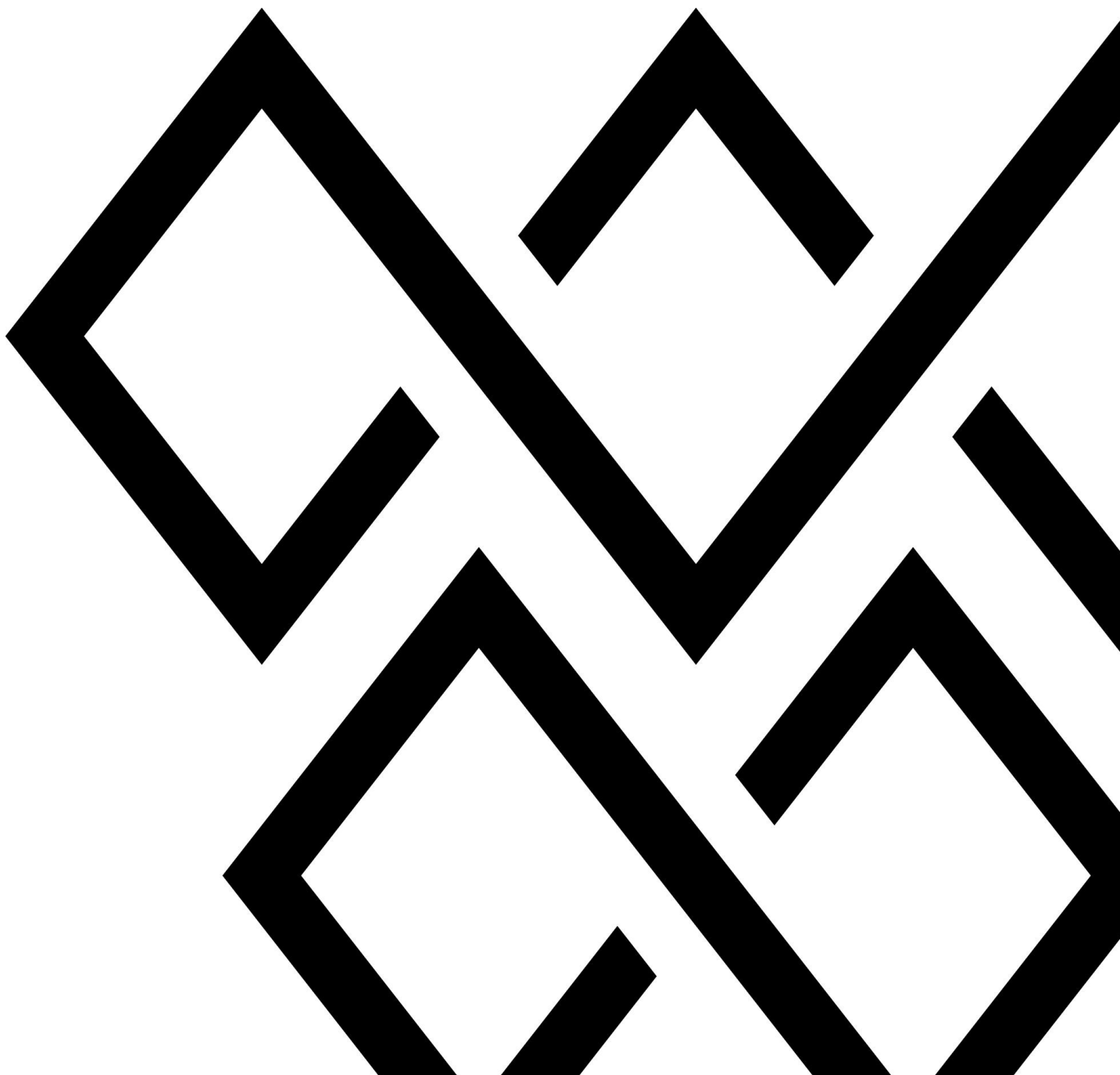


# Wolfmix W1

## Reference Manual

Version 0.8 | English



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Wolfmix is a registered trademark of the Nicolaudie Group.

Special thanks to the Wolfmix Early Access Club testers, who were invaluable not just in tracking down bugs, but in making this a better product.



# Product & company

Product reference: Wolfmix W1

Wolfmix is a brand of the Nicolaudie Group.

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## Protecting the environment

For the transport and protective packaging, environmentally friendly materials have been chosen that can be supplied to normal recycling. Ensure that plastic bags, packaging, etc. are properly disposed of.

If you are intending to discard this product at the end of its useful life, please do not dispose of it with your other household or municipal waste. Nicolaudie Group has labeled its branded electronic products with the WEEE Symbol to alert our customers that products bearing this label should not be disposed of in a landfill or with municipal or household waste. Please refer to our WEEE document at [wolfmix.com/company](http://wolfmix.com/company) for further information on disposal of your product.

06.09.2021



# Safety notices

**WARNING: Failure to follow these safety instructions could result in fire, electric shock, injury, or damage to your Wolfmix W1 or other property. Read all the safety information below before using Wolfmix W1.**

## Intended use

Use the device only as described in this user manual. Any other use or use under other operating conditions is considered to be improper and may result in personal injury or property damage. No liability will be assumed for damages resulting from improper use. This device may be used only by persons with sufficient physical, sensorial, and intellectual abilities and having corresponding knowledge and experience. Other persons may use this device only if they are supervised or instructed by a person who is responsible for their safety.

## Danger for Children



Choking hazard! Please be aware that this product contains small parts such as encoder caps which may become detached. Ensure that plastic bags, packaging, etc. are disposed of properly and both product and packaging are not within reach of babies and young children.

## Serviceable parts

Caution! There are no user serviceable parts inside this unit. Do not attempt any repairs yourself. Doing so will void the manufacturer's warranty. In the unlikely event your unit may require service please contact your place of purchase.

## Operating conditions

This device has been designed for indoor use only. To prevent damage, never expose the device to any liquid or moisture. Avoid direct sunlight, heavy dirt, and strong vibrations.

## Power

Before connecting the device, ensure that the input voltage (AC outlet) matches the voltage rating of the device and that the AC outlet is protected by a residual current circuit breaker. Failure to do so could result in damage to the device and possibly injure the user. Unplug the device before electrical storms occur and when it is unused for long periods of time to reduce the risk of electric shock or fire.



# Introduction

## About this document

Thanks for checking out the Wolfmix Reference manual. This white paper describes each and every function available on Wolfmix. We've written this as a quick method to look up a particular feature on the Wolf. If you're looking to learn how to use Wolfmix, check out the Mini Guides which focus on how to achieve a particular objective rather than in this document which is more of a dictionary to document each function in-depth.

# Hardware specification

## Overview

### Size & weight

195 × 220 × 62 mm / 7.68 × 8.66 × 2.44 in  
1070g / 2.36lb

## Components

### Housing

ABS Plastic  
Powder-coated steel base plate with 100mm VESA (M4 6mm max)  
Powder-coated steel reinforced back plate

### Display

4.3" Color TFT with tinted glass  
Capacitive touch

### Encoders

Full body alloy  
Incremental push with acceleration

### Button pads

37 Silicone buttons with matt oil finishing  
LED color backlit

### Processing

220Mhz CPU with ARM core  
8MB RAM  
16MB Flash

### Audio

Omnidirectional electret mic  
3.5mm Jack Line-In  
Analog adaptive peak detector

### DMX

2× 3pin DMX OUT XLR connectors  
1× 5pin DMX OUT XLR connector  
1× 5pin DMX IN/OUT XLR connector with WLINK

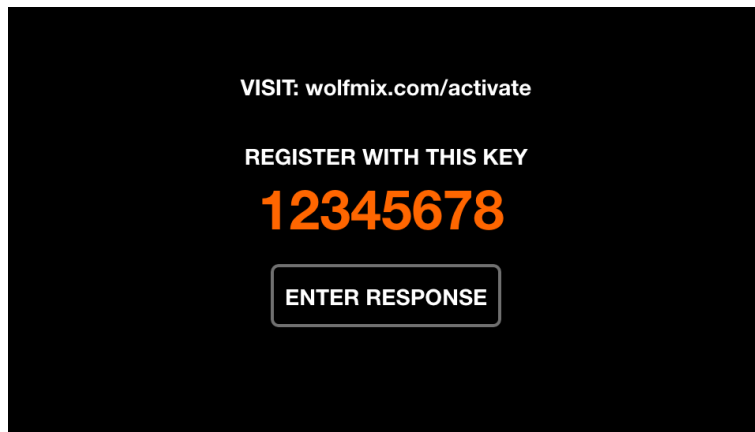
### USB

USB-B connector- 5V 900ma required (USB3 rating)  
High-speed USB communication





## Activation



Wolfmix must be activated at [wolfmix.com/activate](http://wolfmix.com/activate) before it can be used. The supplied key is unique to each Wolfmix controller. Each activation key has a unique response key which will be provided by the website during the activation process. Tapping *Enter Response* will display a keyboard to enter the response key. This process is only required one time. If the keyboard does not disappear when the response is entered, then the key is incorrect.

## Startup key-combinations

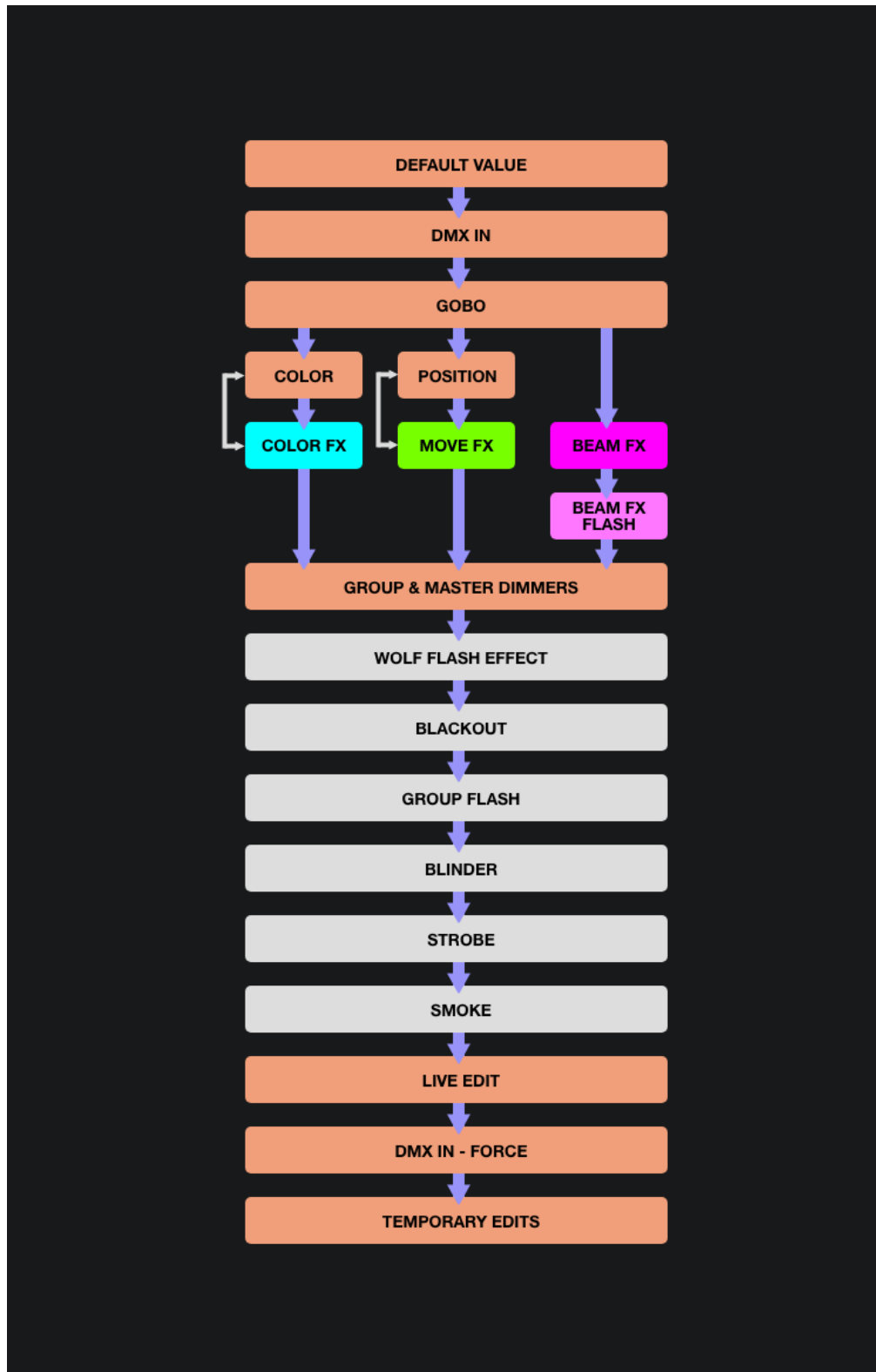
Several special startup modes are available by powering the controller whilst holding the following key combinations:

- **WOLF + STROBE** : performs a test sequence including touch screen, buttons, encoders, microphone and DMX connectors. Connect DMX connector A to connector B, and connect DMX connector C to D.
- **WOLF + BLINDER** : restores the default project which is loaded when creating a new project. Useful when the currently loaded project has a problem.
- **WOLF + SPEED** : enters Wolfmix firmware recovery mode. Used to write a new firmware version if the main firmware does not start.
- **WOLF + BLACKOUT** : erases all data, including fixture projects and fixture profiles.
- **WOLF + SMOKE** : restores the factory firmware which came with the Wolfmix. Used in a critical situation whereby the firmware becomes unusable and a PC/MAC is not available to update to the latest firmware.
- **SHIFT + PRESET** : enter bootloader mode. All lights will flash white. This is used during factory production only.



