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RC4 WIRELESS LumenDimM6 Six Channel CRMX Wireless Dimmer User Guide

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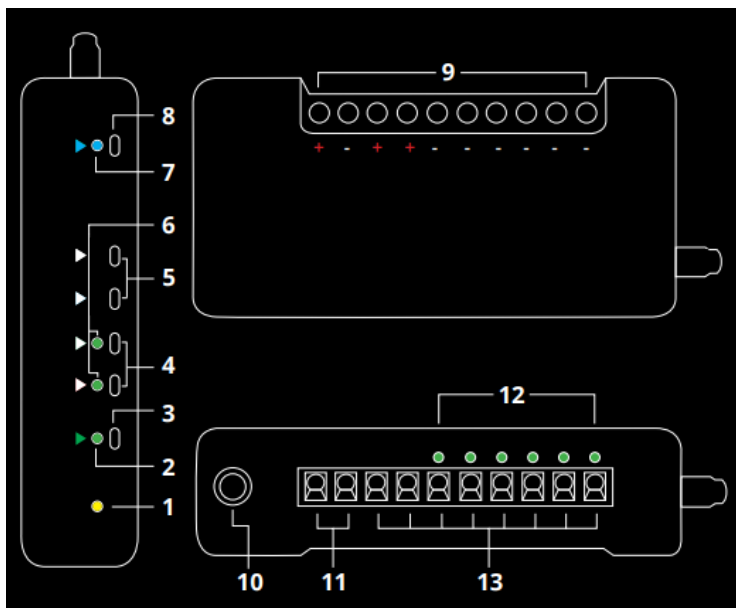LumenDimM6 Six-Channel Wireless Dimmer Quick Start Guide

RC4 LumenDimM6

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12. DimA – DimF Dimmer Indicators
13. Load Connections (2 x Common +, DimA- through DimF-)

* COP means "Computer Operating Properly." This indicator always shows a blink pattern, proving that internal

firmware is running. Different patterns indicate various modes and advanced settings.

LumenDimM6 Quick Start Guide

This guide will get you started using your RC4 LumenDimM6. Most
LumenDimM6 users will find all the information they need right here.
Your LumenDimM6 also has a wide variety of expanded features for advanced users. You can find out more
about all of them in the RC4 Knowledge Base at http://rc4.info.

Registering Your Product

Registering your LumenDimM6 is quick and easy. After registration, you'll be notified of new firmware updates,
and warranty claims can be resolved more quickly.
Please complete your registration at: www.rc4wireless.com/support/register/

LumenDimM6 System Components

- To use your LumenDimM6 wireless dimmer you will need:
- A DMX lighting console.
- A LumenRadio CRMX-compatible wireless transmitter like the

    RC4 LumenDimIO or the LumenRadio TX1.
- A battery or DC power supply for the dimmer and loads you will be operating with it.

Screwdriver Size Matters

The ideal screwdriver for the screw terminals on your LumenDimM6 has a blade that is 2.5mm (0.1") wide.
Forcing a screwdriver that is too big will enlarge the hole, so the terminal screws will fall out if you loosen them too
much.
A screwdriver that is too small will not ensure a firm grip on the wires and may lead to the screw head being
stripped.
RC4 Starter Kits include a perfectly sized screwdriver, and they can also be purchased separately in our online
store at www.rc4wireless.com.

Performing a Factory Reset

If someone else has used your LumenDimM6, or you just want to get back to a known configuration, performing a
factory reset is easy: Power on the device. The green COP indicator will be
blinking. Press and hold Func, briefly tap (press and release) the SetA button, then release Func. Four indicators
will blink to confirm that factory settings are restored.
NOTE: This does NOT affect transmitter linking.

