WMXI MK2

User Manual

Europe Energy Saving Notice
Energy Saving Matters (EuP 2009/125/EC)
Saving electric energy is a key to help protecting the enviroment. Please turn off all electrical products when they are not in use. To avoid power consumption in idle mode, disconnect all electrical equipment from power when not in use. Thank you!

DOCUMENT VERSION

Due to additional product features and/or enhancements, an updated version of this document may be available online.
Please check www.adj.com for the latest revision/update of this manual before beginning installation and/or programming.

Date	Document Version	Software Version	Notes
04/24/24	1.0	v0.6.0	Initial Release
08/01/24	1.1	N/C	Updated DMX Values
01/15/26	1.2	v2.0	Updated all sections to V2.0 Software

CONTENTS

GENERAL INFORMATION

INTRODUCTION

Please read and understand all instructions in this manual carefully and thoroughly before attempting to operate these products. These instructions contain important safety and use information.

UNPACKING

This device has been thoroughly tested and has been shipped in perfect operating condition. Carefully check the shipping carton for damage that may have occurred during shipping. If the carton appears to be damaged, carefully inspect the device for damage and be sure all accessories necessary to operate the device have arrived intact. In the event damage has been found or parts are missing, please contact our customer support team for further instructions. Please do not return this device to your dealer without first contacting customer support at the number listed below. Please do not discard the shipping carton in the trash. Please recycle whenever possible.

CUSTOMER SUPPORT

Contact ADJ Service for any product related service and support needs. Also visit **forums.adj.com** with questions, comments or suggestions.

Parts: To purchase parts online visit:
http://parts.adj.com (US)
http://www.adjparts.eu (EU)

ADJ SERVICE USA - Monday - Friday 8:00am to 4:30pm PST
Voice: 800-322-6337 I support@adj.com

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LIMITED WARRANTY

For up-to-date warranty information regarding your device, please visit ADJ's warranty information page online or scan the QR codes below.

USA: https://www.adj.com/pages/warranty-information

EU: https://www.adj.eu/terms_and_conditions

It is strongly recommended to power the fixture down completely when not in use. Doing so will reduce wear on the fixture due to sustained or extended operational periods, thereby maximizing its operational lifespan.

GENERAL INFORMATION

HARDWARE SPECIFICATIONS

Size & weight

- 7.68” x 8.66” x 2.44” (195 x 220 x 62mm)
- 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

- Alloy encoder caps
- 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

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

USB

- USB B connector - 5V 900ma required (USB3 rating)
- USB A connector with MIDI and MSD (MK2 and higher)

SAFETY GUIDELINES

To guarantee a smooth operation, it is important to follow all instructions and guidelines in this manual. ADJ Products, LLC is not responsible for injury and/or damages resulting from the misuse of this device due to the disregard of the information printed in this manual. Only qualified and/or certified personnel should perform installation of this device and only the original rigging parts included with this device should be used for installation. Any modifications to the device and/or the included mounting hardware will void the original manufacturer's warranty and increase the risk of damage and/or personal injury.

PROTECTION CLASS 1 - FIXTURE MUST BE PROPERLY GROUNDED

THERE ARE NO USER SERVICEABLE PARTS INSIDE THIS UNIT. DO NOT ATTEMPT ANY REPAIRS YOURSELF, AS DOING SO WILL VOID YOUR MANUFACTURER'S WARRANTY. DAMAGES RESULTING FROM MODIFICATIONS TO THIS DEVICE AND/OR THE DISREGARD OF SAFETY INSTRUCTIONS AND GUIDELINES IN THIS MANUAL VOID THE MANUFACTURER'S WARRANTY AND ARE NOT SUBJECT TO ANY WARRANTY CLAIMS AND/OR REPAIRS.

CHOKING HAZARD! PLEASE BE AWARE THAT THIS PRODUCT CONTAINS SMALL PARTS SUCH AS ENCODER CAPS THAT 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.

INDOOR / DRY LOCATIONS USE ONLY!
DO NOT EXPOSE FIXTURE TO RAIN AND/OR MOISTURE!
DO NOT SPILL WATER AND/OR LIQUIDS INTO OR ONTO THE DEVICE!

AVOID brute force handling when transporting or operating.

DO NOT expose any part of the device to open flame or smoke. Keep device away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.

DO NOT use device in extreme and/or severe environments.

DO NOT operate device if power cord is frayed, crimped, damaged and/or if any of the power cord connectors are damaged, and does not insert into the device securely with ease. NEVER force a power cord connector into device. If the power cord or any of its connectors are damaged, replace it immediately with a new one of similar power rating.

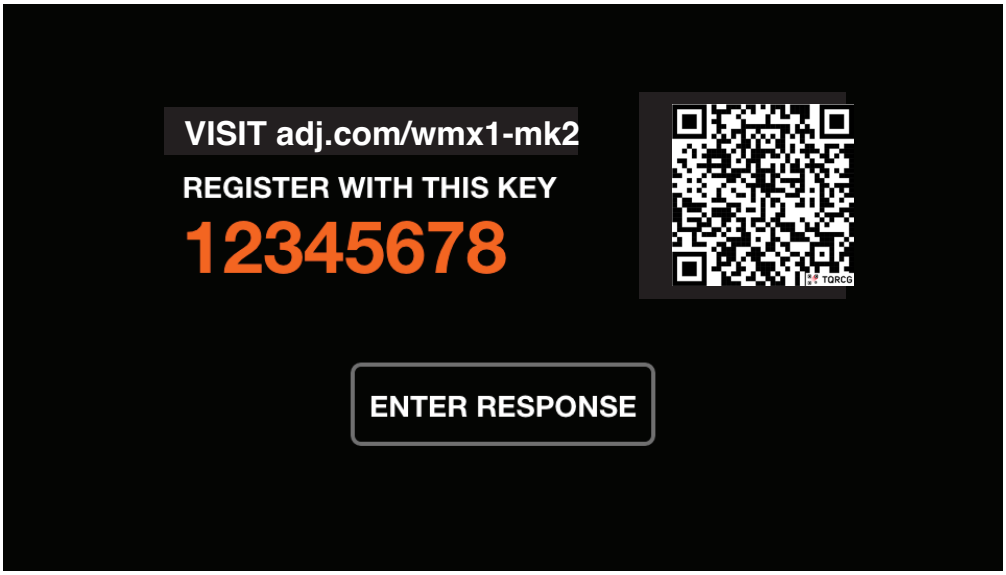
Strictly use a source of AC power that complies with local building and electrical codes and has both overload and ground-fault protection. Use only the provided AC power supply and power cords and the correct connector for the country of operation. Use of the factory provided power cable is mandatory for operation in the US and Canada.

Allow free unobstructed airflow to the bottom and back of the product. Do not block the ventilation slots.

DO NOT use the product if the ambient temperature exceeds 50°C (122° F)

ACTIVATION

WMX1 MK2 must be activated at ADJ.com before it can be used. The supplied key is unique to each WMX1 MK2 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.



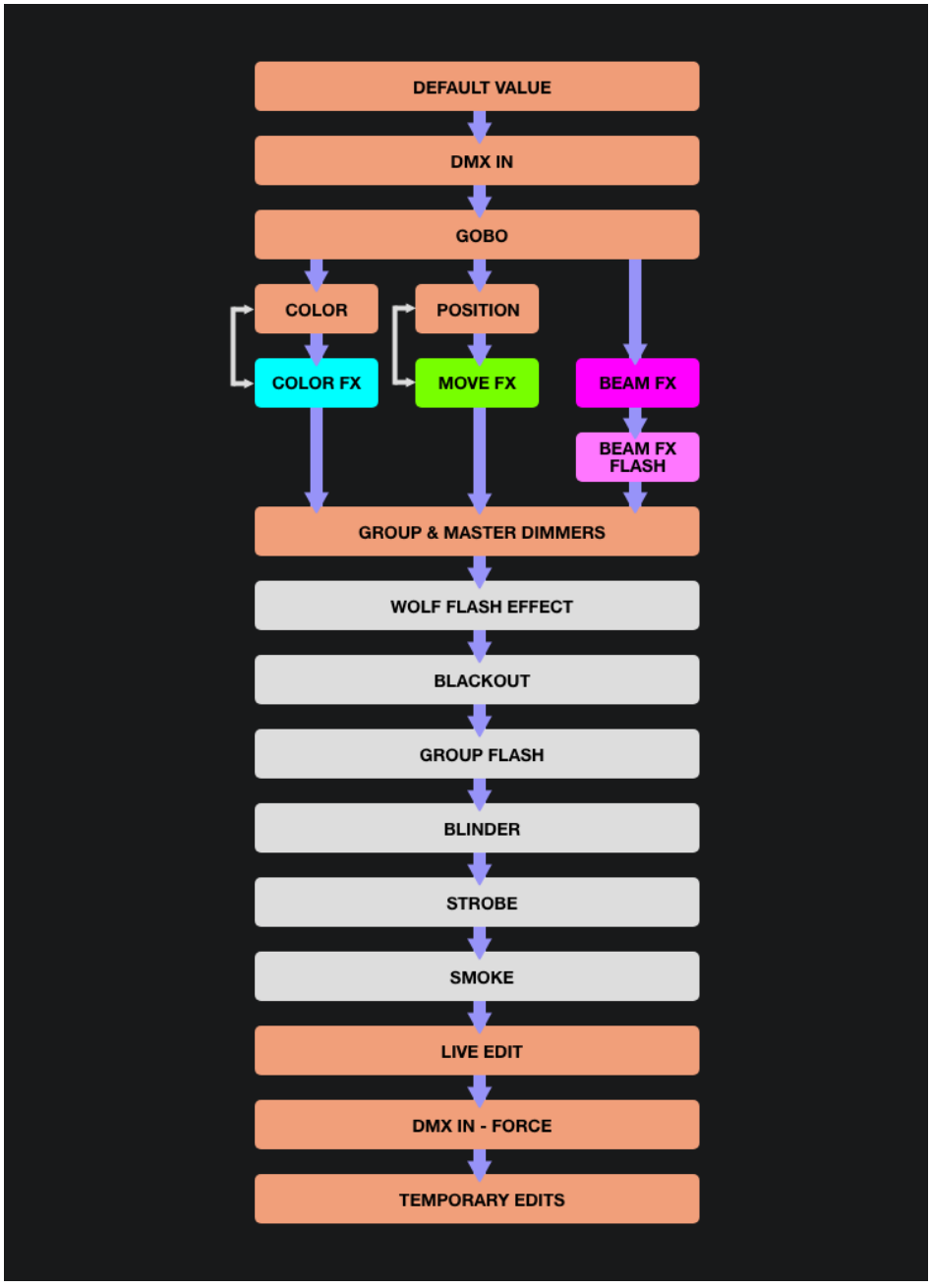
STARTUP KEY-COMBINATIONS

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 WMX1 MK2 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 WMX1 MK2. 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 WMX1 MK2 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.



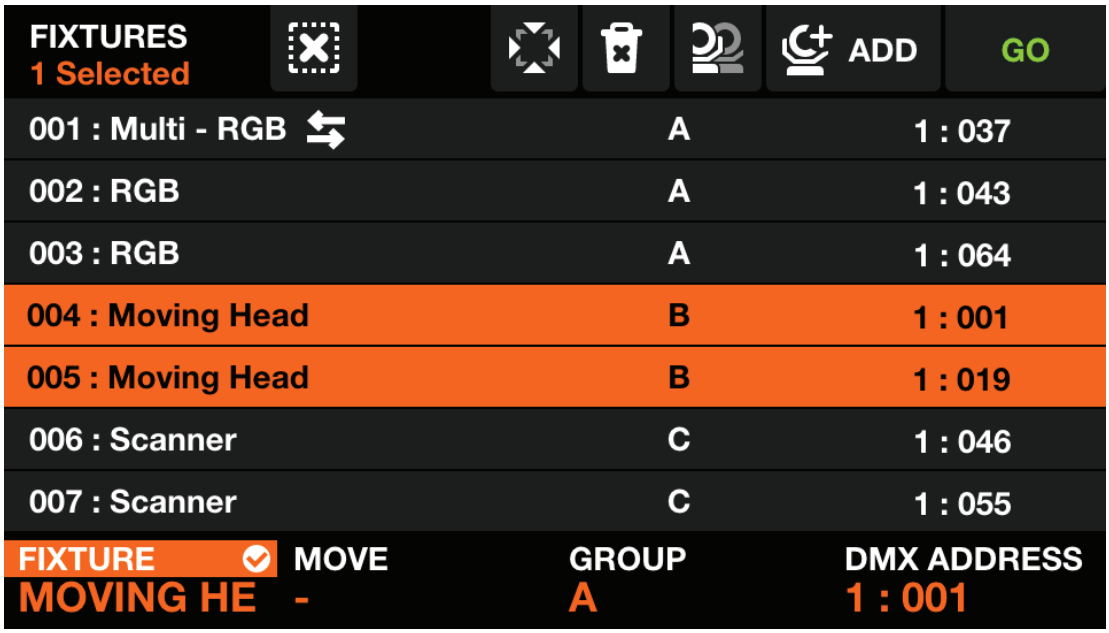
FIXTURE SETUP

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 WMX1 MK2. Fixture data is used to calculate effects and other DMX levels. A fixture must be added here before it can be controlled by WMX1 MK2.

Thousands of fixtures are included in the controller, and more can be added from the WTOOLS app (available for PC/MAC) from the library of over 20000 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.

WMX1 MK2 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



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.

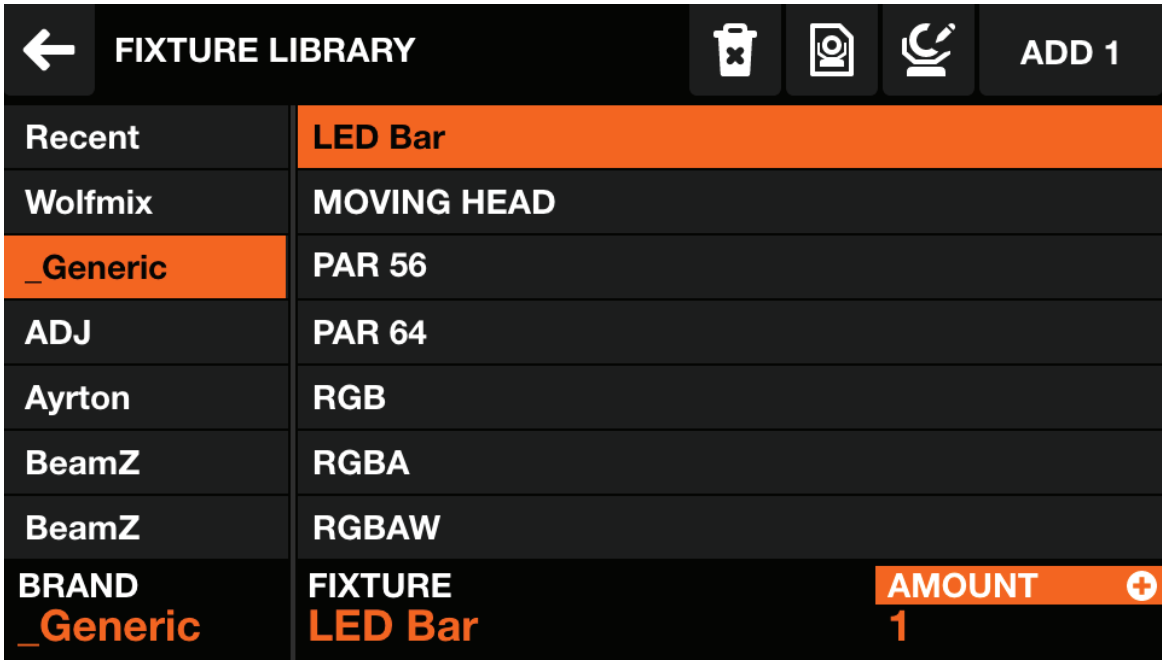
Encoder actions:

- 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.
- Select none removes all fixtures from the selection.
- Add more fixtures.
- Tapping GO applies changes. The Intelligent Preset screen will appears after tapping GO in a new project.

FIXTURE SELECTION



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 WMX1 MK2 controller, followed by brands in the public library.
- Available fixtures within the selected brand.

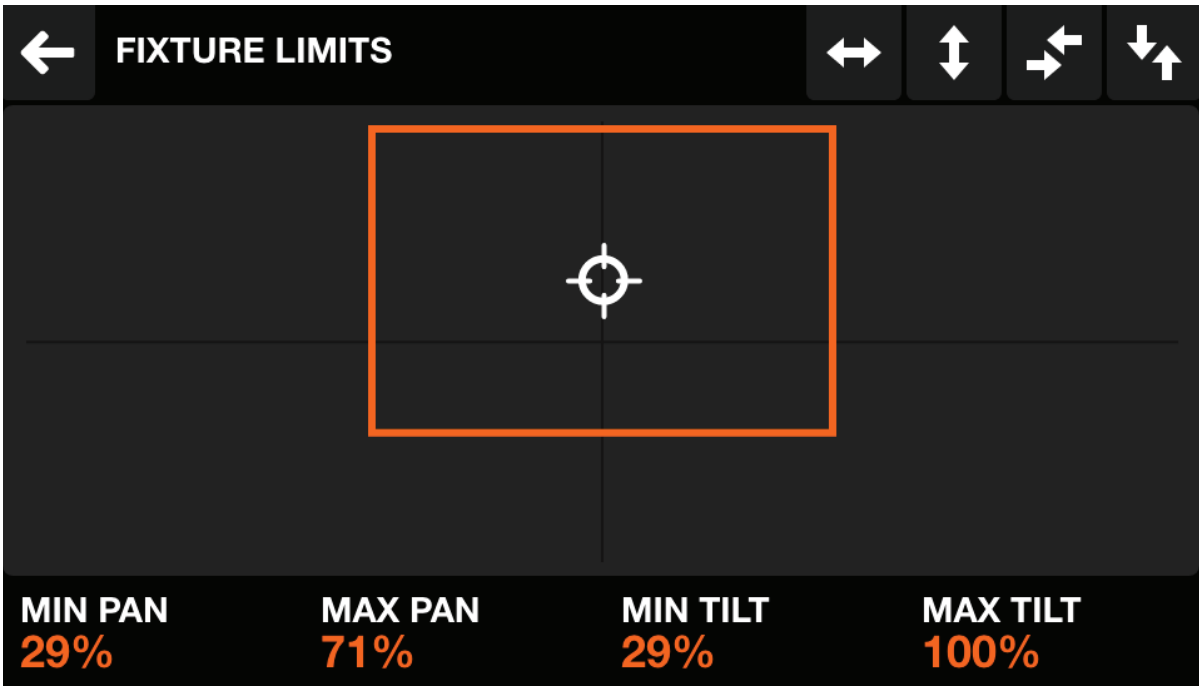
Encoder actions:

- 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.
- Create a new fixture.
- Edit the selected fixture profile with the fixture builder.
- Add the selected fixture.
- Update fixture button appears if a profile has been modified. Tapping this button will update all existing fixture types, if the channel count is the same.

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.

