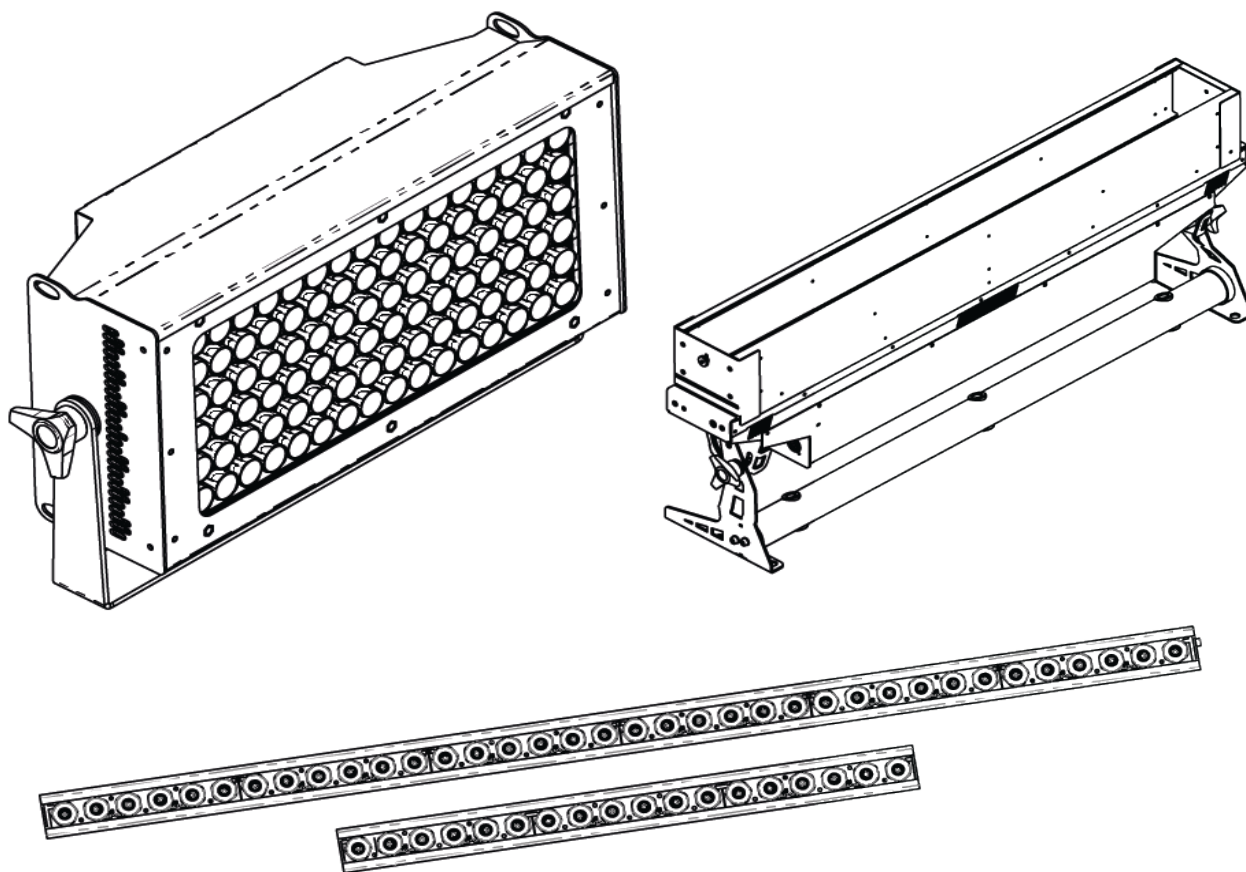


MultiFlash series



USER MANUAL

1. INTRODUCTION

PRODUCT OVERVIEW

MultiFlash indoor LED fixtures are combination wash/strobe/blinders with over 1000 Watts of LED RGBW brightness, 58,000 lumens, instantaneous color mixing, and 1200Hz refresh rate for smooth on-camera dimming. Q+ Technology increases the brightness with practically no fan noise. Its “Theatre Mode” is effectively silent, yet still 8% brighter than the original MultiFlash! One MultiFlash LED fixture does the job of many conventional LED fixtures, saving setup time and labor. Just a few of the features include:

- Simultaneous color wash, strobe, and blinder in ONE fixture! – saves labor, time, space, cost
- Instantaneous RGBW color mixing with 1200Hz refresh rate – smooth on-camera dimming
- Pixel-map feature – up to 12 (MultiFlash / MultiFlash Q+ / MultiFlash LR Q+ / MultiFlash Q+ Rayzr 100cm), 6 (MultiFlash Q+ Rayzr 50cm) or 4 (MultiFlash M3) discrete, individually-controlled LED sections.
- Optimized 36° beam width. 20°, 54°, and 70° options available.

UNPACKING INSTRUCTIONS

Upon receipt of the fixture, carefully unpack the carton and check the contents to ensure that all parts are present and in good condition. Notify the shipper immediately and retain packing material for inspection if any parts appear to be damaged from shipping or if the carton itself shows signs of mishandling. Save the carton and all packing materials. In the event that a fixture must be returned to the factory, it is important that the fixture be returned in the original factory box and packing.

POWER REQUIREMENTS

Before powering the unit, make sure the line voltage is within the range of accepted voltages. This fixture accommodates 100-240VAC, 50/60Hz. All fixtures must be powered directly from a switched circuit and cannot be operated with a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel is used solely as a 0-100% switch.

When powered up, MultiFlash performs a pre-programmed internal test. On initial power-up the factory default DMX address appears on the display screen and MultiFlash is ready for operation. After initial power-up, the last-saved DMX address will appear.

FREQUENCY SETTING

Depending on location, change the Default Frequency setting to match the mains power (e.g., US and Canada should be set at 60Hz). Proper frequency setting will ensure minimum amount of visible artifacts when using MultiFlash on camera.

Safety Instructions

- Please keep this user guide for future consultation. If you sell the unit to another user, be sure that they also receive this instruction booklet.
- Always make sure that you are connecting to the proper voltage, and that the line voltage you are connecting to is not higher than that stated on the decal or rear panel of the fixture.
- Make sure there are no flammable materials close to the unit while operating.
- Always disconnect from the power source before servicing or replacing fuses and be sure to replace with same fuse type
- Secure the fixture to what you have attached it to using a safety chain.
- Maximum ambient temperature is 40°C. Do not operate fixture at temperatures higher than this.
- In the event of a serious operating problem, stop using the unit immediately. Never try to repair the unit by yourself. Repairs carried out by an unskilled person can lead to damage or malfunction. Please contact the nearest authorized technical assistance center. Always use the same type of spare parts.
- Do not connect the device to a dimmer rack.
- Make sure the power cord is never crimped or damaged.
- Never disconnect the power cord by pulling or tugging on the cord.
- Avoid direct eye exposure to the light source while it is on.

Caution!

There are no user serviceable parts inside the unit.

Do not open the housing or attempt any repairs yourself. In the unlikely event your unit may require service, please contact your local distributor.

Technical Features / Description

- MultiFlash / MultiFlash Q+: 96 10W RGBW Cree® LEDs, divided into 2, 3, 4, 6 or 12 pixels
- MultiFlash M3: 32 10W RGBW Cree LEDs, divided into 1, 2, or 4 pixels
- MultiFlash LR Q+: 108 10W RGBW Cree LEDs, divided into 1, 2, 3, 4, 6, or 12 pixels
- MultiFlash Q+ Rayzr 100cm: 36 10W RGBW Cree LEDs, divided into 1, 2, 3, 4, 6, or 12 pixels
- MultiFlash Q+ Rayzr 50cm: 18 10W RGBW Cree LEDs, divided into 1, 2, 3, or 6 pixels
- Variable intensity control 0-100% in 8bit or 16bit control modes
- Beam spread: 36° standard. Optional beam widths available: 20°, 54°, and 70°
- Refresh rate: 1200HZ
- Flash Duration control 0-650ms flashes per second
- Flash Rate control 0-16.7Hz (50Hz) / 0-20Hz (60Hz)
- Continuous blinder/wash effect
- Flash intensity curve selection
- User definable fades
- LCD control panel display with four control buttons
- RDM available in MultiFlash RDM, MultiFlash M3, MultiFlash Q+, both MultiFlash Rayzr Q+ and MultiFlash LR Q+ (not available in early versions of the original MultiFlash)

2. SETUP

FUSE REPLACEMENT

MultiFlash, MultiFlash Q+, MultiFlash LR Q+, both MultiFlash Q+ Rayzr, and MultiFlash M3 use a 12A 250V slow-blow fuse (5x20mm). To replace fuse:

1. With a screwdriver turn the fuse cap counter-clockwise to remove fuse cap with fuse.
2. Replace fuse attached to fuse cap.
3. Reinsert fuse cap with new fuse and tighten clockwise.

FIXTURE LINKING

A DMX data link is needed to operate one or more fixtures via a DMX-512 lighting console. The combined number of channels required by all the fixtures on a DMX data link determines the number of fixtures the DMX data link can support.

Important: Fixtures on a DMX data link must be daisy -chained in one single line. To comply with the EIA-485 standard, no more than 32 devices should be connected on one data link. Connecting more than 32 fixtures on one serial data link without the use of a DMX optically-isolated splitter may result in deterioration of the digital DMX signal.

Maximum recommended DMX data link distance between fixtures: 984 ft. (300 meters).

POWER LINKING (MultiFlash M3, MultiFlash Rayzr)

The MultiFlash Jr and MultiFlash Rayzr has Neutrik® PowerCon IN and THRU connections allowing power linking (daisy-chaining). Depending on the power provided, you should not exceed the power threshold.

