



WMXI MK2

Quick Start Guide

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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!

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	Notes
04/24/2024	1.0	Initial Release

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GENERAL INFORMATION

INTRODUCTION

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

This document describes each function available on WMX1 MK2. It was written as a quick guide. Please refer to the reference manual, which focuses on how to perform a particular function, whereas this document is intended to be used as a quick start guide.

LIMITED WARRANTY (USA ONLY)

- A. ADJ Products, LLC hereby warrants, to the original purchaser, ADJ Products, LLC products to be free of manufacturing defects in material and workmanship for a prescribed period from the date of purchase (see specific warranty period on reverse). This warranty shall be valid only if the product is purchased within the United States of America, including possessions and territories. It is the owner's responsibility to establish the date and place of purchase by acceptable evidence, at the time service is sought.
- B. For warranty service, you must obtain a Return Authorization number (RA#) before sending back the product-please contact ADJ Products, LLC Service Department at 800-322-6337. Send the product only to the ADJ Products, LLC factory. All shipping charges must be pre-paid. If the requested repairs or service (including parts replacement) are within the terms of this warranty, ADJ Products, LLC will pay return shipping charges only to a designated point within the United States. If the entire instrument is sent, it must be shipped in its original package. No accessories should be shipped with the product. If any accessories are shipped with the product, ADJ Products, LLC shall have no liability whatsoever for loss of or damage to any such accessories, or for the safe return thereof.
- C. This warranty is void if the serial number has been altered or removed; if the product is modified in any manner which ADJ Products, LLC concludes, after inspection, affects the reliability of the product, if the product has been repaired or service by anyone other than ADJ Products, LLC factory unless prior written authorization was issued to purchaser by ADJ Products, LLC; if the product is damaged because not properly maintained as set forth in the instruction manual.
- D. This is not a service contract, and this warranty does not include maintenance, cleaning or periodic check up. During the period specified above, ADJ Products, LLC will replace defective parts at its expense with new or refurbished parts, and will absorb all expenses for warranty service and repair labor by reason of defects in material or workmanship. The sole responsibility of ADJ Products, LLC under this warranty shall be limited to the repair of the product, or replacement thereof, including parts, at the sole discretion of ADJ Products, LLC. All products covered by this warranty were manufactured after August 15, 2012, and bear identifying marks to that effect.
- E. ADJ Products, LLC reserves the right to make changes in design and/or improvements upon its products without any obligation to include these changes in any products theretofore manufactured.
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- G. This warranty is the only written warranty applicable to ADJ Products, LLC Products and supersedes all prior warranties and written descriptions of warranty terms and conditions heretofore published.

LIMITED WARRANTY PERIODS

- **Non L.E.D. Lighting Products = 1-year (365 days) Limited Warranty** (Such as: Special Effect Lighting, Intelligent Lighting, UV lighting, Strobes, Fog Machines, Bubble Machines, Mirror Balls, Par Cans, Trussing, Lighting Stands etc. excluding LED and lamps)
- **Laser Products = 1 Year (365 Days) Limited Warranty** (excludes laser diodes which have 6 month limited warranty)
- **L.E.D. Products = 2-year (730 days) Limited Warranty** (excluding batteries which have a 180 day limited warranty)
Note: 2 Year Warranty only applies to purchases within the United States.
- **StarTec Series = 1 Year Limited Warranty** (excluding batteries which have a 180 day limited warranty)
- **ADJ DMX Controllers = 2 Year (730 Days) Limited Warranty**

SAFETY GUIDELINES

This device is a sophisticated piece of electronic equipment. 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 the original included parts and/or accessories for this device should be used. Any modifications to the device, included and/or accessories will void the original manufactures warranty and increase the risk of damage and/or personal injury.



PROTECTION CLASS 1 – DEVICE MUST BE PROPERLY GROUNDED



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.



**DO NOT ATTEMPT TO USE THIS DEVICE WITHOUT BEING FULLY TRAINED ON HOW TO USE IT. ANY DAMAGES OR REPAIRS TO THIS DEVICE OR ANY LIGHTING FIXTURES CONTROLLED BY THIS DEVICE RESULTING FROM IMPROPER USE, AND/OR THE DISREGARD OF THE SAFETY AND OPERATION GUIDELINES IN THIS DOCUMENT VOIDS THE ADJ WARRANTY, AND ARE NOT SUBJECT TO ANY WARRANTY CLAIMS AND/OR REPAIRS, AND MAY ALSO VOID THE WARRANTY FOR ANY NON-OBSIDIAN CONTROL SYSTEMS DEVICES.
KEEP FLAMMABLE MATERIALS AWAY FROM DEVICE.**



**DRY LOCATIONS USE ONLY!
DO NOT EXPOSE DEVICE TO RAIN, MOISTURE, AND/OR SEVERE ENVIRONMENTS!
DO NOT SPILL WATER AND/OR LIQUIDS ON OR INTO 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)

1 FIRST WMX1 MK2 BOOTUP!

Connect the power

Start by connecting the included 1A power supply and USB cable. If connecting with a computer, this must be USB 3.0 (or higher). USB 2.0 doesn't provide enough power for the Wolf.

Register with the keycode

The first time you start the WMX1 MK2, you'll see a registration code on the screen. To use this code to activate your WMX1 MK2, go to www.wolfmix.com/activate, then enter the given Activation Key.

Load the demo project

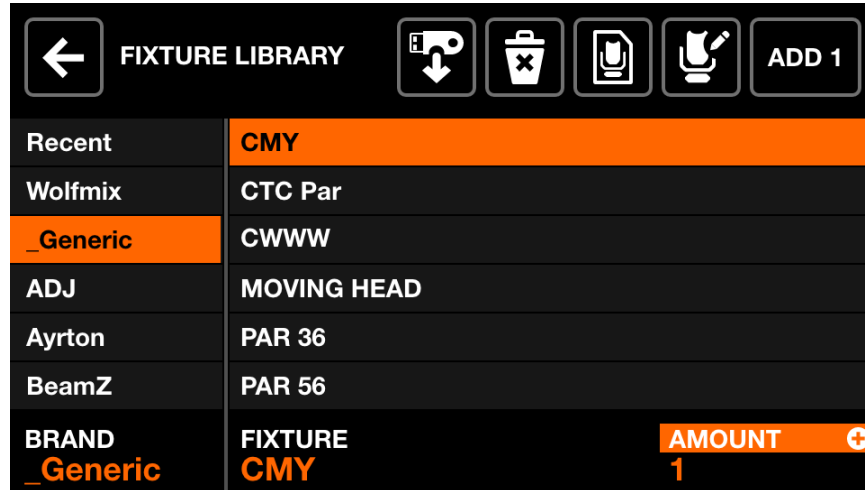
To become familiar with the WMX1 MK2 features, a good place to start is with the demo project. Select 'Load Project' and load the demo project by highlighting the first item in the list and tapping the first encoder. If you have the Easy View 3D add-on, we've got a 3D project included which allows you to test the WMX1 MK2 without connecting any lights.



2 ADDING LIGHTS

Add lights to your project

- Open Fixture Setup by tapping the button to the top right of the home screen
- Tap the add fixture button (that's the icon with the +)
- Select a brand by moving the first encoder, and then a fixture by moving the second encoder
- Choose the number of fixtures to add with the 4th encoder and then tap that encoder



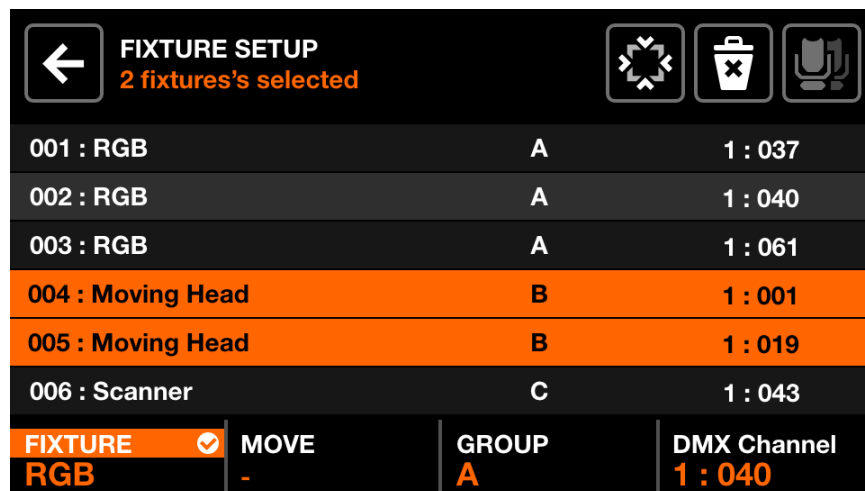
My light is not available in the library

If a light is not available, there are a few options:

- We only add a selection of fixtures to the WMX1 MK2 out of the factory. You can find more by clicking on the Fixtures button in the WTOOLS app
- Build the fixture profile yourself using the WMX1 MK2 Fixture Builder. We've worked hard to keep this tool easy to use by including just the essential parts.
- Send us the user guide and we'll make it for you. This may take a few days or weeks depending on the amount of requests.

Edit DMX address & position

Once you've added some lights, the Fixture Setup screen is shown. This contains a list of all your fixtures with the selected ones in orange. Turn the first encoder to scroll the list and press it to select or deselect a fixture. Turn the second, third, and fourth encoders to move your lights to a different position, change the group, or change the starting DMX address. Press the encoder to apply the change. Be sure the DMX address on each line matches the number on the corresponding light!



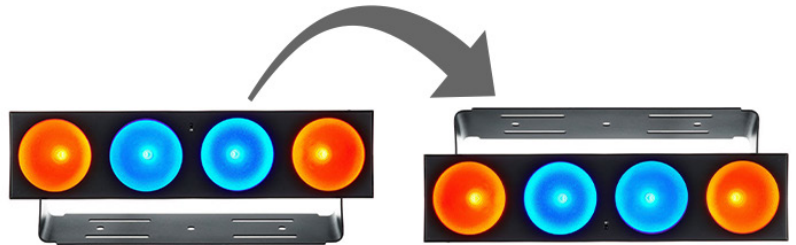
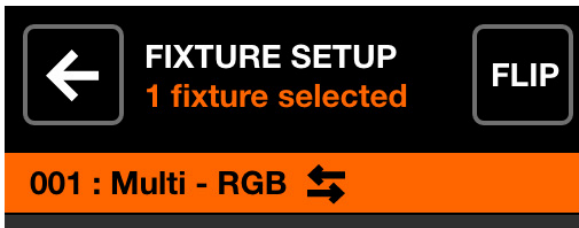
3 LED BARS AND MULTI-FX BARS

These days there are myriad light fixtures containing multiple light sources in one fixture. If you don't have them in your setup - ADJ has you covered. Examples include LED bars and multi-FX bars. WMX1 MK2 contains a couple of neat features to help you get these working properly.



FLIP

If the bar was mounted in the wrong direction, tap the FLIP button to invert the fixture setup.



SPLIT

Multi-FX bars are usually made up of 1 fixture profile containing several lights. WMX1 MK2 will scan the profile, and if possible, ask if you want to split the profile into independent light fixtures. This allows you to assign the fixture parts to different groups.



4 BUILDING YOUR OWN FIXTURE

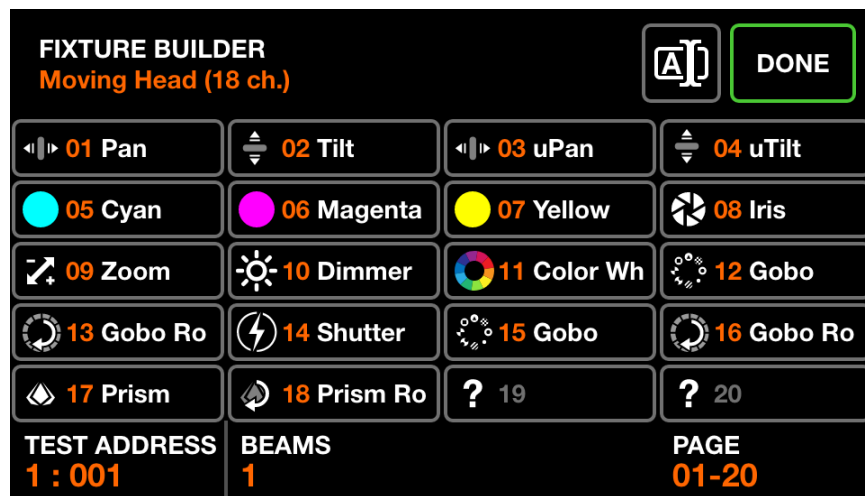
A fixture profile tells WMX1 MK2 how the connected light works. It contains information on the capabilities of each channel. Take a look at your fixture's user manual and you should find a table of DMX channels and values. There's often a lot written here, but the WMX1 MK2 often doesn't need all the information.

Setting up a profile

Start by setting a Test Address with the first encoder. This should match the number displayed on your light and will allow it to respond whilst you build the profile. Select the number of beams: LED Pars, Scanners and Moving Heads usually have 1. Multi-FX bars and LED bars generally have more.

Adding channels

Use the touch screen or tap the matrix buttons to add and edit channels and choose the channel type which matches the user manual. The fixture below has 18-channels, starting with Pan-and-Tilt.

