EDGE LIGHTING

1718 W. Fullerton Ave
Chicago, IL 60614
Tel: 773-770-1195
Fax: 773-935-5613
www.edgelighting.com
info@edgelighting.com

SUN3-___-__-RGB-SA
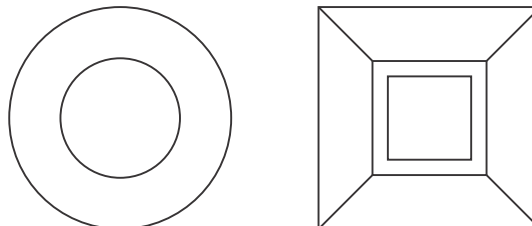
© 2016 Edge Lighting. All Rights Reserved.

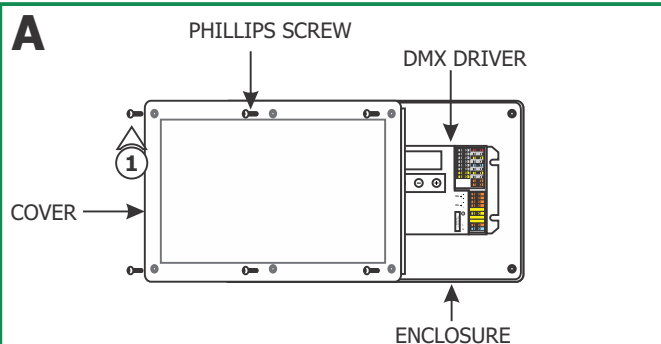# Installation Instructions for **Sun 3 RGB LED**

IMPORTANT INFORMATION

- **WARNING:** Fixture must be installed in accordance with National and Local Electrical codes.
- Load cannot exceed the total wattage of the LED power supply rating.
- This fixture must be installed by a licensed electrician.
- For outdoor installation, use outdoor rated electrical boxes (minimum 1.5" deep), conduit feedings, and wire nuts. For indoor installation use octagon electrical boxes.
- This instruction shows a typical installation.
- For optical controls such as 20° beam tilt, micro louver or glass lens use SUN3-LL accessory (sold separately).

SAVE THESE INSTRUCTIONS!

Section One: Install the Constant Current DMX Driver

A PHILLIPS SCREW — DMX DRIVER — ① COVER — ENCLOSURE

CONTROLLER POWER SUPPLY — CONTROLLER — ⑥ ⑤ ③ ② — ELECTRICAL BOX — DMX CABLE (BELDEN #9841) — ④ ⑧ ⑦ — CONDUIT — ⑦ — ENCLOSURE — CONDUIT TO SUN3 RGB

1: Loosen the six Phillips screws on front of the DMX driver to remove the cover.

NOTE: Use a deep double gang box to fit the controller and controller power supply.

NOTE: Refer to the "Configuring Controller" on page 6 to properly operate the controller.
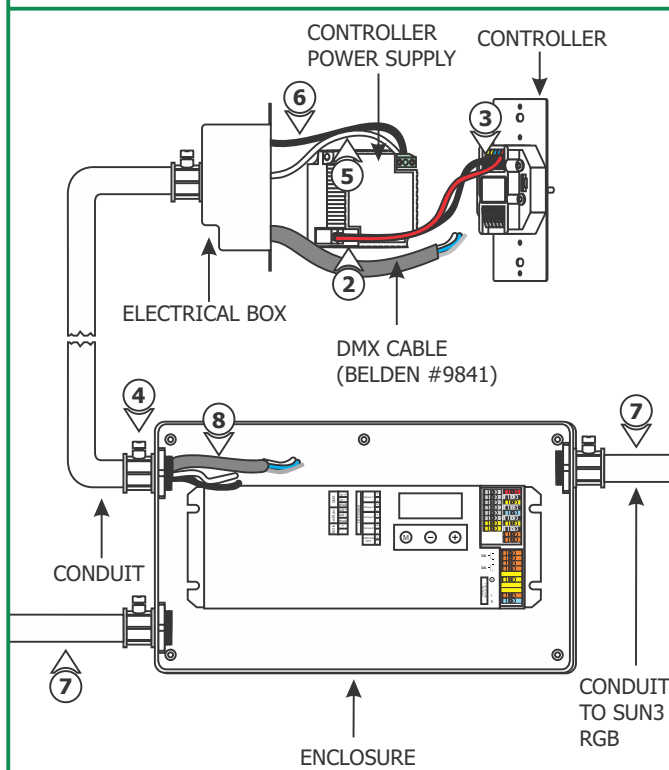
2: Connect one end of a red wire to the "VDC+" terminal of the controller and the other end of the red wire to the "+24VDC" terminal of the power supply.

