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## True Match® Firmware

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**Celeb 250, 450, 450Q, 850**  
**Diva-Lite 41/31/21 & 30/20**  
**FreeStyle 4/41/31/21**  
**Image L80/L40**  
**Select 30/20**



**True Match® Firmware 4.0 (Camera)**  
**June 2019**

### True Match® Firmware 3.0

This operation manual is for the following Kino Flo LED products using True Match® Firmware 3.0. Although the Customer interface is the same on all models listed, there are component differences. For this reason, it is very important that the correct firmware is loaded onto the corresponding model.



The following products use True Match® Firmware 3.0 DFS:

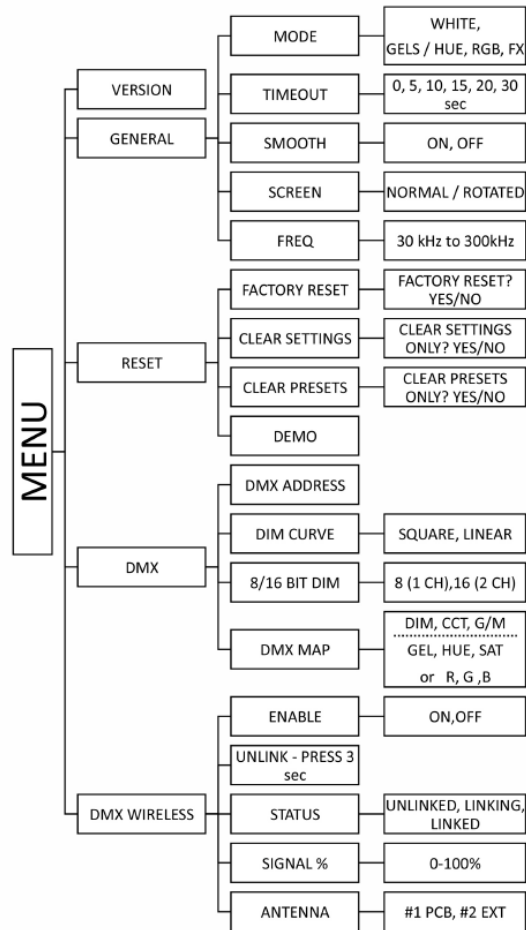
Diva-Lite 41/31/21 LED = Version 3.0 DFS  
 Diva-Lite 30/20 = Version 3.0 DFS  
 FreeStyle 4/41/31/21 LED = Version 3.0 DFS \*  
 Image L80/L40 LED = Version 3.0 DFS  
 Select 20/30 LED = Version 3.0 DFS \*

The Celeb products use the corresponding  
 True Match® Firmware 3.0 CEL2, CEL4 or CEL8:

Celeb 250 = Version 3.0 CEL2  
 Celeb 450/450Q = Version 3.0 CEL4  
 Celeb 850 = Version 3.0 CEL8

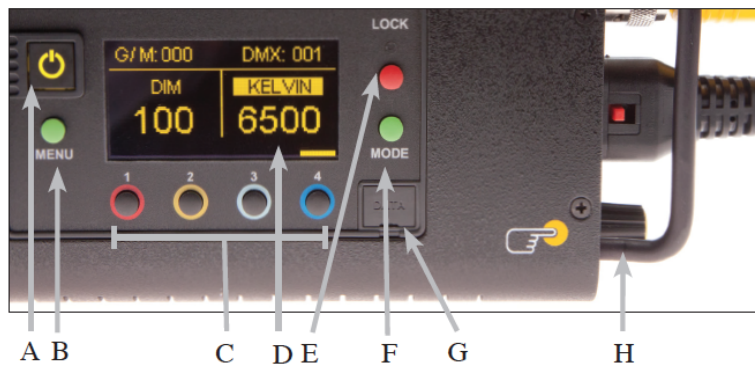
**\* Firmware loaded on FreeStyle or Select LED controller.**

## Menu Overview



## Control Panel - White Mode

FreeStyle LED 151 DMX Controller shown for example purposes.



