Read and understand these instructions before installing luminaire
This luminaire control is intended for installation in accordance with the National Electrical Code and local regulations. To assure full compliance with local codes and regulations, check with your local electrical inspector before installation. To prevent electrical shock, turn off electricity at fuse box before proceeding.
Retain these instructions for maintenance reference.

Introduction

Color rotary dial control is a digital lighting controller that features eight pre-programmed effects, plus OFF. Effect selection and modification is easy with the rotary knob. Push to cycle through the effects and turn to vary the color or speed. Color rotary dial control is packaged in an easy to use, wall-mount assembly.

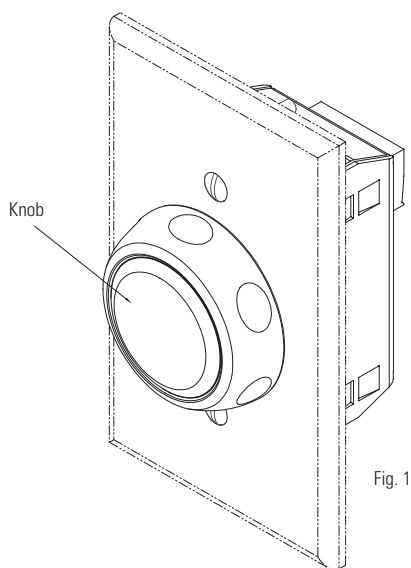**Included in this box:**

Color Rotary Dial Control

Knob

Fig. 1

Note: Face Plate (supplied by others)

- Color rotary dial control assembly
- Knob
- (2) 6-32 Phillips flat head screws

Additional items needed:
- Single or multi gang wall box
- CAT 5 data cable, unshielded twisted pair, flying lead/RJ-45
- 18 AWG power cable with flying leads or 18 AWG power cable with BNC connector and coupling. Refer to the wiring diagrams to determine your installation requirement.
- Face Plate

Identification and Warnings of Safety Hazards

In accordance with ANSI Z535.4 the following system of identifying the severity of the hazards associated with the products is used:

"**Danger**"   Imminently hazardous situation which, if not avoided, will result in death or serious injury.

"**Warning**"   Potentially hazardous situation that, if not avoided, could result in death or serious injury.

"**Caution**"   Potentially hazardous situation that, if not avoided, may result in minor or moderate injury or property damage.

Warning: Ensure that main power supply is off before installing, wiring, or servicing the color rotary dial control. Failure to adhere to these instructions can result in death or serious injury.

Warning: The color rotary dial control must be installed by a qualified professional in accordance with NEC and relevant local codes. Failure to comply can result in death, serious injury, or property damage.

Warning: Do not attempt to install or use the color rotary dial control until you read and understand the installation instructions and safety labels. Failure to adhere to these instructions could result in serious injury or property damage.

Caution: Do not modify or alter the color rotary dial control. Doing so will void the warranty.
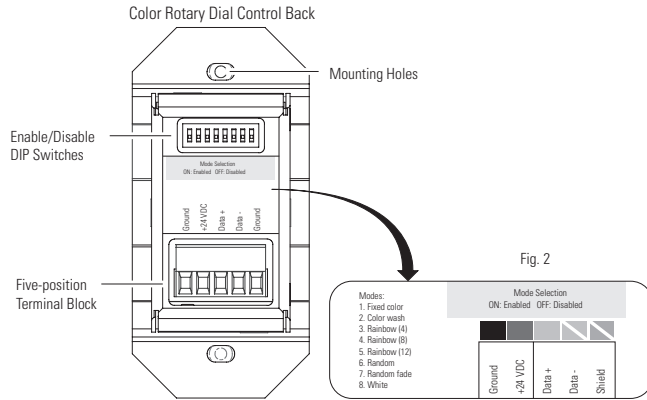
Caution: Color rotary dial control has no user serviceable parts. Do not open. Doing so will void the warranty.

Owner/User Responsibilities

It is the responsibility of the contractor, installer, purchaser, owner, and user to install, maintain, and operate the color rotary dial control in such a manner as to comply with all state and local laws, ordinances, regulations, and the American National Standard Institute Safety Code.

Installation

The color rotary dial control shall be installed by a qualified electrician in accordance with NEC and relevant local codes for power supplies with Class 2 outputs.

Color Rotary Dial Control Back

Mounting Holes

Enable/Disable DIP Switches

Mode Selection
ON: Enabled OFF: Disabled

Ground
+24 VDC
Data +
Data -
Ground

Five-position Terminal Block

Fig. 2

Modes:
1. Fixed color
2. Color wash
3. Rainbow (4)
4. Rainbow (8)
5. Rainbow (12)
6. Random
7. Random fade
8. White

Mode Selection
ON: Enabled OFF: Disabled

Ground
+24 VDC
Data +
Data -
Shield

WARNING: Ensure that power is off before installing the color rotary dial control.