3: Connect one end of a black wire to the "Ground" terminal of the controller and the other end to the "-24VDC" terminal of the power supply.

4: Install a conduit from the controller electrical box to the DMX driver enclosure and run the black and white line voltage wires coming from the controller power supply to the DMX driver enclosure.

5: Connect the white wire to "N" terminal of the controller power supply.

6: Connect the black wire to "L" terminal of the controller power supply.

7: Install conduits from the controller, to the main panel (line voltage), and to the SUN3 housing(s).

8: Run proper DMX cable **(Belden #9841 recommended)** with three data wires from controller to the DMX Driver enclosure.

B

CONTROLLER
POWER SUPPLY

ELECTRICAL BOX

DMX CABLE
(BELDEN #9841)

CONTROLLER

CONDUIT
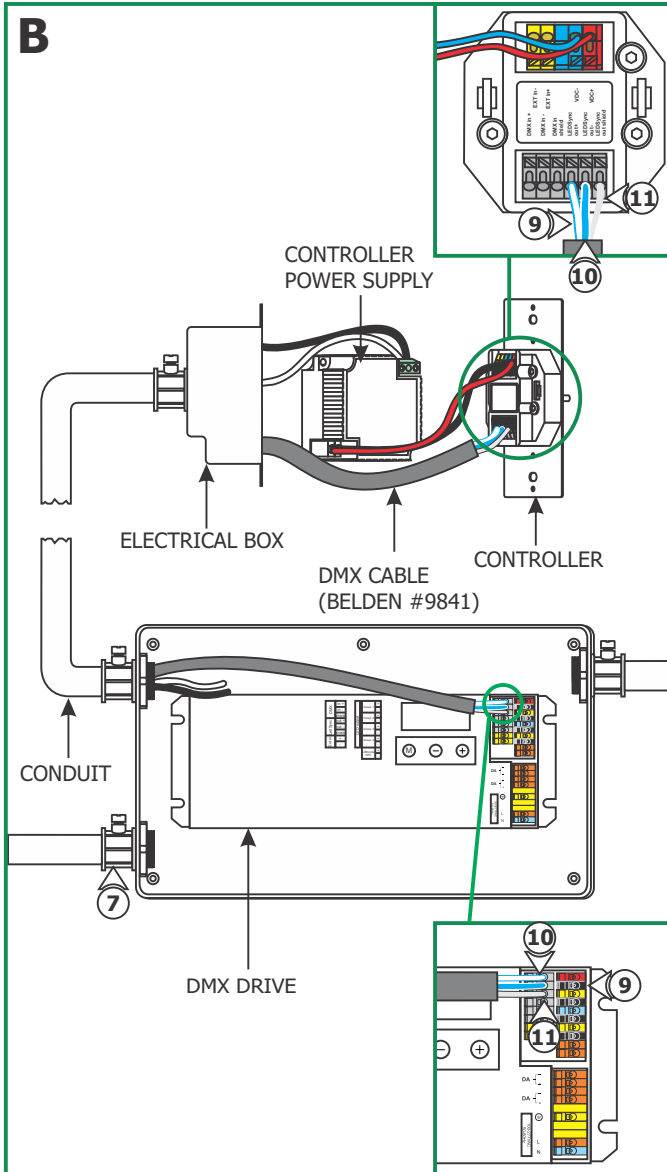
DMX DRIVE

9: Connect one end of a data wire (blue with white stripes wire) to controller "LEDSYNC OUT –" terminal. Connect the other end into the DMX drive "DMX in – " terminal.

10: Connect one end of a data wire (white with blue stripes wire) to controller "LEDSYNC OUT +" terminal. Connect the other end into the DMX drive "DMX in +" terminal.