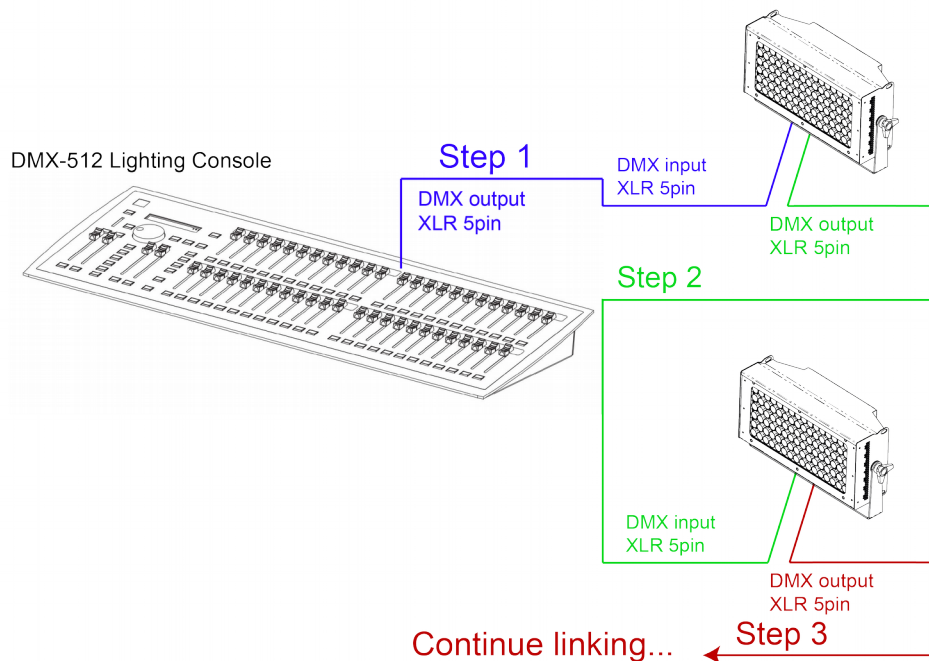
Max. 5 units 100-120V; max. 10 units 208-240V for MultiFlash Jr.

Max. 5 units 100-120V; max. 10 units 208-240V for MultiFlash Q+ Rayzr 50cm.

Max. 3 units 100-120V; max. 6 units 208-240V for MultiFlash Q+ Rayzr 100cm.

SETTING UP A DMX SERIAL DATA LINK

- 1) Connect the male 5-pin XLR connector of the data cable to the female 5-pin XLR output of the DMX console. Connect the other end of the data cable (female 5-pin XLR) to the male 5-pin XLR connector located on the NA MultiFlash.
- 2) Connect from the fixture output as stated above to the input of the following fixture, and so forth.
- 3) Continue linking until the last fixture is connected in your DMX signal data chain.



FIXTURE MOUNTING

Orientation

MultiFlash, MultiFlash Q+, MultiFlash Rayzr and MultiFlash Jr fixtures may be mounted in any position. Each have a yoke with mounting hole for clamps or couplers. The MultiFlash LR Q+ comes with a bar yoke and will also operate in any orientation. Always make sure there is adequate room for ventilation. Do not obstruct the unit's fan or vents.

Support Stand

Always use a professional stand rated to support weight greater than the fixture (see technical specifications). Attach a TVMP spigot to the yoke of the MultiFlash or MultiFlash M3 and mount on the stand.

Rigging – *Always consult a certified rigging specialist before suspending any fixture overhead!*

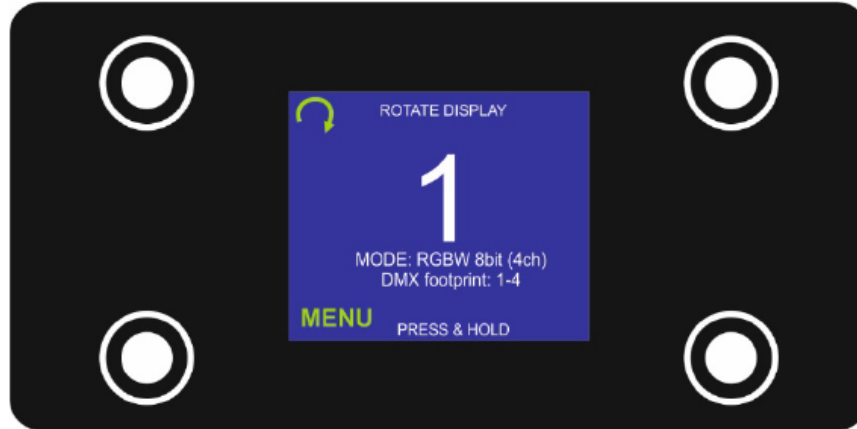
Use C- or O-type clamps for attaching to truss. It is important never to obstruct the fan or vents pathway. Adjust the angle of the fixture by loosening both knobs and tilting the fixture. After finding the desired position, retighten both knobs.

- Always use safety cables!
- When selecting installation location, consider routine maintenance.
- Never mount fixture where it will be exposed to moisture, high humidity, extreme temperatures, or restricted ventilation.

3. OPERATING INSTRUCTIONS

CONTROL PANEL NAVIGATION

Access control panel functions using the four control panel buttons located directly underneath the LCD display



The Control Panel LCD Display shows the menu items selected from the menu map (see page 9). When a menu function is selected, the display will show the first available option for the selected menu function. To select a menu item, press **<MENU>**.

Press and hold the **<MENU>** button to scroll through the top level menu items. This is the top of the menu map. Use the **<UP>** and **<DOWN>** buttons, located to the right of the LCD screen, to navigate the menu map and menu options. Press the **<MENU>** button to access the menu function currently displayed or to enable a menu option. To return to the top of the menu map or menu without changing the value, press the **<X>** button.

Main Menu Functions: Main Menu Functions: MultiFlash, MultiFlash Q+, MultiFlash LR Q+, MultiFlash Q+ Rayzr.

