to EFFECT will get set to the ON level and return to the OFF level when the button is released. Can be used for flame effects etc.

You can set the ON and OFF levels for FOG and EFFECT at the fixture level via the Patcher or Control page, or via the profile on the Fixture Profile page.

NOTE: The Trigger Buttons will only work if MaestroDMX is playing either in Live Mode or via Cues in the Show

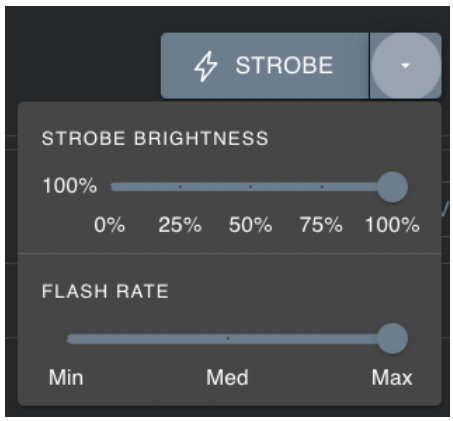
Trigger Button Controls

Momentary vs Latched Modes

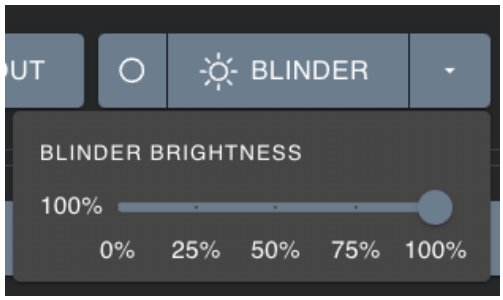
BLACKOUT, BLINDER, FOG, and EFFECT trigger buttons can be set to **momentary** or **latched** mode by clicking the circle next to the button. Green indicates latched while clear indicates momentary. In momentary mode, you have to keep the button pressed to realize the effect. In latched mode, once the button is clicked, the effect will run until the button is pressed again to turn the effect off.

Specific Trigger Controls

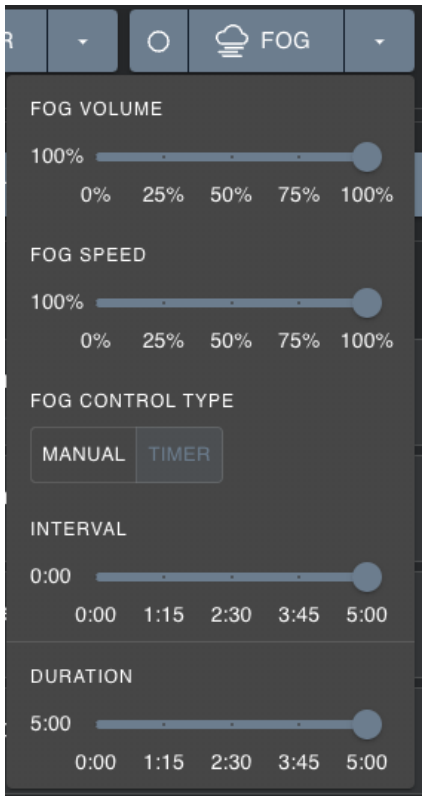
Click the arrow drop down next to the STROBE trigger button to access the ‘Strobe Brightness’ and ‘Flash Rate’.



Click the arrow drop-down next to the BLINDER trigger button to access ‘Blinder Brightness’



Click the arrow drop-down next to the FOG trigger button to access the FOG settings.



FOG VOLUME controls the level, from 0-255, of the Fog Volume attribute type. Whichever DMX channels are set to use the Fog Volume attribute type will react to the FOG VOLUME slider. Make sure to have your fog or haze machine's DMX channel that pertains to volume connected to this attribute.

FOG SPEED controls the level, from 0-255, of the Fog Speed attribute type. Whichever DMX channels are set to use the Fog Speed attribute type will react to the FOG SPEED slider. Make sure to have your fog or haze machine's DMX channel that pertains to speed connected to this attribute.

NOTE: Not all haze fog machines have a volume control. In this case, FOG VOLUME will not have any function.

FOG CONTROL TYPE specifies how the FOG effect will function while the FOG button is engaged. In **MANUAL** mode, while the FOG button is pressed any DMX channels that have the FOG ON/OFF attribute specified will be turned to the ON value.

In **TIMER** mode, while the FOG button is pressed any DMX channels that have the FOG ON/OFF attribute specified will be cycled on and off based on the **INTERVAL** and **DURATION** sliders. The

DURATION specifies how long the FOG burst will be turned ON, while the INTERVAL specifies how long the FOG will be turned OFF for in between the FOG ON bursts. Calibrate these settings to your match desired needs.

Live Control

Live Control enables you to define Patterns, Color Palettes, FX Palettes, Parameters, and Trigger Toggles to control the light show in real time. Under the Color Palettes drop down you can also see the current active color palette for that fixture group. See the Patterns, Parameters, and Color Palettes section for more details.

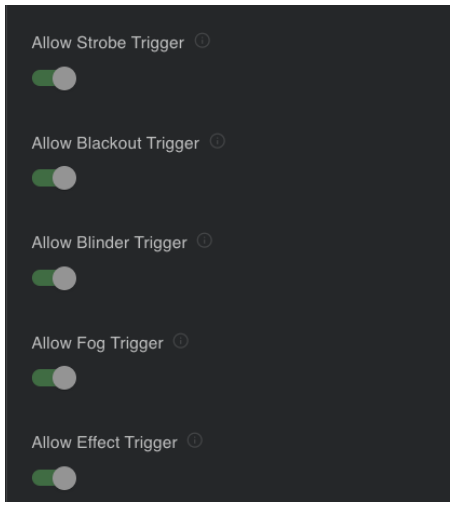
NOTE: Each fixture group has its own set of Patterns, Colour Palettes, FX Palettes, Parameters (LINKS), and Trigger Toggles that can be set.

If you click on the ‘Advanced Params’ drop-down arrow you will see another panel that gives you some more controls.

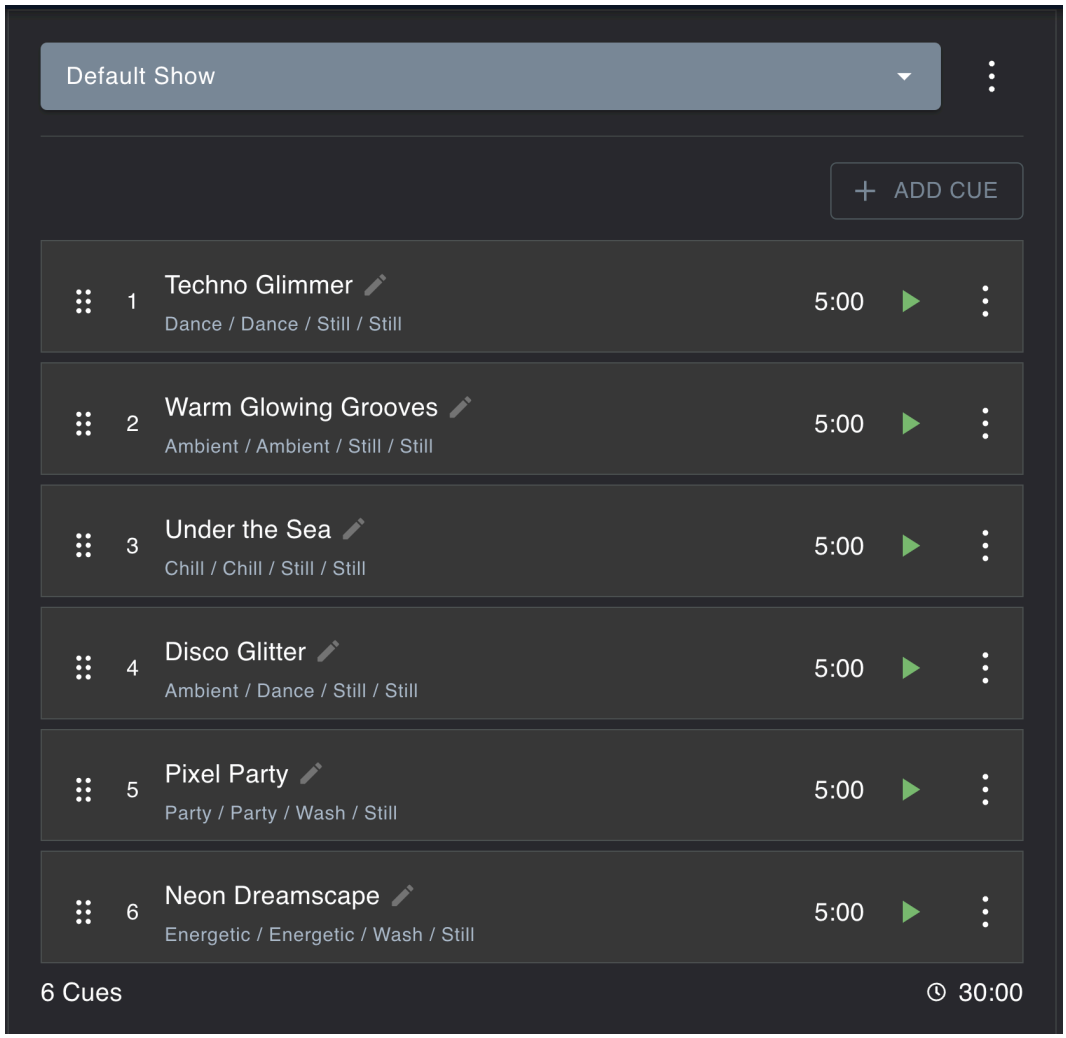
Enabling/Disabling Trigger Buttons

MaestroDMX gives you the ability to enable or disable the Trigger Button effects for each Fixture Group. Example use cases:

- If you only want one fixture group to flash when the STROBE trigger button is engaged for a specific cue then have all fixture groups strobe on another cue.
- If you have a unique effect connected to the EFFECT button and you only want it to trigger on a specific cue.
- You only want your front washes on a specific fixture group to ‘blind’ the crowd.



Show Control



This section functions like a “playlist” of cues. As well as Pattern, Color Palette, FX Palette, Parameters etc, each Cue is given a Name, Duration, Transition, and a position in the Show sequence.

NOTE: Use a 3rd party MIDI controller to trigger the cues for your show. See the MIDI section for more information.

Show Control has the following features:

- Add, edit, duplicate, delete, and download/upload shows
- View the name of Cues
- View patterns that are embedded in the Cues across all fixture groups
- Drag Cues to re-order them
- Play/pause control for individual Cues
- Individual Cue editing, duplicate, and delete control via menu
- View the duration of Cues
- View the total time of the Show

- View the name of the current Cue that is playing

Transport Controls

At the bottom of the Web-App are the transport controls that provide the following features:

- Transport Controls (play, pause, stop, previous, next)
- View the state of Show via the Status Badge
- View the progress of the current Cue via the progress bar

Switching Between Live and Show Control

When MaestroDMX is in Show Control Mode the Status Badge will indicate the state: ‘Stopped’, ‘Playing’, or ‘Paused’. At any moment, you can switch over to Live Control by modifying any of the parameters in the Live Control section. The Status Badge will then indicate ‘Live’. When in Live Control Mode, the Show is no longer running. To get back to the Show, you can either press the Play button on the Transport Controls or press the Play button on any of the Cues.

NOTE: There is a known bug where the Badge sometimes does not show that Live Mode is playing.

Creating Cues

Cues can be created in two ways. Either by pressing ‘Save As New Cue’ in Live Control or ‘+ Add Cue’ in Show Control. Going the route of ‘+ Add Cue ’ will pop up a dialog similar to Live Control.

Editing Cues

To edit an existing Cue, click the 3-dot menu to the right side of the Cue and select ‘Edit Cue’. A dialog showing all the Cue settings will pop up.

Preview

At the bottom of the dialog to edit or create a new cue is the Preview toggle. When enabled, you will see your changes immediately in the lights. If not enabled you will only see the changes once you save the edits and play the respective Cue.

Cue Transitions

Each cue will have a transition time to the next cue. One cue will fade to black and the next cue will fade up. Each show will have a default transition time that can be edited from the edit show.