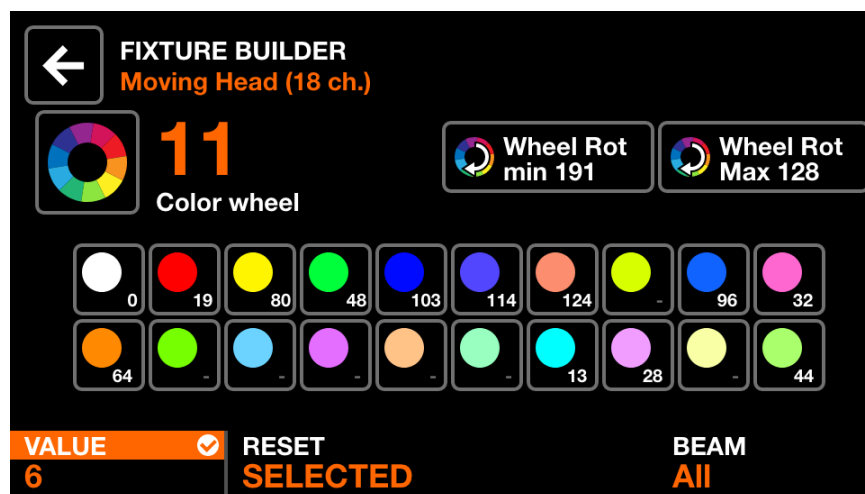


Editing the channel properties

Some channels have some extra properties. For example, the Color Wheel channel below contains fixed color filters.

- Move the first encoder slowly, look for the selected color on your light
- Tap the corresponding color button
- Tap the first encoder to store the color

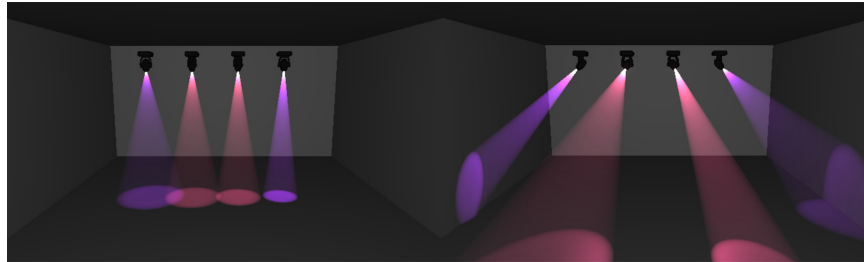
Tapping the second encoder will reset the color. If you have a fixture with more than one beam, choose the linked beam with the 4th encoder.



5 LIMITING THE MOVING HEAD AREA

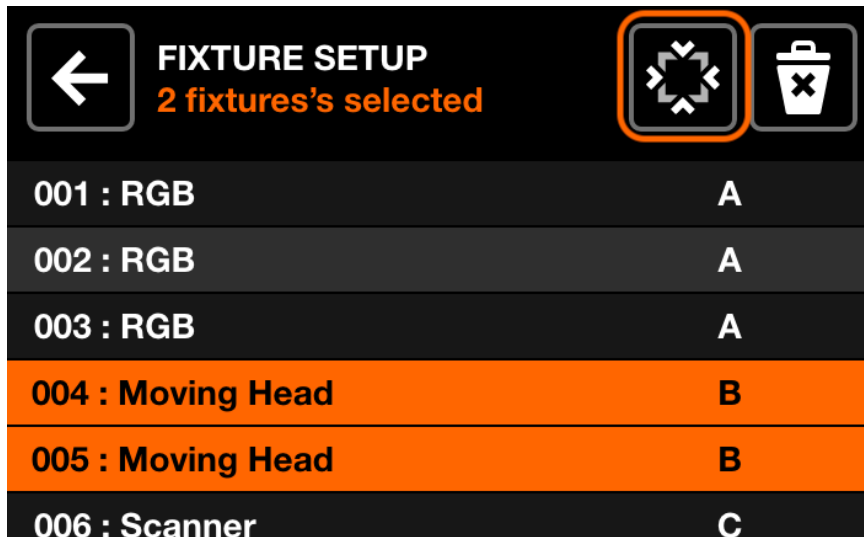
What's this all about?

In a typical lighting setup, Moving Heads will often be rigged behind and above the performer or DJ. Unlike Scanners which have limited movement, Moving Heads will pan 360 degrees or more. When playing effects, these lights will point behind the performer. By limiting the area, we can be sure the lights point where we want. The two images below compare the same 'Center Fan' Position applied to 4 Moving Heads, with limits set on the right.

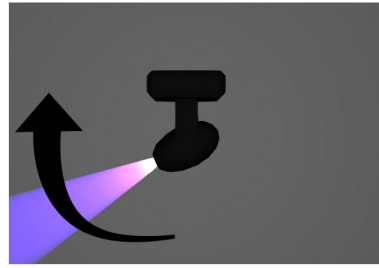
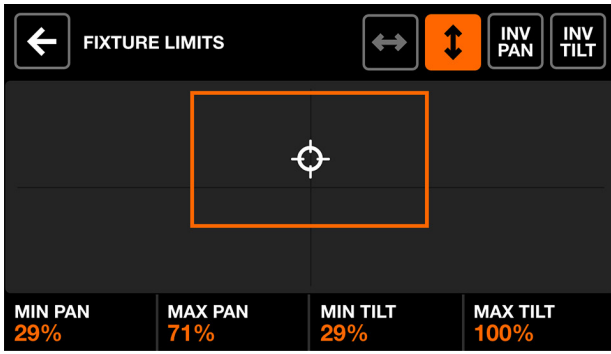


Fixture Limits Grid

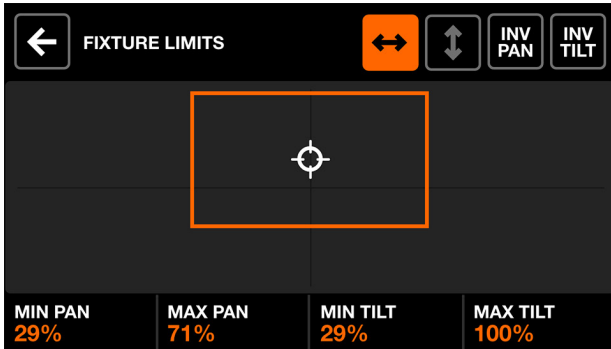
The Fixture Limits grid helps you set minimum and maximum pan and tilt values, so when you play your effects and set your positions, the Moving Heads will match each other. Select the fixture(s) you want to adjust and tap the fixture limits button.



Start by calibrating the tilt. Tap the tilt button (3rd from the top right) and your lights will start to move up and down. Adjust the MIN and MAX tilt using the 3rd and 4th encoders until your lights are moving together with the other calibrated fixtures.



Once the tilt is sorted, repeat for the pan.

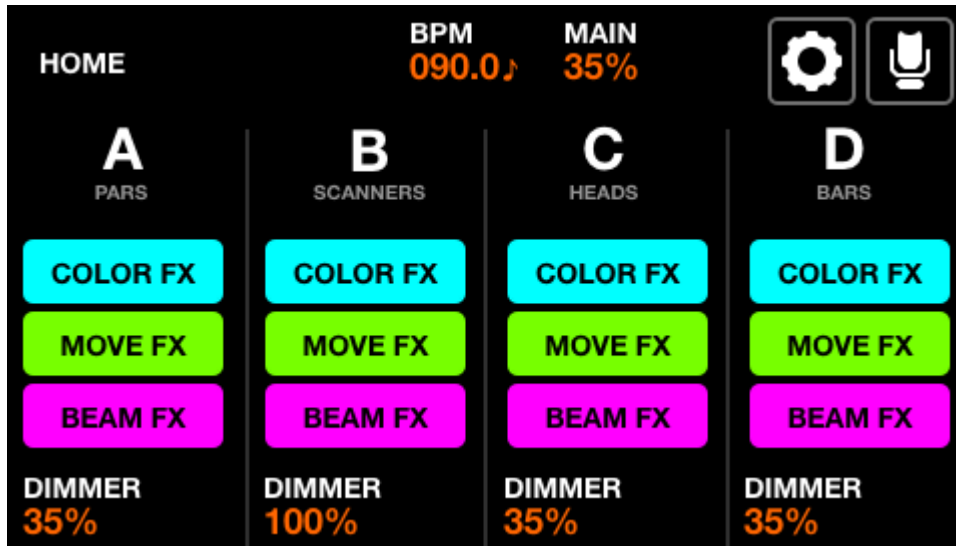


Touching the screen will move all fixtures together, allowing for the limits to be tested.

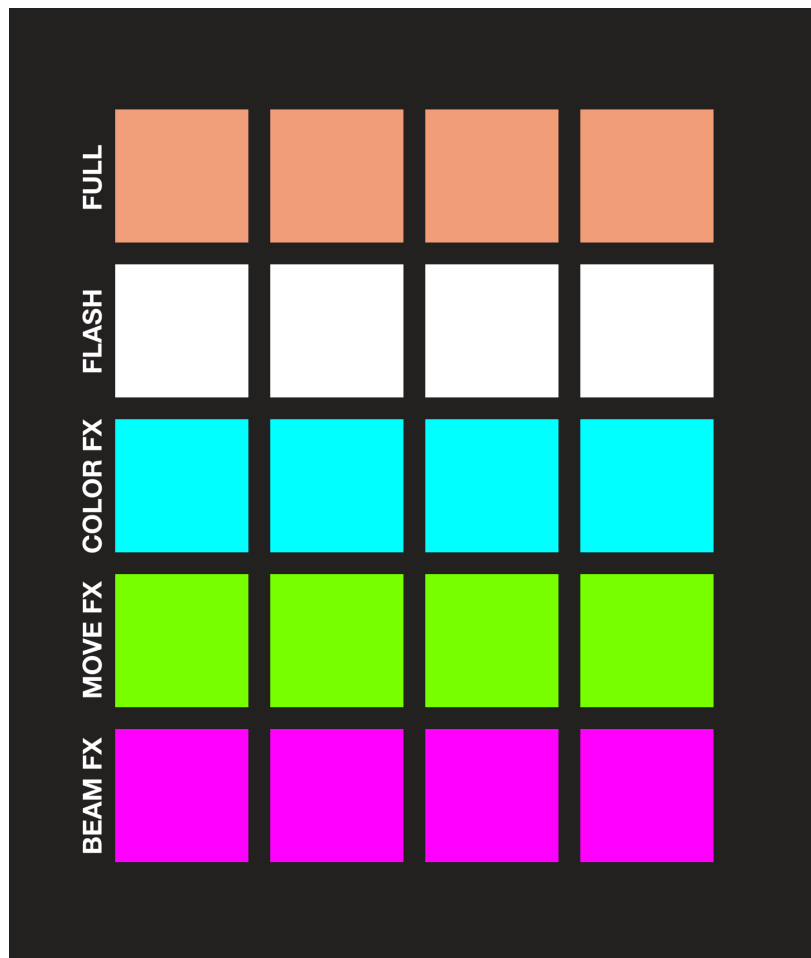
6 THE HOME SCREEN

What can I do on the home screen?

The HOME screen is your live performance mixer. Each column is used to control a Group of lights. Use the encoder to change the dimming level of the Group. Pushing the encoder will 'mute' or 'blackout' the group.

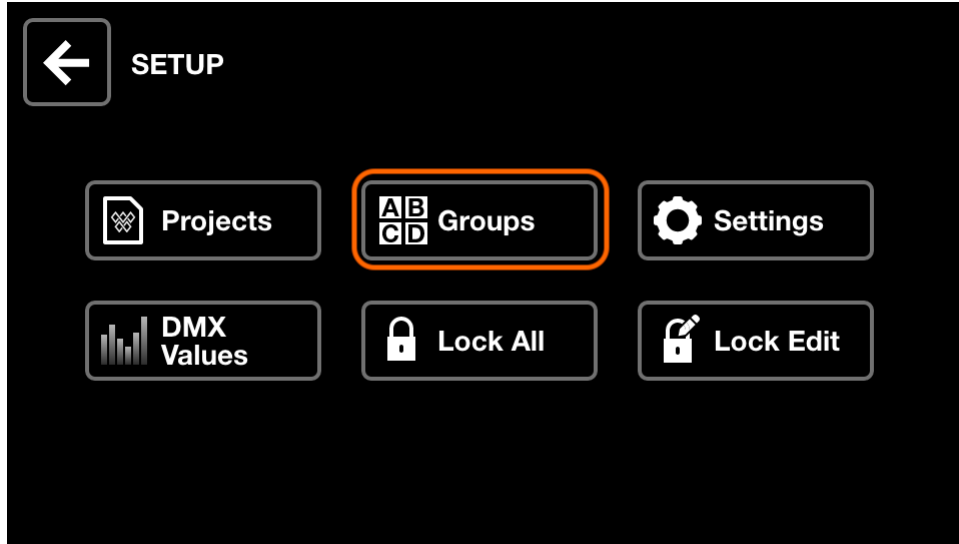


- The Matrix has 5 buttons per column:
- FULL: lights will solo, and go to 100% brightness
- FLASH: lights will solo, turn white, and go to 100% brightness
- COLOR/MOVE/BEAM FX: turn the effect on and off

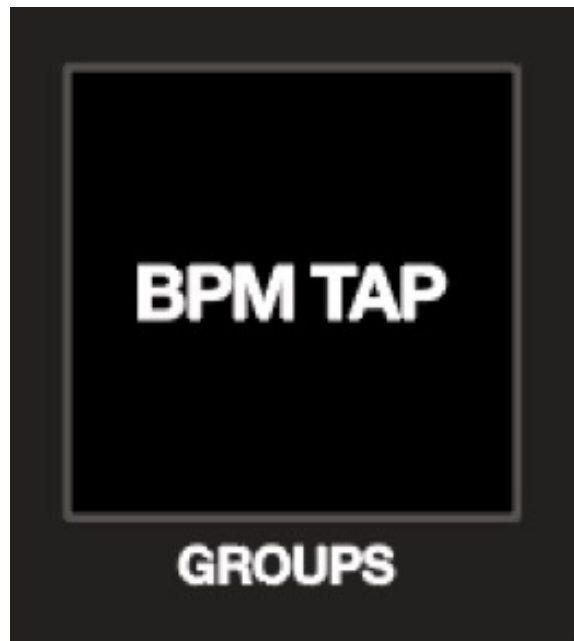


How should I use the groups?