DMX Address – DMX address selection

Control – Control mode selection menu

Manual – Manual Control

Demo – Demonstration scenes

Config – Configuration Menu

Main Menu Functions: MultiFlash M3

DMX Address – DMX address selection

DMX Source – Wireless or wired

Control – Control mode selection menu

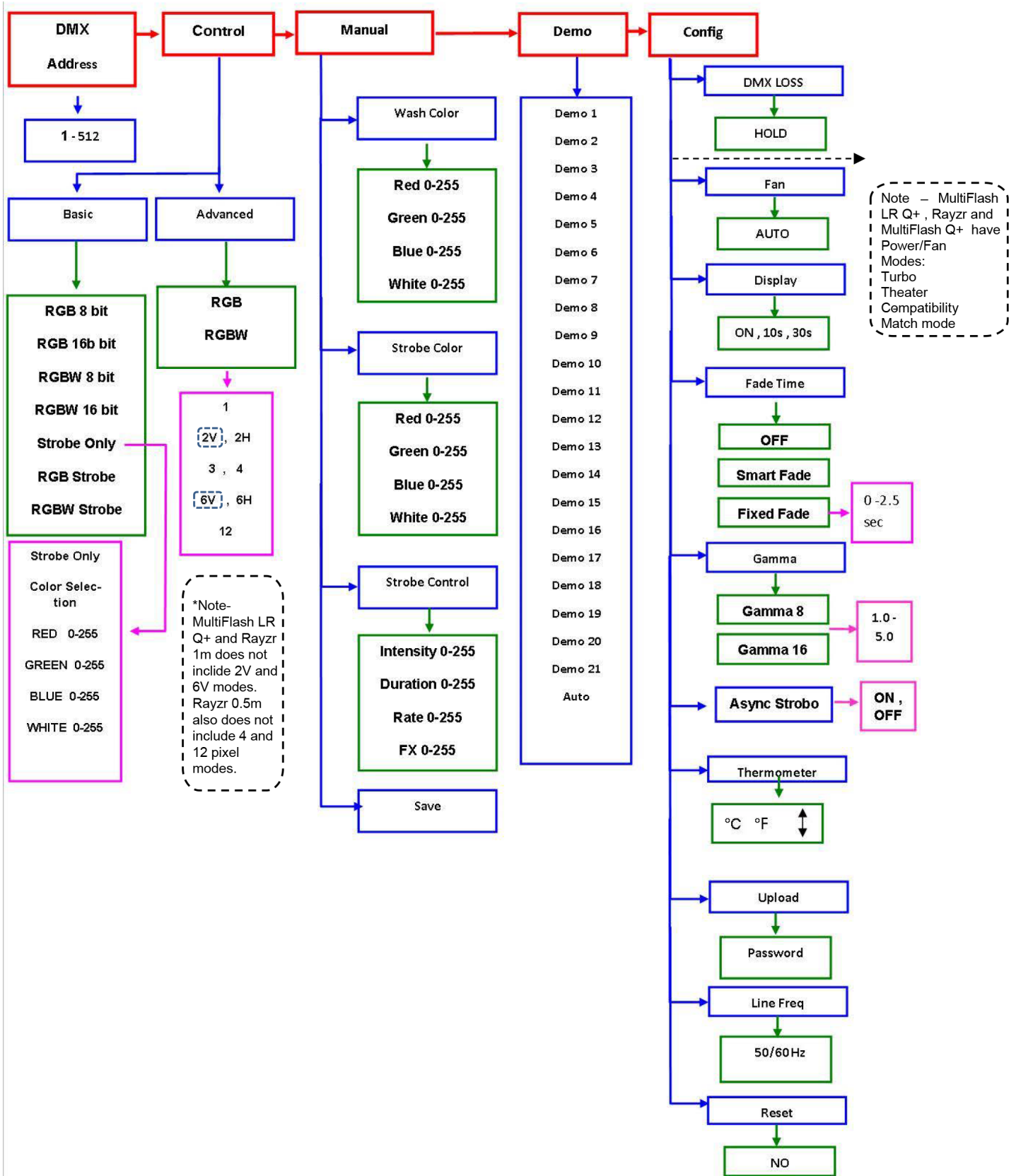
Manual – Manual Control

Demo – Demonstration scenes

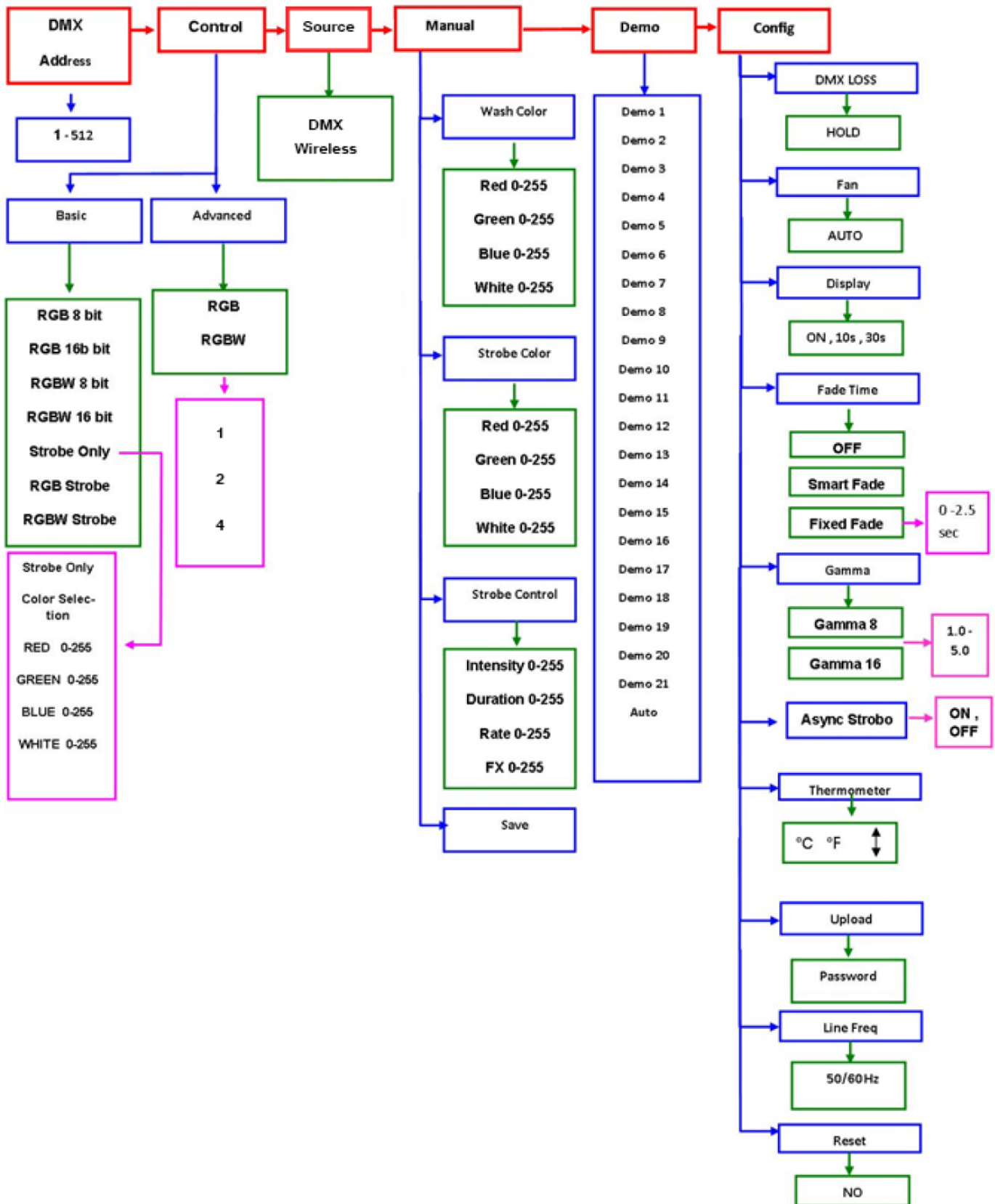
Config – Configuration Menu

During normal operation, the Control Panel LED Display indicates DMX start address. When the DMX signal is not connected, or if the MultiFlash is not receiving a DMX signal, the address blinks **RED**.

Menu Map – MultiFlash, MultiFlash Q+, MultiFlash LR Q+, MultiFlash Rayzr



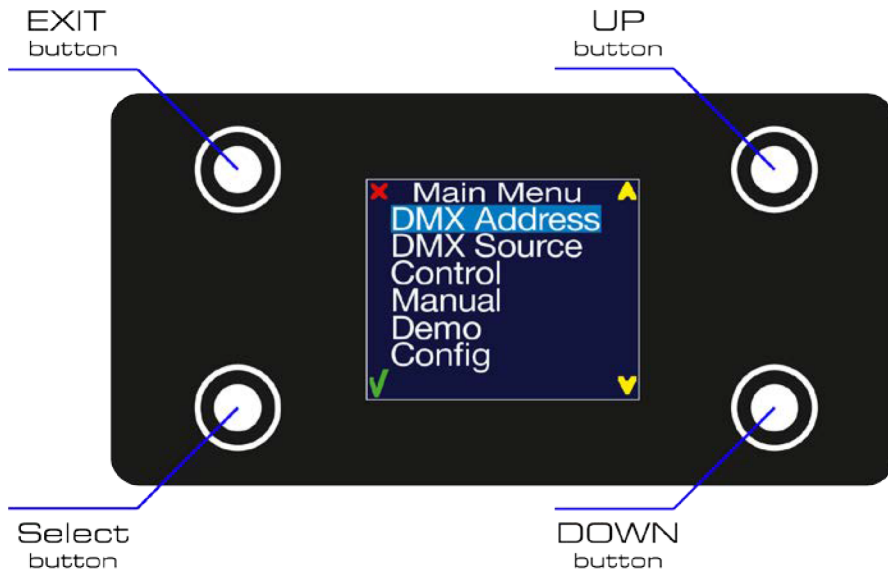
Menu Map – MultiFlash JR



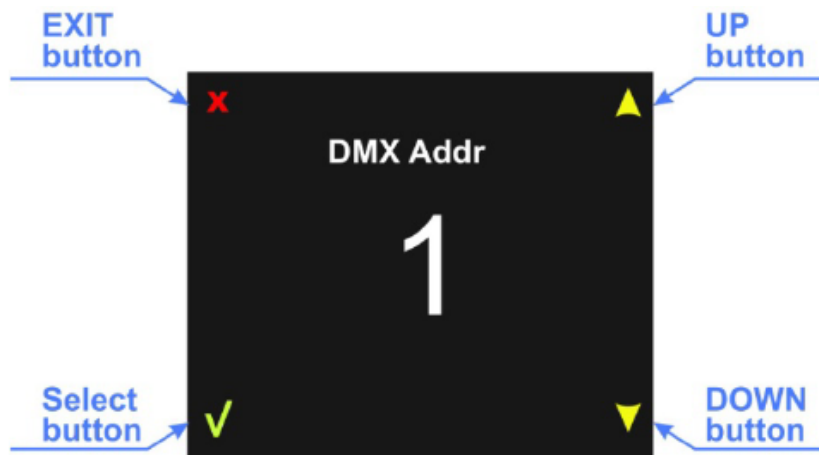
MENU FUNCTION DESCRIPTION

DMX Address – To set the required DMX address, open the Main Menu:

1) Press and hold **<MENU>** button to open the **Main Menu**.

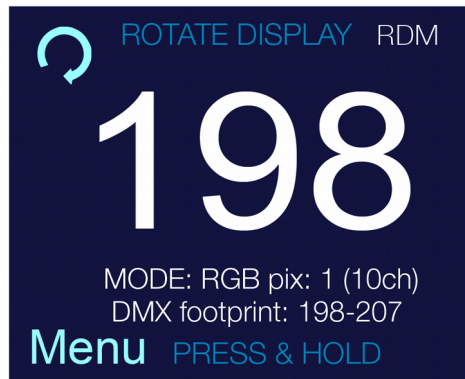


- 2) Use **<UP>** and **<DOWN>** buttons to find the **DMX address** function.
- 3) Press **<SELECT>** button to access the DMX address value change submenu.



- 4) Use **<UP>** and **<DOWN>** buttons to set necessary DMX address value (e.g. 198).
- 5) Use **<SELECT>** button to confirm the new DMX address.
- 6) Main Menu will appear. Press **<EXIT>** button to return fixture at work-state.

- 7) The work-state control panel display shows current DMX address (in this example **198**). Additional info is displayed under the DMX address: Selected control mode, channels used by this mode, and occupied DMX addresses (DMX footprint).



In this example MODE: RGB pix:1 (10ch) DMX footprint: 198 - 207 (meaning: RGB control mode with 1 pixel using 10 DMX channels uses DMX 198 to 207).

DMX Source – This device supports two DMX controlling modes through wired connection (DMX cable w/ XLR 5-pin connector).

To set required DMX source, you must:

- 1) Press and hold **<MENU>** button to open the **Main Menu**.
- 2) Use **<UP>** and **<DOWN>** buttons to find the **DMX Source** submenu and press **<SELECT>** button.

Control – MultiFlash fixtures are two fixtures in one (strobe and a wash/blinder fixture). In each of the control modes, the fixture occupies varying numbers of DMX channels and has different control channels. To enter the Control submenu, follow these steps:

- 1) Press and hold **<MENU>** button to open the **Main Menu**.
- 2) Use **<UP>** and **<DOWN>** buttons to find the **Control** submenu.
- 3) Press **<SELECT>** button to access the Control submenu.
- 4) Choose the correct control mode. Select from Basic or Advanced.



When the control submenu is opened, there are two settings to choose from:

Basic – This mode allows for simple control of the fixture as a Blinder/Wash fixture, or as a Strobe.

Advanced – This mode allows for independent control of Blinder/Wash functions, and the Strobe functions. This mode also allows for independent color and intensity control of every segment of LEDs independently.

BASIC MODE

In Basic Mode, the fixture can be used as a wash/blinder, generic strobe, or color strobe.

The first modes are the RGB and RGBW modes in 8bit resolution or 16bit resolution.

The RGB modes are designed to automatically adjust the white LEDs according to the RGB mix coming from the lighting controller.

The RGBW modes are designed to give independent control of all 4 colors.

8 bit control uses one DMX channel for each color, and 16 bit control allows for two DMX channels of control to give the lighting controller more steps of dimming.

Mode	Channel	DMX values	Preset	Function
RGB 8bit	1	0 - 255	0 - 100	Red Intensity
	2	0 - 255	0 - 100	Green Intensity
	3	0 - 255	0 - 100	Blue Intensity
RGB 16bit	1	0 - 255	0 - 100	Red Intensity HI Byte
	2	0 - 255	0 - 100	Red Intensity LOW Byte
	3	0 - 255	0 - 100	Green Intensity HI Byte
	4	0 - 255	0 - 100	Green Intensity LOW Byte
	5	0 - 255	0 - 100	Blue Intensity HI Byte
	6	0 - 255	0 - 100	Blue Intensity LOW Byte

Mode	Channel	DMX values	Preset	Function
RGBW 8bit	1	0 - 255	0 - 100	Red Intensity
	2	0 - 255	0 - 100	Green Intensity
	3	0 - 255	0 - 100	Blue Intensity
	4	0 - 255	0 - 100	White Intensity
RGBW 16bit	1	0 - 255	0 - 100	Red Intensity HI Byte
	2	0 - 255	0 - 100	Red Intensity LOW Byte
	3	0 - 255	0 - 100	Green Intensity HI Byte
	4	0 - 255	0 - 100	Green Intensity LOW Byte
	5	0 - 255	0 - 100	Blue Intensity HI Byte
	6	0 - 255	0 - 100	Blue Intensity LOW Byte
	7	0 - 255	0 - 100	White Intensity HI Byte
	8	0 - 255	0 - 100	White Intensity LOW Byte

STROBE MODES

Four channels control the functions of the strobe parameter: Strobe Intensity, Strobe Duration, Strobe Rate and Strobe FX.