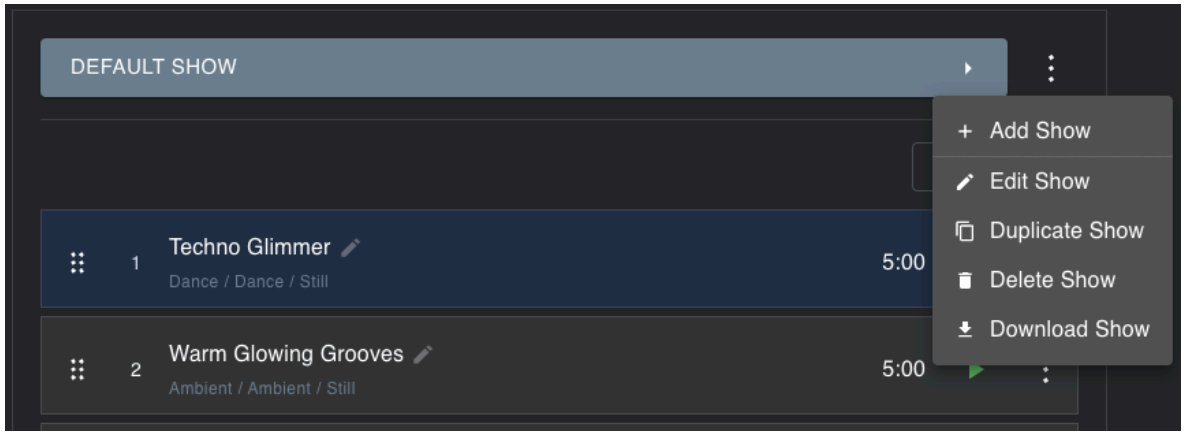
There are 2 sliders, and In Duration and Out Duration. In time will be how long each cue takes to go from black to full brightness. Out times will be how long the same cue takes to go to black.

NOTE: Most Users set these sliders to 0 to avoid any blackout.

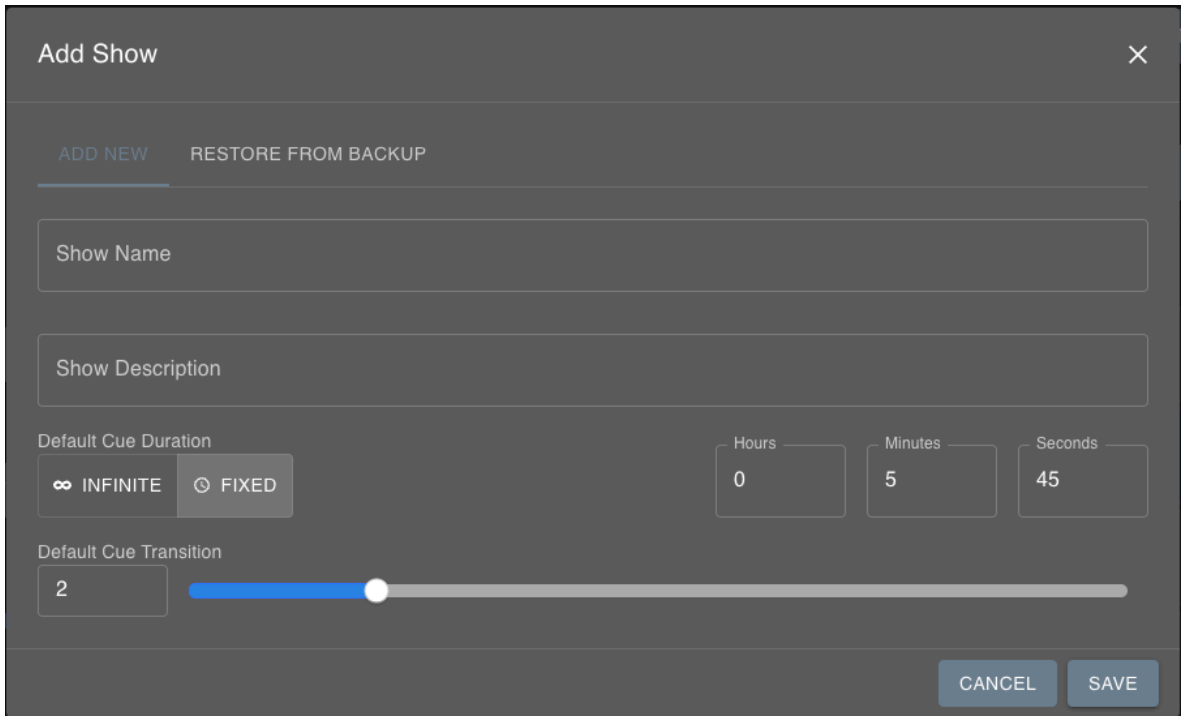
Managing Multiple Shows

MaestroDMX can add, edit, duplicate, delete, and download/upload multiple Shows.

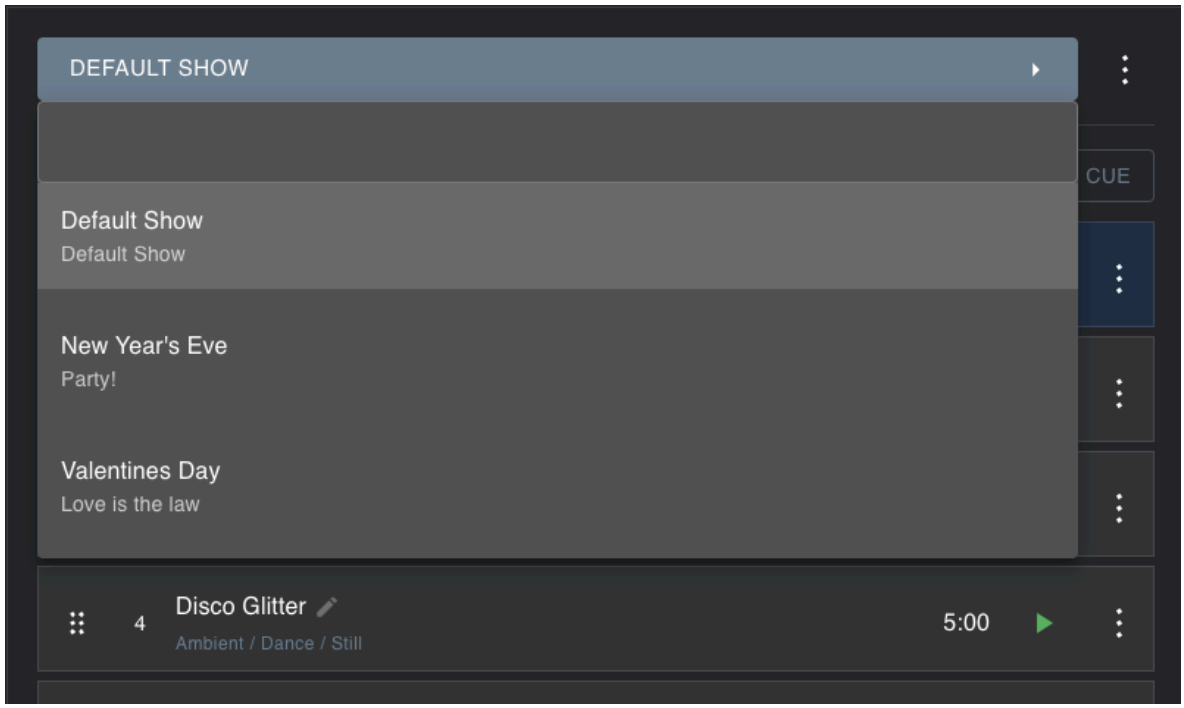
Navigate to the menu to modify the Show list:



To add a new show click on the 3-dot menu next to the show drop-down and select '+ Add Show'. Fill out the pop-up dialog to create a new Show or use 'Restore from backup' to load a saved show.



Click on the Show drop-down to select a show:



Saving and Restoring Shows

NOTE: It is highly recommended to download your Shows and save them in a safe place. They will download to your device as a JSON formated file. The downloaded show file has the Show name and description and of the information regarding Cue, including:

- Cue names, timing, and order within the show
- Patterns, Color Palettes, FX Palettes, and Parameter settings for each fixture group on each Cue
- Toggle settings: trigger buttons, blackouts etc

To restore a show use the ‘Restore From Backup’ tab on the ‘Add Show’ dialog.

Building Cues: Patterns, Parameters, Color Palettes, FX Palettes

Patterns Overview

Patterns are at the heart of MaestroDMX. There are 2 types of patterns: Maestro Patterns and Core Patterns.

Maestro Patterns

Maestro Patterns are Autonomous, music-driven, decision-making lighting patterns that change colors, energy, and effects synchronized to the music. You can think of these like ‘Vibes’ to match the mood for moments of your events. Maestro patterns take advantage of Color Palette Groups, moving through the different colors in the group based on transitions in the music. Maestro Patterns include (From lowest energy to highest):

Still:

- Solid washes of color changing with the music
- **Note**: ‘Still’ does not have any moving head support

Beam:

- Solid washes of color changing with the music, but with moving head support

Ambient:

- A slower pattern for mellower moods
- Moves like silk in water. Smooth oscillating gradients

Chill:

- Another slower pattern for mellower moods
- Great for music without drums or percussion (classical, solo instrumental, etc)
- Tranquil and easy-going vibes
- Melody-driven with lots of space

Energetic:

- Picking up the energy
- Tune it in to get the vibe you want
- Energectic springy pattern

Dance:

- Our most popular most flexible pattern
- Good for a wide spectrum of vibes

Party:

- High energy with lots of chasing movements
- Use at your own risk 😀

Core Patterns

Core patterns that have a specific look and can be used with or without audio input. They are great for setting static looks that are stationary or have a bit of movement. These include **Spectrum, Starry Sky, Twinkle, Solid Color**, **All Black, Mapping Test, Wash, Flash Bang,** and Chase. The Mapping Test pattern is used to verify that your pixel mapping is correct. Also.

NOTE: Core Patterns do not have any pan/tilt motion associated with them. This will come in a future release.

TIP: Use the 'Chase' pattern to get specific chase effects.

Solid Color:

- Non-audio reactive only
- Provides a solid color to the lights.
- Use the 'Energy' parameter to select the color if using a gradient color palette
- Give the pattern some movement with 'Speed', 'Variance' (amount of fade), and 'Decay' (direction)
- Use 'Shape' to control the direction and position of the effect

Wash:

- Audio and Non-Audio reactive modes
- Change colors within a single-color gradient palette
- Use 'Speed' to change on a multiple of the beat or with unsynced timing, depending on Audio Reactivity
- Control the fade time of the color change with 'Decay'

Spectrum:

- Audio and Non-Audio reactive modes
- Interesting movement based on music or not
- Use 'Energy' to adjust brightness and position in the color gradient
- 'Contrast' is similar to background level but inverted (0 high, 1 low)
- Use 'Speed', 'Decay / Wave Width', and 'Attack' to control movement
- Use 'Shape' to control the direction and position of the effect

Starry Sky:

- Audio and Non-Audio reactive modes
- Dancing galaxy-like animations that respond to different audio frequencies
- Use 'Energy' to adjust brightness and position in the color gradient
- 'Contrast' is similar to background level but inverted (0 high, 1 low)
- Use 'Speed', 'Decay', and 'Attack' to control movement
- Use 'Shape' to control the direction and position of the effect

Twinkle:

- Audio and Non-Audio reactive modes
- Randomized twinkles that respond to audio frequencies
- Use 'Energy' to adjust brightness and position in the color gradient
- 'Contrast' is similar to background level but inverted (0 high, 1 low)
- Use 'Speed' and 'Decay ' to control movement
- Use 'Shape' to control the direction and position of the effect

Chase:

- Classic chases synced to the beat of the music or the kick drum
- Use ‘Speed’ to control the speed of the chase movement
- Use ‘Trigger’:
    - Non-audio reactive: How often new chases get spawned
    - Audio reactive: - Trigger = 0.0 use kick drum based trigger. Trigger > 0.0 use the musical beat to trigger chases from every Two Bars to 1/8 notes
- ‘Contrast’ is similar to background level but inverted (0 high, 1 low)
- Use ‘Width’ to control how many pixels are in the chase
- Use ‘Attack’ to control the rate of onset of the chase
- Use ‘Shape’ to control the direction and position of the effect

Flash Bang:

- Controllable ‘strobe’ style pattern
- Audio and Non-Audio reactive modes
- Audio reactive:
    - When kick drums are presen,t then kicks trigger the flashes; conversely, if they are not present, musical onsets trigger the flashes
    - ‘Speed’: trigger threshold (lower = more sensitive)
    - ‘Energy’: intensity of the flash
    - ‘Variance’: control the background light level
    - ‘Decay’: control the fade of the effect
- Non-audio reactive:
    - ‘Speed’: rate of flashes
    - ‘Energy’: intensity of the flash
    - ‘Variance’: control the background light level
    - ‘Decay’: control the fade of the effect

Mapping Test:

- Once your fixture groups are mapped, use this pattern to verify your mapping
- The lights should move along the X axis sequentially for 1D mappings and along both X and Y axes for 2D grid mappings.
- Use ‘Speed’ and ‘Decay’ to dial in the look

All Black:

- ‘nuff said

Maestro Pattern Parameters

You can control Maestro Patterns via the following parameters:

Brightness (default = 100%)

Here, you can tailor the brightness for a specific fixture group and cue. This combines (multiplies) with the global brightness.