Groups have been designed to be arranged by Fixture Type. For example, you could add your Moving Heads in Group A, Scanners in Group B, LED Pars in Group C... You can also combine different Fixture Types within a Group. For example, you could create a group called 'Uplighters' which could contain a mix of LED Bars and LED Pars. You can give a name to each Group within the Group settings screen.



There are 8 groups available. Shift + tap the BPM TAP button to toggle between bank 1 (A-D) and bank 2 (E-H).

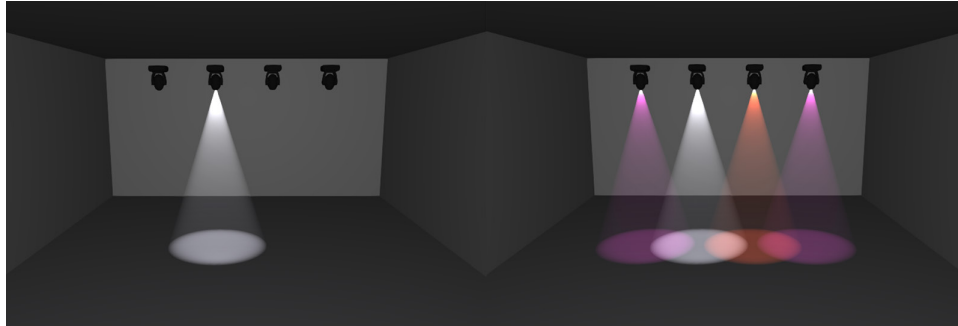


What else can I do on the home screen?

Holding the SHIFT button offers some special features:

- SHIFT + TURN ENCODER: Controls the Master Dimmer.
- SHIFT + PUSH ENCODER: locks the group so that its current state won't be changed when recalling a preset or tapping a FLASH button. This is great for locking uplighters from the rest of your project.
- SHIFT + FULL: lights will go to 100% brightness without solo.
- SHIFT + FLASH: lights will go to 100% brightness and turn white without solo

The image on the left below shows FLASH on group 2 without SHIFT. The image on the right shows the same but with SHIFT pressed.



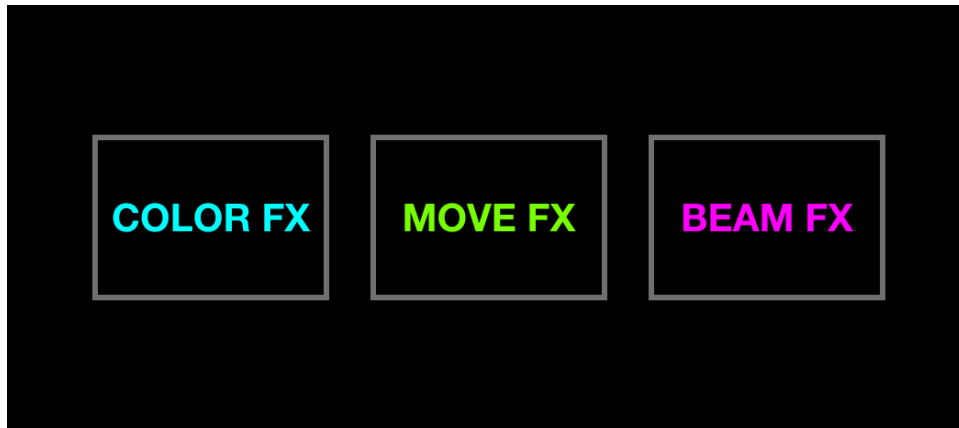
7 FX RACKS

What are the FX racks?

The WMX1 MK2 has 3 FX racks. Each rack is capable of generating 1 effect:

- COLOR FX: generates color changing effects such as a rainbow effect.
- MOVE FX: generates effects on Heads and Scanners, such as a circle effect.
- BEAM FX: generates dimming effects on beams, such as a chaser effect.

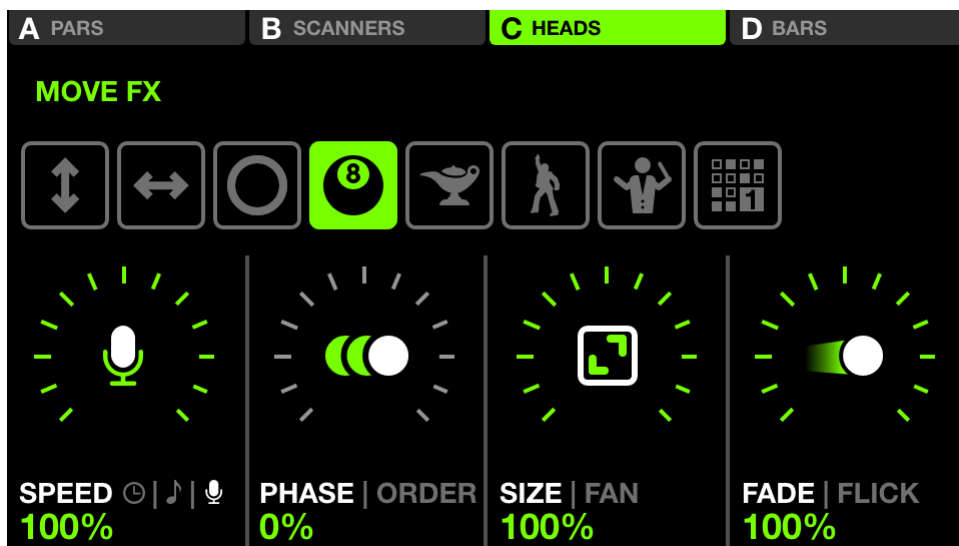
To apply the FX rack onto a group, tap one of the group buttons at the top of the touchscreen, or tap one of the 4 buttons on the top line of the matrix. FX racks can also be applied on the HOME screen.



Playing with FX

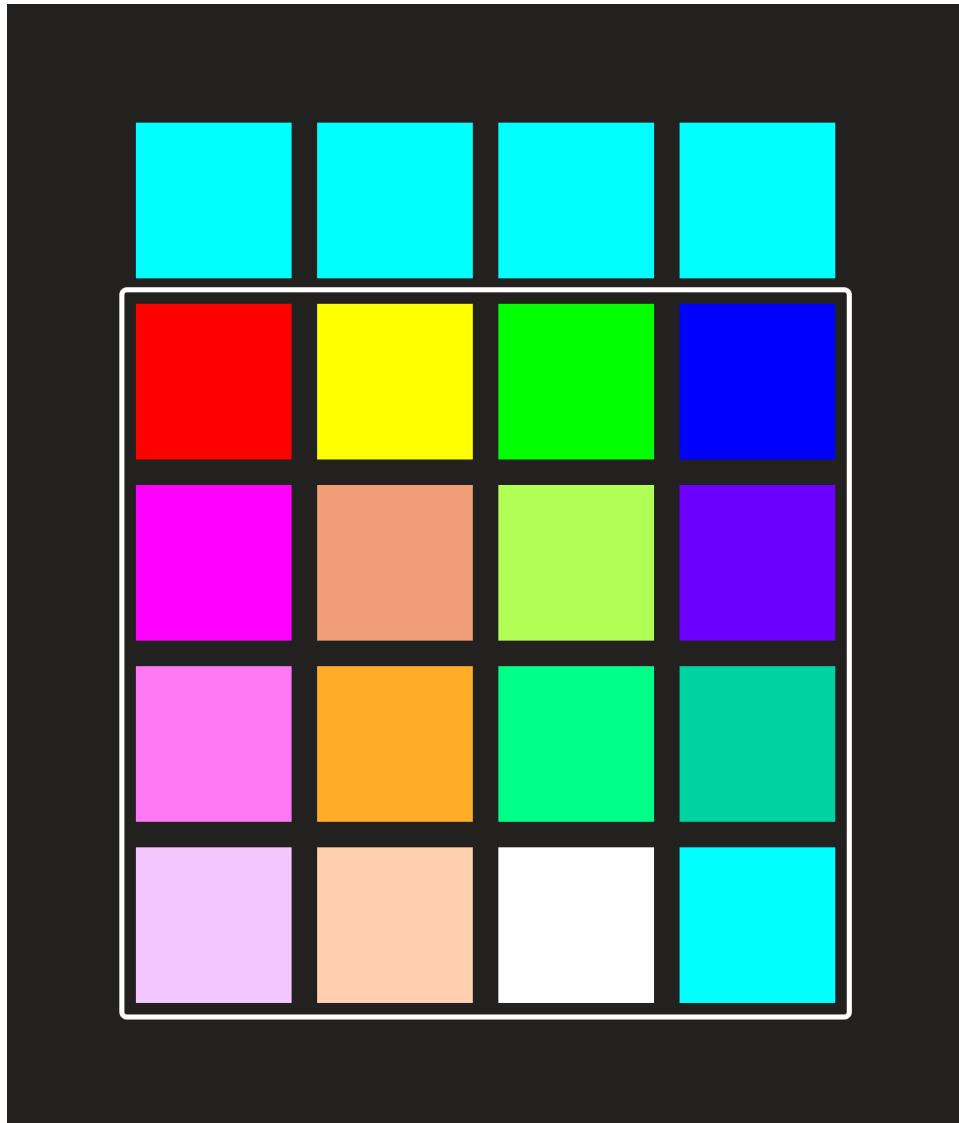
- TYPE: select a type by tapping one of the 8 FX type buttons
- SPEED: change the SPEED of an effect. Push the encoder to synchronize with the BPM. Push the encoder again to synchronize with the Microphone/Line in
- PHASE | ORDER: adjusting the PHASE adds a delay to each fixture, allowing for sweeping effects to be created. Changing the ORDER allows for an effect to be played forwards, backwards, or symmetrically.
- SIZE | FAN: adjusting the SIZE will create a slightly different result depending on the selected effect. Move FX will generally fill a larger area as the SIZE is increased. Adjusting the FAN will spread out the beams.
- FADE | FLICK: when the FADE value is low, the lights will jump between levels. Increasing the FADE will blend the levels. If FLICK is enabled, fixtures will fade slowly and then 'FLICK' to the next value

Tap an encoder to toggle between different parameters.



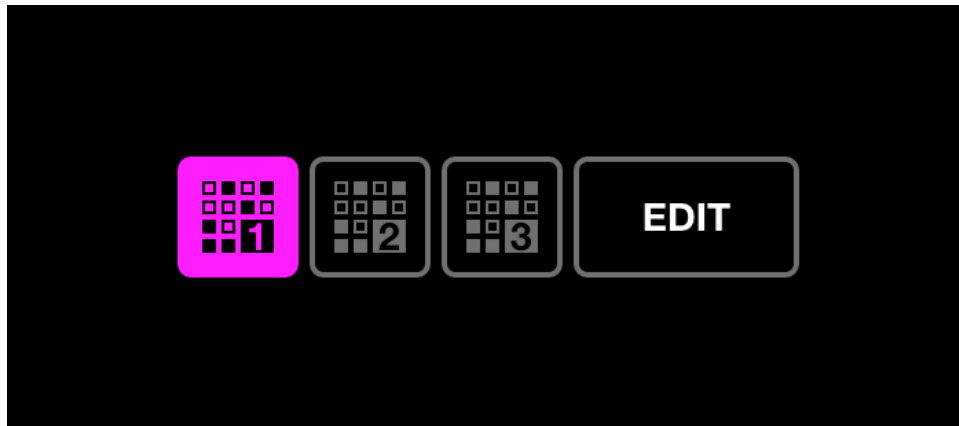
Editing Colors

When the COLOR FX screen is visible, a palette of 16 colors is shown on the Matrix. Select these colors to add them to your effect. The colors can be edited by shift + tapping the button. Note that the color palette is saved globally, so any updates to a color button will be applied to all effects and presets.

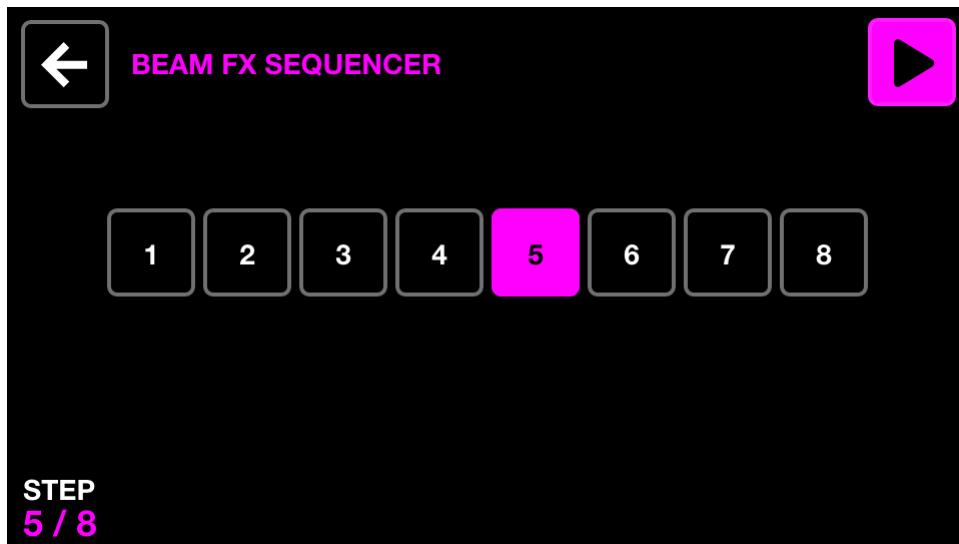


The sequencer

The MOVE FX and BEAM FX racks include a tool which allows you to sequence position and beam values. These values are calculated automatically depending which matrix buttons are active. To edit a sequence, select one of the sequence effects and then tap EDIT.