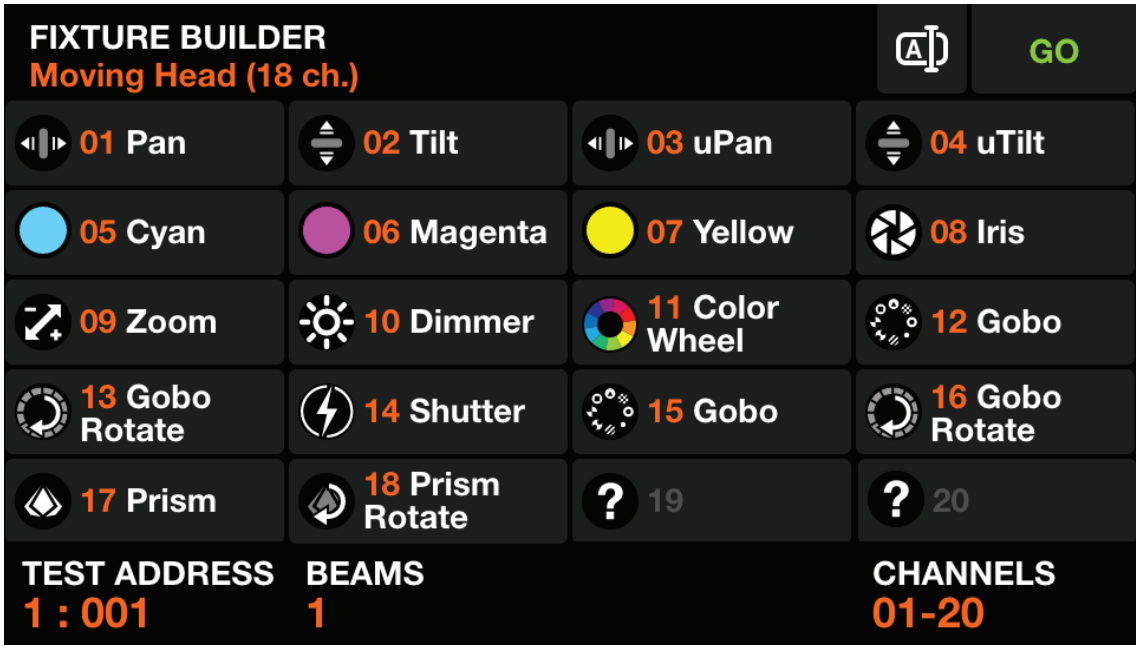
Encoder actions:

- 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 WMX1 MK2 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 WMX1 MK2 profile may have up to 512 channels.

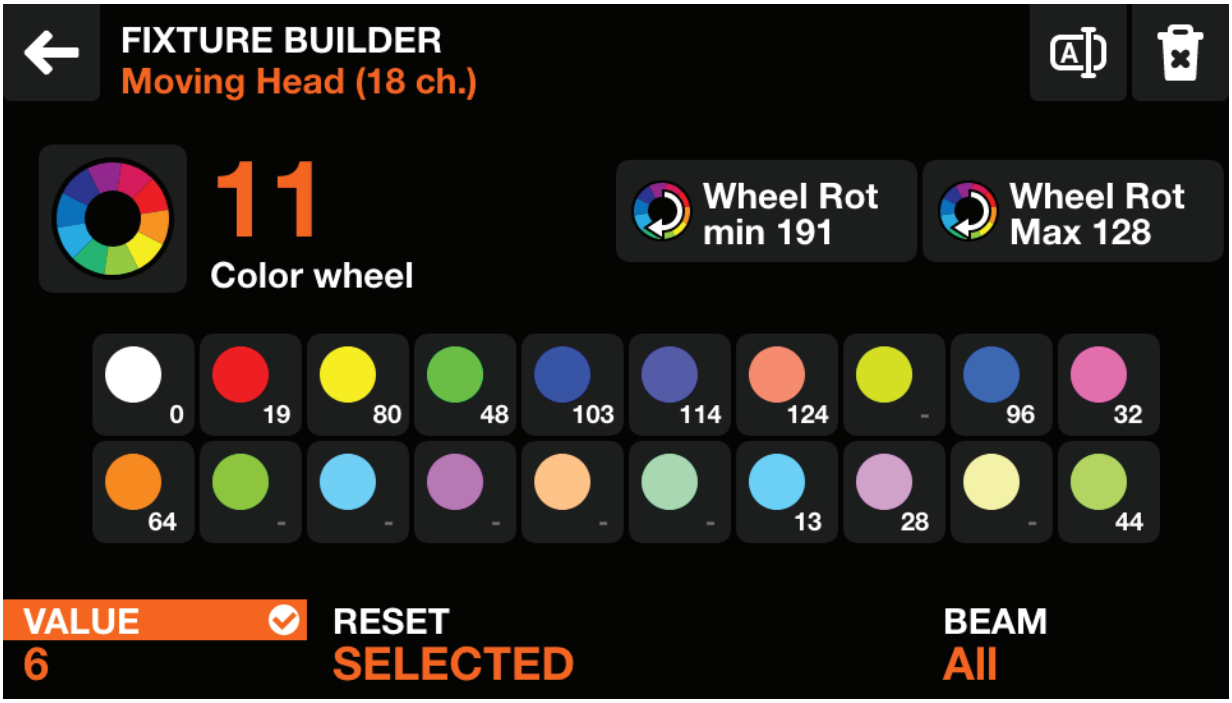
Toolbar actions:

- Rename fixture.
- Exit the fixture builder using the GO button. 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:

- Go back to the fixture builder screen.
- Rename the channel.
- Delete the channel (only available on the last channel of the fixture).

Other actions:

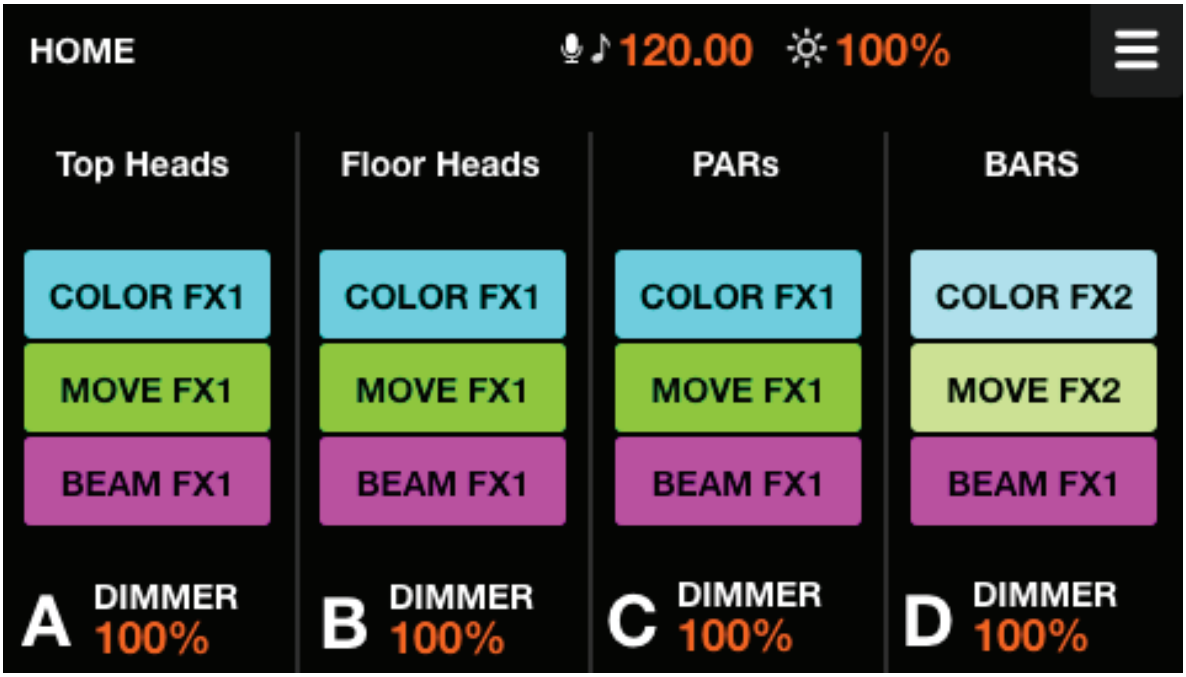
- Tapping the large icon to the left of the channel number allows for the channel type to be changed.
- Tapping any of the feature buttons will display the associated feature values on the bottom bar, allowing for the values to be changed via the encoders.
- Hitting the flashing matrix button will go 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 80 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.
- 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 combined with moving the encoder changes the MAIN dimmer.
- Shift combined with pushing an encoder locks the group from being modified by a Preset or Flash button.

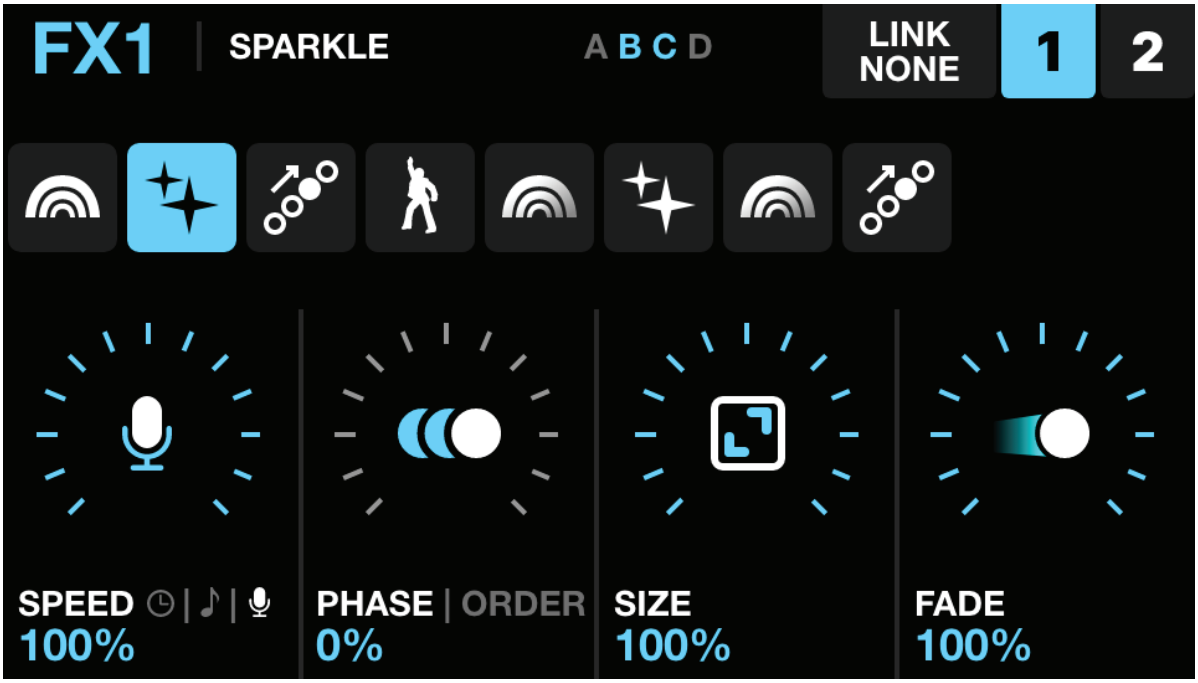
Toolbar actions:

- Access BPM screen.
- Access Main Menu.

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.
- Holding shift whilst tapping the COLOR/MOVE/BEAM FX buttons toggles between FX engine 1 and 2.
- Tapping the group heading allows you to rename the group
- 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 on the matrix will set the dimmer to FULL and strobe the group.
- Hitting the second row of buttons will set the dimmer to FULL and set the lights 18
- in that group to white, if they are RGB fixtures. Holding Shift whilst hitting these buttons on the matrix will do the same function, but also strobe the group.

COLOR FX



Displayed data:

- The currently selected FX page and the name of the selected effect.
- Four letters 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. Holding shift whilst moving the encoder in BPM mode sets a manual BPM.
- 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.

Toolbar actions:

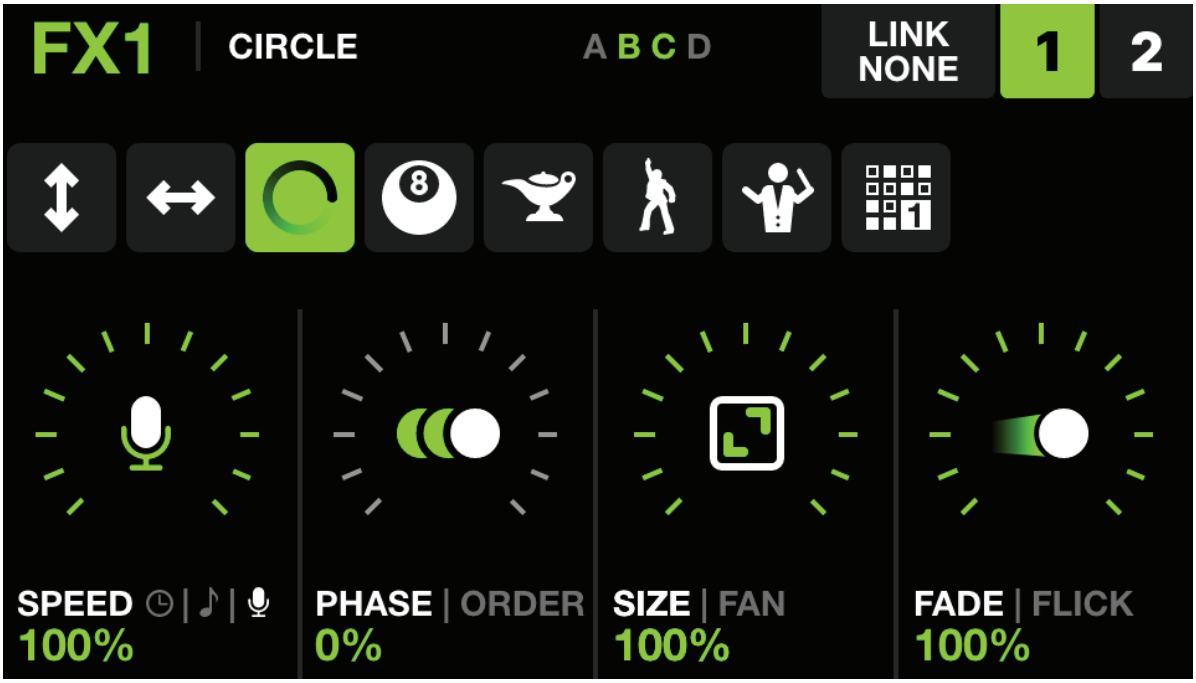
- Tapping 1 or 2 in the top right toggles between Color FX page 1 and Color FX page 2. Two different Color effects can be created and assigned to different groups.
- When LINK NONE is displayed, the effects will be processed in beam order. The order follows the Fixture list order. To change the order, move the fixtures in the fixture setup list.
- Tapping LINK NONE will activate LINK GROUP. The effect is now linked per group. This means that the effect starts on the first fixture of every group simultaneously. You'll see the effect playing in parallel across each group.
- Tapping LINK GROUP will activate LINK FIXTURE. The effect is now linked per fixture type. This means the same effect will play simultaneously on each of the 20
- same fixture type. This is useful if you have LED pixel bars and you want the effect to run simultaneously on each bar so that they all look the same.

COLOR FX

Other actions:

- Tapping the FX selection buttons changes the FX type and recalls associated properties.
- Hitting one of the buttons on the top row of the matrix turns the FX on and off for each group. Holding SHIFT and tapping the top row of matrix buttons allows you to directly switch between FX1 and FX2.
- 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:

- The currently selected FX page and the name of the selected effect.
- Four buttons along the top to indicate which groups have Move FX enabled. Holding shift while hitting the BPM TAP button toggles 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. Holding shift whilst moving the encoder in BPM mode sets a manual BPM.
- Move the second encoder to adjust the Phase or Order. Pushing the encoder toggles between Phase and Order properties. 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.

Toolbar actions:

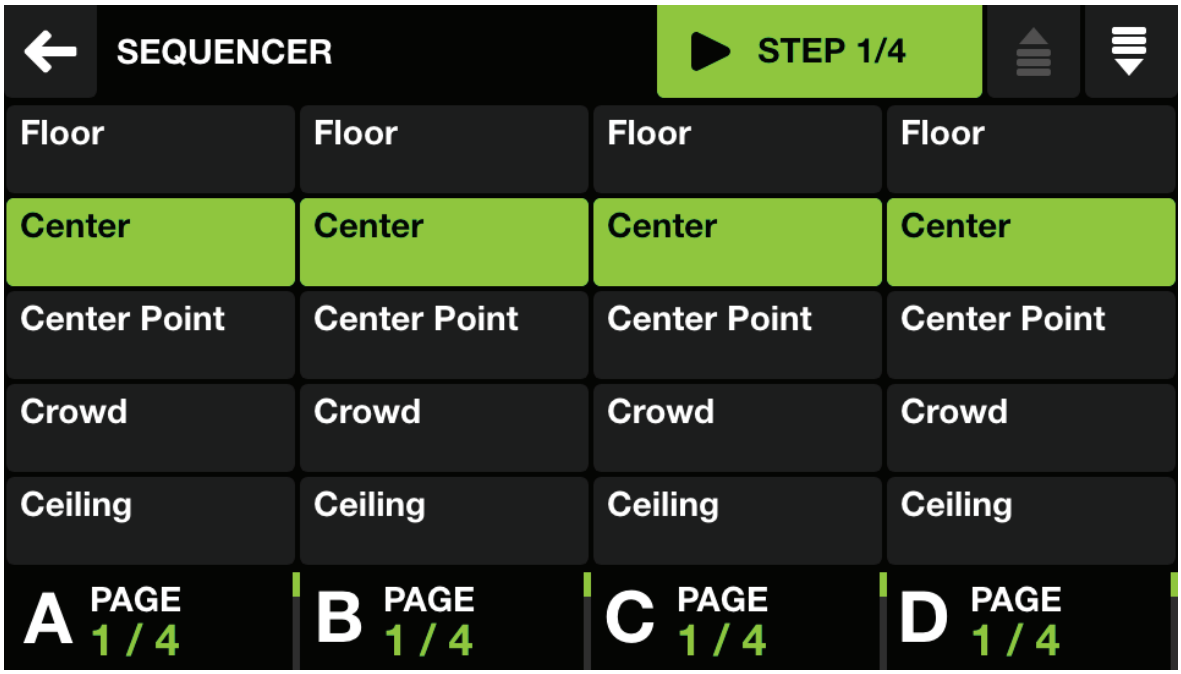
- Tapping 1 or 2 in the top right toggles between Move FX page 1 and Move FX page 2. Two different Move effects can be created and assigned to different groups.
- When LINK NONE is displayed, the effects will be processed in beam order. The order follows the Fixture list order. To change the order, move the fixtures in the fixture setup list.
- Tapping LINK NONE will activate LINK GROUP. The effect is now linked per group. This means that the effect starts on the first fixture of every group simultaneously. You'll see the effect playing in parallel across each group.
- When a sequence effect is selected, a cog button will appear on the toolbar. Tapping this opens the sequencer.

MOVE FX

Other actions:

- Tapping the FX selection buttons changes the FX type and recalls associated properties.
- Hitting one of the buttons on the top row of the matrix turns the FX on and off for each group. Holding SHIFT and tapping the top row of matrix buttons allows you to directly switch between FX1 and FX2.
- 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.

Move FX Sequencer



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

Displayed data:

- The first 5 positions for each group. All available positions correspond to the Static Positions on the Position screen.
- The currently selected step and total number of steps.

Encoder actions:

- Move the encoder to cycle through the position pages for the corresponding group. Hold SHIFT + move the encoder to cycle through the position pages for all groups.
- Tap the encoder to expand the corresponding group, to view all 20 positions.