Excitement (default = 50%)

This allows you to modulate the overall excitement of a given Maestro pattern. Increased Excitement will make the effect faster, flashier, and more sudden changes. Decreased Excitement will be slower, smoother, and more chill. Note that the energy of the music also modulates the Excitement behind the scenes.

Background (default = 50%)

This allows you to raise and lower the background brightness level. With the background parameter pulled up, the lights will never go black. Higher background levels will make the lights seem less flashy, and conversely, lower background levels will give more contrast to the lighting.

Mover Range (default = 100%)

Mover Range controls the amount of movement (PAN or TILT) of your moving head fixtures, with full motion allowing the fixture's full range to be defined by your fixture's PAN or TILT channel 'width' value. A value of zero for Motion will cause the fixture to stay still at the location defined by your fixture's PAN or TILT channel 'offset' value. The 'offset' and 'width' values can be set on a specific fixture in the Control or Patcher tab.

Mover Speed (default = 50%)

Mover Speed controls, you guessed it, the speed of the moving head fixtures with channels that use PAN and TILT attribute types. Note that the energy of the music also modulates the speed behind the scenes.

Allow Music-Based Blackouts (default = OFF)

Based on musical changes and sections, MaestroDMX has the ability to turn all fixtures in a given Fixture Group completely off for a period of time. Using this feature correctly can greatly enhance the dynamic of your light show.

Typically you would toggle 'Allow Music-Based Blackouts' on when running multiple fixture groups so that at least one Fixture Group is running at any given time.

If you have all of your DMX fixtures only on one Fixture Group, then it is recommended to set 'Allow Music-Based Blackouts' to off. If you have fixtures running on multiple Fixture Groups, then allowing blackout gives MaestroDMX permission to turn off groups of fixtures.

Blackout On Silence (default = OFF)

Toggle this on for a fixture group to turn all fixtures off when the audio input goes silent. This can be a great way to create some dynamics in the flow of your show.

Advanced Parameters

If you dare, Maestro Patterns can be further modified by expanding (click on the opposing arrows to the right of the Live Control parameters) the Advanced Parameters in Live Control. These parameters provide fine-grained control over the lighting output of the autonomous Maestro patterns. For instance, if you increase the 'Intensity' parameter but notice that some of the effects are running moving too fast you could lower the 'Speed' under Advanced Parameters to balance out the pattern.

The Advanced Parameters are the same set of parameters as the Core Pattern Parameters, except for 'Variance', which is taken care of by 'Background'. Please refer to the Core Pattern Parameter section for an explanation.

Core Pattern Parameters

Core Patterns are simpler lighting effects that can run with or without an audio input. These are great for building static or low-dynamic looks for your event.

A Core Pattern provides control via any number of the following parameters depending on its implementation:

Speed (default = 50%)

The speed of the lighting pattern.

Energy (default = 50%)

Depending on the pattern, Energy modifies the brightness and color if a gradient is being used.

Variance (default = 50%)

Similar to Background but inverted. (ie, 0% Variance is all lights on)

Attack (default = 50%)

The time for the effects to onset.

Decay (default = 50%)

The time for the effects to fade out.

Audio reactivity (default = ON)

The Audio Reactivity Toggles provide users with the ability to control how Core Patterns respond to audio input. When Audio Reactivity is turned off, the Core Pattern will function independently of any incoming audio. Conversely, with Audio Reactivity enabled, Core Patterns will synchronize and modulate in response to the audio input.

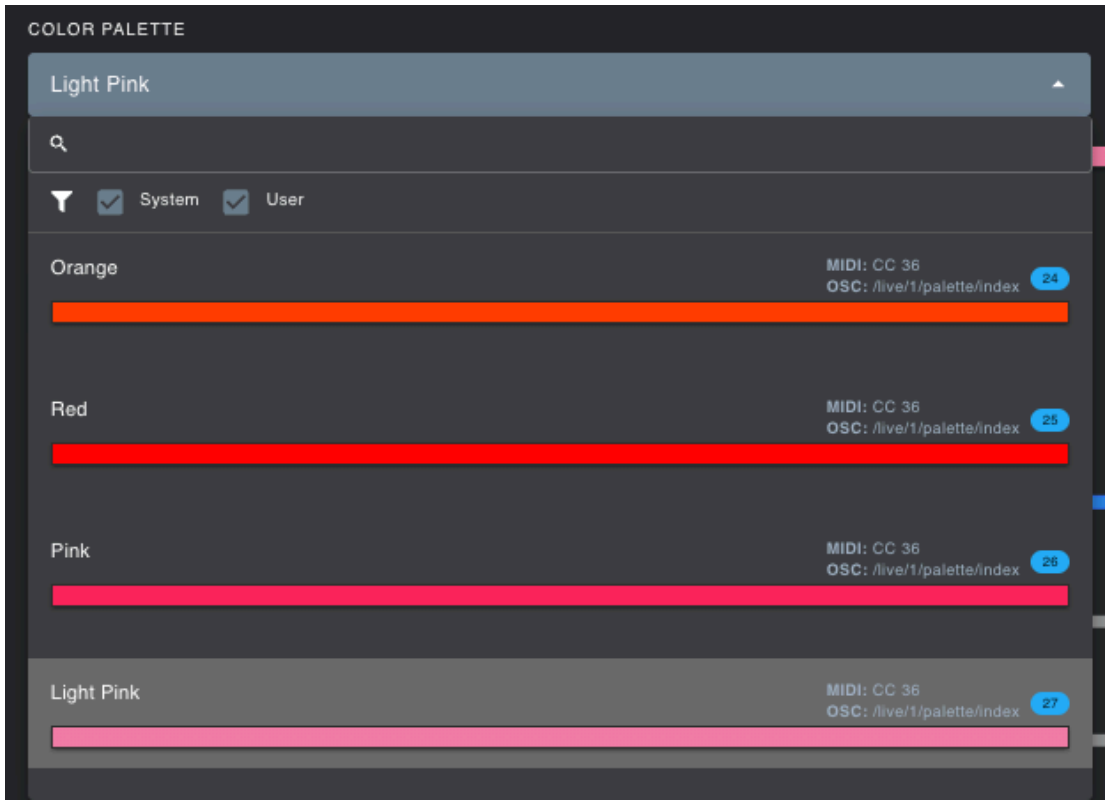
NOTE: Core Patterns do not require audio input to function, however, Maestro Patterns do.

Color Palettes Overview

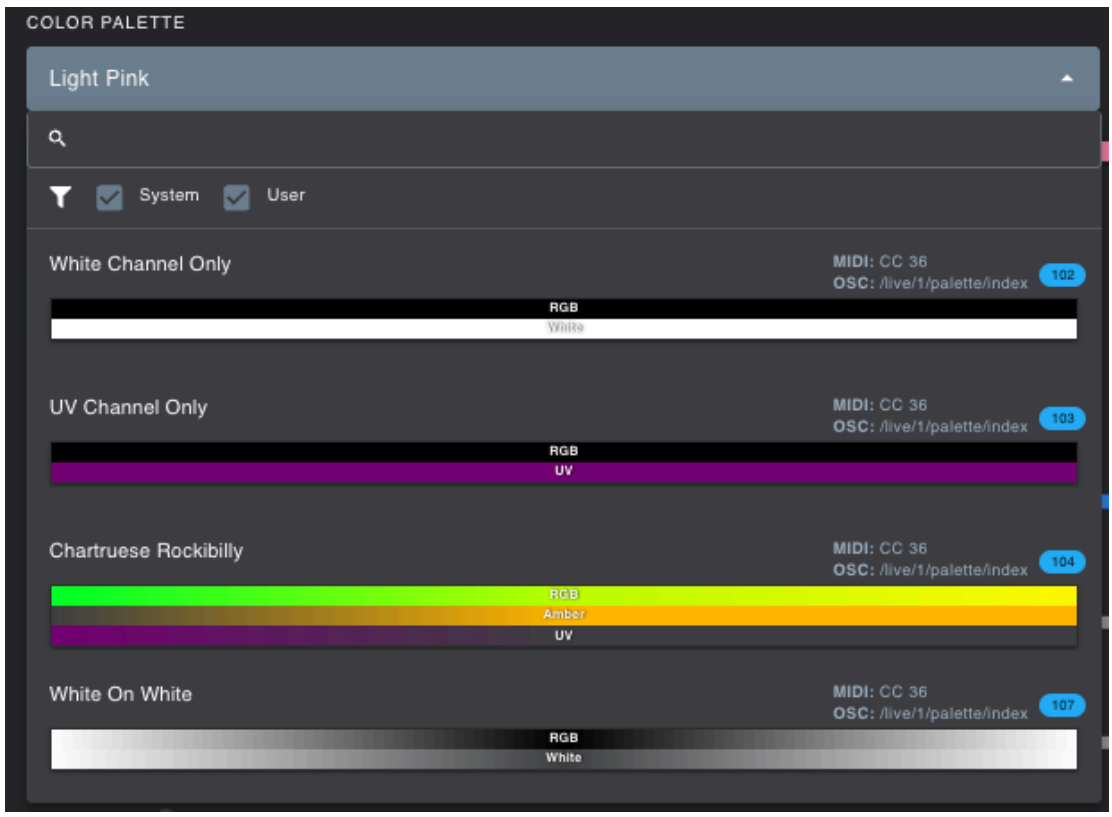
MaestroDMX comes pre-loaded with a variety of color palette options that support RGBWAUV. There are two types of palettes: **Grouped Palettes** and **Individual/Extended Palettes** (single color and gradients). Users can also create and use both custom Grouped Palettes and custom Individual/Extended Palettes.

Individual & Extended vs. Grouped Palettes

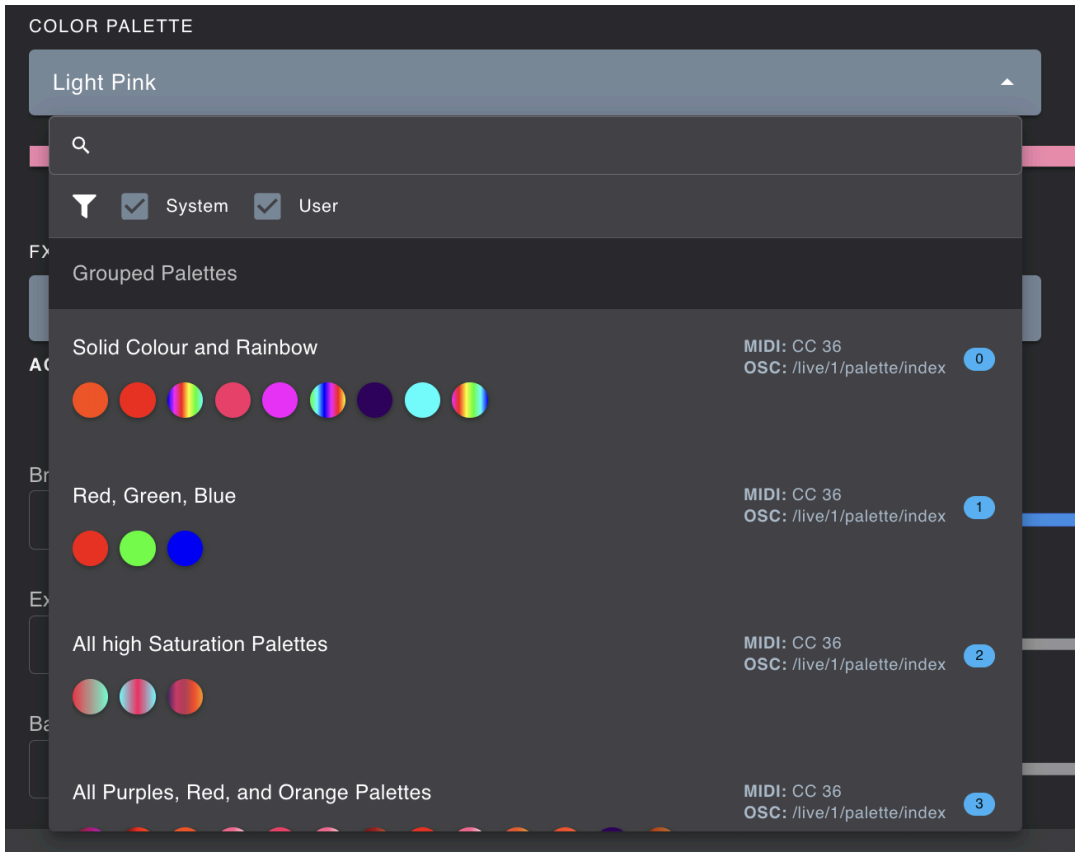
Individual Palettes can be made up of either a single color or a color gradient made up of multiple color stops.



