MIX CONTROLLER

- 218 X 85 X 62 MM / 8.6 X 3.3 X 2.4 ''

- MAX 200 W

- 0.480 KG / 1 LBS

- CSA   CE   RoHS   IP20

MIX Controller is required to operate one MINI MIX or one SL1 MIX head lamp.

The MIX controller has the following communication protocols inbuilt:
› Proprietary "MIX Communication Protocol" via Bluetooth with the myMIX app, up to 14 lights connected at the same time.
› DMX 512 (with RDM) via XLR-5 or wireless CRMX by LumenRadio (Timo FX transceiver).
› ArtNet via LAN (RJ45) and WiFi.

✦ 🛜 **DMX 512** ⦿ lumenradio

Input / output Voltage: 12 to 30VDC.
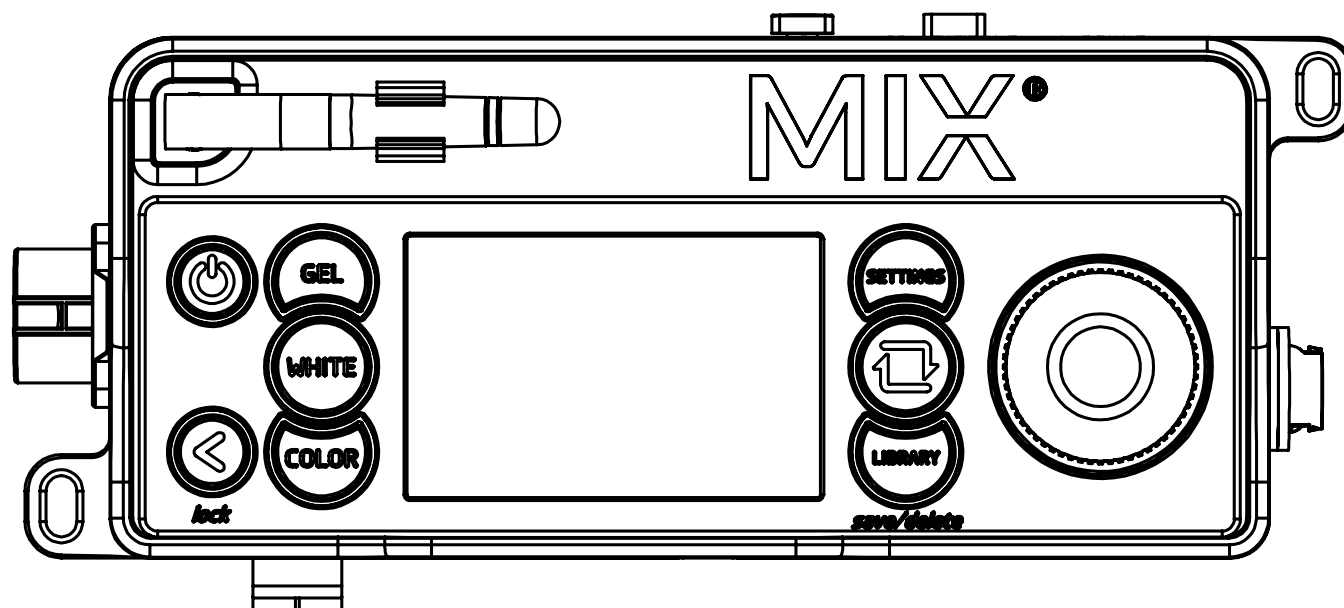The MIX controller is RDM enabled.
In-built mini-USB for upgrades.

Warning for battery operation:
The controller can accept v-mount or gold-mount batteries.
For the MINI MIX: input battery voltage from 12 to 30VDC.
For the SL1 MIX: input battery voltage is **only 24 to 30VDC.**

TABLE OF CONTENT

DISCLAIMERS

General precautions
• DMG Lumière products are designed for professionals and should be used only by lighting technicians. Not for household use.

Risk of falling
• All lights must be secured with an appropriate safety system (additionally to the mounting system provided). All lamp heads have security cables attached for this purpose. If not used, there is a high risk of accident, falling or death.
• Make sure the slings or chains chosen to secure the light comply with the country's security standards.

Risk of electric shock and fire
• High voltage when using with Powerbox and External Power Supply, or all mower case.
• Use only the power supplies sold by DMG Lumière to power the lights.
• When inputting 220V or 110V AC current, make sure the Powerbox is connected to the ground before using.
• Do not open the product. There are no user serviceable parts inside.

Overheating
• Do not operate the product if the ambient temperature exceeds 40° C.
• Intensive use can cause the surface to become hot .
• Let the product cool down completely before you handle it.
• Do not cover the air vents!

Intense light
• Do not look at the light directly.

Warnings
• Stage and Studio Use Only.
• Dry Location Only.
• Hazardous Voltage.
• Risk of Electrical Shock.
• Disconnect Power Before Servicing.
• Not For Residential Use.
• Not for household use.

