FUSION by GLP

# X-PAR 8Z

# User Manual

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GLP

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GLP® Fusion X-PAR 8Z User Manual



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# 1. Safety

## *Key to symbols*

The following symbols are used in the product's user documentation:

| | | | |
|---|---|---|---|
|  | **Warning!** Safety hazard. Risk of severe injury or death. |  | **Warning!** Hazardous voltage. Risk of lethal or severe electric shock. |
|  | **Warning!** See user documentation for important safety information. |  | **Warning!** Fire hazard. |
|  | **Warning!** Risk of eye injury. |  | **Warning!** Hot surface. Risk of burn injury. |


**Warning! Read the Quick Start and Safety Manual supplied with the Fusion X-PAR 8Z lighting fixture and available for download from www.glp.de before installing, operating or servicing the fixture. The Quick Start and Safety Manual contains important information for the safe use of Fusion X-PAR 8Z fixtures. If you fail to read that information, you may create a safety hazard with a risk of injury, death or damage.**

If you have any doubts or questions about how to use the product safely, please contact your GLP® supplier, who will be happy to help.

The user documentation for GLP Fusion X-PAR 8Z lighting fixture consists of:

- The **Fusion X-PAR 8Z Quick Start and Safety Manual**, supplied with Fusion X-PAR 8Z fixtures and available for download from www.glp.de. The Quick Start and Safety Manual contains important safety information and installation instructions that the installer and user must read. It also contains a detailed product overview, dimensions drawings and technical specifications for the product.

- The **Fusion X-PAR 8Z User Manual**, available for download from www.glp.de. The User Manual explains features and control of Fusion X-PAR 8Z fixtures.
- The **Fusion X-PAR 8Z DMX Channel Index**, containing the DMX control channel layout and DMX commands available in the fixture. This information is also included in the User Manual.

The Fusion X-PAR 8Z is intended for use by experienced professionals with the knowledge and skills to set up, operate, and maintain high-powered, remotely controlled lighting equipment safely and efficiently. These operations require expertise that may not be provided in this manual.

- Respect all warnings and directions given in the product's user documentation and on the product. Read the user documentation and familiarize yourself with the safety precautions it contains before installing, using or servicing the product. GLP and affiliated companies will take no responsibility for damage or injury resulting from disregard for the information in the user documentation.
- Check the GLP website at www.glp.de and make sure that you have the latest versions of the product's user documentation.
- Check the fixture software version indicated on page 2 of this User Manual and then use the fixture's control panel to check the version installed in the fixture. If the versions are not the same, the user manual may still cover the fixture, because software updates do not always affect the use of the fixture. However, it is possible that this User Manual does not match the fixture perfectly. Software release notes can help clarify this question. You can consult software release notes and download the correct version of this manual on the GLP website if necessary.
- Make both the Quick Start and Safety Manual and this User Manual available to all persons who will install, operate or service the product. Save both documents for future reference.
- If you have any questions about the safe operation of the product, please contact an authorized GLP distributor (see list of distributors at www.glp.de).
- Use the product only as directed in this manual. Observe all markings in this manual and on the product.

## *GLP Service and Support*

Contact information for the nearest GLP Service and Support is available online at www.glp.de/en/service, by email at info@glp.de, or by telephone at the following numbers:

- GLP Germany: +49 (7248) 927 19-55
- GLP N. America: +1 818 767-8899
- GLP UK: +44 1392 690140
- GLP Asia: +852 (3151) 7730
- GLP Nordic: +46 737 57 11 40

### *Avoiding damage to the fixture*

The Quick Start and Safety Manual contains important information that is intended to help you avoid possible damage to the fixture from other light sources, during transportation, etc. Read that information before storing, transporting or using the fixture.

# 2. Features

## *Light source*

The Fusion X-PAR 8Z uses an RGBL LED light source (Red, Green, Blue, Lime) powered at 80 Watts. It has a fanless cooling system.

## *Control options*

The Fusion X-PAR 8Z is compatible with DMX 512 and RDM control protocols. It also includes a GLP iQ.Mesh module for easy configuration, control, service and maintenance via the GLP iQ.Service App.

## *Zoom*

The Fusion X-PAR 8Z has a zoom range that lets you vary the output from 8.5° beam angle to 55° field angle. Control on the Zoom DMX channel moves from spot to flood as the DMX value increases (can be inverted in Settings).

## *Color Mix Mode*

The color output can be set using either RGB values (Lime output set automatically for best color rendering) or direct control of the RGBL emitters. You can change the color mixing mode using the **Fixture Settings → Color Mix Mode** setting or via DMX on the Special/Control channel.

## *Color Wheel*

Depending on the DMX control mode selected, you can select a color from a virtual color wheel channel that gives quick access to a wide range of LEE-referenced colors. Color Wheel is not available in "RGB(L)", "Basic" and "White" DMX control modes.

Color wheel color presets are always mixed with the best available spectrum. Color filter color coordinates are based on a Source C (daylight) light source.

If a color coordinate is outside the possible color gamut of the light source, the fixture tries to match the target color as closely as possible.

*Note: Color wheel color presets have higher priority than the Color Mix, CTO and M/G Shift channels.*

*The virtual color wheel channel must be set to DMX 000 in order to use normal RGB or RGBL color mixing.*

## *Color Temperature / Green-Magenta Shift*

Some DMX modes allow control of CTC (color temperature) and Magenta/Green shift. These settings modify the color settings selected on the other controls. Available in “White”, “Standard” and “Advanced” DMX control modes.

The Magenta/Green Shift channel lets you move the color coordinate of a white point, a mixed color or a selected CTC color along a vertical line on the color temperature curve. The corresponding white point is either shifted towards Green or Magenta. If M/G Shift is enabled, it immediately affects all mixed colors as well as the color temperature that is selected on the CTC channel. It has no effect on the colors of the virtual color wheel.

## *Dimming*

The fixture has 16-bit dimming (only available in “Advanced” DMX control mode) with selectable dimming curve. A soft-fade option can be selected to simulate tungsten dimming.

## *Shutter*

The fixture’s electronic shutter offers continuous blackout, continuous open and a range of intensity effects.

The following shutter effects are available:

- **Single flash** performs exactly one single flash with each value change within this DMX value slot.
- **Pulse** dims up and down smoothly with the same fade-in and fade-out times. Speed can be adjusted from slow to fast.
- **Pulse open** fades in and then snaps to blackout. Speed can be adjusted from slow to fast.
- **Pulse close** fades out and then snaps to full. Speed can be adjusted from slow to fast.
- **Strobe double flash** provides a quick double flash. Speed can be adjusted from slow to fast.
- **Strobe random** strobes the fixture at random intervals, allowing a random strobe between multiple fixtures. Speed can be adjusted from slow to fast. *Note that the random effect across multiple fixtures really is random!*

- **Strobe** strobes the fixture at a fixed rate and also perfectly synchronizes the strobe in multiple fixtures so that all the fixtures flash at exactly the same time. Speed can be adjusted from slow to fast.

## *Special/Control DMX channel*

The *Special/Control* DMX channel lets you change fixture settings and perform a fixture reset from the control desk (a possibility that can be very useful during a show or for a specific scene). To apply a command on the *Special/Control* channel, you must hold the command for the time indicated in the DMX channel index section at the end of this user manual.

To trigger a reset using the *Special/Control* channel, you must send the DMX value for this function for 3 seconds. If you want to trigger an additional reset using the *Special/Control* channel, you must first move away from the Reset DMX value and then return to this value. This requirement to change DMX values eliminates the risk of the fixture entering an unwanted Reset loop if it is patched wrongly.

# 3. Settings

The settings described in this chapter let you customize the Fusion X-PAR 8Z. Settings can be available in the control panel on the rear of the fixture, via DMX and/or via RDM.

## *Color Mix Mode*

The fixture uses an LED with RGBL emitters (Red, Green, Blue, Lime). This color combination is used to give improved color rendering with better white light and pastel tints. Some DMX Control Modes allow you to change between mixing the colors in "RGB HO" (RGB with focus on High Output) and "RGB HQ" (RGB with Focus on High Color Quality). In both color modes, the Lime emitters are automatically controlled and the Lime control channel(s) have no effect; color is set using levels of Red,Green and Blue.

Using the menu option **Fixture Settings → Color Mix Mode** you can change the color control mode:

- RGB HO (Calibrated) sets the fixture to automatically control emitters from the RGB settings for maximum light output.
- RGB HQ (Calibrated) sets the fixture to automatically control emitters from the RGB settings to give maximum color rendering quality.
- RGBL mode allows independent control of the Red, Green, Blue and Lime emitters.

The default setting is **RGB HO (Calibrated)**. RGB(L) control is not available in “White” and “Easy” DMX control modes.

## *Control Protocol*

The Fusion X-PAR 8Z can be controlled via USITT512 DMX over a standard DMX cable link using the fixture’s 5-pin XLR connectors, or using the GLP iQ.Mesh system.

Note: The **Protocol Setup** settings are not affected if you select **Default Settings** from the Service menu, but they are returned to factory defaults if you select **Load Factory Backup**.

Use the **Protocol Setup → Data In** option to select one of the following options:

**DMX**

The fixture is set up for control via a standard DMX cable.

**GLP iQ.Mesh**

The fixture's internal GLP iQ.Mesh technology lets you create a wireless connection to the GLP iQ.Service App on your mobile device. For information on connecting one or more fixtures with the GLP iQ.Service App, please contact your GLP Support or read the GLP iQ.Service User Manual.

## *Dimmer curves*

See Figure 1. You can select from four dimming curves using the **Fixture Settings → Dimmer Curve** option on the control panel:

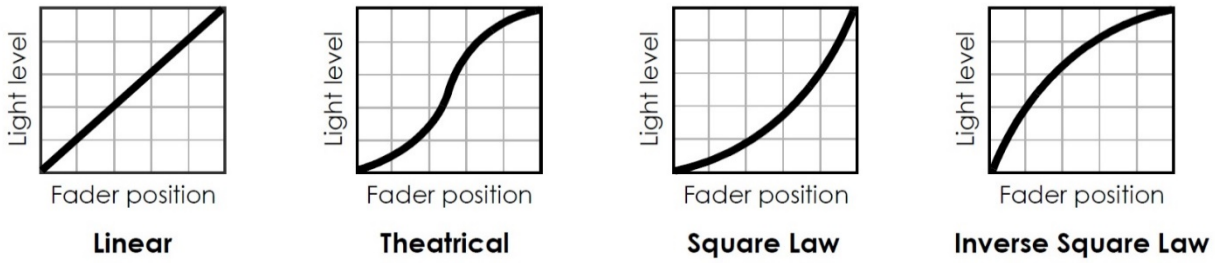


***Figure 1. Dimming curves***

- **Linear** sets dimming so that it appears to increase and decrease evenly throughout the dimming range.
- **Theatrical** is an S-shaped curve that gives finer control at low and at high light levels.
- **Square Law** gives finer control at low light levels and coarser control at high light levels.
- **Inverse Square Law** gives coarser control at low light levels and finer control at high light levels.

The default setting is **Linear**.

The fixture can be set to snap to dimmer changes or to have a soft-fade change similar to a tungsten fixture. This is set using the **Fixture Settings → Dimmer Speed** option. The default setting is **Fast**.

### *Zoom*

The Zoom operation can be inverted using the **Fixture Settings → Zoom Invert** menu option.

### *Behavior when the fixture is not receiving a DMX signal*

You can set the fixture to react in three different ways if no DMX signal is present (if the fixture is being controlled by DMX but the DMX signal stops, or if you apply power to the fixture when no DMX signal is present).

The behavior is set using the **Fixture Settings → No Signal** menu option.

- **Hold** sets the fixture to continue obeying the last DMX values it received. If the fixture is powered up with no DMX signal, the fixture will remain in black out. This is the default setting.
- **Blackout** sets the fixture to black out.
- **Scene** sets the fixture to output the DMX state stored using the Fixture Settings → Capture Scene option on the user menu, or using the Manual DMX settings.

### *Variable PWM frequency*

The fixture's LED is controlled using Pulse-Width Modulation (PWM) which can cause visible banding or strobing on video camera pictures. To minimize this effect you can change the frequency of the pulses used for the PWM using the **Fixture Settings → PWM** option on the user menu. As the frequency is increased, the dimming resolution of the fixture may decrease.