There are a number of effects that also use the strobe rate and duration controls to affect the effect's look. Please experiment to find the right duration and rate for your application.

		Flash intensity
0 - 5	0 - 2	Blackout
6 - 255	3 - 100	Intensity level
		Flash duration
0 - 254	0 - 99	0 - 650ms (50Hz AC)
255	100	HYPERS
		Flash rate
0 - 5	0 - 2	No flash
6 - 255	3 - 100	0.5 - 25Hz (50Hz AC); 0.6 - 30Hz (60Hz AC)
		Flash effects
0 - 4	0 - 2	No effect
5	3	Wash Override (only available in RGB Strobe and RGBW Strobe modes) ¹
6 - 42	4 - 16	Ramp up
43 - 85	17 - 33	Ramp down
86 - 128	34 - 50	Ramp up - down
129 - 171	51 - 67	Random
172 - 214	68 - 84	Lighting
215 - 240	85 - 92	Spikes
241 - 245	93 - 95	Burst (use Rate at full) ²
246 - 250	96 - 98	"Meltdown" Random Pixels w/ Solid Background ³
251 - 255	99 - 100	"Meltdown" Random Pixels w/ Burst Background ⁴

Notes:

1) In RGB Strobe and RGBW Strobe modes, a feature in the Strobe FX channel allows the MultiFlash to become a temporary wash/blinder fixture. If the Strobe FX channel is set to DMX value 5, the Strobe color channels become strobe wash/blinder color channels.

For example, the MultiFlash can be strobing in White, and then quickly changed to a Blue Wash fixture.

- a) White strobing: Strobe Color Channels @ DMX 255, Strobing channels as desired.
- b) Blue Wash: Strobe Color channels to Blue-only @ DMX 255; Strobe FX @ DMX 5; the other strobe channels are ignored.

- 2) When burst is activated, use the rate channel at FULL to access a hyper-speed strobe
- 3) When Meltdown with Solid background is active, the Strobe Color determines the random pixel color, and the background color is determined by the pixel colors after the strobe fx channels. There is no background color when in RGB Strobe and RGBW Strobe mode. The background pixels are solid-on in this mode. The foreground strobe is randomized, not achievable in any other mode, and is difficult to reproduce with most DMX controllers at this rate.
- 4) When Meltdown with Burst background is active, the Strobe Color determines the random pixel color, and the background color is determined by the pixel colors after the strobe fx channels. There is no background color when in RGB Strobe and RGBW Strobe mode. The background pixels run at burst speed in this mode. The foreground strobe is randomized which is not achievable in any other mode, and is difficult to reproduce with most DMX controllers at this rate.

ASYNCR STROBO (Found in the CONFIG Menu)

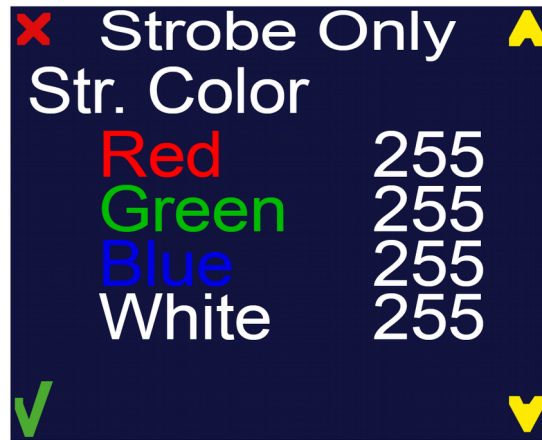
The purpose of this mode is to make quick one-shot effects within the Strobe FX channel much easier.

If the Strobe Rate and Duration channels are set at zero, and the FX channel is at a value for one of the strobe effects, any change in the strobe intensity channel will cause the Strobe FX effect to one-shot at this intensity value. This feature makes firing an effect once very easy, reducing your number of cues by half.

Note: When in this mode, any change to the strobe intensity channel within DMX values 1-255 will cause the MultiFlash to fire a single shot of either an effect or a single strobe at the intensity value selected.

STROBE ONLY MODE

In this mode, the fixture can act as a generic 4-channel Strobe.
In this mode, strobe color can be selected.



Strobe Only Mode	1	0 - 255	0 - 100	Strobe Intensity
	2	0 - 255	0 - 100	Strobe Duration
	3	0 - 255	0 - 100	Strobe Rate
	4	0 - 255	0 - 100	Strobe FX

RGB and RGBW STROBE MODES

Mode	Channel	DMX values	Percent	Function
RGB Strobe	1	0 - 255	0 - 100	Red Strobe Intensity
	2	0 - 255	0 - 100	Green Strobe Intensity
	3	0 - 255	0 - 100	Blue Strobe Intensity
	4	0 - 255	0 - 100	Strobe Intensity
	5	0 - 255	0 - 100	Strobe Duration
	6	0 - 255	0 - 100	Strobe Rate
	7	0 - 255	0 - 100	Strobe FX
RGBW Strobe	1	0 - 255	0 - 100	Red Strobe Intensity
	2	0 - 255	0 - 100	Green Strobe Intensity
	3	0 - 255	0 - 100	Blue Strobe Intensity
	4	0 - 255	0 - 100	White Strobe Intensity
	5	0 - 255	0 - 100	Strobe Intensity
	6	0 - 255	0 - 100	Strobe Duration
	7	0 - 255	0 - 100	Strobe Rate
	8	0 - 255	0 - 100	Strobe FX

Note: In RGB Strobe and RGBW Strobe mode, there is also a feature in the Strobe FX channel that allows the MultiFlash to become a temporary wash/blinder fixture. If you set the Strobe FX channel to DMX value 5, the Strobe color Channels become strobe wash/blinder color and Strobe Intensity is used as a master intensity channel.

For example, you can be strobing in White, and then quickly change the fixture into a Blue Wash fixture.

White strobing: Strobe Color Channels @ DMX 255, Strobing channels as desired.

Blue Wash, Strobe Color channels to Blue-only @ DMX 255, Strobe Intensity at 255, Strobe FX @ DMX 5, the other strobe channels are ignored.

ADVANCED MODES

This control submenu setup is for advanced users allowing control of both Strobe Color and Strobe Intensity/Duration/Rate/FX independently of Wash/Blinder background color. This also allows independent control of individual segments (pixels)

RGB or RGBW control can be selected, plus the desired pixel segments.

The LED segments are comprised of 8 LEDs. There are two segments of 8 LEDs per row. There are 6 rows of LEDs, for a total of 12 controllable segments. The more segments chosen, the more sets of RGB or RGBW will follow the Strobe Color and Strobe Control channels.

Choose how many sections (PIXELS) of control after choosing color mode (RGB or RGBW).



Note: MultiFlash M3 has 1, 2, and 4 pixel modes



Note: MultiFlash Rayzr 0.5m has 1, 2, 3 and 6 pixel modes



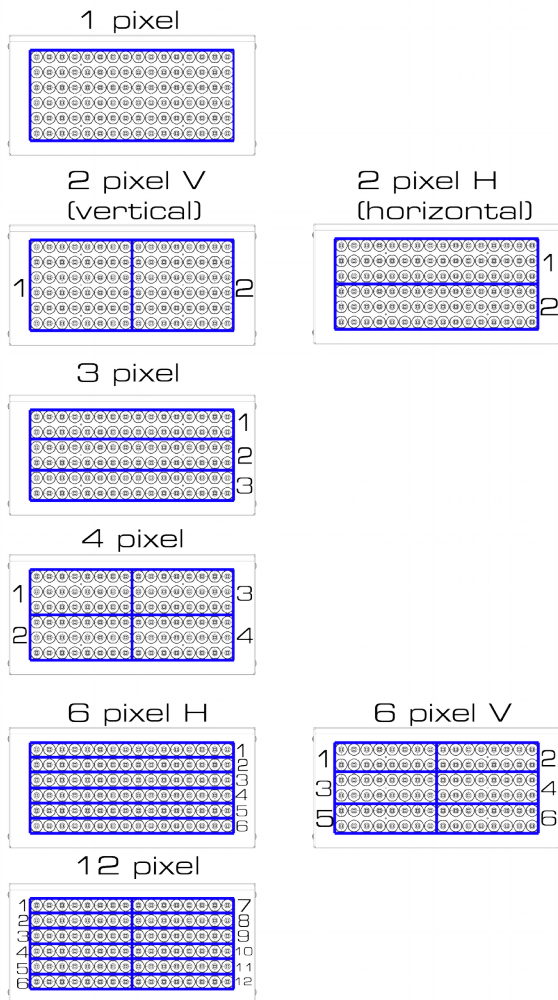
Note: MultiFlash LR Q+ and Rayzr 1m has 1, 2, 3, 4, 6, and 12 pixel modes

PIXEL LOCATIONS – MultiFlash (Q+), MultiFlash LR Q+, MultiFlash Rayzr

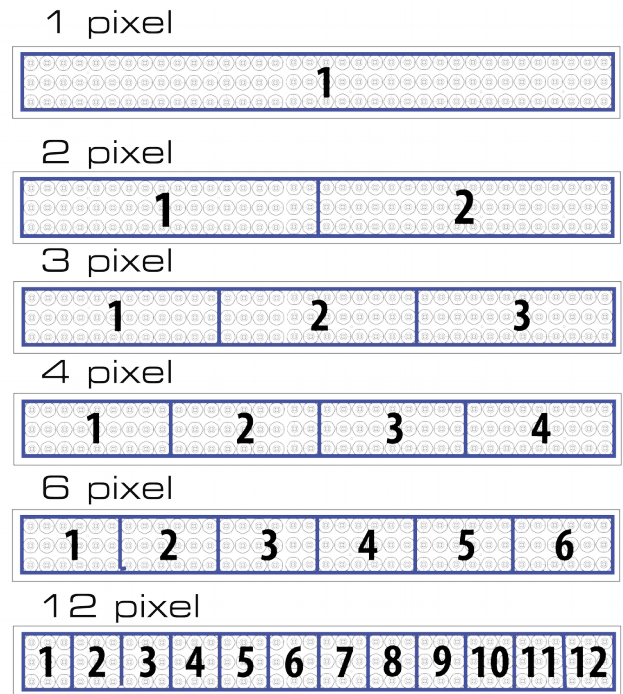
MultiFlash / MultiFlash Q+ have **96 10W Cree LEDs** which are located in **8 rows** and **16 columns**. MultiFlash LR Q+ consists of **108 10W Cree LEDs** which are located in **12 pixels, 3x3 pixel groups**. In advanced controlling modes MultiFlash, MultiFlash Q+, and MultiFlash LR Q+ may be controlled as a wash with **1, 2, 3, 4, 6, or 12 pixel** modes.