The Individual Palettes that support Amber, White, and UV are specified under the ‘Extended Channel Palettes’ heading and show the auxiliary channels



Grouped Palettes are made up of several Individual/Extended Palettes. Maestro patterns intelligently move through the color palettes within the chosen palette group based on the music.



Creating and Using Colour Palettes

Maestro Patterns function best with Grouped Palettes since the Maestro Pattern will make the decision to switch to different Individual/Extended Palettes (contained within the Grouped Palette) based on the music.

NOTE: If you just select an Individual Palette for a Maestro Pattern, the pattern will still function and show dynamic changes, etc. However, the pattern will use the same Individual Palette for the duration of its runtime.

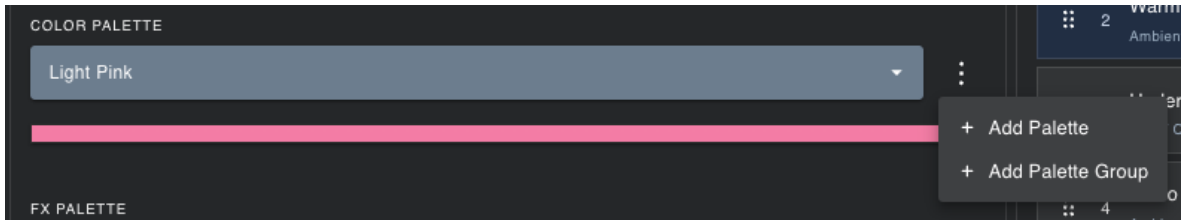
Core Patterns only use a single individual palette and do not have the intelligence to switch to a different one. If you select a Grouped Palette when running a Core Pattern, one of the individual palettes within the group will be chosen at random for the entire runtime of the Core Pattern.

Creating Custom Color Palettes

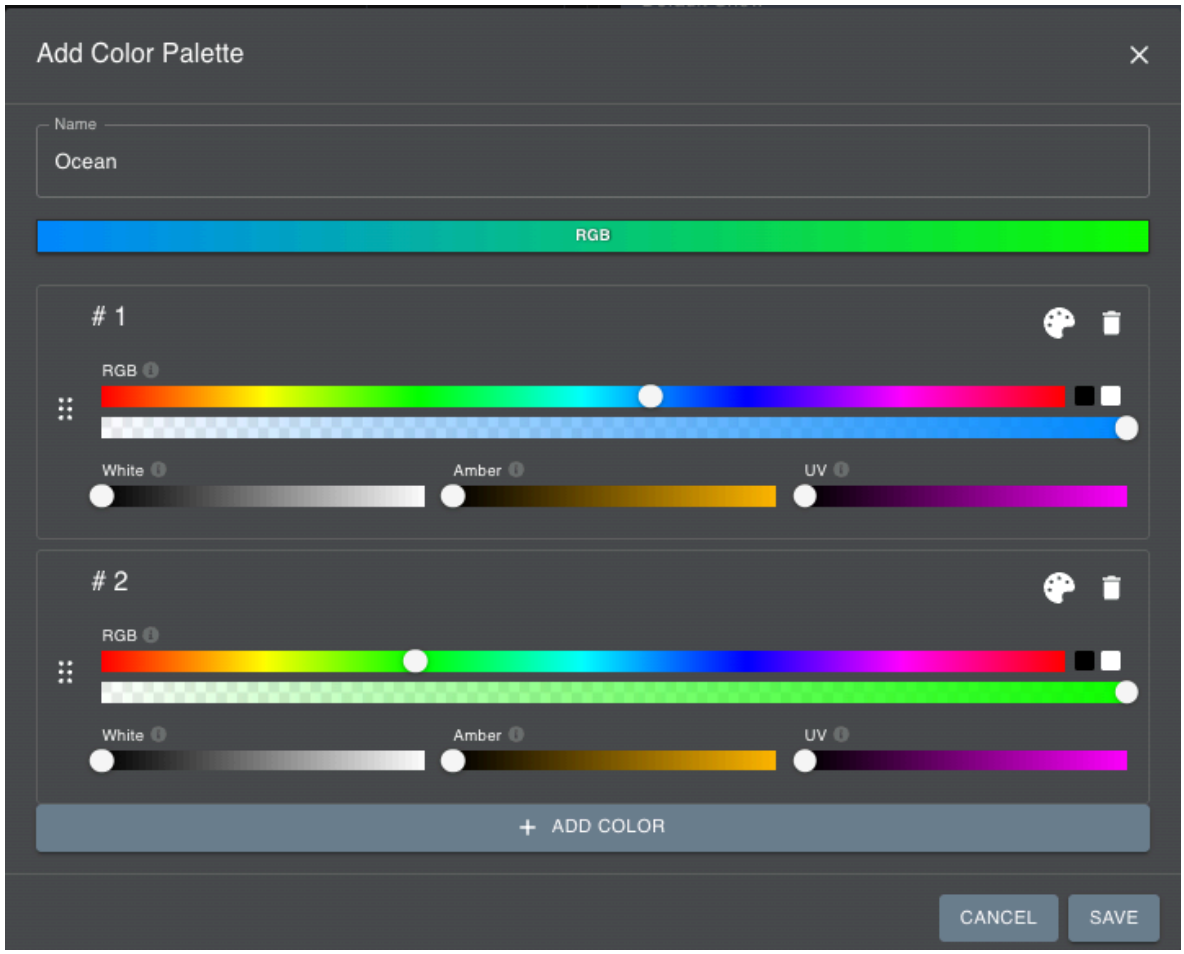
Users can also create their own Individual/Extended Palettes and Grouped Palettes. These will appear as ‘User’ palettes, whereas the built-in palettes appear as ‘System’ palettes.

Creating Individual/Extended Palettes:

Click on the 3-dot menu to the right of the Color Palette drop-down.



To add an individual/extended palette, click '+Add Palette'.



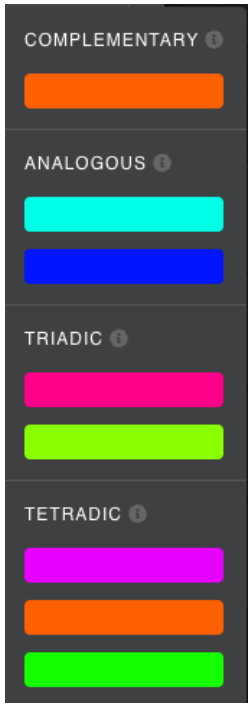
In the pop-up dialog:

- Name your color palette
- Click '+ Add Color' to add a color stop
- Use the color selector on each level (RGB, Saturation, White, Amber, and UV) to dial in the color
- Click '+ Add Color' to add another color stop
- Change the order of the color stops by dragging them up or down
- Click the garbage can icon to remove any color stops
- Click 'Save' to exit

Instead of clicking '+ Add Color' to add a color stop, you can have MaestroDMX suggest color stops that would work well.

Click on the paint palette icon: 

And select either ‘Complementary’, ‘Analogous’, ‘Triadic’, or ‘Tetradic’ colors to build your palette:



Creating Grouped Palettes

To add a Grouped Palette, click '+Add Palette Group'.

To build a Grouped Palette:

- Name the Grouped Palette
- Navigate to the Individual/Extended Palettes that you want to include in the group and click the check box
- Refine your search using the search bar and/or 'System' and 'User' checkboxes
- View the palettes in your group under 'Selected Palettes'
- Use this with an Autonomous Maestro pattern for the best effect

Custom Control with FX Palettes

FX Palettes provides a powerful way to map and trigger Snapshots when specific Cues are played in your Show. Using FX Palettes, Snapshots can be triggered manually by the global Trigger Buttons or autonomously by events in the music.

NOTE: Please review the Snapshots section under the Control Page before attempting to use FX Palettes.

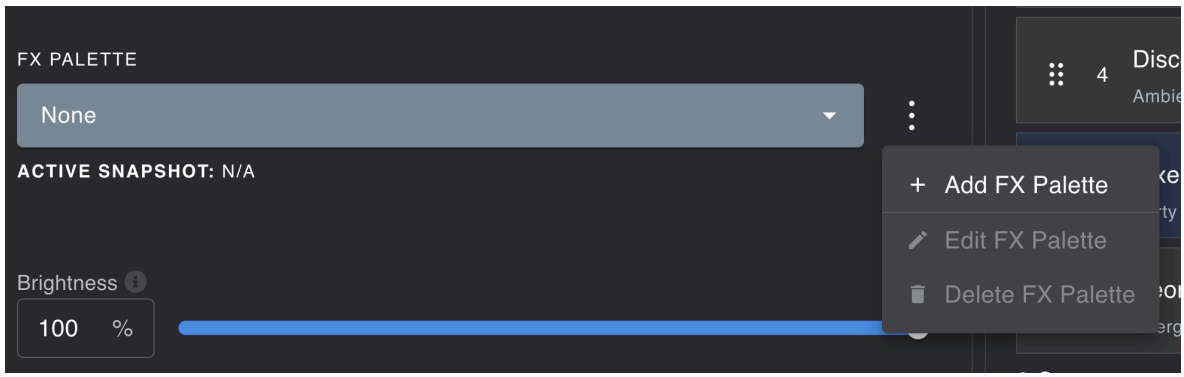
What Can I Do With FX Palettes?

Here are some examples of what is possible with FX Palettes:

- Create a static Cue where a chosen number of moving head lights focus on a specific spot.
- Turn on your lasers only when the Kick Drum is playing and turn them off when the Kick Drum is not playing.
- Set several predetermined positions for your moving head fixtures and have them move to each of the positions based on changes in the music.
- Set your fixtures to automatically trigger built-in fixture strobing when the energy of the music is high.
- Dim down or turn off some of your fixtures when the music is at a lower Activity Level or Silent.
- Trigger any of your fixture's built-in effects based on musical events
- Use the STROBE Trigger Button to control your fixture's built-in shutter or strobe effects
- Use the BLINDER Trigger Button to control your fixture's built-in blinder functions
- Set up the EFFECT Trigger Button to control different effects depending on which Cue is playing.
- Really, what can't you do with FX Palettes? 😛

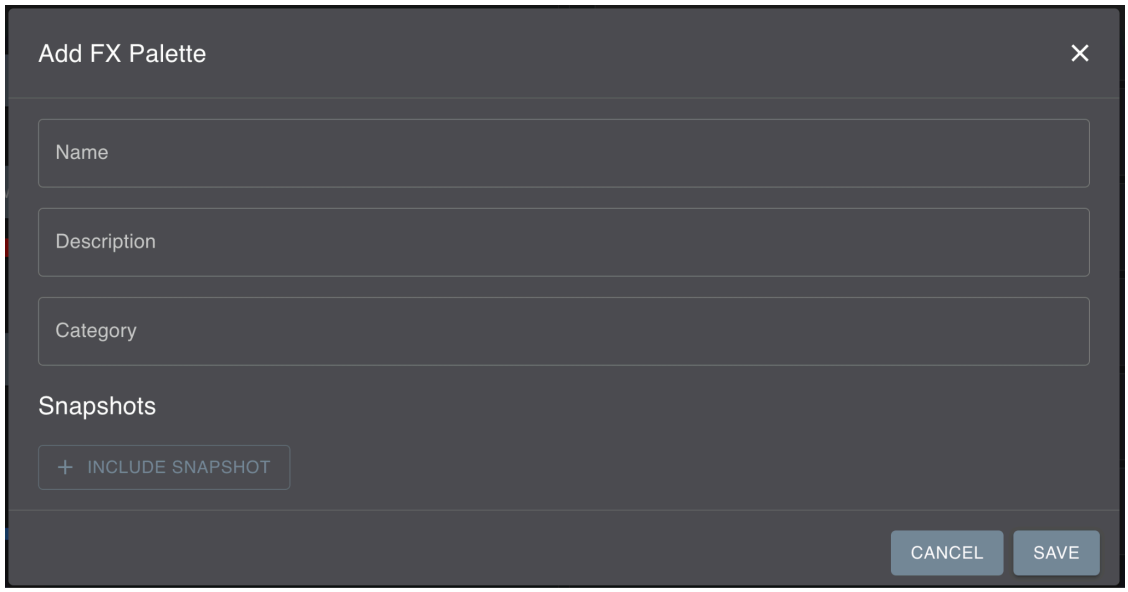
Creating An FX Palette

To create an FX Palette click the 3-dot menu to the right of the FX Palette drop-down menu and choose '+ Add FX Palette'

