



SS2 -RGBW-18L

DIRECT POWER LIGHTING MANUAL



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Summary

Introduction

RGB Color Changing Adjustable Flood Lights are active, top-of-the-line color changing fixtures. They draw on solid-state elements in order to produce highlights and washes in architectural spaces.

When installed and operated according to this manual, these downlights will operate safely and dependably for their rated lifespan.

These luminaries require a USITT DMX 512 control signal on four consecutive channels total. The unit includes a DATA OUT output for connection to additional units or other DMX512 devices.

The flood lights are UL 1598 wet location rated for use in indoor or outdoor environments.

Scope

The purpose of this manual is to properly install and use color-changing flood lights at peak performance.

This manual must be complimented by additional references, consultation from qualified professional(s), and observance of state and local codes and regulations. This rule applies to any interior structure, exterior structure, or environment.

Therefore, it is important to: *“please read and comply with all instructions and warnings in this manual when installing or using this product.”*

Who Is This Manual Intended for?

This manual is intended for electrical contractors, electrical engineers, and licensed electricians.

Additional Supplies

DMX512 compatible controller (optional)

DMX extension (optional)

DMX feed connector

4x4 inch electrical junction box rated for the application (optional)

Controller (DMX512 compatible)

Proper mounting bolts, washers and lock washers to secure the fixture to the mounting surface.

Specifications

Power Input: Direct 120-240VAC 50Hz/60Hz

Power Consumption: 105W

L70 Life: 50,000 Hours.

Temperature Rating: 0°F - 104°F Ambient.

LED Die Colors: Red (620-635nm)
Green (520-535nm)
Blue (450-465nm)
Neutral White (5000k)

Safety: Complies to UL1598 and ANSI/UL 8750.

Planning for Installation

Unpacking

The data enabler and trim are shipped assembled with no additional assembly needed. Housing and trim are shipped in two different boxes.

Any optional accessories are included in the package. Use the packing list located on the outside of the box to ensure all accessories are included.

Survey the unit to make sure the data enabler/trim are all intact—not cracked or damaged. Any damages to the package or its contents are of the buyer's responsibility; please follow protocol for filing damage claims. Please recycle or appropriately discard of any packing materials.

Preparation

Before Installation, Coloronix suggests:

- Consulting the provided submittal drawings to recognize layouts of luminaries, power supplies, and wiring layouts.
- Drawing out a layout plan consisting of locations of luminaries and wiring.
- Record DMX addresses on a mapping grid for easy reference and addressing (where applicable).
- An electrical inspector reviews all wiring plans.

Points to Consider About Data

- Max power links is 9 per power feed
- AC Power and DATA cables may NOT run in the same conduit or within one foot due to possible induced errors.
- 32 DMX DATA links max per run

Quick Step-by-Step Instructions

To successfully install, the steps are:

1. Mounting and alignment of fixture
2. AC power connections
3. DMX connections
4. Ready to go.

Setting Color Mode

For installations requiring DMX control, set the personalized DMX address using the address table (Below) for LCD menu settings. See figure.

Note: Up to 128 unique 4-channel addresses can be set per DMX universe.



Lock Function:

If MENU is IDLE for 20 seconds, MENU will lock. Hold MENU and "DOWN" button to release lock.

DMX Mode

1. Press the "MODE", enter the DMX mode "d.xxx".
2. Press the "UP" or "DOWN", set up the DMX address value d.001-d.512
3. Press the "SETUP", enter the DMX working mode: X-ch
4. Press the "UP" or "DOWN", set up the DMX working mode to Mode 1

DMX Working Mode 1: 4-CHANNEL

(For individual color dimming control)

Channel	Value	Function
CH1	0-255	Red
CH2	0-255	Green
CH3	0-255	Blue
CH4	0-255	Cool White

Pre-Programmed Mode (Static Color)

1. Press "MODE", enter the mode "Prxx"
2. Enter Pr.01
3. Press "SETUP" and toggle between static color to achieve desired show