Wiring the color rotary dial control (refer to Fig. 3 wiring diagram)

1. Using the 18 AWG power cable, connect 24 VDC and ground from power supply to the screw terminal located on the back of the color rotary dial control.

2. Using the CAT 5 data cable, connect data from the color rotary dial control power/data supply to the screw terminal located on the back of the color rotary dial control.

To Disable Effects:

When you receive your color rotary dial control, eight light effects are preprogrammed and enabled. If you wish to limit the number of effects in the cycle, or if you know of effects that you will not use, you can disable the them prior to physically installing the color rotary dial control into the wall box.

• To disable an effect, set its corresponding dip switch to OFF.

1. Fixed Color

2. Color Wash

3. Chasing Rainbow (4 lights wide)

4. Chasing Rainbow (8 lights wide)

5. Chasing Rainbow (12 lights wide)

6. Random Color

7. Random Fade

8. White

Note: Keep in mind that any effects you disable prior to installation can only be re-enabled by physically removing the color rotary dial control from the wall box and turning on the appropriate switch.

Mounting the color rotary dial control:

Now that you have wired the color rotary dial control, and disabled/enabled the desired effects, you are ready to mount it.

1. Using screws provided, align the mounting holes to a one gang wall box, or a single area of a multi gang wall box, and attach.

2. Attach face plate.

3. Attach knob by aligning the collar with the rotation shaft and press.

Operating color rotary dial control

Using the color rotary dial control is as simple as pressing and turning.

Press the dial to cycle through the eight effect modes and OFF.

Turn the dial to vary the effects.

In Fixed Color mode, turning the dial changes the color. While in White mode, turning the dial changes the intensity. In all other modes, turning the dial adjusts the speed. Color rotary dial control remembers your settings and recalls them each time you return to the effect.

Turn the dial clockwise to increase, and counter-clockwise to decrease, the speed. The first three revolutions of the dial varies the speed between approximately 1/2 second to about 2 minutes. After which, each click of the dial doubles the speed clock-wise or decreases by half counter-clockwise. When in this range, the lights snap to a new color with each click for visual confirmation of changes.

Note: In Chasing Rainbow, the speed of a single pass through the color spectrum ranges from 1/2 second to 5 hours. After the third rotation of the dial, the speed is reduced to the point that color changes are not immediately visible.

The color rotary dial control outputs data for light addresses 1 through 60. After the first 12 addresses, the data is repeated. For installations with more than 12 lights you can either sequentially address the lights past 12, up to 60, or repeat the addresses starting from 1. The effects will appear the same. Below is an example of light addressing with 24 lights.

Sequential Addressing

(1)(2)(3)(4) ... (11)(12)(13)(14) ... (21)(22)(23)(24)

Repeat Addressing

(1)(2)(3)(4) ... (11)(12)(1)(2) ... (9)(10)(11)(12)

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Installation Using RJ45 Connector

To Luminaires

CCLPS602P
Front View

CCLRDPS60
PWR SUPPLY

F-F PWR
COUPLER

100-240VAC (1A)