Toolbar actions:

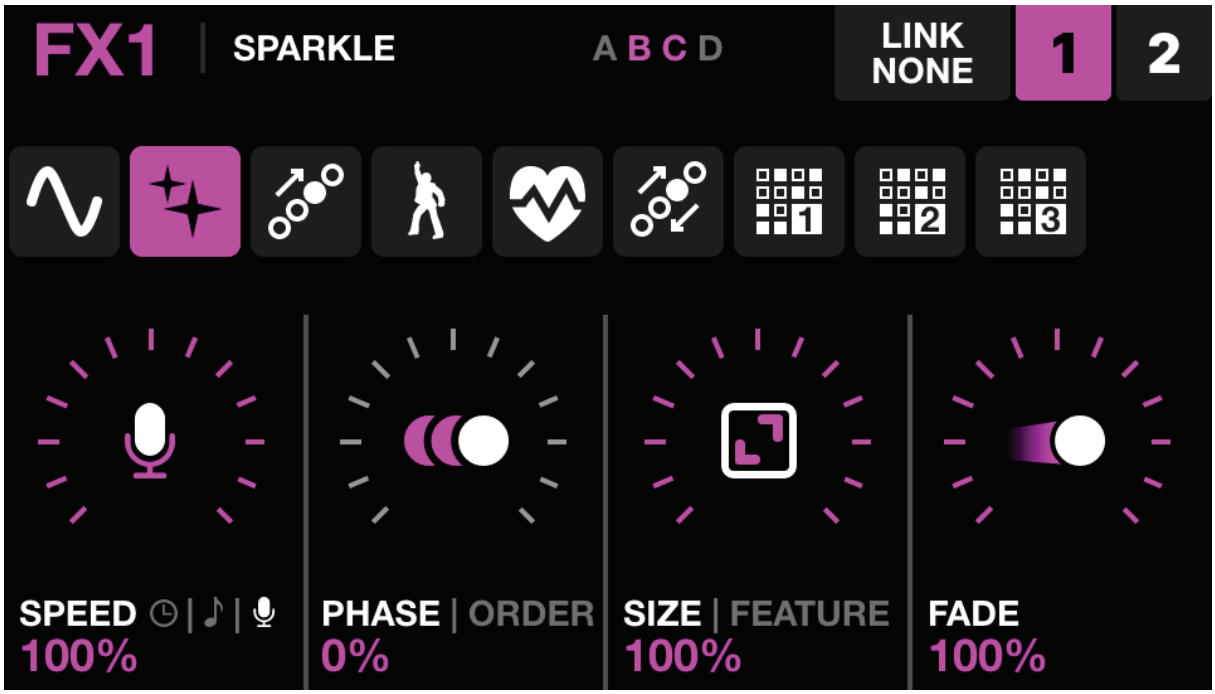
- Go back to the Move Fx screen.
- Play and pause the sequencer.
- Navigate between the position pages for all groups.

MOVE FX

Other actions:

- Hitting the top row of buttons adds the Move Effect to the corresponding group.
- Hitting the remaining 16 buttons in the matrix will navigate between steps in the sequencer.
- The number of steps can be increased by hitting a matrix button which is off. To reduce the number of steps, hold shift while hitting a matrix button.
- Tapping a position button on the display will include it in the currently selected step.
- Hold shift while tapping a position on the display to edit it.

BEAM FX



Displayed data:

- The currently selected FX page and the name of the selected effect.
- Four letters along the top to indicate which groups have Beam FX enabled. Hold shift while hitting the BPM TAP button to toggle between groups A-D and E-H.
- Nine 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. Holding shift whilst moving the encoder in BPM mode sets a manual BPM.
- Move the second encoder to adjust the Phase or Order. Pushing the encoder toggles between Phase and Order properties. 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. Pushing the encoder toggles between Size and Feature properties.
- Move the Fourth Encoder to control the FX Fade.

Toolbar actions:

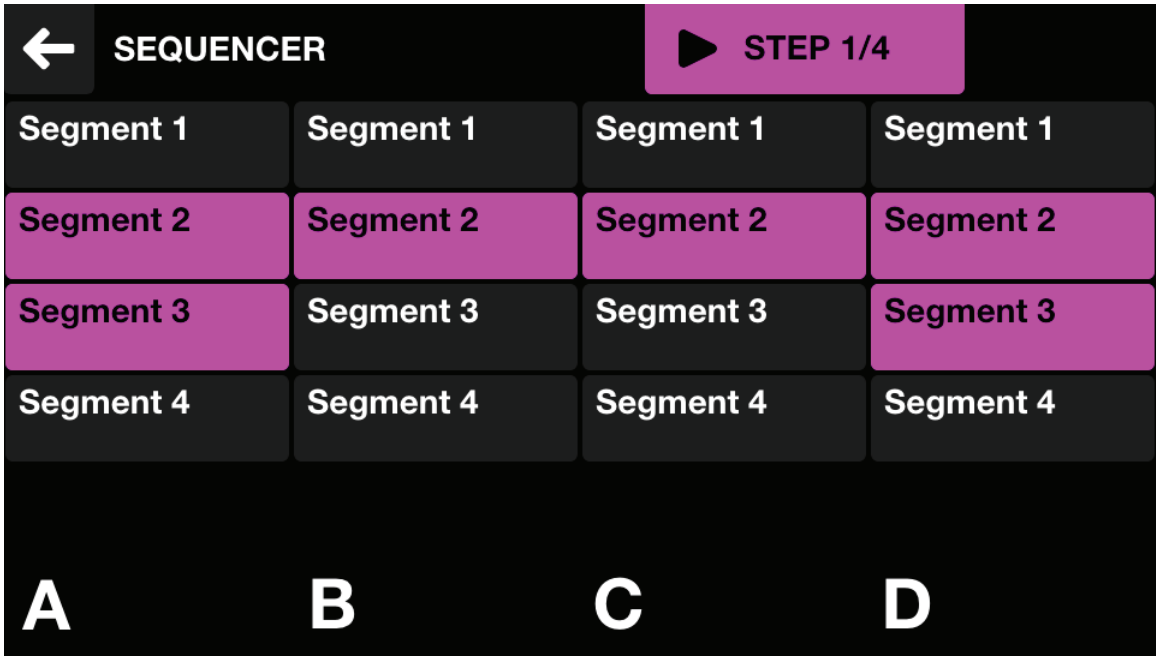
- Tapping 1 or 2 in the top right toggles between Beam FX page 1 and Beam FX page 2. Two different Beam effects can be created and assigned to different groups.
- When LINK NONE is displayed, the effects will be processed in beam order. The order follows the Fixture list order. To change the order, move the fixtures in the fixture setup list.
- Tapping LINK NONE will activate LINK GROUP. The effect is now linked per group. This means that the effect starts on the first fixture of every group simultaneously. You'll see the effect playing in parallel across each group.
- Tapping LINK GROUP will activate LINK FIXTURE. The effect is now linked per fixture type. This means the same effect will play simultaneously on each of the same fixture type. This is useful if you have LED pixel bars and you want the effect to run simultaneously on each bar so that they all look the same.
- When a sequence effect is selected, a cog button will appear on the toolbar. Tapping this opens the sequencer.

BEAM FX

Other actions:

- Tapping the nine FX selection buttons changes the FX type and recalls associated properties.
- Hitting one of the buttons on the top row of the matrix turns the FX on and off for each group. Holding SHIFT and tapping the top row of matrix buttons allows you to directly switch between FX1 and FX2.
- 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.

Beam FX Sequencer



The Beam FX sequencer allows for up to 32 different beam selections (segments) to be chosen. When a beam selection is made, the selected beams will be opened. Each segment will be played sequentially according to the FX speed.

Displayed data:

- The available segments, with the currently selected segments highlighted.

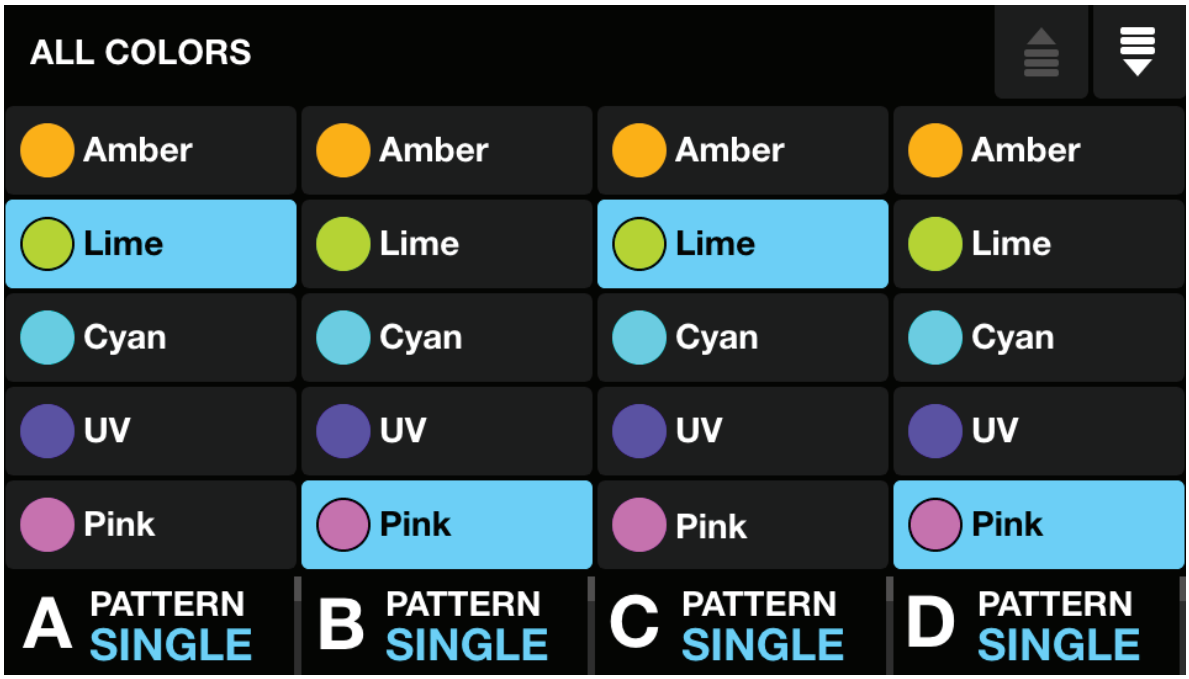
Toolbar actions:

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

Other actions:

- Hitting the top row of buttons adds the Beam Effect to the corresponding group.
- Hitting the remaining 16 buttons in the matrix will navigate between steps in the sequencer.
- The number of steps can be increased by hitting a matrix button which is off. To reduce the number of steps, shift + hit a matrix button.
- Tapping a segment button on the display will include it in the currently selected step.

STATIC COLOR



The static color screen contains a palette of 20 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. Holding shift and hitting the BPM TAP button to toggle between groups A-D and E-H.
- Color pages 1-4.
- 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 expands the corresponding group, showing all 20 colors.
- Holding shift and moving the encoder turns the page to individual groups.

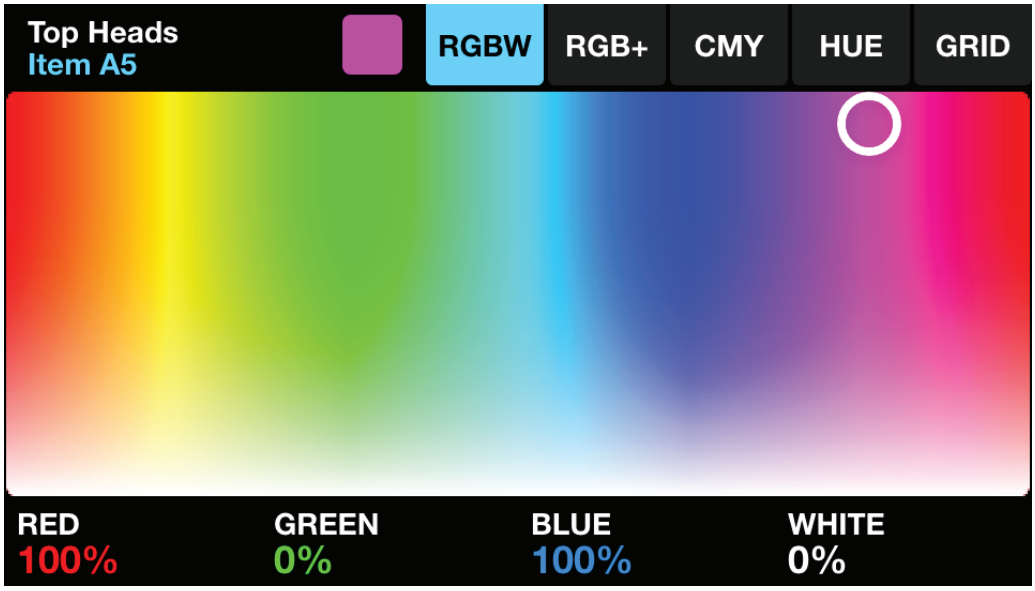
Toolbar actions:

- Tapping the button in the top right corner will navigate between the colour pages for all groups.

Other actions:

- Tapping one of the color buttons or hitting the corresponding matrix button enables and disables the color. If a color effect is playing on the group, the selected color will override the effect.
- Holding shift and 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, RGB+, CMY, HUE, Color grid).
- The generated color components (Red, Green, Blue, White, HUE, Amber, UV, Lime).

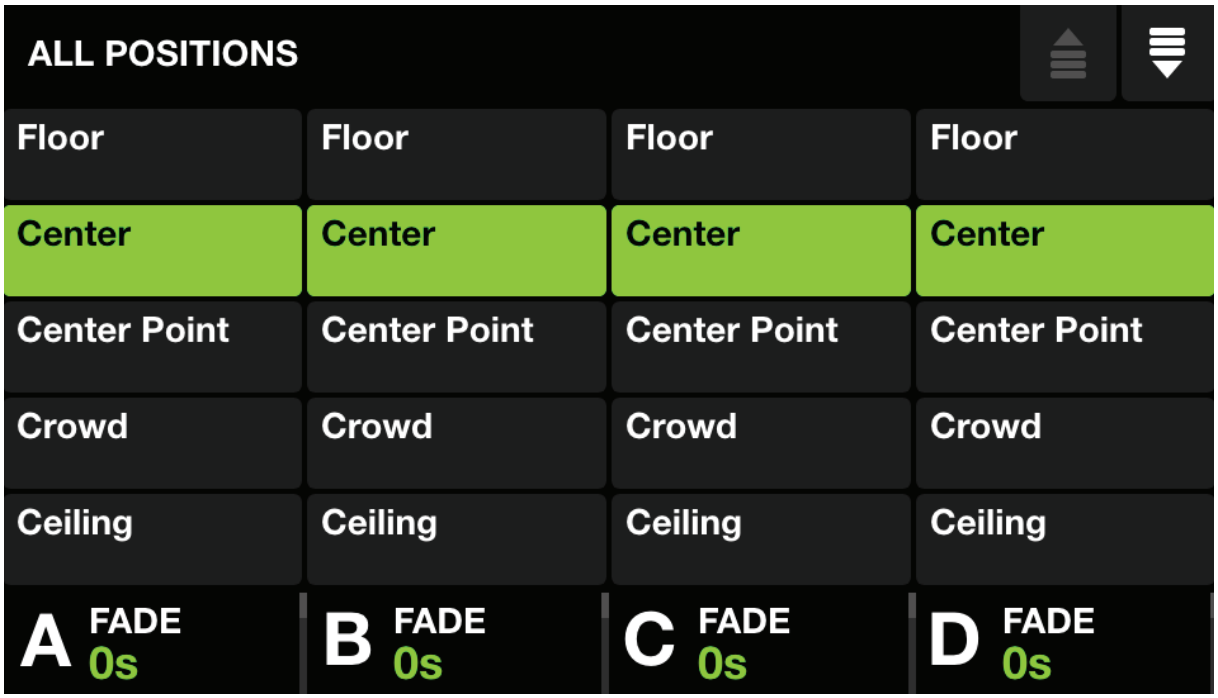
Encoder actions:

- In RGBW mode, the first encoder controls the amount of RED from 0-100%. The second encoder controls the amount of GREEN from 0-100%. The third encoder controls the amount of BLUE from 0-100%. The fourth encoder controls the amount of WHITE from 0-100%.
- In RGB+ mode, the first encoder controls the amount of RED and AMBER from 0-255 (press the encoder to toggle between the two values). The second encoder controls the amount of GREEN and LIME from 0-255. The third encoder controls the amount of BLUE and UV from 0-255. The fourth encoder controls the amount of WHITE from 0-255.
- In CMY mode, the first encoder controls the amount of CYAN from 0-255. The second encoder controls the amount of MAGENTA from 0-255. The third encoder controls the amount of YELLOW from 0-255.
- In HUE mode, the first encoder adjusts the Hue from 0-360 degrees. The second encoder controls the saturation from 0-100%. The third encoder adjusts the overall contribution of the Reg, Green and Blue channels when calculating a color. The fourth encoder adjusts the overall contribution of the White, Amber and Lime channels when calculating a color.
- In GRID mode, the encoders are used to adjust the color in the same way as the RGB+ screen

Other actions:

- Tapping and dragging on the color picker will set the RGBW values to the selected color.
- Tapping the buttons to the top right toggles between RGBW, RGB+, CMY, HUE and Color Grid picker modes.
- In GRID mode, tapping one of the 20 color buttons on the touchscreen 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.
- Holding shift and tapping on another Matrix button will copy the selected color to the other button.

STATIC POSITION



The static position screen contains a palette of 20 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 20 positions. Each column represents one group. Holding shift and hitting the BPM TAP button toggles between groups A-D and E-H.
- Position pages 1-4 (shown when holding Shift).
- Fade value of the selected position.

Encoder actions:

- Move the encoder to change the FADE value value of the selected position.
- Pushing the encoder expands the corresponding group, showing all 20 positions. When expanded, holding shift and turning the encoder sets the fade time in fine increments.
- Holding shift and moving the encoder will page the individual group.

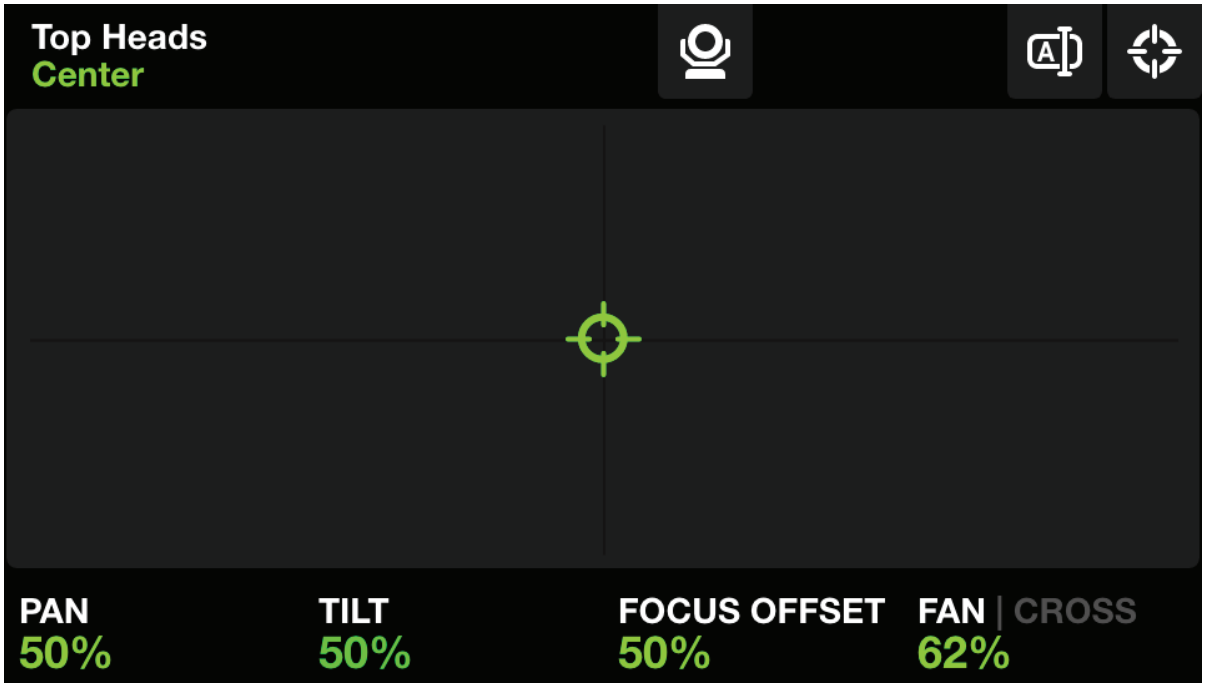
Toolbar actions:

- Tapping the button in the top right corner will navigate between the position pages for all groups.