- A) On /Off:** On = Green light displayed. Off = Red light displayed. The display and all menu settings can be operated while the power button is in the Off position, as long as power is applied to the controller. The On/Off button only controls the light source.
- B) Menu:** Provides access to menu options such as General settings, Reset, DMX and DMX Wireless settings.  
*Shortcut:* While on control screen, press and hold for 3 seconds to switch through menus (**White, Gels & Hue, RGB, FX**).
- C) Preset Buttons:** Factory defaults left to right are: 2700K, 3200K, 5000K and 6500K. G/M default value is 000.  
User can also use these preset buttons to store custom Kelvin and G/M settings.
- D) Display:** Provides access to Dim, Kelvin, G/M, and DMX channel. Factory reset will show: Dim = 10%, Kelvin = 2700K, G/M = 000, DMX = 001.
- E) Lock:** Press the Lock button to disable all buttons and Control knob. Press for 3 seconds to restore displayed presets to

default factory settings.

**F) Mode:** Press to navigate from Dim to Kelvin and G/M settings. When in sub-menus, pressing Mode always returns you to main display. When DMX is applied, use Mode to access DMX channel on main display. Shortcut: Long press will bring you back one step.

**G) Data Port:** Mini B USB for firmware updates.

**H) Control Knob:** Manually adjusts Dim, Kelvin, G/M levels and DMX address. Press the Control knob to toggle between **Fine** and **Coarse** increments or when selecting options within menus.

**DMX Note:** Each LED Fixture has an **"AUTO TERMINATE"** feature. The last fixture that does not have an XLR cable attached to the DMX "Out" port will automatically terminate.

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## Dimming



Press the Mode button to select **Dim**. Rotating the control knob will dim the light of the fixture. Default setting is Fine. Press the Control knob to toggle between **Fine** and **Coarse** increments or when selecting options within menus. When the power is turned off or removed, the display will remember its last setting.

**Note:** Pressing Mode always takes you to a Mode screen. Pressing Menu always takes you to a Menu screen.



The default setting for **DIM** is that smoothing is on. When smoothing is on, it introduces a time lag such that the individual dimming steps are less noticeable. However, when working in DMX and instant response is required, it is recommended that smoothing be turned off.

The **\*DIM** designates that the smoothing function is off.

Note: When in **FX** mode, the smoothing on/off has no effect other than in **TV** mode.

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## Kelvin Selection/Presets



Press the Mode button until **Kelvin** is highlighted.

In White mode, Kelvin custom settings are between 2700K to 6500K and displayed G/M can be assigned to any preset button by holding down the desired button for 3 seconds. The Kelvin display will flash once the setting is registered.

Default Presets 1-4:

- 1 = 2700K
- 2 = 3200K
- 3 = 5000K
- 4 = 6500K

Rotating the Control knob will change the Kelvin. Default setting is Fine. Press the Control knob to toggle between **Fine** and **Coarse** increments or when selecting options within menus.

### Green/Magenta



Press the Mode button until **G/M** is highlighted. Rotating the control knob to the right will adjust towards Green. Rotating to the left will adjust towards Magenta. Default setting is Fine. Press the Control knob to toggle the G/M from **Fine** to **Coarse** increments.

Green/Magenta Chart	
100G	+1 Green
50G	+½ Green
25G	+¼ Green
25M	+¼ Magenta
50M	+½ Magenta
100M	+1 Magenta

The LED software features a **G/M** (Green/Magenta) control to match the spectral sensitive curves of most popular cameras and other light sources.

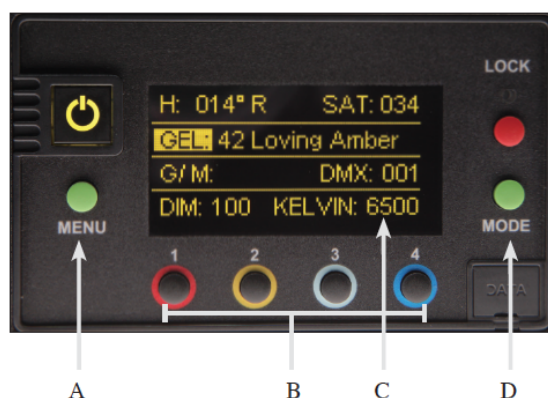
### Lock



Press the **Lock** button to lock the Dim, Kelvin and G/M setting (Applies to White, Gels/Hue, RGB or FX Modes). A red indicator light will display in Lock mode. Manual controls will be disabled. To unlock, press the Lock button again. The red indicator will turn off.