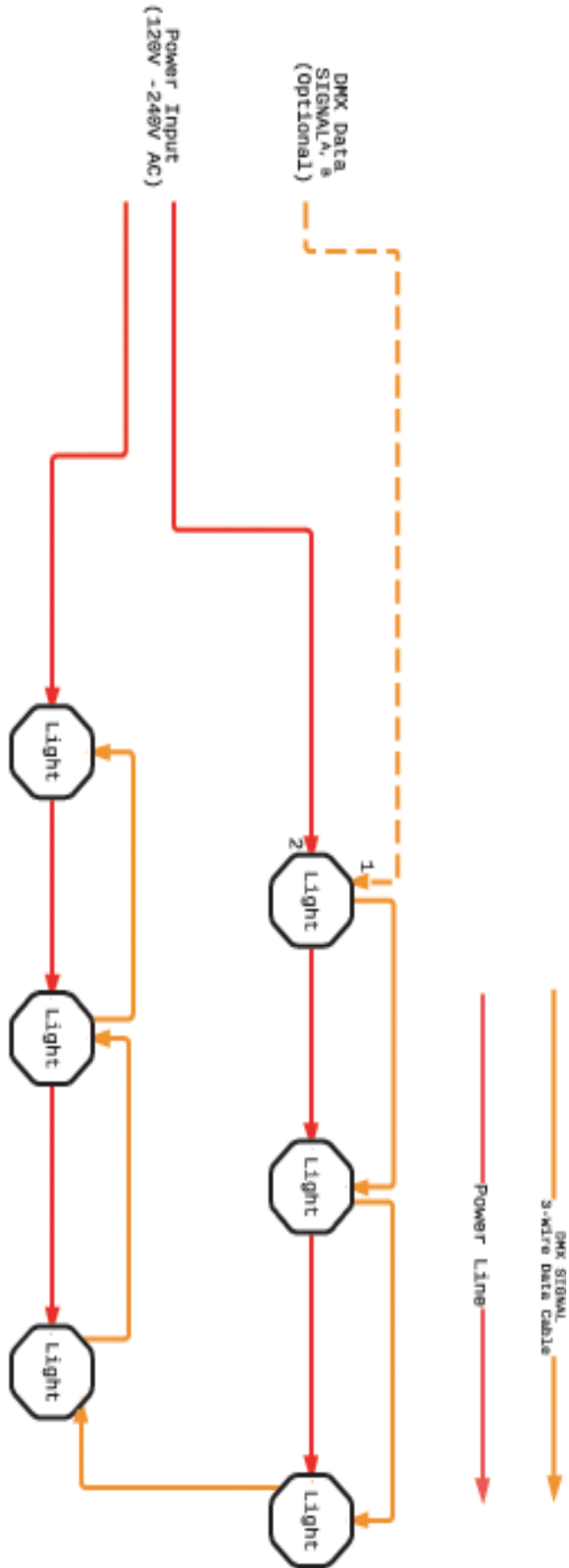
No.	Color
1	Red
2	Lime Green
3	RGBW
4	Green
5	Light Blue
6	Blue
7	Purple
8	Magenta
9	Bright White
10	Pink
11	Light Green
12	Light Purple
13	Orange
14	RGBW

Pre-Programmed Mode (Show Mode)

Pr.01	Static color program
Pr.02	Four colors fading
Pr.03	Ten color fading
Pr.04	Four color dream
Pr.05	Four color hopping
Pr.06	Ten color hopping
Pr.07	Red fading
Pr.08	Green fading
Pr.09	Blue fading
Pr.10	White fading

Mounting and Alignment of Fixture

- Mount and secure each fixture into the designated position in accordance to the installation plan. Ensure there is sufficient cable length between the fixture and junction box to allow for final alignment of the fixture.
- Secure the fixtures to a solid mounting surface using three threaded fasteners minimum of 3/8 inch (10mm) stainless steel complete with flat and locking washer.
- Rotate the fixtures using tilt method into the desired position.



NOTES:
 A- Colors can be controlled directly on lights. Subsequent lights should be set to SLAVE mode to mimic Master Light
 B- MAX 32 Fixtures per Data Feed

INTERFACE LEGEND:

1. 3-PIN IP67 Interface	1. 3-PIN IP67 Interface
Pin 1 / +	Pin 1 / Line Voltage
Pin 2 / -	Pin 2 / Neutral
Pin 3 / Shield	Pin 3 / Ground

Electrical Connection (Hardwire)

WARNING: Do not expose bare wires outside wire nut connectors.