• CERTIFICATIONS

Approvals
EU Safety :
• EN 55015:2013
• EN 61547:2009
• EN 61000-3-2:2014
• EN 61000-3-3:2013
• EN 61000-4-2:2009
• EN 61000-4-3:2006+A1:2008+A2:2010
• EN 61000-4-4:2012
• EN 61000-4-5:2006
• EN 61000-4-6:2009
• EN 61000-4-8:2010
• EN 61000-4-11:2004

FCC :
• 47 CFR of part 15

CSA and UL :
• CSA C22.2 No. 250.4-14
• CAN/CSA C22.2 No. 250.13-14
• UL Standard No. 153
• UL Standard No. 8750

Certifications
ROHS :
• EPA3050B:1996
• EN1122B:2011
• EPA3052:1996
• EPA7196A:1992
• APE3540C:1996
• EPA8270D:2007

Europe :
EN / IEC 62471

Power Cut Safety
If power is cut inadvertently the controls will turn back on automatically when power is back.
The controls will always turn back on in the last state it was.
The last state of controls is automatically saved every three seconds.

MIX   **CAPTURE**   **SAVE**   **SHARE**

MIX CONTROLLER LOCAL USER INTERFACE

2. GEL

Sets the light in gel mode.
Short press: Enter gel mode.
Long press: No function.

3. WHITE

Sets the light in white mode.
Short press: Enter white mode.
Long press: No function.

4. DISPLAY

The display shows the current settings and other information.

5. SETTINGS

Enter the fixture settings where you can set DMX addresses and profiles, Bluetooth and Wi-Fi options and much more.
Short press: Enter settings.
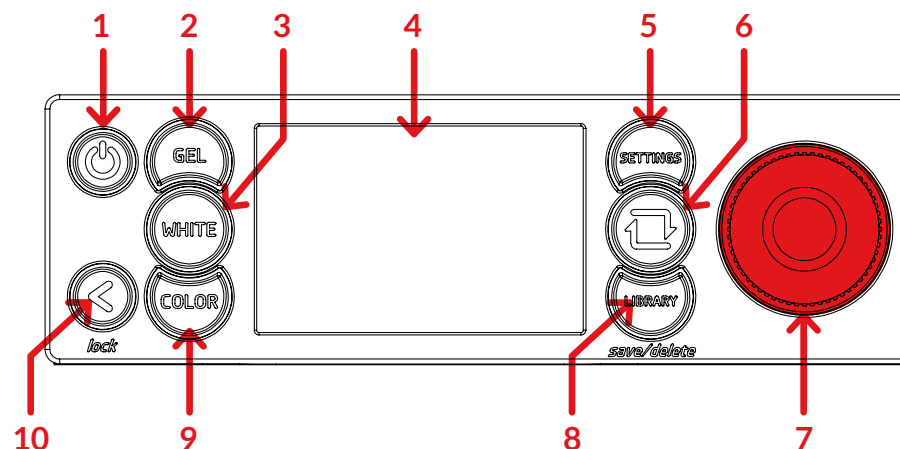**Long press:** No function.

1. POWER

Turns the fixture ON or OFF.
Short press: Turns ON the controls. When ON, a short press will do a quick blackout.
Long press: Turn OFF the controls.

6. NAVIGATION

The navigation button allows you to switch from one controllable function to another.
Short press: Switch from one controllable function to another.
Long press: Link or Unlink the CRMX module (Lumen Radio chip).

10. BACK

Back button takes you one step back in menus and locks the fixture controls.
Short press: One step back in navigation.
Long press: Lock all buttons and the rotary knob. Unlock all buttons and the rotary knob.

9. COLORS

Enter the fixture color mode. In color mode you can set the hue, saturation, white base and intensity of the fixture.
Short press: Enter color mode.
Long press: No function.

8. LIBRARY

Enter the fixture library. All saved presets (white, gels, colors...) are stored here, as well as effects and source match.
Short press: Enter the library.
Long press: Store a preset when controlling the fixture. Delete a preset when in the library.

7. ROTARY KNOB

Use the rotary knob to set values on selected function, as well as to navigate through the menus.
Short press: Change between presets when in white, gel and color mode.
Long press: No function.
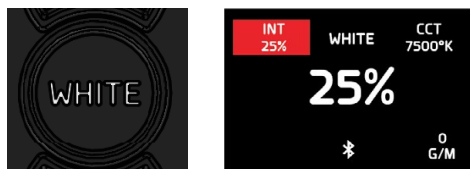
THE 3 OPERATING MODES: WHITE / GEL / COLOR

- Use the navigation button to go around the screen functions in each corner of the screen.

- Change values with the dimmer button. Press the dimmer to access presets. Ex: Intensity has 4 presets: 25, 50, 75 and 100%.

● WHITE MODE

Simple CCT mode where you can change the intensity, CCT and Green/Magenta.

Intensity resolution: 0.1%.
CCT range and resolution: 1700°K~10000°K with a 50°K resolution.
Green/Magenta range and resolution: full green to full magenta with a 1/100 resolution.

● GEL MODE
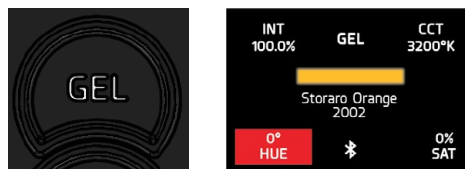
Gel selection mode where you can select any of the gels available in the MIX (standard and saved).
Saturation and hue is available on a limited range.

Intensity resolution: 0.1%.
White base: 3200°K or 5600°K.
Saturation range: -20%~+20% (1% increment).
Hue range: -10°~+10° (1° increment).

