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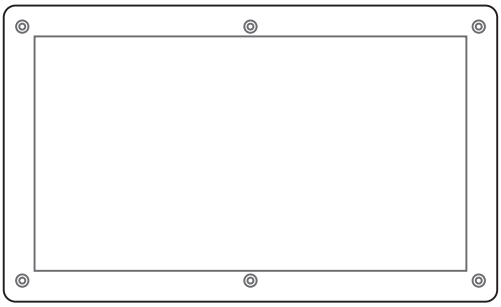
PSB-30-12VDC

904-PSB-30-12VDC-03

Installation Instructions for **30 Watt 12 Volt DC LED Power Supply**

SAVE THESE INSTRUCTIONS!



GENERAL INFORMATION

- **RISK OF FIRE:** This product must be installed by a qualified electrician. Turn the power to the electrical box off during installation. Read the "Important Safety Instructions " before installation.
- This product is not suitable for wet locations. It is approved for the use at any height above the finished floor.
- A typical installation is shown. Specific installation must be in accordance with the local electrical codes.
- **TO REDUCE RISK OF FIRE,** it is important to wire the power supply for the system as described in this installation instruction.
- Load the power supply to **MAXIMUM 30** Watts.
- Use Lightolier "ZP600FAM120" 0-10 volt controller to dim the Warm White LED soft strip.
- Use CDP color dial or CTP color touch screen controller with RGB LED soft strip.

IMPORTANT SAFETY INSTRUCTIONS

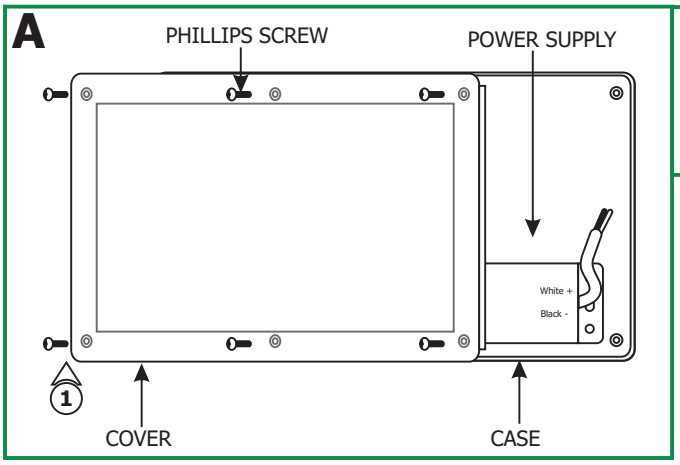
- Do not install this power supply in a wet location.
- To reduce the risk of the system overheating and possibly causing a fire, make sure all the connections are tight.
- Do not install *LED fixture closer than three inches or as specified in the *LED fixture installation instructions to curtains or similarly combustible materials. Keep insulation at least 3" away from the enclosure.
- Turn the electrical power off before modifying the lighting system in any way.
- The system is "ETL" listed for USA and Canada only when all the products used are supplied by Edge Lighting.

* See LED fixture installation instructions for proper placement.

LOW VOLTAGE WIRE SIZE CHART

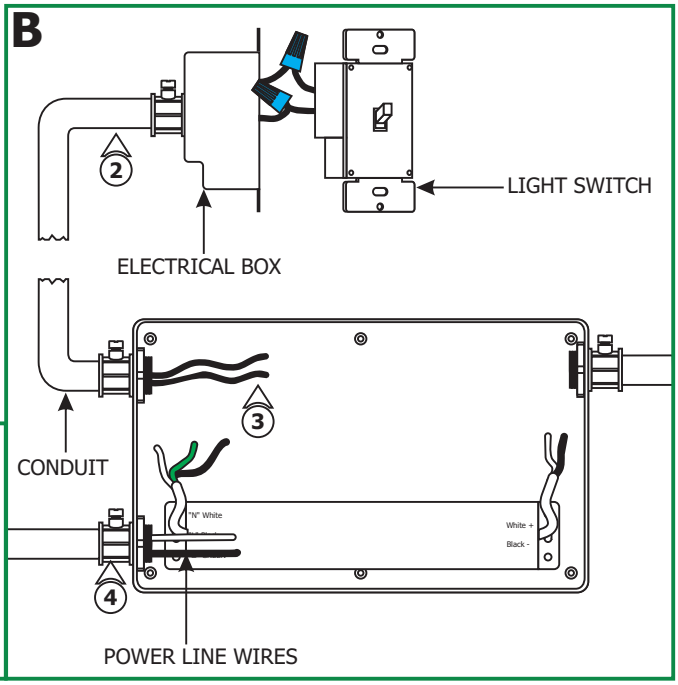
POWER SUPPLY WATTAGE	WIRE SIZE UP TO 26 FT	WIRE SIZE FOR 27-41 FT	WIRE SIZE FOR 42-68 FT	WIRE SIZE FOR 69-100 FT
30 WATT 12 Volt	#14 GA	#12 GA	#10 GA	#8 GA