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.
- Holding shift and 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 (Pan and Tilt) values.
- The FOCUS OFFSET, FAN, and CROSS 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 FOCUS OFFSET. This adds of subtracts from the currently set focus value, rather than overriding it.
- Move the fourth encoder to set the FAN and CROSS values. 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). CROSS will cross the beams. Press the fourth encoder to toggle between FAN and CROSS.

Toolbar actions:

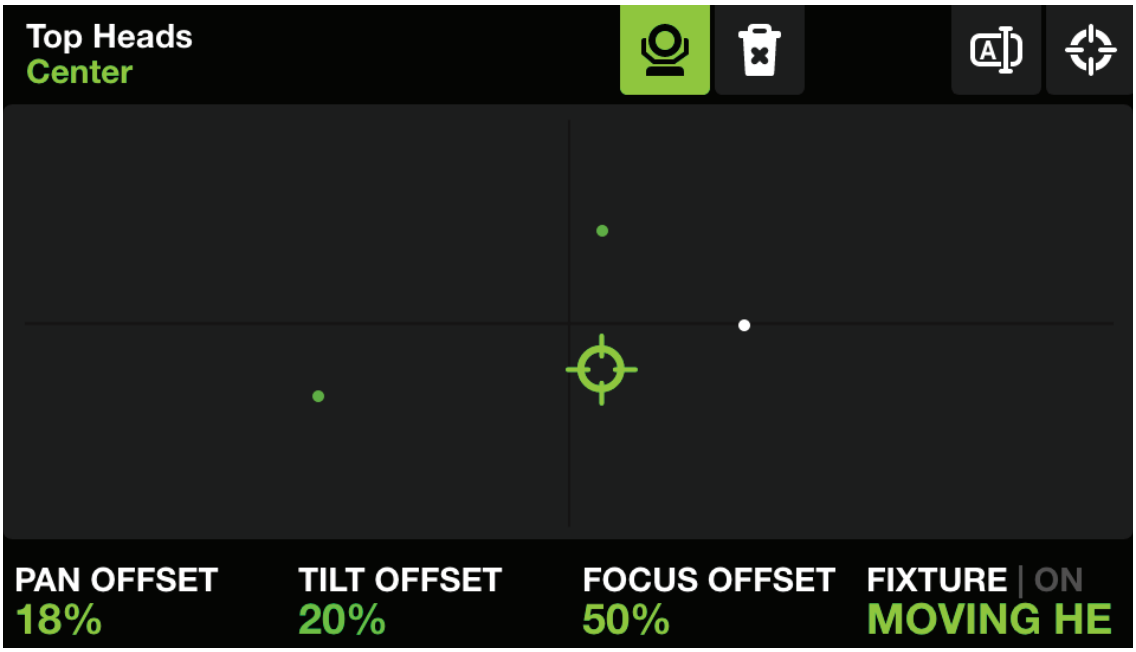
- Access the Fixture Offset mode.
- Tapping the first button to the top right will open a keyboard allowing for the name of the position to be changed.
- Tapping the second button to the top right will set the position to the center.

Other actions:

- Tapping and dragging on the X-Y grid will set the PAN and TILT values to the selected position.
- 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.

POSITION PICKER

Fixture Offset Mode



Displayed data:

- The name of the currently selected position button.
- An X-Y grid used to select a position.
- The PAN OFFSET, TILT OFFSET and FOCUS OFFSET values
- The currently selected fixture
- The offset of the currently selected fixture, indicated by a white dot on the display.

Encoder actions:

- Move the first encoder to control the PAN OFFSET value. Shift + move for fine control.
- Move the second encoder to control the TILT OFFSET value. Shift + move for fine control.
- Move the third encoder to set the FOCUS OFFSET value. Shift + move for fine control.
- Move the fourth encoder to select which fixture is being edited. Press the encoder to light up the selected fixture.

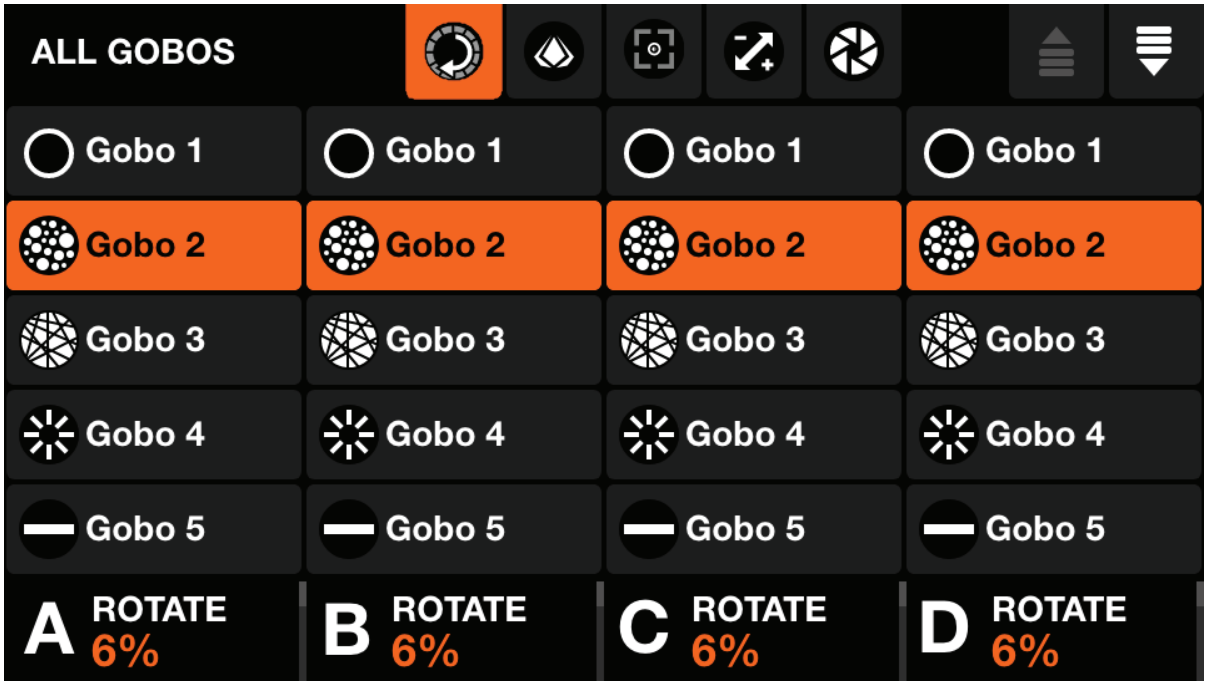
Toolbar actions:

- Go back to the Position Picker screen.
- Remove the individual fixture position edit.
- Rename the position.
- Re-centre the fixtures.

Other actions:

- Tapping and dragging on the X-Y grid will set the PAN and TILT values to the selected position for all fixtures.
- 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



The static gobo screen contains a palette of 20 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 WMX1 MK2 will assign the first 20 gobos of the fixtures gobo channel to the 20 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 pages 1-4 (shown when holding SHIFT)
- The selected feature (Rotate, Prism, Focus, Zoom, Iris).
- Percentage value of the chosen feature.

Encoder actions:

- Move the encoder to change the percentage value for the selected feature.
- Pushing the encoder expands the corresponding group to show all 20 gobos.
- Shift + move the encoder to page the individual group.

Toolbar actions:

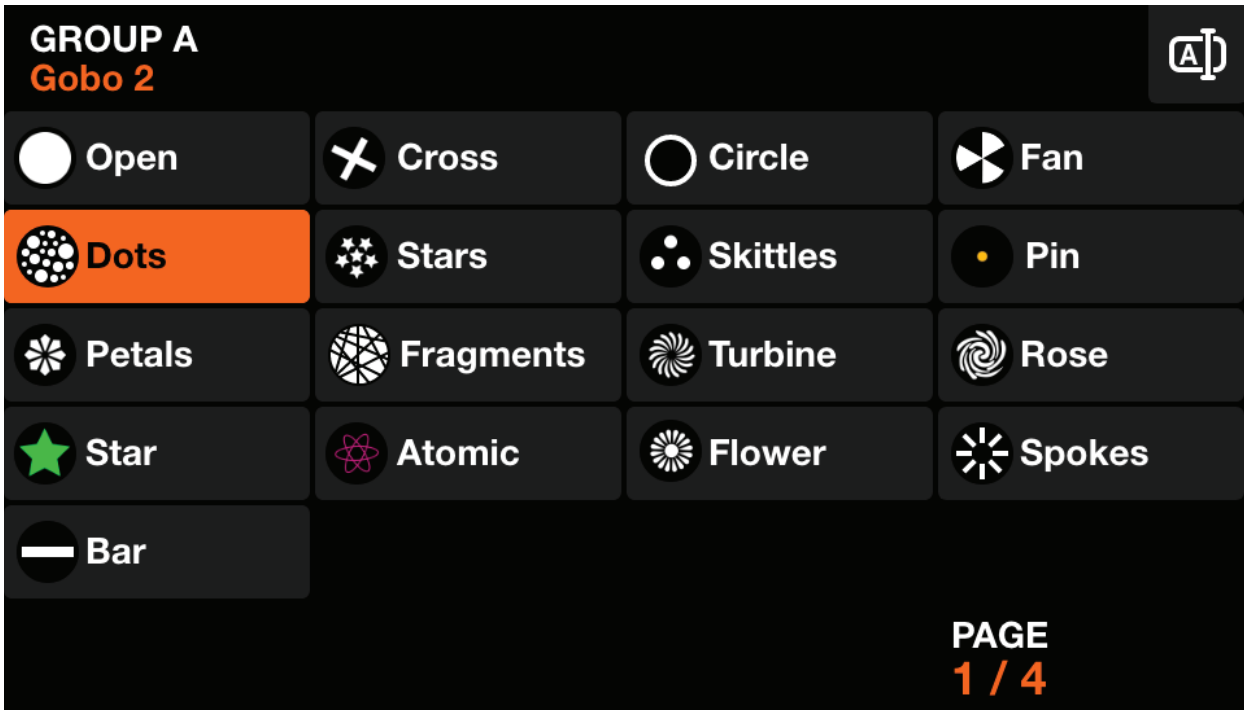
- Tap the buttons at the top to switch between Rotation, Prism, Focus, Zoom and Iris features.
- Tapping the buttons in the top right corner will navigate between the 4 gobo pages for all groups.

Other actions:

- Tapping one of the gobo buttons triggers the gobo. Shift + tapping one of the gobo buttons allows for the gobo to be edited. Note that as this is a gobo palette, the new gobo will be applied to all presets.

STATIC GOBO

Gobo Edit



Displayed data:

- All available gobos within the fixtures of the chosen group.

Encoder actions:

- Move the fourth encoder to navigate between the pages of gobos, if there is more than 1 page.

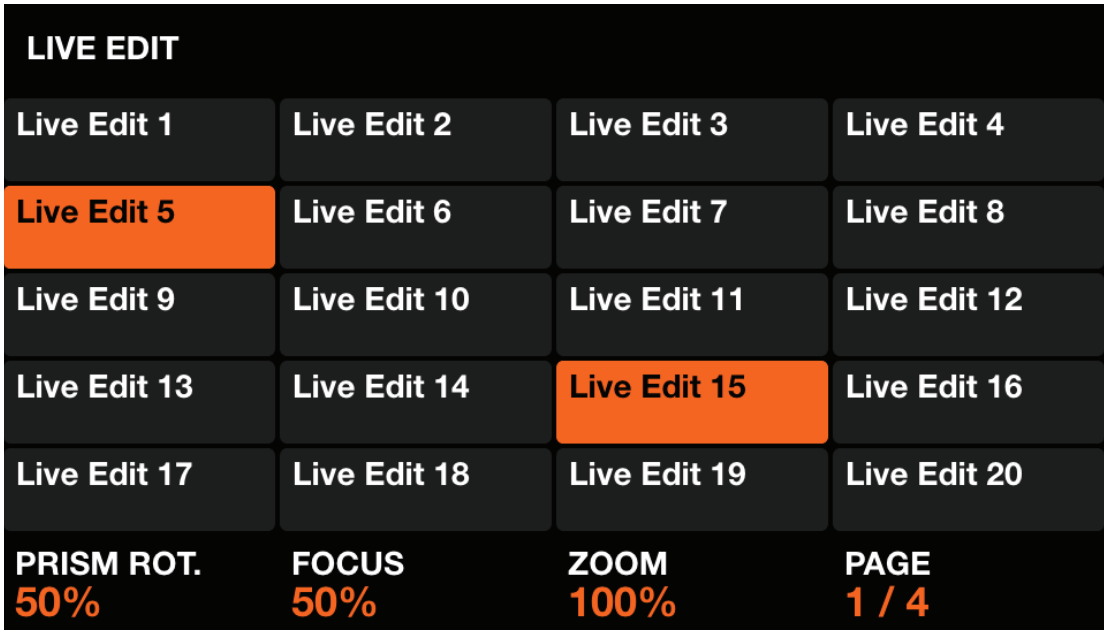
Toolbar actions:

- Rename the selected gobo.

Other actions:

- 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.

Three Live Edit Macros can be set using the first 3 encoders. These allow quick access to three common functions, the default being Prism Rotation, Focus and Zoom.

Displayed data:

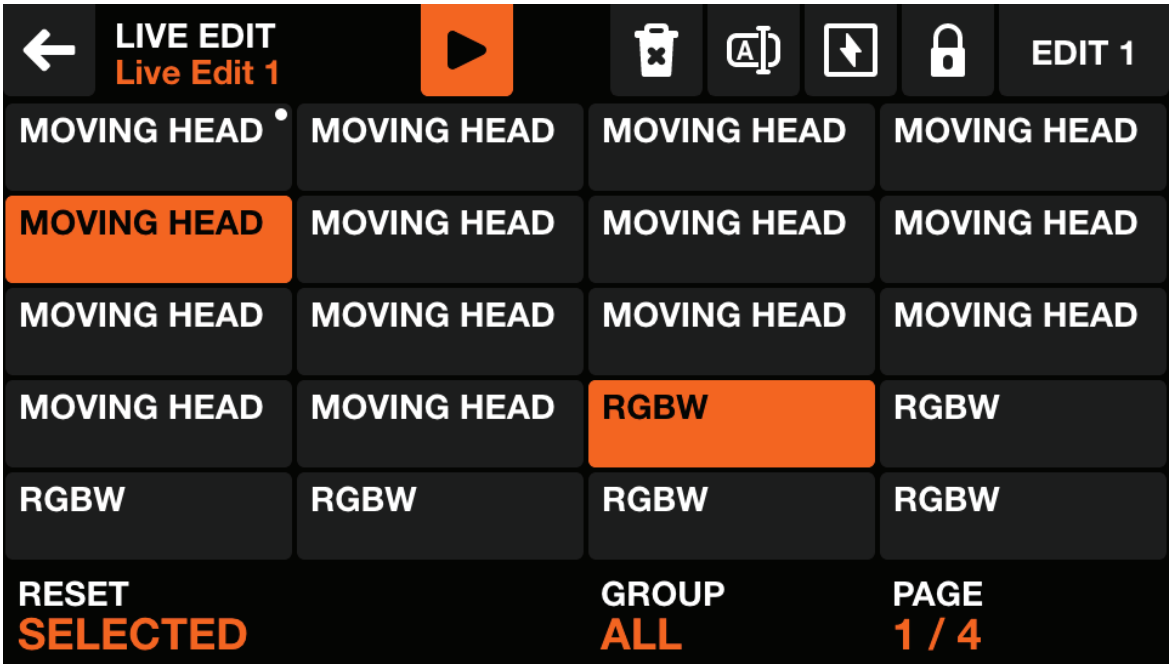
- 4 pages of 20 buttons containing a set of channel values and a name.
- 3 Live Edit Macros

Encoder actions:

- Pushing one of the first three encoders will enable and disable the Live Edit macros. Moving the encoder sets the corresponding value.
- Shift + pushing one of the first three encoders will open the Live Edit macro editor.

LIVE EDIT

Editor - Fixtures



Tapping on one of the empty live edit buttons opens up the editor. Shift + tapping on an existing live edit 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 20 fixture buttons, displaying fixture name and a white dot to indicate the fixture has an edit applied.
- 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 20 fixtures within the current group, moving the fourth encoder navigates through between the pages of fixtures.

Toolbar actions:

- Enable and disable the selected Live Edit. This allows for a Live Edit to be created or modified without running.
- Delete the live edit.
- Rename the live edit.
- Set the live edit to Flash mode. When the Live Edit is in Flash mode, the Matrix button will turn white and the edit will be enabled on press and disabled on release.
- Lock the live edit, which preserves the state when changing presets (useful for Parking channels)

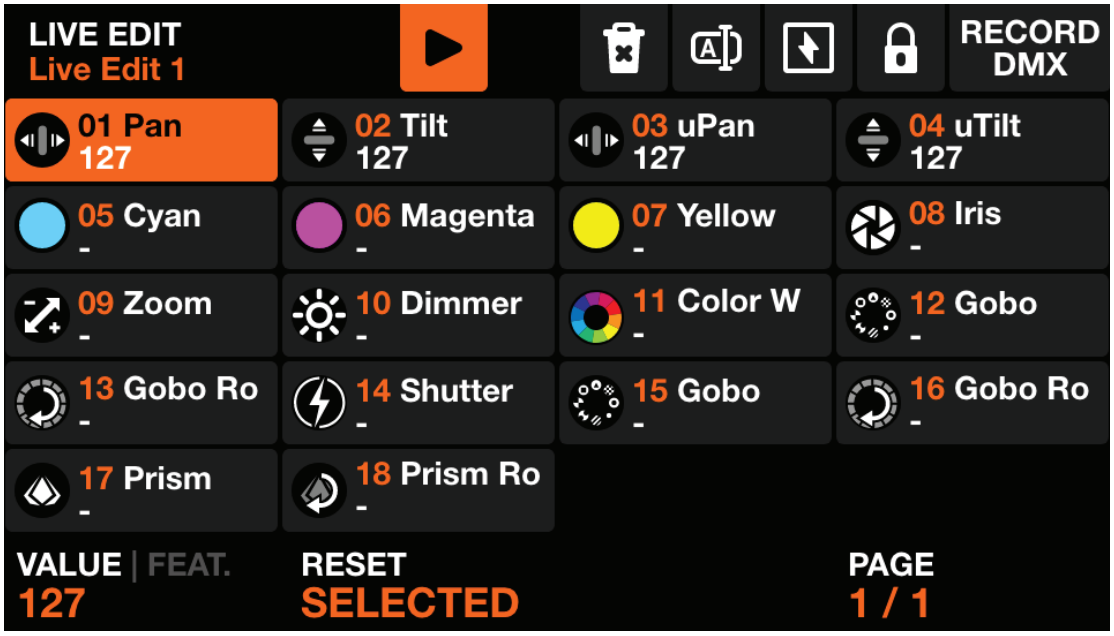
LIVE EDIT

Editor - 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.
- 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.

Editor - Values



Displayed data:

- A grid of 20 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.
- Moving the fourth encoder will change the page, if there is more than one page of channels.