● COLOR MODE
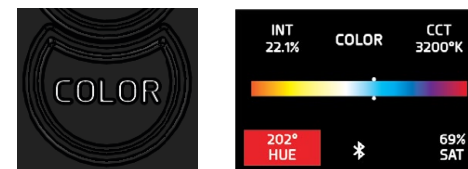
Color selection mode. This mode is an HSI (Hue, Saturation, Intensity) with the ability to select the white base between 3200°K and 5600°K.
Note that in DMX mode, the CCT base can be anything from 1700°K to 10000°K.

Intensity resolution: 0.1%.
CCT base: 3200°K or 5600°K.
Hue range: 0°~360° (1° increment).
Saturation range: 0%~100% (1% increment).

MIX   CAPTURE   SAVE   SHARE

THE SAVE FUNCTION

All DMX call numbers for gels and effects are available in the myMix app.

• SAVING A PRESET IN MYMIX:

To save a preset in myMIX, press the LIBRARY button with a long press until you get prompt the "SAVING PRESET" option. Presets will be saved in the myMIX section.
A maximum of **30 presets** can be saved in myMIX.

• CALLING UP PRESET:

To call up a preset enter the Library mode. All your saved presets are stored in myMIX. Presets send from the myMIX app will also be stored here.
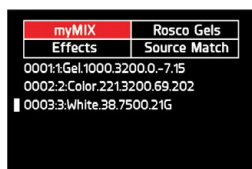
• DELETING A PRESET:

To delete a preset, you must be in LIBRARY/myMIX with a preset selected. Hold down the LIBRARY button with a long press, until you receive a prompt with a 'delete' option. You will be asked to confirm the deletion.

THE LIBRARY AND ITS FOLDERS

• EFFECTS FOLDER

Effects selection mode, this is where all effects are stored. To START/STOP the effect, **short press** the ON/OFF button.
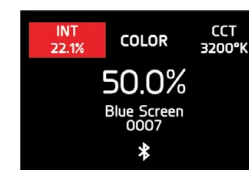
TYPE	NAME	DMX NUMBER	ROSCO NUMBER	ROSCO SERIE
Effects	Emergency vehicule B	801	N/A	N/A
Effects	Emergency vehicule B+R	802	N/A	N/A
Effects	Emergency vehicule B+W	803	N/A	N/A
Effects	Emergency vehicule R+W	804	N/A	N/A
Effects	Emergency vehicule R	805	N/A	N/A
Effects	Firelight	806	N/A	N/A
Effects	TV screen	807	N/A	N/A
Effects	Paparazzi	808	N/A	N/A

• SOURCE MATCHING FOLDER

Source matching selection mode, this is where all source match spectrums are stored. This mode emulates standards and legacy sources such as Tungsten, HMI, Sodium vapor... Intensity resolution: 0.1%.

TYPE	NAME	DMX NUMBER	ROSCO NUMBER	ROSCO SERIE
Source match	Green screen	701	N/A	N/A
Source match	Blue screen	702	N/A	N/A
Source match	Xenon Headlamp	703	N/A	N/A
Source match	Candle Flame	704	N/A	N/A
Source match	Frosty moonlight	705	N/A	N/A
Source match	HP Sodium	706	N/A	N/A
Source match	LP Sodium	707	N/A	N/A
Source match	Tungsten Domestic	708	N/A	N/A
Source match	Mercury Vapor	709	N/A	N/A
Source match	Sodium Vapor	710	N/A	N/A

MIX   CAPTURE   SAVE   SHARE

THE LIBRARY AND ITS FOLDERS (CONTINUED)

• ROSCO GELS FOLDER

TYPE	NAME	DMX NUMBER	ROSCO NUMBER	ROSCO SERIE
Gels	Medium Bastard Amber	101	04	Roscolux
Gels	Pale Yellow	102	07	Roscolux
Gels	Pale Amber Gold	103	09	Roscolux
Gels	Straw Tint	104	13	Roscolux
Gels	Flame	105	18	Roscolux
Gels	Sunset Red	106	25	e-color
Gels	Pink Carnation	107	39	e-color
Gels	Lt Rose Purple	108	47	Roscolux
Gels	Surprise Pink	109	51	Roscolux
Gels	Special Lavender	110	54	Roscolux
Gels	R80 Primary Blue™	111	R80™	Roscolux
Gels	Moss Green	112	89	e-color
Gels	Steel Blue	113	117	e-color
Gels	Broadway Pink	114	339	Roscolux
Gels	Storaro Orange	115	2002	Roscolux
Gels	Storaro Cyan	116	2005	Roscolux
Gels	Storaro Violet	117	2009	Roscolux
Gels	medium Pink	118	036	e-color
Gels	No Color Straw	119	06	Roscolux
Gels	Pale Gold	120	08	Roscolux
Gels	Straw	121	103	e-color
Gels	Middle Rose	122	110	e-color
Gels	Peacock Blue	123	115	e-color
Gels	Light Blue	124	118	e-color
Gels	Mauve	125	126	e-color
Gels	Bright Pink	126	128	e-color
Gels	Golden Amber	127	134	e-color
Gels	Apricot	128	147	e-color