### *OLED Display*

The illuminated OLED display lets you change fixture settings when power is applied. See Chapter 4 for more details.

Using the **Fixture Settings → Display Mode** option on the user menu you can set the display to automatically switch off when no buttons are pressed for a time.

- **Auto** (default): the display automatically switches off after a few seconds if the fixture is receiving a valid control signal and has not detected an error. If the fixture is not receiving a valid control signal, the display will flash. If the fixture has detected an error, the display remains constantly on and shows an error message.
- **On**: The display stays on constantly. This setting can be useful if you are configuring or servicing the fixture.

- **Off**: The display will automatically switch off after a few seconds even if the fixture is not receiving a valid control signal or if it has detected an error. Pressing any button turns on the display again.

Using the **Fixture Settings → Display Orientation** option you can rotate the display to make it easier to read if the fixture is rigged upside-down.

Using the **Fixture Settings → Lock** option you can lock the control panel to prevent the options being changed. To unlock, enter the passcode – the default passcode is 0000 or you can set your own code using the **Fixture Settings → Lock → Set Passcode** menu setting.

When the display is locked, pressing any button will show a warning message and the button press will have no other effect.

If the passcode is lost, you can reset it to the default by loading Factory Default Settings using the DMX Control channel or by RDM.

## *Load User Settings*

Lets you load different custom fixture configurations or return the fixture to the default fixture settings.

*To save a custom setting preset from 1 to 3, see **Service → Advanced → Save_Settings**.*

- **Load User Settings 1** to **3** loads one of three specific custom fixture settings. You must confirm the function for 3 seconds before the new settings are loaded (see ***Fixture Settings → Load User Settings**).*
- **Save User Settings 1** to **3** saves the current fixture settings as a set of user settings. You must confirm the function for 2 seconds in order to save the settings as one of the three custom settings presets (see ***Service → Advanced → Save User Settings**).*

*Note: The **Load User Setting Presets** and **Load User Setting Defaults** commands will only affect settings in the **Fixture Settings** group and will not affect DMX Address, Control Mode, Protocol Type, IP Settings, etc. This helps avoid loss of communication with the controller.*

## *Manual DMX*

Gives individual control of the fixture using the fixture user interface. The menu timeout function is disabled while this menu is open.

*Note that external DMX Values will always have higher priority than manually entered values. We recommend that you disconnect the fixture from the data source when using **Manual DMX**.*

**Manual DMX** values are saved to the internal **Scene (Stand Alone)** memory as soon you exit the **Manual DMX** menu. This scene can be replayed automatically using the **No-Signal → Scene (Stand Alone)** function.

- **Manual Control**: Manually sets a DMX value for each function.
- **Capture DMX values**: Captures the external DMX signal values currently being received and uses them as the manual control values.

## *Information*

The **Information** submenu provides readouts of all relevant information such as the error list if any errors have been detected, the fixture's serial number, firmware version, device info, device hours counter, power cycles counter, DMX input monitor, signal quality etc.

## *Service*

The Service menu contains the following items:

- **Test All**: Runs a test sequence of all LEDs for a quick test of the fixture. Press BACK to stop the test sequence.
- **Test LED only**: Runs a test sequence of the LED pixel only. Press BACK to stop the test sequence.
- **Test Zoom only**: Runs a test sequence of Zoom functionality only. Press BACK to stop the test sequence.
- **Default Settings**: Sets options to default except: Captured Scene, DMX Address, ControlMode, Preset Values, Offset Values.
- **Units**: Allows Temperature units to be set to Centigrade or Farenheit.
- **Job Offsets**: Lets you set +/- offsets to the zoom function, and the RGBL emitter brightness for matching between fixtures.
- **Reset Counter**: Allows you to reset various maintenance counters within the fixture: Device Hours, Power Cycles, Lamp Hours, Max. Temperature, Temperature Unit
- **Load Factory Backup**: (Hold Enter for 3 seconds to confirm) Resets all fixture settings to default except User Hour Counter, Temperature Unit.

## *Factory Menu*

***Important! Do not enter the Factory Menu unless you are a trained service professional with service documentation or clear instructions from GLP Service. Read the user and service documentation carefully before entering this menu. In the Factory Menu you can apply critical settings which can damage the fixture.***

The Factory Menu is a hidden menu for the manufacturer or professional service technicians only. This special menu allows fixture calibration and the adjustment of all mechanical features following the manufacturer's instructions.

To enable the Factory Menu, press the **ENTER** and **MENU** buttons together while at the top level menu. You can release the buttons as soon as FACTORY MODE appears in the display. After doing this, Factory Menu is visible as the last item in the main menu.

The Factory Menu will remain available until the next power cycle. While the Factory Menu is enabled, all display timeouts are disabled to make working on the fixture easier and a Factory symbol is visible in the main screen.

# 4. Control panel

**Warning!** DMX control is disabled when the control menus are active. Be prepared for the fixture to emit bright light as soon as you exit the control menus.

The control panel and onboard OLED display provide access to user settings, readouts and utilities.

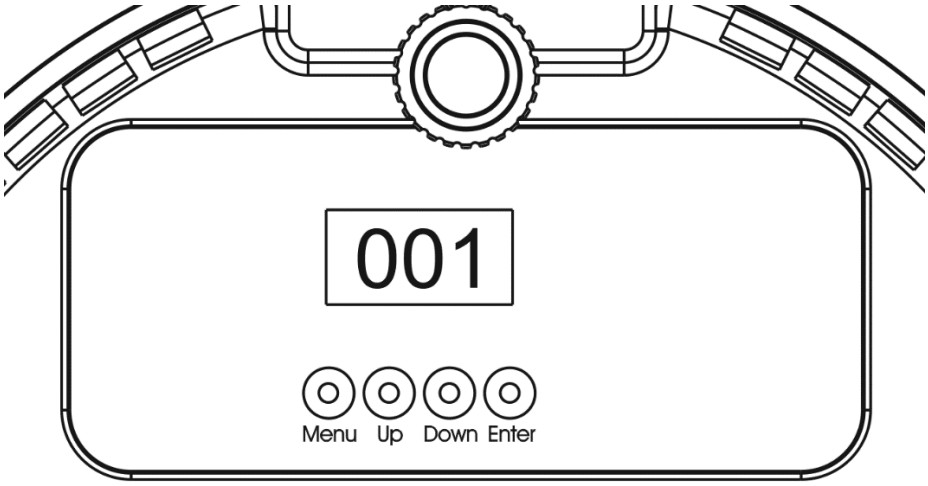


***Figure 2. Onboard control panel***

The four control buttons have the following functions:

**MENU/ESC**: Activate the control panel if it is in sleep mode or go back one level towards the top of the menu.

**UP**: Scroll up or increase a number.

**DOWN**: Scroll down or reduce a number.

**ENTER**: Enter a menu, select a setting or implement a command.

When you apply power to the fixture, it boots up. After it has booted, the panel displays the default screen showing the fixture's DMX mode and the DMX address that the fixture is using.

In the default screen:

- Hold down the **MENU** button to show the Quick Set Menu.

- Hold down the **UP** or **DOWN** button to show the Settings Overview screen which lets you see all main fixture information and settings. This can be useful if you are troubleshooting or if you are in contact with GLP Service.

You can set the display to go into a blank sleep mode after a time by using the **Display Mode → Auto** control panel option.

DMX control is disabled when the control menus are active.

See also the Display On / Off functions on the *DMX Control / Settings* channel.

## *Control button shortcuts*

### Live Diagnostics

Pressing UP or DOWN three times calls up an overview of all main fixture information, signal quality and settings. This can be useful if you are troubleshooting or if you are in contact with GLP Service.

### Toggle Display Orientation

Pressing and releasing UP and DOWN together rotates the display through 180°.

#### *Note*

If **Display Orientation** is set to **Auto**, changing the display orientation by pressing UP and DOWN at the same time will only change the display orientation until the next power cycle. To change the display orientation permanently, go to **Fixture Settings → Display Orientation** in the control panel menus.

### Trigger iQ.Service Connect

Pressing and holding ENTER for 6 seconds enables connectivity to the GLP iQ.Connect Service App for 5 minutes.

### Error Warning

If the fixture detects an error, it shows **ERROR** in the display. This Error message is 'sticky' and will continue to be shown in the display until the next power cycle or reset. An Error can have a variety of causes. To see details of the cause of the error, press **Details** for the error information. To ignore the error message, press **ESC**.

If you need to contact GLP Service in connection with an Error message, please press **Details** and make a note of any information given. This will help the GLP service team provide rapid assistance.

### *Loss of DMX signal*

The display flashes if the DMX signal is lost (the fixture will then behave according to its No Signal setting – see 'Behavior when the fixture is not receiving a DMX signal' on page 13).

# 5. Control menus

## *Main menu*

The following menus and commands are available in the Fusion X-PAR 8Z control panel.

| **Menus** | | ***Notes*** |
|---|---|---|
| DMX Address | | |
| **1**-508 | | *Set fixture's DMX start address. Highest possible address depends on control mode.* |
| Control Mode | | |
| M1 Basic | | *Set fixture's DMX control mode.* |
| **M2 Standard** | | |
| M3 Advanced | | |
| M4 RGB(L) | | |
| M5 White | | |
| M6 Easy | | |
| Protocol Setup | | |
| Data In | **DMX** | *Control via DMX protocol* |
| | iQ.Mesh | |
| Linking Options | iQ.Mesh Unlink | *Unlink from any existing iQ.Mesh network* |
| Fixture Settings | | |
| Color Mix Mode | **RGB HO** | *Sets maximum output intensity. M1-M4 only. Lime channels have no effect.* |
| | RGB HQ | *Sets maximum color quality. M1-M4 only. Lime channels have no effect.* |
| | RGBL | *Independent emitter control* |
| Dimmer Curve | **Linear** | *Linear dimming curve* |
| | Theatrical (S-Curve) | *Finer dimming control at low and high intensity* |
| | Square Law | *Soft (square law) dimming curve* |
| | Inv. Square Law | *Inverse square law* |
| Dimmer Speed | Soft | |
| | **Fast** | |

| | | | |
|---|---|---|---|
| | Snap | | |
| Zoom Invert | **Off** | | *DMX 0 = Narrow beam* |
| | On | | *DMX 0 = Wide beam* |
| No-Signal | Blackout | | *Fixture goes to blackout if control signal lost* |
| | **Hold** | | *Fixture holds current state* |
| | Scene | | *Fixture goes to captured scene (next option)* |
| Capture Scene | Confirm | | *Press Enter to capture scene for control signal loss* |
| PWM | 600 Hz | | *Best dimming* |
| | 1200 Hz | | |
| | 2200 Hz | | |
| | **3000 Hz** | | |
| | 4800 Hz | | |
| | 9600 Hz | | |
| | 25 kHz | | *Maximum PWM frequency, helps avoid flicker on TV cameras at very high shutter speeds* |
| Display Mode | **Auto** | | *Display off if no error and valid control signal* |
| | On | | *Display always on* |
| | Off | | *Display off* |
| Display Orientation | **Normal** | | |
| | Upside Down | | |
| Max Temperature | 60 – **90** °C (140 – **194** °F) | | *Units set to C or F in Service Menu* |
| RDM | **On** | | |
| | Off | | |
| Load Settings | Preset 1 | Hold 3sec to confirm | *Load custom / default fixture settings* |
| | Preset 2 | Hold 3sec to confirm | |
| | Preset 3 | Hold 3sec to confirm | |
| | Default | Hold 3sec to confirm | |
| Lock | **Off** | | |
| | On | | |
| | Set Passcode | | |
| Manual Control | | | |
| Manual DMX | Dimmer | < 000..**255** > | *Manually control all effects* |
| | Shutter | < **000**..255 > | |
| | Zoom | < **000**..255 > | |
| | R | < 000..**255** > | |
| | G | < 000..**255** > | |
| | B | < 000..**255** > | |