Using LED Power Supply with a Light Switch & Warm White Soft Strip (Non-Dimmable)



NOTE: Skip this section if dimming the warm white LED soft strip or using RGB soft strip.

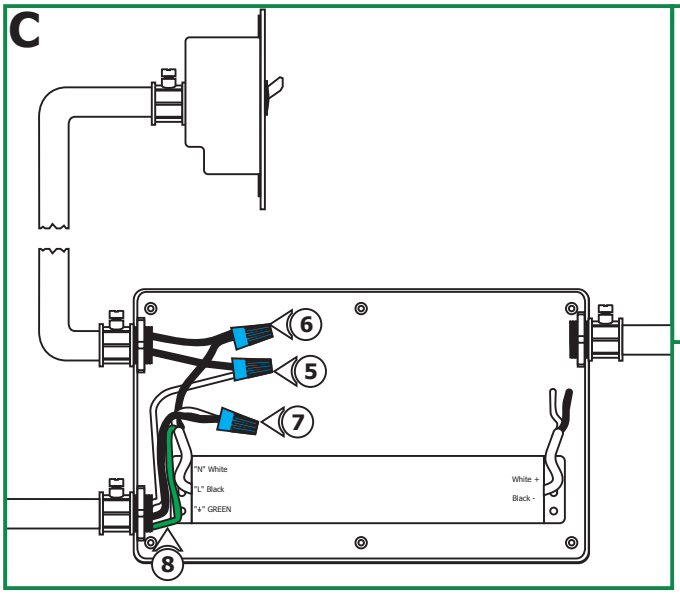
1: Loosen the six Phillips screws on front of the power supply to remove the cover.



2: Install conduits from the light switch, main panel (line voltage) and soft strip to the power supply case.

3: Run proper size wires from the light switch electrical box to the power supply case.

4: Run the line voltage power wires from the panel to the power supply case.

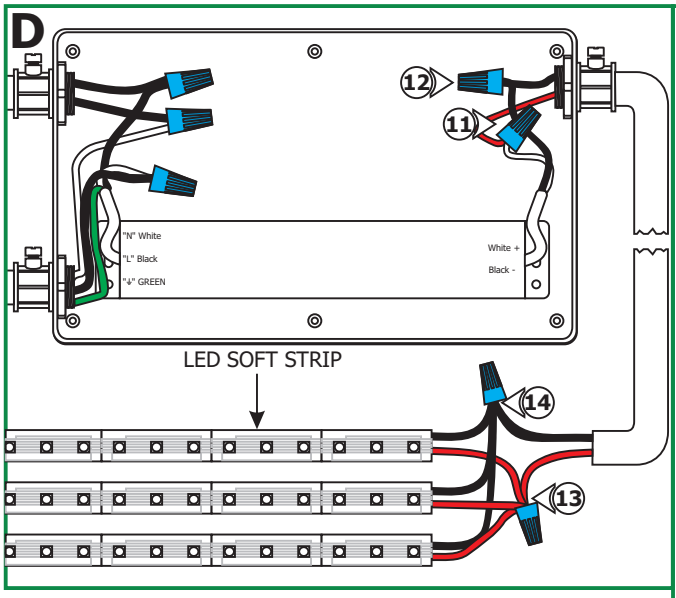


5: Connect the hot power wire to one of the wires coming from the switch with a wire nut.

6: Connect the other switch wire to the black power supply wire marked "L" with a wire nut.

7: Connect the neutral power wire to white power supply wire marked "N" with a wire nut.

8: Make sure the green transformer wire is grounded in accordance with local electrical codes.



9: Use the "Low Voltage Wire Size Chart" on page 1 to determine the proper wire size connecting the power supply to the LED soft strip.

10: Run the proper size, red and black wires from the power supply case to the LED soft strip.