Note: Only the entire fixture can be strobed. Operators can chase individual sections with intensity or color very quickly to simulate strobing of individual segments. However, strobe functions and strobe color can only be set for the whole fixture.

MultiFlash/ MultiFlash Q+



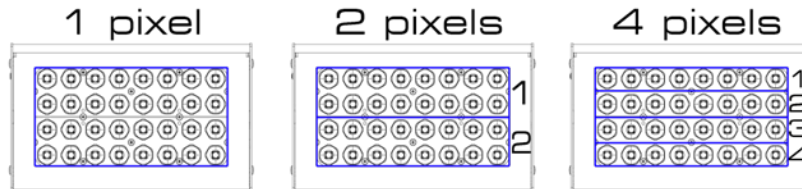
MultiFlash LR Q+



PIXEL LOCATIONS – MultiFlash M3

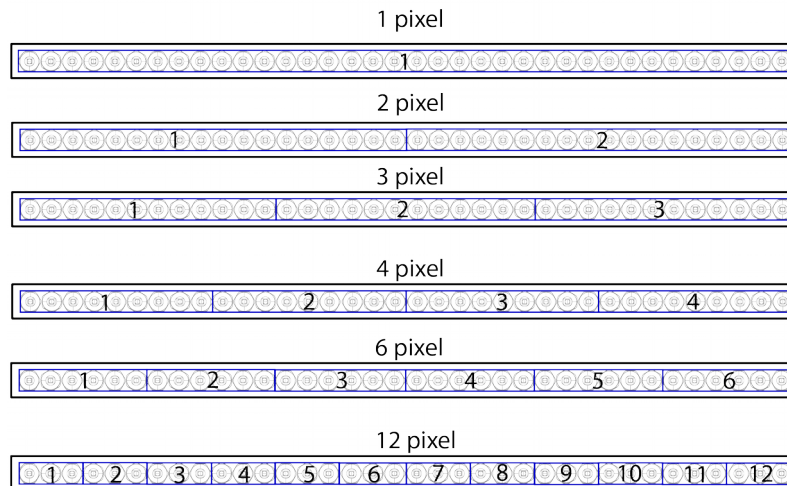
MultiFlash M3 consists out of **32 10W Cree LEDs** which are located in **4 rows** and **8 columns**. In advanced controlling modes, the MultiFlash M3 can be controlled as a wash in **1, 2, or 4 pixel** modes.

Note: Only the entire fixture can be strobed. Operators can chase individual sections with intensity or color very quickly to simulate strobing of individual segments. However, strobe functions and strobe color can only be set for the whole fixture.

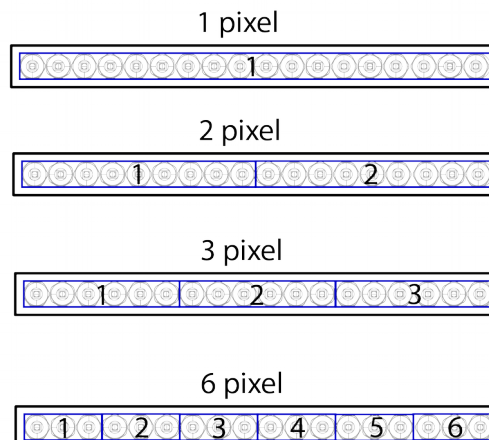


Pixel Locations – MultiFlash Rayzr

MultiFlash Rayzr Q+ 1m consists out of **36 10W Cree LEDs - 36 LEDs** in one row. In advanced controlling modes, the MultiFlash Rayzr Q+ 1m can be controlled as a wash in **1, 2, 3, 4, 6 or 12 pixel** modes.



MultiFlash Rayzr Q+ 0.5m consists out of **18 10W Cree LEDs - 18 LEDs** in one row. In advanced controlling modes, the MultiFlash Rayzr Q+ 1m can be controlled as a wash in **1, 2, 3, 4 or 6 pixel** modes.



ADVANCED RGB STROBE DMX CHANNELS

MultiFlash/ MultiFlash LR Q+/ MultiFlash Rayzr 1m					MultiFlash M3	
PIXEL MODE	CHANNEL	DMX VALUE	PERCENT	FUNCTION	PIXEL MODE	FUNCTION
RGB PIXEL MODE 1	1	0 - 255	0 - 100	Red Strobe Intensity	RGB PIXEL MODE 1	Red Strobe Intensity
	2	0 - 255	0 - 100	Green Strobe Intensity		Green Strobe Intensity
	3	0 - 255	0 - 100	Blue Strobe Intensity		Blue Strobe Intensity
	4	0 - 255	0 - 100	Strobe Intensity		Strobe Intensity
	5	0 - 255	0 - 100	Strobe Duration		Strobe Duration
	6	0 - 255	0 - 100	Strobe Rate		Strobe Rate
	7	0 - 255	0 - 100	Strobe FX		Strobe FX
	8	0 - 255	0 - 100	1 pix Red intensity		1 pix Red intensity
	9	0 - 255	0 - 100	1 pix Green intensity		1 pix Green intensity
	10	0 - 255	0 - 100	1 pix Blue intensity		1 pix Blue intensity
RGB PIXEL MODE 2	11	0 - 255	0 - 100	2 pix Red intensity	RGB PIXEL MODE 2	2 pix Red intensity
	12	0 - 255	0 - 100	2 pix Green intensity		2 pix Green intensity
	13	0 - 255	0 - 100	2 pix Blue intensity		2 pix Blue intensity
RGB PIXEL MODE 3	14	0 - 255	0 - 100	3 pix Red intensity	RGB PIXEL MODE 4	3 pix Red intensity
	15	0 - 255	0 - 100	3 pix Green intensity		3 pix Green intensity
	16	0 - 255	0 - 100	3 pix Blue intensity		3 pix Blue intensity
RGB PIXEL MODE 4	17	0 - 255	0 - 100	4 pix Red intensity	RGB PIXEL MODE 4	4 pix Red intensity
	18	0 - 255	0 - 100	4 pix Green intensity		4 pix Green intensity
	19	0 - 255	0 - 100	4 pix Blue intensity		4 pix Blue intensity
RGB PIXEL MODE 6H or 6V (LR Q+, Rayzr 1m 6 only)	20	0 - 255	0 - 100	5 pix Red intensity		
	21	0 - 255	0 - 100	5 pix Green intensity		
	22	0 - 255	0 - 100	5 pix Blue intensity		
	23	0 - 255	0 - 100	6 pix Red intensity		
	24	0 - 255	0 - 100	6 pix Green intensity		
	25	0 - 255	0 - 100	6 pix Blue intensity		
RGB PIXEL MODE 12	26	0 - 255	0 - 100	7 pix Red intensity		
	27	0 - 255	0 - 100	7 pix Green intensity		
	28	0 - 255	0 - 100	7 pix Blue intensity		
	29	0 - 255	0 - 100	8 pix Red intensity		
	30	0 - 255	0 - 100	8 pix Green intensity		
	31	0 - 255	0 - 100	8 pix Blue intensity		
	32	0 - 255	0 - 100	9 pix Red intensity		
	33	0 - 255	0 - 100	9 pix Green intensity		
	34	0 - 255	0 - 100	9 pix Blue intensity		
	35	0 - 255	0 - 100	10 pix Red intensity		
	36	0 - 255	0 - 100	10 pix Green intensity		
	37	0 - 255	0 - 100	10 pix Blue intensity		
	38	0 - 255	0 - 100	11 pix Red intensity		
	39	0 - 255	0 - 100	11 pix Green intensity		
	40	0 - 255	0 - 100	11 pix Blue intensity		
	41	0 - 255	0 - 100	12 pix Red intensity		
	42	0 - 255	0 - 100	12 pix Green intensity		
	43	0 - 255	0 - 100	12 pix Blue intensity		