| | | | |
|---|---|---|---|
| | Capture DMX Values | Confirm for 3 seconds *(press Enter)* | *Sets all manual DMX values to the values currently being received via DMX* |
| Stand Alone Setting | Stand Alone | | |
| | Host | | |
| | Client | | |
| Reboot | Confirm | | *Reboots the fixture* |
| Information | | | |
| Firmware Version | | | *Shows fixture firmware information* |
| Calibration | | | *Shows calibration state* |
| Fixture Details | | | *Shows fixture name, serial, MAC, RDM ID* |
| Device Life | | | *Fixture power on counter* |
| DMX Link Status | | | *Online state, frame rate, drops, quality* |
| Temperatures | | | *LED temperature* |
| iQ.Mesh | | | *Link state, signal strength* |
| Error Log | | | |

| | | | | |
|---|---|---|---|---|
| Service | | | | |
| Test All | | | | *Run test sequence of all effects* |
| Test LED only | | | | *Run test sequence of LED* |
| Test Zoom only | | | | *Run test sequence of zoom effect.* |
| Default Settings | | | | *Set options to default except Captured Scene, DMX Address, Control Mode, Preset Values, Offset Values* |
| Units | **C** | | | |
| | F | | | |
| Job Offsets | Enable / Disable | **Enable** | | *Normal operation* |
| | | Disable | | *Disable pan, tilt and display timeouts (exit by cycling power off and on.)* |
| | Color Job offsets | Red | -128 .. +128 | *Create custom offsets in home positions of all effects. Default offset = **0*** |
| | | Green | -128 .. +128 | |
| | | Blue | -128 .. +128 | |
| | | Lime | -128 .. +128 | |
| | Zoom Job Offset | -128 .. +128 | | |
| | Reset counters | Device Hours | Confirm 2 seconds | |
| | | Power Cycles | | |
| | | Lamp Hours | | |
| | | Max. Temperature | | |
| | | Temperature Unit | | |
| | Save User Settings | Preset 1 | Confirm 2 seconds | *Saves current fixture settings as user settings preset* |
| | | Preset 2 | | |
| | | Preset 3 | | |
| Load Factory Backup | | | | |
| >>>Confirm<<< | | | | *Reloads all factory default settings and default fixture configuration settings.* |

*Default settings are written in **BOLD type***

# 6. DMX control modes overview

The Fusion X-PAR 8Z offers the following DMX control modes.

**DMX Mode 1: Basic** gives raw color control using 8-bit RGB levels, with overall dimmer and shutter controls. The Lime channel has no effect unless the fixture Color Mode is set to RGBL.

A Control / Settings channel lets you configure the fixture remotely via DMX.

| Mode 1<br>Basic | |
|---|---|
| 1 | Dimmer |
| 2 | Shutter |
| 3 | Zoom |
| 4 | Control |
| 5 | Red |
| 6 | Green |
| 7 | Blue |
| 8 | Lime |

**DMX Mode 2: Standard** provides a selection of fixed colors with overall dimmer and shutter controls. If Channel 9 is set below DMX 10 (3.9%) then the color can be controlled by the RGB(L) channels - the Lime channel has no effect unless the fixture Color Mode is set to RGBL. If Channel 9 is DMX 10 or above, Channels 5-8 have no effect.

The CTC and M/G shift channels modify the color selected by the other channels.

A Control / Settings channel lets you configure the fixture remotely via DMX.

| Mode 2<br>Standard | |
|---|---|
| 1 | Dimmer |
| 2 | Shutter |
| 3 | Zoom |
| 4 | Control |
| 5 | Red |
| 6 | Green |
| 7 | Blue |
| 8 | Lime |
| 9 | Color Wheel |
| 10 | CTC |
| 11 | M/G shift |

**DMX Mode 3: Advanced** provides a selection of fixed colors with overall 16-bit dimmer and a shutter control. If Channel 14 is set below DMX 10 (3.9%) then the color can be controlled by the 16-bit RGB(L) channels - the Lime channels have no effect unless the fixture Color Mode is set to RGBL. If Channel 14 is DMX 10 or above, Channels 6-13 have no effect.

The CTC and M/G shift channels modify the color selected by the other channels.

A Control / Settings channel lets you configure the fixture remotely via DMX.

| Mode 3 Advanced | |
|---|---|
| 1 | Dimmer |
| 2 | Dimmer Fine |
| 3 | Shutter |
| 4 | Zoom |
| 5 | Control |
| 6 | Red |
| 7 | Red fine |
| 8 | Green |
| 9 | Green fine |
| 10 | Blue |
| 11 | Blue fine |
| 12 | Lime |
| 13 | Lime fine |
| 14 | Color wheel |
| 15 | CTC |
| 16 | M/G shift |

**DMX Mode 4: RGB(L)** gives raw color control using 8-bit RGB levels. The Lime channel has no effect unless the fixture Color Mode is set to RGBL. There is no master dimmer control.

A Control / Settings channel lets you configure the fixture remotely via DMX.

| Mode 4 RGB(L) | |
|---|---|
| 1 | Zoom |
| 2 | Control |
| 3 | Red |
| 4 | Green |
| 5 | Blue |
| 6 | Lime |

**DMX Mode 5: White** operates the fixture as a white light with controllable Color Temperature and Green/magenta shift

A Control / Settings channel lets you configure the fixture remotely via DMX.

| Mode 5<br>White | |
|---|---|
| 1 | Dimmer |
| 2 | Shutter |
| 3 | Zoom |
| 4 | Control |
| 5 | CTC |
| 6 | Green/Magenta shift |

**DMX Mode 6: Easy** provides a simple operating mode with a fixed selection of colors and zoom.

A Control / Settings channel lets you configure the fixture remotely via DMX.

| Mode 6<br>Easy | |
|---|---|
| 1 | Dimmer |
| 2 | Zoom |
| 3 | Control |
| 4 | Color Wheel |

# 7. DMX control channel layout

In the following DMX channel layout tables:

- Where commands are marked with an asterisk * you must send that value continuously for 3 seconds (or other duration if indicated in the table) to apply the command.

## *DMX Mode 1: Basic*

### 8 DMX Channels

| Channel | | Command | DMX range | Percent | Default DMX | Fade |
|---|---|---|---|---|---|---|
| **1** | **Master Dimmer** | Intensity 0-100% | 0-255 | 0-100% | 0 | Fade |
| **2** | **Shutter** | Closed | 0-4 | 0-1.6% | 255 | Snap |
| | | Single Flash (when value changes) | 5-9 | 1.9-3.5% | | Snap |
| | | Sync Ramp-Up (slow→fast) | 10-39 | 3.9-15.3% | | Fade |
| | | Sync Ramp-down (slow→fast) | 40-69 | 15.7-27% | | Fade |
| | | Sync Ramp up-down (slow→fast) | 70-99 | 27.4-38.9% | | Fade |
| | | Sync Double Flash (slow→fast) | 100-129 | 39.2-50.6% | | Fade |
| | | Random Strobe (slow→fast) | 130-359 | 51-62% | | Fade |
| | | Sync Strobe (1Hz-10Hz) | 160-239 | 62.8-93.7% | | Fade |
| | | Open | 251-255 | 98.4-100% | | Snap |
| **3** | **Zoom** | Beam angle 6-43 degrees | 0-255 | 0-100% | 0 | Fade |
| **4** | **Control / Settings** | No function | 0-35 | 0-13.7% | 0 | Snap |
| | | Color Mode: RGB HO (Calibrated)* | 36-40 | 14.0-15.6% | | |
| | | Color Mode: RGB HQ (Calibrated)* | 41-45 | 16.0-17.6% | | |
| | | Color Mode: RGBL * | 46-50 | 18.0-19.6% | | |
| | | No function | 51-55 | 20.0-21.6% | | |
| | | Dimmer speed smooth* | 56-60 | 22.0-23.5% | | |
| | | Dimmer speed fast* | 61-65 | 23.9-25.5% | | |
| | | No function | 66-70 | 25.9-27.5% | | |
| | | Dimming curve Linear* | 71-75 | 27.8-29.4% | | |
| | | Dimming curve Theatrical* | 76-80 | 29.8-31.4% | | |
| | | Dimming curve Square Law* | 81-85 | 31.8-33.3% | | |
| | | Dimming curve Inverse Square Law* | 86-90 | 33.7-35.3% | | |
| | | No Function | 91-95 | 35.7-37.3% | | |
| | | No DMX = Hold scene* | 96-100 | 37.6-39.2% | | |
| | | No DMX = Blackout* | 101-105 | 39.6-41.2% | | |

| Channel | | Command | DMX range | Percent | Default DMX | Fade |
|---|---|---|---|---|---|---|
| | | No DMX = Play captured scene* | 106-110 | 41.6-43.1% | | |
| | | No Function | 111-115 | 43.5-45.1% | | |
| | | Display Backlight Auto* | 116-120 | 45.5-47.1% | | |
| | | Display backlight Off* | 121-125 | 47.5-49.0% | | |
| | | No Function | 126-130 | 49.4-51.2% | | |
| | | DMX Mode: M1-Basic* | 131-135 | 51.4-52.9% | | |
| | | DMX Mode: M2-Standard* | 136-140 | 53.3-54.9% | | |
| | | DMX Mode: M3-Advanced* | 141-145 | 55.3-56.9% | | |
| | | DMX Mode: M4-RGB(L)* | 146-150 | 57.3-58.8% | | |
| | | DMX Mode: M5-White* | 151-155 | 59.2-60.8% | | |
| | | DMX Mode: M6-Easy* | 156-160 | 61.2-62.7% | | |
| | | No Function | 161-165 | 63.1-64.7% | | |
| | | Zoom Invert On* | 166-170 | 65.1-66.7% | | |
| | | Zoom Invert Off* | 171-175 | 67.1-68.5% | | |
| | | Zoom Reset* | 176-180 | 69.0-70.5% | | |
| | | Fixture reset* | 181-185 | 71.0-72.5% | | |
| | | Factory default settings (except DMX address & mode)* | 186-190 | 72.9-74.5% | | |
| | | No function | 191-195 | 74.9-76.2% | | |
| | | PWM Rate: 600Hz* | 196-200 | 76.9-78.4% | | |
| | | PWM Rate: 1200Hz* | 201-205 | 78.8-80.4% | | |
| | | PWM Rate: 2200Hz* | 206-210 | 80.8-82.4% | | |
| | | PWM Rate: 3000Hz* | 211-215 | 82.7-84.3% | | |
| | | PWM Rate: 4800Hz* | 216-220 | 84.7-86.3% | | |
| | | PWM Rate: 9600Hz* | 221-225 | 86.7-88.2% | | |
| | | PWM Rate: 25KHz* | 226-230 | 88.6-90.2% | | |
| | | No function | 231-250 | 90.5-98.0% | | |
| | | Fixture reset* | 251-255 | 98.4-100% | | |
| **5** | **Red** | Intensity 0-100% | 0-255 | 0-100% | 0 | Fade |
| **6** | **Green** | Intensity 0-100% | 0-255 | 0-100% | 0 | Fade |
| **7** | **Blue** | Intensity 0-100% | 0-255 | 0-100% | 0 | Fade |
| **8** | **Lime** | Intensity 0-100% | 0-255 | 0-100% | 0 | Fade |

Note: Channel 8 has no effect unless Fixture Settings → Color Mode is set to RGBL