PRO TIPS:

Bending a single paper clip into a U shape will enable you to easily reach and press both buttons together.
If you are not sure what mode or setting you may have selected, you can always get back to a known starting
point by returning to factory default.
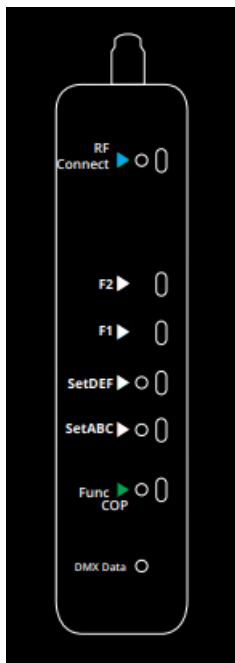
Unlink the LumenDimM6

If the blue RF Connect LED on the LumenDimM6 blinks continuously, it is looking for a transmitter that it was previously linked with.
To unlink it, press and hold RF Connect for several seconds until the blue LED goes off and stays off.
If the RF Connect LED remains on, or is blinking, repeat the process until it stays off.
When the RF Connect LED is off, the LumenDimM6 is ready to be linked to your transmitter.
NOTE: Link status is not affected by performing a Factory Reset.

Linking Transmitter and Receiver

In this example, we're using an RC4 LumenDimIO transmitter. Have both devices powered on. Put the LumenDimIO Mode switch in the transmit
position, then tap the Link button. The Link button is recessed under the small slot to the right of the blue RF Connect LED. Tap it with a small screwdriver or the end of a bent paperclip.
The blue RF Connect LEDs on both the LumenDimIO and the LumenDimM6 will flash for several seconds and then remain steady, indicating that they are linked.
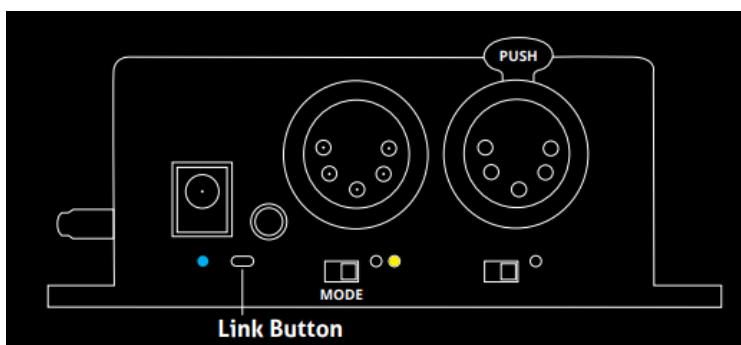
Test the Wireless Link with Default Address Settings

When you receive your new LumenDimM6, or after restoring default settings, it will be set to DMX address 1 for dimmer A, address 2 for dimmer B, etc.
Before changing any dimmer settings, play with the DMX levels for these addresses and see your wireless dimmer outputs work.
The DimA, B, C, D, E, and F indicators below the screw terminals on the long side of the LumenDimM6 are

directly connected to dimmer outputs: they show you exactly what the dimmers are doing.

Setting the DMX Address

Assigning DMX channels and dimmer curves is easy using RC4 OneTouch™:
On your DMX lighting console, bring up one dimmer (DMX output channel) that will be your LumenDimM6 starting address. For example, if you want your first LumenDimM6 dimmer on DMX channel 60 with a curve that is optimized for LEDs, bring up 60 @ 30% at the console. Tap SetABC and the DimA indicator will come on @ 30%. The channel level of 30% selects one of several different curves. This one is optimized for LEDs. Other curves are explained on Page 13

Subsequent Channel Assignment

When you set DimABC, all 6 dimmers are automatically set sequentially. For example, if you have set DMX channel 60 for DimA, DimB is now assigned to channel
61, DimC is on 62, and so on, all the way up to DimF being set on channel 6
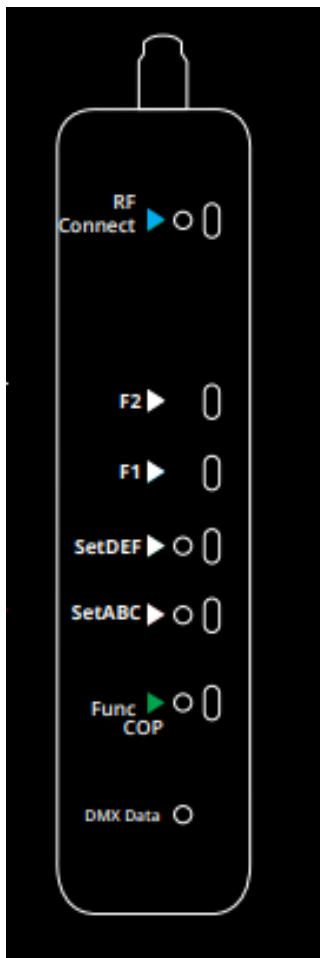
Non-Sequential Channel Assignment