TYPE	NAME	DMX NUMBER	ROSCO NUMBER	ROSCO SERIE
Gels	Pale Gold	129	152	e-color
Gels	Pale Salmon	130	153	e-color
Gels	Light Amber	131	16	Roscolux
Gels	Bastard Amber	132	162	e-color
Gels	Light Flame	133	17	Roscolux
Gels	Pale Bastard Amber	134	302	Roscolux
Gels	Daffodil	135	310	Roscolux
Gels	Mayan Sun	136	318	Roscolux
Gels	Soft Golden Amber	137	321	Roscolux
Gels	Henna Sky	138	325	Roscolux
Gels	No Color Pink	139	33	Roscolux
Gels	Blush Pink	140	333	Roscolux
Gels	Flesh Pink	141	34	Roscolux
Gels	Lighter Blue	142	353	e-color
Gels	Blue Bell	143	364	e-color
Gels	Pale Rose Pink	144	37	Roscolux
Gels	Cerulean Blue	145	375	Roscolux
Gels	Bermuda Blue	146	376	Roscolux
Gels	Alice Blue	147	378	Roscolux
Gels	Baldassari Blue	148	381	Roscolux
Gels	Skelton Exotic Sangria	149	39	Roscolux
Gels	Salmon	150	41	Roscolux
Gels	Middle Rose	151	44	Roscolux
Gels	Daylight Blue	152	65	Roscolux
Gels	Pale Yellow Green	153	87	Roscolux
Gels	Light Green	154	88	Roscolux
Gels	Turquoise	155	92	Roscolux
Gels	Chocolat	156	99	Roscolux
Gels	Rose Pink	157	002	e-color

TYPE	NAME	DMX NUMBER	ROSCO NUMBER	ROSCO SERIE
Gels	Lavender Tint	158	003	e-color
Gels	Bastard Amber	159	02	Roscolux
Gels	Scarlet	160	024	e-color
Gels	Light Amber	161	102	e-color
Gels	Light Salmon	162	109	e-color
Gels	Fern Green	163	122	e-color
Gels	Marine Blue	164	131	e-color
Gels	Special Lavender	165	137	e-color
Gels	Pale Green	166	138	e-color
Gels	Pale Navy Blue	167	143	e-color
Gels	Dark Steel Blue	168	174	e-color
Gels	R26 Light Red™	169	R26™	cinegel
Gels	Warm Peach	170	303	Roscolux
Gels	Pale Apricot	171	304	Roscolux
Gels	Rose Gold	172	305	Roscolux
Gels	Gallo Gold	173	316	Roscolux
Gels	Soft Golden Amber	174	321	Roscolux
Gels	Gipsy Red	175	324	Roscolux
Gels	Shell Pink	176	331	Roscolux
Gels	Cherry Pink	177	332	Roscolux
Gels	Billington Pink	178	336	Roscolux
Gels	True Pink	179	337	Roscolux
Gels	Plum	180	341	e-color
Gels	Fushia Pink	181	345	e-color
Gels	Fisher Fuchsia	182	349	Roscolux
Gels	Tipton Blue	183	362	Roscolux
Gels	Cornflower	184	366	e-color
Gels	Winkler Blue	185	368	Roscolux
Gels	Sunlight Yellow	186	765	e-color
Gels	Lime	187	96	Roscolux

THE LIBRARY AND ITS FOLDERS (CONTINUED)

• myMIX FOLDER

This is your "personal" space, where you can store your favorite colors, whites, gels etc…

Any saved preset will go inside this folder -> long press of the LIBRARY button in any modes: WHITE / GEL / COLOR / EFFECTS / SOURCE MATCH and the preset will go automatically into the myMIX folder.

You can have a maximum of 30 presets into the myMIX folder.

This folder is retrievable into the myMIX app. With the app, you can import the myMIX folder into your mobile device (import FAVORITES), as well as send the presets you have on the app (send to Controller).

myMIX	Rosco Gels
Effects	Source Match

```
0001:1:Gel.1000.3200.0.-7.15
0002:2:Color.221.3200.69.202
0003:3:White.38.7500.21G
```

CONTROLLER SETTINGS

• BLUETOOTH: BT/OFF

BT: Bluetooth is ON, go to Remote Control via Bluetooth and the myMIX app.
Please note that Bluetooth and WI-FI cannot be turned on at the same time. Turning ON Bluetooth will turn off WI-FI and vice versa.

```
Bluetooth: BT
DMX Mode
Dimming Curve
Gel Sorting
RDM: ON
Factory Settings
Screen Brightness: HIGH
Information
```

• DMX MODE

Go to Remote Control via Artnet, wired and wireless DMX.