Each sequence contains 8 steps. Tap the light green or light pink buttons on the matrix to record a sequence live, or pause the sequence and select one of the 8 steps to edit. Sequences are stored globally, so any edits will be applied to all your presets.



8 SYNCHRONISING WITH MUSIC

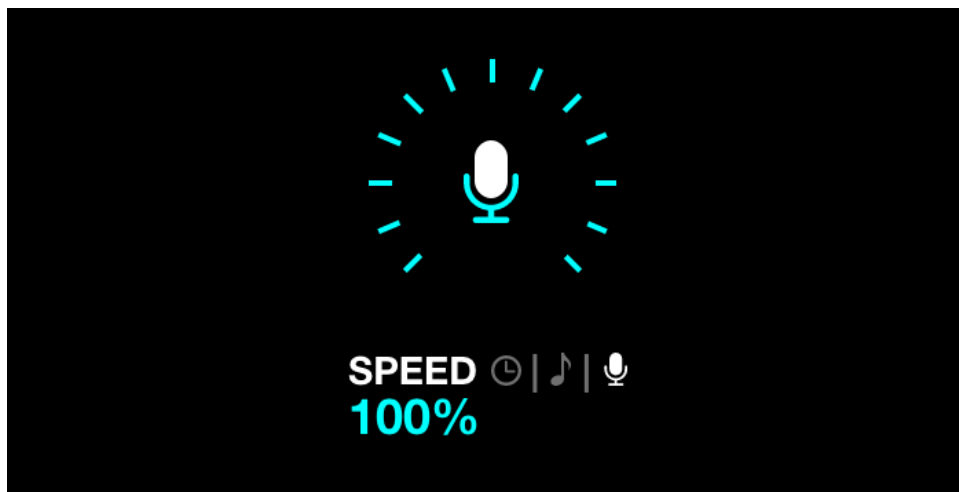
Why sync my light show with music?

Having lighting effects in time with the music can transform a show into a spectacle! The WMX1 MK2 offers several methods to sync lights and music.

Audio pulse sync

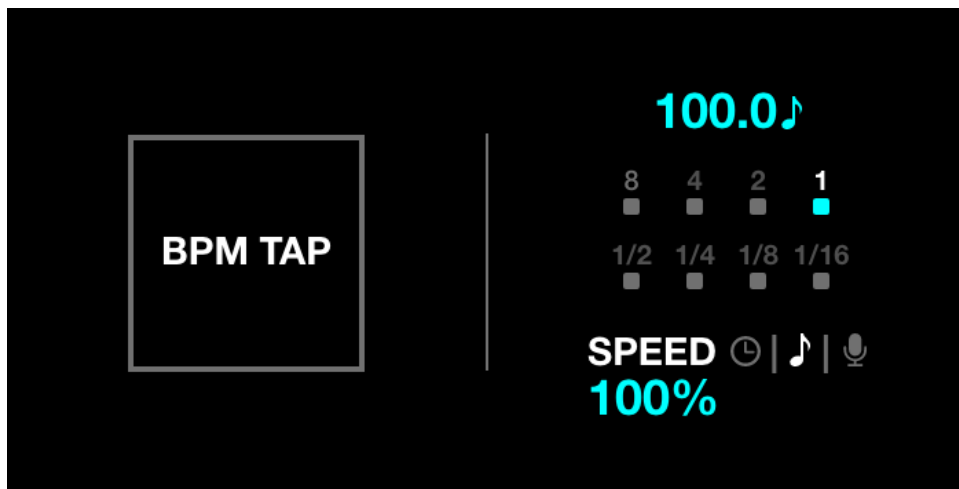
The easiest way to sync your lights with the music is to use the built-in microphone. Choose an FX Rack to sync, then push the first encoder twice. The Microphone icon will flash each time a beat is detected, and the effect will jump to the next point. The mic level gets set automatically with our very special analog beat detection circuit, however you can give the level an extra boost in the settings.

The microphone may pick up some unwanted noise, so we've added a mini-jack socket. Run a cable from your mixer and adjust the mixer volume to taste. The mic will be automatically disabled when you connect the jack cable.



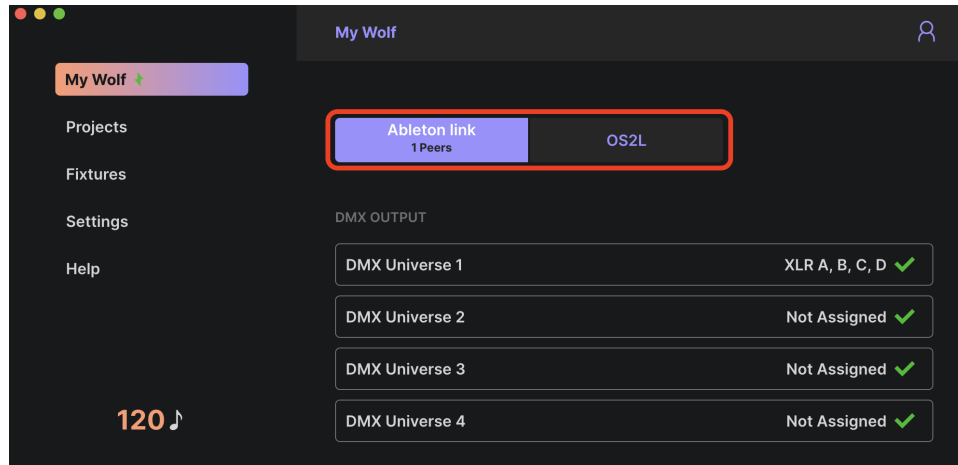
BPM sync

Effects can be timed and synchronized to a BPM. You've probably noticed by now that flashing button to the top right of the Wolf. Tap it a few times with the music to sync. Tapping this button once will re-sync the effects without changing the BPM. Choose an FX Rack and push the first encoder once. You can speed up and slow down an effect in proportion to the BPM by tuning the encoder.

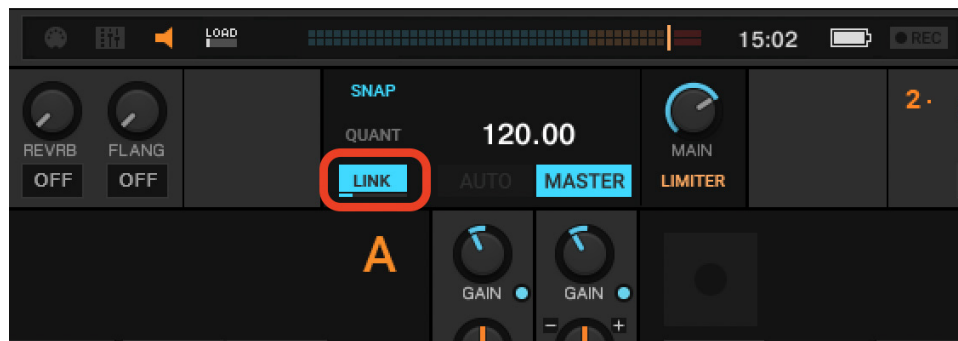


Ableton Link & OS2L

Ableton Link is used to synchronize the BPM between multiple applications. It's included with most DJ software packages and is very accurate as it takes the BPM calculated by the DJ software. OS2L is a similar system created by the team behind Virtual DJ. To use Ableton Link or OS2L, connect your WMX1 MK2 to a PC or Mac via USB 3, open WTOOLS, then click the Ableton Link or OS2L button.



For Ableton Link, open your DJ software and find the LINK button. The image below shows Native Instruments Traktor 3. Remember to push the first encoder in an FX Rack to set it to BPM sync mode.



For OS2L there's an extra step: configure Virtual DJ with ip 127.0.0.1 and port 5000 to establish the connection (eg. 127.0.0.1:5000). We've found that sometimes WTOOLS needs to be launched with OS2L enabled before starting Virtual DJ.

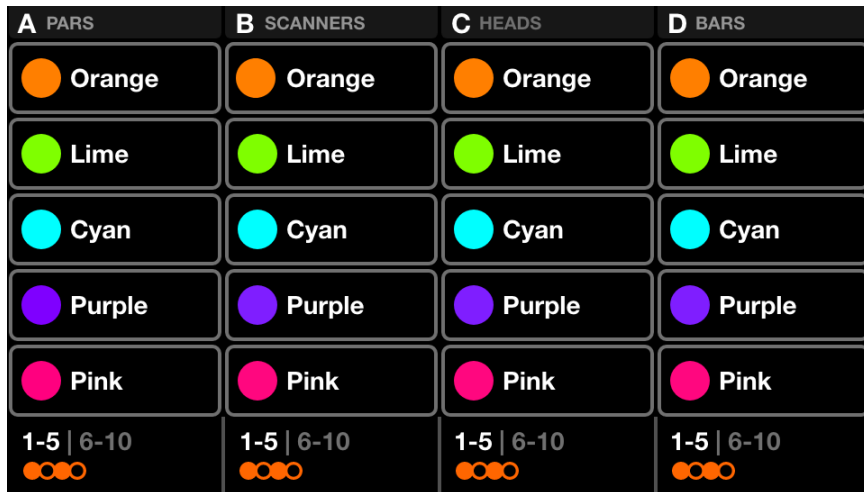
9 STATIC SCREENS

WMX1 MK2 has 4 screens for managing fixed, or Static levels. These screens allow you to set favorite positions, colors, gobos, and other levels. The values on these screens are saved globally, therefore any edits are applied to all presets.



Color

Each group has 10 slots on the color palette, allowing for 10 favorite colors to be selected. Tap the encoder to toggle between slots 1-5 and 6-10. Selecting more than one color will blend the chosen colors together across the group. Turning the encoder changes the blending option.



To change default colors, shift + tap one of the color buttons, select a new color and then tap the flashing button to save the changes. (Top tip: Tap the RGBWAU button to the top right to have independent control over your Amber and UV channels.)

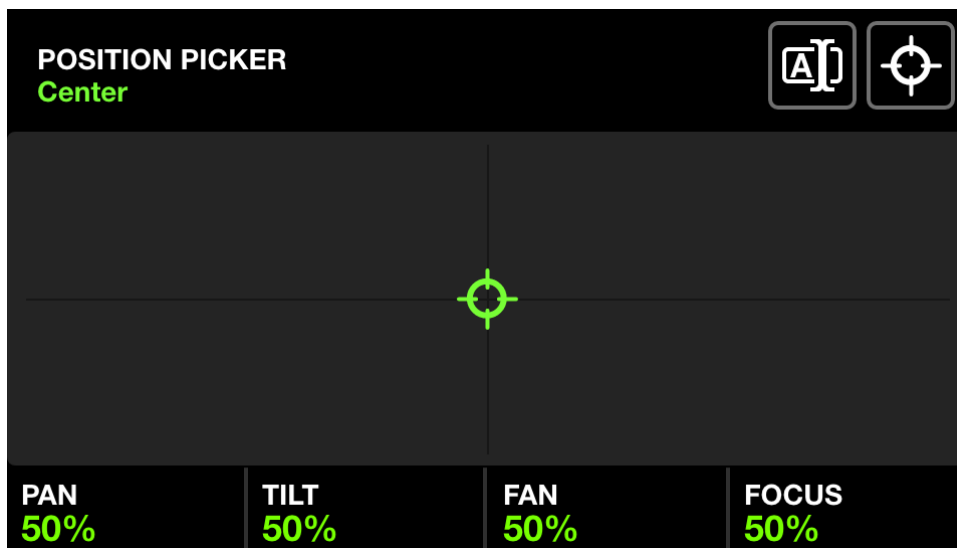


Position

Set your 10 preferred positions on the position screen. Move the encoder to set a FADE time between the positions. Tapping the encoder allows you to toggle between positions 1-5 and 6-10.

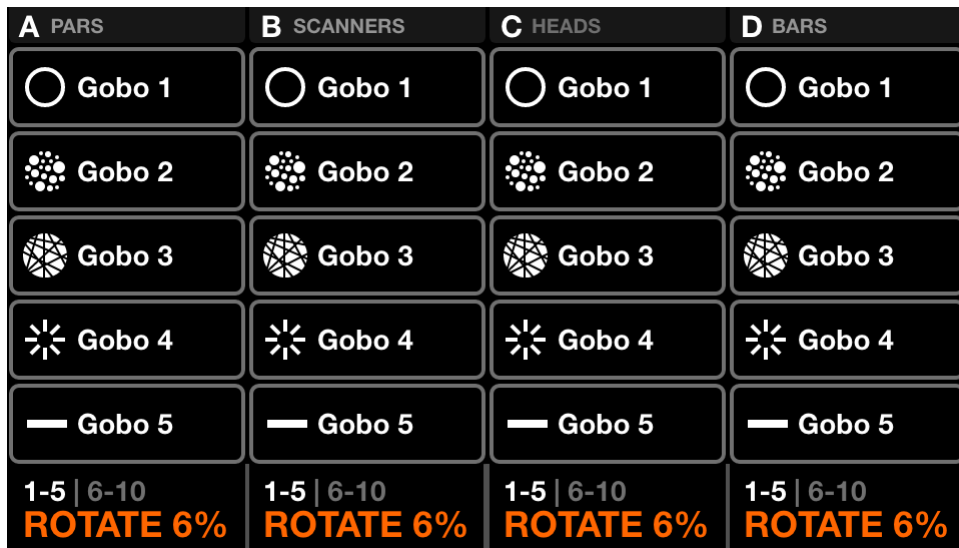
A PARS	B SCANNERS	C HEADS	D BARS
Floor	Floor	Floor	Floor
Center	Center	Center	Center
Center Point	Center Point	Center Point	Center Point
Ceiling	Ceiling	Ceiling	Ceiling
Ceiling Point	Ceiling Point	Ceiling Point	Ceiling Point
1-5 6-10 FADE 1s	1-5 6-10 FADE 1s	1-5 6-10 FADE 0s	1-5 6-10 FADE 0s

Shift + tap one of the position buttons to edit. Tap on the touch screen to change the position or set using the first 2 encoders. If you find some of the fixtures are not moving together, check they're correctly set up on the Fixture Limits screen. A FAN and FOCUS value can also be set for each position. (Top tip: Holding SHIFT whilst turning the encoders allows you to set a fine value.)