ADVANCED RGBW STROBE DMX CHANNELS

MultiFlash/ MultiFlash LR Q+/ MultiFlash Rayzr 1m					MultiFlash M3	
PIXEL MODE	CHANNEL	DMX VALUE	PERCENT	FUNCTION	PIXEL MODE	FUNCTION
RGBW PIXEL MODE 1	1	0 - 255	0 - 100	Red Strobe Intensity	RGBW PIXEL MODE 1	Red Strobe Intensity
	2	0 - 255	0 - 100	Green Strobe Intensity		Green Strobe Intensity
	3	0 - 255	0 - 100	Blue Strobe Intensity		Blue Strobe Intensity
	4	0 - 255	0 - 100	White Strobe Intensity		White Strobe Intensity
	5	0 - 255	0 - 100	Strobe Intensity		Strobe Intensity
	6	0 - 255	0 - 100	Strobe Duration		Strobe Duration
	7	0 - 255	0 - 100	Strobe Rate		Strobe Rate
	8	0 - 255	0 - 100	Strobe FX		Strobe FX
	9	0 - 255	0 - 100	1 pix Red intensity		1 pix Red intensity
	10	0 - 255	0 - 100	1 pix Green intensity		1 pix Green intensity
	11	0 - 255	0 - 100	1 pix Blue intensity		1 pix Blue intensity
	12	0 - 255	0 - 100	1 pix White intensity		1 pix White intensity
RGBW PIXEL MODE 2V or 2H (LR Q+, Rayzr 1m 2 only)	13	0 - 255	0 - 100	2 pix Red intensity	RGBW PIXEL MODE 2V or 2H	2 pix Red intensity
	14	0 - 255	0 - 100	2 pix Green intensity		2 pix Green intensity
	15	0 - 255	0 - 100	2 pix Blue intensity		2 pix Blue intensity
	16	0 - 255	0 - 100	2 pix White intensity		2 pix White intensity
RGBW PIXEL MODE 3	17	0 - 255	0 - 100	3 pix Red intensity	RGBW PIXEL MODE 4	3 pix Red intensity
	18	0 - 255	0 - 100	3 pix Green intensity		3 pix Green intensity
	19	0 - 255	0 - 100	3 pix Blue intensity		3 pix Blue intensity
	20	0 - 255	0 - 100	3 pix White intensity		3 pix White intensity
RGBW PIXEL MODE 4	21	0 - 255	0 - 100	4 pix Red intensity		4 pix Red intensity
	22	0 - 255	0 - 100	4 pix Green intensity		4 pix Green intensity
	23	0 - 255	0 - 100	4 pix Blue intensity		4 pix Blue intensity
	24	0 - 255	0 - 100	4 pix White intensity		4 pix White intensity
RGBW PIXEL MODE 6H or 6V (LR Q+, Rayzr 1m 6 only)	25	0 - 255	0 - 100	5 pix Red intensity		
	26	0 - 255	0 - 100	5 pix Green intensity		
	27	0 - 255	0 - 100	5 pix Blue intensity		
	28	0 - 255	0 - 100	5 pix White intensity		
	29	0 - 255	0 - 100	6 pix Red intensity		
	30	0 - 255	0 - 100	6 pix Green intensity		
	31	0 - 255	0 - 100	6 pix Blue intensity		
	32	0 - 255	0 - 100	6 pix White intensity		
RGBW PIXEL MODE 12	33	0 - 255	0 - 100	7 pix Red intensity		
	34	0 - 255	0 - 100	7 pix Green intensity		
	35	0 - 255	0 - 100	7 pix Blue intensity		
	36	0 - 255	0 - 100	7 pix White intensity		
	37	0 - 255	0 - 100	8 pix Red intensity		
	38	0 - 255	0 - 100	8 pix Green intensity		
	39	0 - 255	0 - 100	8 pix Blue intensity		
	40	0 - 255	0 - 100	8 pix White intensity		
	41	0 - 255	0 - 100	9 pix Red intensity		
	42	0 - 255	0 - 100	9 pix Green intensity		
	43	0 - 255	0 - 100	9 pix Blue intensity		
	44	0 - 255	0 - 100	9 pix White intensity		
	45	0 - 255	0 - 100	10 pix Red intensity		
	46	0 - 255	0 - 100	10 pix Green intensity		
	47	0 - 255	0 - 100	10 pix Blue intensity		
	48	0 - 255	0 - 100	10 pix White intensity		
	49	0 - 255	0 - 100	11 pix Red intensity		
	50	0 - 255	0 - 100	11 pix Green intensity		
	51	0 - 255	0 - 100	11 pix Blue intensity		
	52	0 - 255	0 - 100	11 pix White intensity		
	53	0 - 255	0 - 100	12 pix Red intensity		
	54	0 - 255	0 - 100	12 pix Green intensity		
	55	0 - 255	0 - 100	12 pix Blue intensity		
	56	0 - 255	0 - 100	12 pix White intensity		

MANUAL FUNCTION

This menu function allows selection of the intensity of wash/blinder background color, strobe color, and strobe functions. This functions as a stand-alone mode. Manual values are saved if power is shut down. A reset will clear these values (see Menu Maps, pages 9-10).

Demo – In this menu the following demonstration scenes may be selected:

During the demo functions, using the **<UP>** and **<DOWN>** buttons will change the demo scenes. To exit **Demo** mode, press the **<EXIT >** button. This mode works as a stand-alone mode. Even if the MultiFlash is turned off, and then back on, the selected demo scene will be saved. While in the Demo menu, the demonstration scene will play. When exited from Demo mode, the MultiFlash will return to a normal state of operation.

Config – Configuration setup. In this menu the following functions may be selected:

DMX LOSS – Select desired function should the MultiFlash lose DMX signal:

HOLD – Hold the last received DMX values when DMX signal is lost

OFF – Do not hold the last received DMX values when DMX signal is lost. Also stops light output.

Fan – Cooling Fan:

AUTO – Fan speed is automatically controlled by the MultiFlash and will adjust according to temperatures at normal operating levels.

ON – Fan cooling always is turned on.

Note: MultiFlash Q+, MultiFlash Rayzr and MultiFlash LR Q+ have a Power/Fan menu category. In this menu you have three modes:

- *Turbo Mode – Full Power, full fans when needed*
- *Theater Mode – Reduced power and fan noise*
- *Match/Compatibility – Reduced power and max. fan speed to match first generation MultiFlash output*

Display – Automatic power on/off:

ON – Control display is turned on.

10s – Control display is turned off after 10 seconds of inactivity.

30s – Control display is turned off after 30 seconds of inactivity.

Thermometer – Internal temperature gauge:

The built-in thermometer tracks internal operating temperature. Pressing the **<UP>** and **<DOWN>** buttons selects degrees Celsius or Fahrenheit.

Fade Time – Fade time setup. The operator can set the way the MultiFlash reacts to changing DMX values. This is designed to allow the light output of the MultiFlash to react as smoothly as possible when crossfading DMX values.

OFF – The MultiFlash will not change the smoothness of crossfading of values coming from the lighting controller.

Smart Fade – The MultiFlash will attempt to add smoothness to crossfading DMX values coming from the lighting controller, but will also allow for very quick change of values where smoothness is not applicable.

Fixed Fade – The fade time for any change in DMX values can be set manually. The timing values can be set from 0.01 to 2.50 seconds. Use the **<Up>** and **<Down>** buttons to change these values.

Gamma – Gamma correction curve selection. This sets direct relation between AC current to the LEDs and the DMX value. The lower the value, the dimming curve and steps of intensity will be more noticeable at the bottom of the DMX range. The higher the value, the smoother the bottom end of the curve will be where the human eye detects more subtle changes.

Gamma 8 – 8-bit rate Gamma correction setup. Color dimming curve values can be set from **1.0** to **5.0**. The **default** value is **3.0**

Gamma 16 – 16-bit rate Gamma correction setup. Each color dimming curve values from **1.0** to **5.0**. The **default** value is **1.0**

Async Strobo – This special mode allows for fast programming and “one-hit” effects (see Strobe Modes section of Manual). Default is OFF, turn ON to activate.

Upload – Upload software. Designed to cross-load software from one MultiFlash to others in the DMX data chain. This should not be used when other fixture types are in the data chain. Use of this function will be prompted by **Password**. The password is **111**.

Line Freq – Line Frequency. Allows adjustment of MultiFlash input power frequency to match local source power for minimum visual artifacts on camera. The setting depends on region of use and power source. There are two options: 50Hz and 60Hz. Use the **<UP>** and **<DOWN>** buttons to change these values.

Reset – Set factory defaults. Two options: **NO** and **YES**. Use the **<UP>** and **<DOWN>** buttons to change these values.

MultiFlash v8.9 and MultiFlash RDM v9.73 LED Color Output Calibration

In some cases, different versions and vintages of MultiFlash will exhibit slightly different levels of output of Red, Green, Blue, and White. The method below describes the best way to match MultiFlash colors and output to achieve the most consistent results possible.

Tools required:
DMX Source
LUX meter (for ideal results) or two sheets of white paper.

Setting the units up to be calibrated:

To enable calibration mode, first address the units to be calibrated to DMX “511”. A password prompt will appear. Change the value on screen to “88” and hit the ENTER/ check mark button.

Enter the “CONFIG” menu and scroll down to “ENGINEER”.

In the Engineer menu select “XML” and choose “CALIBRATED”.

Go to the “CALIBRATE” menu option to access the calibration controls. This allows the operator to set intensity for each color and adjust each color hue.

Intensity of each color adjusts the output of each color.

Red hue is changed by adding green color.

Green hue is changed by adding red or blue color.

Blue hue is changed by adding green color.

White hue (color temperature) is changed by adding blue or adding red and green.

Recommended calibration scenario:

Get a group of ~10 fixtures close enough together to compare them, and set to individual DMX addresses so they can be turned off and on independently from the DMX source.

Change the fixtures' Control mode to Basic -> RGBW -> 8bit 4-channel mode for ease of control. Select one fixture as the benchmark – if there are visible differences in brightness, select one that is medium brightness. Enter calibration menu for all fixtures. Reset calibration values to +/- 0% and PURE color. Using a lux meter from distance of ~5-10m measure individual color (R, G, B, and W) brightness of benchmark fixture. Go through the rest of fixtures (one fixture and single color at a time) to match individual color brightness.

After intensity matching has been done, turn on all fixtures to a desire mixed color and adjust color hue if necessary so all fixtures look alike. Color hue changes will likely be done using green and white colors (red and blue tend to be similar).

After color hue has been matched, do a color intensity calibration again as changing color hue changes intensity as well. This has to be done only for fixtures that had color hue changed. Test units by mixing different colors. They should look alike.

Save calibration values – Keep the benchmark unit and swap out all calibrated units for the next group of un-calibrated units and repeat.

Visual calibration without a lux meter – Another method is to put white paper in front of the fixture and try matching visually. This isn't as effective as measuring individual color output in lux however. Follow the same procedure as above.

RDM functionality

MultiFlash, MultiFlash M3, MultiFlash Q+, and MultiFlash LR Q+ are equipped with RDM Functionality. Below are the RDM functions available in these devices. Company NA has many options for RDM control of your devices: **ProPlex** RDMigo and IQ RDM Manager Software; Company NA Striker; and NA MasterFade. Additionally, NA RDM Opto-Splitters and the NA IQ product range offer many means of RDM over DMX data distribution.

APPENDIX

DMX PRIMER

There are 512 channels in a DMX-512 connection. Channels may be assigned in any manner. A fixture capable of receiving DMX 512 will require one or a number of sequential channels. The user must assign a starting address on the fixture that indicates the first channel reserved in the lighting console. There are many different types of DMX controllable fixtures and they all may vary in the total number of channels required. Choosing a start address should be planned in advance. Channels should never overlap. If they do, this will result in erratic operation of the fixtures whose starting address is set incorrectly. You can, however, control multiple fixtures of the same type using the same starting address as long as the intended result is that of unison movement or operation. In other words, the fixtures will be slaved together and all respond exactly the same.