**Shortcut:** The Lock button also has a secondary function. Hold the Lock button down for 3 seconds and the presets 1-4 will be restored to factory settings for the Mode currently displayed.

#### Control Panel - Gels/Hue Mode



#### Gels/Hue Mode

- A) Menu:** Provides access to menu options such as General settings (**Gels/Hue Mode**), Reset, DMX and DMX Wireless settings.  
*Shortcut:* While on control screen, press and hold for 3 seconds to switch through menus (**White, Gels & Hue, RGB, FX**).
- B) Preset Buttons:** Factory defaults left to right are: 2700K, 3200K, 5000K and 6500K. G/M default value is 000. User can also use these preset buttons to store custom Kelvin between 2500K and 9900K and custom G/M, Gel, Hue and Saturation settings.
- C) Display:** Provides access to Dim, Kelvin, G/M, Gel, Hue/Saturation and DMX channel. Factory reset will show: Dim = 10%, Kelvin = 2700K, G/M = 000, DMX = 001.
- D) Mode:** Press to navigate from Dim to Kelvin, G/M, Gel, Hue and Saturation settings. When on the Gel function, pushing the Control knob in/out will apply the gel or remove the gel. When in sub-menus, pressing Mode always returns you to main display. When DMX is applied, use Mode to access DMX channel on main display. *Shortcut Tip:* Long press will bring you back one step.

#### Gel, Hue Angle & Saturation



In **Gels/Hue** mode (in addition to **G/M** control), **Gel**, **Hue** angle and **Saturation** adjustments are available.

Kino Flo Presets and industry standard preset Gels are included. Press Menu, select General and press control knob to change Mode to Gels/Hue.



### Gel

Press the Mode button until **Gel** is highlighted. Rotate the dimming knob to choose Kino Flo presets and preset Gels. When on the Gel function, pushing the Control knob in/out will apply the gel or remove the gel.

 **True Match® Firmware DMX Mapping**

 **Gel List - Alphabetical**

 **Gel List - Numerical**

### Hue Angle and Saturation

Press the Mode button until **Hue** or **Saturation** is highlighted. Rotate the dimming knob to select custom Hue angle and Saturation. Press the knob to toggle between **Fine** and **Coarse** adjustments.

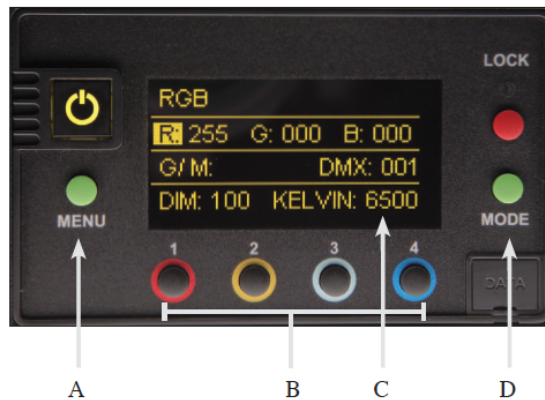
The **Hue** angle and **Saturation** values are based on a HSV / RGB model where 0° = Red, 120° = Green and 240° = Blue.

In **Gels/Hue** mode, **Kelvin** custom settings between 2500K to 9900K and displayed **G/M**, **Gel** or **Hue** angle and **Saturation** can be assigned to any preset button by holding down the desired button for 3 seconds. The Kelvin display will flash once the setting is registered.

To restore presets to default factory settings, choose **Reset** under **General** settings and **Clear Presets**. This method will reset all buttons in all modes. Shortcut: If only want to clear presets for individual display, hold **Lock** button for 3 seconds.

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### Control Panel - RGB Mode



### RGB Mode

**A) Menu:** Provides access to menu options such as General settings (**RGB Mode**), Reset, DMX and DMX Wireless settings.

*Shortcut:* While on control screen, press and hold for 3 seconds to switch through menus (**White, Gels & Hue, RGB, FX**).

**B) Preset Buttons:** Factory defaults left to right are: 2700K, 3200K, 5000K and 6500K. G/M default value is 000. User can also use these preset buttons to store custom Kelvin between 2500K and 9900K and custom G/M, and RGB settings.