## Beam Engine Control Flow

The diagram below explains how the Wolfmix controls DMX channels. The Beam Engine is triggered every 40ms (25 fps). All DMX channels are set to their default values at the beginning of each frame, and then each effect is added one-by-one.



# Fixture Setup




The Fixture Setup screen can be accessed by tapping the button to the upper right of the home screen. Each fixture represents a physical DMX device connected to the Wolfmix. Fixture data is used to calculate effects and other DMX levels. A fixture must be added here before it can be controlled by Wolfmix.

Thousands of fixtures are included in the controller, and more can be added from the WTOOLS app (PC/MAC) from the library of over 15000 fixture profiles. Fixtures may also be created using the built-in fixture builder, or from a web browser using the Profile Builder app available on LS Cloud.

Wolfmix will calculate effects according to the group letter assignment, the order in which the fixture appears within the list, and the Pan and Tilt limits, all of which are available from the fixture setup screens.



## Fixture setup list

← <b>FIXTURE SETUP</b> 2 fixtures's selected						
001 : RGB	A	1 : 037				
002 : RGB	A	1 : 040				
003 : RGB	A	1 : 061				
004 : Moving Head	B	1 : 001				
005 : Moving Head	B	1 : 019				
006 : Scanner	C	1 : 043				
<b>FIXTURE</b> RGB	<input checked="" type="checkbox"/> <b>MOVE</b> -	<b>GROUP</b> A	<b>DMX Channel</b> 1 : 040			

A list of all fixtures which have been added to the project is shown.

Displayed data:

- Fixture index and name.
- The group the fixture has been assigned to.
- The DMX universe number and the DMX address.

Encoder actions:






- Move the first encoder to select a fixture. Push to select or deselect the highlighted item.
- Move the second encoder to select a new start index for the selection of fixtures. Push the encoder to apply the change.
- Move the third encoder to assign the selection of fixtures to a new group. Push to apply the change.
- Move the fourth encoder to select a new DMX address for the selected fixtures. Push to apply the change. The addresses will be allocated sequentially across the selected fixtures according to their index.

Toolbar actions:

- FLIP the selected fixtures, inverting their beam order.
- Open the Fixture Limits screen to limit the pan and tilt channels
- Delete the selected fixtures.
- Select all fixtures of the same type.
- Tapping DONE removes all fixtures from the selection.
- When no fixtures are selected, the 'Add Fixture' button is visible. Tapping this opens the fixture selection screen.



## Fixture selection

 <b>FIXTURE LIBRARY</b>					<b>ADD 1</b>
<b>Recent</b>	<b>CMY</b>				
<b>Wolfmix</b>	CTC Par				
<b>_Generic</b>	CWWW				
<b>ADJ</b>	MOVING HEAD				
<b>Ayrton</b>	PAR 36				
<b>BeamZ</b>	PAR 56				
<b>BRAND</b>	<b>FIXTURE</b>	<b>AMOUNT</b>			
<b>_Generic</b>	<b>CMY</b>	<b>1</b>			

The fixture selection screen shows all available fixture profiles on the controller, ordered alphabetically by brand and fixture.

Displayed data:

- Available brands, starting with the 6 most recently added fixtures, followed by fixtures which have been created directly on the Wolfmix controller, followed by brands in the public library.
- Available fixtures within the selected brand.

Encoder actions:

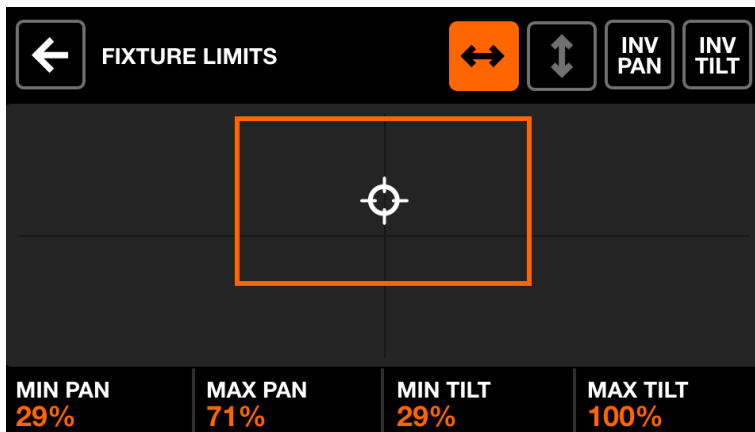
- Move the first encoder to select a brand.
- Move the second encoder to select a fixture.
- Move the fourth encoder to choose how many fixtures to add. Push to add the fixtures.

Toolbar actions:

- Delete the selected fixture profile.
- Edit the selected fixture profile with the fixture builder.
- Create a new fixture.
- Add the selected fixture.



## Fixture limits



The fixture limits screen allows for minimum and maximum pan and tilt values to be set on the selected fixtures. When set correctly, fixture beams will move together in the desired area.

Displayed data:

- Minimum and maximum pan and tilt values of the selected fixtures
- An orange rectangle to represent the values. Dragging the white cursor within the rectangle moves all fixtures in the project together, allowing for the boundaries to be tested.

Encoder actions:

- Move the 4 encoders to adjust the min pan, max pan, min tilt and max tilt. Push the encoders to reset these values to 0 or 100%

Toolbar actions:

- Sweep the selected fixtures from left to right.
- Sweep the selected fixtures up and down.
- Invert the selected fixtures Pan.
- Invert the selected fixtures Tilt.



## Fixture builder



The fixture builder is used to create fixture profiles. A fixture profile is a list of channels and features associated with a particular fixture.

### Fixture channels screen

Displayed data:

- A grid showing the fixtures channel types.
- The fixtures starting address used for testing, number of beams, fixture name and total number of channels.

Encoder actions:

- Move the first encoder to set a test address for the fixture. This allows for a connected fixture to be tested in real-time whilst it's being built.
- Move the second encoder to adjust the number of independently controllable beams a fixture has. For example, an LED bar may have 4 independently controllable RGB beams. Each Wolfmix fixture profile may have up to 64 beams.
- If the fixture has more than 20 channels, the fourth encoder can be used to navigate between each page of 20 channels. Each Wolfmix profile may have up to 255 channels.

Toolbar actions:

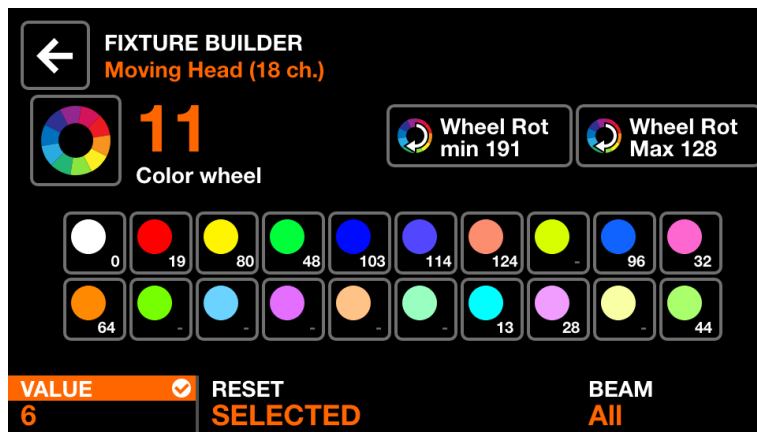
- Rename fixture.
- Tapping DONE will exit the fixture builder. If a change has been made, a save prompt will be displayed.

Other actions:

- Tapping on a grid button or one of the matrix buttons will navigate to the editor of the corresponding channel. If the channel is empty, a channel type picker will be displayed first.



## Channel editor screen



Displayed data:

- Channel number and type
- A collection of feature buttons depending on the channel type. These may include colors, gobos and strobe. Each button displays the feature value.

Encoder actions:

- Move the first encoder to change the value of the selected feature. Push the encoder to apply the change.
- Move the second encoder to reset all features on the channel or reset just the selected feature. Push the encoder to apply.
- Move the fourth encoder to assign the channel to a beam.

Toolbar actions:

- Delete the channel. (only available on the last channel of the fixture)
- Tapping the back button will go back to the fixture channels screen.

Other actions:

- Tapping the large icon to the left of the channel number allows for the channel type to be changed.
- Tapping any of the feature buttons will display the associated feature values on the bottom bar, allowing for the values to be changed via the encoders.
- Hitting the flashing matrix button will go back to the fixture channels screen.





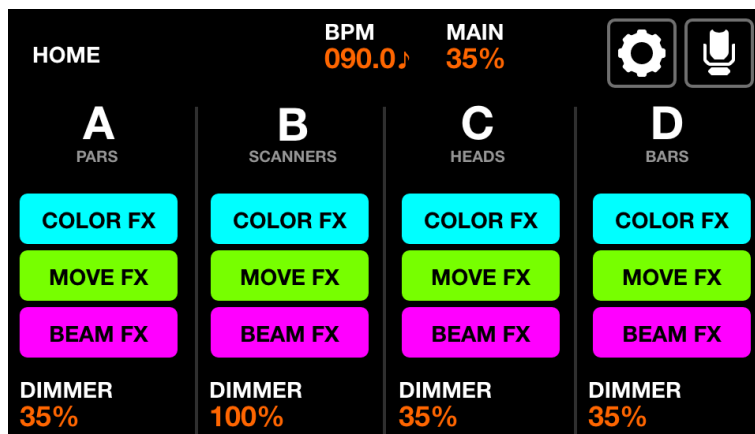
# Control screens

The 9 control screens are accessed via the 8 buttons on the left and the bottom right button. When a control screen button is pressed, both the touch display and the central matrix will update to reflect the data on the selected control screen. Each control screen has been designed for a particular purpose.

- Home : the main control screen which manages the effects enabled on each group, the group dimmers, and group flashes.
- Color FX : manages the Color FX module settings.
- Move FX : manages the Move FX module settings.
- Beam FX : manages the Beam FX module settings.
- Static Color : manages fixed colors set on fixtures which are not playing a Color FX.
- Static Position : manages fixed positions set on fixtures which are not playing a Move FX.
- Static Gobo : manages Gobos set on fixtures which have a Gobo wheel.
- Static Live Edit : manages 20 custom buttons used to set static values on any channel.
- Preset : used to store and recall the state of the controller's properties.



# Home



Fixture groups are controlled from the home screen. Each column represents one group. Four groups are available per screen. Groups A-D are displayed by default. Hold shift and hit the BPM tap button to display groups E-H.