DMX fixtures are designed to receive data through a DMX Chain. A DMX chain connection is where the DMX OUT of one fixture connects to the DMX IN of the next fixture. The order in which the fixtures are connected is not important and has no effect on how a lighting console communicates to each fixture. Use an order that provides for the easiest and most direct cabling. Connect fixtures using shielded two conductor twisted pair cable with three pin XLR male to female connectors. The shield connection is pin 1, while pin 2 is data Negative (S-) and pin 3 is data positive (S+). Company NA carries 3-pin and 5-pin XLR DMX compliant cables.

GENERAL MAINTENANCE

To maintain optimum performance and minimize wear fixtures should be cleaned frequently. Usage and environment are contributing factors in determining frequency. As a general rule, fixtures should be cleaned at least twice a month. Dust build up reduces light output performance and can cause overheating. This can lead to reduced lamp life and increased mechanical wear. Be sure to power off fixture before conducting maintenance.

Unplug fixture from power. Use a vacuum or air compressor and a soft brush to remove dust collected on external vents and internal components. Clean all glass when the fixture is cold with a mild solution of glass cleaner or isopropyl alcohol and a soft lint free cotton cloth or lens tissue. Apply solution to the cloth or tissue and drag dirt and grime to the outside of the lens. Gently polish optical surfaces until they are free of haze and lint.

The cleaning of internal and external optical lenses and/ or mirrors must be carried out periodically to optimize light output. Cleaning frequency depends on the environment in which the fixture operates: damp, smoky or particularly dirty surrounding can cause greater accumulation of dirt on the unit's optics. Clean with soft cloth using normal glass cleaning fluid. - always dry the parts carefully. – clean the external optics at least every 20 days. Clean the internal optics at least every 30 / 60 days.

RETURN PROCEDURE

Returned merchandise must be sent prepaid and in the original packing, call tags will not be issued. Package must be clearly labeled with a Return Merchandise Authorization Number (RMA #). Products returned without an RMA # will be refused. Please contact Company NA and request RMA # prior to shipping the fixture. Be prepared to provide the model number, serial number and a brief description of the cause for the return. Be sure to properly pack fixture, any shipping damage resulting from inadequate packaging is the customers responsibility.

Company NA reserves the right to use its own discretion to repair or replace product(s).

As a suggestion, proper UPS packing or double-boxing is always a safe method to use.

Note:

If you have RMA #, please include the following information on a piece of paper inside the box:

- 1) Your name
- 2) Your address
- 3) Your phone number
- 4) The RMA #
- 5) A brief description of the symptoms

CLAIMS

Damage incurred in shipping is the responsibility of the shipper; therefore the damage must be reported to the carrier upon receipt of merchandise. It is the customer's responsibility to notify and submit claims with the shipper in the event that a fixture is damaged due to shipping. Any other claim for items such as missing component/part, damage not related to shipping, and concealed damage, must be made within seven (7) days of receiving merchandise.

TECHNICAL SPECIFICATIONS – MultiFlash

WEIGHT / DIMENSIONS

Length	19.6" (497mm)
Width	8.3" (210mm)
Height (w/yoke)	9.1" (232mm)
Weight	20.9 lb. (9.5 kg)

POWER

Operating Voltage	100-240VAC 50/60Hz
Fuse	12A 250V slow-blow (5x20mm)
Power Consumption	1000W

LIGHT SOURCE

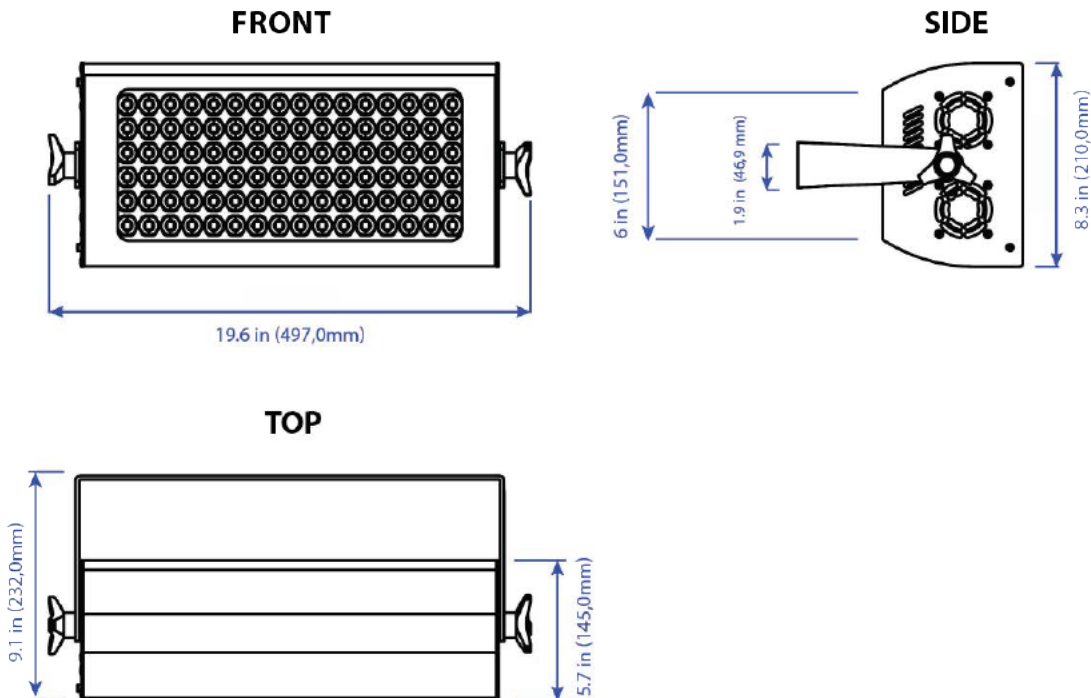
LEDs	96 10W RGBW Cree LEDs, divided into 12 segments
Color	RGBW
Beam spread	36°

THERMAL

Max. ambient temperature	+104 °F (+40 °C)
Min. ambient temperature	-4 °F (-20 °C)
Cooling	air cooled – fan

CONTROL / PROGRAMMING

DMX input	locking 5-pin XLR male socket
DMX output	locking 5-pin XLR female socket
DMX pin config.	pin 1 shield, pin 2 (-), pin 3 (+), pin 4 n/a, pin 5 n/a
Control	DMX-512, Demo, Manual mode
DMX Channels – Basic Mode	3, 4, 6, 7, 8
DMX Channels – Advanced Mode	10,12,13,16,19,20,24,25,32,43,56
Power Connector	Input: PowerCon 20A



TECHNICAL SPECIFICATIONS – MultiFlash Q+

WEIGHT / DIMENSIONS

Length	19.7" (500 mm)
Width	6.5" (164 mm)
Height (w/yoke)	10" (257 mm)
Weight	22 lb.(10 kg)

POWER

Operating Voltage	100-240VAC 50/60Hz
Fuse.....	12A 250V slow-blow (5x20 mm)
Power Consumption	1250 W

LIGHT SOURCE

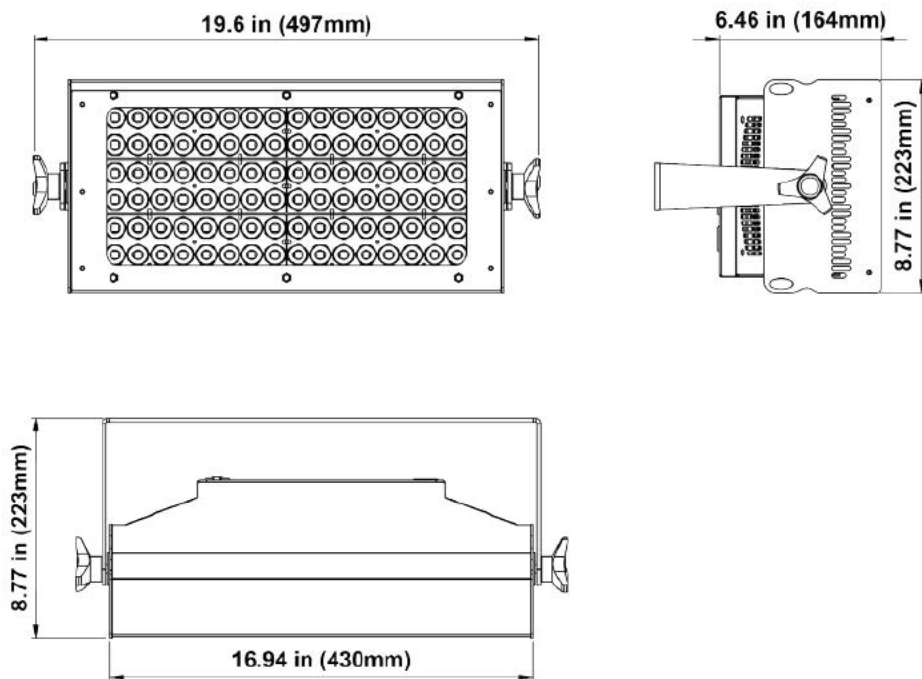
LEDs.....	96 10W RBGW Cree LEDs, divided into 12 segments
Color	RGBW
Beam spread	36°

THERMAL

Max. ambient temperature.....	+104 °F (+40 °C)
Min. ambient temperature.....	-13 °F (-25 °C)
Cooling	air cooled – fan

CONTROL / PROGRAMMING

DMX input	locking 5-pin XLR male socket
DMX output	locking 5-pin XLR female socket
DMX pin config.	pin 1 shield, pin 2 (-), pin 3 (+), pin 4 n/a, pin 5 n/a
Control	RDM, DMX-512, Demo, Manual mode
DMX Channels – Basic Mode.....	3, 4, 6, 7, 8
DMX Channels - Advanced Mode.....	10,12,13,16,19,20,24,25,32,43,56
Power Connector	Input: PowerCon 20A



TECHNICAL SPECIFICATIONS – MultiFlash M3

WEIGHT / DIMENSIONS

Length	13.0" (329mm)
Width	5.25" (133mm)
Height (w/yoke)	9.2" (233mm)
Weight	10.6 lb. (4.8 kg)

POWER

Operating Voltage	100-240VAC 50/60Hz
Fuse.....	12A 250V slow-blow (5x20mm)
Power Consumption	400W