Toolbar actions:

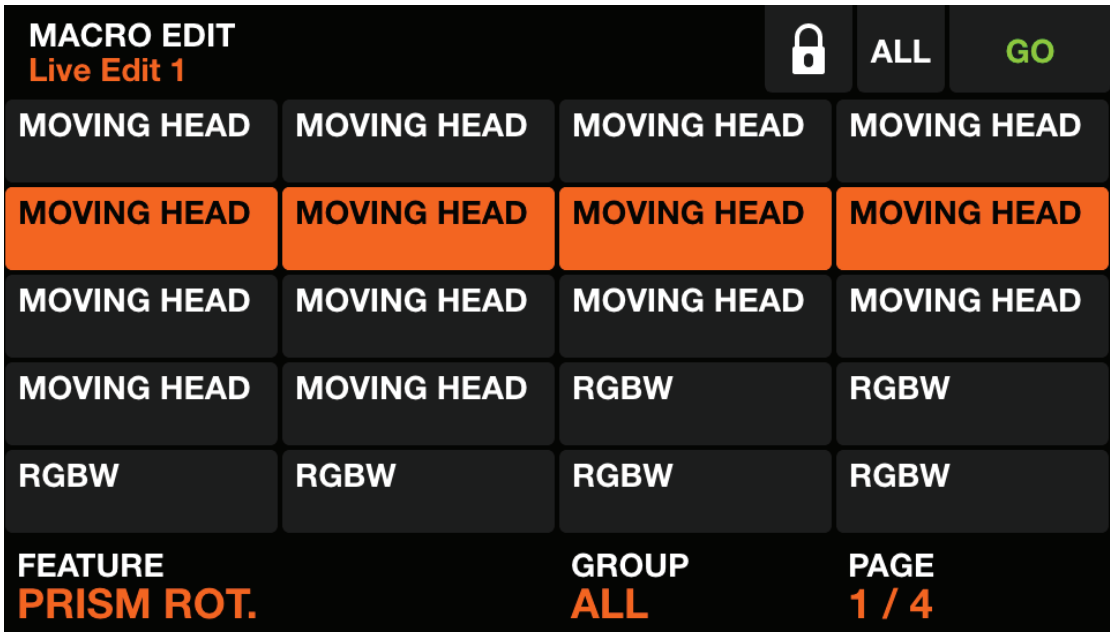
- Enable and disable the selected Live Edit. This allows for a Live Edit to be created or modified without running.
- Delete the live edit.
- Rename the live edit.
- Set the live edit to Flash mode. When the Live Edit is in Flash mode, the Matrix button will turn white and the edit will be enabled on press and disabled on release.
- Lock the live edit, which preserves the state when changing presets (useful for Parking channels).
- Record the current DMX output frame and apply it to the selected fixtures.

Other actions:

- Tapping a button in the grid selects a channel.

LIVE EDIT

Macro Editor



Shift + clicking on one of the live edit encoders opens up the macro editor, where the macro feature can be set, along with the fixtures on which the macro should be applied.

Displayed data:

- A grid of 20 fixture buttons. The macro will be applied onto the selected fixtures when enabled.
- The name of the macro (Macro 1, 2 or 3).
- The currently visible Group and Page to the bottom right.

Encoder actions:

- Moving the first encoder determines which feature the macro encoder will control. For example: Prism Rotation speed, or Zoom level.
- 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 20 fixtures within the current group, moving the fourth encoder navigates through between the pages of fixtures.

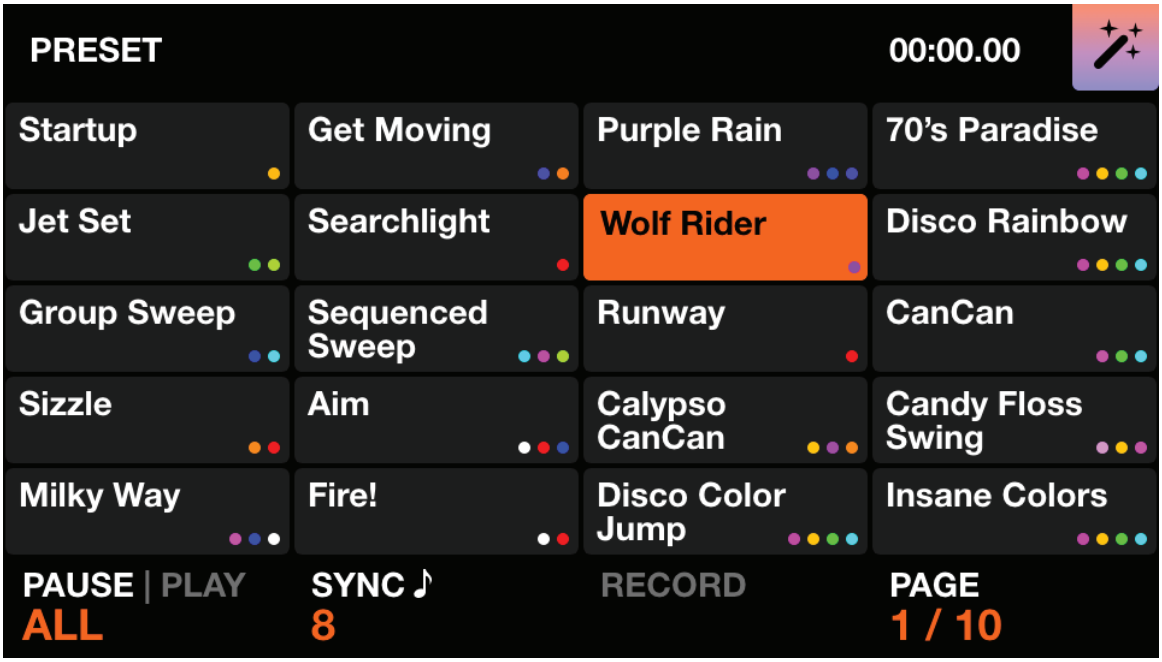
Toolbar actions:

- Lock the state and value of the macro. Using this button freezes the changes and locks them from being modified when a preset is recalled.
- Close the macro editor.

Other actions:

- Tapping the buttons in the grid selects and deselects the fixtures. When a fixture is selected, the macro will be applied to the fixture when enabled on the Live Edit screen.
- When editing a Live Edit Macro, tapping a Matrix button cancels the change, and tapping GO saves the change.

PRESET



The Preset screen contains 10 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.
- Whether all Presets should sync with the BPM, and how many beats each preset should hold for.
- When the Presets are being played back as a sequence, the elapsed time of the currently selected Preset will be displayed to the top right.
- A thin orange bar will appear at the top of the screen, moving left to right, indicating a Presets Fade time.

Encoder actions:

- Pushing the first encoder plays the Presets sequentially according to the Hold and Fade times. Move the encoder to set which presets should be played - all 200, the currently selected page, the currently selected column, the currently selected row, or the currently selected page in a random order. When the final Preset is released, the first preset will be triggered.
- Pushing the second encoder will enable BPM sync. All Presets will jump according to the BPM of the music. Moving the encoder will set the number of beats between each jump.
- Pushing the third 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 fourth encoder will change the selected page..

Toolbar actions:

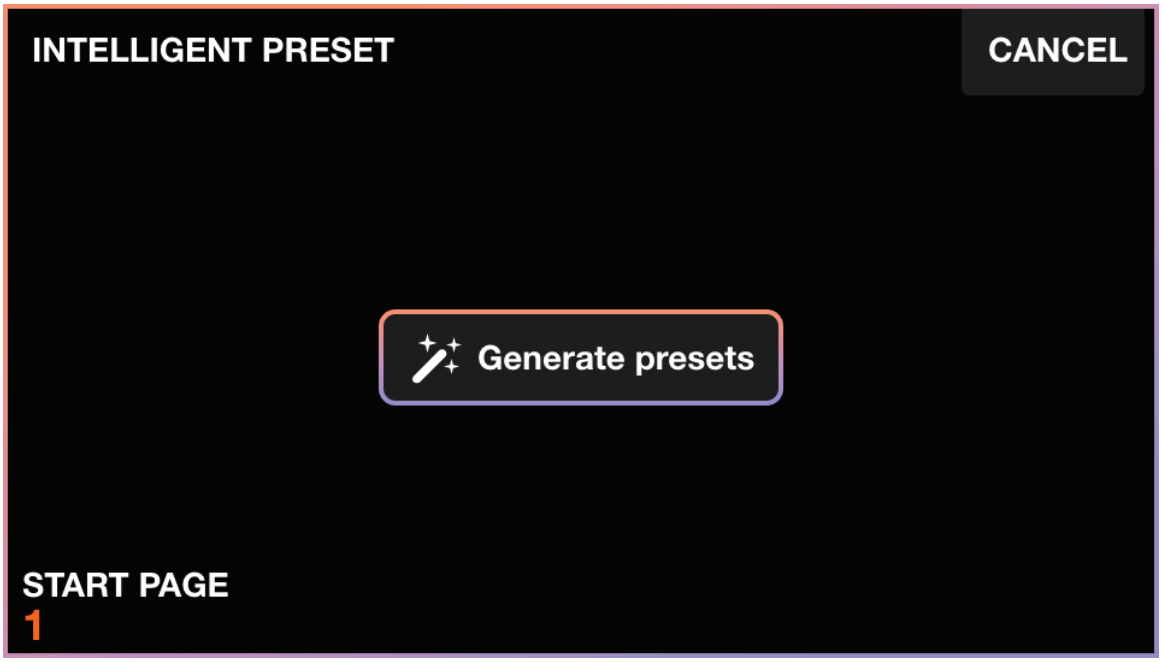
- Generate Intelligent Presets using the button in the top right.

Other actions:

- Shift + tapping one of the Preset buttons will open the Preset editor screen, and overwrite the contents of the preset according to the currently set values on the controller.

PRESET

Intelligent Preset



Encoder actions:

- Move the first encoder to choose the start page of the generated presets.

Toolbar actions:

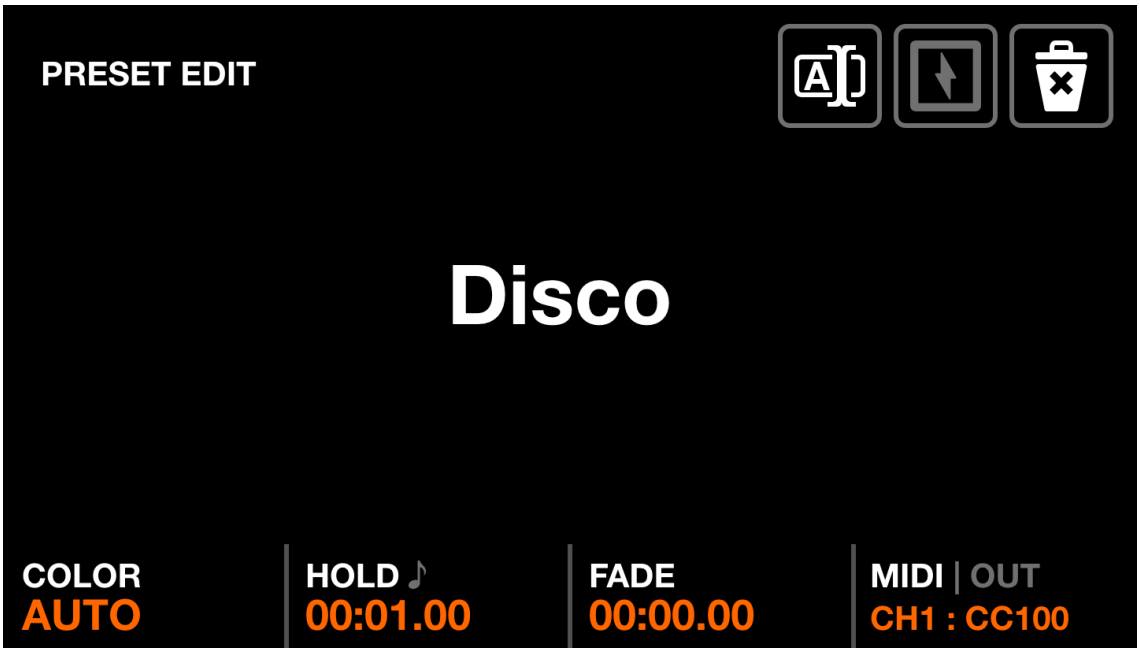
- Go back to the Preset screen using the CANCEL button.

Other actions:

- Tap the Generate presets button to generate presets according to the fixture patch. For example, if there are 3 groups of fixtures, a Beam FX sequence will be created with 3 steps in the “Group Jump” Preset.

PRESET

Preset Edit



The Preset Edit screen is used to manage the selected preset. It is accessed by shift + tapping on a preset.

Displayed data:

- The Preset's name.
- The parts of the project that will be included in the Preset.
- The color of the Preset button in the matrix.
- The Preset's hold and fade times.

Encoder actions:

- Moving the first encoder will set the Preset's Color. If AUTO is selected, the color on the button will automatically fade between up to 4 of the colors used within the Preset.
- Moving the second encoder will change the Hold time of the preset in increments of 1 second. Holding shift will change the increment to 0.01s. 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 encoder will convert the time to a BPM, allowing for a hold time to be set in beats.
- Moving the Third encoder will change the Fade time of the Preset in increments of 1 second. Holding shift will change the increment to 0.01s.

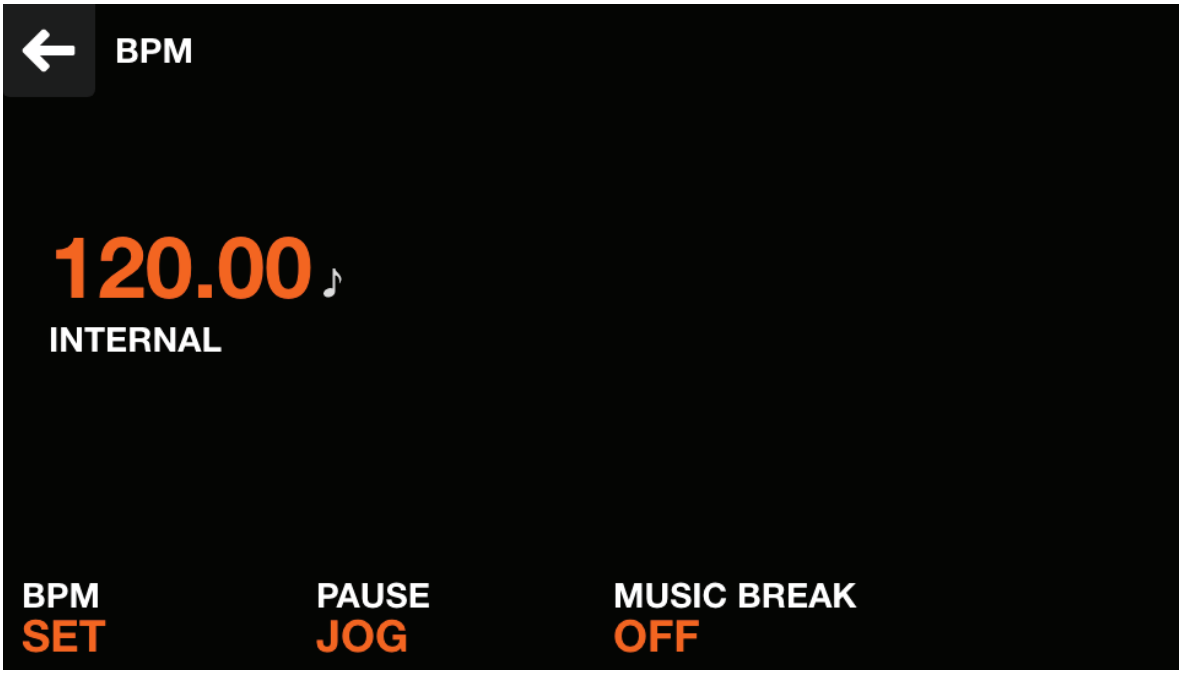
Toolbar actions:

- Delete the Preset.
- Toggle 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.
- Rename the Preset.

Other actions:

- Tapping the buttons on the touchscreen display will determine which parts of the project will be included within the Preset. COLOR will include Color FX and Static Colors, MOVE will include Move FX and Static Positions. BEAM will include Beam FX. GOBO and LIVE EDIT will include the corresponding parts of the project, and OTHER will include the group dimmer values.
- Shift + tapping on another Matrix button will copy the selected Preset to the other button.

BPM



Displayed data:

- Current BPM and whether internal or external.
- The tapped BPM, if the BPM button has been/is being tapped. The last 8 taps are recorded. Waiting a couple of seconds and hitting the BPM Tap button again will resync the BPM phase. Tapping 2 or more times will calculate a new BPM.

Encoder actions:

- Moving the first encoder sets a manual BPM.
- Moving the second encoder will jog the BPM phase forwards and backwards, in the same way adjusting a jog wheel or moving a vinyl record would jog an audio track forwards or backwards. The speed remains the same but the phase is shifted forwards or backwards.
- Moving the third encoder toggles the Music Break on or off. When Music Break is on, the effects will pause if a break in the music is detected via the microphone or line in.

Toolbar actions:

- Go back to the Home screen.

FLASH SCREENS

The Flash screens are triggered by hitting the large buttons to the right of the WMX1 MK2. 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.

- ADJ Logo: 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.

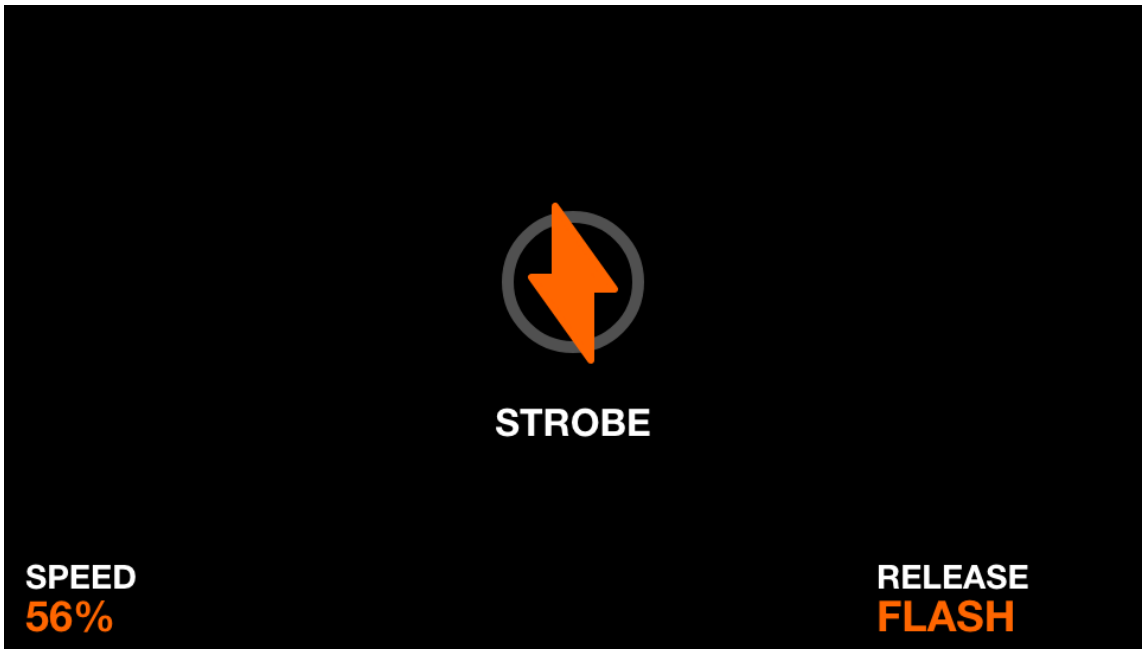
WOLF

The Wolf flash effect plays a Paparazzi style white flash across all light fixtures. Hitting the **ADJ** 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.