## *DMX Mode 2: Standard*

### 11 DMX Channels

| Channel | | Command | DMX range | Percent | Default DMX | Fade |
|---|---|---|---|---|---|---|
| **1** | **Master Dimmer** | Intensity 0-100% | 0-255 | 0-100% | 0 | Fade |
| **2** | **Shutter** | Closed | 0-4 | 0-1.6% | 255 | Snap |
| | | Single Flash (when value changes) | 5-9 | 1.9-3.5% | | Snap |
| | | Sync Ramp-Up (slow→fast) | 10-39 | 3.9-15.3% | | Fade |
| | | Sync Ramp-down (slow→fast) | 40-69 | 15.7-27% | | Fade |
| | | Sync Ramp up-down (slow→fast) | 70-99 | 27.4-38.9% | | Fade |
| | | Sync Double Flash (slow→fast) | 100-129 | 39.2-50.6% | | Fade |
| | | Random Strobe (slow→fast) | 130-359 | 51-62% | | Fade |
| | | Sync Strobe (1Hz-10Hz) | 160-239 | 62.8-93.7% | | Fade |
| | | Open | 251-255 | 98.4-100% | | Snap |
| **3** | **Zoom** | Beam angle 6-43 degrees | 0-255 | 0-100% | 0 | Fade |
| **4** | **Control / Settings** | No function | 0-35 | 0-13.7% | 0 | Snap |
| | | Color Mode: RGB HO (Calibrated)* | 36-40 | 14.0-15.6% | | |
| | | Color Mode: RGB HQ (Calibrated)* | 41-45 | 16.0-17.6% | | |
| | | Color Mode: RGBL* | 46-50 | 18.0-19.6% | | |
| | | No function | 51-55 | 20.0-21.6% | | |
| | | Dimmer speed smooth* | 56-60 | 22.0-23.5% | | |
| | | Dimmer speed fast* | 61-65 | 23.9-25.5% | | |
| | | No function | 66-70 | 25.9-27.5% | | |
| | | Dimming curve Linear* | 71-75 | 27.8-29.4% | | |
| | | Dimming curve Theatrical* | 76-80 | 29.8-31.4% | | |
| | | Dimming curve Square Law* | 81-85 | 31.8-33.3% | | |
| | | Dimming curve Inverse Square Law* | 86-90 | 33.7-35.3% | | |
| | | No Function | 91-95 | 35.7-37.3% | | |
| | | No DMX = Hold scene* | 96-100 | 37.6-39.2% | | |
| | | No DMX = Blackout* | 101-105 | 39.6-41.2% | | |
| | | No DMX = Play captured scene* | 106-110 | 41.6-43.1% | | |
| | | No Function | 111-115 | 43.5-45.1% | | |
| | | Display Backlight Auto* | 116-120 | 45.5-47.1% | | |
| | | Display backlight Off* | 121-125 | 47.5-49.0% | | |
| | | No Function | 126-130 | 49.4-51.2% | | |
| | | DMX Mode: M1-Basic* | 131-135 | 51.4-52.9% | | |

| Channel | | Command | DMX range | Percent | Default DMX | Fade |
|---|---|---|---|---|---|---|
| | | DMX Mode: M2-Standard* | 136-140 | 53.3-54.9% | | |
| | | DMX Mode: M3-Advanced* | 141-145 | 55.3-56.9% | | |
| | | DMX Mode: M4-RGB(L)* | 146-150 | 57.3-58.8% | | |
| | | DMX Mode: M5-White* | 151-155 | 59.2-60.8% | | |
| | | DMX Mode: M6-Easy* | 156-160 | 61.2-62.7% | | |
| | | No Function | 161-165 | 63.1-64.7% | | |
| | | Zoom Invert On* | 166-170 | 65.1-66.7% | | |
| | | Zoom Invert Off* | 171-175 | 67.1-68.5% | | |
| | | Zoom Reset* | 176-180 | 69.0-70.5% | | |
| | | Fixture reset* | 181-185 | 71.0-72.5% | | |
| | | Factory default settings (except DMX address & mode)* | 186-190 | 72.9-74.5% | | |
| | | No function | 191-195 | 74.9-76.2% | | |
| | | PWM Rate: 600Hz* | 196-200 | 76.9-78.4% | | |
| | | PWM Rate: 1200Hz* | 201-205 | 78.8-80.4% | | |
| | | PWM Rate: 2200Hz* | 206-210 | 80.8-82.4% | | |
| | | PWM Rate: 3000Hz* | 211-215 | 82.7-84.3% | | |
| | | PWM Rate: 4800Hz* | 216-220 | 84.7-86.3% | | |
| | | PWM Rate: 9600Hz* | 221-225 | 86.7-88.2% | | |
| | | PWM Rate: 25KHz* | 226-230 | 88.6-90.2% | | |
| | | No function | 231-250 | 90.5-98.0% | | |
| | | Fixture reset* | 251-255 | 98.4-100% | | |
| **5** | **Red** | Intensity 0-100% | 0-255 | 0-100% | 0 | Fade |
| **6** | **Green** | Intensity 0-100% | 0-255 | 0-100% | 0 | Fade |
| **7** | **Blue** | Intensity 0-100% | 0-255 | 0-100% | 0 | Fade |
| **8** | **Lime** | Intensity 0-100% | 0-255 | 0-100% | 0 | Fade |
| **9** | **Color Wheel** | Open (Color set by ch 5-8) | 0-3 | 0-1.2% | 0 | Snap |
| | | Preset 3200K | 4-6 | 1.6-2.4% | | |
| | | Preset 4200K | 7-9 | 2.7-3.5% | | |
| | | Preset 5600K | 10-12 | 3.9-4.7% | | |
| | | Preset 6500K | 13-15 | 5.1-5.9% | | |
| | | Filter 004 (Medium Bastard Amber) | 16-18 | 6.3-7.1% | | |
| | | Filter 019 (Fire) | 19-21 | 7.5-8.2% | | |
| | | Filter 025 (Sunset Red) | 22-24 | 8.6-9.4% | | |
| | | Filter 026 (Bright Red) | 25-27 | 9.8-10.6% | | |
| | | Filter 036 (Medium Pink) | 28-30 | 11-11.8% | | |
| | | Filter 049 (Medium Purple) | 31-33 | 12.2-12.9% | | |
| | | Filter 058 (Lavender) | 34-36 | 13.3-14.1% | | |
| | | Filter 068 (Sky Blue) | 37-39 | 14.5-15.3% | | |

| Channel | | Command | DMX range | Percent | Default DMX | Fade |
|---|---|---|---|---|---|---|
| | | Filter 088 (Lime Green) | 40-42 | 15.7-16.5% | | |
| | | Filter 089 (Moss Green) | 43-45 | 16.9-17.6% | | |
| | | Filter 090 (Dark Yellow Green) | 46-48 | 18-18.8% | | |
| | | Filter 102 (Light Amber) | 49-51 | 19.2-20% | | |
| | | Filter 103 (Straw) | 52-54 | 20.4-21.2% | | |
| | | Filter 106 (Primary Red) | 55-57 | 21.6-22.4% | | |
| | | Filter 111 (Dark Pink) | 58-60 | 22.7-23.5% | | |
| | | Filter 115 (Peacock Blue) | 61-63 | 23.9-24.7% | | |
| | | Filter 117 (Steel Blue) | 64-66 | 25.1-25.9% | | |
| | | Filter 118 (Light Blue) | 67-69 | 26.3-27.1% | | |
| | | Filter 121 (Filter Green) | 70-72 | 27.5-28.2% | | |
| | | Filter 122 (Fern Green) | 73-75 | 28.6-29.4% | | |
| | | Filter 124 (Dark Green) | 76-78 | 29.8-30.6% | | |
| | | Filter 126 (Mauve) | 79-81 | 31-31.8% | | |
| | | Filter 128 (Bright Pink) | 82-84 | 32.2-32.9% | | |
| | | Filter 131 (Marine Blue) | 85-87 | 33.3-34.1% | | |
| | | Filter 132 (Medium Blue) | 88-90 | 34.5-35.3% | | |
| | | Filter 134 (Golden Amber) | 91-93 | 35.7-36.5% | | |
| | | Filter 135 (Deep Golden Amber) | 94-96 | 36.9-37.6% | | |
| | | Filter 136 (Pale Lavender) | 97-99 | 38-38.8% | | |
| | | Filter 137 (Special Lavender) | 100-102 | 39.2-40% | | |
| | | Filter 138 (Pale Green) | 103-105 | 40.4-41.2% | | |
| | | Filter 140 (Summer Blue) | 106-108 | 41.6-42.4% | | |
| | | Filter 141 (Bright Blue) | 109-111 | 42.7-43.5% | | |
| | | Filter 143 (Pale Navy Blue) | 112-114 | 43.9-44.7% | | |
| | | Filter 147 (Apricot) | 115-117 | 45.1-45.9% | | |
| | | Filter 148 (Bright Rose) | 118-120 | 46.3-47.1% | | |
| | | Filter 152 (Pale Gold) | 121-123 | 47.5-48.2% | | |
| | | Filter 154 (Pale Rose) | 124-126 | 48.6-49.4% | | |
| | | Filter 157 (Pink) | 127-129 | 49.8-50.6% | | |
| | | Filter 162 (Bastard Amber) | 130-132 | 51-51.8% | | |
| | | Filter 164 (Flame Red) | 133-135 | 52.2-52.9% | | |
| | | Filter 165 (Daylight Blue) | 136-138 | 53.3-54.1% | | |
| | | Filter 169 (Lilac Tint) | 139-141 | 54.5-55.3% | | |
| | | Filter 170 (Deep Lavender) | 142-144 | 55.7-56.5% | | |
| | | Filter 172 (Lagoon Blue) | 145-147 | 56.9-57.6% | | |
| | | Filter 180 (Dark Lavender) | 148-150 | 58-58.8% | | |
| | | Filter 182 (Light Red) | 151-153 | 59.2-60% | | |
| | | Filter 194 (Surprise Pink) | 154-156 | 60.4-61.2% | | |

| Channel | | Command | DMX range | Percent | Default DMX | Fade |
|---|---|---|---|---|---|---|
| | | Filter 197 (Alice Blue) | 157-159 | 61.6-62.4% | | |
| | | Filter 201 (Full C.T. Blue) | 160-162 | 62.7-63.5% | | |
| | | Filter 202 (Half C.T. Blue) | 163-165 | 63.9-64.7% | | |
| | | Filter 203 (Quarter C.T. Blue) | 166-168 | 65.1-65.9% | | |
| | | Filter 204 (Full C.T. Orange) | 169-171 | 66.3-67.1% | | |
| | | Filter 206 (Quarter C.T. Orange) | 172-174 | 67.5-68.2% | | |
| | | Filter 219 (Fluorescent Green) | 175-177 | 68.6-69.4% | | |
| | | Filter 247 (Filter Minus Green) | 178-180 | 69.8-70.6% | | |
| | | Filter 248 (Half Minus Green) | 1811-183 | 71-71.8% | | |
| | | Filter 281 (Three Quarter C.T. Blue) | 184-186 | 72.2-72.9% | | |
| | | Filter 285 (Three Quarter C.T. Orange) | 187-189 | 73.3-74.1% | | |
| | | Filter 352 (Glacier Blue) | 190-192 | 74.5-75.3% | | |
| | | Filter 353 (Lighter Blue) | 193-195 | 75.7-76.5% | | |
| | | Filter 507 (Madge) | 196-198 | 76.9-77.6% | | |
| | | Filter 778 (Millennium Gold) | 199-201 | 78-78.8% | | |
| | | Filter 793 (Vanity Fair) | 202-204 | 79.2-80% | | |
| | | Filter 798 (Chrysalis Pink) | 205-207 | 80.4-81.2% | | |
| | | Rainbwo Stop - at first Color | 208-210 | 81.6-82.4% | | |
| | | Rainbow slow→fast | 211-252 | 82.7-98.8% | | |
| | | Rainbow Stop - at current Color | 253-255 | 99.2-100% | | |
| **10** | **CTC** | RAW (RGBL control) | 0-15 | 0-5.9% | 0 | Snap |
| | | 10000K | 16-18 | 6.3-7.1% | | |
| | | 9900K | 19-21 | 7.5-8.2% | | |
| | | 9800K | 22-24 | 8.6-9.4% | | |
| | | 9700K | 25-27 | 9.8-10.6% | | |
| | | 9600K | 28-30 | 11-11.8% | | |
| | | 9500K | 31-33 | 12.2-12.9% | | |
| | | 9400K | 34-36 | 13.3-14.1% | | |
| | | 9300K | 37-39 | 14.5-15.3% | | |
| | | 9200K | 40-42 | 15.7-16.5% | | |
| | | 9100K | 43-45 | 16.9-17.6% | | |
| | | 9000K | 46-48 | 18-18.8% | | |
| | | 8900K | 49-51 | 19.2-20% | | |
| | | 8800K | 52-54 | 20.4-21.2% | | |
| | | 8700K | 55-57 | 21.6-22.4% | | |
| | | 8600K | 58-60 | 22.7-23.5% | | |
| | | 8500K | 61-63 | 23.9-24.7% | | |
| | | 8400K | 64-66 | 25.1-25.9% | | |
| | | 8300K | 67-69 | 26.3-27.1% | | |