NOTE: Maximum length of a single soft strip to be connected to power supply before re-feeding is 16' of SS1 or 8' of SS3.

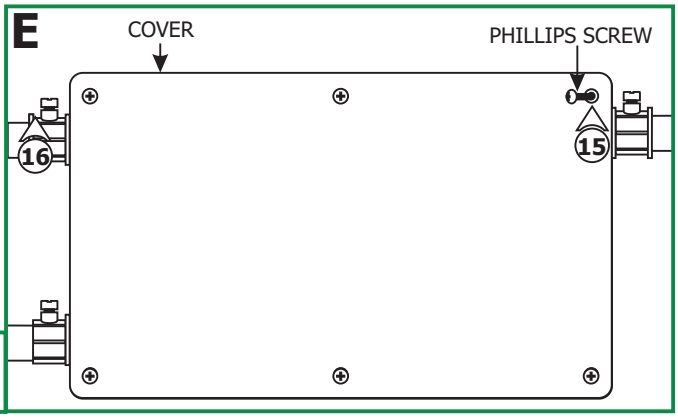
NOTE: Use only 12 volt LED soft strip with this power supply.

11: Connect the white power supply wire marked "+" to red conduit wire going to the soft strip.

12: Connect the black power supply wire marked "-" to black conduit wire going to soft strip.

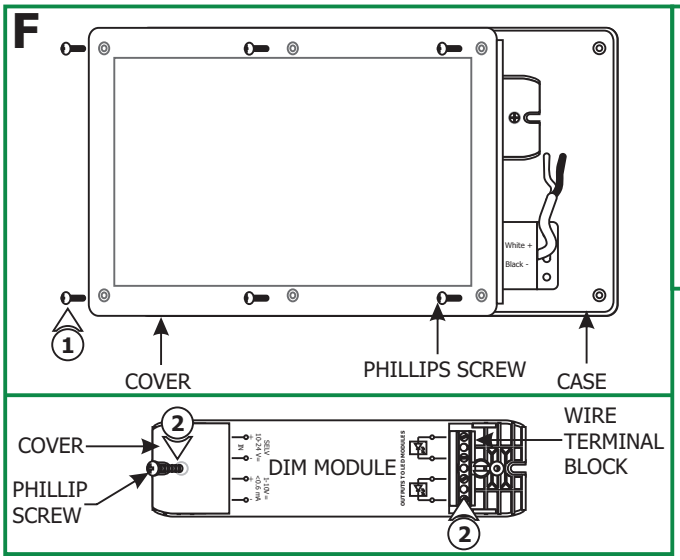
13: Connect the red conduit wire to red soft strip wire(s) with a wire nut.

14: Connect the black conduit wire to black soft strip wire(s) with a wire nut.



15: Replace the power supply cover and secure it by tightening the six Phillips screws.

Using LED Power Supply with Warm White Soft Strip & 0-10 Volt Dimmer

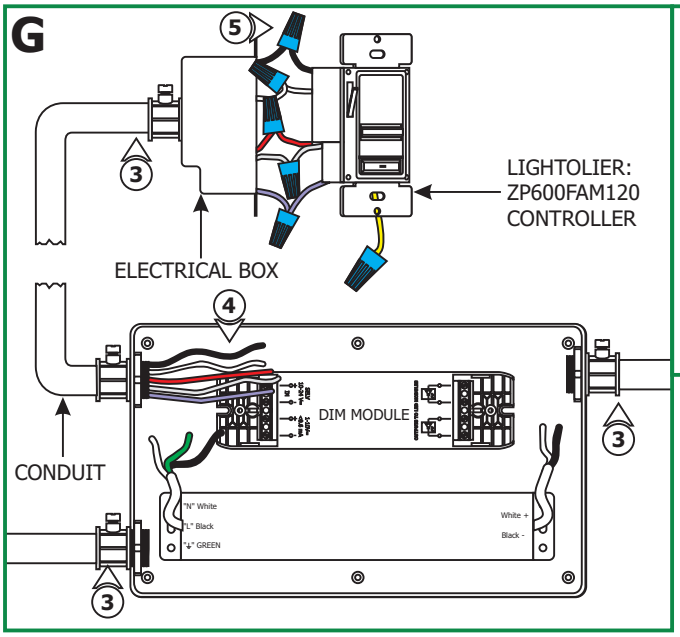


NOTE: Skip this section if using the LED power supply with a RGB soft strip.