Displayed data:

- Four columns representing four groups, each with a group letter and a group name if specified from the Groups screen.
- Buttons to show the state of the FX.
- The group dimmer level and MAIN dimmer level.
- The current BPM calculated from the TAP button or from the WTOOLS app.

Encoder actions:

- Each encoder controls the dimming level of the group. Pushing the encoder toggles BLACKOUT. Shift + moving the encoder changes the MAIN dimmer.
- Shift + pushing an encoder locks the group from being modified by a Preset or Flash button.

Toolbar actions:

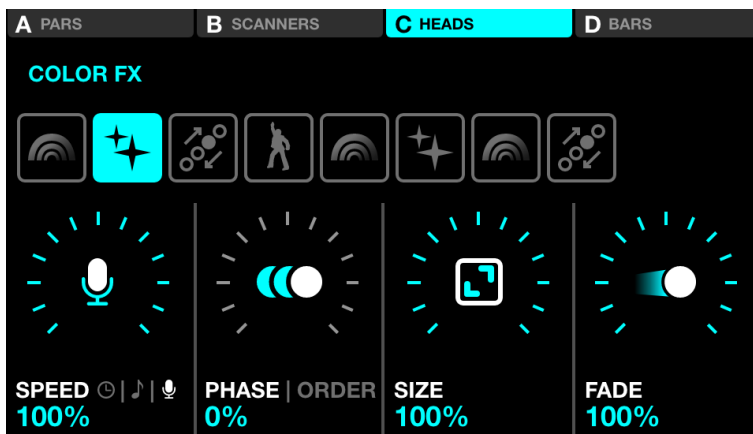
- Access Setup screen.
- Access Fixture Setup screen.

Other actions:

- Tapping the COLOR/MOVE/BEAM FX buttons will enable/disable the effects. Hitting the corresponding colored buttons on the matrix will do the same.
- Hitting the top row of buttons on the matrix will set the dimmer to FULL whilst setting the dimmer of all other groups to 0% (solo). Holding shift whilst hitting these buttons will cancel the solo and simply set the selected group to FULL. The value is reverted upon release.
- Hitting the second row of buttons triggers the same function but any RGB lights are also set to White.



## Color FX



Displayed data:

- Four buttons along the top to indicate which groups have Color FX enabled. Shift + hit the BPM TAP button to toggle between groups A-D and E-H.
- Eight buttons to select the Color Fx type.
- Speed, Phase, Order, Size and Fade FX properties.

Encoder actions:

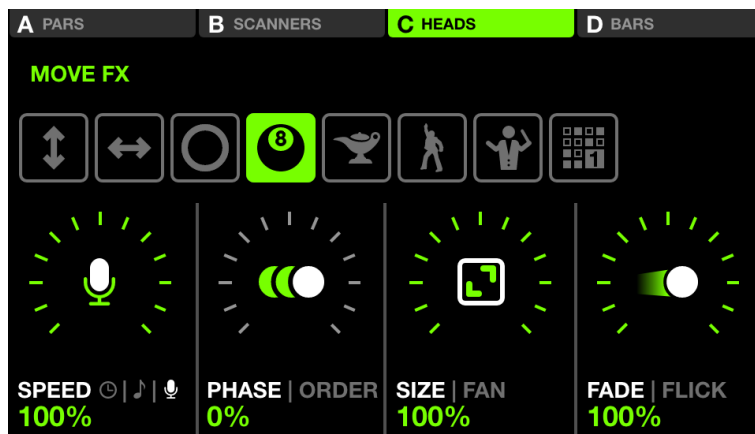
- Move the first encoder to control the FX speed. This is controlled either by a linear % or a BPM division depending on the Sync mode. Pushing the encoder toggles between Clock, BPM, and Audio Pulse (mic/line in) sync.
- Move the second encoder to adjust the Phase or Order. Pushing the encoder toggles between Phase and Order mode. Phase is controlled as a %. Order will change the fixture order consequently playing the effect forwards, backwards, symmetrically inwards and symmetrically outwards.
- Move the third encoder to control the FX Size.
- Move the Fourth Encoder to control the FX Fade.

Other actions:

- Tapping the eight FX selection buttons changes the FX type and recalls associated properties.
- Tapping the four buttons at the top of the screen, or hitting one of the buttons on the top row of the matrix turns the FX on and off for each group.
- Tapping one of the 16 colored buttons on rows 2-5 on the matrix adds and removes the corresponding color from the effect. Shift + hitting the button allows for the color to be edited.



## Move FX



Displayed data:

- Four buttons along the top to indicate which groups have Move FX enabled. Shift + hit the BPM TAP button to toggle between groups A-D and E-H.
- Eight buttons to select the Move Fx type.
- Speed, Phase, Order, Size, Fan, Fade and Flick FX properties.

Encoder actions:

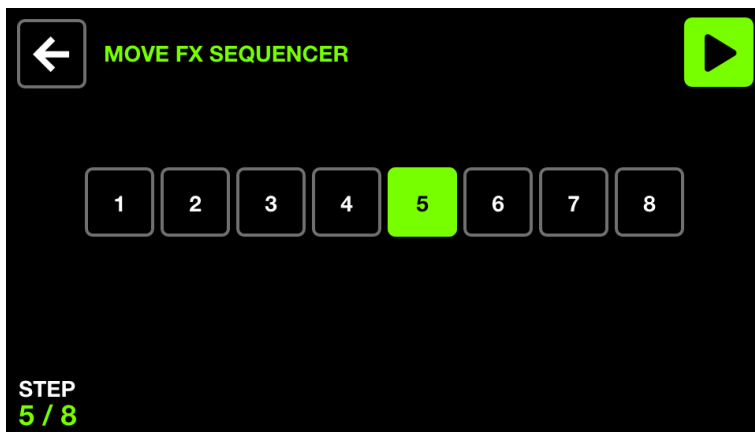
- Move the first encoder to control the FX speed. This is controlled either by a linear % or a BPM division depending on the Sync mode. Pushing the encoder toggles between Clock, BPM, and Audio Pulse (mic/line in) sync.
- Move the second encoder to adjust the Phase or Order. Pushing the encoder toggles between Phase and Order mode. Phase is controlled as a %. Order will change the fixture order consequently playing the effect forwards, backwards, symmetrically inwards and symmetrically outwards.
- Move the third encoder to control the FX Size or Fan. Pushing the encoder toggles between Size and Fan properties.
- Move the Fourth Encoder to control the FX Fade. Pushing the encoder enables Flick mode which increases the fade time over 100% of the step time (the time between position points). This consequently creates a 'Flick' effect as the fades are cancelled part-way through.

Other actions:

- Tapping the eight FX selection buttons changes the FX type and recalls associated properties.
- Tapping the four buttons at the top of the screen, or hitting one of the buttons on the top row of the matrix turns the FX on and off for each group.
- Tapping one of the 16 light green buttons on the matrix adjusts the position of the entire effect to the top left, top, top right, right, bottom right, bottom, bottom left, left and center.
- Tapping the 'Edit' button when a sequence effect type is selected opens the sequencer.



## Move Fx sequencer



The Move Fx sequencer allows for one of four different positions to be chosen per group and recalled across eight steps. Each position will be played sequentially according to the FX speed.

Displayed data:

- Eight step buttons with the current step highlighted and shown to the bottom left.

Encoder actions:

- Move the first encoder to cycle through the eight steps. The sequencer is automatically paused when cycling through steps.

Toolbar actions:

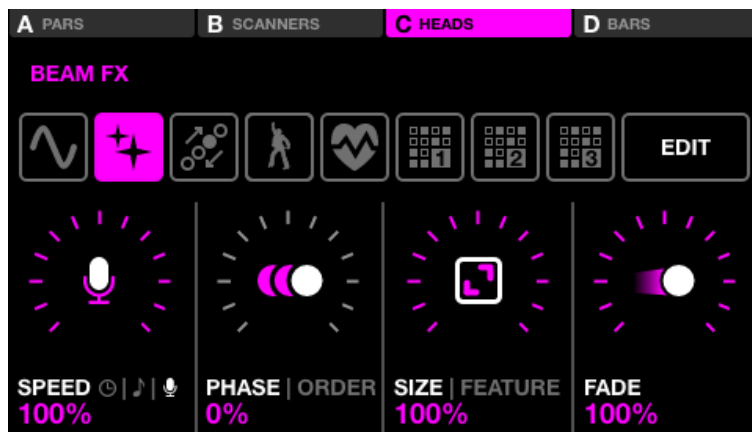
- Play and pause the sequencer.
- Go back to the Move Fx screen.

Other actions:

- Tapping one of the eight step buttons will navigate to the corresponding step and pause the sequencer.
- Hitting the top row of buttons adds the Move Effect to the corresponding group.
- Hitting the position buttons in the matrix will add the position to the step. Each column represents a group and rows 2-5 represents 4 different positions. Shift + hitting the button allows for the position to be edited.



## Beam FX



Displayed data:

- Four buttons along the top to indicate which groups have Beam FX enabled. Shift + hit the BPM TAP button to toggle between groups A-D and E-H.
- Eight buttons to select the Beam Fx type.
- Speed, Phase, Order, Size, Feature and Fade FX properties.
- The *Feature* is the channel the Beam FX are linked with. By default this is the dimmer channel, however this can be changed to another feature type such as Pan, Tilt, Iris or Zoom.

Encoder actions:

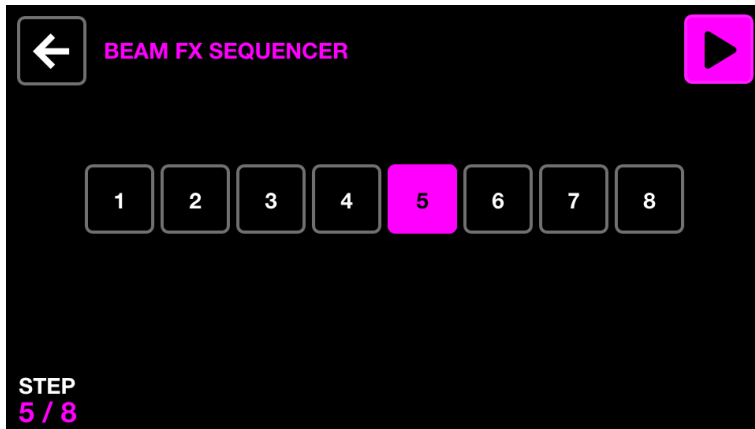
- Move the first encoder to control the FX speed. This is controlled either by a linear % or a BPM division depending on the Sync mode. Pushing the encoder toggles between Clock, BPM, and Audio Pulse (mic/line in) sync.
- Move the second encoder to adjust the Phase or Order. Pushing the encoder toggles between Phase and Order mode. Phase is controlled as a %. Order will change the fixture order consequently playing the effect forwards, backwards, symmetrically inwards and symmetrically outwards.
- Move the third encoder to control the FX Size or linked feature.
- Move the Fourth Encoder to control the FX Speed.

Other actions:

- Tapping the eight FX selection buttons changes the FX type and recalls associated properties.
- Tapping the four buttons at the top of the screen, or hitting one of the buttons on the top row of the matrix turns the FX on and off for each group.
- Tapping one of the 16 light pink buttons on the matrix flashes a portion of lights within the group. Rows 2-5 represent 4 portions of the group.
- Tapping the 'Edit' button when a sequence effect type is selected opens the sequencer.



## Beam Fx sequencer



The Beam Fx sequencer allows for eight different beam selections to be chosen. When a beam selection is made, the selected beams will be opened. Each beam selection will be played sequentially according to the FX speed.

Displayed data:

- Eight step buttons with the currently selected step highlighted and shown to the bottom left.

Encoder actions:

- Move the first encoder to cycle through the eight steps. The sequencer is automatically paused when cycling through steps.

Toolbar actions:

























- Play and pause the sequencer.
- Go back to the Beam Fx screen.