Gobo

Select your preferred 10 gobos on each fixture group. WMX1 MK2 looks at each fixture in the group and tries to match up similar gobos, but if you're looking to choose a different gobo, shift + tap one of the gobo buttons. Moving the encoder adjusts the gobo rotation.



Live Edit

Create up to 40 custom Live Edit buttons to set specific channel values. Check out the Live Edit guide for further info.

10 CREATING LIVE EDITS

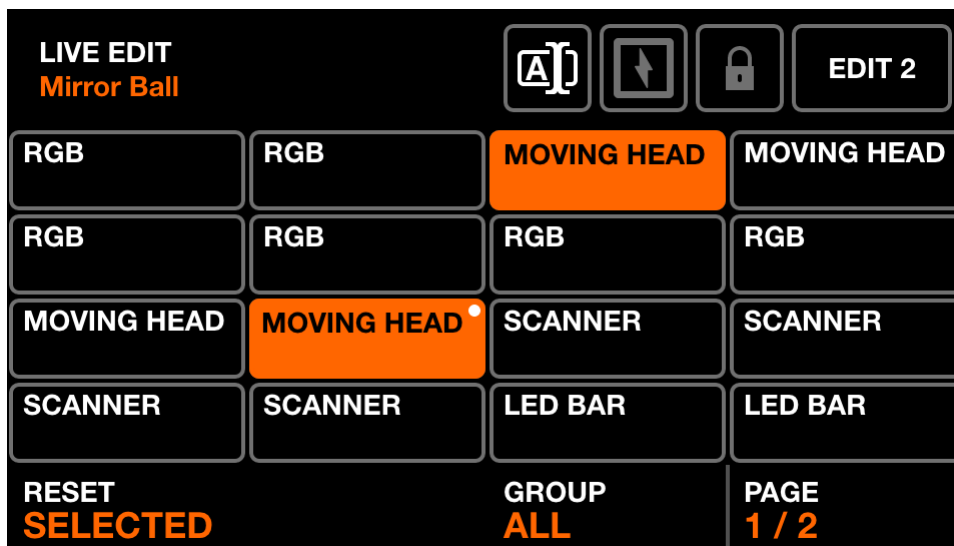
Why do I care about this?

WMX1 MK2 has 4 screens for managing fixed, or Static levels. These screens allow you to set favorite positions, colors, gobos, and other levels. The values on these screens are saved globally, therefore any edits are applied to all presets.



Creating a live edit

Tap an empty slot, or shift + tap a button to edit. A grid of all your light fixtures will appear. Tap the fixtures you want to edit and then tap the EDIT button in the top right corner to set the channel values. Use the first encoder to set the channel value. Tapping the encoder will show the selected channel's features (gobos/colors etc..). The REC DMX button to the top right will record the current DMX output frame and save it to the selected fixtures, allowing for you to quickly capture the live output without the need to manually adjust each channel.



If a fixture has been edited, a white dot will appear in the corner of the fixture's button. Tap the first encoder to reset the selected fixtures. Turning the encoder allows you to reset ALL fixtures.



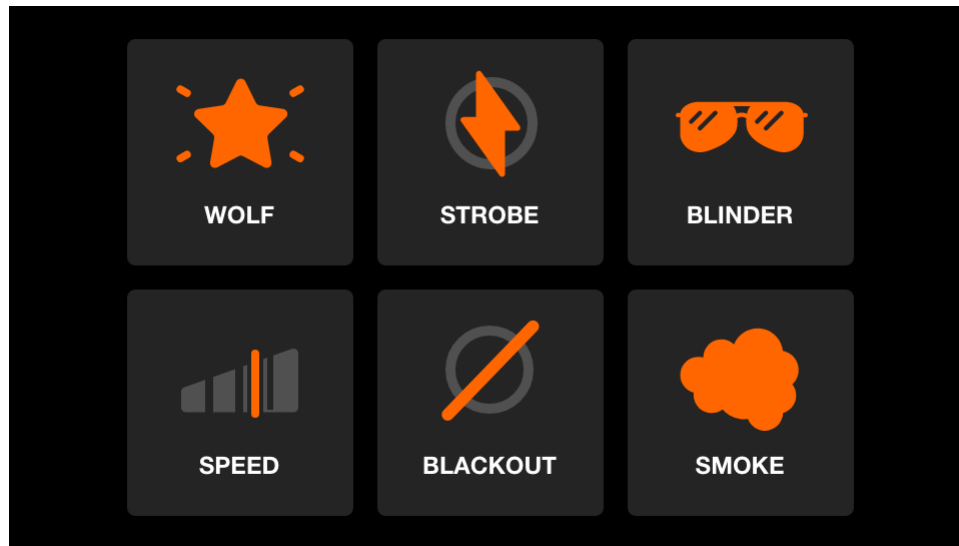
Flash and Lock

Tapping the FLASH button on the top bar will set the Live Edit as a FLASH button. The button will turn white and will activate on press and stop on release. The LOCK button will lock the live edit from being changed when a preset is recalled. This is useful if you want to create a live edit to overwrite your entire project. For example, you could create a live edit to reduce the brightness of some dimmer channels and have this applied to your entire performance. Locked Live Edit buttons are purple.

11 FLASH EFFECTS

Flash Effects

Flash effects are layered over the top of everything else. These can be used when playing live and are easily triggered on any screen by tapping one of the big buttons to the right.



- **WOLF:** A flashing paparazzi effect (flashing lights that simulate cameras), which can be used for buildups.
- **STROBE:** Flashes/strobes all lights. Use the first encoder to set the speed.
- **BLINDER:** Sets everything to full power. A fade out time can be set with the first encoder.
- **SPEED:** Multiplies the speed of all playing effects. Use the first encoder or top row of buttons to jump between FREEZE, 0.5x, 2x, 4x, 8x speed.
- **BLACKOUT:** Turns off all dimmers and closes all shutters.
- **SMOKE:** Triggers a smoke machine. Use the first encoder to set the intensity.

Release mode

The fourth encoder can be used to set what happens when releasing the flash button.

- **FLASH:** The effect will be triggered on press and stopped on release.
- **TOGGLE:** The effect will be toggled on and off each time the button is pressed.
- **1/5/10s TIMER:** The effect will be triggered on press and released automatically after the specified time.

If an effect is set to TOGGLE or TIMER mode, triggering another screen with one of the buttons on the left will not cancel an effect. For example you could trigger your smoke machine, then continue to play with the effects whilst the smoke machine is still active.

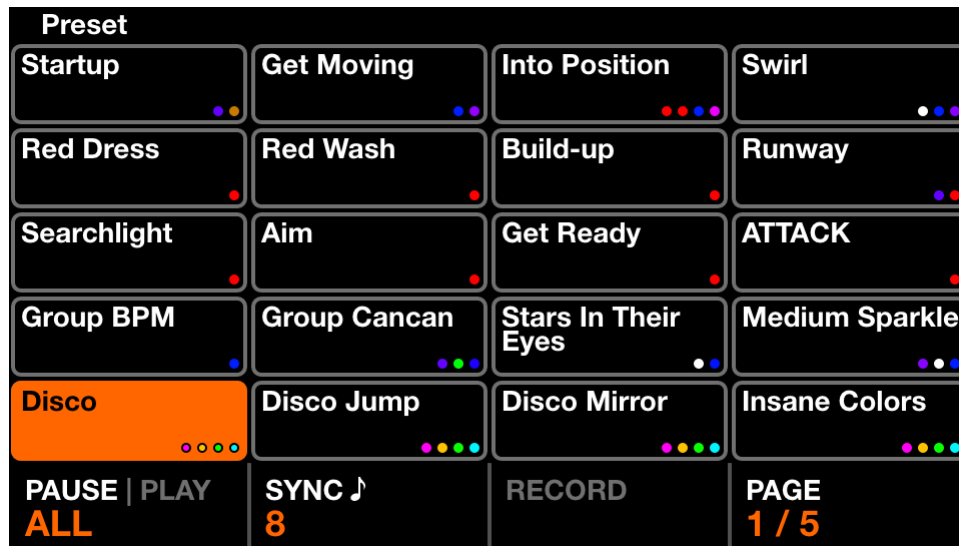
Disabling the Flash FX screens

The Flash FX screens can be disabled in the settings if you don't want to be distracted by them whilst playing live on another screen. When the Flash FX Screens are disabled, they can be accessed by shift + tapping a Flash button.

12 PRESET

What am I supposed to do with a Preset?

Presets are used to save the current values of all your effects, along with the status of Static palettes and Flash buttons. WMX1 MK2 comes with tons of Presets preloaded, but you can easily overwrite these by shift + tapping a Preset button. Each preset can have a Fade Time (third encoder). All values are seamlessly blended; WMX1 MK2 duplicates the entire beam processing engine to achieve this.



Preset list playback

Presets can be automatically played back like a cuelist in sequential order. Simply tap the first encoder to start playback. Each Preset has a Hold Time (second encoder), this is the delay before the next Preset starts. The Presets loop from 1-100. Twist the first encoder to loop the current page or column instead.

Preset flash

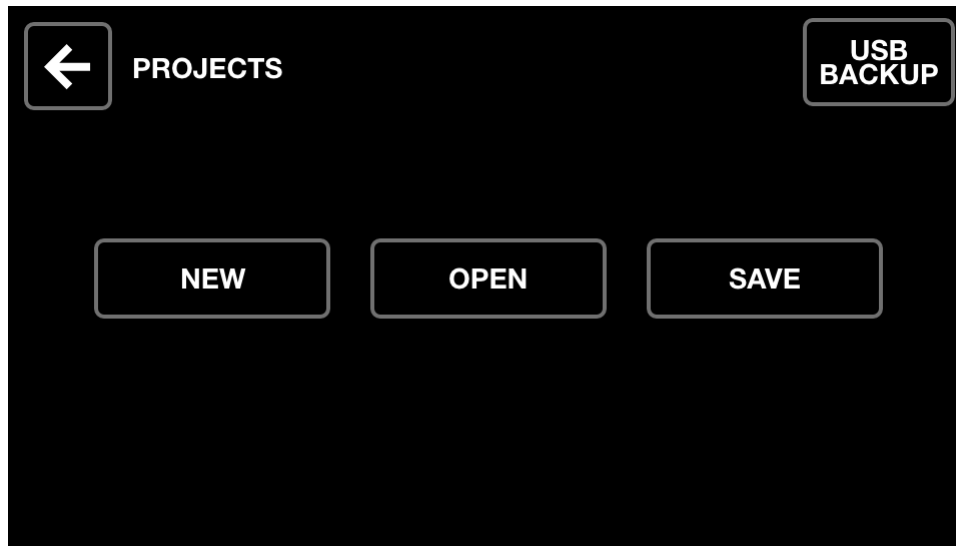
Tapping the second encoder sets Flash mode on the selected Preset. In Flash mode, the Preset will be released when the button is released, and the WMX1 MK2 will revert to the previous Preset.

If a Hold Time has been set on a Flash preset, this will act as a timed release. For example, if you have a 5 second hold time, once you let go of the flash button, 5 seconds will pass before the previous Preset is recalled. This is useful for creating bursts of effects where the beams can fly into the audience, flash a particular color, and after a couple of seconds continue where they were previously at.

13 MANAGING PROJECTS

WMX1 MK2 Projects

A WMX1 MK2 Project contains all your fixtures, presets and palettes. The Project screen can be located by tapping the Setup button to the upper right of the HOME screen, and then tapping Projects. Up to 6 different Projects can be saved on the WMX1 MK2. Use the left encoder to select a project and then tap the encoder to open or save the Project. Tapping NEW will reset everything to default, but will not overwrite any of the stored projects.

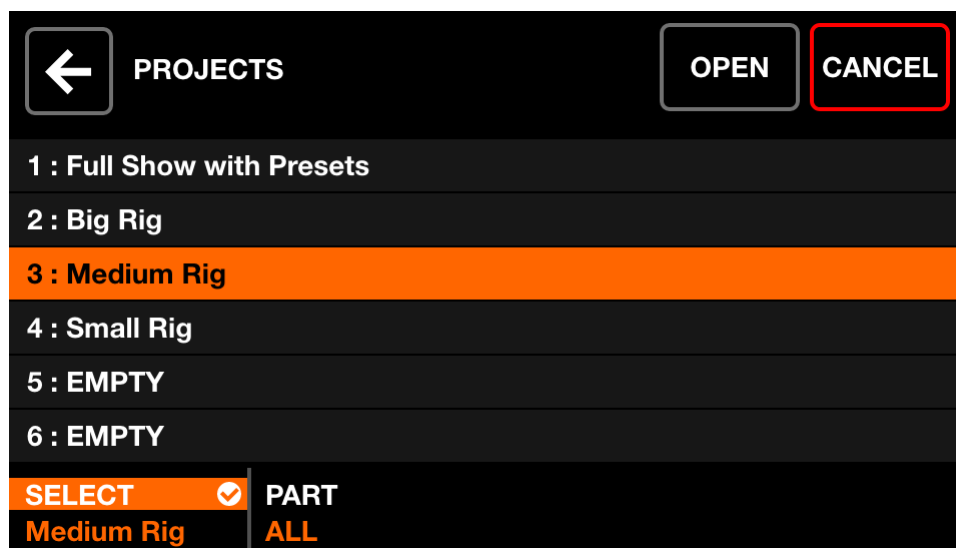


Project parts

You can choose which part of a Project to load with the second encoder.