DMX IN   DMX OUT

CCLPS602P
BACK VIEW

Fig. 3

SHIELD (GRN/WHT)
DATA - (ORN/WHT)
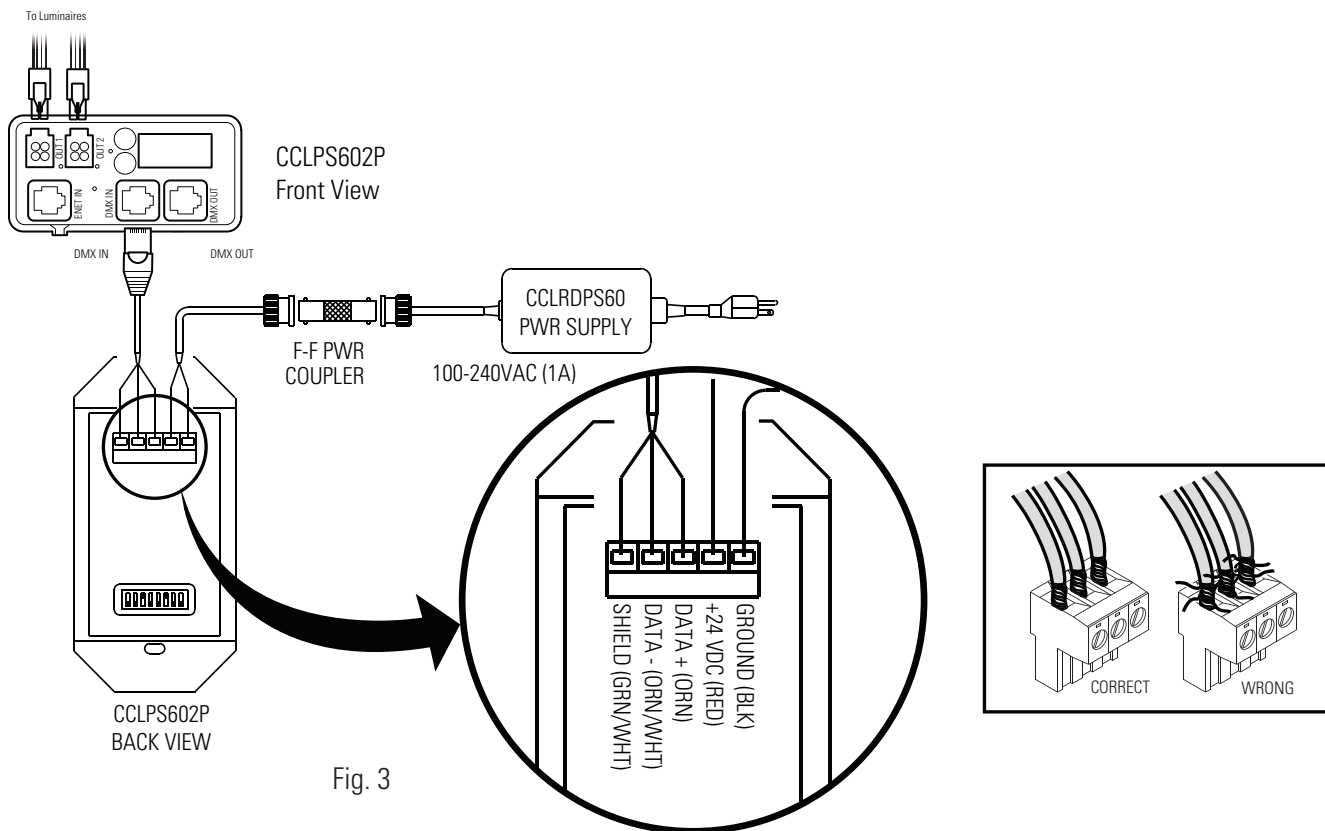DATA + (ORN)
+24 VDC (RED)
GROUND (BLK)

CORRECT   WRONG

A Glossary of Terms

Color Factors: The impact of light source colors is determined by the combination of three factors: **hue**, **saturation**, and **luminance**. Hue indicates whether a color looks red, orange, yellow, green, blue, violet, etc. Saturation represents how pure a color is, and luminance (brightness) identifies how strong the color is.

Fixed Color: Fixed Color Effect is a static display of one color.

Color Wash: A Color Wash Effect produces a smooth transition in hue, progressing through the visible color spectrum: red, orange, yellow, green, blue, indigo, violet.

Cycle Direction: The sequence in which colors move through the spectrum: red, orange, yellow, green, blue, indigo, violet.

Chasing Rainbow: Chasing Rainbow makes a smooth transition from color to color through the color spectrum. When applied to a group of lights the colors appear to follow each other from light to light.

Random Color: Random Color Effect is an abrupt transition of 128 randomly generated colors at specified intervals. Colors jump from one hue to the next in spectrum increments of at least 25% so no two successive colors have similar values.

Random Fade: Random Color Fade is a smooth transition of 128 randomly generated colors at specified intervals. Colors jump from one hue to the next in spectrum increments of at least 25% so no two successive colors have similar values.

Speed: Determines the duration of an Effect. In Color Wash, Speed is defined as the amount of time which elapses between the initial display of the Starting Color in cycle one, and its next display which begins cycle two. In Cross Fade, Speed is defined as the amount of time which elapses between the initial display of the Starting Color to the display of the Ending Color and back again (round trip). In Random Color, Speed is defined as the amount of time a color is displayed before it *jumps* to the next color. In Variable Color Strobe, speed determines how fast the colors advance around the spectrum which in turn affects what color will be flashed at each strobe.

Stand-Alone: (built-in or on board) Refers to a method of Control. Stand Alone means that the unit is controlled by the built-in microprocessor, thus utilizing *on-board* Effects. Stand Alone differs from Networked in that the unit is controlling itself versus taking direction from an external source such as a DMX512 controller.

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