| Channel | | Command | DMX range | Percent | Default DMX | Fade |
|---|---|---|---|---|---|---|
| | | 8200K | 70-72 | 27.5-28.2% | | |
| | | 8100K | 73-75 | 28.6-29.4% | | |
| | | 8000K | 76-78 | 29.8-30.6% | | |
| | | 7900K | 79-81 | 31-31.8% | | |
| | | 7800K | 82-84 | 32.2-32.9% | | |
| | | 7700K | 85-87 | 33.3-34.1% | | |
| | | 7600K | 88-90 | 34.5-35.3% | | |
| | | 7500K | 91-93 | 35.7-36.5% | | |
| | | 7400K | 94-96 | 36.9-37.6% | | |
| | | 7300K | 97-99 | 38-38.8% | | |
| | | 7200K | 100-102 | 39.2-40% | | |
| | | 7100K | 103-105 | 40.4-41.2% | | |
| | | 7000K | 106-108 | 41.6-42.4% | | |
| | | 6900K | 109-111 | 42.7-43.5% | | |
| | | 6800K | 112-114 | 43.9-44.7% | | |
| | | 6700K | 115-117 | 45.1-45.9% | | |
| | | 6600K | 118-120 | 46.3-47.1% | | |
| | | 6500K | 121-123 | 47.5-48.2% | | |
| | | 6400K | 124-126 | 48.6-49.4% | | |
| | | 6300K | 127-129 | 49.8-50.6% | | |
| | | 6200K | 130-132 | 51-51.8% | | |
| | | 6100K | 133-135 | 52.2-52.9% | | |
| | | 6000K | 136-138 | 53.3-54.1% | | |
| | | 5900K | 139-141 | 54.5-55.3% | | |
| | | 5800K | 142-144 | 55.7-56.5% | | |
| | | 5700K | 145-147 | 56.9-57.6% | | |
| | | 5600K | 148-150 | 58-58.8% | | |
| | | 5500K | 151-153 | 59.2-60% | | |
| | | 5400K | 154-156 | 60.4-61.2% | | |
| | | 5300K | 157-159 | 61.6-62.4% | | |
| | | 5200K | 160-162 | 62.7-63.5% | | |
| | | 5100K | 163-165 | 63.9-64.7% | | |
| | | 5000K | 166-168 | 65.1-65.9% | | |
| | | 4900K | 169-171 | 66.3-67.1% | | |
| | | 4800K | 172-174 | 67.5-68.2% | | |
| | | 4700K | 175-177 | 68.6-69.4% | | |
| | | 4600K | 178-180 | 69.8-70.6% | | |
| | | 4500K | 181-183 | 71-71.8% | | |
| | | 4400K | 184-186 | 72.2-72.9% | | |

| Channel | | Command | DMX range | Percent | Default DMX | Fade |
|---|---|---|---|---|---|---|
| | | 4300K | 187-189 | 73.3-74.1% | | |
| | | 4200K | 190-192 | 74.5-75.3% | | |
| | | 4100K | 193-195 | 75.7-76.5% | | |
| | | 4000K | 196-198 | 76.9-77.6% | | |
| | | 3900K | 199-201 | 78-78.8% | | |
| | | 3800K | 202-204 | 79.2-80% | | |
| | | 3700K | 205-207 | 80.4-81.2% | | |
| | | 3600K | 208-210 | 81.6-82.4% | | |
| | | 3500K | 211-213 | 82.7-83.5% | | |
| | | 3400K | 214-216 | 83.9-84.7% | | |
| | | 3300K | 217-219 | 85.1-85.9% | | |
| | | 3200K | 220-222 | 86.3-87.1% | | |
| | | 3100K | 223-225 | 87.5-88.2% | | |
| | | 3000K | 226-228 | 88.6-89.4% | | |
| | | 2900K | 229-231 | 89.8-90.6% | | |
| | | 2800K | 232-234 | 91-91.8% | | |
| | | 2700K | 235-237 | 92.2-92.9% | | |
| | | 2600K | 238-240 | 93.3-94.1% | | |
| | | 2500K | 241-255 | 94.5-100% | | |
| **11** | **M/G Shift** | Off - ( no correction) | 0-9 | 0-3.5% | 0 | snap |
| | | full plus Magenta +100% (-0,1 Duv) | 10-10 | 3.9-3.9% | | |
| | | plus Magenta +99% → + 1% | 11-124 | 4.3-48.6% | | fade |
| | | neutral / no effect | 125-140 | 49-54.9% | | snap |
| | | plus green +1% → +99% | 141-254 | 55.3-99.6% | | fade |
| | | full plus green +100% (+ 0,1 Duv) | 255-255 | 100-100% | | |

Notes: Channels 5-8 have no effect unless Channel 9 is set between 0-3.
Channel 8 has no effect unless Fixture Settings → Color Mode is set to RGBL

# *DMX Mode 3: Advanced*

## 16 DMX Channels

| Channel | | Command | DMX range | Percent | Default DMX | Fade |
|---|---|---|---|---|---|---|
| **1** | **Master Dimmer** | Intensity 0-100% (16-bit) | 0-655355 | 0-100% | 0 | Fade |
| **2** | **Dimmer Fine** | | | | | |
| **3** | **Shutter** | Closed | 0-4 | 0-1.6% | 255 | Snap |
| | | Single Flash (when value changes) | 5-9 | 1.9-3.5% | | Snap |
| | | Sync Ramp-Up (slow→fast) | 10-39 | 3.9-15.3% | | Fade |
| | | Sync Ramp-down (slow→fast) | 40-69 | 15.7-27% | | Fade |
| | | Sync Ramp up-down (slow→fast) | 70-99 | 27.4-38.9% | | Fade |
| | | Sync Double Flash (slow→fast) | 100-129 | 39.2-50.6% | | Fade |
| | | Random Strobe (slow→fast) | 130-359 | 51-62% | | Fade |
| | | Sync Strobe (1Hz-10Hz) | 160-239 | 62.8-93.7% | | Fade |
| | | Open | 251-255 | 98.4-100% | | Snap |
| **4** | **Zoom** | Beam angle 6-43 degrees | 0-255 | 0-100% | 0 | Fade |
| **5** | **Control / Settings** | No function | 0-35 | 0-13.7% | 0 | Snap |
| | | Color Mode: RGB HO (Calibrated)* | 36-40 | 14.0-15.6% | | |
| | | Color Mode: RGB HQ (Calibrated)* | 41-45 | 16.0-17.6% | | |
| | | Color Mode: RGBL* | 46-50 | 18.0-19.6% | | |
| | | No function | 51-55 | 20.0-21.6% | | |
| | | Dimmer speed smooth* | 56-60 | 22.0-23.5% | | |
| | | Dimmer speed fast* | 61-65 | 23.9-25.5% | | |
| | | No function | 66-70 | 25.9-27.5% | | |
| | | Dimming curve Linear* | 71-75 | 27.8-29.4% | | |
| | | Dimming curve Theatrical* | 76-80 | 29.8-31.4% | | |
| | | Dimming curve Square Law* | 81-85 | 31.8-33.3% | | |
| | | Dimming curve Inverse Square Law* | 86-90 | 33.7-35.3% | | |
| | | No Function | 91-95 | 35.7-37.3% | | |
| | | No DMX = Hold scene* | 96-100 | 37.6-39.2% | | |
| | | No DMX = Blackout* | 101-105 | 39.6-41.2% | | |
| | | No DMX = Play captured scene* | 106-110 | 41.6-43.1% | | |
| | | No Function | 111-115 | 43.5-45.1% | | |
| | | Display Backlight Auto* | 116-120 | 45.5-47.1% | | |
| | | Display backlight Off* | 121-125 | 47.5-49.0% | | |
| | | No Function | 126-130 | 49.4-51.2% | | |

| Channel | | Command | DMX range | Percent | Default DMX | Fade |
|---|---|---|---|---|---|---|
| | | DMX Mode: M1-Basic* | 131-135 | 51.4-52.9% | | |
| | | DMX Mode: M2-Standard* | 136-140 | 53.3-54.9% | | |
| | | DMX Mode: M3-Advanced* | 141-145 | 55.3-56.9% | | |
| | | DMX Mode: M4-RGB(L)* | 146-150 | 57.3-58.8% | | |
| | | DMX Mode: M5-White* | 151-155 | 59.2-60.8% | | |
| | | DMX Mode: M6-Easy* | 156-160 | 61.2-62.7% | | |
| | | No Function | 161-165 | 63.1-64.7% | | |
| | | Zoom Invert On* | 166-170 | 65.1-66.7% | | |
| | | Zoom Invert Off* | 171-175 | 67.1-68.5% | | |
| | | Zoom Reset* | 176-180 | 69.0-70.5% | | |
| | | Fixture reset* | 181-185 | 71.0-72.5% | | |
| | | Factory default settings (except DMX address & mode)* | 186-190 | 72.9-74.5% | | |
| | | No function | 191-195 | 74.9-76.2% | | |
| | | PWM Rate: 600Hz* | 196-200 | 76.9-78.4% | | |
| | | PWM Rate: 1200Hz* | 201-205 | 78.8-80.4% | | |
| | | PWM Rate: 2200Hz* | 206-210 | 80.8-82.4% | | |
| | | PWM Rate: 3000Hz* | 211-215 | 82.7-84.3% | | |
| | | PWM Rate: 4800Hz* | 216-220 | 84.7-86.3% | | |
| | | PWM Rate: 9600Hz* | 221-225 | 86.7-88.2% | | |
| | | PWM Rate: 25KHz* | 226-230 | 88.6-90.2% | | |
| | | No function | 231-250 | 90.5-98.0% | | |
| | | Fixture reset* | 251-255 | 98.4-100% | | |
| **6** | **Red** | Intensity 0-100% (16-bit) | 0-65535 | 0-100% | 0 | Fade |
| **7** | **Red Fine** | | | | | |
| **8** | **Green** | Intensity 0-100% (16-bit) | 0-65535 | 0-100% | 0 | Fade |
| **9** | **Green fine** | | | | | |
| **10** | **Blue** | Intensity 0-100% (16-bit) | 0-65535 | 0-100% | 0 | Fade |
| **11** | **Blue fine** | | | | | |
| **12** | **Lime** | Intensity 0-100% (16-bit) | 0-65535 | 0-100% | 0 | Fade |
| **13** | **Lime fine** | | | | | |
| **14** | **Color Wheel** | Open (Color set by ch 5-8) | 0-3 | 0-1.2% | 0 | Snap |
| | | Preset 3200K | 4-6 | 1.6-2.4% | | |
| | | Preset 4200K | 7-9 | 2.7-3.5% | | |
| | | Preset 5600K | 10-12 | 3.9-4.7% | | |
| | | Preset 6500K | 13-15 | 5.1-5.9% | | |
| | | Filter 004 (Medium Bastard Amber) | 16-18 | 6.3-7.1% | | |
| | | Filter 019 (Fire) | 19-21 | 7.5-8.2% | | |
| | | Filter 025 (Sunset Red) | 22-24 | 8.6-9.4% | | |