1. Per local or "National Electric Code", provide electrical service to junction box located on the housing.
 - a. The insulation of supply wire must be rated for at least 90°C.
 - b. Junction boxes should be rated for:
 - i. Max. 8 No. 12 AWG Circuit Conductors
 - ii. Also suitable for at least 90°C
2. Remove cover of junction box.
3. Remove proper round pryout, and then connect junction box with (not included) proper connector.
4. Using properly sized wire nuts, connect lead wires of junction box (line, neutral, and ground) to supply lead wires in the fixture.
 - a. WARNING: Do not leave bare conductors outside wire nut connectors.
5. Connect green (from electrical service) to the supply side to the green wire in the junction box. Connect black-to-brown, and white-to-blue.
 - a. Any excess wiring and connectors should be put in the junction box. Then, replace the cover.

NOTE: Supply lead wires should not be connected to a dimmer of any sort. Maximum power connection should not exceed 4 units.

Data Connection

Note: Inline DMX amplifier required if run length exceeds: 125 feet between fixtures (others)

Note: Maximum run length from DMX controller to last fixture: 1000 feet.

Note: DMX must be continuous from controller to last fixture in a run. A splitter is needed if signal is split.

Please follow below if provided data cables will not be used

Note: Fixtures on a serial data link must be daisy chained in one single line. To comply with the EIA-485 standard, no more than 32 fixtures should be connected on one data link. Connecting more than 32 fixtures on one serial data link without the use of a DMX optically-isolated splitter may result in deterioration of the digital DMX signal.

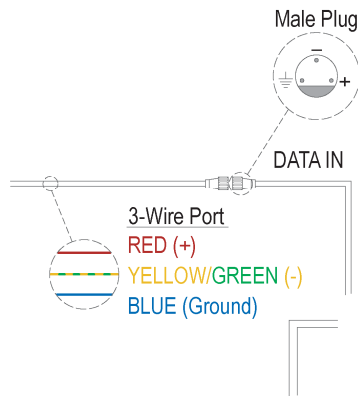
Maximum recommended serial data link distance: 500 m (1640 ft)

Maximum recommended number of fixtures on a serial data link: 32

DMX Data Cable

If installer prefers 3-wire data cables, we suggest a Belden® 9481 or equivalent cable which meets the specifications for EIA RS-485 applications. Standard microphone cables cannot transmit DMX data reliably over long distances. The cable must have the following characteristics:

<i>Type:</i>	<i>shielded, 2-conductor twisted pair</i>
<i>Maximum capacitance between conductors:</i>	<i>30 pF/ft</i>
<i>Maximum capacitance between conductor and shield:</i>	<i>55 pF/ft</i>
<i>Maximum resistance:</i>	<i>20 ohms/1000ft</i>
<i>Normal impedance:</i>	<i>100~140 ohms</i>



Note: To comply with all local codes and jurisdiction, qualified communications technicians must do communications wiring.

Note: Communication cables and AC power lines must not be run in the same conduit.

- A. Route Data Cables in series between fixture and any communications accessories using DATA IN and DATA OUT.
- B. In order that they may be easily accessed once construction is complete, secure data cables in the immediate proximity of the fixtures.

Note: To avoid signal transmission problems and interference, it is always advisable to connect to a DMX signal terminator.

Maintenance

Coloronix recommends periodic cleaning of the heat sink and lens. Over time these components can become dirty or full of debris. This can result in lack of cooling or can limit the capabilities of the fixture.

Lens Maintenance

Clean the front Lexan® as required using any of the following cleaners:

- Window Cleaner
- Mild soap and water solution

In addition, dry the Lexan® with a quality paper towel to avoid scratches or streaks.

Mount/Fasteners Maintenance

Check all fasteners annually for tightness and security to avoid damage to the fixture and possibly liability.

Troubleshooting

If problems occur during usage, unplug the product immediately and call or email:

Coloronix, Inc.

Tech Support: (909) RGBW-555

support@coloronix.com

Replacing a Failed Fixture

“Hot Swapping” a fixture is not allowed. If a fixture needs to be replaced, the steps are to:

1. Disconnect the DMX input at the junction box of the fixture needing replacement.
2. Disconnect DMX output.
3. Replace fixture.
4. Reconnect AC negative.
5. Reconnect AC positive.
6. Reconnect DATA output.
7. Reconnect DATA input.
8. Reconnect power.

Make sure the replaced fixture and the entire system is in working order.