**C) Display:** Provides access to Dim, Kelvin, G/M, RGB and DMX channel. Factory reset will show: Dim = 10%, Kelvin = 2700K, G/M = 000, DMX = 001.

**D) Mode:** Press to navigate from Dim to Kelvin, G/M, RGB settings. When in sub-menus, pressing Mode always returns you to main display. When DMX is applied, use Mode to access DMX channel on main display. Shortcut: Long press will bring you back one step.

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### RGB



In **RGB Color** mode (in addition to G/M control), individual **RGB** (Red, Green, Blue) adjustments are available. Press Menu, select General and press control knob to change Mode to RGB.

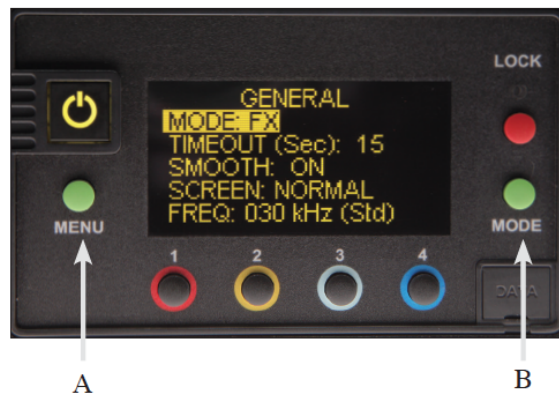
#### RGB

Press the Mode button until R (Red), G (Green) or B (Blue) is highlighted. Rotate the Control knob to choose individual RGB settings. Press the Control knob to toggle between **Fine** and **Coarse** increments.

In **RGB Mode**, **Kelvin** custom settings between 2500K to 9900K and displayed RGB values can be assigned to any preset button by holding down the desired button for 3 seconds. The Kelvin display will flash once the setting is registered.

To restore presets to default factory settings, choose **Reset** under **General** settings and **Clear Presets**. This method will reset all buttons in all Modes. Shortcut: If only want to clear presets for an individual display, hold Lock button for 3 seconds.

#### Control Panel - FX (Effects)



#### FX (Effects)

**A) Menu:** Provides access to menu options such as General settings (**FX Mode**), Reset, DMX and DMX Wireless settings.  
Shortcut: While on control screen, press and hold for 3 seconds to switch through menus (**White, Gels & Hue, RGB, FX**).

**B) Mode:** After selecting General menu and choosing FX Mode, press the green Mode button to access specific effects and navigate options.

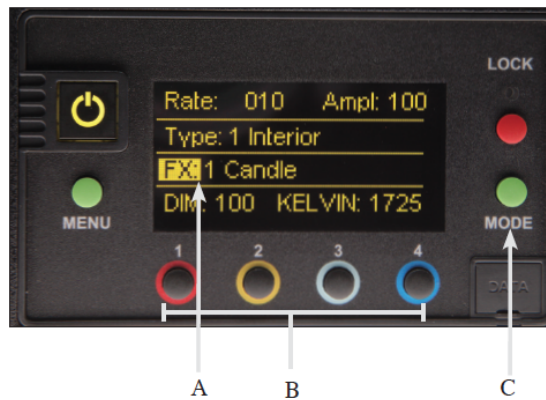
True Match Firmware 3.0 includes an FX (Effects) menu with 8 modes of operation. Within each mode, there are also pre-programmed "Types" to provide variation.

Additional controls are also provided to manipulate the functions to your specific requirements. In addition, each mode has 4-memory buttons to store custom effects.

#### The FX Modes are:

1. Candle
2. Fire
3. TV
4. Police
5. Lightning
6. Paparazzi
7. Pulse
8. Scroll

#### FX (Effects)



### FX (Effects) Mode

FX mode provides access to effects including Candle, Fire, TV, Police, Lightning, Paparazzi, Pulse and Scroll. Candle mode used as an example:

- A) FX Option:** Choose the desired FX Mode by rotating the control knob. When on the desired effect, there will be several pre-programmed effects as well as control parameters that can be altered.
- B) Preset Buttons:** In FX Mode, Kelvin custom settings and any control functions displayed such as **Rate** and **Amplitude (Ampl)** can be saved as a preset. Chosen values can be assigned to any preset button by holding down the desired button for 3 seconds. The Kelvin display will flash once the setting is registered.