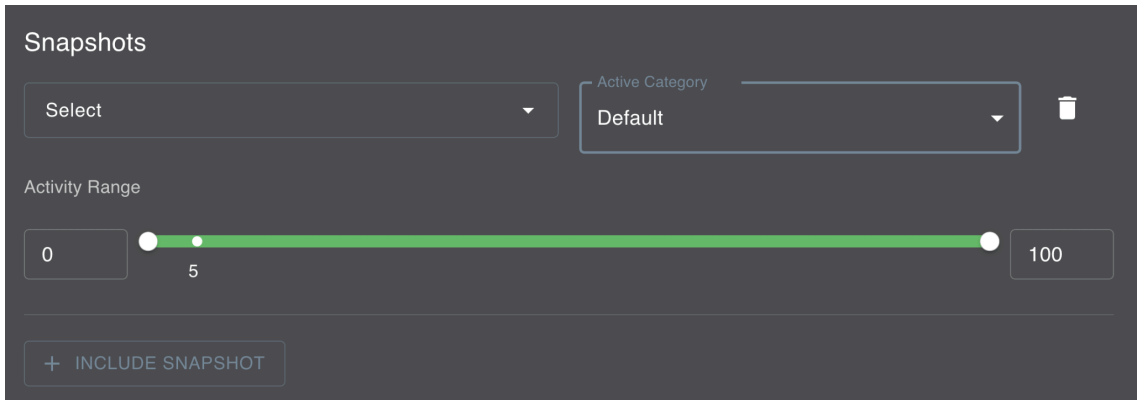


The FX Palette creation dialog will open. Here you can:

- Name your FX Palette
- Add a Description
- Add a Category
- Include Snapshot

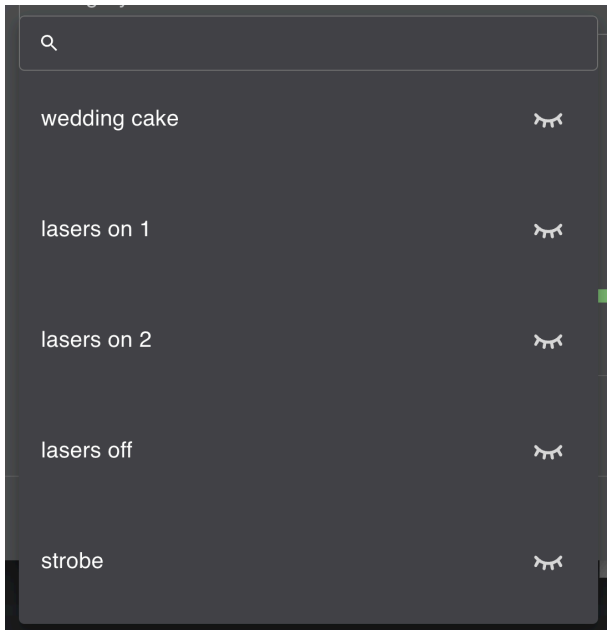


Click on '+ Include Snapshot' to begin. Then connect a Snapshot to an Active Category within a specified Activity Range.

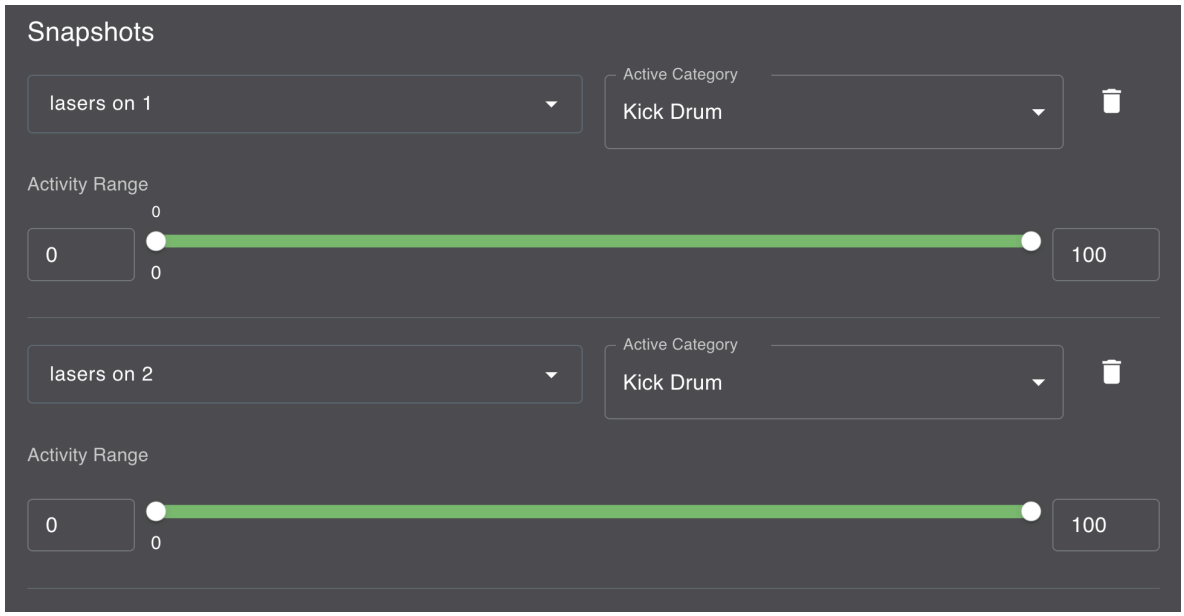


Clicking on the ‘Select’ drop-down will show a list of all the Snapshots that have been defined on the Control Page. You can preview them on the Stage by clicking and holding the ‘eyelash’ icon.

NOTE: The preview will only work if MaestroDMX is playing either in Live Mode or via Cues in the Show



Click on one of the Snapshots to add it to the FX Palette. For example, below we have added the two laser-based Snapshots.



Active Category

Each Snapshot will trigger based on an Active Category within an Activity Range. The following Categories are defined:

- **Default**: Snapshots set to Default will be triggered if no other Snapshots/Active Category pairs are present.
- **Silence**: When there is no sound going into MaestroDMX.

- **Kick Drum**: During sections of music where Kick Drum is present (ensure that your kick drum sensitivity is calibrated - see System -> Audio page).
- **No Kick Drum:** During sections of music where Kick Drum is not present, such as breakdowns, etc.
- **Effect, Strobe, Blinder, Blackout, Fog**: When global Effect Trigger Buttons are pressed.

What If I Have Multiple Snapshots On The Same Active Category?

Looking at the image above you could connect 'lasers on 1' and 'lasers on 2' Snapshots both to the 'Kick Drum' Active Category. When MaestroDMX hears the presence of Kick Drum in the music it will trigger one of those laser-based Snapshots. Then, when MaestroDMX senses a substantial change in the music it will switch to the other laser-based Snapshot defined in that same Active Category. You can connect any number of Snapshots to the same Active Category.

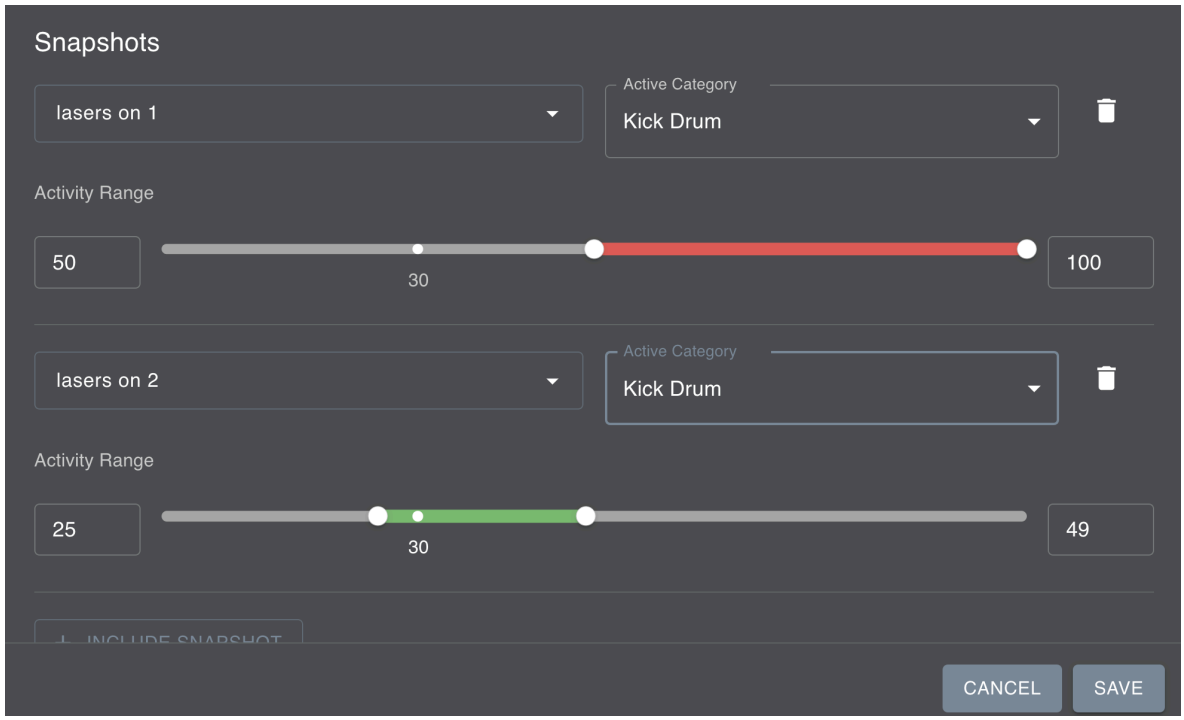
In summary, if several Snapshots are defined with the same Active Category, MaestroDMX will cycle through them based on dynamics in the music.

Activity Range

In an FX Palette, all Snapshots are defined to operate within a chosen range of an Activity Level. The Activity Level is a measure of how 'exciting' the music is. Defining an Activity Range for a Snapshot gives you a lot of power to create custom effects that are dialed into specific energy levels of music.

In this example, we have connected the Snapshots named 'lasers on 1' and 'lasers on 2' to the Active Category 'Kick Drum'. The first laser Snapshot is set to trigger within an Activity Range of 50-100, while the second laser Snapshot is in a lower Activity Range of 25-49. On the Control page, under Snapshots, we would set up 'lasers on 1' to be more exciting compared to 'lasers on 2' to reflect their different Activity Ranges.

The FX Palette dialog monitors the Activity Level in real-time, a Snapshot's Activity Range will turn green when the current Activity Level is within its bounds and red otherwise.



NOTE: You need to press ‘SAVE’ for your changes to take hold.

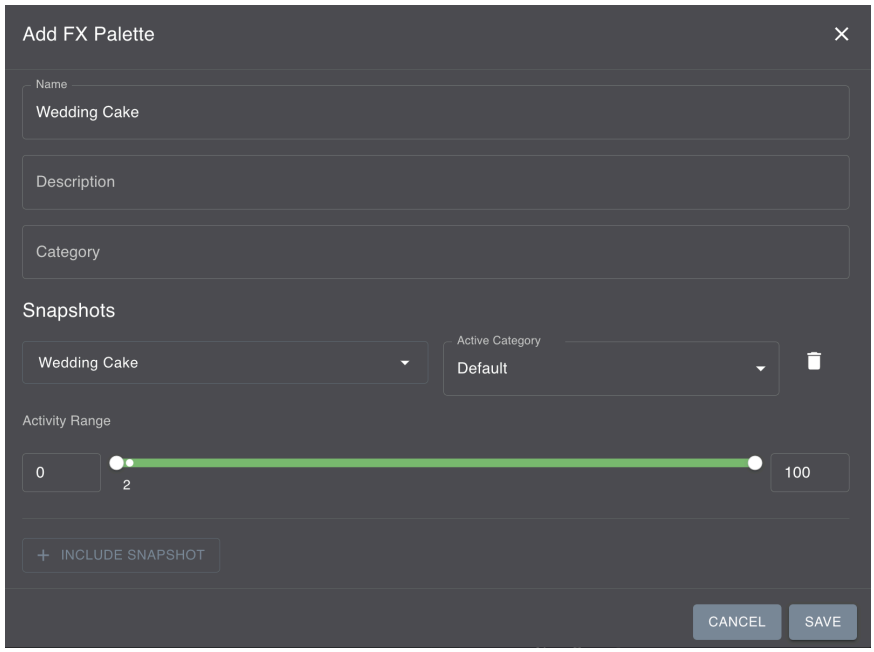
FX Palette Examples

Here we have compiled a few use cases that will help you learn about what is possible when using FX Palettes.

Movers To The Wedding Cake

Many people ask, how do I set up a static cue to point the movers at the wedding cake?