11: Connect one end of a data wire (bare shield wire) to controller "LEDSYNC SHIELD" terminal. Connect the other end into the DMX drive "DMX in shield" terminal.

NOTE: Do not use the DMX terminals on the controller.

C

12: Run the line voltage power wires into the DMX driver enclosure.

13: Connect 6" of #8 AWG black & white wires to brown & blue (~) DMX drive terminals.

14: Connect the hot power wire to the black wire of the DMX drive and the black wire coming from the controller with a wire nut.

15: Connect the neutral power wire to the white wire of the DMX drive and the white wire coming from the controller with a wire nut.

16: Make sure the DMX drive is grounded in accordance with local electrical codes, using the ground terminal on the DMX drive.

D

DMX DRIVER

OMIT WHITE/AMBER: IF ONLY WIRING SUN3 RGB
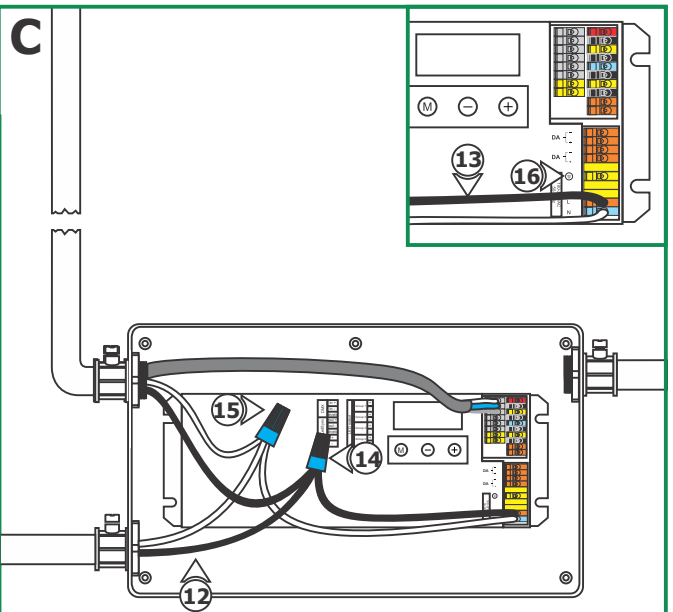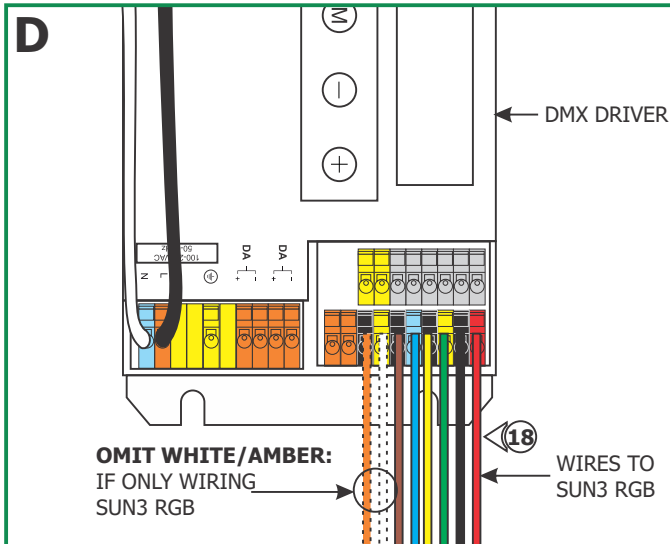
WIRES TO SUN3 RGB

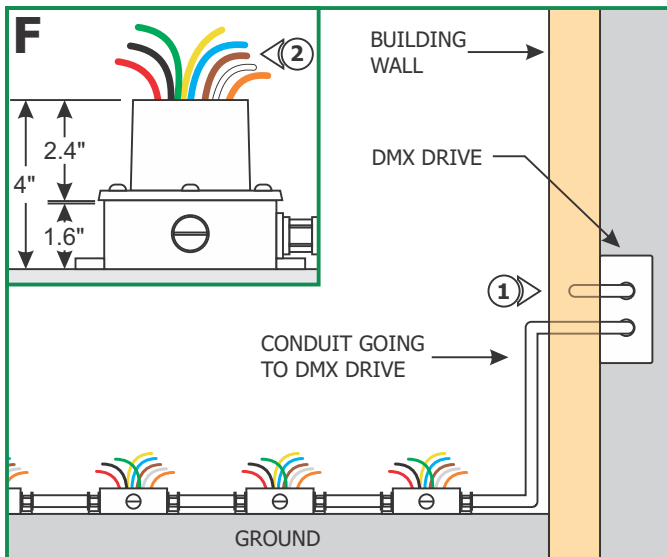**17:** Use #18 AWG wires connecting the DMX driver to SUN3 RGBs.