1: Loosen the six Phillips screws on front of the power supply to remove the cover.

2: Loosen the two Phillips screws on the front of the dim module (OT-DIM – sold separately) and remove the covers to expose the terminal blocks.

G



3: Install the conduits from the dimming controller, main panel (line voltage), and soft strip to the power supply case.

4: Run proper wire size and color from the controller electrical box to the power supply case.

5: Connect the black, white, red, purple, and gray controller wires respectively to black, white, red, purple, and gray wires with a wire nut. The yellow controller wire is not used in this procedure. Cap the yellow controller wire with a wire nut. For three way switching, refer to the instructions provided with the controller.

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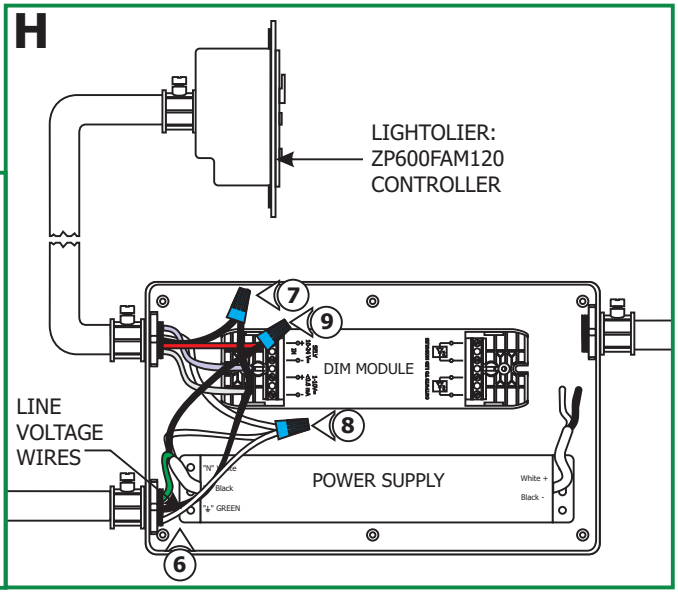


6: Run the line voltage power wires into power supply case.

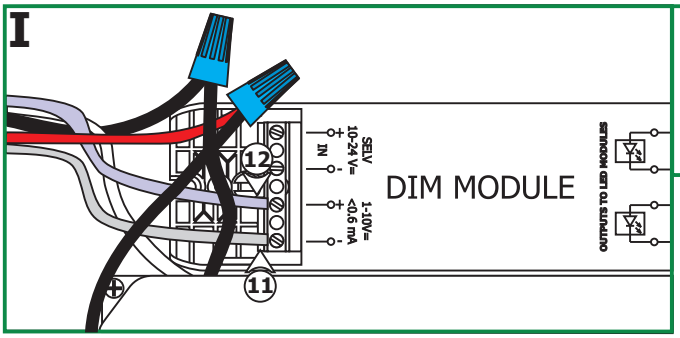
7: Connect the hot power wire to black controller wire with a wire nut.

8: Connect the neutral power wire to white controller wire and the white power supply wire marked "N" with a wire nut.

9: Connect the red controller wire to black power supply wire marked "L" with a wire nut.

10: Make sure the green transformer wire is grounded in accordance with local electrical codes.

I



11: Connect the gray controller wire to "-" terminal of "1-10V" dim module.

12: Connect the purple controller wire to "+" terminal of "1-10V" dim module.