To restore presets to default factory settings, choose **Reset** under **General** settings and **Clear Presets**. This method will reset all buttons in all Modes. Shortcut: If only want to clear presets for **Candle** Mode, hold **Lock** button for 3 seconds while Candle mode is displayed.

- C) Mode:** Press to navigate from Dim to Kelvin and FX settings. Shortcut: Long press will bring you back one step.

### Control Panel - Candle Mode



#### 1. Candle Mode

Candle mode is to simulate a candle flame. In addition to dimming, the Kelvin can be set to a Kelvin range of 1400 to 2500 Kelvin. Set the Kelvin range to a mid-point of the candle color of your choice and the candle color will change +/- 200 Kelvin.

There are 2 Types of candle flame pre-programmed, **Interior** and **Breeze**. Interior is a candle flicker and Breeze is candle flicker with larger jumps in brightness.

The control parameters are **Rate** (1 to 20 Rate of flicker) and **Amplitude (Ampl)**. Amplitude scale is 1 to 100 with 100 equaling largest brightness change.

### Control Panel - Fire Mode



## 2. Fire Mode

Fire mode is to simulate a fire flame. In addition to dimming, the Kelvin can be set to a Kelvin range of 1400 to 2500 Kelvin. Set the Kelvin range to a mid-point of the fire color of your choice and the fire color will change +/- 200 Kelvin.

There are 2 Types of fire mode pre-programmed, **Firepit** and **Gas Fireplace**.

The control parameters are **Rate** (1 to 20 Rate of flicker) and **Amplitude (Ampl)**. Amplitude scale is 1 to 100 with 100 equaling largest brightness change.

## Control Panel - TV Mode



## 3. TV Mode

The TV Mode is to simulate a TV effect. In addition to dimming, the Kelvin can be set to a Kelvin range of 2500K to 9900K. The default Kelvin is 6500K.

There are 3 Types TV effect pre-programmed: **Movie**, **Music Video** and **Sports**. Movie has similar color change to TV and movie scenes. Music Video has larger color and brightness changes similar to music video or action with rapid edits. Sports has more saturated colors in greens and blues similar to sporting arenas.

The control parameters are **Rate** (1 to 20 Rate of flicker) and **Amplitude (Ampl)**. Amplitude scale is 1 to 100 with 100 equaling largest brightness change.

## Control Panel - Police Mode



## 4. Police Mode

The Police mode is to simulate Police or emergency vehicles. In addition to dimming, the Kelvin can be set to a Kelvin range of 2500K to 9900K. The default Kelvin for the pre-programmed types is 6500K.

There are 5 Types of Police effects, mainly categorized by the color or color combination:

1 Blue + Red	Blue (Pause) Red
2 Red	Red
3 Yellow	Yellow
4 Blue + White + Red	Blue (Pause) White (Pause) Red
5 Blue	Blue

The control parameters are **Burst** and **Rate**. Bursts are the number of bursts (scale is 1-4) per color and Rate of bursts is 1 to 100 with 100 equaling fastest change.

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#### Control Panel - Lightning Mode



#### 5. Lightning Mode

The Lightning Mode is to simulate lightning effect. In addition to dimming, the Kelvin can be set to a Kelvin range of 2500K to 9900K. The default Kelvin for the pre-programmed types is 6500K.

There are 2 types of lightning effects **Storm** and **Frankenstein**. The Storm effect is to simulate a thunderstorm and Frankenstein has more intense, brighter flashes.

There is one control parameter which is **Rate** that is scaled between 1 to 20 with 20 having the most variation in the lighting sequences.

Note: If you want to trigger or cue a lightning effect, can use the power button to start the lighting sequence. When power button is triggered, the pattern/sequence will repeat each time the power button is used.

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#### Control Panel - Paparazzi Mode



#### 6. Paparazzi Mode

The Paparazzi Mode is to simulate photographic flashes. In addition to dimming, the Kelvin can be set to a Kelvin range of 2500K to 9900K. The default Kelvin for the pre-programmed types is 6500K.