- ALL: load everything
- FIXTURES: load just the fixture data
- PRESETS: load just the preset data

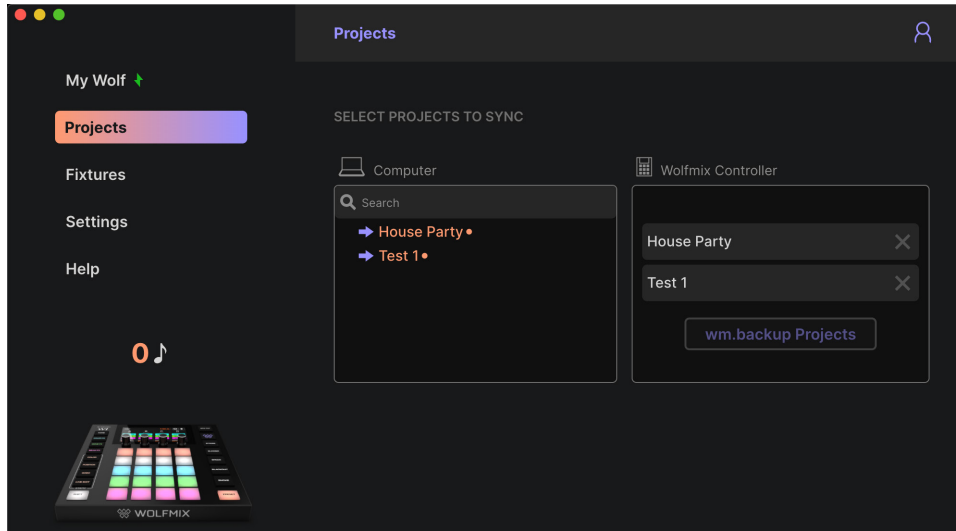
This allows you to separate your fixture data from your preset data. For example, you could have several Projects with different fixture setups, then one project with all your presets. Each time you arrive at a new venue, you can load just the fixture data from one of your saved projects.



Project backup

Projects and fixtures can be backed up to a memory stick [MK2]. Insert a memory stick formatted as FAT32 and tap the USB BACKUP button on the top right of the PROJECTS screen. All projects and included fixtures will be backed up. Projects and fixtures can be imported from the PROJECT OPEN and ADD FIXTURES screens.

Projects can be backed up with the WTOOLS app for PC and Mac. When a Project is backed up, it's automatically synchronized with your Nicolaudie Cloud account. This allows you to share Projects with other users and load onto other WMX1 MK2 controllers.



14 DMX VALUES

What is this screen for?

The DMX Values screen can be accessed by tapping the Setup button on the HOME screen. Here's a list of what you can do:

- See the level of every DMX channel.
- Test the level of a DMX channel with the first encoder (tap to reset).
- Set a default level for the channel with the second encoder.
- Enable/Disable fading by tapping the second encoder.
- Map a DMX IN channel with WLINK.
- Edit advanced Beam settings such as Shutter open value, Strobe value etc..

DMX VALUES Universe 2		U1	U2	U3	U4	⚙️
001 54	002 148	003 0	004 0			
005 84	006 91	007 5	008 112			
009 52	010 12	011 4	012 21			
013 255	014 244	015 0	016 5			
017 54	018 148	019 0	020 0			
TEST VALUE -	DEFAULT FADE 148	DMX IN FORCE -	CHANNELS 1 - 20			

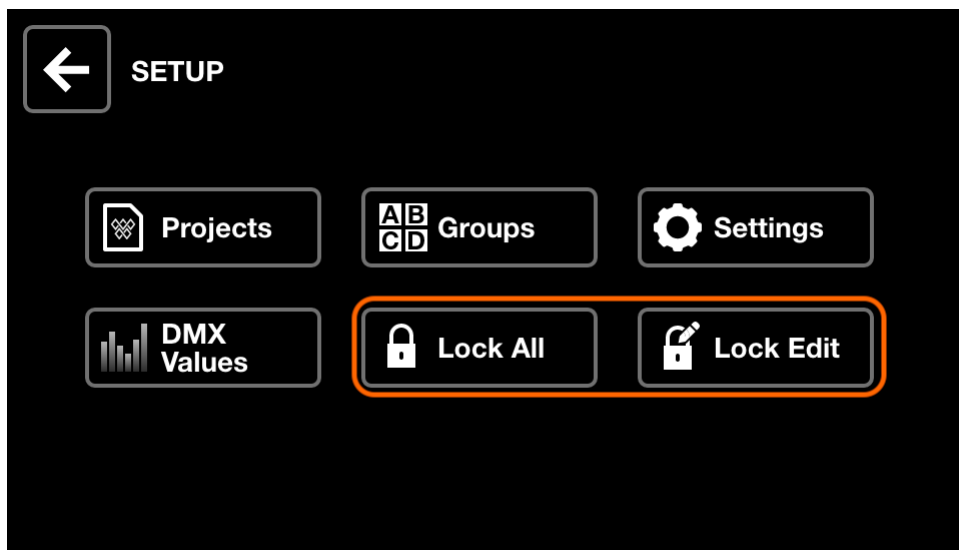
15 LOCKING YOUR WMX1 MK2

Lock All - Lock Edit

WMX1 MK2 can be locked with a password to prevent accidental or unauthorized access or editing. To lock the WMX1 MK2, tap the Setup button on the HOME screen and then tap one of the two Lock buttons.

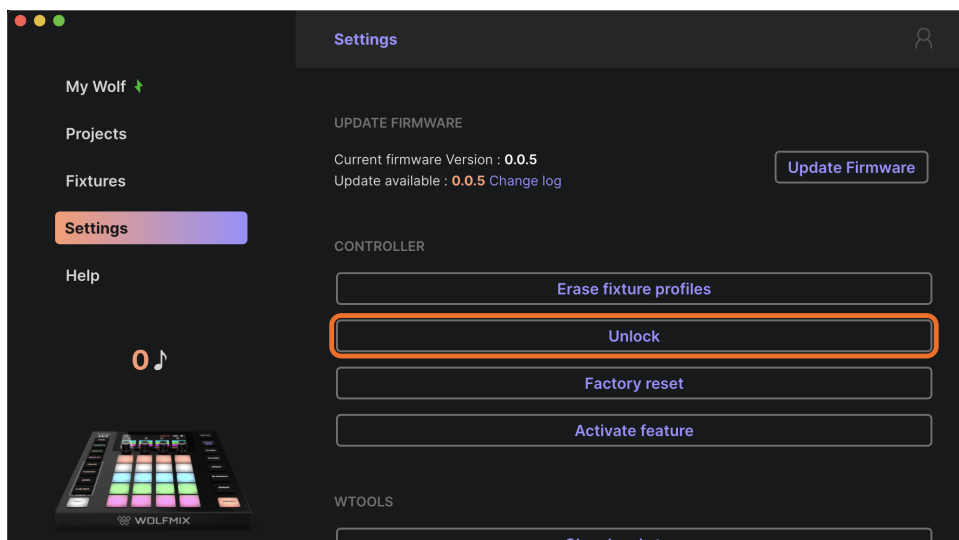
Lock All will lock everything. It won't be possible to access WMX1 MK2 until the password has been entered. Tap the padlock icon to the top right of the screen to enter the password. The default password is 'wolf' and this can be modified from the Settings screen.

Lock Edit will lock all Preset and Palette editor functions (when you shift + tap a button). The Fixture setup will also be locked. This mode is ideal when you want to allow the user to play with the lights without destroying your beautifully programmed light show.



I've forgotten my password

It happens to the best of us. To unlock without a password, connect WMX1 MK2 to the WTOOLS app, head over to 'Settings' and click 'Unlock'.

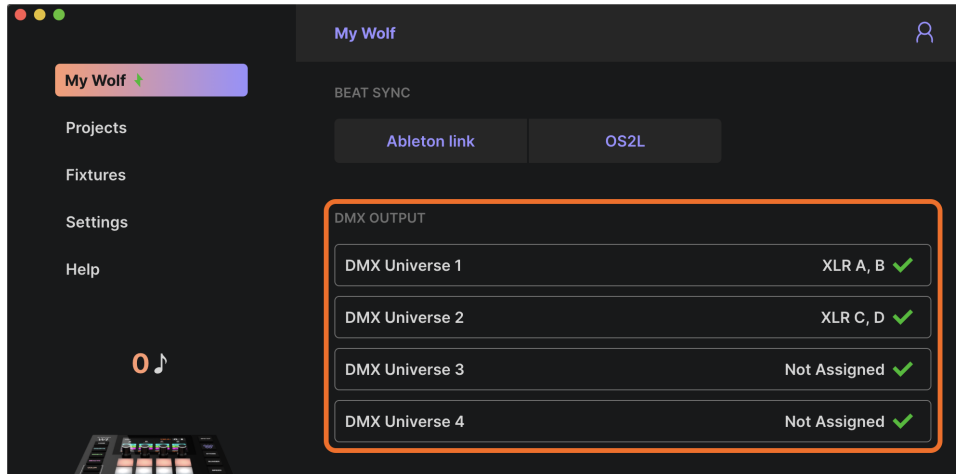


16 ASSIGNING DMX UNIVERSES

Adding more universes

WMX1 MK2 ships with 1 DMX universe. Universe 1 is assigned to XLR A and B, and with a purchase upgrade, Universe 2 can be assigned to XLR C and D. This allows the choice of 3 or 5 pin XLR and also allows for the Wolf to be used as a DMX splitter running 2 XLR cables per universe.

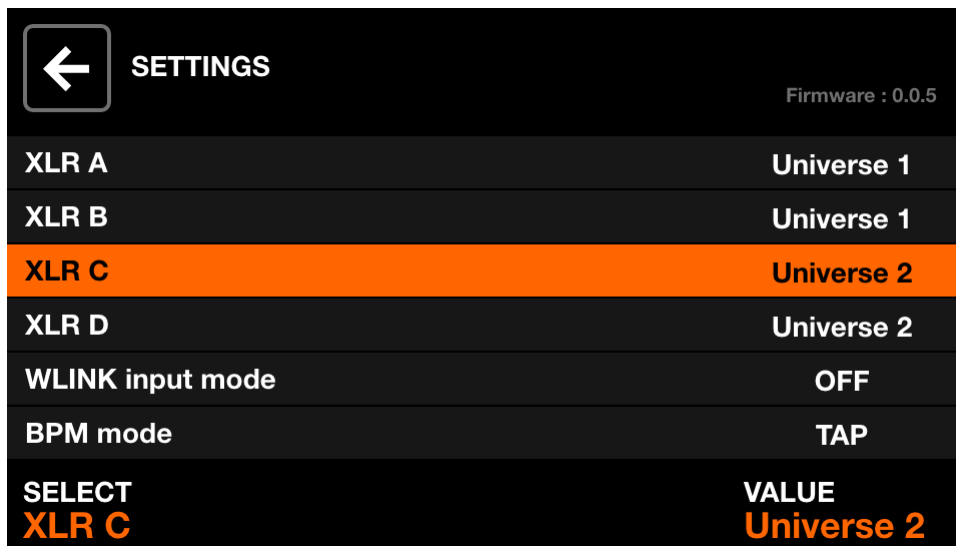
Additional DMX universes are available as an add-on through the WTOOLS app. Open the app, go to 'My Wolf' and then click the 'Buy Now' button next to DMX Universe 3 or 4.



Assigning universes

Each available DMX universe can be assigned to an XLR output on the controller. For example, you could duplicate DMX Universe 1 to all 4 XLR outputs (A-D) to use WMX1 MK2 like a splitter (to purchase additional universes, please see above). Alternatively, you could assign each DMX universe to each output for a total of 2048 DMX channels across the 4 XLR outputs.

DMX universes can be assigned in the Settings screen. Select the line corresponding to the XLR output with the first encoder, then select the DMX universe number with the fourth encoder. The image below shows universe 1 assigned to XLR A and B, and universe 2 assigned to XLR C and D.



17 LINKING 2 WMX1 MK2 UNITS

Benefits of 2 WMX1 MK2 units

The first benefit is that you get hands-on control of all 8 WMX1 MK2 groups. If you have a lot of different fixtures, it can be useful to split these into 8 groups and have direct access to each group on the HOME screen, or select colors on the COLOR screen.



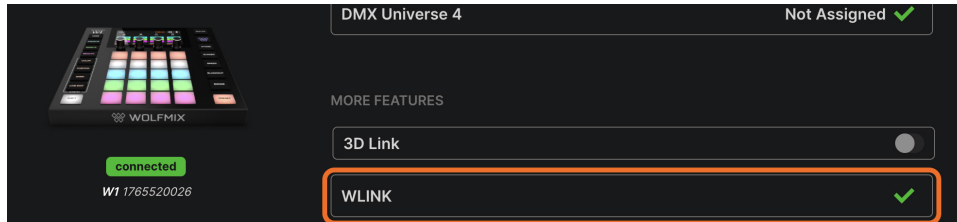
The second benefit is to be able to see 2 different screens at once. You could play live on the home screen of the left WMX1 MK2, whilst always having access to your presets on the right WMX1 MK2.