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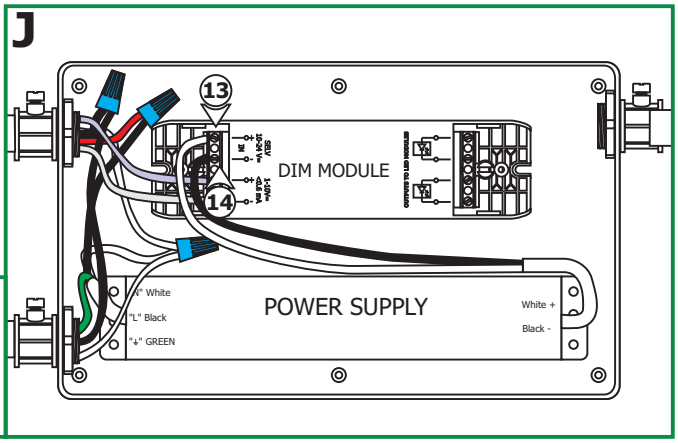
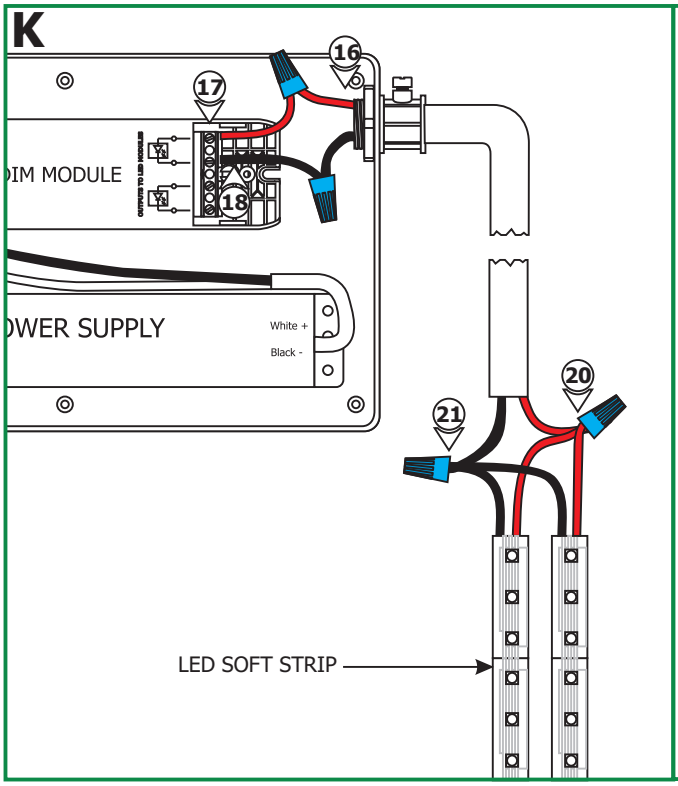


13: Connect the white power supply wire marked "+" to "+" terminal of "12-24V" dim module.

14: Connect the black power supply wire marked "-" to "-" terminal of "12-24V" dim module.



15: Use the "Low Voltage Wire Size Chart" on page 1 to determine the proper wire size connecting the dim module to the LED soft strip.

16: Run the proper size, red and black wires from the dim module case to the LED soft strip.

NOTE: Maximum length of a single soft strip to be connected to power supply before re-feeding is 16' of SS1 or 8' of SS3.

NOTE: Use only 12 volt LED soft strip with this power supply.

17: Connect the red wire to "+" terminal of dim module output.

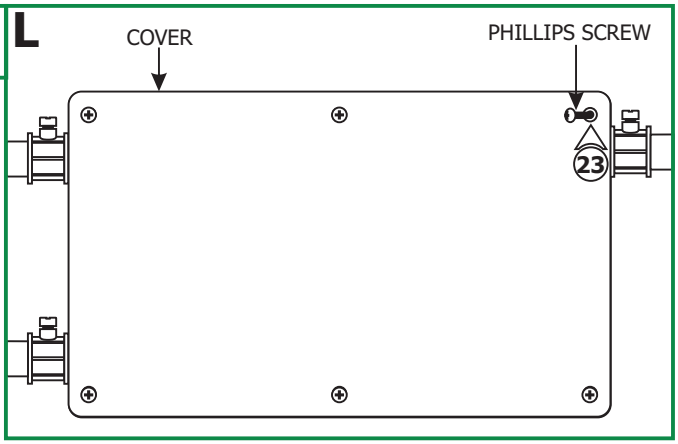
18: Connect the black wire to "-" terminal of dim module output.

19: Replace the covers of the dim module and secure them by tightening the Phillips screws.

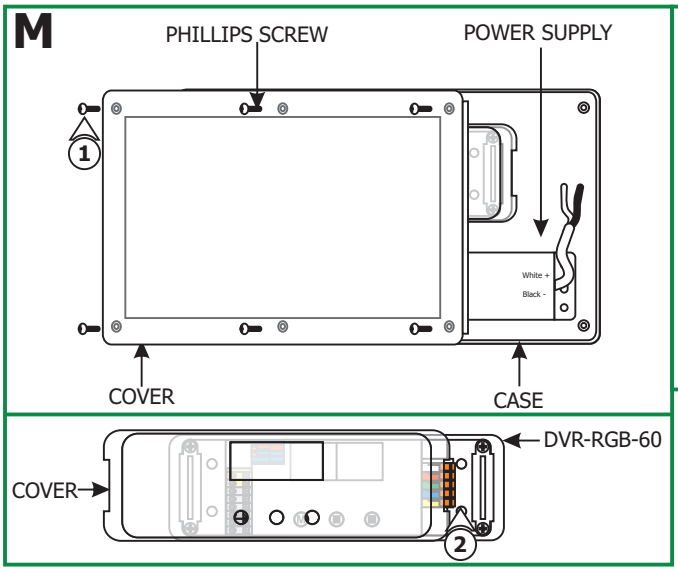
20: Connect the red wire coming from the dim module to the red wire of each LED soft strip.