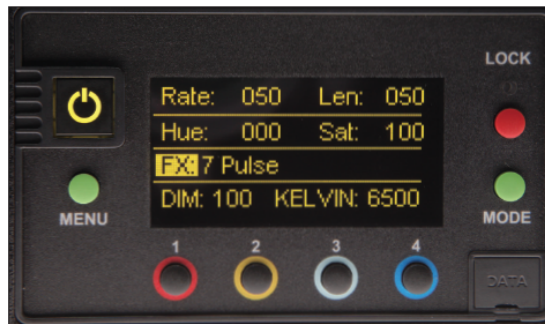
There are 2 types of Paparazzi, **Red Carpet** and **Stalker**. Red Carpet has very quick, frequent, and random flashes. Stalker has less frequent flashes (more pause between flashes).

Paparazzi has 2 Parameters **Rate** and **Flash**. The Rate is scaled 1 to 100 with 100 being the fastest. The Flash is also scaled 1 to 100 with flash length of 100 being the longest.

Note: If you want to trigger or cue a flash effect, set to Stalker and use the power button to start the flash sequence. When power button is triggered, the pattern/sequence will repeat each time the power button is used.

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#### Control Panel - Pulse Mode



## 7. Pulse Mode

The Pulse mode is to simulate a repeating color – such as a flashing neon sign or emergency lighting. In addition to dimming, the Kelvin can be set to a Kelvin range of 2500K to 9900K. The default Kelvin is 6500K.

There are no pre-programmed types in Pulse mode. The control parameters are:

### **Hue**

The Hue Angle scale is 0° to 360°. The Hue angle and Saturation values are based on a HSV / RGB model where 0° = Red, 120° = Green and 240° = Blue.

### **Sat**

Saturation of pulsed color scale is 0 to 100 with 0 = white and 100 = fully saturated

### **Rate**

Rate of pulse is scale from 1 to 100, with 100 being highest rate.

### **Len**

Length of pulse is scale 1 to 100 as follows:

1-49 = Light is less on  
 50 = Light is equal on / off  
 51-100 = Light is more on

## Control Panel - Scroll Mode



## 8. Scroll Mode

The Scroll mode is to simulate color changing light over a period of time. In addition to dimming, the Kelvin can be set to a Kelvin range of 2500K to 9900K. The default is Kelvin 6500K.

There are no pre-programmed types. The control parameters are:

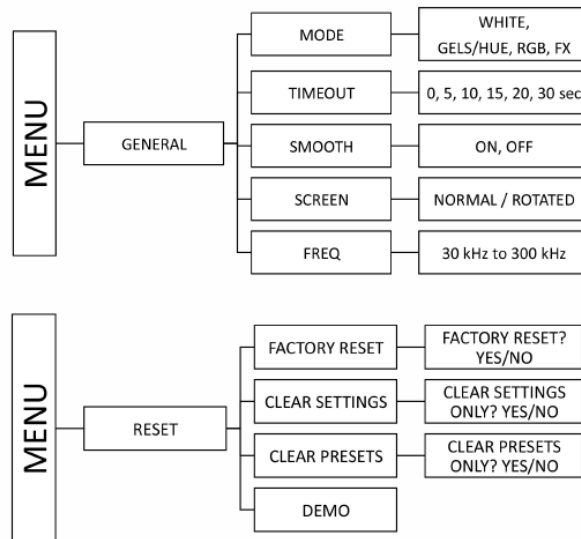
### **Time**

The time scale is 0.6 to 60 seconds. Time refers to how long it takes to scroll around the color wheel (0° to 360°)

### **Sat**

The saturation scale is 0 to 100. With Saturation level of 0 = White and 100 = fully saturated.

## General Settings



#### Mode: White, Gels/Hue, RGB or FX

Default is White mode. Custom Kelvin settings can be set between 2700K to 6500K. To change to Gels/Hue, RGB or FX mode, press the control knob. Custom Kelvin settings can be set between 2500K to 9900K.

#### Timeout

When choosing settings, if there is no activity, the display will default to Dim. The timeout default is 15 seconds, but can be changed by pressing the control knob to 0, 5, 15, 20 and 30 seconds.

#### Smooth

Default is **On**. Press control knob to turn Dim **Smooth Off** for instant response for special effects such as flashing, flickering, strobing, etc.

#### Screen Normal

Press control knob to rotate display.

#### Frequency

The default setting is 30kHz and is generally considered to be flicker-free for most applications up to 240 frames/per second. However, Frequency can be increased up to 300kHz by increments of 1.