The third benefit is to be able to have 2 WMX1 MK2 controllers in 2 different places. For example you could install 1 WMX1 MK2 behind the bar connected to the lighting rig, then run a long DMX cable over to a second WMX1 MK2 in the DJ Booth. Alternatively you could put one WMX1 MK2 'Front of House', and a second WMX1 MK2 at the side of the stage.

Sync 2 WMX1 MK2's with WLINK

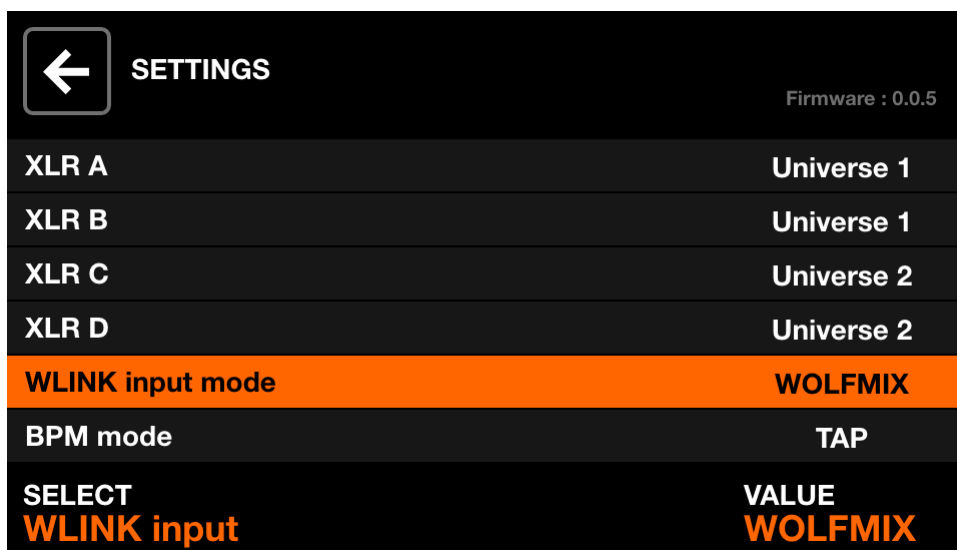
To set up WLINK, you first need the WLINK add-on. Connect the Wolf to a PC or Mac via USB 3, and open the WTOOLS app.



Once the WLINK add-on has been enabled, connect a 5pin Male - Male XLR cable to the WLINK socket of each WMX1 MK2. We supply an official WLINK cable for this. The cable can be extended with a standard 5 PIN DMX XLR cable.



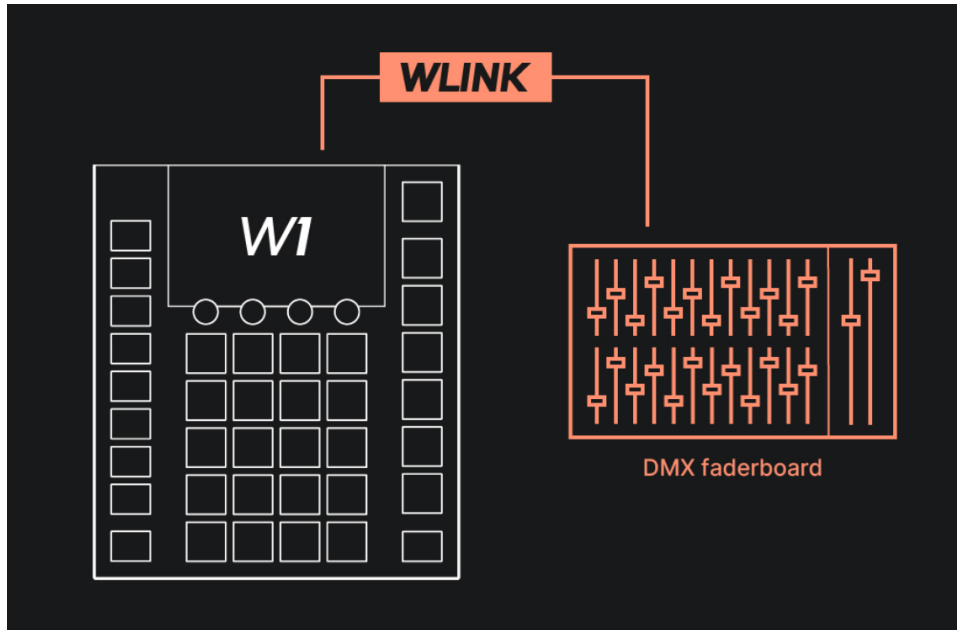
Finally, be sure both WMX1 MK2's have the same Project loaded, then head over to the Settings screen, scroll to WLINK input mode, and select WMX1 MK2.



18 LINKING WITH DMX FADERS

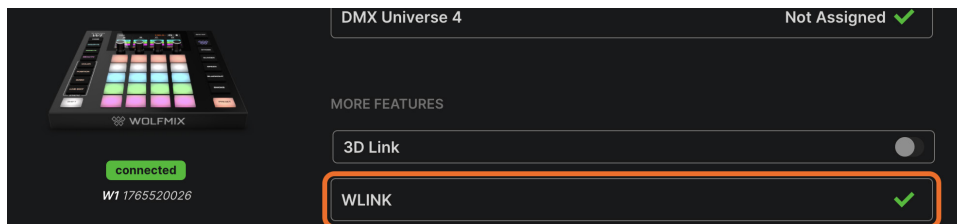
Wouldn't it be cool if the WMX1 MK2 had faders?

It's not easy with encoders in a live performance environment to slowly, and manually, adjust a lights dimmer, so we did the next best thing - allow for a DMX controller to be connected via the WLINK socket.

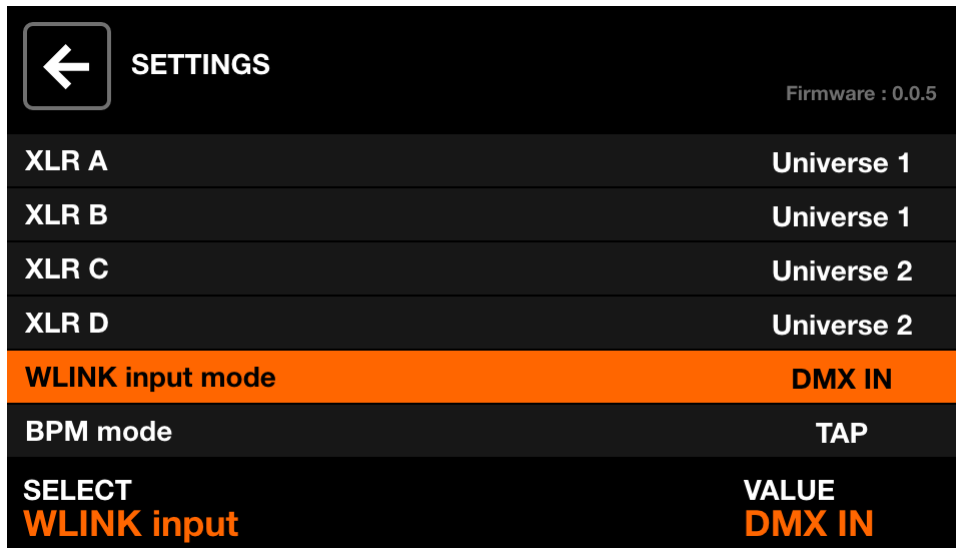


Setting up WLINK

To set up WLINK, you first need the WLINK add-on. Connect the Wolf to a PC or Mac via USB 3, and open the WTOOLS app.

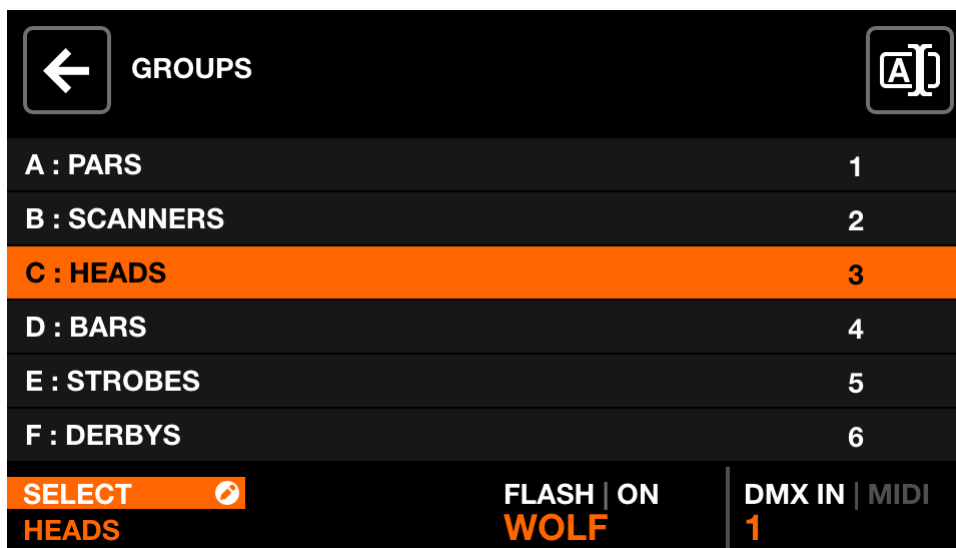


Once the WLINK add-on has been enabled, connect a cable from your DMX fader board to the 5 pin WLINK socket. Depending on the cable, you may need a Male-Male XLR adapter. Finally, head over to the Settings screen, scroll to WLINK input mode and select DMX IN.



Mapping a DMX input channel to a group dimmer

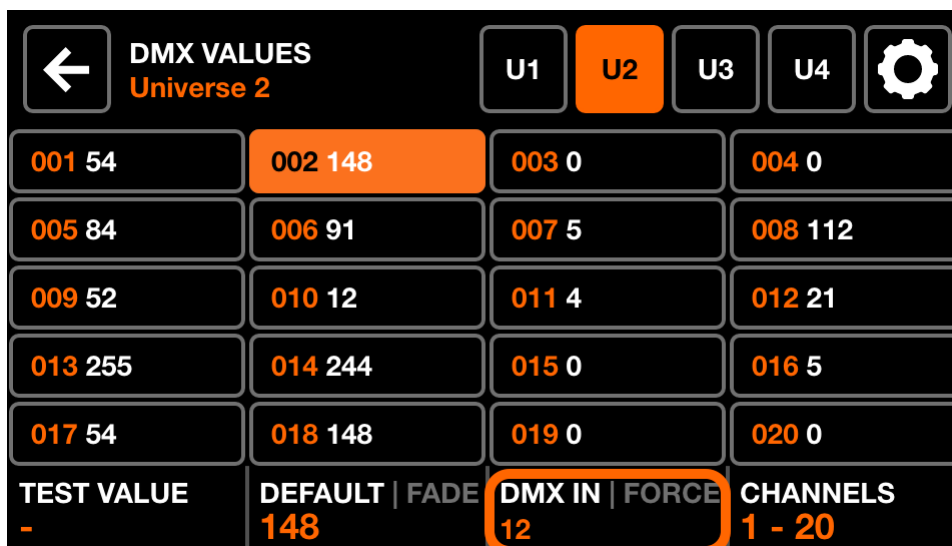
By default, channels 1-8 are mapped to group dimmers A-H, and channel 9 is mapped to the Master dimmer. To edit this, tap the Setup button on the HOME screen, then tap GROUPS. Use the fourth encoder to select the DMX input channel, or shift + tap the fourth encoder and move the fader on your DMX faderboard to map automatically.



Mapping a DMX input channel to an output channel

DMX IN faders can also be mapped directly to DMX output channels. This is useful if you have a large set of faders you want to use for manual control (e.g. dimming some traditional PARs). You could also turn the WMX1 MK2 into a DMX merger should you wish to control certain sets of lights from another DMX controller.

DMX channel mappings can be made from the DMX VALUES screen. Select a channel on the grid, then select the DMX IN channel to map using the third encoder, or shift + tap the encoder and move the input fader to map automatically. Once a fader has been mapped, it will override the value until the channel is changed by the WMX1 MK2 (e.g. when changing preset or enabling an effect). If you want your input fader to always take priority, tap the third encoder to FORCE the mapping.



The screenshot shows the 'DMX VALUES' screen for 'Universe 2'. At the top, there are four encoder buttons labeled U1, U2, U3, and U4, with U2 highlighted in orange. To the right of these buttons is a gear icon for settings. Below the buttons is a grid of 20 channel value buttons, arranged in 5 rows and 4 columns. The values are: Row 1: 001 54, 002 148 (highlighted), 003 0, 004 0; Row 2: 005 84, 006 91, 007 5, 008 112; Row 3: 009 52, 010 12, 011 4, 012 21; Row 4: 013 255, 014 244, 015 0, 016 5; Row 5: 017 54, 018 148, 019 0, 020 0. At the bottom of the screen, there are four control buttons: 'TEST VALUE' (with a '-' below it), 'DEFAULT | FADE' (with '148' below it), 'DMX IN | FORCE' (with '12' below it and an orange border around the text), and 'CHANNELS' (with '1 - 20' below it).