22: Connect the black wire coming from the dim module to the black wire of each LED soft strip.

23: Replace the power supply cover and secure it by tightening the six Phillips screws.



Using LED Power Supply with RGB Soft Strip & CDP or CTP Controller



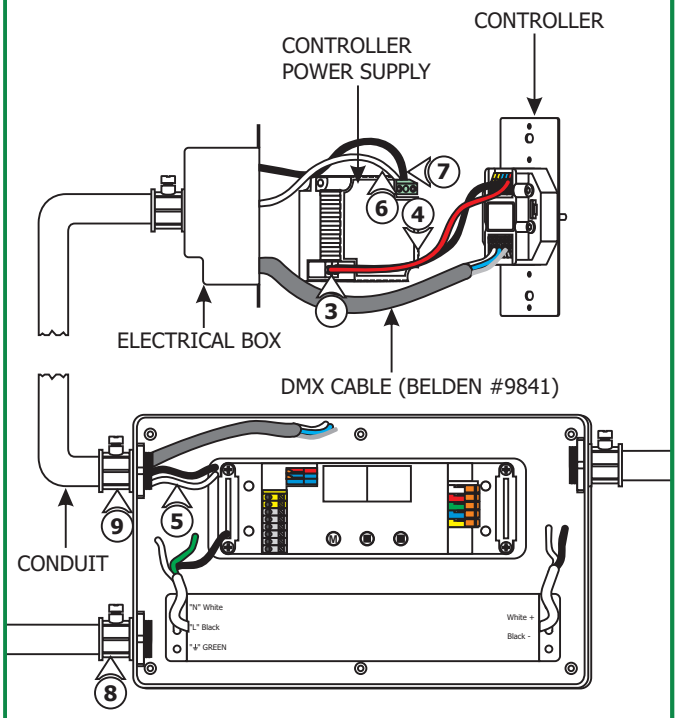
NOTE: Refer to the instructions provided with the CDP (Color Dial Controller) or CTP (Color Touch Screen Controller) to install, power, and program them. This section shows typical CDP controller installation.

1: Loosen the six Phillips screws on front of the power supply to remove the cover.

NOTE: Use a DVR-RGB-60 (Sold Separately) with this power supply.

2: Carefully pull off the cover from the DVR-RGB-60 driver. (Sold-Separately).

N



NOTE: Use a deep double gang box to fit the controller and controller power supply (OT-20-120-240-245 recommended).

NOTE: Refer to the "Configuring DimWheel" & "Operating DimWheel" on page 8 & 9 to properly operate the controller.

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

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

5: Run the black and white line voltage wires coming from the controller power supply to the power supply case.

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

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

8: Install conduits from controller, main panel (line voltage), and soft strip to power supply.

9: Run proper DMX cable **(Belden #9841 recommended)** with three data wires from controller to the power supply box.

10: Install a red wire from the power supply "+V" terminal to DVR-RGB-60 "VDC+" red terminal and a black wire from power supply "-V" terminal to DVR-RGB-60 "VDC-" blue terminal.