LIGHT SOURCE

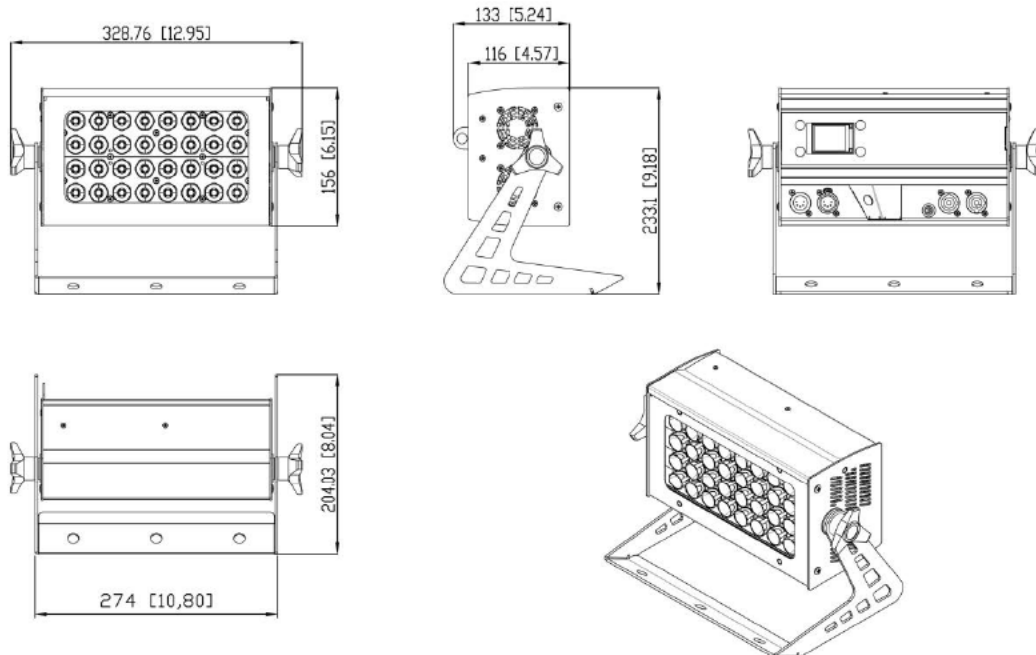
LEDs.....	32 10W RBGW Cree LEDs divided into 4 segments
Color	RGBW
Beam spread	36°

THERMAL

Max. ambient temperature.....	+104°F (+40 °C)
Min. ambient temperature.....	-4 °F (-20 °C)
Cooling	air cooled – fan

CONTROL / PROGRAMMING

DMX input	locking 5-pin XLR male socket
DMX output	locking 5-pin XLR female socket
DMX pin config.	pin 1 shield, pin 2 (-), pin 3 (+), pin 4 n/a, pin 5 n/a
Control	RDM, DMX-512, Demo, Manual mode
Demo, Manual mode	
DMX Channels – Basic Mode.....	3,4,6,7,8
DMX Channels - Advanced Mode.....	10,12,13,16,19,20,24,25,32,43,56
Power Connector	Input: PowerCon 20A



TECHNICAL SPECIFICATIONS – MultiFlash Rayzr Q+ 0.5m

WEIGHT / DIMENSIONS

Length	498 mm
Width	41 mm
Height (w/yoke)	201 mm
Weight	2.2 kg

POWER

Operating Voltage	100-240VAC 50/60Hz
Fuse	2A 250V slow-blow (5x20 mm)
Power Consumption	200W

LIGHT SOURCE

LEDs	18 10W RGBW Cree LEDs, divided into 6 segments
Color	RGBW
Beam spread	36°

THERMAL

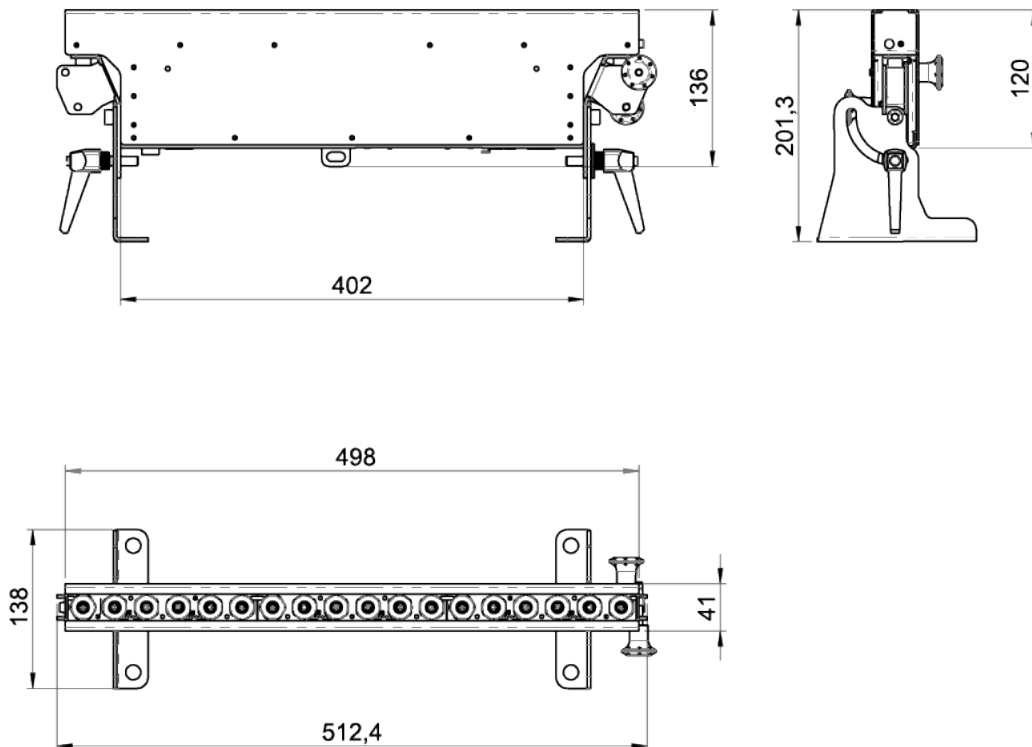
Max. ambient temperature	+104 °F (+40 °C)
Min. ambient temperature	-13 °F (-25 °C)
Cooling	air cooled – fan

CONTROL / PROGRAMMING

DMX input	locking 5-pin XLR male socket
DMX output	locking 5-pin XLR female socket
DMX pin config.	pin 1 shield, pin 2 (-), pin 3 (+), pin 4 n/a, pin 5 n/a
Control	RDM, DMX-512, Demo, Manual mode

Power Connector

Input, output: PowerCon 20A



TECHNICAL SPECIFICATIONS – MultiFlash Rayzr Q+ 1m

WEIGHT / DIMENSIONS

Length 998 mm
 Width 41 mm
 Height (w/yoke) 201 mm
 Weight 4,1 kg

POWER

Operating Voltage 100-240VAC 50/60Hz
 Fuse 4A 250V slow-blow (5x20 mm)
 Power Consumption 200W

LIGHT SOURCE

LEDs 36 10W RGBW Cree LEDs, divided into 6 segments
 Color RGBW
 Beam spread 36°

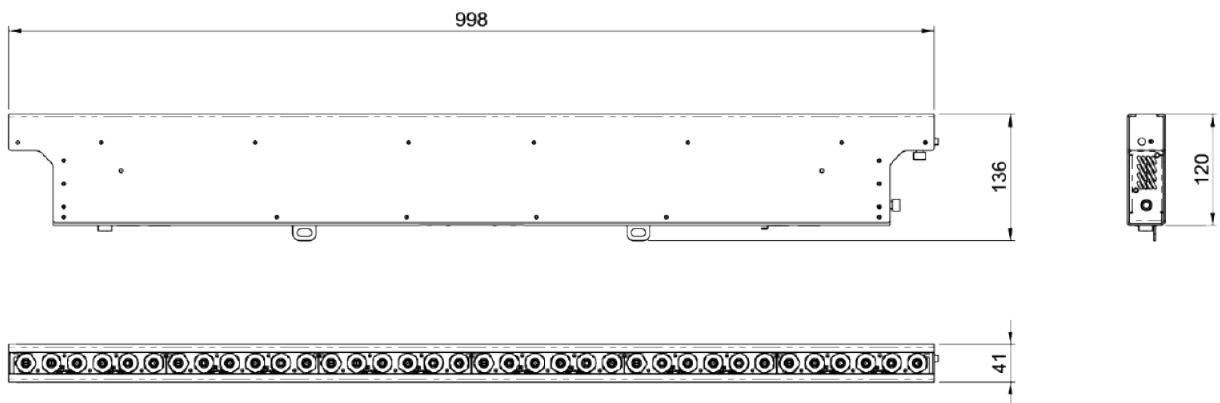
THERMAL

Max. ambient temperature +104 °F (+40 °C)
 Min. ambient temperature -13 °F (-25 °C)
 Cooling air cooled – fan

CONTROL / PROGRAMMING

DMX input locking 5-pin XLR male socket
 DMX output locking 5-pin XLR female socket
 DMX pin config. pin 1 shield, pin 2 (-), pin 3 (+), pin 4 n/a, pin 5 n/a
 Control RDM, DMX-512, Demo, Manual mode

Power Connector Input, output: PowerCon 20A



TECHNICAL SPECIFICATIONS – MultiFlash LR Q+

WEIGHT / DIMENSIONS

Length	39.3" (998mm)
Width	5" (125mm)
Height (w/yoke)	6.9" (175mm)
Weight	24.3 lb.(11 kg)

POWER

Operating Voltage	00-240VAC 50/60Hz
Fuse	12A 250V slow-blow (5x20mm)
Power consumption.....	1400W

LIGHT SOURCE

LEDs.....	108 RGBW Cree LEDs divided into 12 pixels
Color	RGBW
Beam spread	36°
Intensity control.....	16bit or 8bit
Refresh rate	1200Hz

AVERAGE COLOR WAVELENGTH

Red	625 nm
Green	530 nm
Blue	460 nm
White	>5700K
Refresh rate	1200Hz

THERMAL

Max. ambient temperature.....	+104°F (+40 °C)
Min. ambient temperature.....	-4 °F (-20 °C)
Cooling	air cooled – fan

CONTROL / PROGRAMMING

DMX input	locking 5-pin XLR male socket
DMX output	locking 5-pin XLR female socket
DMX pin config.	pin 1 shield, pin 2 (-), pin 3 (+), pin 4 n/a, pin 5 n/a
Control	RDM, DMX-512, Demo, Manual Mode
DMX Channels – Basic Mode.....	3,4,6,7,8
DMX Channels - Advanced Mode.....	10,12,13,16,19,20,24,25,32,43,56
Power Connector	Input: PowerCon 20A