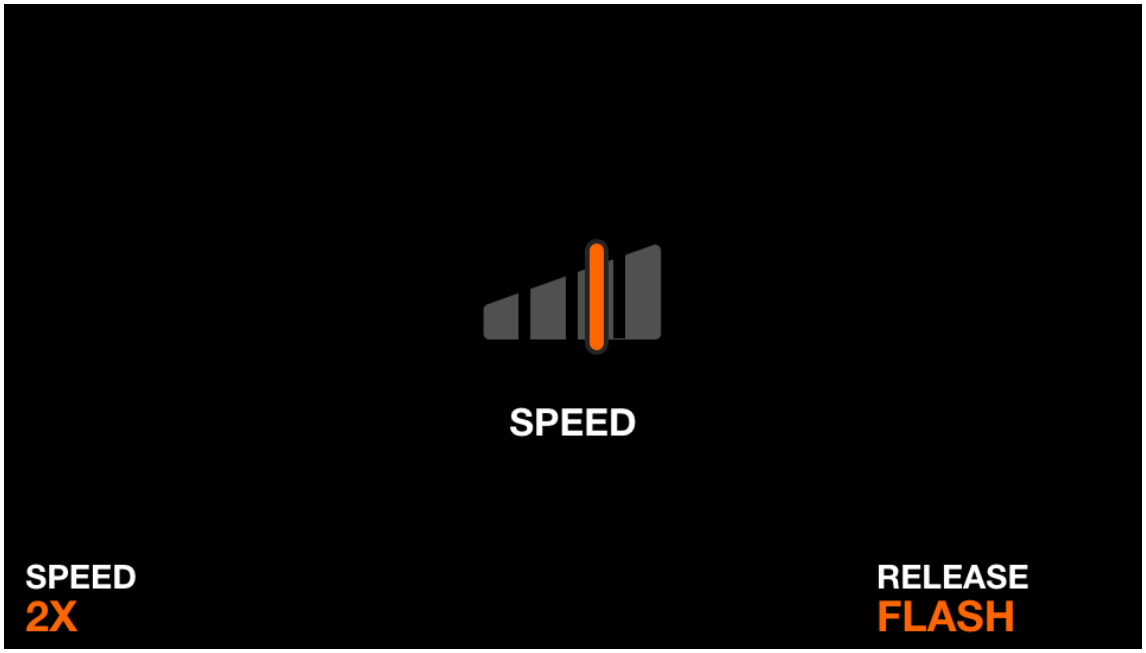
Displayed data:

- 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.

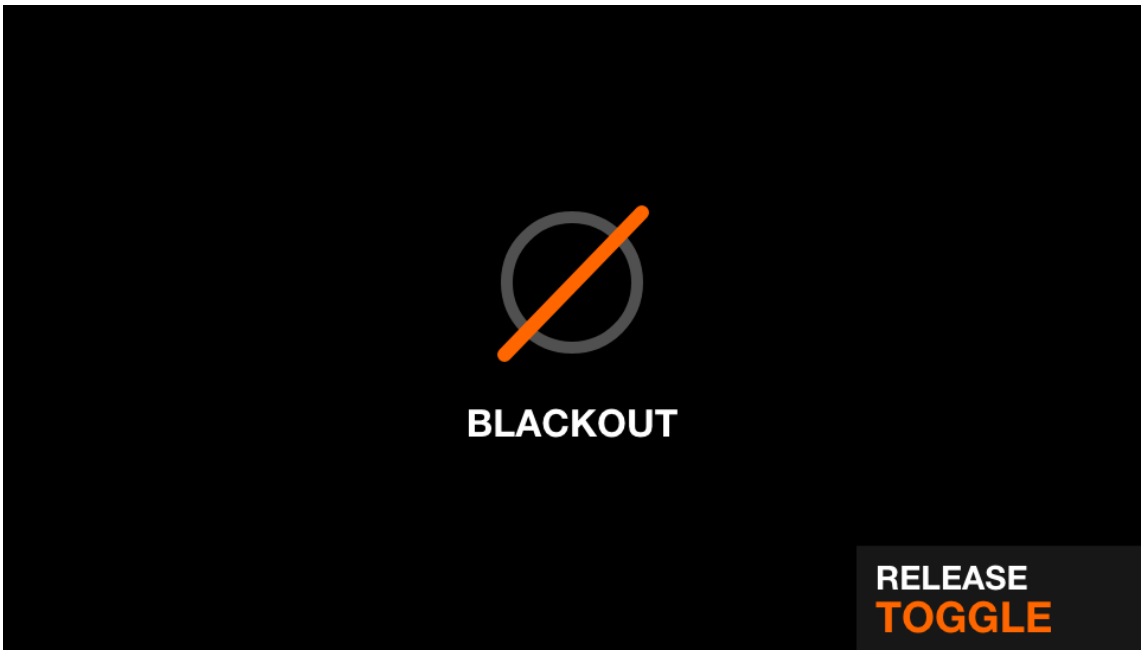
Encoder actions:

- 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.

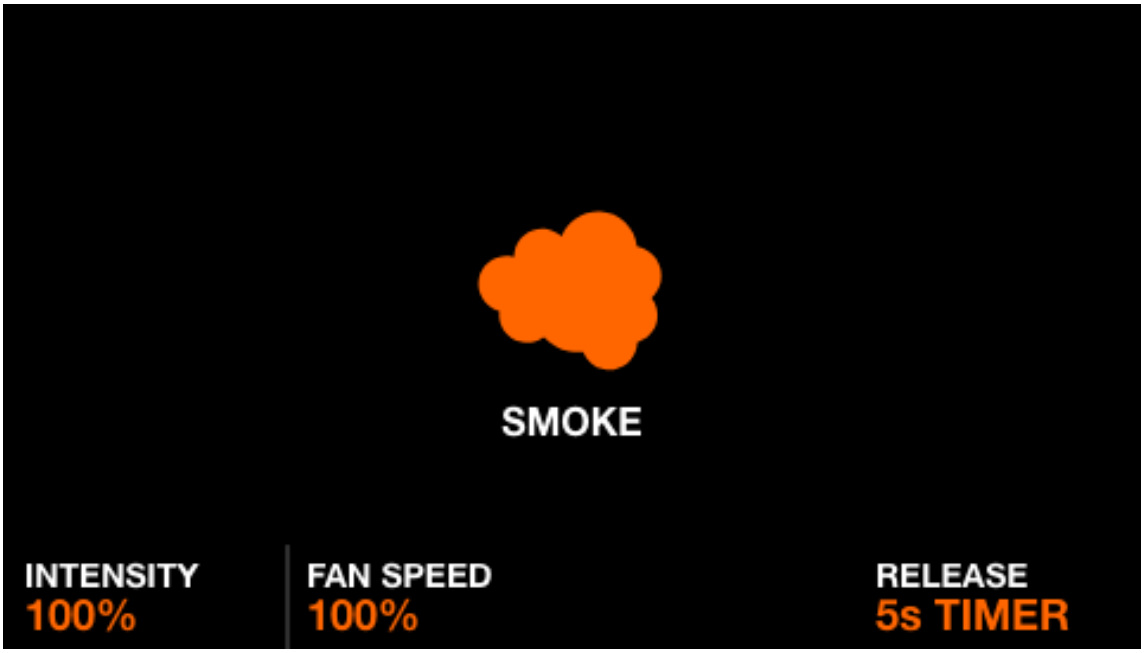
Displayed data:

- 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.

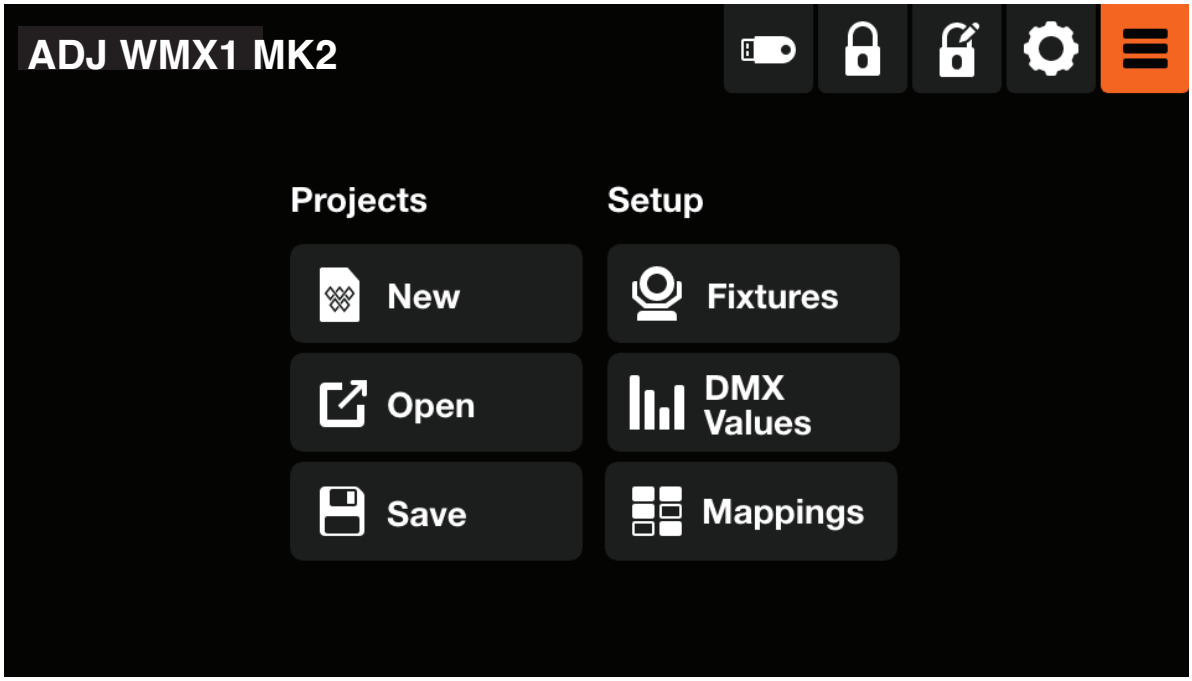
Encoder actions:

- 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.

MAIN MENU



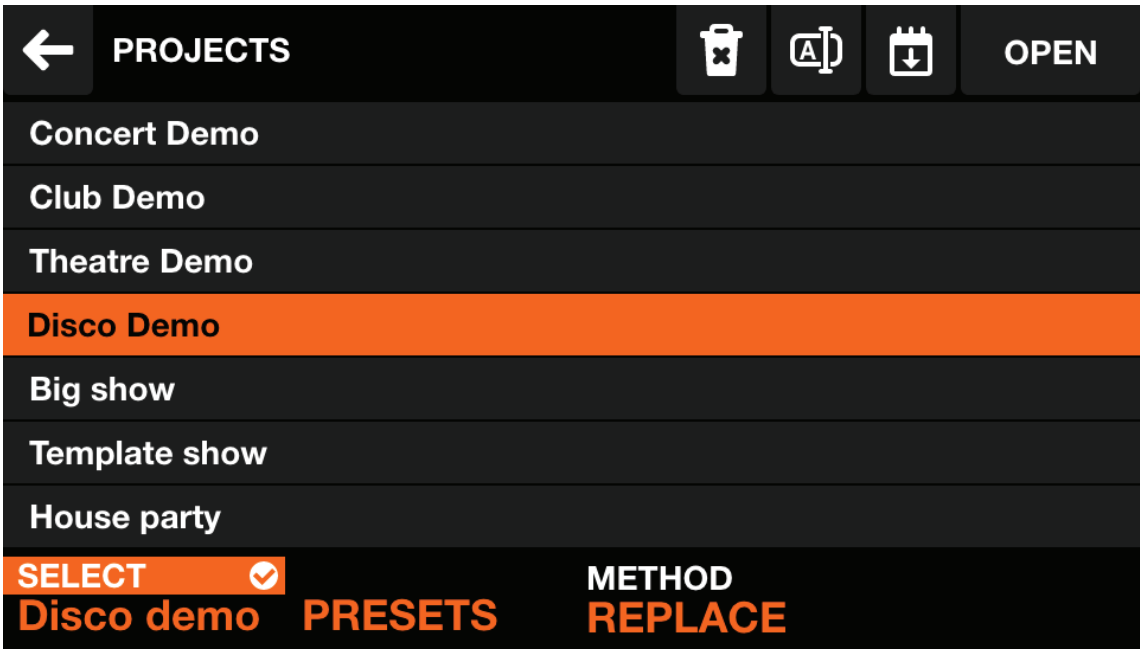
The Main Menu is accessed by tapping the icon to the top right of the Home screen.

- New : Create a new project.
- Open : Open an existing project.
- Save : Save the current project.
- Fixtures : Add and edit your fixtures.
- DMX Values : Monitor the level of every DMX channel and set test values.
- Mappings : Create MIDI and DMX mappings.

Toolbar actions:

- Access the USB screen (only available on MK2 and higher, if a USB device is plugged into the WMX1 MK2).
- Lock the entire controller.
- Lock the palette, preset and fixture editing.
- Access the settings screen.

PROJECTS



Up to 100 projects, or 3.5mb of data (whichever comes first), 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 200 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 available projects.

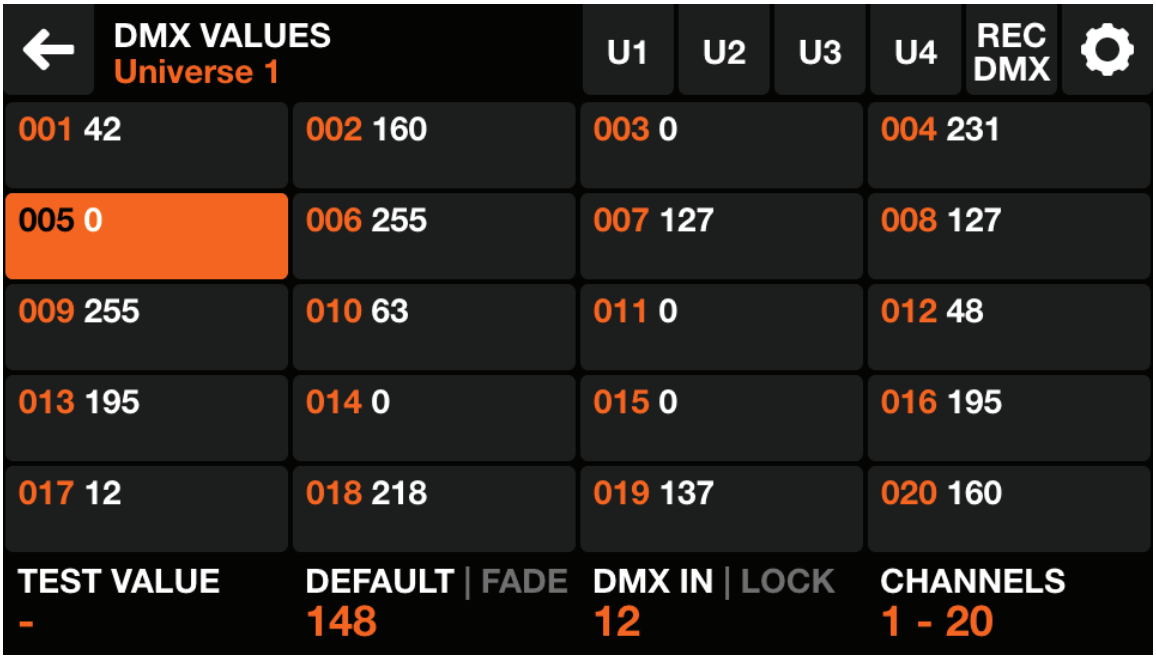
Encoder actions:

- Moving the first encoder selects a project to open. Tapping the encoder will open the selected project.
- Moving the second encoder sets which project part is to be loaded.
  a. All : load everything from the selected project.
  b. Fixtures : load only the fixtures from the selected project. Maintaining all other data.
  c. Presets : load only the presets from the selected project. Use the third encoder to specify how the presets should be loaded into the current open project.
     - Replace : presets will be overwritten by the selected project.
     - Append : presets from the selected project will be added to the end of the open project, after the last preset (if there's space).
     - Compact : any empty spaces within the preset screen will be filled by presets from the selected project.

Toolbar actions:

- Go back to the Setup screen.
- Delete the selected project.
- Rename the selected project.
- Order the projects by date or by name.
- Open the selected project.

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.

Note that the WMX1 MK2 fixture ships with 1 universe, additional universes can be purchased separately.

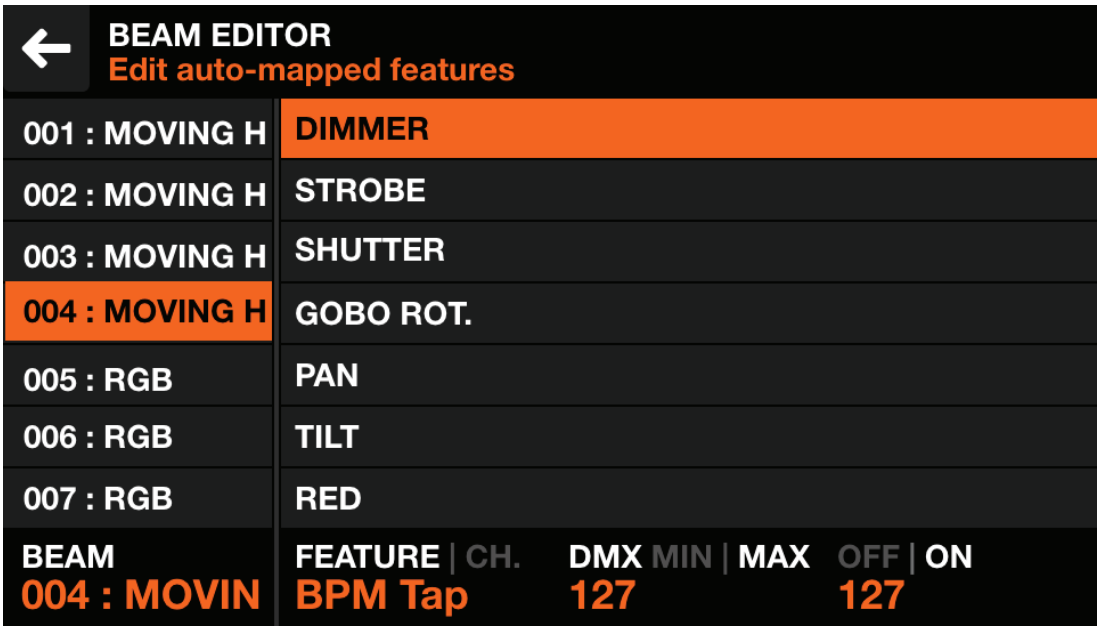
Encoder actions:
- Move the first encoder to set a test value on the selected channel. Tapping the encoder resets the channel to its current value.
- Moving the second encoder changes the default value of the channel. This is the value which is set at the beginning before any effects and palettes have been applied. Tapping the encoder toggles Fade mode. When Fade is set, the channel value will transition gradually during a preset fade. Color Filter and Gobo channels are set not to fade. When Jump Before is set, the channel value will immediately jump to the next value. When Jump After is set, the channel value will jump to the next value after the preset fade has completed.
- Moving the third encoder maps a DMX IN channel to the selected channel (WLINK add-on required). Tapping the encoder sets Lock mode. When Lock is enabled, the DMX input value will override all FX and palette values on the channel. When Lock 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.

Toolbar actions:
- Select and display the corresponding universe.
- Record either the edited channel values, or all of the channel values into a new Live Edit. 56
- Open the Beam Editor screen.

Other actions:
- Tapping one of the grid buttons selects a channel. Hitting one of the 20 matrix buttons also selects a channel.

DMX VALUES

Beam Editor



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 the WMX1 MK2. 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.