• DIMMING CURVE

Linear: The default curve. The light outputs follow a straight line. 50% on the dimmer equals 50% of the total light, for example.
Square law: The light output shares the same pattern that the human eyes perceives. It will feel more realistic (in terms of total light output) to the human eye compared to a linear curve.
S Curve: Closer to traditional analog dimmers.
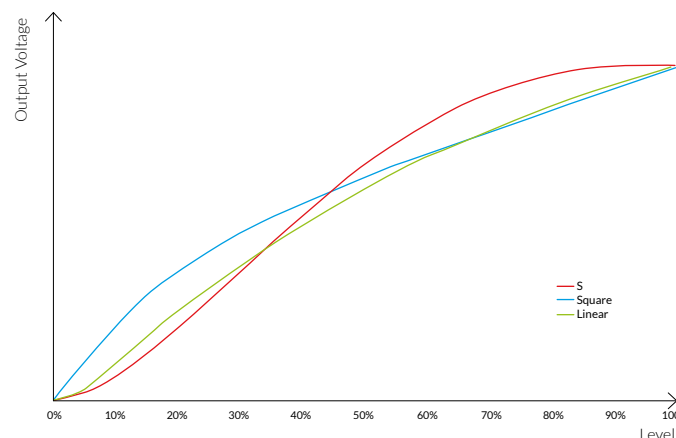
Tungsten emulated (only in white mode at 3200°K)**:**. Tungsten emulated curve will change. The CCT from 3200°K at 100%, to 1700°K at 0.1%, emulating the warmer CCT of a dimmed Tungsten light.

CONTROLLER SETTINGS (CONTINUED)

● GEL SORTING

Choose how to sort Rosco gels in the library, by name, color or number.

● RDM (REMOTE DEVICE MANAGEMENT)

MIX is RDM enabled.
It allows MIX light fixtures to send data/settings back to a remote control console (see table below).
Some settings can be changed, others cannot.

RDM table of MIX controller:

CATEGORY	VALUE	MODIFIABLE
MODEL	DMG-MIX	No
MANUFACTURER	DMGLUMIERE (C) 2018	No
DMX START ADDRESS	1	Yes
DMX PERSONALITY (DMX PROFILE)	White 8b	Yes
DMX SLOTS	xx	No
LAMP HEAD TEMP	50°C	No
CONTROLER FIRMWARE VERSION	V1.0	No

● FACTORY SETTINGS

Reset to factory settings, decide to keep or not the content of the myMIX folder.

● SCREEN BRIGHTNESS

Set the brightness of the screen: HIGH/MEDIUM/LOW.

● INFORMATION

Serial Number/Firmware Version/Hour Count/Operating Temperature.

Digit 1: LED batch number.
Digit 2: 1 = MINI ; 2 = SL1, 3 = MAXI.

● ERROR CODES

ERROR CODE	DESCRIPTION
NONE	No error code
ERROR 1	Channel 1 is not working (open circuit, voltage diff,...)
ERROR 2	Channel 2 is not working (open circuit, voltage diff,...)
ERROR 3	Channel 3 is not working (open circuit, voltage diff,...)
ERROR 4	Global Driver Error (All channels effected)
ERROR 5	Temp sensor n°1 can't read
ERROR 6	Temp sensor n°2 can't read
ERROR 7	Mem cannot read can't read

COMMUNICATION PROTOCOLS: ARTNET, DMX512 AND THE myMIX APP

The MIX Controller can be operated remotely via 3 communication protocols:

● ARTNET:

ArtNet is a communication protocol for transmitting the DMX512-A lighting control protocol and Remote Device Management (RDM) protocol over the User Datagram Protocol (UDP) of the Internet Protocol suite. It enables lights to be controlled over standard internet or LAN network (via Wifi or RJ45 connector).

Setting up ArtNet :
On the controls : Controller Settings / DMX Mode / Input WIFI or LAN – the controller is ready to received the ArtNet Protocol.

In ArtNet, you need to broadcast to 2.255.255.255. Subnet 0, universe 0.

● STANDARD DMX 512

There are 2 ways to communicate DMX to the MIX controller: wired DMX (XLR 5 pin) or Wireless DMX (Lumen Radio Timo FX RDM).

Setting up DMX: Controller Settings / DMX Mode.

Input XLR or wireless DMX .
Set up the address (check DMX profiles table to enter correct addessing system).
Enable DMX.

In the library, each preset, gel, source match and effect have a 3-digit DMX number attached to it.
Each DMX digit can be called, using 3 channels.

DMX IN XLR	ADDRESS 1-4	PROFILS 1:White 8b
INT: 0.0%	CCT: 3200°K	
	MG: 0	
None DMX OUT	NO DMX	ENABLED DMX Active

Example:
If you would like to call up the GEL 'Mauve', which has a DMX number of 125 (displayed in the LIBRARY and in the myMIX app).
Use the 3 channels dedicated to calling up a preset in your DMX setup:
Channel 1 (hundreds): 0 – 10%= 1.
Channel 2 (tens): 20% - 29%= 2.
Channel 3 (singles): 50% - 59%= 5.
You can then call the preset 125, or "Mauve".
Refer to the table on page 7 or in the myMIX app.

DMX PROFILES

IMPORTANT INFORMATION:
In profile 3, only gel memories can be selected.
In profiles 6 and 7 if the memory called is 000, then user has control of the selected function.
Example: If 000 memory is called, then one can use the HUE and SAT mode as on the controller.

DMX memory table as below:
0~99: myMIX.
100~699: gels.
700~799: source match.
800~899: effects.
900~999: free space.

> **Warning :** In DMX mode, when DMX IN is set to WIFI, the Bluetooth (BT) is automatically turned OFF (both WIFI and BT cannot be ON at the same time). If you were connected with the App you will lose connection. To reconnect, turn the Bluetooth back on BT.

