

# LCG-WIDMX-RCB

## *Wireless DMX512 Receiver (Lithium Battery)*

- Built-in rechargeable lithium battery, plug and play
- FHSS with 79 Channels, interference-free operation.
- 32-bit ARM Processor, DMA transfer without delay
- Standard DMX512 3-pin XLR, Through XLR power supply design
- One-touch operation with a Tri-color status indicator
- Built-in Wireless Solution Compatibility Mode
- Automatically learning of various parameters of controller, just like DMX transfer via cable
- Group Mode, easy plug-and-play operation; Pairing Mode, supports more transmitter universes



## Overview

LCG-WDMX-RCB is unique in its use of advance radio technologies that are also used in military communication and mobile phones. That is 2.4GHz ISM Band (license-free worldwide) and GFSK Modulation (more efficient transitions).Its user-friendly operation that simplifies all the complex communication protocols makes it possible for the users to just plug and play.

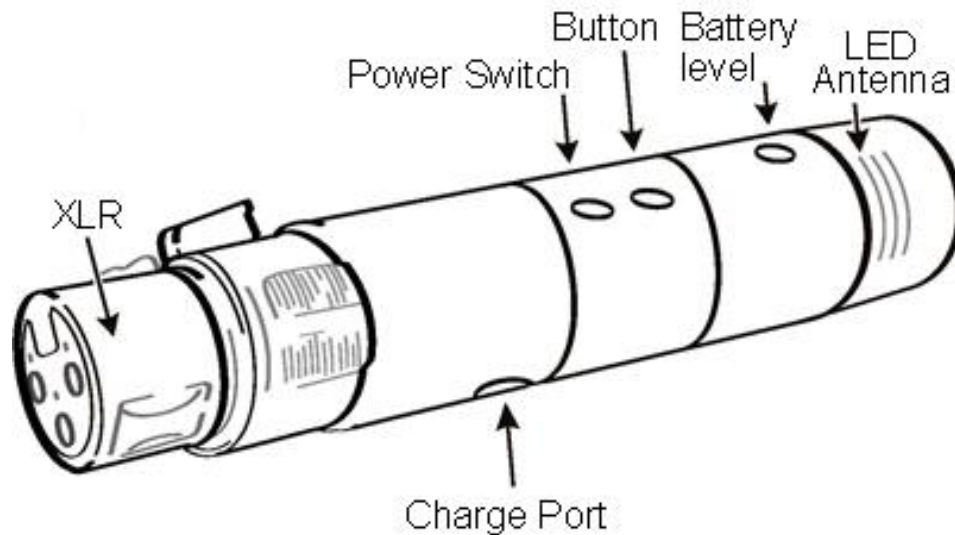
## Multiple Communication Protocol, There are no upgrading troubles

LCG-WDMX-RCB is now compatible with the world's leading wireless communication protocols like the Sweden's protocol or the GZ protocols. There are no upgrading troubles.

## Application

- Stage lighting applies to the Grand Variety Show, Gymnasium, Temporary Set-up Stage, TV Station, Centers Conference, Theaters, Opera, Theme Parks, Dance Halls, and Bars, or any lighting equipment with standard DMX512 XLR etc.

## Appearance



## Description of Status Indicator

### 1) In the Set-up mode, different colors mean different communication protocols:

- 1. Red ----- WIDMX Protocol
- 2. Green ----- W-DMX Receive Protocol
- 3. Yellow ----- Guangzhou(GZ) Protocol

### 2) In the User mode, Description of Status Indicator:

Protocol	Action	Status Description
WIDMX or GZ Protocol	Red, Green, Blue, Yellow, Cyan, Purple (, White)	6 / 7 Different Wireless Groups
	Flashing Red	Transmitting DMX Signal
	Flashing Green	Receiving DMX Signal
W-DMX Receive Protocol	White	Connection is not Established
	Red	Deleting Connection
	Red(Fast-Flash)	Connection is Lost
	Green(Fast-Flash)	Connecting to Transmitter
	Green(Slow-Flash)	Connected, Without DMX Signal
	Green	Connected, Receiving DMX Signal

## Description of the Battery Level Indicator Status

### 1) In Charging:

- 1. Red ----- Level < 40%
- 2. Flashing Green ----- 40% <= Level <70%
- 3. Flashing Blue ----- 70% <= Level <100%
- 4. Blue ----- Level = 100% (full charge)

**2) In Discharge: (Except for low battery, the battery level display will go out after 5 seconds. Press the button to display the battery level again for 5 seconds.)**

1. Blue ----- 70% <= Level
2. Green ----- 40% <= Level <70%
3. Red ----- 10% <= Level <40%
4. Flashing Red ----- Level < 10% (low battery)

## Operation Guide

### 1. Set-up mode:

Press and hold the button before you power up. When you see status indicator turns into the white light, release the button to enter the Set-up mode. In this mode you can select different transmission protocols. Each time you press the button, you would see the status indicator changes in follow order: red, green, blue and yellow. Choose one of the protocols, then press and hold the button (> 1S), when you see the white light, release it to enter the use mode.

### 2. Use mode:

- 1) Powered up and enter the Use mode;
- 2) If it is in Set-up mode, press and hold the button (> 1S) until you see the white light, then release it to enter the Use mode.

#### 2.1. In WIDMX protocol or GZ protocol, you could select different DMX Group:

- 1) The first time when you press the button, it will not change the color but show you the group that you are in.
- 2) If you press it again it will switch to other group.

#### 2.2. In W-DMX Receive protocol:

Press and hold (> 3S) the receiver's button until the indicator turns white. The device would disconnect with the transmitter.

## Specifications

### Form Factor

Type: stand-alone installation

Size: 85 x 18 x 18 mm

Weight: 110 g

### System Information

CPU: 32-bit ARM Core (Cortex-M4)

### Radio Parameters

Range: 600 meters (line-of-sight)

Frequency: 2.402 - 2.480GHz, ISM, 79 channels

Spread Spectrum: FHSS, 1100 hops / sec

Modulation: GFSK

Maximum Transmit Power: 23dBm

Receiver Sensitivity: -94dBm

### DMX Signal Interface

3-pin female XLR

### Environmental Limits

Operating Temperature: -40 ~ 85 °C

Storage Temperature: -65 ~ 150 °C

Ambient Relative Humidity: 5 to 95% (non-condensing) **Power**

### Requirements

Charging input: 500 mA@5V DC

Charging time: 90% @ 50 minutes, 70 minutes full charge

Discharge time: 20 hours max.

### Reliability

Automatic Reboot Trigger: Built-in WDT (watchdog timer)