Other actions:

- Tapping one of the eight step buttons will navigate to the corresponding step and pause the sequencer.
- Hitting the top row of buttons adds the Beam Effect to the corresponding group.
- Hitting the beam selection buttons in the matrix will turn the beams on and off for the selected step. Each column represents a group and rows 2-5 represent 4 different sections within the group.



## Static Color

A PARS	B SCANNERS	C HEADS	D BARS
 Orange	 Orange	 Orange	 Orange
 Lime	 Lime	 Lime	 Lime
 Cyan	 Cyan	 Cyan	 Cyan
 Purple	 Purple	 Purple	 Purple
 Pink	 Pink	 Pink	 Pink
1-5   6-10 	1-5   6-10 	1-5   6-10 	1-5   6-10 

The static color screen contains a palette of ten colors per group. Selecting these colors will override any playing color effects on the group and set the selected colors on the fixture group.

Displayed data:

- Four columns containing five colors. Each column represents one group. Shift + hit the BPM TAP button to toggle between groups A-D and E-H.
- Color bank (colors 1-5, and 6-10).
- Color pattern.

Encoder actions:

- Move the encoder to change the pattern in which the selected colors are spread across the fixtures. Options include:
  - Single color.
  - Flash color.
  - Alternate between each color.
  - Fade or step from left to right and right to left.
  - Fade or step symmetrically inwards and outwards.
- Pushing the encoder toggles between colors 1-5 and 6-10.

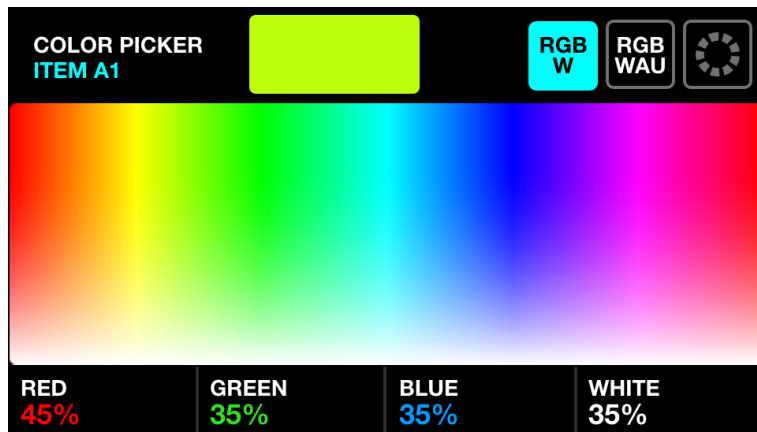
Other actions:

- Tapping one of the color buttons enables and disables the color. If a color effect is playing on the group, the selected color will override the effect.
- Shift + tapping one of the color buttons allows for the color to be changed. Note that as this is a color palette, the new color will be applied to all presets.





## Color Picker



Displayed data:

- The name of the currently selected button.
- A preview of the selected color.
- A color picker used to select a color.
- The color picker mode (RGBW, RGBWAU, Color grid).
- The generated color components (Red, Green, Blue, White, HUE, Amber, UV).

Encoder actions:

- Move the first encoder to control the amount of RED from 0-100%. In RGBWAU mode, the first encoder will control the HUE.
- Move the second encoder to control the amount of GREEN from 0-100%. In RGBWAU mode, the second encoder will control the WHITE.
- Move the third encoder to control the amount of BLUE from 0-100%. In RGBWAU mode, the third encoder will control the AMBER.
- Move the fourth encoder to control the amount of WHITE from 0-100%. In RGBWAU mode, the second encoder will control the UV.

Other actions:

- Tapping and dragging on the color picker will set the RGBW values to the selected color.
- Tapping the three buttons to the top right toggles between RGBW, RGBWAU and Color Grid picker modes.
- Tapping one of the 20 color buttons on the grid will set the RGBW values to the selected color.
- Tapping the flashing Matrix button stores the new color and closes the color picker. Tapping any other button cancels the change.
- Shift + tapping on another Matrix button will copy the selected color to the other button.



## Static Position

A PARS	B SCANNERS	C HEADS	D BARS
Floor	Floor	Floor	Floor
Center	Center	Center	Center
Center Point	Center Point	Center Point	Center Point
Ceiling	Ceiling	Ceiling	Ceiling
Ceiling Point	Ceiling Point	Ceiling Point	Ceiling Point
1-5   6-10 FADE 1s	1-5   6-10 FADE 1s	1-5   6-10 FADE 0s	1-5   6-10 FADE 0s

The static position screen contains a palette of five positions per group. Selecting a position will override any playing move effects on the group and set all fixtures in the group to the selected position.

Displayed data:

- Four columns containing five positions. Each column represents one group. Shift + hit the BPM TAP button to toggle between groups A-D and E-H.
- Position bank (colors 1-5, and 6-10).
- Fade value of the selected position.

Encoder actions:

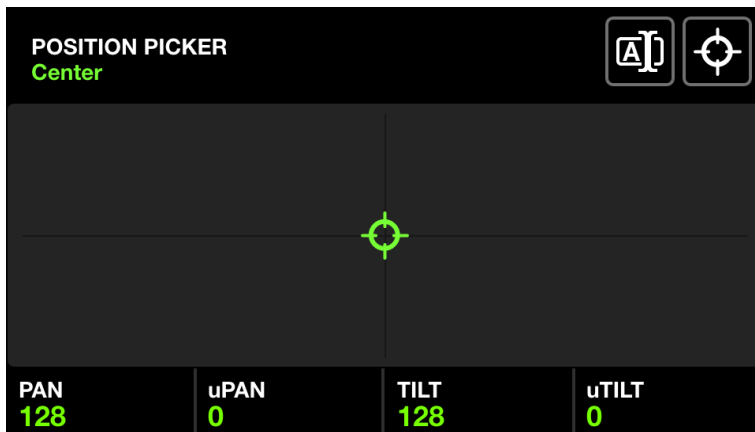
- Move the encoder to change the FADE value value of the selected position.
- Pushing the encoder toggles between positions 1-5 and 6-10.

Other actions:

- Tapping one of the position buttons triggers the position. If a move effect is playing on the group, the selected position will override the effect.
- Shift + tapping one of the position buttons allows for the position to be changed. Note that as this is a position palette, the new position will be applied to all presets.



## Position Picker



Displayed data:

- The name of the currently selected position button.
- An X-Y grid used to select a position.
- The generated position values.
- The FAN and FOCUS values.

Encoder actions:





















- Move the first encoder to control the PAN value. Shift + move for fine control.
- Move the second encoder to control the TILT value. Shift + move for fine control.
- Move the third encoder to set the FAN. When the FAN is at 50%, all fixtures will point in the same direction (provided the fixtures have been correctly set in the [Fixture Limits](#) screen).
- Move the fourth encoder to set a FOCUS value.

Other actions:

- Tapping and dragging on the X-Y grid will set the PAN and TILT values to the selected position.
- Tapping the first button to the top right will open a keyboard allowing for the name of the position to be changed.
- Tapping the second button to the top right will set the position to the center.
- Tapping the flashing Matrix button stores the new position and closes the position picker. Tapping any other button cancels the change.
- Shift + tapping on another Matrix button will copy the selected position to the other button.



## Static Gobo

A PARS	B SCANNERS	C HEADS	D BARS
 Gobo 1	 Gobo 1	 Gobo 1	 Gobo 1
 Gobo 2	 Gobo 2	 Gobo 2	 Gobo 2
 Gobo 3	 Gobo 3	 Gobo 3	 Gobo 3
 Gobo 4	 Gobo 4	 Gobo 4	 Gobo 4
 Gobo 5	 Gobo 5	 Gobo 5	 Gobo 5
1-5   6-10 <b>ROTATE 6%</b>	1-5   6-10 <b>ROTATE 6%</b>	1-5   6-10 <b>ROTATE 6%</b>	1-5   6-10 <b>ROTATE 6%</b>

The static gobo screen contains a palette of 10 gobos per group. Selecting a gobo will recall the gobo on all fixtures in the group. If a gobo is not selected, the open gobo will be triggered.

When a fixture is added to a project, the Wolfmix will assign the first 10 gobos of the fixtures gobo channel, to the 10 gobo buttons.

Displayed data:

- Four columns containing five gobos. Each column represents one group. Shift + hit the BPM TAP button to toggle between groups A-D and E-H.
- Gobo bank (colors 1-5, and 6-10).
- Gobo Rotation speed of fixtures within the associated group.

Encoder actions:

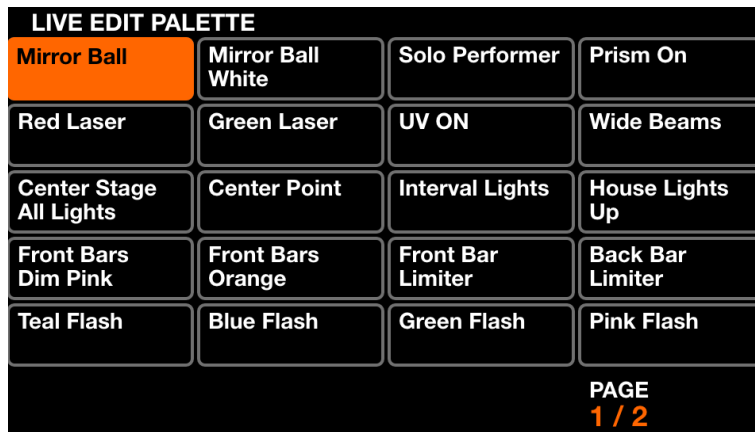
- Move the encoder to change the Gobo Rotation speed.
- Pushing the encoder toggles between gobos 1-5 and 6-10.

Other actions:

- Tapping one of the gobo buttons triggers the gobo. Shift + tapping one of the gobo buttons allows for the gobo to be changed. Note that as this is a gobo palette, the new gobo will be applied to all presets.
- When editing a gobo, tapping the flashing Matrix button stores the new gobo and closes the gobo editor. Tapping any other button cancels the change.
- When editing a gobo, shift + tapping on another Matrix button will copy the selected gobo to the other button.



## Live Edit

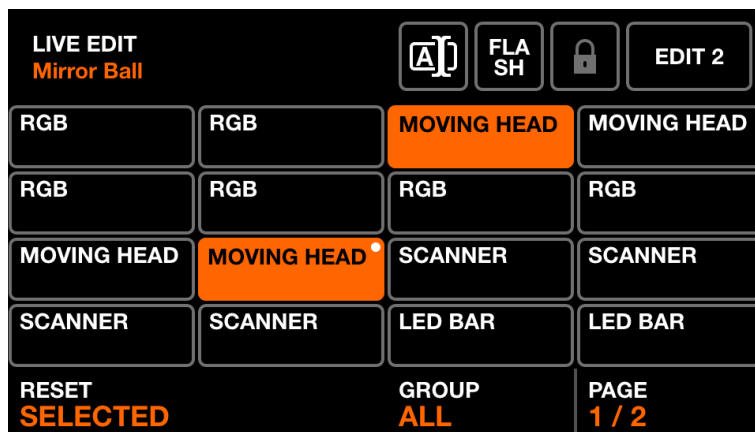


The Live Edit screen contains a palette of twenty buttons which can be used to recall a value on any channel. These values override all effects and other static values. Live Edits are layered in order, therefore if two live edits have values on the same channel, the buttons towards the bottom will take priority. Live Edits can also be released automatically by Row or Column and this can be set from the Settings screen.

Displayed data:

- 2 pages of 20 buttons containing a set of channel values and a name.

### Live Edit editor - fixtures



Shift + clicking on one of the live edit buttons opens up the editor. The editor contains two main screens.

1. A screen to select fixtures.
2. A screen to edit the channel values of the selected fixtures.

Displayed data:

- The name of the live edit to the top left.
- A grid of up to 16 fixture buttons, displaying fixture name and a white dot to indicate the fixture has an edit applied.



- A button to the top right to edit the values of the selected fixtures.
- Three buttons to rename the live edit, set the live edit to *Flash* mode, and *Lock* the live edit which preserves the state when changing presets (useful for *Parking* channels).
- The currently visible Group and Page to the bottom right.