DMX PROFILES (CONTINUED)

Three basic DMX Profiles replicating the local modes: White/Color/Gel

#	PROFILE NAME	PROFILE DESCRIPTION	CHANNEL 1	CHANNEL 2	CHANNEL 3	CHANNEL 4	CHANNEL 5	CHANNEL 6	CHANNEL 7
1	White 8 bits	White mode *(same as local)*	Dimming	CCT	Green / Magenta **				
2	Color 8 bits	Color Mode *(same as local)*	Dimming	White base color (0~127=3200°K 128~255=5600°K)	Hue (2° steps)	Saturation			
3	Gel 8 bits	Gel Mode *(same as local)*	Dimming	mem # hundreds	mem # tens	mem # singles	White base gel (0~127=3200°K 128~255=5600°K)	Hue gel -10/+10 (256/20= number of steps)	Saturation gel -20/+20 (256/40= number of steps)

Four Pro DMX Profiles for ultimate control

#	PROFILE NAME	PROFILE DESCRIPTION	CHANNEL 1	CHANNEL 2	CHANNEL 3	CHANNEL 4	CHANNEL 5	CHANNEL 6	CHANNEL 7
4	Pro 8 bits	All modes in one	Dimming	mem # hundreds	mem # tens	mem # singles	CCT (white base for white mode and color mode)	Green/Magenta for white mode	Hue (2°)
5	Pro 16 bits	All modes in one	Dimming	Dimming Fine	mem # hundreds	mem # tens	mem # singles	CCT (white base for white mode and color mode)	Green/Magenta for white mode
6	Full 8 bits	Control of each LED	Dimming	Red	Green	Blue	White	Amber	Lime
7	Full 16 bits	Control of each LED	Dimming	Dimming Fine	Red	Green	Blue	White	Amber

Four Pro DMX Profiles for ultimate control (continued)

#	CHANNEL 8	CHANNEL 9	CHANNEL 10	CHANNEL 11	CHANNEL 12	CHANNEL 13	CHANNEL 14	CHANNEL 15
4	Saturation color 0-100%	White base gel (0~127=3200°K 128~255=5600°K)	Hue gel -10/+10 (256/20= number of steps)	Saturation gel -20/+20 (256/40= number of steps)	Effects Speed	Control Channel*		
5	Hue (coarse)	Hue (fine)	Saturation color 0-100%	White base gel (0~127=3200°K 128~255=5600°K)	Hue gel -10/+10 (256/20= number of steps)	Saturation gel -20/+20 (256/40= number of steps)	Effects Speed	Control Channel*
6	Control Channel*							
7	Lime	Control Channel*						

*Control Channel: see p11.

DMG LUMIÈRE BY ROSCO

DMX PROFILES (CONTINUED)

*The control channels:

DMX	FONCTION	DESCRIPTION
0	No fonction	Nothing
11-20	Dim curve linear	Dimmer linear
21-30	Dim curve square	Dimmer square law
31-40	Dim curve s curve	Dimmer in scurve mode
41-50	DIm curve Tungsten	Dimmer in Tungsten emulated
51-60	No fonction	Nothing
61-70	CRMX unlink	Unlink the fixture from a lumenradio transmitter
71-80	CRMX unlink	Unlink the fixture from a lumenradio transmitter
81-90	No fonction	Nothing
91-100	Bluetooth on	Bluetooth on
101-110	Bluetooth off	Bluetooth off
111-120	No fonction	Nothing
121-130	RDM off	Turns off the RDM
131-140	RDM on	Turns on the RDM
141-150	Slew=0	Set slew to 0
151-160	Slew=25 (actual slew?)	Set slew to 25 (if 25 is what we have now)
161-170	Save in myMIX	Save current stae in my MIX in the controller

To activate/deactivate a setting, stay 3 seconds on the proposed DMX value.
Then, go back to 0.

THE myMIX MOBILE APPLICATION

The myMIX app is available on Google store & App Store.