Each set of 3 dimmers, ABC and DEF, are always sequential, but the two sets do not have to be.
You can use RC4 OneTouch™ with the Set buttons for each individual group. For example, if you want DimDEF to be set to DMX address 11, bring up 11 @ 30% (for the LED curve) at the board and press the SetDEF button.
Remember: SetABC assigns all 6 dimmers sequentially.
The SetDEF button work individually to set only the last 3 dimmers. Always use SetABC first, then set DEF differently if you need to.

Connecting Your Lamps, LEDs, Motors and More*

To really use your LumenDimM6, you must connect a lamp, LED, motor, or other load to each dimmer. When you're connecting anything to your LumenDimM6, be sure that the LumenDimM6 is powered down. Connect everything first, then turn on power.

Dimming occurs on the negative side. The positive connections are all connected together inside the LumenDimM6.

* DimC, D, E, and F on the LumenDimM6 can control a variety of devices including solenoids, relays, servo motors, and much more. DimA and B are intended for LED dimming only.
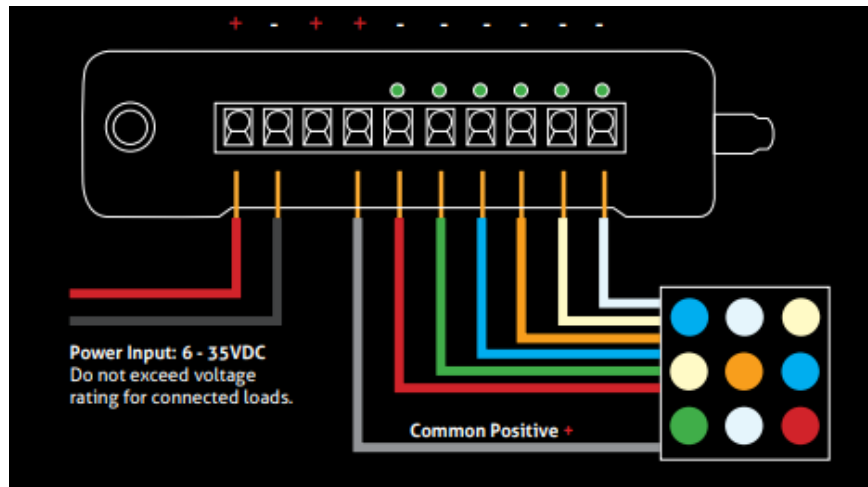
Dimming and Controlling Multicolor LEDs

The illustration on the previous page shows an RGBATD (T is tungsten or warm white, D is daylight or cool white) color mixing LED device. There are 7 wires: a grey wire for the 12V common positive (+), and six colored wires, red/green/ blue/amber/tungsten/daylight, for the six unique negative loads. The color of the common positive may vary, it is not always grey.

The common positive wire should be connected to either of the (+) terminals.

All of the (+) terminals are connected together inside the LumenDimM6. The two (+) terminals make it easy to connect two RGB light sources, each with their own common positive wire.

Dimming happens on the negative (–) terminals.

The red wire should be connected to the negative (–) terminal under DimA.

Green should be connected to the negative (–) terminal under DimB.

Blue connects to the negative (–) terminal under DimC.

Amber to DimD.

Tungsten (warm white) to DimE.

Daylight (cool white) to DimF.

If using two RGB fixtures or LED devices, connect the first one to DimA, B, and

C, and connect the second to DimD, E, and F.