#### Encoder actions:

- Pushing the first encoder will reset the selected fixtures, removing all live edit values from the fixtures. Moving the encoder determines whether to reset the selected fixtures or all fixtures. Upon resetting the fixtures, the white dots will disappear.
- Moving the third encoder filters the displayed fixtures in the grid by group. Pushing the encoder selects or deselects all fixtures within the group.
- If there are more than 16 fixtures within the current group. Moving the fourth encoder navigates through between the pages of fixtures.

#### Other actions:

- Tapping the buttons in the grid selects and deselects the fixtures. When a fixture is selected, the corresponding channels will be shown on the *Value* screen. If 2 or more fixtures of the same *Fixture Type* are selected, their channels will be merged and controlled together on the *Value* screen.
- Tapping the rename button will show the keyboard screen allowing for the name of the live edit to be changed.
- Tapping the *Flash* button will enable or disable the live edit's *Flash* property. When the *Flash* property is set, the Matrix button will turn white and the edit will be enabled on pressed and disabled on release.
- When editing a Live Edit, tapping the flashing Matrix button stores the new Live Edit and closes the editor. Tapping any other button cancels the change.
- When editing a Live Edit, shift + tapping on another Matrix button will copy the selected Live Edit to the other button.

## Live Edit editor - values

#### Displayed data:

- A grid of 16 channel buttons, each displaying the channel name and the current live edit value if one has been set.
- The value of the selected channels is displayed to the bottom left.

#### Encoder actions:

- Moving the first encoder changes the selected channel value. Tapping the encoder will show a grid of all Features related to the selected channel.
- Pushing the second encoder will reset the selected channel, removing the live edit value from the channel.

#### Other actions:

- Tapping a button in the grid selects a channel.



- Tapping the REC DMX button to the top right records the current DMX output frame and applies it to the selected fixtures.

## Preset



The Preset screen contains 5 pages of 20 presets. Each Preset contains all selected buttons including effect status and palette item status along with group dimmers and effect properties.

Displayed data:

- A grid of 20 Preset buttons including the preset name and the first 4 colors used within the preset.
- The *Play* state in the bottom left.
- The selected presets hold and fade times.
- When the presets are being played back as a cuelist, the elapsed time of the currently selected preset will be displayed to the top right.

Encoder actions:

- Pushing the first encoder plays the presets sequentially according to the *Hold* and *Fade* times. Move the encoder to set whether all presets from 1-100 should be played, or just the 20 presets on the current page. When the final preset is released, the first preset will be triggered.
- Moving the second encoder will change the *Hold* time of the preset in increments of 1 second. Holding shift will increment in 0.04s. The *Hold* time is the amount of time the preset will be held before jumping to the next preset if *Play* is set, or released if *Flash* is pressed. Pushing the second encoder will start recording a new hold time. Pushing the encoder again will stop the recording. This allows for a 'Cue list' of Presets that can be recorded in real time.
- Moving the Third encoder will change the *Fade* time of the preset in increments of 1 second. Holding shift will increment in 0.04s. Pushing the third encoder toggles the *Flash* property. When the *Flash* property is set, the preset will be triggered when the matrix button is pressed and the previous preset will be recalled when the matrix button is released. If the *Hold* time has not been reached at the time the button is released, the preset will remain active and will





be automatically released once the *Hold* time has been reached. Note that tapping the preset on the touchscreen will not activate the *Flash*.

- Moving the fourth encoder will change the selected page.

Other actions:

- When storing a preset, shift + tapping on another Matrix button will copy the selected Preset to the other button.



# Flash screens

The Flash screens are triggered by hitting the large buttons to the right of the Wolfmix. These buttons have been designed to be quickly accessible and may be triggered from any screen. They may be used to trigger quick actions during a live performance.

- Wolf : triggers a Paparazzi style flash effect.
- Strobe : triggers a flickering strobe effect.
- Blinder : sets all fixtures to 100% brightness in white.
- Speed : multiplies the playback speed of all effects.
- Blackout : sets all fixtures to 0%.
- Smoke : triggers a connected smoke machine.

## Release Mode

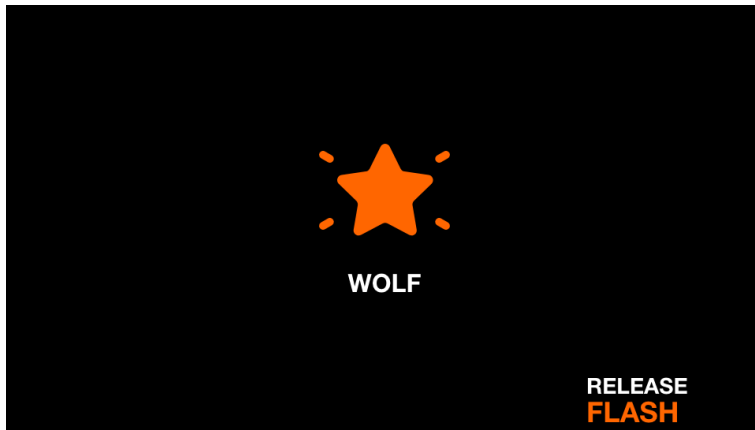
Moving the fourth encoder on any flash screen sets the buttons release mode:

- Flash : the effect is triggered when the button is pressed. The effect is stopped immediately when the button is released.
- Toggle : the effect is triggered when the button is pressed. Pressing the button a second time releases the effect.
- 1, 5, 10s timer : The effect is triggered when the button is pressed. When the button is released, a timer will start. When the specified time is reached, the effect will be released.

Holding *shift* whilst hitting a flash button will latch the button on.



## Wolf



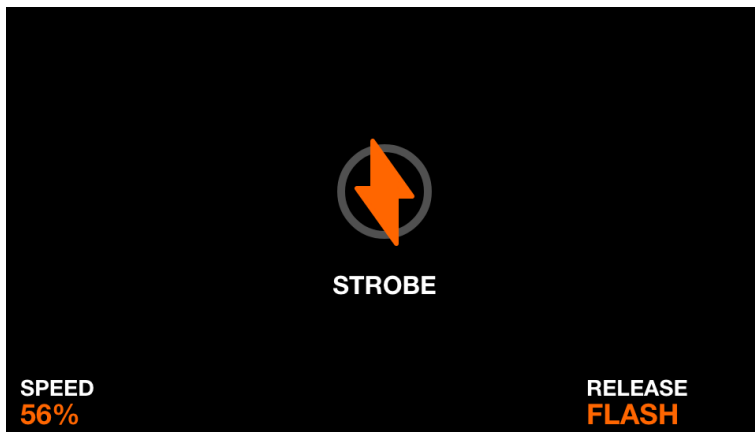
The Wolf flash effect plays a Paparazzi style white flash across all light fixtures. Hitting the Wolf button triggers the effect. The effect is released according to the set release mode.

Displayed data:

- Icon to indicate the effect is playing (this can be disabled within the settings).
- The set release mode.



# Strobe



The Strobe flash effect tells all lights to strobe by triggering the fixtures strobe feature. If the fixture doesn't have a built in strobe feature, a virtual strobe will be created by flashing the RGB or dimmer channels. The effect is released according to the set release mode.

Displayed data:

- Icon to indicate the effect is playing (this can be disabled within the settings).
- The strobe speed.
- The set release mode.

Encoder actions:

- Moving the first encoder sets the speed of the strobe.

Other actions:

- Tapping one of the buttons on the fourth column of the matrix sets the release mode
- Tapping one of the buttons on the first column of the matrix sets the strobe speed to 1%, 25%, 50%, 75% and 100%.



## Blinder



The Blinder flash effect sets all dimmers to 100% and all color mixing channels to white. The effect is released according to the set release mode.

Displayed data:

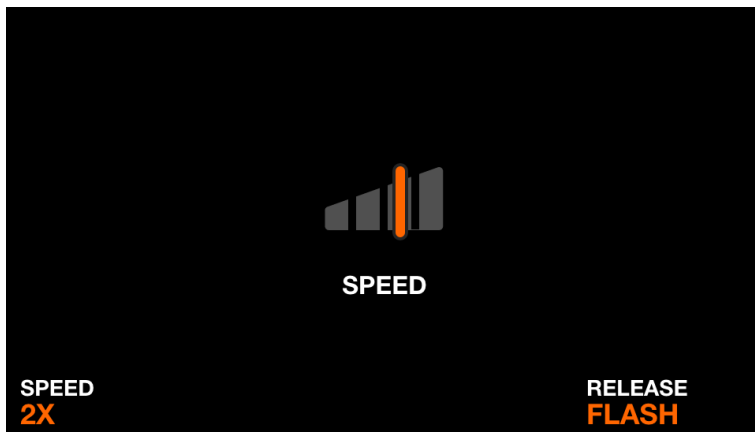
- Icon to indicate the effect is playing (this can be disabled within the settings).
- The set release mode.

Other actions:

- Tapping one of the buttons on the first column of the matrix sets the blinder fade out time to 0s, 0.2s, 0.5s, 1s, 2s.
- Tapping one of the buttons on the fourth column of the matrix sets the release mode.



# Speed



The Speed flash effect multiplies the speed of all effects by the set multiplier. The effect is released according to the set release mode.

Displayed data:

- Icon to indicate the effect is playing (this can be disabled within the settings).
- The speed multiplier.
- The set release mode.

Encoder actions:

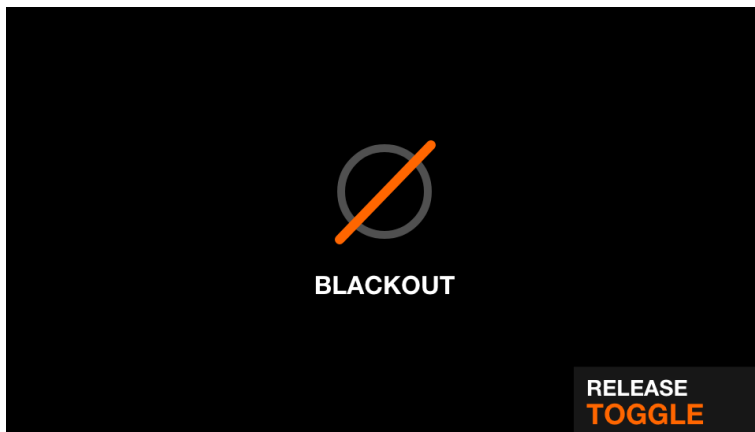
- Moving the first encoder sets the speed multiplier.

Other actions:

- Tapping one of the buttons on the first column of the matrix sets the speed multiplier between Freeze, 0.5x, 2x, 4x, 8x.
- Tapping one of the buttons on the fourth column of the matrix sets the release mode.



## Blackout



The Blackout flash effect shuts off all beams by setting dimmers to 0%, shutters closed, and color mixing channels to 0%. The effect is released according to the set release mode.

Displayed data:

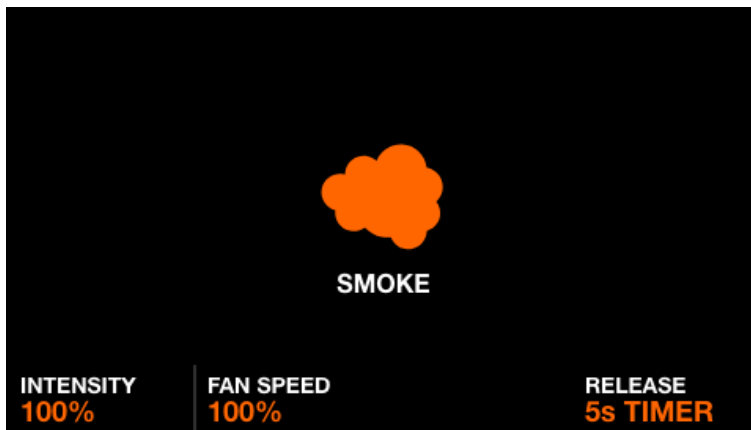
- Icon to indicate the effect is playing (this can be disabled within the settings).
- The set release mode.

Other actions:

- Tapping one of the buttons on the fourth column of the matrix sets the release mode.