18: Run the proper wire colors (red, black, green, yellow, blue, brown, white, & orange) from the DMX drive to the Sun3 RGB. Refer to the wiring diagram on page 7 for reference.

NOTE: Do not exceed the maximum wattage of the DMX driver. Max 10 Sun3 RGB fixtures can be connected to the DMX driver.

E

COVER   PHILLIPS SCREW
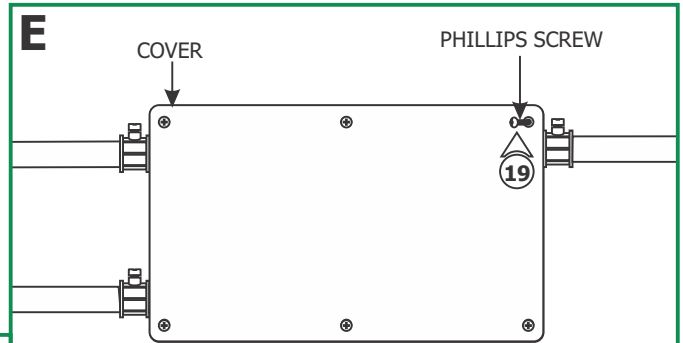
19: Replace the DMX driver cover and secure it by tightening the six Phillips screws.

Section Two: Outdoor Installation

F

2.4"
4"
1.6"

BUILDING WALL

DMX DRIVE

CONDUIT GOING TO DMX DRIVE

GROUND

NOTE: If installing indoors, skip Sections Two and Three and go to Sections Four and Five to complete installation.

1: Install conduit(s) from the DMX Driver to all in ground fixture outdoor electrical boxes.

2: Run the proper wire colors (red, black, green, yellow, blue, brown, white, & orange) wires to outdoor electrical boxes. Refer to wiring diagram on page 7.

3: Make sure the DMX drive power is off.

NOTE: Each Sun3 RGB should be connected to the next Sun3 RGB in series. The positive wires are the red, green, blue & white and the negative wires are black for red, yellow for green, brown for blue & orange for white. The positive wires of the closest Sun3 RGB to the DMX drive should be (red, green, blue, & white) connected to the proper DMX drive terminals. The negative wires (black, yellow brown & orange) of the last Sun3 RGB should be connected to the negative terminals (black color) of the DMX drive. Each Sun3 RGB should be connected together in series with black wires of the first Sun3 RGB connecting to the red wire of the next Sun3 RGB. The yellow wire of the first one to green wire of the next one, the white wire of the first one to the blue wire next one and similarly the orange wire of the first one to white wire of the next one. Refer to the wiring diagram on page 7.

3

Section Three: Outdoor Trim Housing Installation

G

OUTDOOR CONDUIT

WATER PROOF SILICON

OUTDOOR ELECTRICAL BOX

GROUND
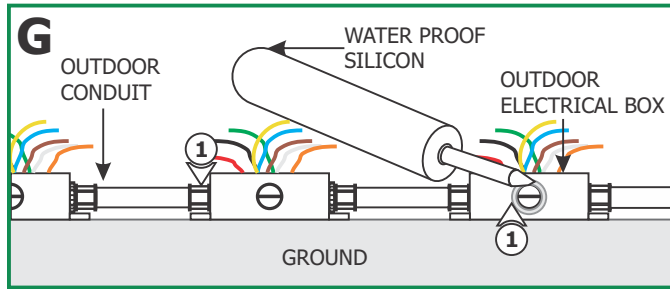
1: Caulk all areas of the outdoor electrical boxes and the conduit connectors with a water proof silicon to prevent water entering in the electrical boxes.