Select the mode:
WHITE / GEL / COLOR / EFFECTS / SOURCE MATCH
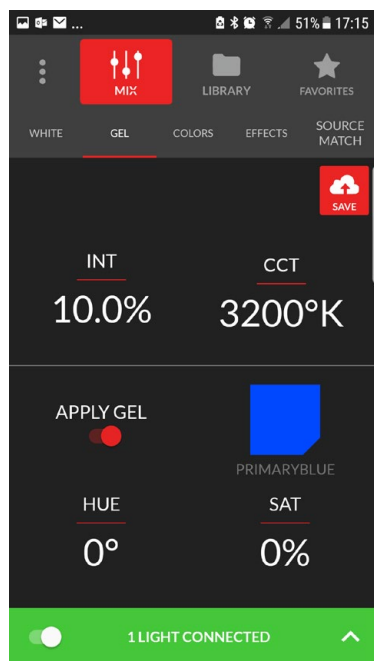
Connect with the light(s).
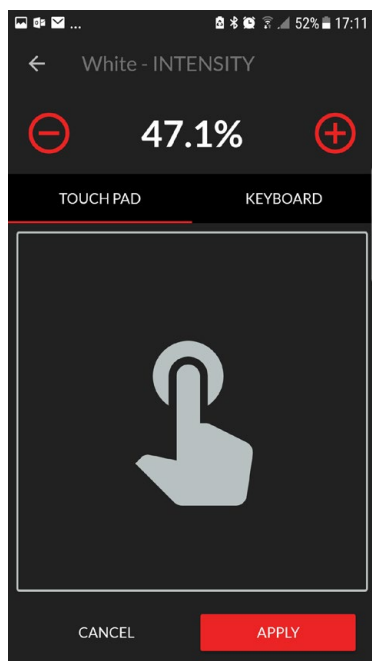
Sensitive touchpad to change values.
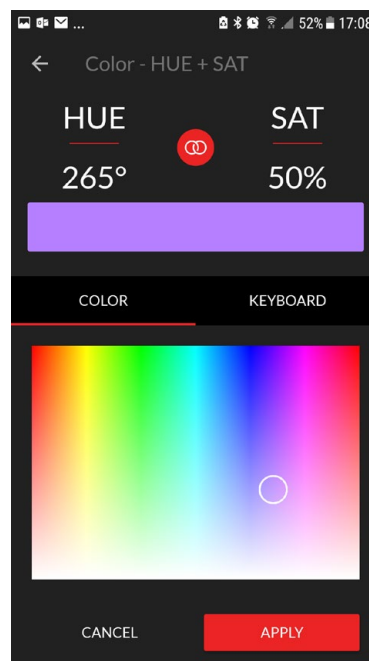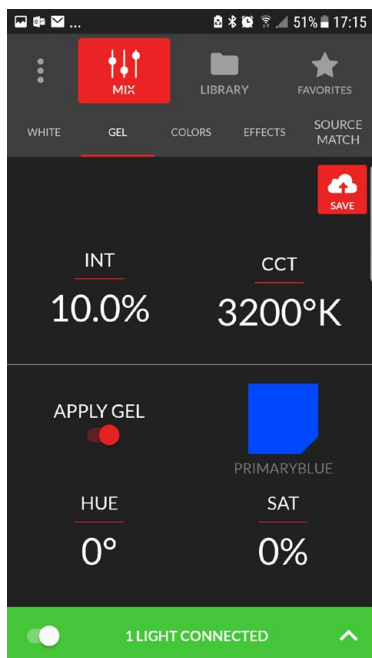

In color mode, use the touchpad for HUE+SAT.
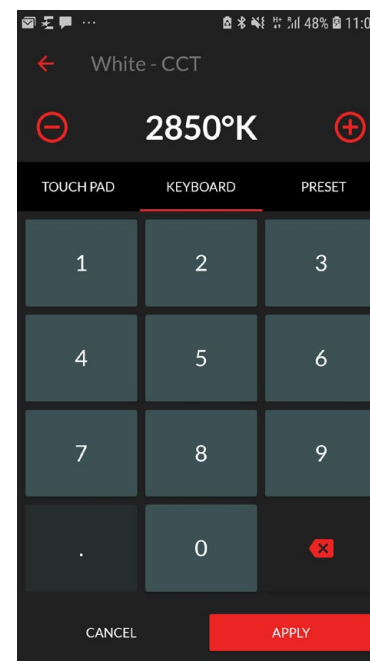
Dial in a value with the keyboard.
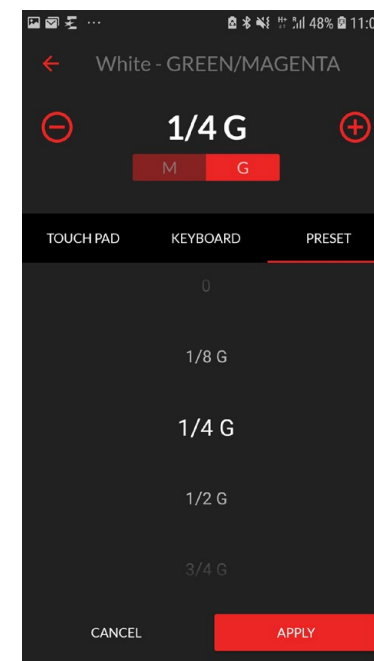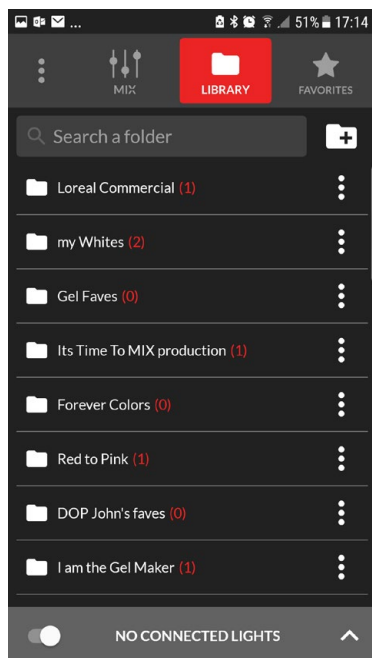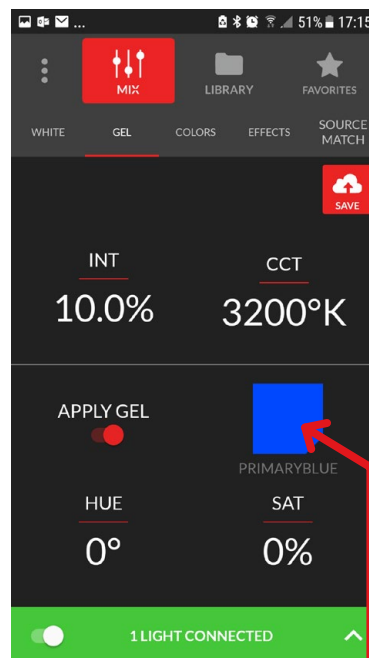

Scroll through presets.