# Smoke



The Smoke flash effect sets Smoke channels. The effect is released according to the set release mode.

Displayed data:

- Icon to indicate the effect is playing (this can be disabled within the settings).
- The Smoke intensity.
- The Smoke fan speed.
- The set release mode.

Encoder actions:

- Moving the first encoder sets the intensity of the smoke.
- Moving the second encoder sets the speed of the smoke fan.

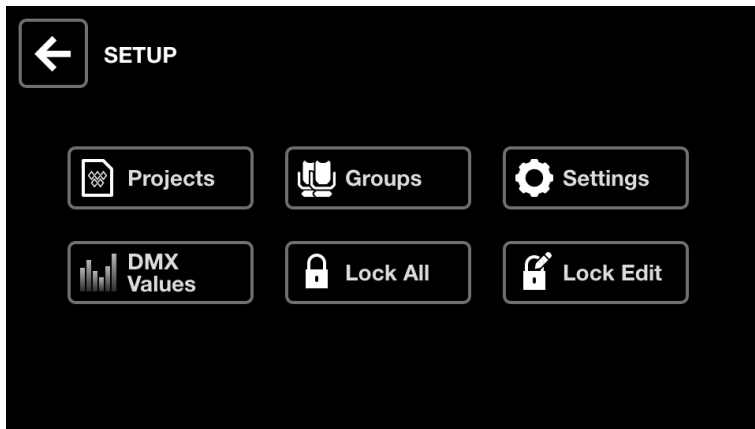
Other actions:

- Tapping one of the 4 buttons on the top row of the matrix sets the smoke intensity to 1%, 25%, 50%, 75% and 100%
- Tapping one of the buttons on the fourth column of the matrix sets the release mode.





# Setup

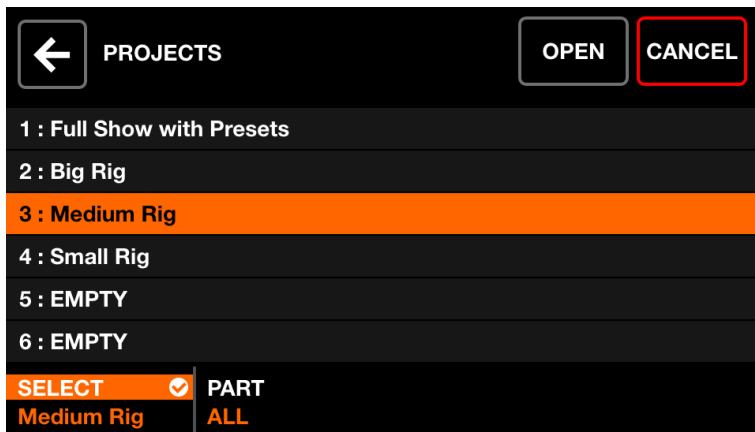


The Setup screen is accessed by tapping the icon to the top right of the Home screen to the left of the Fixture icon.

- Projects : Save and Load 6 projects.
- Groups : Set group names and map DMX input channels to group dimmers.
- Settings : Set global controller settings such as DMX universe mappings.
- DMX Values : Monitor the level of every DMX channel and set test values.
- Lock All : Lock the Wolfmix with a password.
- Lock Edit : Lock editing with a password.



## Projects



Up to 6 projects can be saved and opened on the controller. Projects contain the following data:

- The current fixture list, order, group assignments, and DMX addresses.
- Group names and mappings.
- All 100 presets with associated data including effect properties and palette item states.
- All static palette data including colors, positions, gobos and live edits.
- Flash FX button data.
- Note: controller settings which are set from the *Settings* screen are not saved within the project.

Displayed data:

- A list of 6 project slots with their corresponding names.
- Buttons to open or save a project into the selected slot.

Encoder actions:

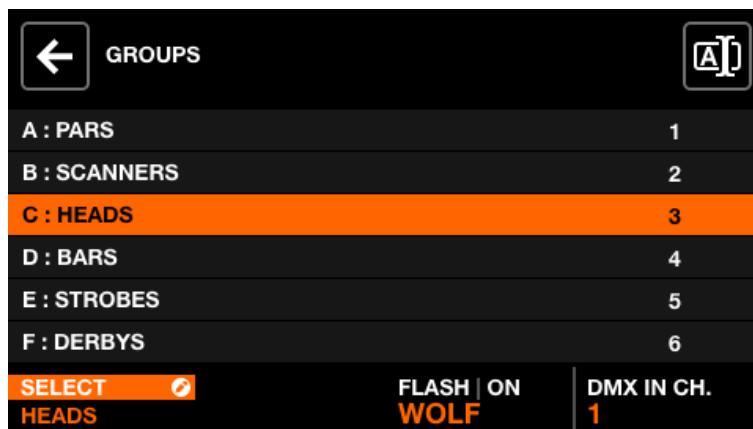
- Moving the first encoder selects a project slot to open or save. Tapping the encoder will open or save the selected project.
- Moving the second encoder sets which project part is to be loaded.
  - All : load everything from the selected project.
  - Fixtures : load only the fixtures from the selected project. Maintaining all other data.



Other actions:

- Tapping the *Open* or *Save* button to the top right will store the project, overwriting all data in the selected slot with the currently loaded data. A keyboard will appear to set the project name.



## Groups



← GROUPS		
A : PARS	1	
B : SCANNERS	2	
C : HEADS	3	
D : BARS	4	
E : STROBES	5	
F : DERBYS	6	
SELECT HEADS 	FLASH   ON WOLF	DMX IN CH. 1

Each fixture is linked with a group. Effects, sub-dimmers, static colors and positions are applied to each group. Wolfmix supports up to 8 groups. 4 can be displayed at a time with groups A-D and E-H toggles by shift + hitting the BPM TAP button. Each group can be assigned a name and a DMX input channel on the Groups screen.

Displayed data:

- A list of 8 groups + the master group (all fixtures). Each group has a letter, a name and a DMX input channel.

Encoder actions:

- Moving the first encoder selects a group. Tapping the encoder displays the keyboard, allowing for the group name to be changed.
- Moving the third encoder allows for the Flash buttons to be disabled on the selected group. Move the encoder to select the Flash button type and push the encoder to enable or disable the Flash button.
- Moving the fourth encoder changes the DMX IN channel mapping used for controlling the group dimmer (WLINK add-on required to use this feature). Shift + tapping the fourth encoder allows for the DMX IN channel to be auto-learned by listening out for the next change on the DMX input.

Other actions:

- Tapping the button to the top right displays the keyboard, allowing for the group name to be changed.



# Settings

<div><div>←</div><div>SETTINGS</div><div>Firmware : 0.0.5</div></div>	
XLR A	Universe 1
XLR B	Universe 1
XLR C	Universe 2
XLR D	Universe 2
WLINK input mode	DMX IN
BPM mode	TAP
SELECT WLINK input	VALUE DMX IN

The Settings screen shows a list of global Wolfmix settings.

Displayed data:

- A list of settings is displayed on the left along with the title on the right.
- The selected setting and value is displayed along the bottom.
- The current firmware version is displayed to the top right. The firmware can be updated using the WTOOLS app.

Encoder actions:

- Moving the first encoder navigates through the settings list.
- Moving the fourth encoder changes the setting's value. Pushing the encoder will display the keyboard if applicable.

Settings list

- XLR A - XLR D : the DMX universes to map to XLR A-D.
- WLINK input mode :
  - OFF : WLINK is disabled
  - WOLFMIX : commands will be sent and received via XLR C to sync with another Wolfmix.
  - DMX IN : DMX input data will be received via XLR C and mapped to group dimmers and DMX output channels.
- BPM Mode :
  - TAP : the BPM TAP button will be used to calculate the BPM.
  - EXTERNAL : the BPM will be taken from WTOOLS using Ableton Link or OS2L. This option is automatically set when BPM is enabled within the WTOOLS app.
- Audio input level : the amount of gain to add to the built-in microphone. The microphone level is set automatically according to the average volume level over a short period of time, however this setting may be used to further adjust the level.
- Display brightness : used to adjust the display backlight level.



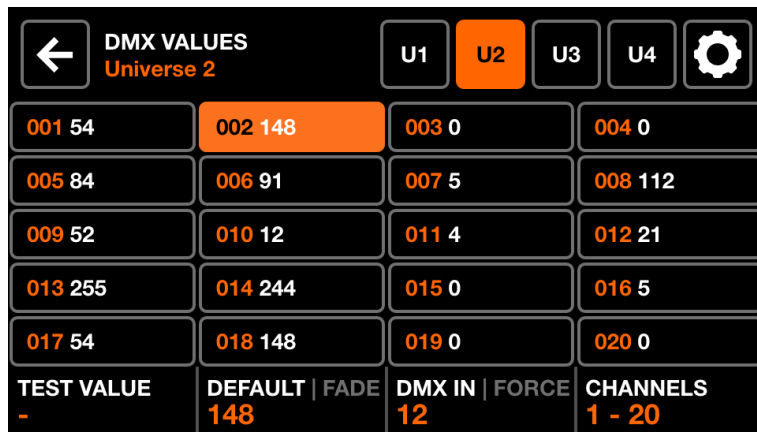
- Button brightness : used to adjust the LED brightness of the buttons when they are switched on.
- Lock password : the password required to unlock the controller.
- Store Group dimmers in preset : when set, the group dimmer values will be stored within the preset. When not set, the group dimmer values will not be recalled by the preset. This is useful if the group dimmers are controlled via a DMX fader board.
- Store Flash buttons in Preset : when set, the state of the flash buttons will be stored within the preset. When not set, the flash button states will not be recalled by the preset.
- Jump back on mode release : when enabled, the control screens will work like flash buttons whereby on button release the previous screen will be recalled. Holding shift will latch the selected screen. This is useful for quickly navigating between control screens.
- Live Edit release mode :
  - OFF : all live edits will be stacked in button order (buttons to the bottom right have priority over buttons at the top left).
  - ROW : when a Live Edit is triggered, other Live Edit's on the same row will be released.
  - COLUMN : when a Live Edit is triggered, other Live Edit's on the same column will be released.
- Fade effects during preset change : if 2 presets fade together, the effects in both presets will play simultaneously during the fade. This requires extra CPU power and may be disabled if the Wolfmix GUI is running slowly with lots of DMX channels.
- Show color preview on Preset : when enabled, up to 4 colored circles will be displayed on each preset button to indicate the first 4 colors used. Disable this option for a cleaner preset screen.
- Show Flash FX Screens : when enabled, an icon will be shown on the screen to indicate a Flash FX has been triggered. The matrix and encoders can also be used to set Flash FX properties. Disable this option to trigger Flash FX without leaving other screens. When disabled, the Flash FX screens can be accessed by holding shift whilst hitting the Flash FX button.
- Switch group bank :
  - When set to *Shift + Tap* - the group bank is toggled by hitting *shift + BPM TAP*.
  - When set to *BPM TAP* - the operation of the BPM TAP button will be inverted. The group is toggled by hitting *BPM TAP* without *shift* and the BPM is calculated with *shift + BPM TAP*.
- Preset DMX IN channel : trigger a preset from a DMX Input channel. The DMX value of the selected channel will trigger the corresponding Preset number.  
*\*WLINK add-on required to use DMX IN.*
- Retro mode : sets the controllers color scheme to standard colors or Retro colors including green, and orange.



- Quick Setup (beta) : shows the *Quick Setup* button on the Fixtures screen. Quick Setup will search for connected RDM fixtures and add and address them automatically.



## DMX Values



The DMX Values screen displays the current value of each DMX channel. It allows for the value to be changed for testing purposes, and for channel settings to be adjusted.

Displayed data:

- A grid of 20 DMX channels.
- The test value, default value, fade state, and DMX input mapping of the selected channel.
- Buttons to display universes 1-4 and access beam settings.