#### Factory Reset

To reset factory settings, press the control knob to select **Reset**, press to a select **Factory Reset**. Rotate the control knob to select Yes and press to confirm reset. Main display will default to: Dim = 10%, Kelvin = 2700K, G/M = 000 and DMX = 001.

#### Clear Settings

To clear all settings, but save any presets that have been stored to memory. Press the control knob to select clear settings. Rotate the control knob to select Yes and press to confirm.

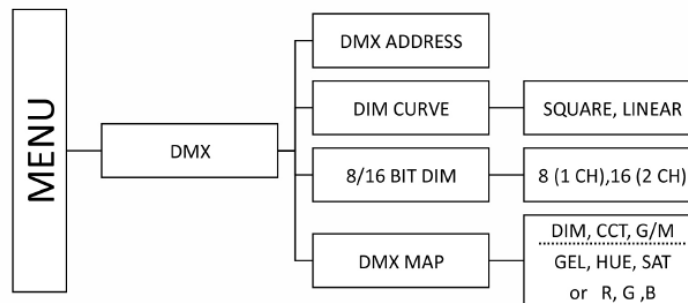
#### Clear Presets:

To reset Preset buttons 1-4: 2700K, 3200K, 5000K, 6500K. In addition **G/M** will reset to 000. Press the control knob to select **Clear Presets**. Rotate the control knob press to select Yes and press to confirm.

**Note: Clear Presets** resets buttons in White mode, both Color modes and FX mode.

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#### DMX Settings



Press the Menu button to select **DMX**. Press and turn the control knob to select individual digit settings for a valid address from 1-512. On the main display, "**X**" next to DMX indicates DMX signal is present.

All manual controls are disabled once the DMX cable is applied and DMX is turned on. To regain manual control with the DMX cable plugged in, set the DMX address to "0".

For **DMX Mapping**, [click here](#).

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#### DMX



## DMX

### White mode

In White mode, the fixture operates on three DMX channels using DMX512 while in the default 8 Bit Dim mode. The first channel operates dimming; 2nd channel operates Kelvin from 2700K to 6500K; 3rd channel operates G/M. Once an address is selected, the fixture automatically assigns 3 channels.

### Gels/Hue Mode

In Gels/Hue mode, the fixture operates on six DMX channels while in the default 8 Bit Dim mode. The first channel operates dimming; 2nd channel operates Kelvin from 2500K to 9900K; 3rd channel operates G/M; 4th channel operates the Gel; 5th channel operates the Hue angle and the 6th channel operates the Saturation. Once an address is selected, the fixture automatically assigns 6 channels.

**Note:** In order to control the **Gel** list channel, the **G/M** channel needs to be set to 0. In order to control the **Hue** angle and **Saturation** channels, the **G/M** and Gel list channels both need to be set to 0.

### RGB Mode

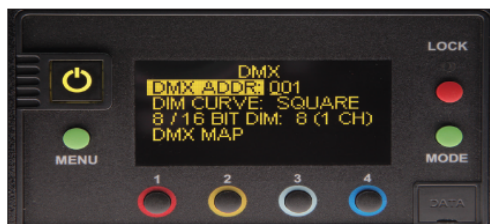
In RGB mode, the fixture operates on six DMX channels while in the default 8 Bit Dim mode. The first channel operates dimming; 2nd channel operates Kelvin from 2500K to 9900K; 3rd channel operates G/M; 4th channel operates Red; 5th channel operates Green and the 6th channel operates Blue. Once an address is selected, the fixture automatically assigns 6 channels.

**Note:** In order to control the **RGB** channels, the **G/M** channel needs to be set to 0.

If a fixture loses its DMX signal, it will hold its last DMX command. For this reason, it is important to turn a fixture off using the DMX commands. For example, if you try to turn off the lights by turning off the dimmer board, the lights will remember their last DMX command and stay on. The fixtures require a DMX "Off" or "Black-Out" command in order to turn off.

### FX Mode

FX mode is not enabled for DMX control.



### DIM Curve

Default is **Square**. Press control knob to change to **Linear**. **Dim Curve** applies to how the input DMX Dim command is applied.