Choosing Other Dimmer Curves or Profiles

The LumenDimM6 default is the ISL dimmer curve, which is best for LEDs. This is also the curve that is selected with RC4 OneTouch™ when the DMX level is at 30%.

There are dimmer curves for different kinds of lamps, motors, and more. Detailed information can be found online by searching dimmer curves at *http://rc4.info/.*

The most common curves are selected using these DMX channel levels and RC4 OneTouch™ with the Set buttons as outlined on page 9:

Non-Dim   *100%* (80% or higher)   Use for relays, solenoids, air valves, etc.
Linear   *70%* (60 – 79%) For incandescent, halogen, tungsten lamps.
ISL Fast   *50%* (40 – 59%) For LEDs when fast blinks and flashes are required.
RC4 Digital Persistence™ is disabled. *ISL Slow*   *30%* (20 – 39%)
Best for typical LED applications, with RC4 Digital Persistence™ For super smooth 19-bit dimming. (default

setting)

Advanced Features

 The LumenDimM6 is a multifaceted device for users of all experience levels. Detailed information and tutorial videos about the features below can be explored further at ***http://rc4.info/:***

- Extensive RDM support makes it easy to configure the LumenDimM6 with a

DMXcat or other full-featured RDM controller.

- Using a small adaptor cable, the LumenDimM6 can be used as a wireless data receiver to deliver DMX to other It can also be used as a wired DMX dimmer: the miniplug DMX port becomes an input when the device is not linked to a transmitter.
- When using the LumenDimM6 for cinema (motion picture capture), PWM frequencies can be adjusted for the smoothest dimming without banding or other
- The LumenDimM6 has a wide variety of special-purpose dimmer curves that can ring telephones, position servo motors, and more (using DimC, D, E, and F).
- The RC4 Flkr Effects Engine™, helps create many unique effects including candle flicker, analog tv screen noise, welding spark, and much
- Several different RDM-selectable Personalities include RGBx+CCT and HSLx+CCT Profiles (which mimic color-control profiles used by Arri, KinoFlo, and Astera), plus the RC4 Flkr Effects Engine™, and

Caring for Your LumenDimM6

- **The LumenDimM6 should not be used with AC power or with any voltage higher than 35VDC.** Doing so will severely damage the device and is extremely dangerous for the
- Do not exceed the maximum total power handling of the LumenDimM6, which is 16A. That is 200W at 12V, 400W at 24V, shared across the six dimmer
- Always use a fuse or circuit breaker at the source of power and always use an appropriate wire size for the fuse rating. For example, if using a 15A fuse, use wire that can safely carry
- The LumenDimM6 should be kept away from excessive heat, cold, dust and
- Do not immerse in water or other
- Dimmers generate heat when Allow space for air to move around the unit for cooling, especially when using high-current loads.

The LumenDimM6 is a high-power, high-current device. Failing to observe appropriate safety precautions can result in fire or other risk. RC4 Wireless cannot be held responsible or liable in such cases. Operate the LumenDimM6 at your own risk.

Get in Touch

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Email: *support@theatrewireless.com* **Website:** *www.rc4wireless.com* **Knowledge Base:** *http://rc4.info*
We're here to help you at any time.
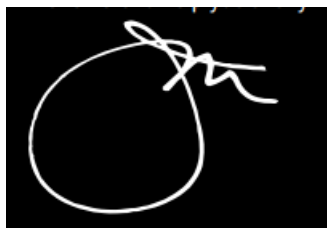
James David Smith

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LumenDimM6 Six Channel CRMX Wireless Dimmer, LumenDimM6, Six Channel CRMX Wireless Dimmer, CRMX Wireless Dimmer, Wireless Dimmer, Dimmer

References

- **Knowledge Base - RC4 Wireless**
- **Knowledge Base - RC4 Wireless**
- **Wireless Lighting Control for Props, Costumes, and Scenery - RC4 Wireless**
- **RC4 User and System ID Registration - RC4 Wireless**