Your personal library of colors:

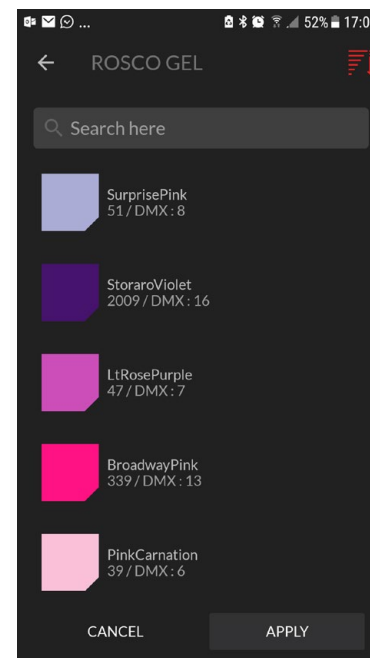

Create / Name folders to organise your colors.

Turn your most used colors into favourtire for a quick access.
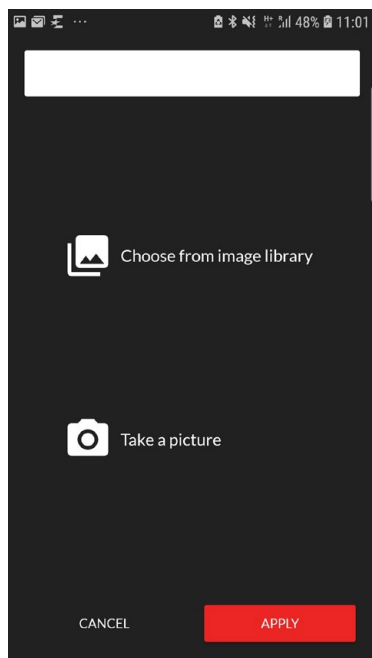

Touch here to acces a wide library of true Rosco color.
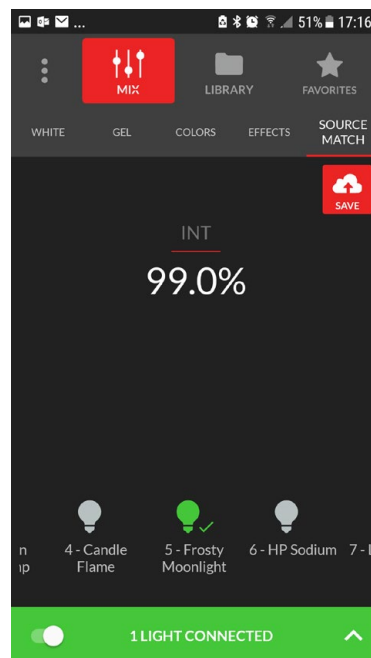

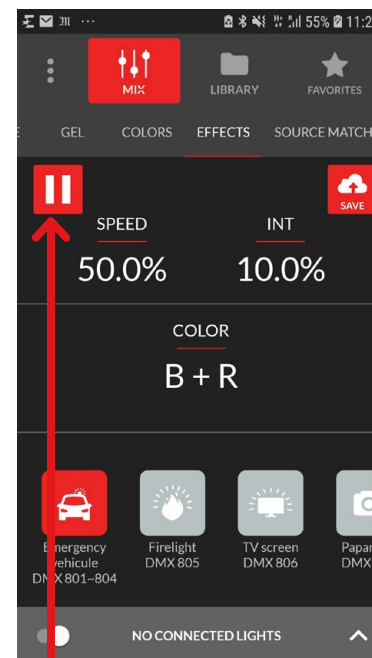Find your gel, sort the list by name, color or number. The "Apply Gel" button will remove/ add the gel.
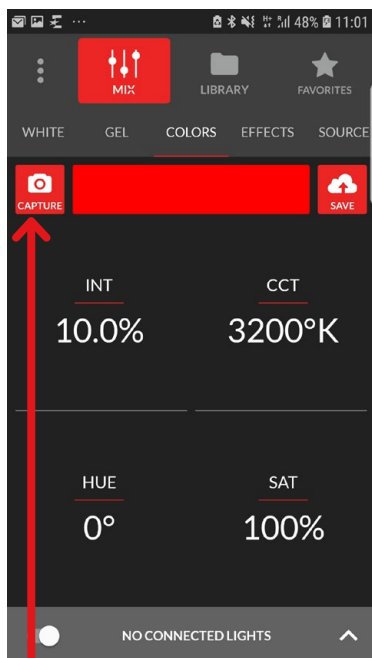
In the color mode, touch the camera to access the CAPTURE function.

Chose a picture from your gallery or take one, you can then pick the color out of the picture and load it to the light.

Source Match Mode: select the source you want to match and adjust intensity.

Effect Mode: press the PLAY button, select the effect, change speed, instensity and the color of the LEDs.