| Channel | | Command | DMX range | Percent | Default DMX | Fade |
|---|---|---|---|---|---|---|
| | | Filter 026 (Bright Red) | 25-27 | 9.8-10.6% | | |
| | | Filter 036 (Medium Pink) | 28-30 | 11-11.8% | | |
| | | Filter 049 (Medium Purple) | 31-33 | 12.2-12.9% | | |
| | | Filter 058 (Lavender) | 34-36 | 13.3-14.1% | | |
| | | Filter 068 (Sky Blue) | 37-39 | 14.5-15.3% | | |
| | | Filter 088 (Lime Green) | 40-42 | 15.7-16.5% | | |
| | | Filter 089 (Moss Green) | 43-45 | 16.9-17.6% | | |
| | | Filter 090 (Dark Yellow Green) | 46-48 | 18-18.8% | | |
| | | Filter 102 (Light Amber) | 49-51 | 19.2-20% | | |
| | | Filter 103 (Straw) | 52-54 | 20.4-21.2% | | |
| | | Filter 106 (Primary Red) | 55-57 | 21.6-22.4% | | |
| | | Filter 111 (Dark Pink) | 58-60 | 22.7-23.5% | | |
| | | Filter 115 (Peacock Blue) | 61-63 | 23.9-24.7% | | |
| | | Filter 117 (Steel Blue) | 64-66 | 25.1-25.9% | | |
| | | Filter 118 (Light Blue) | 67-69 | 26.3-27.1% | | |
| | | Filter 121 (Filter Green) | 70-72 | 27.5-28.2% | | |
| | | Filter 122 (Fern Green) | 73-75 | 28.6-29.4% | | |
| | | Filter 124 (Dark Green) | 76-78 | 29.8-30.6% | | |
| | | Filter 126 (Mauve) | 79-81 | 31-31.8% | | |
| | | Filter 128 (Bright Pink) | 82-84 | 32.2-32.9% | | |
| | | Filter 131 (Marine Blue) | 85-87 | 33.3-34.1% | | |
| | | Filter 132 (Medium Blue) | 88-90 | 34.5-35.3% | | |
| | | Filter 134 (Golden Amber) | 91-93 | 35.7-36.5% | | |
| | | Filter 135 (Deep Golden Amber) | 94-96 | 36.9-37.6% | | |
| | | Filter 136 (Pale Lavender) | 97-99 | 38-38.8% | | |
| | | Filter 137 (Special Lavender) | 100-102 | 39.2-40% | | |
| | | Filter 138 (Pale Green) | 103-105 | 40.4-41.2% | | |
| | | Filter 140 (Summer Blue) | 106-108 | 41.6-42.4% | | |
| | | Filter 141 (Bright Blue) | 109-111 | 42.7-43.5% | | |
| | | Filter 143 (Pale Navy Blue) | 112-114 | 43.9-44.7% | | |
| | | Filter 147 (Apricot) | 115-117 | 45.1-45.9% | | |
| | | Filter 148 (Bright Rose) | 118-120 | 46.3-47.1% | | |
| | | Filter 152 (Pale Gold) | 121-123 | 47.5-48.2% | | |
| | | Filter 154 (Pale Rose) | 124-126 | 48.6-49.4% | | |
| | | Filter 157 (Pink) | 127-129 | 49.8-50.6% | | |
| | | Filter 162 (Bastard Amber) | 130-132 | 51-51.8% | | |
| | | Filter 164 (Flame Red) | 133-135 | 52.2-52.9% | | |
| | | Filter 165 (Daylight Blue) | 136-138 | 53.3-54.1% | | |
| | | Filter 169 (Lilac Tint) | 139-141 | 54.5-55.3% | | |

| Channel | | Command | DMX range | Percent | Default DMX | Fade |
|---|---|---|---|---|---|---|
| | | Filter 170 (Deep Lavender) | 142-144 | 55.7-56.5% | | |
| | | Filter 172 (Lagoon Blue) | 145-147 | 56.9-57.6% | | |
| | | Filter 180 (Dark Lavender) | 148-150 | 58-58.8% | | |
| | | Filter 182 (Light Red) | 151-153 | 59.2-60% | | |
| | | Filter 194 (Surprise Pink) | 154-156 | 60.4-61.2% | | |
| | | Filter 197 (Alice Blue) | 157-159 | 61.6-62.4% | | |
| | | Filter 201 (Full C.T. Blue) | 160-162 | 62.7-63.5% | | |
| | | Filter 202 (Half C.T. Blue) | 163-165 | 63.9-64.7% | | |
| | | Filter 203 (Quarter C.T. Blue) | 166-168 | 65.1-65.9% | | |
| | | Filter 204 (Full C.T. Orange) | 169-171 | 66.3-67.1% | | |
| | | Filter 206 (Quarter C.T. Orange) | 172-174 | 67.5-68.2% | | |
| | | Filter 219 (Fluorescent Green) | 175-177 | 68.6-69.4% | | |
| | | Filter 247 (Filter Minus Green) | 178-180 | 69.8-70.6% | | |
| | | Filter 248 (Half Minus Green) | 1811-183 | 71-71.8% | | |
| | | Filter 281 (Three Quarter C.T. Blue) | 184-186 | 72.2-72.9% | | |
| | | Filter 285 (Three Quarter C.T. Orange) | 187-189 | 73.3-74.1% | | |
| | | Filter 352 (Glacier Blue) | 190-192 | 74.5-75.3% | | |
| | | Filter 353 (Lighter Blue) | 193-195 | 75.7-76.5% | | |
| | | Filter 507 (Madge) | 196-198 | 76.9-77.6% | | |
| | | Filter 778 (Millennium Gold) | 199-201 | 78-78.8% | | |
| | | Filter 793 (Vanity Fair) | 202-204 | 79.2-80% | | |
| | | Filter 798 (Chrysalis Pink) | 205-207 | 80.4-81.2% | | |
| | | Rainbwo Stop - at first Color | 208-210 | 81.6-82.4% | | |
| | | Rainbow slow→fast | 211-252 | 82.7-98.8% | | |
| | | Rainbow Stop - at current Color | 253-255 | 99.2-100% | | |
| **15** | **CTC** | RAW (RGBL control) | 0-15 | 0-5.9% | 0 | Snap |
| | | 10000K | 16-18 | 6.3-7.1% | | |
| | | 9900K | 19-21 | 7.5-8.2% | | |
| | | 9800K | 22-24 | 8.6-9.4% | | |
| | | 9700K | 25-27 | 9.8-10.6% | | |
| | | 9600K | 28-30 | 11-11.8% | | |
| | | 9500K | 31-33 | 12.2-12.9% | | |
| | | 9400K | 34-36 | 13.3-14.1% | | |
| | | 9300K | 37-39 | 14.5-15.3% | | |
| | | 9200K | 40-42 | 15.7-16.5% | | |
| | | 9100K | 43-45 | 16.9-17.6% | | |
| | | 9000K | 46-48 | 18-18.8% | | |
| | | 8900K | 49-51 | 19.2-20% | | |
| | | 8800K | 52-54 | 20.4-21.2% | | |

| Channel | | Command | DMX range | Percent | Default DMX | Fade |
|---|---|---|---|---|---|---|
| | | 8700K | 55-57 | 21.6-22.4% | | |
| | | 8600K | 58-60 | 22.7-23.5% | | |
| | | 8500K | 61-63 | 23.9-24.7% | | |
| | | 8400K | 64-66 | 25.1-25.9% | | |
| | | 8300K | 67-69 | 26.3-27.1% | | |
| | | 8200K | 70-72 | 27.5-28.2% | | |
| | | 8100K | 73-75 | 28.6-29.4% | | |
| | | 8000K | 76-78 | 29.8-30.6% | | |
| | | 7900K | 79-81 | 31-31.8% | | |
| | | 7800K | 82-84 | 32.2-32.9% | | |
| | | 7700K | 85-87 | 33.3-34.1% | | |
| | | 7600K | 88-90 | 34.5-35.3% | | |
| | | 7500K | 91-93 | 35.7-36.5% | | |
| | | 7400K | 94-96 | 36.9-37.6% | | |
| | | 7300K | 97-99 | 38-38.8% | | |
| | | 7200K | 100-102 | 39.2-40% | | |
| | | 7100K | 103-105 | 40.4-41.2% | | |
| | | 7000K | 106-108 | 41.6-42.4% | | |
| | | 6900K | 109-111 | 42.7-43.5% | | |
| | | 6800K | 112-114 | 43.9-44.7% | | |
| | | 6700K | 115-117 | 45.1-45.9% | | |
| | | 6600K | 118-120 | 46.3-47.1% | | |
| | | 6500K | 121-123 | 47.5-48.2% | | |
| | | 6400K | 124-126 | 48.6-49.4% | | |
| | | 6300K | 127-129 | 49.8-50.6% | | |
| | | 6200K | 130-132 | 51-51.8% | | |
| | | 6100K | 133-135 | 52.2-52.9% | | |
| | | 6000K | 136-138 | 53.3-54.1% | | |
| | | 5900K | 139-141 | 54.5-55.3% | | |
| | | 5800K | 142-144 | 55.7-56.5% | | |
| | | 5700K | 145-147 | 56.9-57.6% | | |
| | | 5600K | 148-150 | 58-58.8% | | |
| | | 5500K | 151-153 | 59.2-60% | | |
| | | 5400K | 154-156 | 60.4-61.2% | | |
| | | 5300K | 157-159 | 61.6-62.4% | | |
| | | 5200K | 160-162 | 62.7-63.5% | | |
| | | 5100K | 163-165 | 63.9-64.7% | | |
| | | 5000K | 166-168 | 65.1-65.9% | | |
| | | 4900K | 169-171 | 66.3-67.1% | | |

| Channel | | Command | DMX range | Percent | Default DMX | Fade |
|---|---|---|---|---|---|---|
| | | 4800K | 172-174 | 67.5-68.2% | | |
| | | 4700K | 175-177 | 68.6-69.4% | | |
| | | 4600K | 178-180 | 69.8-70.6% | | |
| | | 4500K | 181-183 | 71-71.8% | | |
| | | 4400K | 184-186 | 72.2-72.9% | | |
| | | 4300K | 187-189 | 73.3-74.1% | | |
| | | 4200K | 190-192 | 74.5-75.3% | | |
| | | 4100K | 193-195 | 75.7-76.5% | | |
| | | 4000K | 196-198 | 76.9-77.6% | | |
| | | 3900K | 199-201 | 78-78.8% | | |
| | | 3800K | 202-204 | 79.2-80% | | |
| | | 3700K | 205-207 | 80.4-81.2% | | |
| | | 3600K | 208-210 | 81.6-82.4% | | |
| | | 3500K | 211-213 | 82.7-83.5% | | |
| | | 3400K | 214-216 | 83.9-84.7% | | |
| | | 3300K | 217-219 | 85.1-85.9% | | |
| | | 3200K | 220-222 | 86.3-87.1% | | |
| | | 3100K | 223-225 | 87.5-88.2% | | |
| | | 3000K | 226-228 | 88.6-89.4% | | |
| | | 2900K | 229-231 | 89.8-90.6% | | |
| | | 2800K | 232-234 | 91-91.8% | | |
| | | 2700K | 235-237 | 92.2-92.9% | | |
| | | 2600K | 238-240 | 93.3-94.1% | | |
| | | 2500K | 241-255 | 94.5-100% | | |
| **16** | **M/G Shift** | Off - ( no correction) | 0-9 | 0-3.5% | 0 | snap |
| | | full plus Magenta +100% (-0,1 Duv) | 10-10 | 3.9-3.9% | | |
| | | plus Magenta +99% → + 1% | 11-124 | 4.3-48.6% | | fade |
| | | neutral / no effect | 125-140 | 49-54.9% | | snap |
| | | plus green +1% → +99% | 141-254 | 55.3-99.6% | | fade |
| | | full plus green +100% (+ 0,1 Duv) | 255-255 | 100-100% | | |

Notes: Channels 6-13 have no effect unless Channel 14 is set between 0-3.
Channels 12-13 have no effect unless Fixture Settings → Color Mode is set to RGBL