1. Go to the ‘Control’ page and select one of the movers that you want to point under the ‘Fixture’ drop-down
2. Create a Snapshot by clicking the 3-dot menu ‘+ Add Snapshot’ to the right of the ‘Snapshot’ drop-down. call it ‘Wedding Cake’
3. After you create the Snapshot, click the ‘Eye’ icon on the top right - this will enable you to preview your Snapshot
4. Modify the Pan and Tilt channel’s ‘Width’ parameter to zero and the ‘Offset’ parameter until your mover is pointed at that yummy cake.
5. Now select another mover from the ‘Fixture’ drop-down that you want to position
6. Follow the same process to position this mover and any other movers you want to position.
7. Go to the ‘Show’ page, under ‘Live Control’ and choose:
    a. Pattern: Still (for a static look, or Solid Color)
    b. Color Palette: Pick an individual palette that you desire
8. Under ‘FX Palette’ click the 3-dot menu ‘+ Add FX Palette’ and name it ‘movers wedding cake’
9. Click ‘+ Include Snapshot’
    a. Select the Wedding Cake Snapshot
    b. Set the Active Category to ‘Default’
    c. Leave the Activity Range to full width
    d. Click ‘Save’
    e. Click ‘Save As Cue’ at the top of ‘Live Control’, this will add your Cue that you just built to the Show playlist. Name your Cue “Wedding Cake - Blue” for example
    f. You can now trigger your static Cue whenever you like
10. Be sure to set the FX Palette for any relevant fixture groups



Autonomous Strobing

Set up your fixtures to strobe automatically when the beat is playing only at high energy levels of music.

NOTE: FX Palettes can only trigger the strobe on fixtures that have built-in Strobe/Shutter effects.

1. Go to the ‘Control’ page and select one of the fixtures that you want to strobe under the ‘Fixture’ drop-down
2. Create a Snapshot by clicking the 3-dot menu ‘+ Add Snapshot’ to the right of the ‘Snapshot’ drop-down. call it ‘Strobe’
3. After you create the Snapshot, click the ‘Eye’ icon on the top right - this will enable you to preview your Snapshot
4. Modify the Shutter or Strobe channels on the fixture Snapshot to achieve your desired strobe effect
5. Use ‘Link Other Fixture Channels’ to sync up other fixtures on your stage that you also want to strobe
6. Go to the ‘Show’ page, you will want to add an FX Palette either in ‘Live Control’ or by editing an existing Cue in the Show
7. Under ‘FX Palette’ click the 3-dot menu ‘+ Add FX Palette’ (or edit an existing FX Palette).
8. Click ‘+ Include Snapshot’
    a. Select the ‘Strobe’ Snapshot that you created
    b. Set the Active Category to ‘Kick Drum’
    c. Set the Activity Range to between 80-85
    d. Click ‘Save’
9. For bonus points, add another Snapshot with Active Category ‘Strobe’ - this will make sure that the Strobe Snapshot that you created will get triggered when you press the ‘Strobe’ Trigger Button.
10. Be sure to set the FX Palette for any relevant fixture groups

When the Kick Drum is present and the Activity Level is in the range between 80-85 the Strobe Snapshot will get triggered. You can of course play with the Activity Range and also add the Strobe Snapshot to trigger when there is No Kick Drum, for strobing on build-ups.

Autonomous Laser/Effect Preset Triggering

Set up your laser (or any effects) fixtures to jump and cycle through a variety of presets based on changes in the music.

1. Go to the 'Control' page and select one of the laser fixtures that you want to use under the 'Fixture' drop-down
2. Create a Snapshot by clicking the 3-dot menu '+ Add Snapshot' to the right of the 'Snapshot' drop-down. call it 'Laser 1'
3. After you create the Snapshot, click the 'Eye' icon on the top right - this will enable you to preview your Snapshot
4. Pick any laser preset pattern and movement on the fixture to achieve your desired effect.
5. Repeat steps 2-4, creating Snapshots such as 'Laser 2', 'Laser 3', 'Laser 4' and so forth. Make sure each Laser snapshot has different effect settings
6. Create another Snapshot called 'Laser Off' and be sure to turn off the Laser fixtures.
7. Go to the 'Show' page, you will want to add an FX Palette either in 'Live Control' or by editing an existing Cue in the Show
8. Under 'FX Palette' click the 3-dot menu '+ Add FX Palette' (or edit an existing FX Palette).
9. Click '+ Include Snapshot'
    a. Select the 'Laser 1' Snapshot that you created
    b. Set the Active Category to 'Kick Drum'
    c. Set the Activity Range to full-width
10. Repeat step 9 adding Snapshots for each Laser preset that you created
11. Include another Snapshot for the 'Laser off' preset and set it to 'No Kick Drum'
12. Click 'Save'
13. Be sure to set the FX Palette for any relevant fixture groups

When the beat is playing, this Cue will jump between the various laser Snapshots based on the dynamics and changes in the music. When there is no Kick Drum the laser effects will turn off.

Control MaestroDMX with MIDI

MIDI Input Specification

Connect any MIDI device via USB to control MaestroDMX's Show Control Mode.

NOTE: MaestroDMX is a USB host similar to a PC. Therefore if you want to send MIDI from another host, such as a **PC running Ableton Live or Logic**, you will need to connect 2 USB to MIDI dongles together. In the following configuration:

PC → USB → Dongle 1:MIDI OUT--(female to female midi coupler)-- Dongle 2:MIDI IN → USB → MaestroDMX

Purchase on Amazon: 2 X Midi Dongle and 1 X Midi Coupler

For a regular MIDI device such as a keyboard or control pad, simply connect it to MaestroDMX with a USB cable.

NOTE: MIDI messages for the Trigger Buttons (Blackout, Blinder, Stobe etc) function either as momentary or latching. Meaning that they will not respect the latching mode that is selected on the MaestroDMX Web App. Please use the appropriate latching or momentary version of the trigger MIDI message as needed

Action (On NOTE_ON)	Key Number	Hex Value	Note*	Channel
Play/Pause	11	0x0B	B-3 to B-1*	16
Strobe (Toggle)	12	0x0C	C-2 to C0*	16
Blackout (Toggle)	13	0x0D	C#-2 to C#0*	16
Blinder (Toggle)	14	0x0E	D-2 to D0*	16
Fog (Toggle)	15	0x0F	D#-2 to D#0*	16
Effect (Toggle)	16	0x10	E-2 to E0*	16
Load Previous Show	17	0x11	F-2 to F0*	16
Load Next Show	18	0x12	F#-2 to F#0*	16
Blackout (Momentary)	19	0x13	G-2 to G0*	16
Blinder (Momentary)	20	0x14	G#-2 to G#0*	16
Strobe (Momentary)	21	0x15	A-2 to A0*	16
Fog (Momentary)	22	0x16	A#-2 to A#0*	16
Effect (Momentary)	23	0x17	B-2 to B0*	16
Prev	24	0x18	C-1 to C1*	16
Next	25	0x19	C#-1 to C#1*	16
Play	26	0x1A	D-1 to D1*	16
Pause	27	0x1B	D#-1 to D#1*	16
Stop	28	0x1C	E-1 to E1*	16
Select Cue 1 - 98	29 - 127	0x1D - 0x7F	F-1 to F1	16

***NOTE**: Exact MIDI note-ons will differ depending on the platform. You may need to transpose your midi controller to trigger the correct octave.

Action (on CONTROL_CHANGE)	CC Number	Hex Value	Channel
Show Select	0	0x0	16
Global Brightness	14	0x0E	16
Trigger: Strobe Rate	15	0x0F	16
Trigger: Strobe Brightness	16	0x10	16
Trigger: Blinder Brightness	17	0x11	16
Trigger: Fog Volume	18	0x12	16
Trigger: Fog Duration	19	0x13	16

Action (on CONTROL_CHANGE)	CC Number	Hex Value	Channel
Trigger: Fog Interval	20	0x14	16
Trigger: Fog Speed	21	0x15	16
Group 1: Brightness	30	0x1E	16
Group 1: Excitement	31	0x1F	16
Group 1: Background	32	0x20	16
Group 1: Mover Range	33	0x21	16
Group 1: Mover Speed	34	0x22	16
Group 1: Pattern	35	0x23	16
Group 1: Color Palette	36	0x24	16
Group 1: FX Palette	37	0x25	16
Group 2: Brightness	40	0x28	16
Group 2: Excitement	41	0x29	16
Group 2: Background	42	0x2A	16
Group 2: Mover Range	43	0x2B	16
Group 2: Mover Speed	44	0x2C	16
Group 2: Pattern	45	0x2D	16
Group 2: Color Palette	46	0x2E	16
Group 2: FX Palette	47	0x2F	16
Group 3: Brightness	50	0x32	16
Group 3: Excitement	51	0x33	16
Group 3: Background	52	0x34	16
Group 3: Mover Range	53	0x35	16
Group 3: Mover Speed	54	0x36	16
Group 3: Pattern	55	0x37	16
Group 3: Color Palette	56	0x38	16
Group 3: FX Palette	57	0x39	16
Group 4: Brightness	60	0x3C	16
Group 4: Excitement	61	0x3D	16
Group 4: Background	62	0x3E	16
Group 4: Mover Range	63	0x3F	16
Group 4: Mover Speed	64	0x40	16
Group 4: Pattern	65	0x41	16
Group 4: Color Palette	66	0x42	16
Group 4: FX Palette	67	0x43	16

NOTE: In all groups, Pattern, Color Palette, and FX Palette are indexed by a value of 1. For example, the first FX Palette corresponds to a MIDI value of 1 the second to a value of 2, and so forth.

Choosing and Testing A MIDI Controller

When sourcing a MIDI controller for MaestroDMX, make sure that it can be configurable via software. This will allow you to assign the various NOTE ON and Control Change (CC) messages in the MIDI specification to the desired knobs, buttons, and sliders on a given MIDI controller.

Here is a list of MIDI controllers (for hands and feet) that we know work with MaestroDMX and can be configured. This list is by no means exhaustive, but can be a good starting point. Likely, other MIDI controllers from the following manufacturers will also work well with MaestroDMX.

Hand Controllers

- Beat Maker Machine
- Korg Nano Kontrol
- Donner Starry Pad
- Akai LPD8
- Novation Launch Control XL
- Novation Launch Key Series
- M-Audio Trigger Finger
- M-Audio Oxygen Series
- M-VAVE Smk25

Foot Controllers

- Behringer FC81010
- Behringer X-Touch Mini
- Xsonic Airstep
- Harley Benton MP-500
- Soleman MIDI Foot Controller
- Morning Star MC6 PRO
- Line 6 Helix Pedal
- Graviton M2
- Launch Pad Mini MKIII

Software Options

- MIDI Designer
- TouchOSC
- On Song App

Testing Your MIDI Controller

Connect the controller to a PC and install MidiView.

Launch the software and choose your MIDI device from the list. Then press/move each control to capture the midi data your device is sending and confirm it matches what MaestroDMX is expecting.

Control MaestroDMX with Open Sound Control (OSC)

Using TouchOSC To Control MaestroDMX

OSC stands for **Open Sound Control**. It's a protocol used for networking sound synthesisers, computers, and other multimedia devices. OSC is designed to be more flexible and expressive than MIDI (Musical Instrument Digital Interface), allowing for high-precision control over networks like Ethernet or Wi-Fi. Similar to MIDI, OSC can be used to control MaestroDMX in real-time. Industry-standard controllers, such as lighting desks and architectural lighting control systems, can output OSC to control MaestroDMX over a network.

TouchOSC is a great 3rd-party app that allows user created custom OSC-based interfaces to control MaestroDMX. TouchOSC runs on PCs, tablets, and phones. For example, a restaurant or bar could have a tablet touch screen mounted to the wall with single buttons to switch between colours, or ambient to party looks. You can easily create a TouchOSC interface that has one slider for stage brightness, and 3 buttons to trigger different cues in MaestroDMX representing different vibes for the evening that could be 'Static', 'Chill, or 'Party'. TouchOSC allows you to do this with ease.