DMX VALUES		U1	U2	U3	U4	Settings
001 54	002 148	003 0	004 0			
005 84	006 91	007 5	008 112			
009 52	010 12	011 4	012 21			
013 255	014 244	015 0	016 5			
017 54	018 148	019 0	020 0			
TEST VALUE -	DEFAULT FADE 148	DMX IN FORCE 12		CHANNELS 1 - 20		

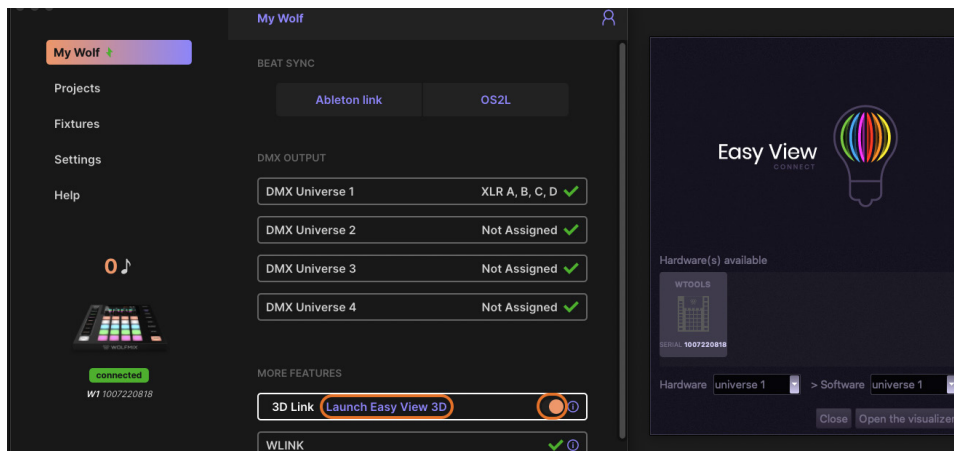
19 EASY VIEW 3D VISUALIZATION

The Easy View 3D Add-on

Easy View is a 3D visualization software package which allows you to create your light show away from the stage. Add Moving Heads, Scanners, Pars, Bars and other objects in a 3D environment and visualize the DMX output from WMX1 MK2 in real-time with a simple USB connection.

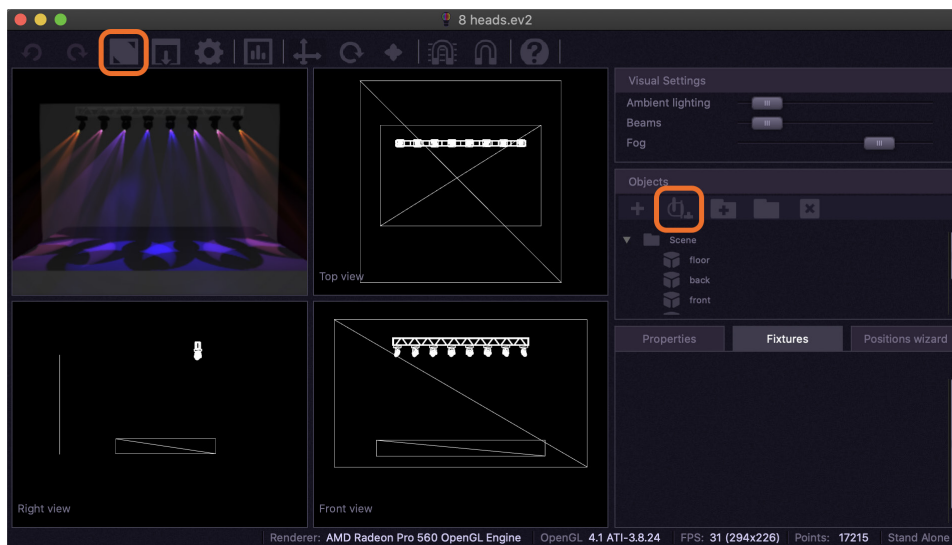


The Easy View 2 software is available to download from the WMX1 MK2 website for free; however, to send DMX data from WMX1 MK2 to Easy View 2, the 3D Link add-on is required. This can be purchased through the WTOOLS app. Once the add-on is enabled, open Easy View Connect first, and turn on the 3D Link switch second. Your WMX1 MK2 should then appear in the Easy View Connect window.



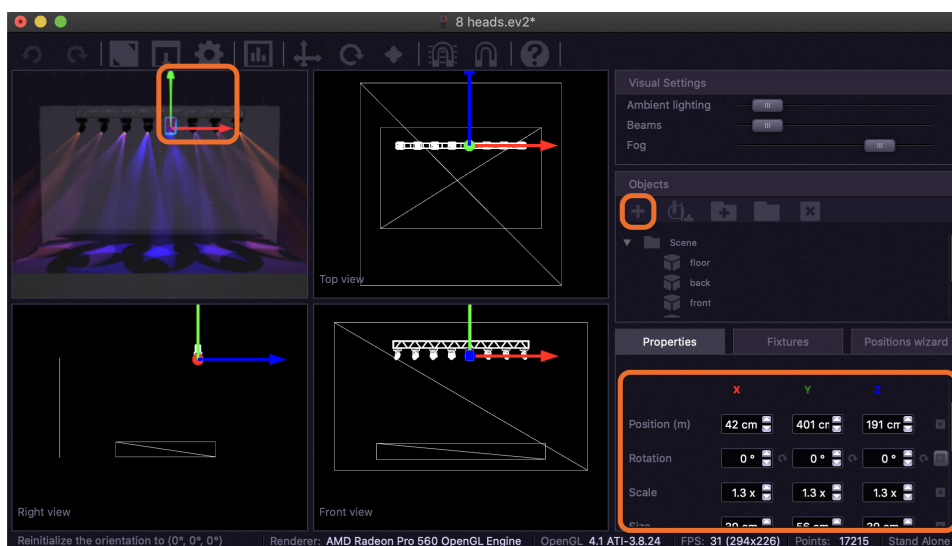
Adding light fixtures to Easy View

Enter 'Build View' to create your 3D stage. Click 'Add Fixture' to choose one or more lighting fixtures to add. Be sure the DMX start address matches the address set on WMX1 MK2. Easy View is compatible with any SSL2 fixture profile. This is the same format available in the public library through WTOOLS. If your profile is missing, head over to cloud.lightingsoft.com to download the latest version. Note: at this time, fixture profiles created directly on the WMX1 MK2 controller are not compatible with Easy View 2.



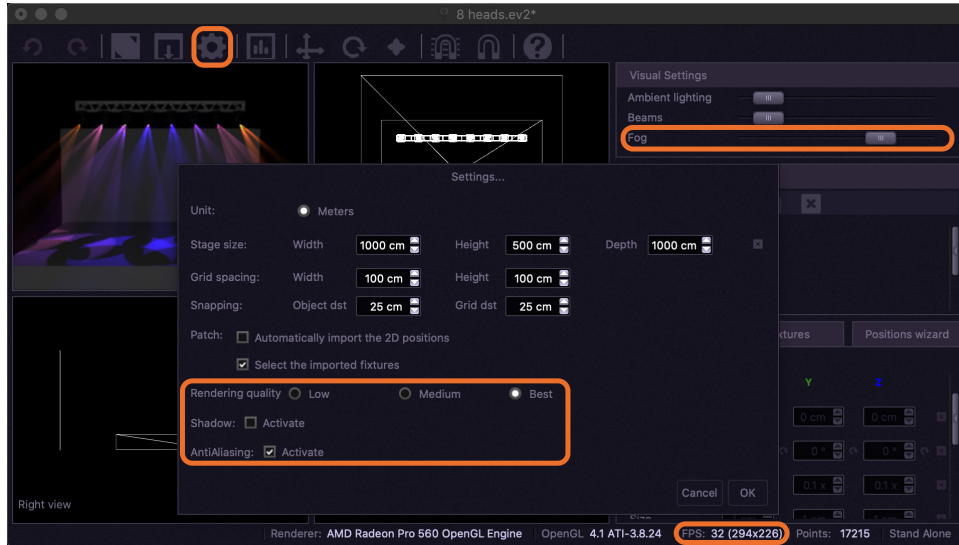
Positioning fixtures and objects

Additional objects such as stage, truss and people can be added by clicking the 'Import 3D Object' button. Light fixtures and objects can be positioned by selecting and dragging the object, dragging one of the 3 direction arrows, or by manually entering the X/Y/Z coordinates to the bottom right.



Other settings

Visual settings such as Ambient lighting, Beam Intensity, and Fog Density can be adjusted to the top right. Easy View requires a powerful graphics card for smooth playback. If the FPS drops too low, try setting the Fog level to 0, remove Anti-Aliasing, Shadows, and reduce the render quality in the Settings window. Reducing the screen size will also speed up the rendering.

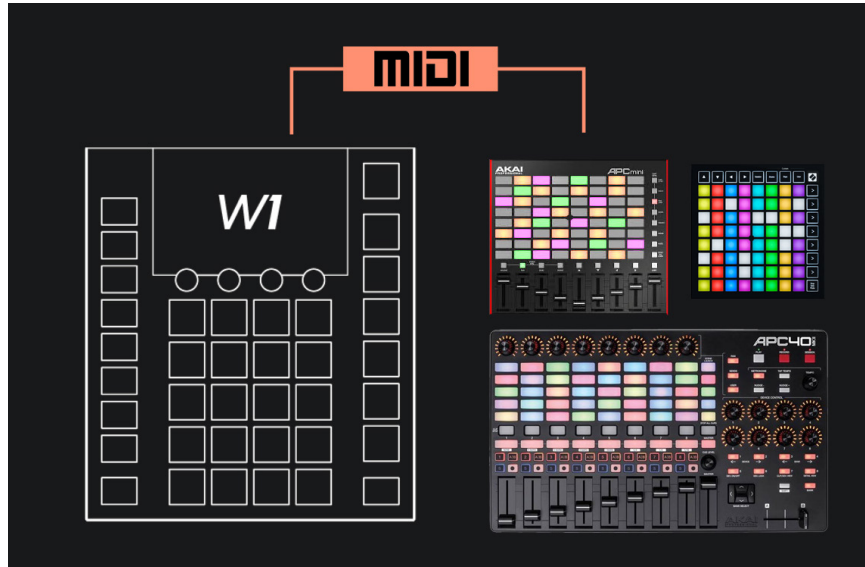


20 MIDI CONTROL

Controlling WMX1 MK2 with MIDI

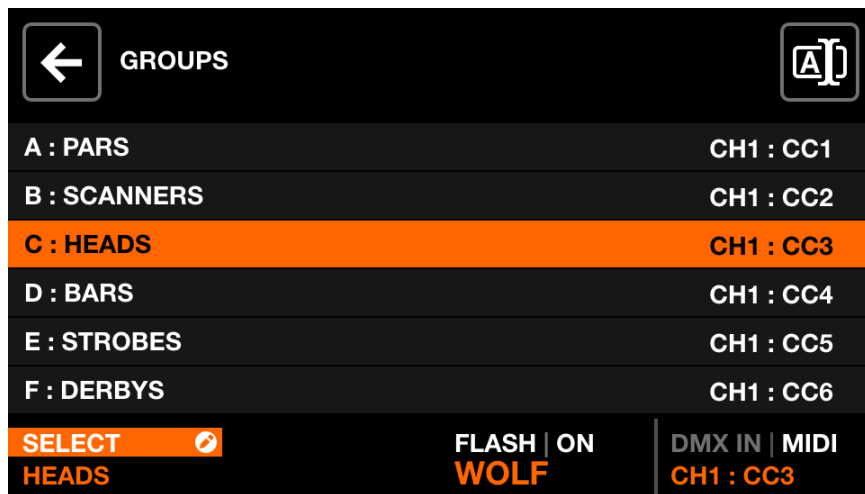
The WMX1 MK2 has a USB-A socket to connect a MIDI device. There are 3 ways to use MIDI with WMX1 MK2.

1. Map faders to control group dimmers.
2. Map buttons or messages from a playback device to trigger Presets.
3. Sync effects with the BPM using MIDI Clock.



Mapping Dimmers

Dimmers are mapped from the GROUPS screen. Tap the fourth encoder to select MIDI, and then either turn the encoder to select the MIDI channel and message type (Note or CC). Shift + tapping the encoder will auto-learn the last MIDI message received.



Mapping Presets

Presets are mapped in a similar fashion. Edit a preset and then use the fourth encoder to set the channel and message type. Preset mappings also send a MIDI out value, to light up a button on a MIDI controller for example. By default, when a MIDI IN message is received, the same message is sent to MIDI OUT. The value can be changed by tapping the fourth encoder and selecting the desired value. For example, some MIDI controllers use the value to set a button color.

MIDI Clock

WMX1 MK2 effects can be synchronised with the BPM using MIDI clock. There is no setup required on the WMX1 MK2 side. Simply send MIDI clock from your MIDI device, and WMX1 MK2 will read it and sync your effects, as long as the effects are set to BPM mode.

USB MIDI DIN

If the device you wish to connect has a traditional MIDI DIN socket, you can use a generic USB MIDI adapter. Be sure to pick an adapter that doesn't require a custom driver, these devices are usually labelled "Generic MIDI". This is a great way to connect the WMX1 MK2 with a show controller. For example, you could connect it with a computer's Audio/MIDI interface to synchronise Presets with video, audio, or show control software using MIDI Note and CC messages, or a DJ mixer to synchronise with MIDI clock.



21 USEFUL INFORMATION

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.

USB connection troubleshooting

If your WMX1 MK2 is not detected by WTOOLS, this problem can happen when the computers USB hub cannot provide enough power to the WMX1 MK2. A few things to try before contacting us:

- Remove any external USB hub adapters and connect the Wolf directly to your computer. Some USB hub adapters are not compatible including the official Apple USB adapter.
- Be sure you're using the included USB-B cable.
- Be sure you're connected to a USB3 bus. USB2 may not provide adequate power.
- If using a PC, Windows 10 or higher is required.

If you're still experiencing problems, check if the WMX1 MK2 appears in the Windows Device manager or the Apple Network Preferences (on Mac, the Wolf appears as a 'USB Modem').

SPECIFICATIONS

Setup

- Standalone (no computer needed)
- Compatible with any DMX device
- Standard unit comes with 2 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 powered
- Sync with Ableton Link & OS2L via a computer
- Link with MIDI faders and sync with MIDI clock
- Backup projects and fixtures to a memory stick

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