Encoder actions:


- Move the first encoder to set a test value on the selected channel. Tapping the encoder resets the channel to its current value.
- Moving the second encoder changes the default value of the channel. This is the value which is set at the beginning before any effects and palettes have been applied. Tapping the encoder toggles *Fade* mode. When *Fade* is set, the channel value will fade presets or positions with fade times are triggered. By default, color mixing and dimming channels are set to fade. Color Filter and Gobo channels are set not to fade.
- Moving the third encoder maps a DMX IN channel to the selected channel (WLINK add-on required). Tapping the encoder sets *Force* mode. When *Force* is enabled, the DMX input value will override all FX and palette values on the channel. When *Force* is disabled, the DMX input value will be applied as a default value at the beginning, and all FX and palettes will override the value.
- Moving the fourth encoder navigates between pages of 20 channels.

Other actions:

- Tapping one of the grid buttons selects a channel. Hitting one of the 20 matrix buttons also selects a channel.
- Tapping one of the 4 universe buttons on the top bar will select and display the corresponding universe.
- Tapping the Settings button to the top right opens the beam settings screen.



## Beam Editor

 <b>BEAM EDITOR</b> Edit auto-generated features				
001 : RGB	Dimmer			
002 : RGB	Strobe			
003 : RGB	Shutter			
004 : Moving He	Gobo Rotation			
005 : Moving He	Pan			
006 : Scanner	Tilt			
BEAM 003 : RGB	FEATURE   CH.	DMX MIN   MAX	OFF   ON	
	DIMMER	255	255	

Advanced: each fixture is split up into beams and beam features. Each beam feature contains min/max and on/off values which are set automatically by Wolfmix. These values are calculated by the fixture profile and should not require changing. However if there is a fault with the fixture profile or a special case, some of these values can be edited via the Beam Editor screen.

Displayed data:

- A list of all beams.
- A list of features on the selected beam.
- The beam features linked channels, min/max and off/on DMX values.

Encoder actions:

- Move the first encoder to select a beam.
- Move the second encoder to select a beam *feature* or linked channel. Tapping the encoder will toggle between the Feature selection and the linked channel selection.
- Move the third encoder to adjust the *min* and *max* DMX values for the selected feature. Tapping the encoder will toggle between the *min* and *max* values. To invert the feature, set the *min* value higher than the *max* value.
- Move the fourth encoder to select the *off* and *on* values. Tapping the encoder will toggle between the *off* and *on* values.





## Lock



Wolfmix can be locked to prevent unauthorised access. Tapping *Lock All* from the *Settings* screen will lock the entire controller. Tapping *Lock Edit* will lock the palette, preset and fixture editing. When the controller is locked, tapping the *Lock* button to the top right displays a keyboard to enter the password to unlock the controller (set via the *Settings* screen). The controller may also be unlocked without a password via the WTOOLS app.



# WTOOLS app

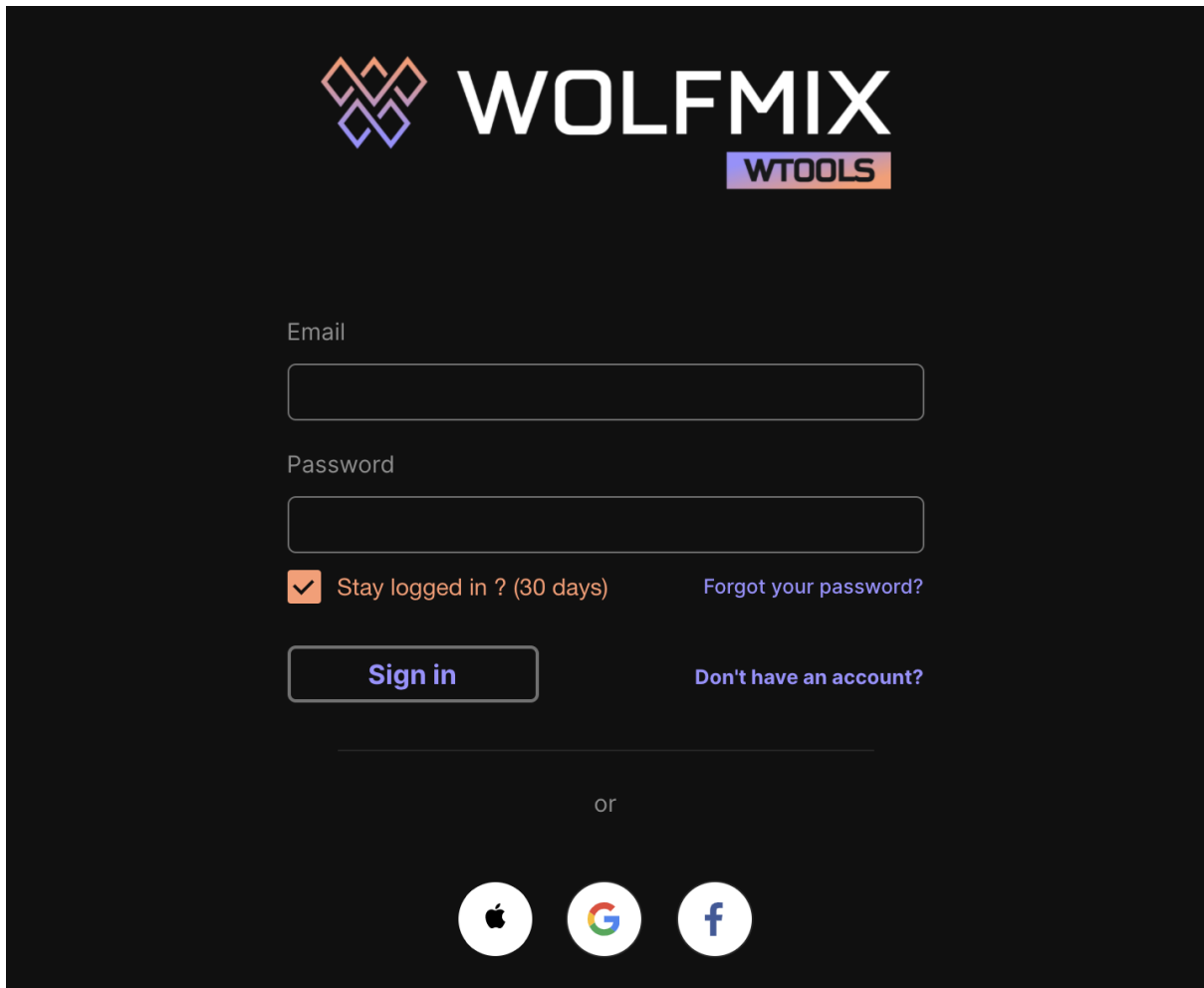


The WTOOLS app is available for PC and MAC. It is not required to use Wolfmix, however it contains a toolbox of valuable features for the controller.

- Sync the BPM with Ableton Link and OS2L.
- Visualize in 3D with Easy View 2.
- Purchase add-ons including extra DMX universes, WLINK and 3D Link
- Sync projects locally and with the cloud.
- Sync fixture profiles locally and with the cloud.
- Update the firmware.
- Access the mini-guides.



## LS Cloud sign in

The image shows the login interface for WTOOLS. At the top, there is a logo consisting of a stylized 'W' made of four colored squares (orange, purple, blue, and green) followed by the text 'WOLFMIX' in large white letters and 'WTOOLS' in a smaller white box below it. Below the logo, there are two input fields: 'Email' and 'Password'. Under the 'Email' field is a checkbox labeled 'Stay logged in ? (30 days)' with an orange checkmark, and a link 'Forgot your password?'. Below the 'Password' field is a 'Sign in' button and a link 'Don't have an account?'. At the bottom, there is a horizontal line with the word 'or' in the center, and three circular icons for Apple, Google, and Facebook below it.

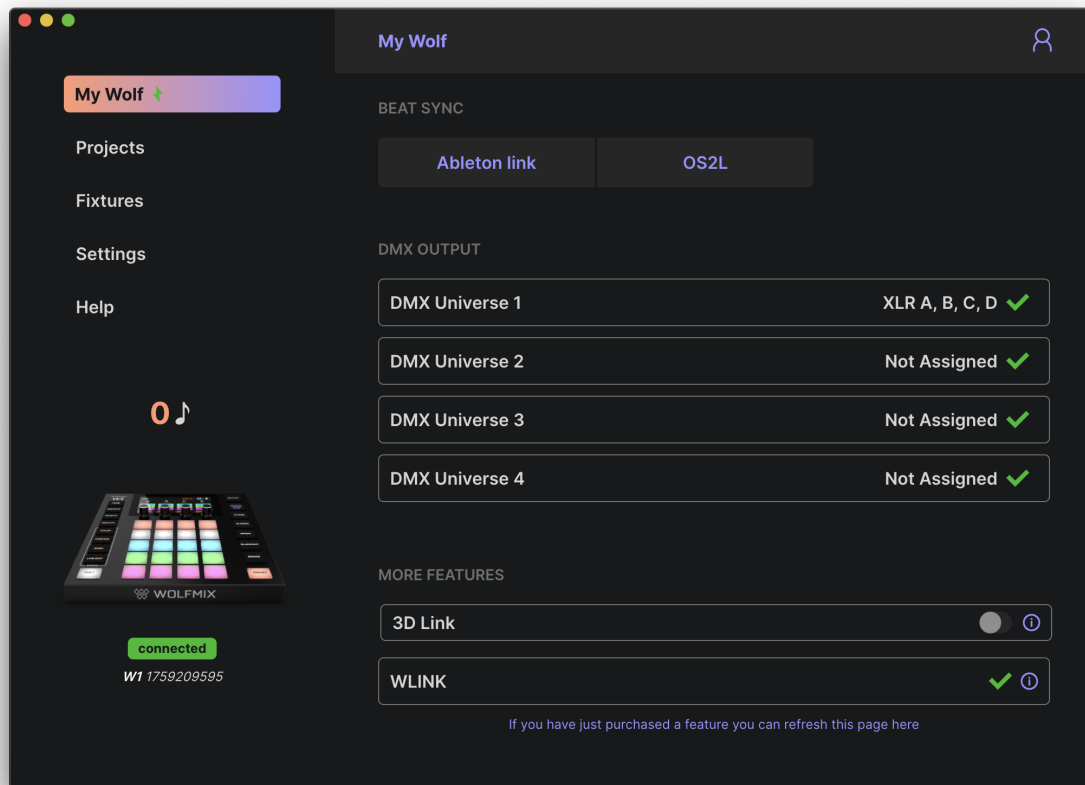
WTOOLS uses LS Cloud to synchronize projects and fixtures. LS Cloud is a system created by Lighting Soft AG. Along with Wolfmix, Lighting Soft are part of the Nicolaudie Group. Therefore data stored within the cloud is not being passed on to a third party. See the privacy policy available on the Wolfmix website for further information.

LS Cloud is required to be able to access the public fixture library, sync fixtures and projects with the cloud, and manage in-app purchases.

The button to the top right of WTOOLS displays buttons to sign in, sign out, access the cloud web dashboard, and the web Profile Builder.