Download TouchOSC here

Here is a TouchOSC Interface we have made for you to try out and modify as you desire:

Maestro 1.4 Touch OSC App

To learn more about how to set up a Touch OSC from scratch, you can watch these videos-

Touch OSC Basics

Touch OSC for MaestroDMX

To make or modify your TouchOSC interface, you will need to read our TouchOSC Specs found here -

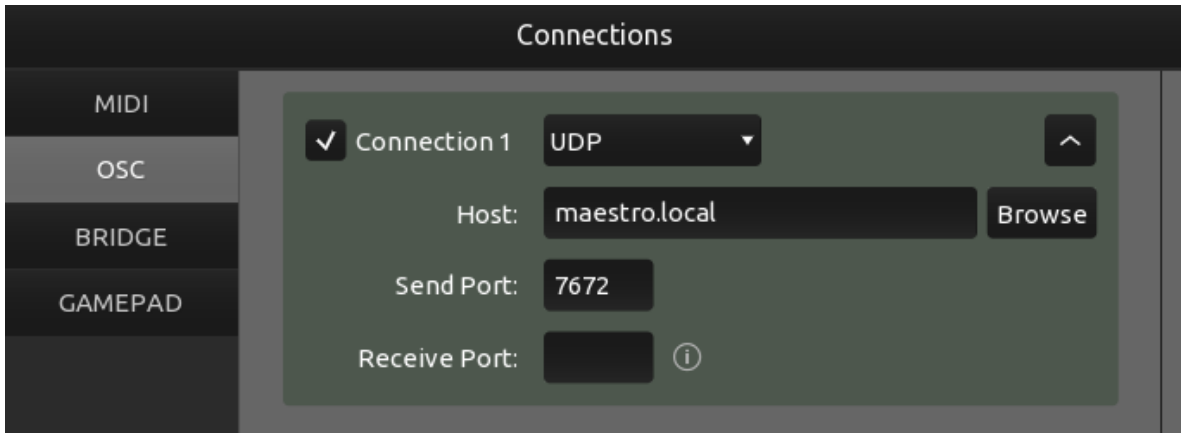
Open Sound Control (OSC) Specification - v1.4

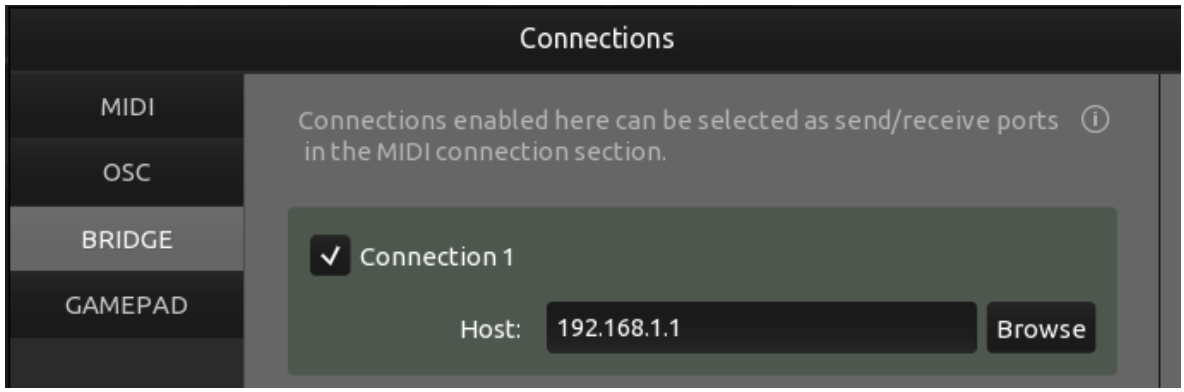
To connect MaestroDMX to Touch OSC, press the link icon

And fill out the OSC section.

MaestroDMX Default Network Information:

- **Ethernet**: 10.0.0.200
- **Wifi**: 192.168.37.1
- **Hostname**: maestro.local
- **Port**: 7672





Note: The above information is modifiable via the WIFI and NETWORK control in MaestroDMX. Be sure to confirm the correct settings.

OSC Input Specification

Function	OSC Address Path	Data	Range	Notes
Global Brightness	/global/brightness	float	0.0-1.0	Sets the global brightness of lights
Set audio input by input name	/audio/input	string	Config name	Set the specific audio input based on the name of the input

Advanced audio input	/audio/input/next	n/a	n/a	Advance to the next audio input on the input list
Live Pause	/live/pause	n/a	n/a	Pauses the live show
Live Resume	/live/resume	n/a	n/a	Resumes the live show
Live Stop	/live/stop	n/a	n/a	Stops the live show
Pattern Select	/live/N/pattern	string	Name of pattern	Select a pattern via name [N = group]
Pattern Select Via Index (See Pattern List)	/live/N/pattern/index	int	0 - number of Patterns	Sets the pattern based on its order. Useful for fader interfaces such as TouchOSC [N = group]
Colour Palette Select (See Palette List)	/live/N/palette	int	Palette ID defined in config	Sets palette selection [N = group]
Colour Palette Select Via Index (See Palette List)	/live/N/palette/index	int	0 - number of Palettes	Sets the palette based on its order. Useful for fader interfaces such as TouchOSC [N = group]
FX Palette Select	/live/N/fx/index	int	0 - number of FX Palettes	Sets FX Palette based on its order. Useful for fader interfaces such as TouchOSC [N = group]
Brightness	/live/N/brightness	float	0.0-1.0	Sets the current pattern brightness [N = group]
Excitement	/live/N/excitement	float	0.0-1.0	Sets the current pattern excitement [N = group]
Background	/live/N/background	float	0.0-1.0	Sets the current pattern background [N = group]
Motion Range	/live/N/motion/range	float	0.0-1.0	Sets the current pattern motion range [N = group]
Motion Speed	/live/N/motion/speed	float	0.0-1.0	Sets the current pattern motion speed [N = group]

Speed	/live/N/speed	float	0.0-1.0	Sets the current pattern speed in live mode [N = group]
Energy	/live/N/energy	float	0.0-1.0	Sets the current pattern energy in live mode [N = group]
Variance	/live/N/variance	float	0.0-1.0	Sets the current pattern variance in live mode [N = group]
Decay	/live/N/decay	float	0.0-1.0	Sets the current pattern decay in live mode [N = group]
Attack	/live/N/attack	float	0.0-1.0	Sets the current pattern attack in live mode [N = group]
Shape	/live/N/shape	int	0-15	Sets the current pattern shape in live mode [N = group] Note: for core patterns only, works better in 2D
Load Show	/show/name	string	Show name	Load a given show based on its saved name. If multiple shows have the same name, this will pick the first
Next Show	/show/next	n/a		Go to the next show
Previous Show	/show/previous	n/a		Go to the previous show
Load Show Based On Index	/show/index	int	0-Number of Shows	Load a show based on its order.
Load Cue	/show/cue/index	int	1 - Number of Cues	Advance to the specific index of a cue
Show Next Cue	/show/cue/next	n/a	n/a	Move to the next cue in the show
Show Previous Cue	/show/cue/previous	n/a	n/a	Move to the previous cue in a show
Show Play or Pause	/show/play_pause	n/a	n/a	Play or pause the existing show

Show Play	/show/play	n/a	n/a	Play the existing show
Show Stop	/show/stop	n/a	n/a	Stop the existing show
Strobe	/triggers/strobe	boolean		Momentary Strobe
Toggle Strobe	/triggers/strobe/toggle	n/a	n/a	Toggle Strobe On/Off
Strobe Brightness	/triggers/strobe/brightness	float	0.0-1.0	Sets the brightness of the Strobe
Strobe Rate	/triggers/strobe/rate	float	0.0-1.0	Sets Strobe rate (min - max)
Blinder	/triggers/blinder	boolean		Momentary Blinder
Toggle Blinder	/triggers/blinder/toggle	n/a	n/a	Toggle Blinder On/Off
Blinder Brightness	/triggers/blinder/brightness	float	0.0-1.0	Sets the brightness of the Blinder
Blackout	/triggers/blackout	boolean		Momentary Blackout
Toggle Blackout	/triggers/blackout/toggle	n/a		Toggle Blackout On/Off
Fog	/triggers/fog	boolean		Momentary Fog
Toggle Fog	/triggers/fog/toggle	n/a		Toggle Fog On/Off
Fog Interval	/triggers/fog/interval	float	0.0-1.0	In timer mode, controls the interval of the Fog
Fog Duration	/triggers/fog/duration	float	0.0-1.0	In timer mode, controls the duration of the Fog ON
Fog Volume	/triggers/fog/volume	float	0.0-1.0	Fog Volume
Fog Speed	/triggers/fog/speed	float	0.0-1.0	Fog Speed
Effect	/triggers/effect	boolean		Momentary Effect
Toggle Effect	/triggers/effect/toggle	n/a		Toggle Momentary On/Off

Find a pre-made TouchOSC interface you can download here

Using TouchOSC To Control MaestroDMX

Troubleshooting

Troubleshooting Guide

Issue: What is the default password for the Maestro WiFi Network?

- Solution 1: **'mymaestro'**

Issue: Unable to Find MaestroDMX's WiFi Network

- Solution 1: Ensure your dongle is securely plugged in. Never remove your dongle while in use.
- Solution 2: Try rebooting your device.
- Solution 3: Consider connecting via Ethernet.
- Solution 4: Try a factory reset (see System Page)
- Solution 5: If problems persist, reflash the firmware using a network reset software update package from the support website.

Issue: Connected to MaestroDMX WiFi Network but Can't Access the Web App

- Solution 1: Try a new browser window or try a different web browser.
- Solution 2: Ensure firewalls on your device are disabled.
- Solution 3: Use the IP address 192.168.37.1 instead of "maestro.local" to connect.
- Solution 4: If the problem persists, reflash the firmware with a network reset software update package from the support website.

Issue: Connected to MaestroDMX via Ethernet but Can't Access the Web App

- Solution 1: Ensure that you have set your computer's ethernet port to the correct static IP address and settings. See Ethernet Connection Page.
- Solution 2: Try a new browser window or try a different web browser.
- Solution 3: Ensure firewalls on your device are disabled.
- Solution 4: Use the IP address 10.0.0.200 instead of "maestro.local".
- Solution 5: Ensure that your device's WIFI IP address is not on the 10.0.0.X subnet. If it is you will need to change the ethernet Static IP of both your device and MaestroDMX to another subnet ie 10.1.0.X with Subnet Mask 255.0.0.0. See the Network page on MaestroDMX WebAppSolution 6: If the problem persists, contact maestrodmx.com/support

Issue: Unable to Find A Fixture Profile In The Fixture Profile Library

- Please visit www.fixtures.maestrodmx.com to search and download your profiles
- You can also create your own profiles.

Issue: Lights Added to Stage, but They Aren't Turning On

- Solution 1: Make sure the 'Solid Colour' pattern is playing with a single colour palette.

- Solution 2: Check all connections and power sources for your lights.
- Solution 3: Verify the address and mode settings of your lights.
- Solution 4: Ensure that the address in the patcher corresponds to your DMX fixture's address.
- Solution 5: Review the fixture profile and ensure it matches your lighting equipment.
- Solution 6: Visit the Control page and adjust static values. Some fixtures require specific channels such as shutters and strobe to be set to turn the fixture on.
- Solution 7: Check dimmer or color attribute types, as they might be set incorrectly.
- Solution 8: Confirm the brightness level is turned up on the show page both globally and at the cue level.
- Solution 9: Verify that a show is playing by pressing the play button.

Issue: No Audio or Unresponsive Patterns

- Solution 1: Navigate to the audio page in the app.
- Solution 2: Ensure the audio level is sufficient to trigger the "green" signal level.
- Solution 3: If the audio is still not working, double-check your cabling. Consider connecting headphones or speakers to verify audio output from your device.

Issue: Maestro Patterns Do Not Seem To Be Working Properly

- Solution 1: Ensure audio is getting into MaestroDMX with sufficient input gain (via LED on the unit or via Audio Page) and you have the correct audio input selected.
- Solution 2: On the Audio page ensure Kickdrums are being detected correctly, if not adjust the Kick Sensitivity.

Issue: All the lights turn off sometimes during the show

- Solution 1: If you have fixtures assigned only to the Primary Fixture Group make sure the ‘Allow Music-Based Blackouts’ is disabled.

Issue: The software update did not work

- Solution 1: Ensure that the USB wifi dongle in plugged in when you perform the update.
- Solution 2: Check that the .mae software file is at the root directory of the USB drive.
- Solution 3: Ensure that you only have a single .mae file on the USB drive at the root directory.
- Solution 4: Try another USB drive from another manufacturer.
- Solution 5: Ensure that your USB drive is formatted to FAT32.

For further assistance or persistent issues, please contact our customer support team.
Additional support for MaestroDMX is available at https://maestrodmx.com/support.

Terminology

Fixture Profile Database/Library
Where the fixture profiles are stored.

Fixture Profile

The template of a specific fixture's DMX channel profile mode(s). For example:

- Channel 1: Dimmer
- Channel 2: Pan
- Channel 3: Tilt
- Etc…..

Mode

A specific template of control for a given fixture. Typically fixtures have several templates or modes that provide different levels of control of the fixture; for example, a moving-head light could have:

- Mode 1: 9 channels. Mode 2: 16 channels, and Mode 3: 32 channels.

Increasing channels allows for a greater level of control over the fixture. These templates are also known as personalities.

Fixture Attribute

Controllable parameter types of a fixture. For example:

- PAN, TILT, RGBW, Dimmer, Colour Wheel etc.

Attribute Properties

Beyond the standard attribute defined in the DMX specification, MaestroDMX has additional controls

- Output Range, Invert, and Smoothing across all channels
- Offset and Width for PAN and TILT channels

Fixture

The real-world physical manifestation of a DMX controllable piece of hardware. For example:

- A moving head DMX light or flood light, LED pixels, etc
- A DMX controllable laser, haze machine, or flame effect

A live show typically has many fixtures on a given stage.