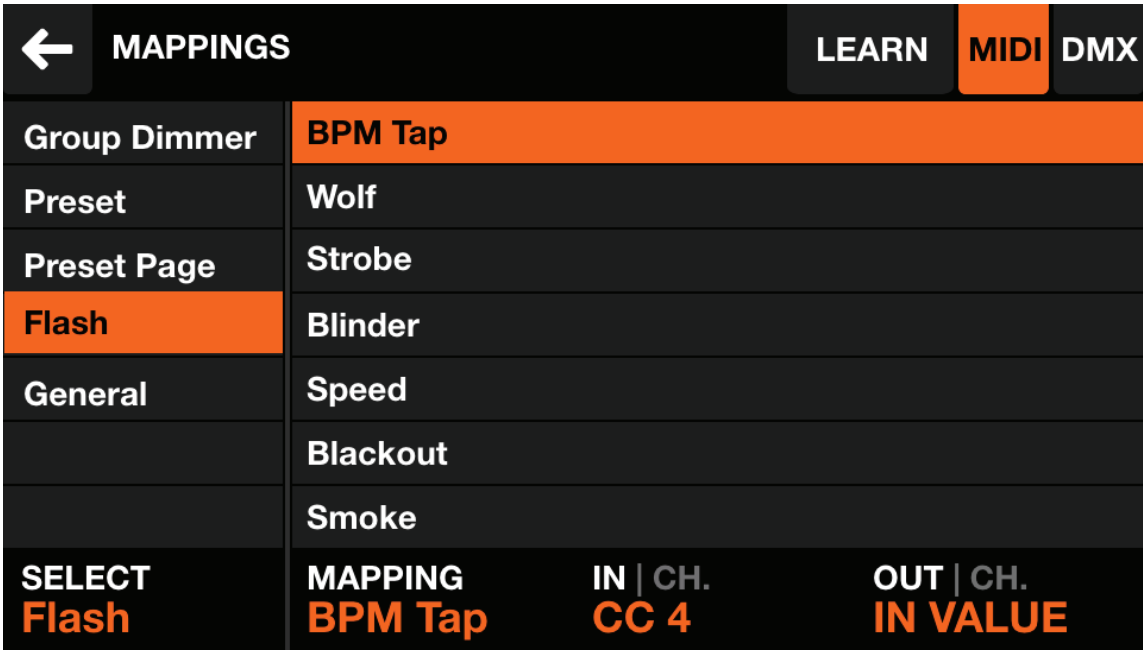
Displayed data:

- 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.

MAPPINGS



Use this screen to map a DMX or MIDI (MK2 and higher) command. Note: general MIDI controllers are compatible. Controllers which require a custom USB driver are not compatible.

Displayed data:

- A list of available mappings.

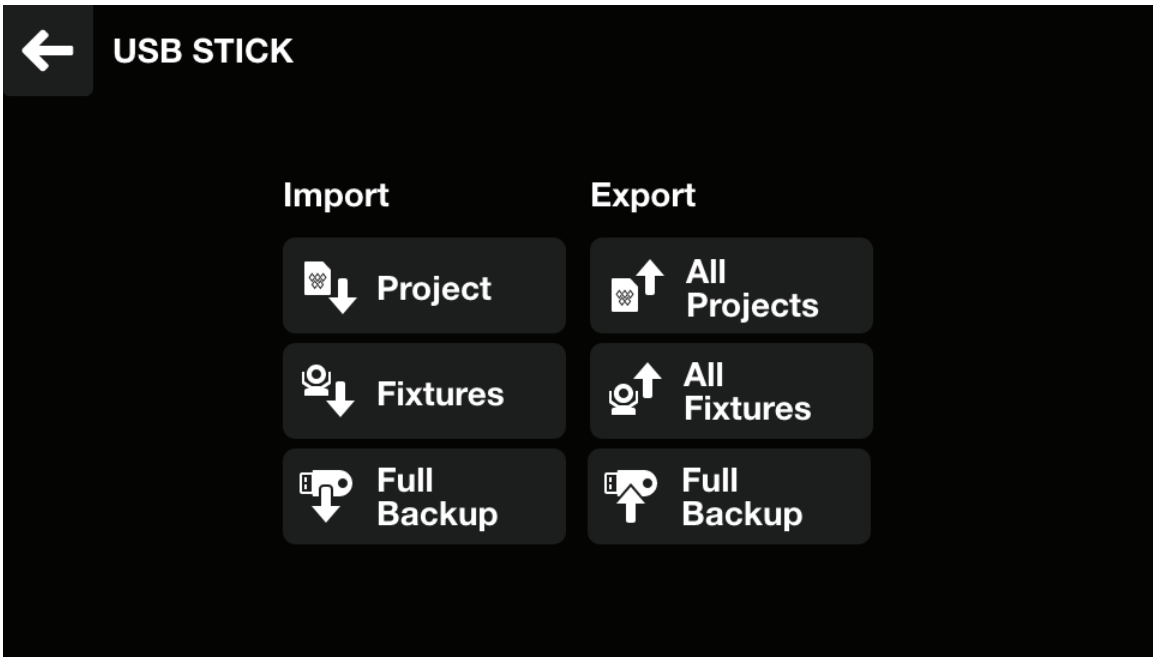
Encoder actions:

- Move the first encoder to select the mapping category.
- Move the second encoder to select the mapping.
- Move the third encoder to set the MIDI or DMX IN command, to assign the mapping. For MIDI, turning the encoder sets the CC or note value. Tapping the encoder allows you to set the channel and MIDI device index. For DMX mappings, moving the third encoder sets the DMX input channel.
- Move the fourth encoder to set the MIDI out value. Tapping the encoder allows you to set the channel. This can be used to set colors on buttons if supported by the MIDI controller.

Toolbar actions:

- Switch between MIDI mapping (MK2 and higher) and DMX mapping.
- Assign the next MIDI or DMX input message to the selected mapping using the LEARN button.

USB STICK



This screen can be used to import and export files from a USB memory stick to your WMX1 MK2. Note: the USB stick must be formatted in the FAT32 format.

Displayed data:

- Import and export actions for the USB stick.

Toolbar actions:

- Go back to the Setup screen using the back arrow.

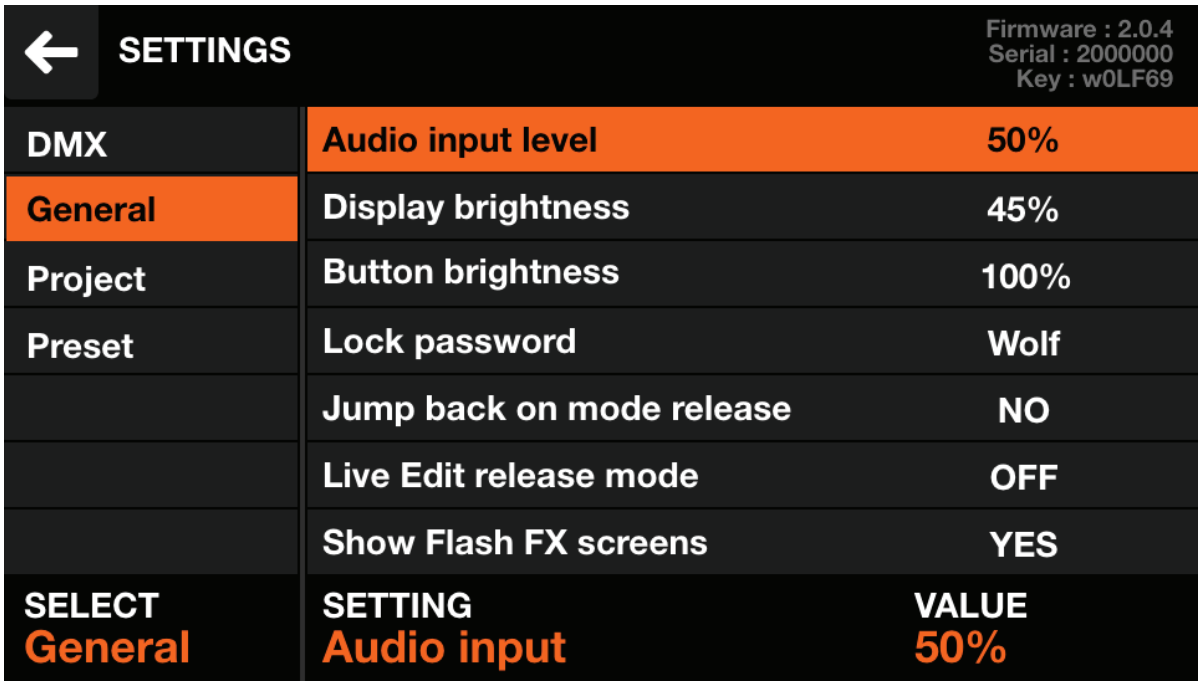
Other actions:

- Import a Project from the USB stick.
- Import Fixtures into the WMX1 MK2 fixture library.
- Import a Full Backup onto the WMX1 MK2 (only available if a Full Backup has been exported to the USB stick previously).
- Export all Projects onto the USB stick.
- Export all Fixtures from the WMX1 MK2 fixture library to the USB stick.
- Export a Full Backup onto the USB Stick.

LOCK

The WMX1 MK2 can be locked to prevent unauthorised access. Tapping Lock All (the lock icon) on the main menu toolbar 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.

SETTINGS



The Settings screen shows a list of global WMX1 MK2 settings.

Displayed data:

- A list of categories and settings with their current value. The currently selected setting is highlighted in orange.
- The current firmware version is displayed to the top right. The firmware can be updated using the WTOOLS app.
- The controllers serial number and activation key is displayed to the top right.

Encoder actions:

- Moving the first encoder navigates through the category list.
- Moving the second 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
  - WMX1 MK2 : commands will be sent and received via XLR C to sync with another WMX1 MK2.
  - DMX IN : DMX input data will be received via XLR C and mapped to group dimmers and DMX output channels.
- 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.

SETTINGS

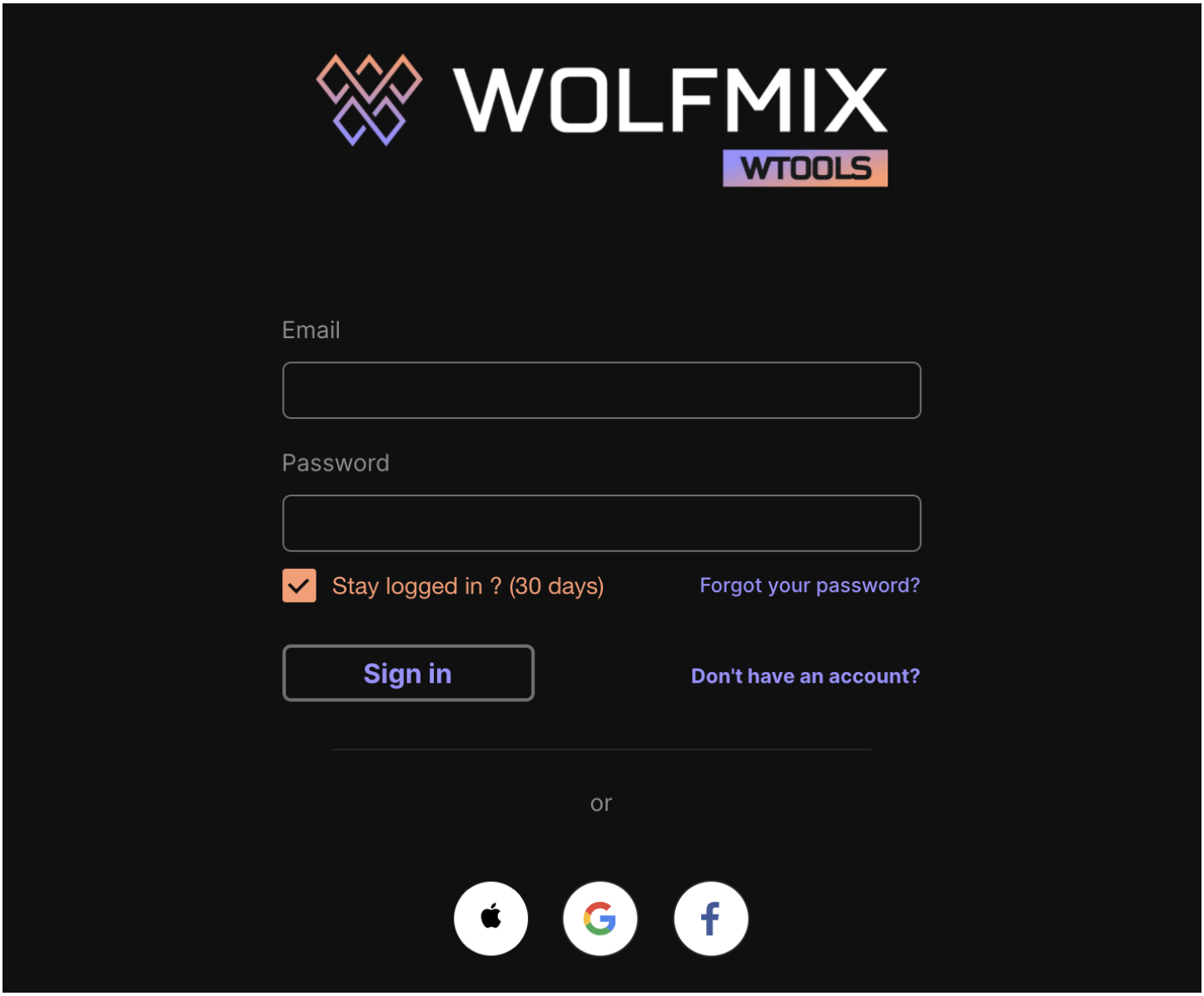
- Jump back on mode release : when enabled, the control screens will work like flash buttons whereby on button release the previous screen will be recalled. Holding shift will latch the selected screen. This is useful for quickly navigating between control screens.
- Live Edit release mode :
  - OFF : 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.
- 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.
- Auto switch group bank: the group bank will toggle automatically between A-D and E-H depending on the incoming commands (e.g. MIDI controller dimmer changes).
- 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.
- 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.
- Exclude Wolf : select which groups should be excluded from the Wolf flash screen. Move the encoder to select the group and push the encoder to apply.
- Exclude Strobe : select which groups should be excluded from the Strobe flash screen. Move the encoder to select the group and push the encoder to apply.
- Exclude Blinder : select which groups should be excluded from the Blinder flash screen. Move the encoder to select the group and push the encoder to apply.
- Exclude Blackout : select which groups should be excluded from the Blackout flash screen. Move the encoder to select the group and push the encoder to apply.
- 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 externally via a DMX fader board or MIDI controller.
- Include 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.
- 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 WMX1 MK2 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.
- Startup on Preset screen : WMX1 MK2 will show the Presets screen after power up.

WTOOLS APP

The WTOOLS app is available for PC and MAC. It is not required to use WMX1 MK2, 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.

CLOUD SIGN IN

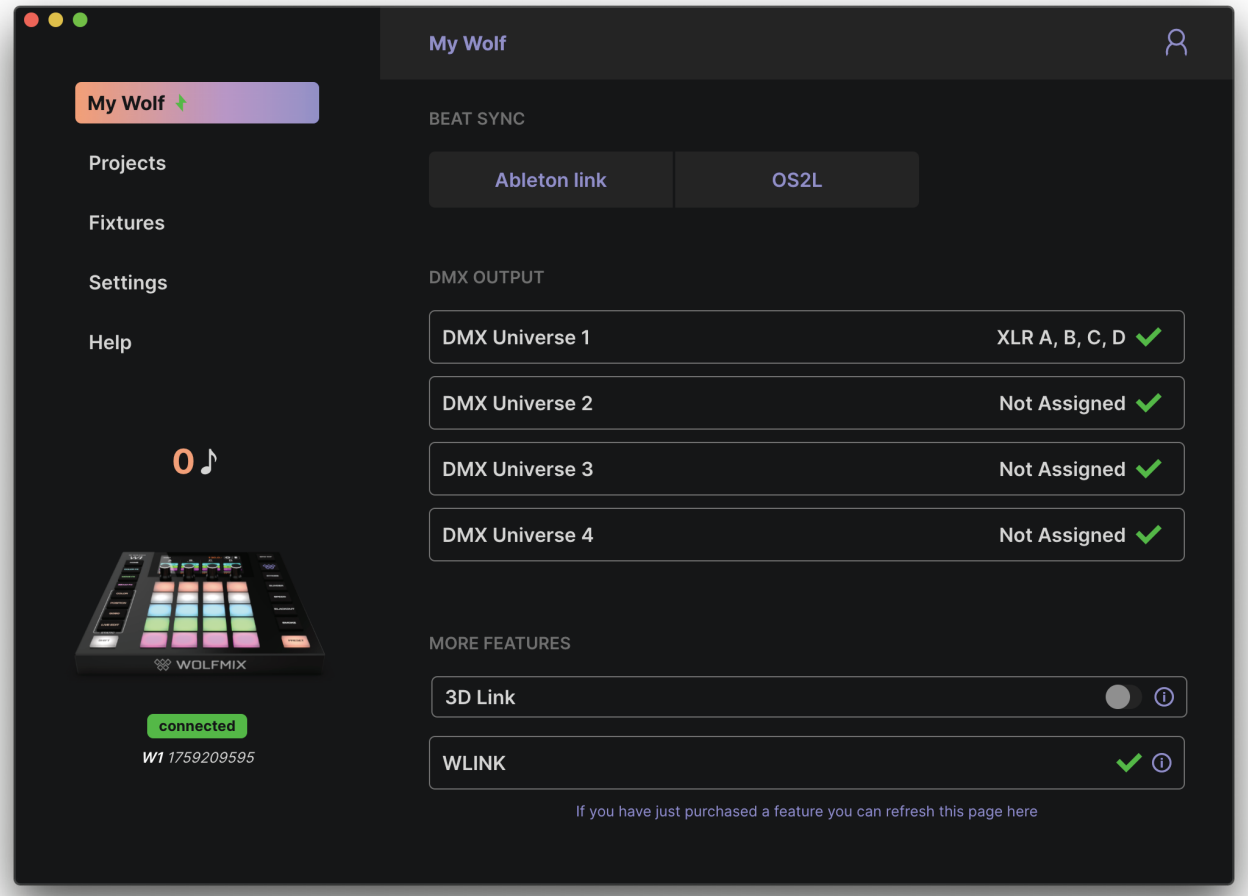


WTOOLS uses Nicolaudie Cloud to synchronize projects and fixtures. WMX1 MK2 is part of the ADJ group, therefore data stored within the cloud is not being passed on to a third party. See the privacy policy available on the ADJ website for further information.

Nicolaudie 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.