H

TRIM HOUSING

#10-24 SCREW

GROUND
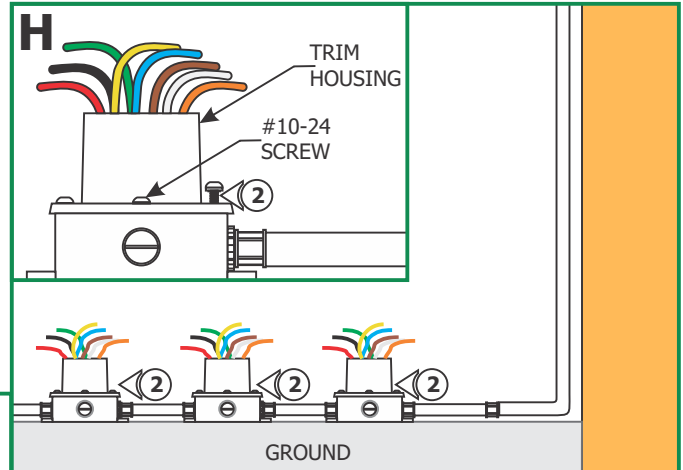
2: Align and secure each trim housing to the electrical box holes with the four #10-24 water sealant screws provided.

I

PLASTIC CAP

CONCRETE

2.4"
4"
1.6"

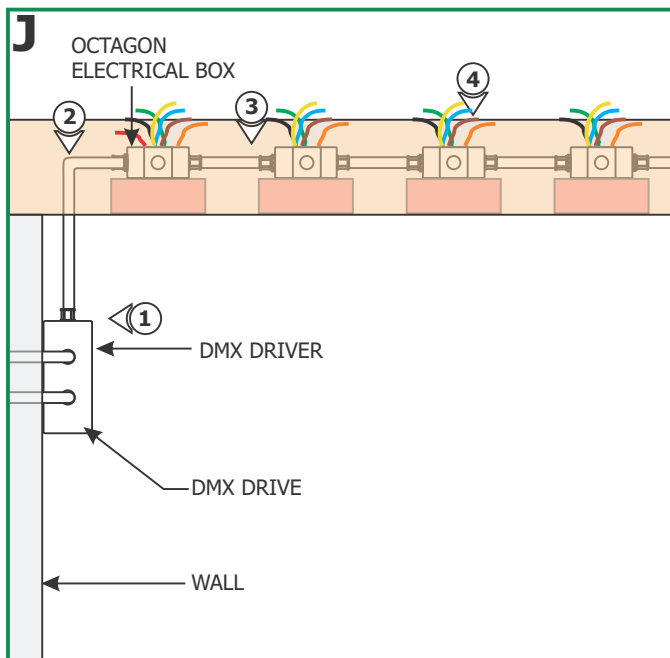PLASTIC CAP

TRIM HOUSING

GROUND
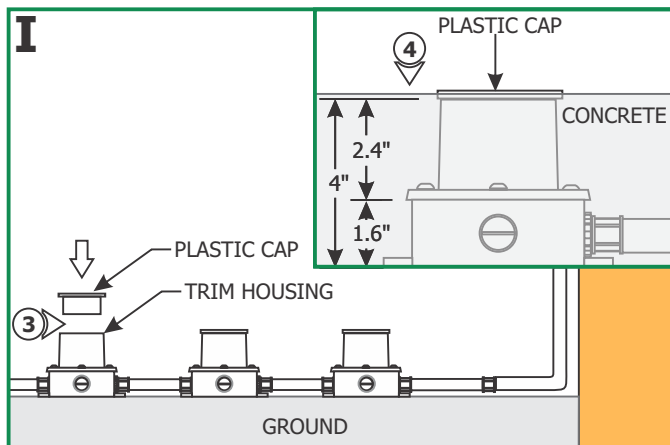
3: Insert the provided plastic caps to all trim housings to prevent particles and concrete debris from entering inside the box.

4: Poor the concrete up to plastic cap and wait to dry.

5: Refer to Section Six for wiring the trims.

Section Four: Indoor Installation

J

OCTAGON ELECTRICAL BOX

DMX DRIVER

DMX DRIVE

WALL

NOTE: Use only octagon boxes to install the trim housings indoor.