In **Linear** mode an address of 127 = 50% Dim. Because single channel DMX is only 8 bit (0-255), the lower end of the Dim curve has the same increment as the higher end. **Square Dim** applies **X<sup>2</sup>** curve and allocates more values to the lower end of the Dim scale.

### 8/16 Bit DIM

Default is **8 Bit**. **16 Bit Dim** allocates an additional DMX channel for the Dim input, one channel for the upper 8 Bits and another channel for the lower 8 Bits.

### DMX Map

In **White** mode, DMX Map displays three DMX channel settings for DIM, CCT (Kelvin) and G/M.

In **Gels/Hue Color** mode, DMX Map displays six DMX channel settings for DIM, CCT (Kelvin), G/M, Gel, Hue and Saturation.

In **RGB Color mode**, DMX Map displays six DMX channels settings for DIM, CCT (Kelvin), G/M, R (Red), G (Green) and B (Blue).

**Note:** If **16 Bit Dim** is on, a total of 4 channels are displayed for **White** mode (7 channels displayed for **Gels/Hue** or **RGB Color** mode).

The first 2 DMX channels are assigned to dimming. 1st channel = **DIM MSB** (Most Significant Byte);

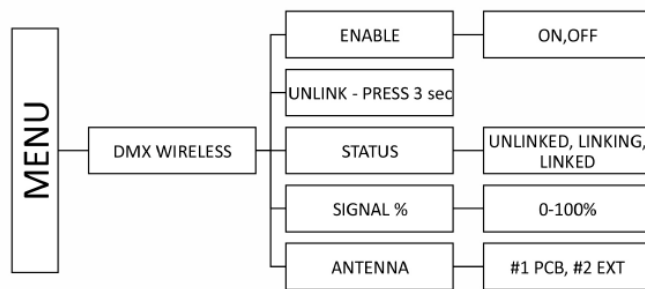
2nd channel **DIM LSB** (Least Significant Byte); 3rd channel = CCT (Kelvin); 4th channel = G/M.

In **Gels/Hue** Color mode, 5th channel = Gel, 6th channel = Hue; 7th channel = Saturation. In **RGB** Color mode, 5th channel = R (Red), 6th channel = G (Green), 7th channel = B (Blue).

DMX is not enabled for **FX** Mode.

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## DMX Wireless Settings



The LED Controller/Fixtures include a built-in Lumen Radio receiver and can be operated wirelessly with a Lumen Radio transmitter (sold separately). For more information on Lumen Radio Receiver/Transmitter, see [www.LumenRadio.com](http://www.LumenRadio.com).

DMX Wireless is an alternative to using DMX cables. Set DMX address as previously instructed on p 26. DMX protocol will only operate in one of two methods. User will need to choose between wireless or DMX cables.

Note: DMX and wireless DMX not enabled for **FX** mode.

Note: DMX fixtures without wireless capability can be daisy chained with DMX cables to a wireless fixture.



#### Enable

Enables wireless DMX. Default is OFF. Press the control knob to turn Enable ON. The following are examples of what will be seen in the main display when wireless DMX is Enabled:

- 1) **"R" with no signal bar**: Indicates wireless DMX is enabled, but there is no connection to a transmitter.
- 2) **"R" with signal bar**: Indicates wireless DMX is enabled; the fixture is connected to a transmitter, but no valid DMX is currently being transmitted.
- 3) **"RX" with signal bar**: Indicates wireless DMX is enabled; the fixture is connected to a transmitter and valid DMX is currently being transmitted.

All manual controls are disabled when wireless DMX is enabled.

#### Unlink - Press 3 secs

Press the control button for 3 seconds to unlink from wireless DMX transmitter.

#### Status - Unlinked, Linking, Linked

This shows the status of the wireless connection. Default is Unlinked. When linking is initiated from the transmitter, the status will display Linking. Once connected, the status will change to Linked. If the fixture is linked to a transmitter that is not present, the status will show Linking.

#### Signal

Indicates signal strength of wireless connection. In main display, up to 5 bars indicate signal strength.

#### Antenna

The default setting is #2 EXT (External). It can also be changed to #1 PCB (Printed Circuit Board)

**Note:** Controller/Fixture must be powered on. In addition, the wireless transmitter must be connected to a DMX controller with a valid DMX output. DMX control not enabled for FX mode.