# *DMX Mode 4: RGB(L)*

## 6 DMX Channels

| Channel | | Command | DMX range | Percent | Default DMX | Fade |
|---|---|---|---|---|---|---|
| **1** | **Zoom** | Beam angle 6-43 degrees | 0-255 | 0-100% | 0 | Fade |
| **2** | **Control / Settings** | No function | 0-35 | 0-13.7% | 0 | Snap |
| | | Color Mode: RGB HO (Calibrated)* | 36-40 | 14.0-15.6% | | |
| | | Color Mode: RGB HQ (Calibrated)* | 41-45 | 16.0-17.6% | | |
| | | Color Mode: RGBL* | 46-50 | 18.0-19.6% | | |
| | | No function | 51-55 | 20.0-21.6% | | |
| | | Dimmer speed smooth* | 56-60 | 22.0-23.5% | | |
| | | Dimmer speed fast* | 61-65 | 23.9-25.5% | | |
| | | No function | 66-70 | 25.9-27.5% | | |
| | | Dimming curve Linear* | 71-75 | 27.8-29.4% | | |
| | | Dimming curve Theatrical* | 76-80 | 29.8-31.4% | | |
| | | Dimming curve Square Law* | 81-85 | 31.8-33.3% | | |
| | | Dimming curve Inverse Square Law* | 86-90 | 33.7-35.3% | | |
| | | No Function | 91-95 | 35.7-37.3% | | |
| | | No DMX = Hold scene* | 96-100 | 37.6-39.2% | | |
| | | No DMX = Blackout* | 101-105 | 39.6-41.2% | | |
| | | No DMX = Play captured scene* | 106-110 | 41.6-43.1% | | |
| | | No Function | 111-115 | 43.5-45.1% | | |
| | | Display Backlight Auto* | 116-120 | 45.5-47.1% | | |
| | | Display backlight Off* | 121-125 | 47.5-49.0% | | |
| | | No Function | 126-130 | 49.4-51.2% | | |
| | | DMX Mode: M1-Basic* | 131-135 | 51.4-52.9% | | |
| | | DMX Mode: M2-Standard* | 136-140 | 53.3-54.9% | | |
| | | DMX Mode: M3-Advanced* | 141-145 | 55.3-56.9% | | |
| | | DMX Mode: M4-RGB(L)* | 146-150 | 57.3-58.8% | | |
| | | DMX Mode: M5-White* | 151-155 | 59.2-60.8% | | |
| | | DMX Mode: M6-Easy* | 156-160 | 61.2-62.7% | | |
| | | No Function | 161-165 | 63.1-64.7% | | |
| | | Zoom Invert On* | 166-170 | 65.1-66.7% | | |
| | | Zoom Invert Off* | 171-175 | 67.1-68.5% | | |
| | | Zoom Reset* | 176-180 | 69.0-70.5% | | |
| | | Fixture reset* | 181-185 | 71.0-72.5% | | |
| | | Factory default settings | 186-190 | 72.9-74.5% | | |

| Channel | | Command | DMX range | Percent | Default DMX | Fade |
|---|---|---|---|---|---|---|
| | | (except DMX address & mode)* | | | | |
| | | No function | 191-195 | 74.9-76.2% | | |
| | | PWM Rate: 600Hz* | 196-200 | 76.9-78.4% | | |
| | | PWM Rate: 1200Hz* | 201-205 | 78.8-80.4% | | |
| | | PWM Rate: 2200Hz* | 206-210 | 80.8-82.4% | | |
| | | PWM Rate: 3000Hz* | 211-215 | 82.7-84.3% | | |
| | | PWM Rate: 4800Hz* | 216-220 | 84.7-86.3% | | |
| | | PWM Rate: 9600Hz* | 221-225 | 86.7-88.2% | | |
| | | PWM Rate: 25KHz* | 226-230 | 88.6-90.2% | | |
| | | No function | 231-250 | 90.5-98.0% | | |
| | | Fixture reset* | 251-255 | 98.4-100% | | |
| **3** | **Red** | Intensity 0-100% | 0-255 | 0-100% | 0 | Fade |
| **4** | **Green** | Intensity 0-100% | 0-255 | 0-100% | 0 | Fade |
| **5** | **Blue** | Intensity 0-100% | 0-255 | 0-100% | 0 | Fade |
| **6** | **Lime** | Intensity 0-100% | 0-255 | 0-100% | 0 | Fade |

Note: Channel 6 has no effect unless Fixture Settings → Color Mode is set to RGBL

# *DMX Mode 5: White*

## 6 DMX Channels

| Channel | | Command | DMX range | Percent | Default DMX | Fade |
|---|---|---|---|---|---|---|
| **1** | **Master Dimmer** | Intensity 0-100% | 0-255 | 0-100% | 0 | Fade |
| **2** | **Shutter** | Closed | 0-4 | 0-1.6% | 255 | Snap |
| | | Single Flash (when value changes) | 5-9 | 1.9-3.5% | | Snap |
| | | Sync Ramp-Up (slow→fast) | 10-39 | 3.9-15.3% | | Fade |
| | | Sync Ramp-down (slow→fast) | 40-69 | 15.7-27% | | Fade |
| | | Sync Ramp up-down (slow→fast) | 70-99 | 27.4-38.9% | | Fade |
| | | Sync Double Flash (slow→fast) | 100-129 | 39.2-50.6% | | Fade |
| | | Random Strobe (slow→fast) | 130-359 | 51-62% | | Fade |
| | | Sync Strobe (1Hz-10Hz) | 160-239 | 62.8-93.7% | | Fade |
| | | Open | 251-255 | 98.4-100% | | Snap |
| **3** | **Zoom** | Beam angle 6-43 degrees | 0-255 | 0-100% | 0 | Fade |
| **4** | **Control / Settings** | No function | 0-35 | 0-13.7% | 0 | Snap |
| | | Color Mode: RGB HO (Calibrated)* | 36-40 | 14.0-15.6% | | |
| | | Color Mode: RGB HQ (Calibrated)* | 41-45 | 16.0-17.6% | | |
| | | Color Mode: RGBL* | 46-50 | 18.0-19.6% | | |
| | | No function | 51-55 | 20.0-21.6% | | |
| | | Dimmer speed smooth* | 56-60 | 22.0-23.5% | | |
| | | Dimmer speed fast* | 61-65 | 23.9-25.5% | | |
| | | No function | 66-70 | 25.9-27.5% | | |
| | | Dimming curve Linear* | 71-75 | 27.8-29.4% | | |
| | | Dimming curve Theatrical* | 76-80 | 29.8-31.4% | | |
| | | Dimming curve Square Law* | 81-85 | 31.8-33.3% | | |
| | | Dimming curve Inverse Square Law* | 86-90 | 33.7-35.3% | | |
| | | No Function | 91-95 | 35.7-37.3% | | |
| | | No DMX = Hold scene* | 96-100 | 37.6-39.2% | | |
| | | No DMX = Blackout* | 101-105 | 39.6-41.2% | | |
| | | No DMX = Play captured scene* | 106-110 | 41.6-43.1% | | |
| | | No Function | 111-115 | 43.5-45.1% | | |
| | | Display Backlight Auto* | 116-120 | 45.5-47.1% | | |
| | | Display backlight Off* | 121-125 | 47.5-49.0% | | |
| | | No Function | 126-130 | 49.4-51.2% | | |
| | | DMX Mode: M1-Basic* | 131-135 | 51.4-52.9% | | |

| Channel | | Command | DMX range | Percent | Default DMX | Fade |
|---|---|---|---|---|---|---|
| | | DMX Mode: M2-Standard* | 136-140 | 53.3-54.9% | | |
| | | DMX Mode: M3-Advanced* | 141-145 | 55.3-56.9% | | |
| | | DMX Mode: M4-RGB(L)* | 146-150 | 57.3-58.8% | | |
| | | DMX Mode: M5-White* | 151-155 | 59.2-60.8% | | |
| | | DMX Mode: M6-Easy* | 156-160 | 61.2-62.7% | | |
| | | No Function | 161-165 | 63.1-64.7% | | |
| | | Zoom Invert On* | 166-170 | 65.1-66.7% | | |
| | | Zoom Invert Off* | 171-175 | 67.1-68.5% | | |
| | | Zoom Reset* | 176-180 | 69.0-70.5% | | |
| | | Fixture reset* | 181-185 | 71.0-72.5% | | |
| | | Factory default settings (except DMX address & mode)* | 186-190 | 72.9-74.5% | | |
| | | No function | 191-195 | 74.9-76.2% | | |
| | | PWM Rate: 600Hz* | 196-200 | 76.9-78.4% | | |
| | | PWM Rate: 1200Hz* | 201-205 | 78.8-80.4% | | |
| | | PWM Rate: 2200Hz* | 206-210 | 80.8-82.4% | | |
| | | PWM Rate: 3000Hz* | 211-215 | 82.7-84.3% | | |
| | | PWM Rate: 4800Hz* | 216-220 | 84.7-86.3% | | |
| | | PWM Rate: 9600Hz* | 221-225 | 86.7-88.2% | | |
| | | PWM Rate: 25KHz* | 226-230 | 88.6-90.2% | | |
| | | No function | 231-250 | 90.5-98.0% | | |
| | | Fixture reset* | 251-255 | 98.4-100% | | |
| **5** | **CTC** | Default 6500K | 0-15 | 0-5.9% | 0 | Snap |
| | | 10000K | 16-18 | 6.3-7.1% | | |
| | | 9900K | 19-21 | 7.5-8.2% | | |
| | | 9800K | 22-24 | 8.6-9.4% | | |
| | | 9700K | 25-27 | 9.8-10.6% | | |
| | | 9600K | 28-30 | 11-11.8% | | |
| | | 9500K | 31-33 | 12.2-12.9% | | |
| | | 9400K | 34-36 | 13.3-14.1% | | |
| | | 9300K | 37-39 | 14.5-15.3% | | |
| | | 9200K | 40-42 | 15.7-16.5% | | |
| | | 9100K | 43-45 | 16.9-17.6% | | |
| | | 9000K | 46-48 | 18-18.8% | | |
| | | 8900K | 49-51 | 19.2-20% | | |
| | | 8800K | 52-54 | 20.4-21.2% | | |
| | | 8700K | 55-57 | 21.6-22.4% | | |
| | | 8600K | 58-60 | 22.7-23.5% | | |
| | | 8500K | 61-63 | 23.9-24.7% | | |

| Channel | | Command | DMX range | Percent | Default DMX | Fade |
|---|---|---|---|---|---|---|
| | | 8400K | 64-66 | 25.1-25.9% | | |
| | | 8300K | 67-69 | 26.3-27.1% | | |
| | | 8200K | 70-72 | 27.5-28.2% | | |
| | | 8100K | 73-75 | 28.6-29.4% | | |
| | | 8000K | 76-78 | 29.8-30.6% | | |
| | | 7900K | 79-81 | 31-31.8% | | |
| | | 7800K | 82-84 | 32.2-32.9% | | |
| | | 7700K | 85-87 | 33.3-34.1% | | |
| | | 7600K | 88-90 | 34.5-35.3% | | |
| | | 7500K | 91-93 | 35.7-36.5% | | |
| | | 7400K | 94-96 | 36.9-37.6% | | |
| | | 7300K | 97-99 | 38-38.8% | | |
| | | 7200K | 100-102 | 39.2-40% | | |
| | | 7100K | 103-105 | 40.4-41.2% | | |
| | | 7000K | 106-108 | 41.6-42.4% | | |
| | | 6900K | 109-111 | 42.7-43.5% | | |
| | | 6800K | 112-114 | 43.9-44.7% | | |
| | | 6700K | 115-117 | 45.1-45.9% | | |
| | | 6600K | 118-120 | 46.3-47.1% | | |
| | | 6500K | 121-123 | 47.5-48.2% | | |
| | | 6400K | 124-126 | 48.6-49.4% | | |
| | | 6300K | 127-129 | 49.8-50.6% | | |
| | | 6200K | 130-132 | 51-51.8% | | |
| | | 6100K | 133-135 | 52.2-52.9% | | |
| | | 6000K | 136-138 | 53.3-54.1% | | |
| | | 5900K | 139-141 | 54.5-55.3% | | |
| | | 5800K | 142-144 | 55.7-56.5% | | |
| | | 5700K | 145-147 | 56.9-57.6% | | |
| | | 5600K | 148-150 | 58-58.8% | | |
| | | 5500K | 151-153 | 59.2-60% | | |
| | | 5400K | 154-156 | 60.4-61.2% | | |
| | | 5300K | 157-159 | 61.6-62.4% | | |
| | | 5200K | 160-162 | 62.7-63.5% | | |
| | | 5100K | 163-165 | 63.9-64.7% | | |
| | | 5000K | 166-168 | 65.1-65.9% | | |
| | | 4900K | 169-171 | 66.3-67.1% | | |
| | | 4800K | 172-174 | 67.5-68.2% | | |
| | | 4700K | 175-177 | 68.6-69.4% | | |
| | | 4600K | 178-180 | 69.8-70.6% | | |

| Channel | | Command | DMX range | Percent | Default DMX | Fade |
|---|---|---|---|---|---|---|
| | | 4500K | 181-183 | 71-71.8% | | |
| | | 4400K | 184-186 | 72.2-72.9% | | |
| | | 4300K | 187-189 | 73.3-74.1% | | |
| | | 4200K | 190-192 | 74.5-75.3% | | |
| | | 4100K | 193-195 | 75.7-76.5% | | |
| | | 4000K | 196-198 | 76.9-77.6% | | |
| | | 3900K | 199-201 | 78-78.8% | | |
| | | 3800K | 202-204 | 79.2-80% | | |
| | | 3700K | 205-207 | 80.4-81.2% | | |
| | | 3600K | 208-210 | 81.6-82.4% | | |
| | | 3500K | 211-213 | 82.7-83.5% | | |
| | | 3400K | 214-216 | 83.9-84.7% | | |
| | | 3300K | 217-219 | 85.1-85.9% | | |
| | | 3200K | 220-222 | 86.3-87.1% | | |
| | | 3100K | 223-225 | 87.5-88.2% | | |
| | | 3000K | 226-228 | 88.6-89.4% | | |
| | | 2900K | 229-231 | 89.8-90.6% | | |
| | | 2800K | 232-234 | 91-91.8% | | |
| | | 2700K | 235-237 | 92.2-92.9% | | |
| | | 2600K | 238-240 | 93.3-94.1% | | |
| | | 2500K | 241-255 | 94.5-100% | | |
| **6** | **M/G Shift** | Off - ( no correction) | 0-9 | 0-3.5% | 0 | snap |
| | | full plus Magenta +100% (-0,1 Duv) | 10-10 | 3.9-3.9% | | |
| | | plus Magenta +99% → + 1% | 11-124 | 4.3-48.6% | | fade |
| | | neutral / no effect | 125-140 | 49-54.9% | | snap |
| | | plus green +1% → +99% | 141-254 | 55.3-99.6% | | fade |
| | | full plus green +100% (+ 0,1 Duv) | 255-255 | 100-100% | | |