1: Install a DMX Drive onto the wall or post next to the panel to branch the power to all octagon electrical boxes.

2: Install conduit and run 120 volt power wires from the panel to the branching electrical box.

NOTE: Subfloor, floor, and Sun 3 trim housings (2.4") heights must be considered when positioning the octagon boxes between the joists.

3: Install conduit(s) from the branching DMX driver to all octagon fixture electrical boxes.

**4:** Run proper wire sizes from branching DMX driver to all fixture electrical boxes.

5: Follow steps in Section One to connect the wires to the power supply.

Section Five: Indoor Trim Housing Installation

K

TRIM HOUSING
#8-32 SCREW

CONDUIT
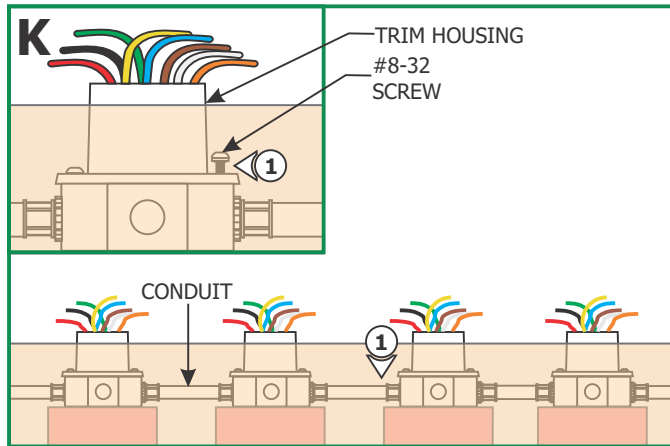
1: Align and secure the each trim housing to the octagon electrical box holes with the two #8-32 screws (not provided).

L

PLASTIC CAP

FLOOR

SUBFLOOR

JOIST

2.4"

4"

1.6"

PLASTIC CAP

TRIM HOUSING

2: Insert the provided plastic caps to all trim housing to prevent dust and debris from entering inside the box.

3: Finish the floor installation up to the plastic cap.

4: Refer to Section Six for wiring the trims.
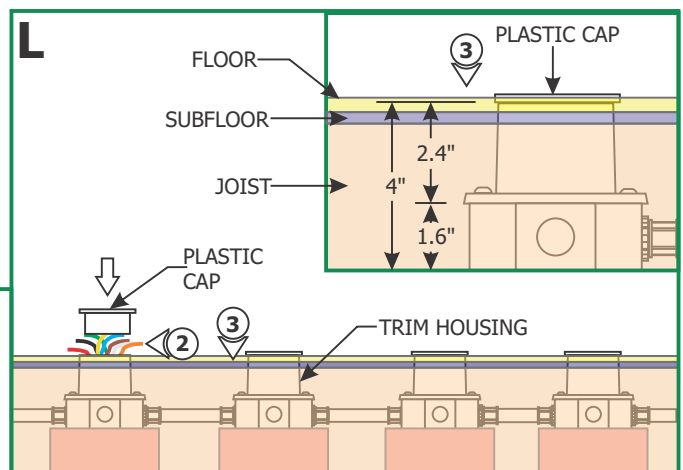
Section Six: Wiring the Trims

M

GASKET

GASKET

GASKET INSTALLATION FOR OUTDOOR

TRIM

TRIM HOUSING

GROUND
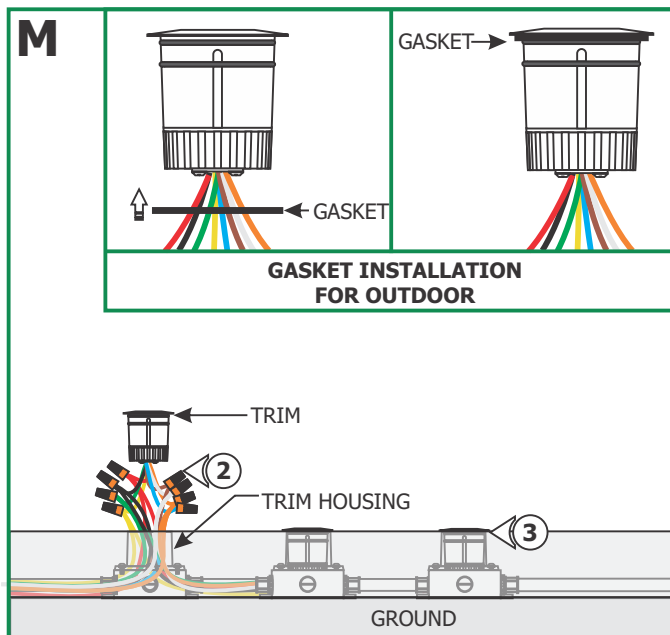
NOTE: If using the SUN3-LL accessory, refer to the instruction provided with the SUN3-LL to install the beam control accessories in each trim prior to wiring the trims.

