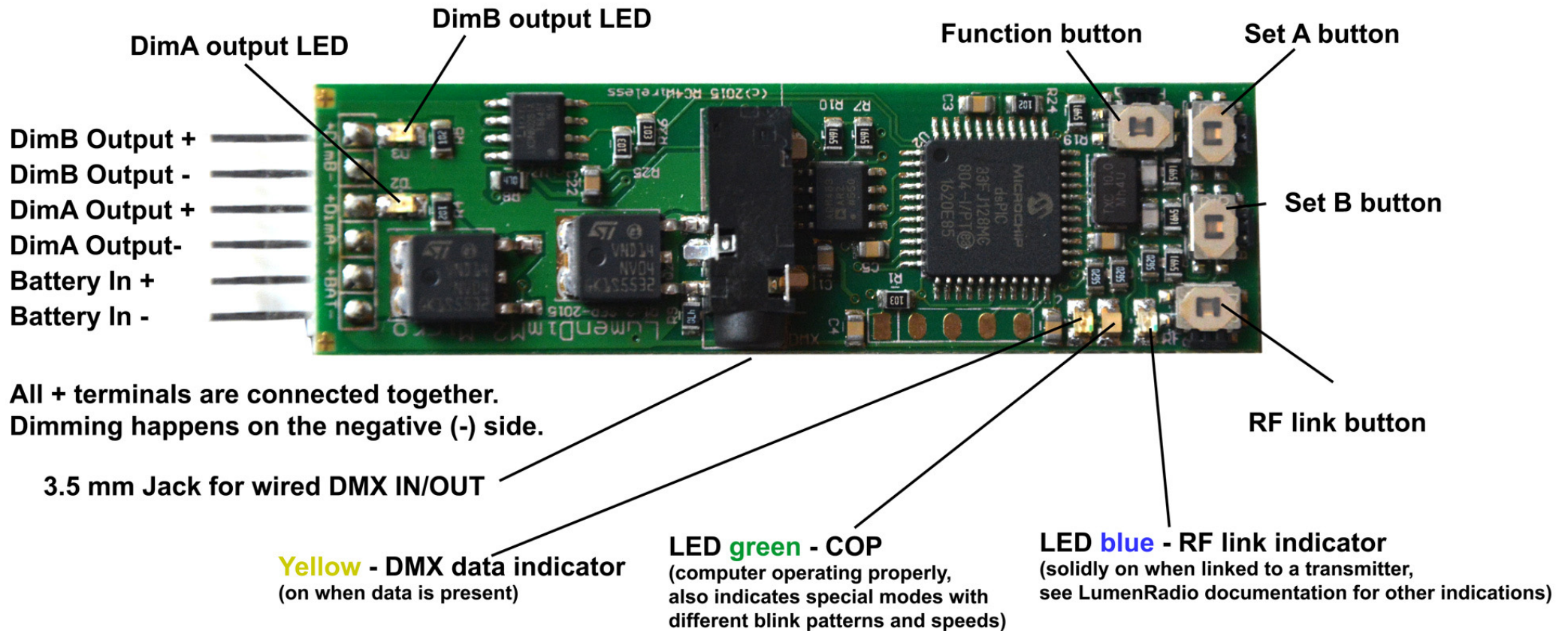# RC4 Wireless Quick-start-guide

Lumendim2micro - wireless DMX receiver dimmer

Buttons & Indicators

As with all other RC4 Series 3 devices, restore defaults is done by holding Function, tapping SetA, and releasing Function.
With no DMX data present, SetA and SetB are "bump" buttons that test the dimmers at 75% while pressed.
When DMX data is present, they are used to assign a DMX channel and dimmer curve to the respective dimmer.

It is not required to connect an additonal antenna on the reverse side´s connector. The internal antenna is used by default.

DimA output LED

DimB output LED

Function button

Set A button

DimB Output +
DimB Output -
DimA Output +
DimA Output-
Battery In +
Battery In -

Set B button

RF link button

All + terminals are connected together.
Dimming happens on the negative (-) side.

3.5 mm Jack for wired DMX IN/OUT

Yellow - DMX data indicator
(on when data is present)

LED green - COP
(computer operating properly,
also indicates special modes with
different blink patterns and speeds)

LED blue - RF link indicator
(solidly on when linked to a transmitter,
see LumenRadio documentation for other indications)

RC4 OneTouch Channel, Curve and Digital Persistence Assignment

When an RC4 Series 3 device is connected to an active transmitter with DMX data streaming in, the Set buttons provide RC4 OneTouch™ dimmer configuration. Press a dimmer Set button to assign it to the first DMX channel that is at a level of 20% or higher. The level of the DMX channel determines the dimmer curve and RC4 Digital Persistence time.

Dimmer Curves

Using RC4 OneTouch™, three different dimmer curves can be selected: **Inverse Square Law (ISL), Linear, and Non-Dim.**
The ISL Curve is optimized for light emitting diodes (LEDs). You must use the ISL curve to make LEDs dim smoothly; do not use the linear curve for LEDs.
The Linear Curve is perfect for incandescent (including halogen) lighting – traditional filament bulbs.
The Non-Dim Curve is ideal for relays, solenoids, AC inverters, and anything else that needs cleanly switched DC power.

RC4 Digital Persistence™

The ISL dimming curve is only part of how to make LEDs look great. RC4 Digital Persistence™ makes LEDs look as pleasing as incandescent lighting, with no visible stepping, by emulating the natural filament persistence of vintage lamps.
Using RC4 OneTouch™, the ISL curve can be selected with or without RC4 Digital Persistence by using the ISL-Slow or ISL-Fast dimmer curve.

PWM Frequency

All RC4 Series 3 dimmers provide a range of PWM frequencies. Low frequencies must be used with high-power loads, particularly incandescent lamps.

Higher frequencies are best for LEDs, to eliminate visible flicker. Using RC4 OneTouch™, the default frequency for the Linear Curve is 77Hz; the default for the ISL Curves is 615 Hz. (These defaults are user selectable – see the complete RC4 Series 3 User Manual for additional details.)

Dimmer Curve, RC4 Digital Persistence (DP), PWM Frequency	Level % (0-100)	Level Dec (0-255)
Non-Dim, Off (no Digital Persistence) No Modulation	100% (80% or higher)	255 (205 or higher)
Linear, Off (no Digital Persistence), 77Hz PWM	70% (60% - 79%)	180 (154-204)
ISL Fast, Off (no Digital Persistence), Default is 615 Hz PWM	50% (40% - 59%)	128 (103-153)
ISL Slow [1], Default DP is Fast Medium [2], Default is 615 Hz PWM [2]	30% (20% - 39%)	77 (52-102)
Channel Ignored (No change to current settings)	Less than 20%	Less than 52

1. If you are unsure about which curve to use, try the ISL Slow curve. If your load is drawing a lot of power and the dimmer is getting too hot, use the Linear curve.

2. Default PWM frequency and RC4 Digital Persistence time are user adjustable. See the complete RC4 Series 3 User Manual for details.

Download the complete RC4 Series 3 User Manual for complete details about all Series 3 features and functions at:
http://www.theatrewireless.com/support/manuals/

Numerous tutorial and demonstration videos are also available at http://www.theatrewireless.com/category/support/video/