# *DMX Mode 6: Easy*

## 4 DMX Channels

| Channel | | Command | DMX range | Percent | Default DMX | Fade |
|---|---|---|---|---|---|---|
| **1** | **Master Dimmer** | Intensity 0-100% | 0-255 | 0-100% | 0 | Fade |
| **2** | **Zoom** | Beam angle 6-43 degrees | 0-255 | 0-100% | 0 | Fade |
| **3** | **Control / Settings** | No function | 0-35 | 0-13.7% | 0 | Snap |
| | | Color Mode: RGB HO (Calibrated)* | 36-40 | 14.0-15.6% | | |
| | | Color Mode: RGB HQ (Calibrated)* | 41-45 | 16.0-17.6% | | |
| | | Color Mode: RGBL* | 46-50 | 18.0-19.6% | | |
| | | No function | 51-55 | 20.0-21.6% | | |
| | | Dimmer speed smooth* | 56-60 | 22.0-23.5% | | |
| | | Dimmer speed fast* | 61-65 | 23.9-25.5% | | |
| | | No function | 66-70 | 25.9-27.5% | | |
| | | Dimming curve Linear* | 71-75 | 27.8-29.4% | | |
| | | Dimming curve Theatrical* | 76-80 | 29.8-31.4% | | |
| | | Dimming curve Square Law* | 81-85 | 31.8-33.3% | | |
| | | Dimming curve Inverse Square Law* | 86-90 | 33.7-35.3% | | |
| | | No Function | 91-95 | 35.7-37.3% | | |
| | | No DMX = Hold scene* | 96-100 | 37.6-39.2% | | |
| | | No DMX = Blackout* | 101-105 | 39.6-41.2% | | |
| | | No DMX = Play captured scene* | 106-110 | 41.6-43.1% | | |
| | | No Function | 111-115 | 43.5-45.1% | | |
| | | Display Backlight Auto* | 116-120 | 45.5-47.1% | | |
| | | Display backlight Off* | 121-125 | 47.5-49.0% | | |
| | | No Function | 126-130 | 49.4-51.2% | | |
| | | DMX Mode: M1-Basic* | 131-135 | 51.4-52.9% | | |
| | | DMX Mode: M2-Standard* | 136-140 | 53.3-54.9% | | |
| | | DMX Mode: M3-Advanced* | 141-145 | 55.3-56.9% | | |
| | | DMX Mode: M4-RGB(L)* | 146-150 | 57.3-58.8% | | |
| | | DMX Mode: M5-White* | 151-155 | 59.2-60.8% | | |
| | | DMX Mode: M6-Easy* | 156-160 | 61.2-62.7% | | |
| | | No Function | 161-165 | 63.1-64.7% | | |
| | | Zoom Invert On* | 166-170 | 65.1-66.7% | | |
| | | Zoom Invert Off* | 171-175 | 67.1-68.5% | | |
| | | Zoom Reset* | 176-180 | 69.0-70.5% | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | Fixture reset* | 181-185 | 71.0-72.5% | | |
| | | Factory default settings (except DMX address & mode)* | 186-190 | 72.9-74.5% | | |
| | | No function | 191-195 | 74.9-76.2% | | |
| | | PWM Rate: 600Hz* | 196-200 | 76.9-78.4% | | |
| | | PWM Rate: 1200Hz* | 201-205 | 78.8-80.4% | | |
| | | PWM Rate: 2200Hz* | 206-210 | 80.8-82.4% | | |
| | | PWM Rate: 3000Hz* | 211-215 | 82.7-84.3% | | |
| | | PWM Rate: 4800Hz* | 216-220 | 84.7-86.3% | | |
| | | PWM Rate: 9600Hz* | 221-225 | 86.7-88.2% | | |
| | | PWM Rate: 25KHz* | 226-230 | 88.6-90.2% | | |
| | | No function | 231-250 | 90.5-98.0% | | |
| | | Fixture reset* | 251-255 | 98.4-100% | | |
| **4** | **Color Wheel** | Default white 6500K | 0-3 | 0-1.2% | 0 | Snap |
| | | Preset 3200K | 4-6 | 1.6-2.4% | | |
| | | Preset 4200K | 7-9 | 2.7-3.5% | | |
| | | Preset 5600K | 10-12 | 3.9-4.7% | | |
| | | Preset 6500K | 13-15 | 5.1-5.9% | | |
| | | Filter 004 (Medium Bastard Amber) | 16-18 | 6.3-7.1% | | |
| | | Filter 019 (Fire) | 19-21 | 7.5-8.2% | | |
| | | Filter 025 (Sunset Red) | 22-24 | 8.6-9.4% | | |
| | | Filter 026 (Bright Red) | 25-27 | 9.8-10.6% | | |
| | | Filter 036 (Medium Pink) | 28-30 | 11-11.8% | | |
| | | Filter 049 (Medium Purple) | 31-33 | 12.2-12.9% | | |
| | | Filter 058 (Lavender) | 34-36 | 13.3-14.1% | | |
| | | Filter 068 (Sky Blue) | 37-39 | 14.5-15.3% | | |
| | | Filter 088 (Lime Green) | 40-42 | 15.7-16.5% | | |
| | | Filter 089 (Moss Green) | 43-45 | 16.9-17.6% | | |
| | | Filter 090 (Dark Yellow Green) | 46-48 | 18-18.8% | | |
| | | Filter 102 (Light Amber) | 49-51 | 19.2-20% | | |
| | | Filter 103 (Straw) | 52-54 | 20.4-21.2% | | |
| | | Filter 106 (Primary Red) | 55-57 | 21.6-22.4% | | |
| | | Filter 111 (Dark Pink) | 58-60 | 22.7-23.5% | | |
| | | Filter 115 (Peacock Blue) | 61-63 | 23.9-24.7% | | |
| | | Filter 117 (Steel Blue) | 64-66 | 25.1-25.9% | | |
| | | Filter 118 (Light Blue) | 67-69 | 26.3-27.1% | | |
| | | Filter 121 (Filter Green) | 70-72 | 27.5-28.2% | | |
| | | Filter 122 (Fern Green) | 73-75 | 28.6-29.4% | | |
| | | Filter 124 (Dark Green) | 76-78 | 29.8-30.6% | | |
| | | Filter 126 (Mauve) | 79-81 | 31-31.8% | | |
| | | Filter 128 (Bright Pink) | 82-84 | 32.2-32.9% | | |
| | | Filter 131 (Marine Blue) | 85-87 | 33.3-34.1% | | |
| | | Filter 132 (Medium Blue) | 88-90 | 34.5-35.3% | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | Filter 134 (Golden Amber) | 91-93 | 35.7-36.5% | | |
| | | Filter 135 (Deep Golden Amber) | 94-96 | 36.9-37.6% | | |
| | | Filter 136 (Pale Lavender) | 97-99 | 38-38.8% | | |
| | | Filter 137 (Special Lavender) | 100-102 | 39.2-40% | | |
| | | Filter 138 (Pale Green) | 103-105 | 40.4-41.2% | | |
| | | Filter 140 (Summer Blue) | 106-108 | 41.6-42.4% | | |
| | | Filter 141 (Bright Blue) | 109-111 | 42.7-43.5% | | |
| | | Filter 143 (Pale Navy Blue) | 112-114 | 43.9-44.7% | | |
| | | Filter 147 (Apricot) | 115-117 | 45.1-45.9% | | |
| | | Filter 148 (Bright Rose) | 118-120 | 46.3-47.1% | | |
| | | Filter 152 (Pale Gold) | 121-123 | 47.5-48.2% | | |
| | | Filter 154 (Pale Rose) | 124-126 | 48.6-49.4% | | |
| | | Filter 157 (Pink) | 127-129 | 49.8-50.6% | | |
| | | Filter 162 (Bastard Amber) | 130-132 | 51-51.8% | | |
| | | Filter 164 (Flame Red) | 133-135 | 52.2-52.9% | | |
| | | Filter 165 (Daylight Blue) | 136-138 | 53.3-54.1% | | |
| | | Filter 169 (Lilac Tint) | 139-141 | 54.5-55.3% | | |
| | | Filter 170 (Deep Lavender) | 142-144 | 55.7-56.5% | | |
| | | Filter 172 (Lagoon Blue) | 145-147 | 56.9-57.6% | | |
| | | Filter 180 (Dark Lavender) | 148-150 | 58-58.8% | | |
| | | Filter 182 (Light Red) | 151-153 | 59.2-60% | | |
| | | Filter 194 (Surprise Pink) | 154-156 | 60.4-61.2% | | |
| | | Filter 197 (Alice Blue) | 157-159 | 61.6-62.4% | | |
| | | Filter 201 (Full C.T. Blue) | 160-162 | 62.7-63.5% | | |
| | | Filter 202 (Half C.T. Blue) | 163-165 | 63.9-64.7% | | |
| | | Filter 203 (Quarter C.T. Blue) | 166-168 | 65.1-65.9% | | |
| | | Filter 204 (Full C.T. Orange) | 169-171 | 66.3-67.1% | | |
| | | Filter 206 (Quarter C.T. Orange) | 172-174 | 67.5-68.2% | | |
| | | Filter 219 (Fluorescent Green) | 175-177 | 68.6-69.4% | | |
| | | Filter 247 (Filter Minus Green) | 178-180 | 69.8-70.6% | | |
| | | Filter 248 (Half Minus Green) | 1811-183 | 71-71.8% | | |
| | | Filter 281 (Three Quarter C.T. Blue) | 184-186 | 72.2-72.9% | | |
| | | Filter 285 (Three Quarter C.T. Orange) | 187-189 | 73.3-74.1% | | |
| | | Filter 352 (Glacier Blue) | 190-192 | 74.5-75.3% | | |
| | | Filter 353 (Lighter Blue) | 193-195 | 75.7-76.5% | | |
| | | Filter 507 (Madge) | 196-198 | 76.9-77.6% | | |
| | | Filter 778 (Millennium Gold) | 199-201 | 78-78.8% | | |
| | | Filter 793 (Vanity Fair) | 202-204 | 79.2-80% | | |
| | | Filter 798 (Chrysalis Pink) | 205-207 | 80.4-81.2% | | |
| | | Rainbwo Stop - at first Color | 208-210 | 81.6-82.4% | | |
| | | Rainbow slow→fast | 211-252 | 82.7-98.8% | | |
| | | Rainbow Stop - at current Color | 253-255 | 99.2-100% | | |


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