NOTE: For outdoor installation, place the water proof gasket (provided) onto the trim to prevent water leaking inside the electrical box. Use water proof outdoor wire nuts for power connection.

1: Remove the plastic caps.

2: Connect each trim wire to one power wire in the electrical box with a wire nut.

3: Place all wire connections inside the electrical box and push the trim completely into the trim housing opening.

4: Repeat steps 2 and 3 for other trims.

NOTE: Each fixture contains an integrated LED lamp. Each Sun3 consumes 10 watts.

Section Seven: Operation Guide for CDP Controller

Selecting Modes

Configure your CDP Controller by setting the DIP switches on the front:

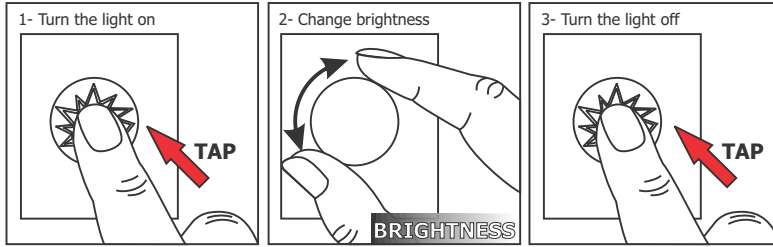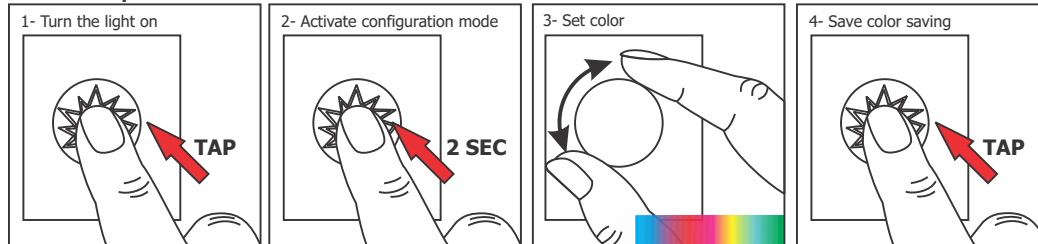| O N	O N
1 2 3 4 5 6 7	1 2 3 4 5 6 7
COLOR MODE	CHASE MODE

NOTE: The DIP switches must remain accessible after installation. When making changes in the DIP switch settings, disconnect and reconnect the power supply to activate new settings.

Operating Controller

1- Turn the light on	2- Change brightness	3- Turn the light off
TAP	BRIGHTNESS	TAP

Advanced Operation for Color Mode

1- Turn the light on	2- Activate configuration mode	3- Set color	4- Save color saving
TAP	2 SEC		TAP

Advanced Operation for Chase Mode

1- Turn the light on	2- Activate configuration mode	3- Set show speed	4- Save color setting
TAP	2 SEC		TAP

DMX CABLE
(BELDEN #9841)

CONTROLLER

CONSTANT CURRENT DMX DRIVER

INPUT POWER

NEUTRAL

HOT

24VDC

N L LINE

MAGNEFIED FOR CLARITY

NOTE: Do not use WHITE/AMBER wire terminals if connecting SUN3 RGB Version.

RED +
RED -
GREEN +
GREEN -
BLUE +
BLUE -
WHITE/AMBER +
WHITE/AMBER -

RED
BLACK
GREEN
YELLOW
BLUE
BROWN
WHITE
ORANGE

SUN3 RGB 1

SUN3 RGB 2

SUN3 RGB LAST