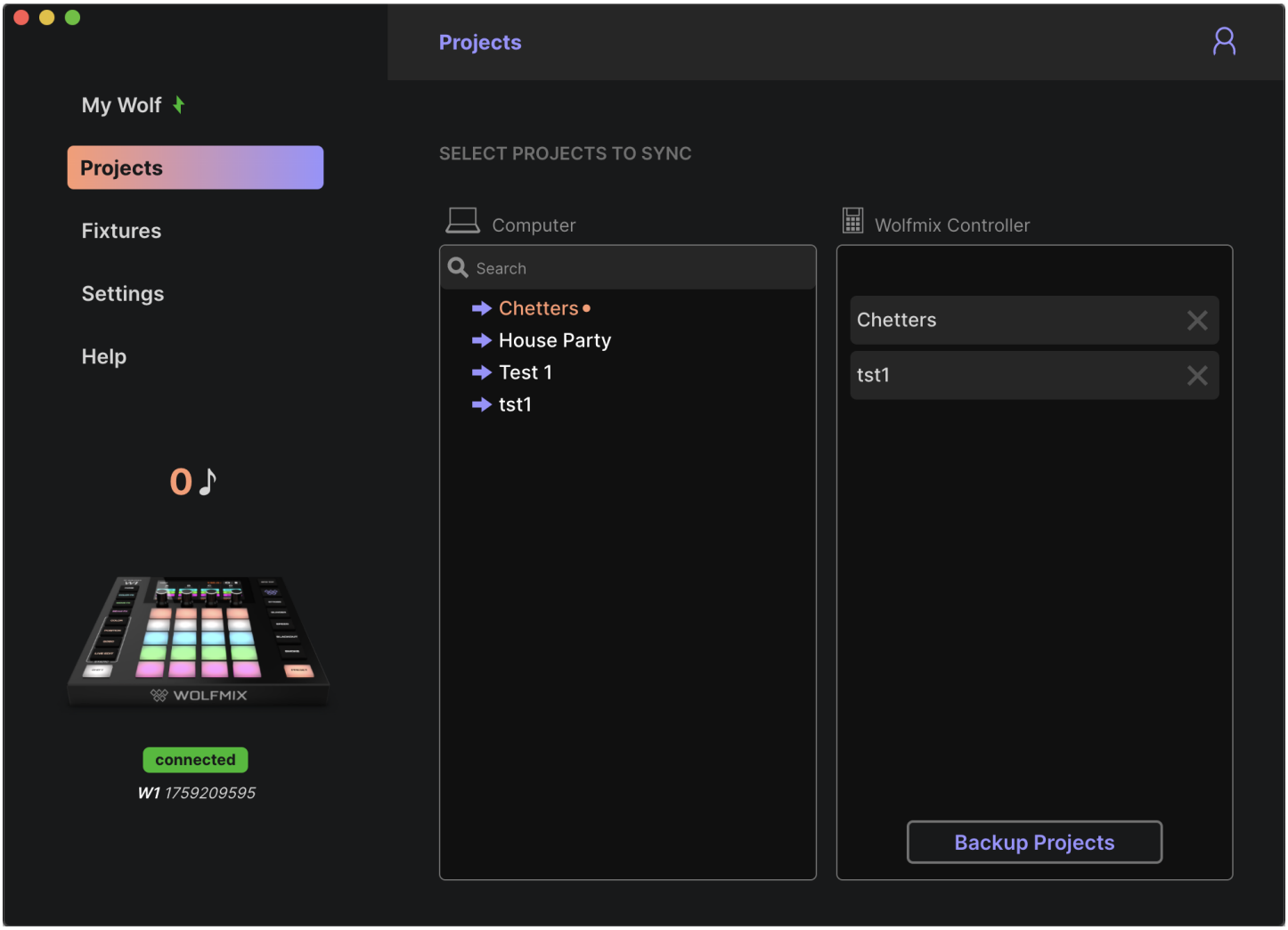
MY WOLF



Information on the connected WMX1 MK2 is displayed on this screen including:

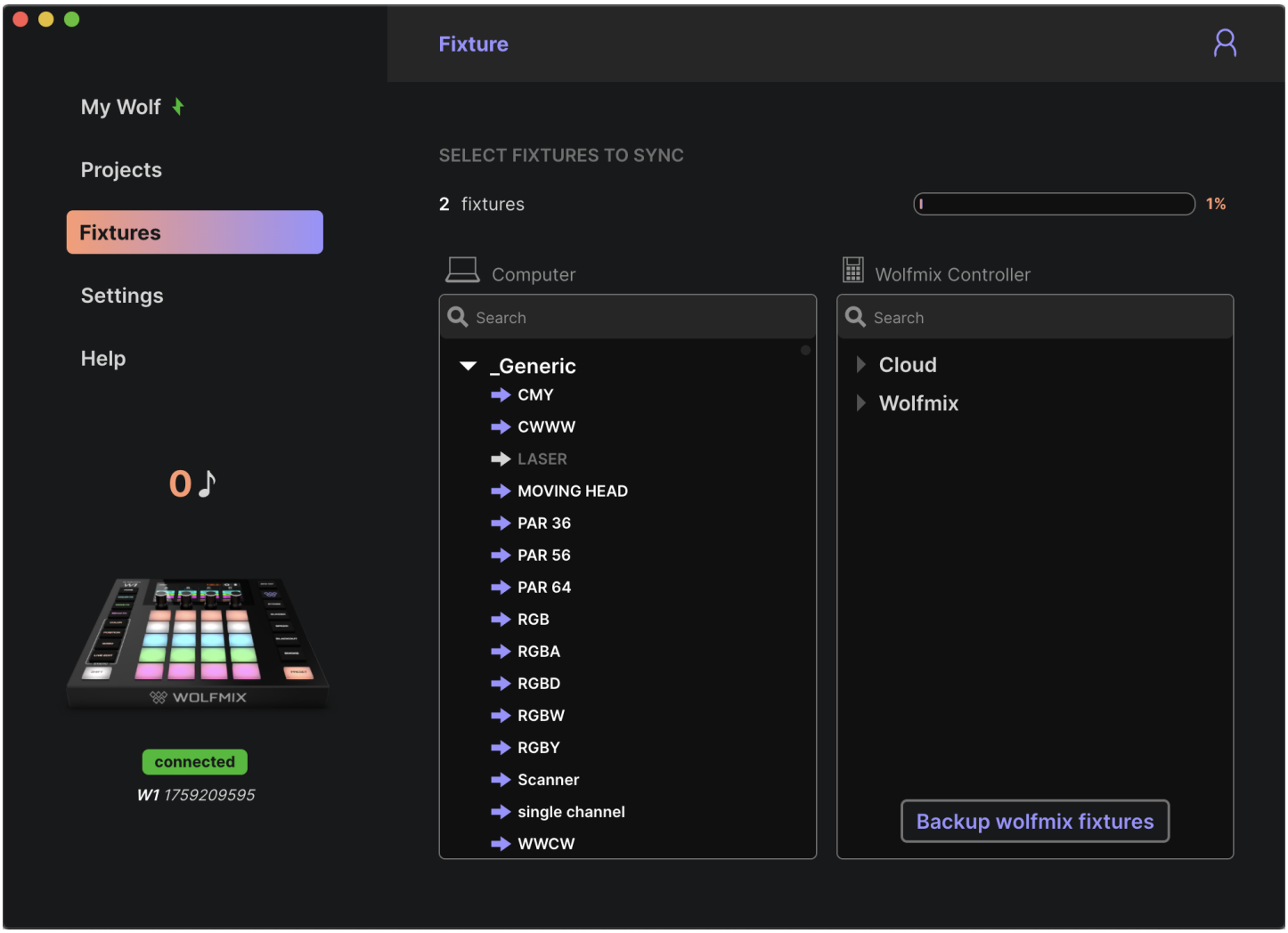
- Serial number (to the bottom left): this is a unique ID assigned to each WMX1 MK2 controller.
- Active DMX universes along with their assigned XLR sockets: these can be mapped from the controller's settings screen.
- 3D link status: turn on to start relaying DMX from WMX1 MK2 to Easy View 2 3D. Easy View can be downloaded from the WMX1 MK2 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 WMX1 MK2 controller are displayed on the right. Clicking the arrow to the left of the project name will write the project to the WMX1 MK2 controller. Clicking **Backup Projects** will copy all projects from WMX1 MK2 to the computer and sync with LS Cloud.

FIXTURES

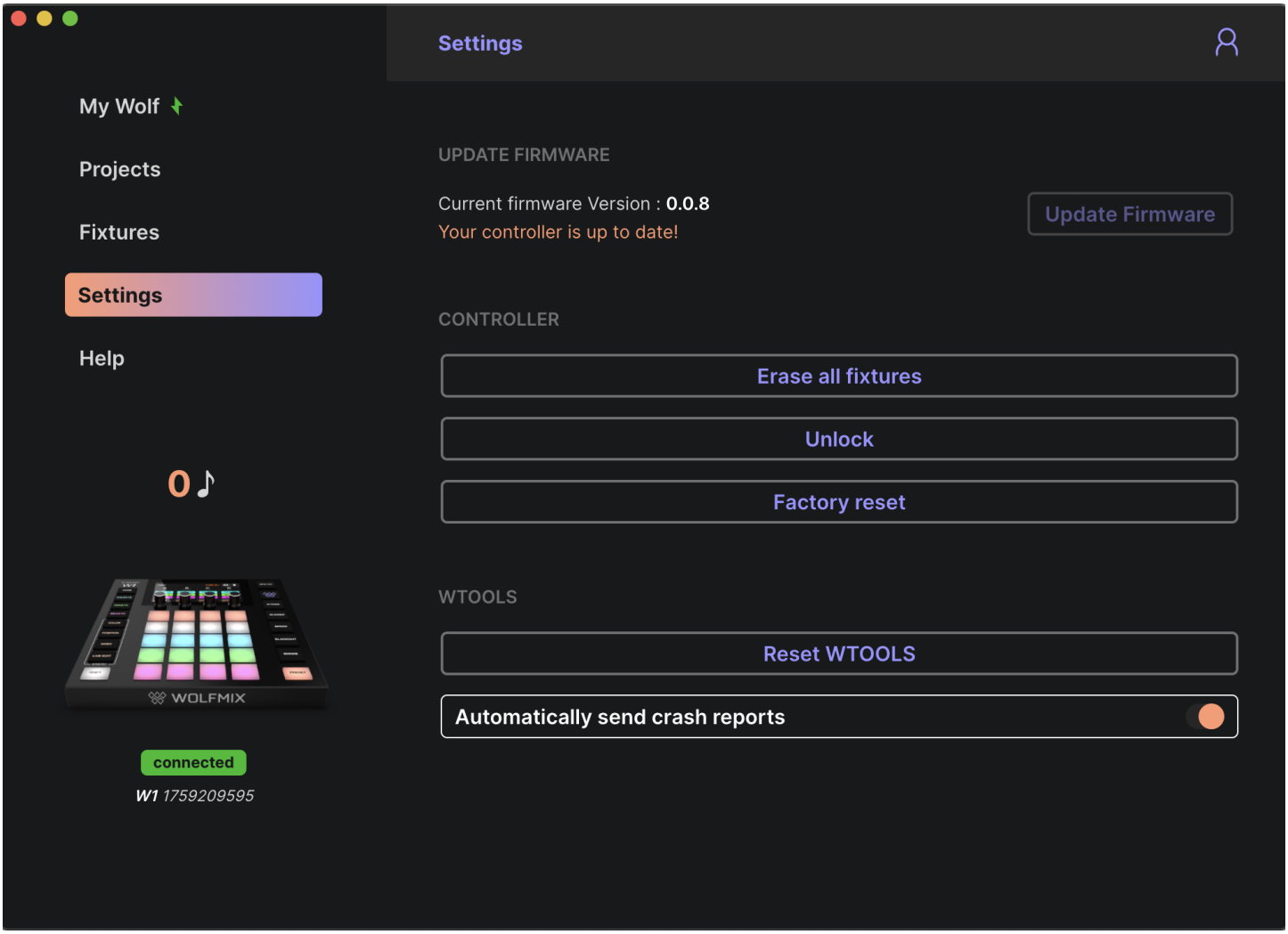


Fixtures on the computer and in the cloud are displayed on the left and fixtures in the WMX1 MK2 controller are displayed on the right.

- The first category WMX1 MK2 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 WMX1 MK2 Fixture Builder.

Clicking the arrow to the left of the fixture name will write the fixture to the WMX1 MK2 controller. Clicking Backup WMX1 MK2 Fixtures will copy all fixtures in the WMX1 MK2 category from the controller to the computer and sync with LS Cloud.

SETTINGS

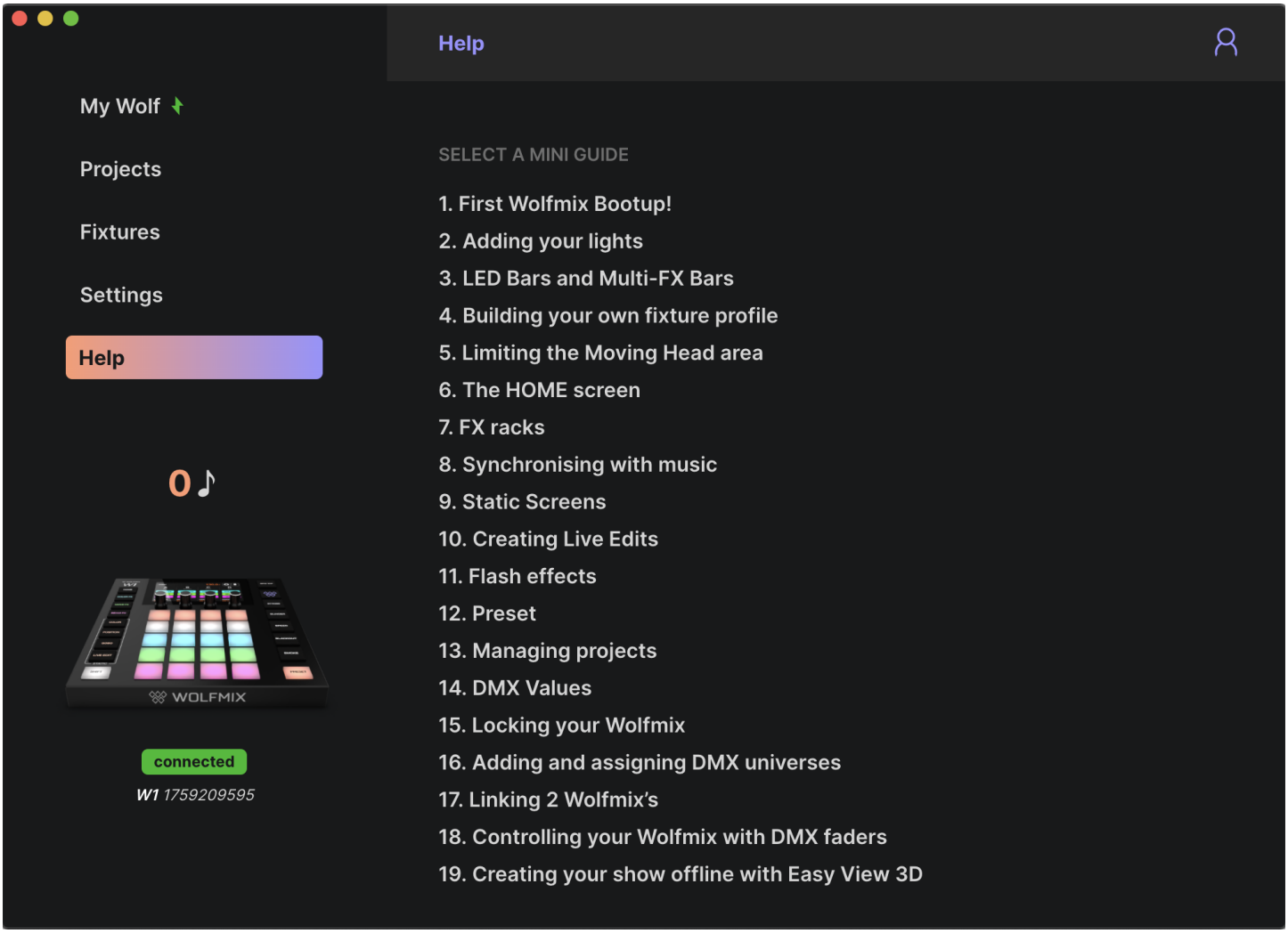


The Settings screen shows the current firmware version. Clicking Update Firmware will update to the latest firmware version which is downloaded automatically from WTOOLS when connected to the internet.

Other settings:

- Erase all fixtures: remove all fixtures from the WMX1 MK2 controller.
- Unlock: unlocks WMX1 MK2 without the need of a password.
- Factory reset: deletes all projects and fixture profiles from WMX1 MK2 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 WMX1 MK2 Mini Guides, accessible directly from WTOOLS if the WMX1 MK2 website or internet connection is unavailable.

SPECIFICATIONS

Setup
- Standalone (no computer needed)
- Compatible with any DMX device
- Standard unit comes with 1 DMX universe but up to 2 additional universes are available as add-ons, which are sold via the WTOOLS app.
- Up to 680 fixtures & beams
- Up to 50 fixture types
- Up to 5000 fixture features (color/gobo etc...)
- 8 fixture groups
- 6 projects
- 15000+ available fixtures (3500+ on the controller)
- DMX address, fixture order & group setup
- Use as a DMX splitter with DMX universe mapping

Palettes & FX
- Color FX module with 8 effect types & 16 definable colors
- Move FX module with 8 effect types
- Beam FX module with 8 effect types
- 6 Flash buttons for controlling Special FX, Strobe, Blinder, Speed, Blackout & Smoke
- Static color palette with 10 user definable colors per group & gradient control
- Static position palette with 5 user definable positions per group with fade & fanning
- Gobo palette with 5 user definable gobos per group
- 20 namable live edit buttons with flash triggering mode and 'Park' function
- 100 namable presets for storing snapshots with hold and fade timings
- Preset playback cue list- all presets or per page of 20 presets

Control & Sync
- Group and master dimming with encoder acceleration
- Group FLASH, FULL and Blackout
- 16 bit Pan/Tilt control
- Multi-beam LED bar control
- FX music pulse sync from Microphone or Line-In
- FX BPM sync with Ableton Link, OS2L or BPM TAP
- Effect Speed, Phase, Order, Size, Fade, Fan & Flick
- Live control of move FX registration point
- Global FX speed and freeze control
- Map DMX IN with group dimmer and patch to output channels*
- WLINK - sync with another WMX1 MK2 controller

Built-in tools
- Fixture Builder
- Fixture calibration tool, to limit the area of moving fixtures
- X-Y touch controlled positioning grid
- RGBW touch controlled color picker
- 8-step real time sequencer for creating beam and move FX
- Live view of DMX levels with default value override and DMX channel tester
- Beam Editor to override Min and Max values used in generated FX

Other neat features
- Calibrate and RGB, White, Amber, UV mixing with automatic fixed color wheel translation
- Automatic matching of similar gobos across different fixture types
- Timed release of flash and preset buttons
- Fixture FLIP function, for reversing beam order
- Fixture SPLIT function, for splitting up multi-FX bars
- Lock full controller, or lock editing with a password
- Project & fixture backup with WTOOLS app
- Offline 3D visualization with Easy View & WTOOLS over USB*
- Auto-recovery of active project (no manual saving needed)
- Import different fixture setups into the same project
- Starts in under 2 seconds. Starts sending DMX in under 1 second
- Factory firmware startup recovery mode for times of crisis

***some features require an add-on purchase available through the WTOOLS app**

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
- Sync FX with the music
- Analog audio peak detection circuit
- Built in microphone with auto-gain
- 3.5mm jack socket

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

USB
- USB B powered
- USB A port for MIDI over USB and project loading & back-up
- Sync with Ableton Link & OS2L via a computer
- Link with MIDI faders and sync with MIDI clock
- Backup projects and fixtures to a memory stic

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

Size & weight
- 195 x 220 x 62 mm / 7.68 x 8.66 x 2.44 in
- 1070g / 2.36lb

Optional Upgrades
- Easy View 3D Visualizer: $99
- WLINK (+DMX IN): $49
- Additional DMX universes (Up to 2 more can be purchased): $99ea.

Specifications subject to change without notice.

FCC STATEMENT

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

FCC RADIO FREQUENCY INTERFERENCE WARNINGS & INSTRUCTIONS

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

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

Europe Energy Saving Notice

Energy Saving Matters (EuP 2009/125/EC)

Saving electric energy is a key to help protecting the environment. Please turn off all electrical products when they are not in use. To avoid power consumption in idle mode, disconnect all electrical equipment from power when not in use. Thank you