Stage

A MaestroDMX stage contains the Patcher, Layout, and Control pages.

Patcher

This is where the fixtures are placed into the DMX universe based on their base addresses and assigned to fixture groups.

Layout

Set the mapping (linear or 2D grid) for the fixtures in each fixture group.

Control

Set default values for DMX channels in each fixture.

Fixture Group

A group of fixtures. This can be useful to control parameters of many fixtures at once, such as brightness, color palettes, patterns, parameters, pixel mapping, etc.

Snapshot
A saved configuration of the fixtures on your stage that can be recalled at a later time using FX Palettes.
FX Palettes
FX Palettes provides a powerful way to map and trigger Snapshots when specific Cues are played in your Show. Using FX Palettes, Snapshots can be triggered manually by the global Trigger Buttons or autonomously by events in the music.

Examples:

- Turn off all your laser-style effects when the music is low-energy
- Point some movers to the wedding cake

When this palette is recalled, all the moving heads will modulate their pan/tilt attributes to point at the wedding cake.

Show Control
A Show is a 'playlist' of cues with a specified run length. You can play, pause, stop, go back, and go forward on the sequence.

Live Control
Live Control Mode gives the user the ability to modify patterns, palettes, parameters, etc., in real time. At any time, a snapshot of Live Control Mode can be saved as a cue for Show Control Mode.

Trigger Buttons
On the Show page, the global trigger effects buttons can be controlled via the WebApp, Midi, or OSC input: Strobe, Blackout, Blinder, Fog, and Effect.

Color Palettes
These are the built-in palettes that control the color channel types, such as RGBWAUV, of fixtures on the stage.
Individual Palettes define a single color palette of either a color gradient or a single color.
Example:

- 'Royal': mix of amber, purple, etc.
- 'Hawaii': blues and greens

While **Grouped Palettes** define any number of individual color palettes.

Patterns
These are the lighting patterns and effects at the core of the MaestroDMX system. There are Core patterns and Maestro patterns.

Parameters

Depending on the specific lighting pattern, each cue has a variety of parameters that can be modified to customize the lighting output.

Cue

Cues are the items that are ‘played back’ in Show Mode. They control the fixtures on the stage for each fixture group for a specified duration. A Cue has the following properties that can be configured by the user:

- Which Patterns are playing along with Parameters to control how the pattern behaves
- Color Palettes (individual or grouped)
- Blackout on/off controls
- Effect trigger toggle controls
- Length of cue in minutes & seconds (or infinite)
- Fade time into Cue
- FX Palette

Safety

Safety Hazards Identification and Warnings:

The following identification system indicates hazard severity associated with MaestroDMX Model mDMX in accordance with ANSI Z535.4-2002:

DANGER

An imminently hazardous situation which will result in death or serious injury if not avoided.

WARNING

A potentially hazardous situation which could result in death or serious injury if not avoided.

CAUTION

A potentially hazardous situation which could result in minor or moderate injury or property damage if not avoided. Also alerts against unsafe practices. Ignoring a hazard voids any warranty.

Maestro DMX Safety Hazards

WARNING

MaestroDMX model mDMX must be installed and used in accordance with relevant local electrical codes.

WARNING

MaestroDMX model mDMX is for indoor use only.

WARNING

Read and fully understand installation instructions and safety labels for MaestroDMX model mDMX before installing the system.

WARNING

Ensure USB power cable is not damaged before connecting MaestroDMX model mDMX to power.

WARNING

MaestroDMX model mDMX is certified to FCC, CE (EU) and UKCA Class A standards. It may cause electromagnetic interference (EMI) in domestic (residential) environments. End users are required to take adequate measures in such a case.

CAUTION

Ensure that MaestroDMX model mDMX is mounted so that excessive vibrations are minimized.

CAUTION

Do not hot swap fixtures. Ensure MaestroDMX model mDMX is disconnected from power before connecting or disconnecting fixtures.

CAUTION

Do not open, modify, or alter MaestroDMX model mDMX in any way.

NOTE:

The instructions and precautions set forth in this user manual are not fully inclusive, or pertinent to all installations as Limbic Media cannot anticipate all possible situations.

Owner/User Responsibilities

It is the responsibility of the contractor, installer, purchaser, owner, and user to install, maintain, and operate MaestroDMX model mDMX in compliance with all state and local laws, ordinances, and regulations.

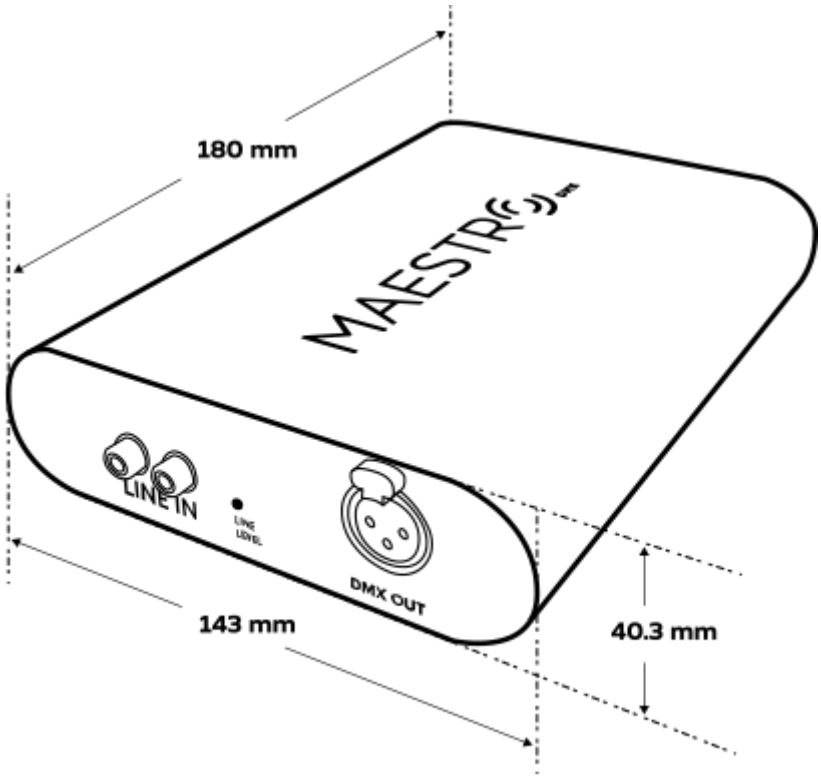
Certifications

Certification : FCC, CE, UKCA

Environnemental : Indoor/dry location

Hardware

Dimensions:



180 mm × 143 mm × 40.3 mm (7.09" × 5.63" × 1.59")

Electrical:

Power Input:
USB-C Connector, 5V DC, 2 Amps maximum input current

NOTE:

MaestroDMX requires a 5V DC power source supplying at least 2W (400mA), inclusive of the USB WiFi dongle. Ensure that you allocate sufficient power for MaestroDMX and account for any extra power needs of other USB devices connected to the bottom USB 2.0 port (MIDI or USB Audio devices).

USB Ports:
2x USB 2.0 Type A Connectors (500mA maximum per port)

Ethernet Port:
10/100/1000M

Audio Input:
RCA stereo consumer line level (-10dBV) input

Mechanical:

Weight:
0.94 kgs (2.07 lbs)

Housing:
Aluminum enclosure

Environmental:

Operating Temperature:
0° - 40°C (32° - 104°F)

Humidity:
10~90% RH, non-condensing

Wireless:

Wireless Standard:
IEEE 802.11b/g/n

Frequency:
2.4GHz

Wireless Security:
WEP, WPA/WPA2, WPA-PSK/ WPA2-PSK

Modulation Technology:
DBPSK, DQPSK, CCK, OFDM, 16-QAM, 64-QAM

WiFi USB Dongle

The MaestroDMX serves up its own network facilitated by the WiFi dongle. Please refrain from removing the WiFi dongle, as it is essential for the MaestroDMX to create and maintain its own WiFi network.

Wireless Range

Maximum wireless signal rates are the physical rates derived from IEEE Standard 802.11 specifications. Actual wireless data throughput and wireless coverage and quantity of connected devices are not guaranteed and will vary as a result of network conditions, AP limitations, and environmental factors, including building materials, obstacles, volume and density of traffic, and AP location.

TP-Link TL-WN725N USB WiFi Dongle Regulatory Declarations of Conformity

FCC STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1) This device may not cause harmful interference.

2) This device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications

could void the user’s authority to operate the equipment.

FCC RF Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment has been SAR- evaluated for use in hand. SAR measurements are based on a 5mm spacing from the body and that compliance is achieved at that distance.

CE Mark Warning

This is a class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

OPERATING FREQUENCY(the maximum transmitted power)

2412MHz—2472MHz (20dBm)

EU declaration of conformity

TP-Link hereby declares that the device is in compliance with the essential requirements and other relevant provisions of directives 2014/53/EU and 2011/65/EU.

The original EU declaration of conformity may be found at *http://www.tp-link.com/en/ce*.

RF Exposure Information

This device meets the EU requirements (2014/53/EU Article 3.1a) on the limitation of exposure of the general public to electromagnetic fields by way of health protection.

This device has been tested and meets the ICNIRP exposure guidelines and the European Standard EN 62209-2. SAR is measured with this device at a separation of
0.5 cm to the body, while transmitting at the highest certified output power level in all frequency bands of this device. Carry this device at least 0.5 cm away from your body to ensure exposure levels remain at or below the as-tested levels.

Canadian Compliance Statement

This device complies with Industry Canada license-exempt RSSs. Operation is subject to the following two conditions:

1) This device may not cause interference, and

2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

1) l'appareil ne doit pas produire de brouillage;

2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, meme si le brouillage est susceptible d'en compromettre le fonctionnement.

Radiation Exposure Statement:

This EUT is compliance with SAR for general population/uncontrolled exposure limits in RSS-102 and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528 and IEC 62209. This equipment should be installed and operated with minimum distance 1.0 cm between the radiator and your body. This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

Industry Canada Statement

CAN ICES-3 (B)/NMB-3(B)

Korea Warning Statements

당해 무선설비는 운용중 전파혼신 가능성이 있음.

NCC Notice

注意!

依據 低功率電波輻射性電機管理辦法

第十二條 經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性或功能。

第十四條 低功率射頻電機之使用不得影響飛航安全及干擾合法通行；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信規定作業之無線電信。低功率射頻電機需忍受合法通信或工業、科學以及醫療用電波輻射性電機設備之干擾。

BSMI Notice

安全諮詢及注意事項

- 請使用原裝電源供應器或只能按照本產品注明的電源類型使用本產品。
- 清潔本產品之前請先拔掉電源線。請勿使用液體、噴霧清潔劑或濕布進行清潔。
- 注意防潮，請勿將水或其他液體潑灑到本產品上。
- 插槽與開口供通風使用，以確保本產品的操作可靠並防止過熱，請勿堵塞或覆蓋開口。
- 請勿將本產品置放於靠近熱源的地方。除非有正常的通風，否則不可放在密閉位置中。
- 請不要私自打開機殼，不要嘗試自行維修本產品，請由授權的專業人士進行此項工作。

限用物質含有情況標示聲明書

產品元件名稱	限用物質及其化學符號					
	鉛 Pb	鎘 Cd	汞 Hg	六價鉻 CrVI	多溴聯苯 PBB	多溴二苯醚 PBDE
PCB	○	○	○	○	○	○
外殼	○	○	○	○	○	○

備考1.“超出0.1wt％”及“超出0.01wt％”系指限用物質之百分比含量超出百分比含量基準值。
備考2. “○”系指該項限用物質之百分比含量未超出百分比含量基準值。

Продукт сертифіковано згідно с правилами системи УкрСЕПРО на відповідність вимогам нормативних документів та вимогам, що передбачені чинними законодавчими актами України.

Safety Information

- Keep the device away from water, fire, humidity or hot environments.
- Do not attempt to disassemble, repair, or modify the device.
- Do not use damaged charger or USB cable to charge the device.
- Do not use any other chargers than those recommended.
- Do not use the device where wireless devices are not allowed.
- This USB Adapter can be powered only by computers that comply with Limited Power Source(LPS).

Please read and follow the above safety information when operating the device. We cannot guarantee that no accidents or damage will occur due to improper use of the device. Please use this product with care and operate at your own risk.

Explanation of the symbols on the product label

Symbol	Explanation
	RECYCLING This product bears the selective sorting symbol for Waste electrical and electronic equipment (WEEE). This means that this product must be handled pursuant to European directive 2012/19/EU in order to be recycled or dismantled to minimize its impact on the environment. User has the choice to give his product to a competent recycling organization or to the retailer when he buys a new electrical or electronic equipment.