# My Wolf

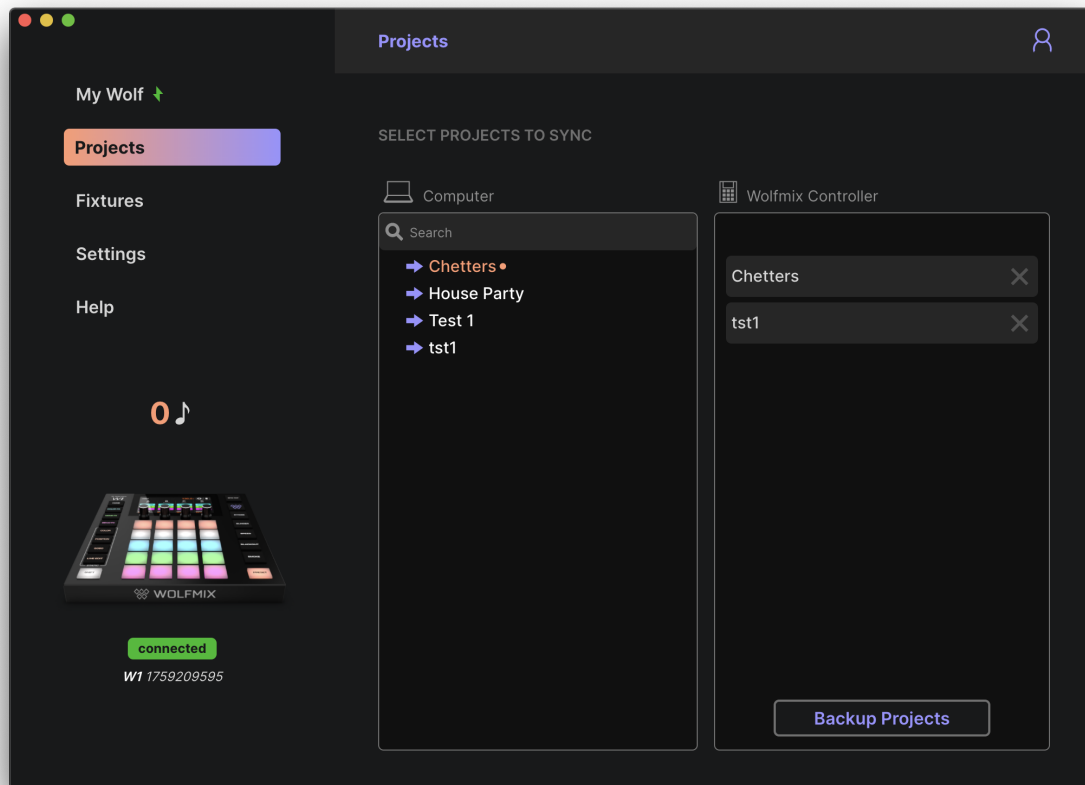


Information on the connected Wolfmix is displayed on this screen including:

- Serial number (to the bottom left) : this is a unique ID assigned to each Wolfmix controller.
- Active DMX universes along with their assigned XLR sockets : these can be mapped from the controller's settings screen.
- 3D link status : turn on to start relaying DMX from Wolfmix to Easy View 2 3D. Easy View can be downloaded from the Wolfmix website.
- WLINK status : indicates whether WLINK in-app purchase is active.
- Beat Sync : indicates whether Ableton Link or OS2L is active, along with the number of connected Ableton Link devices.



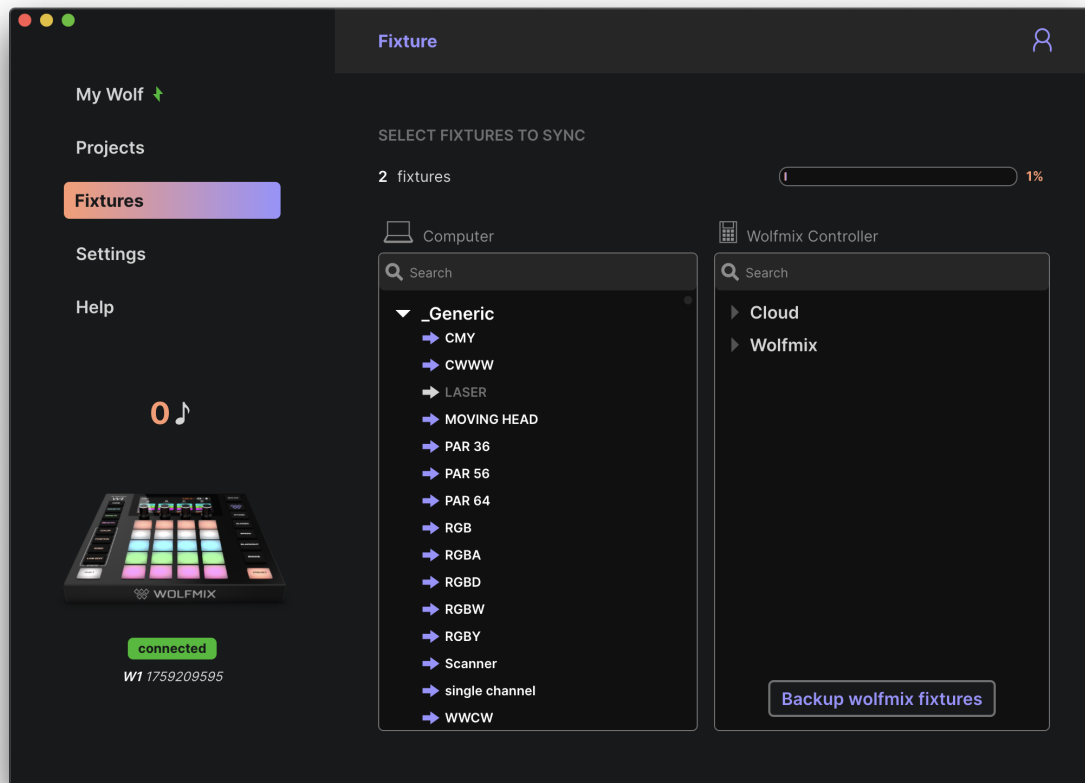
# Projects



Projects on the computer are displayed on the left and projects in the Wolfmix controller are displayed on the right. Clicking the arrow to the left of the project name will write the project to the Wolfmix controller. Clicking *Backup Projects* will copy all projects from Wolfmix to the computer and sync with LS Cloud.



# Fixtures



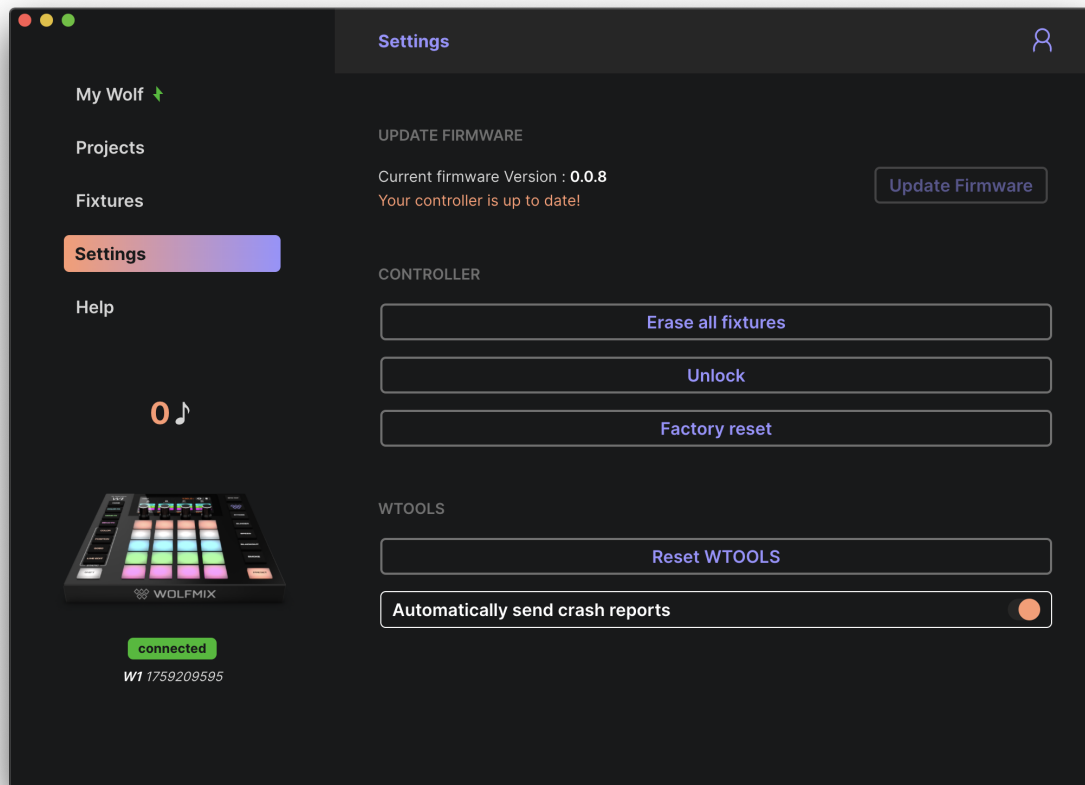
Fixtures on the computer and in the cloud are displayed on the left and fixtures in the Wolfmix controller are displayed on the right.

- The first category *Wolfmix* includes all fixtures created directly on the controller.
- The second category *Cloud* includes all fixtures created using the LS Cloud web Profile Builder.
- The other categories include fixtures within the public library. These fixtures cannot be modified but can be duplicated and edited using the LS Cloud web Profile Builder or the Wolfmix Fixture Builder.

Clicking the arrow to the left of the fixture name will write the fixture to the Wolfmix controller. Clicking *Backup Wolfmix Fixtures* will copy all fixtures in the Wolfmix category from the controller to the computer and sync with LS Cloud.



# Settings



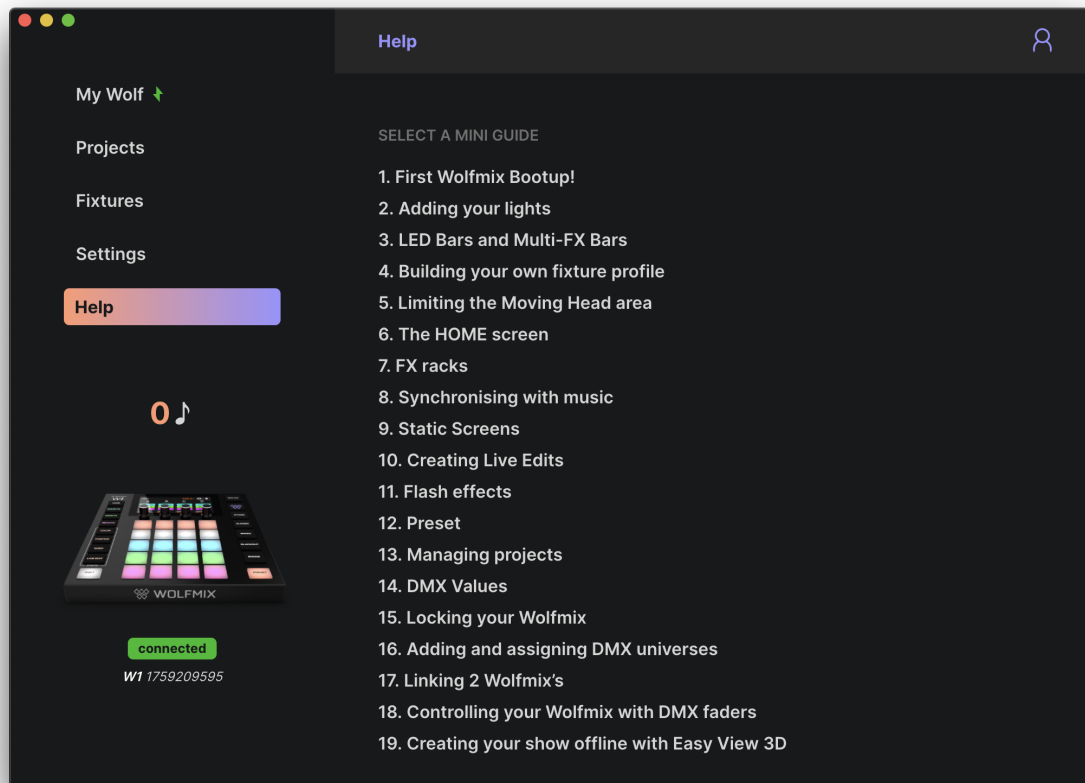
The Settings screen shows the current firmware version. Clicking Update Firmware will update to the latest firmware version which is downloaded automatically from WTOOLS when connected to the internet.

Other settings:

- Erase all fixtures : remove all fixtures from the Wolfmix controller.
- Unlock : unlocks Wolfmix without the need of a password.
- Factory reset : deletes all projects and fixture profiles from Wolfmix and installs the factory demo project and fixtures. Note that this function does not restore the original factory firmware, rather the latest firmware version will be installed.
- Reset WTOOLS : all local data will be cleared.
- Automatically send crash reports : a report will be sent to the WTOOLS developer team automatically if the app crashes.



# Help



The help page contains offline versions of the Wolfmix Mini Guides, accessible directly from WTOOLS if the Wolfmix website or internet connection is unavailable.