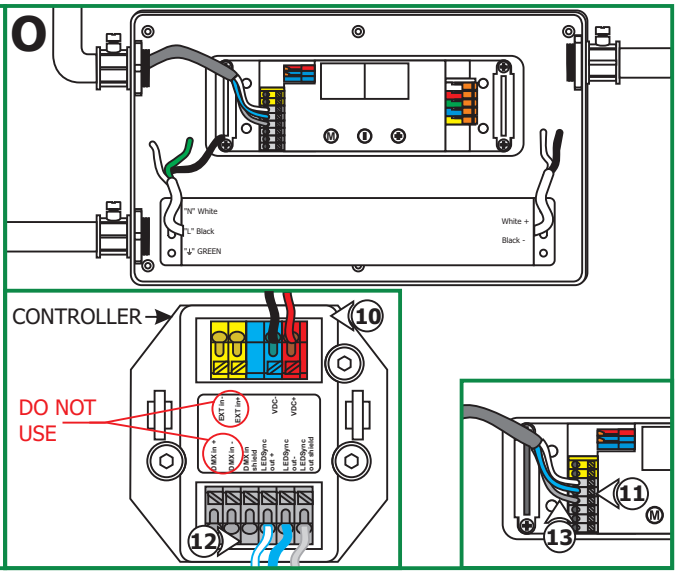
11: Connect one end of a data wire (blue with white stripes wire) to controller "LEDSYNC OUT–" terminal. Connect the other end into the DVR-RGB-60 "DMX in –" terminal.

12: Connect one end of a data wire (white with blue stripes wire) to controller "LEDSYNC OUT+" terminal. Connect the other end into the DVR-RGB-60 "DMX in +" terminal.

13: Connect one end of a data wire (bare shield wire) to controller "LEDSYNC SHIELD" terminal. Connect the other end into the DVR-RGB-60 "DMX in shield" terminal.

NOTE: "DMX in+", "DMX in-", "EXT in+" & "EXT in-", controller terminals are not used on controller.

O



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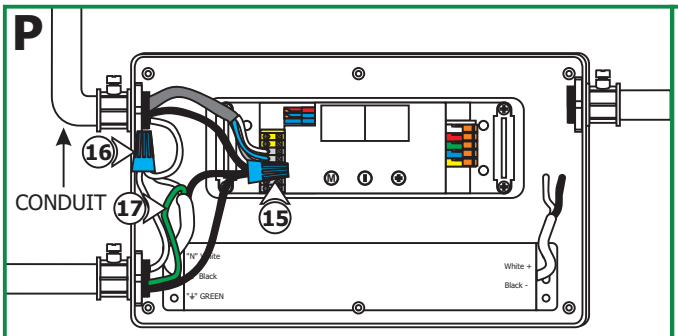
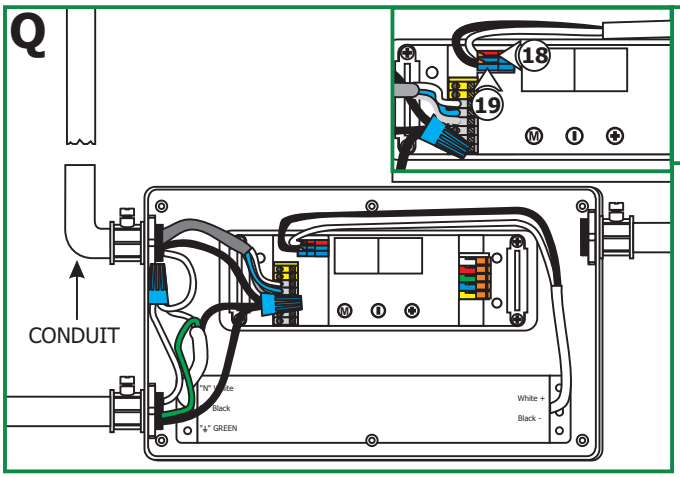


14: Run the line voltage power wires into the power supply.

15: Connect the hot power wire to black power supply wire marked "L" and black wire coming from the controller power supply with a wire nut.

16: Connect the neutral power wire to white power supply wire marked "N" and white wire coming from the controller power supply with a wire nut.

17: Make sure the green transformer wire is grounded in accordance with local electrical codes.



18: Connect the white power supply wire marked "+" to DVR-RGB-60 "Vdc+" red terminal.

19: Connect the black power supply wire marked "-" to DVR-RGB-60 "Vdc-" blue terminal.

NOTE: The DVR-RGB-60 terminals adapt maximum 18 AWG size. To avoid voltage drop, use 6" of 18 AWG size in RGB terminals connected inline to proper size gauge wire attached to the RGB LED wires with wire nuts. See the "Low Voltage Wire Size Chart" on page 1.

20: Use the "Low Voltage Wire Size Chart" on page 1 to determine proper wire size connecting to the DVR-RGB-60 terminals.

21: Run the proper size green, red, blue, and black wires from the RGB LED soft strip to the power supply case.

NOTE: This power supply is for multiple runs. Do not exceed the maximum wattage of the power supply.

NOTE: Use only 12 volt LED RGB soft strip with this power supply.

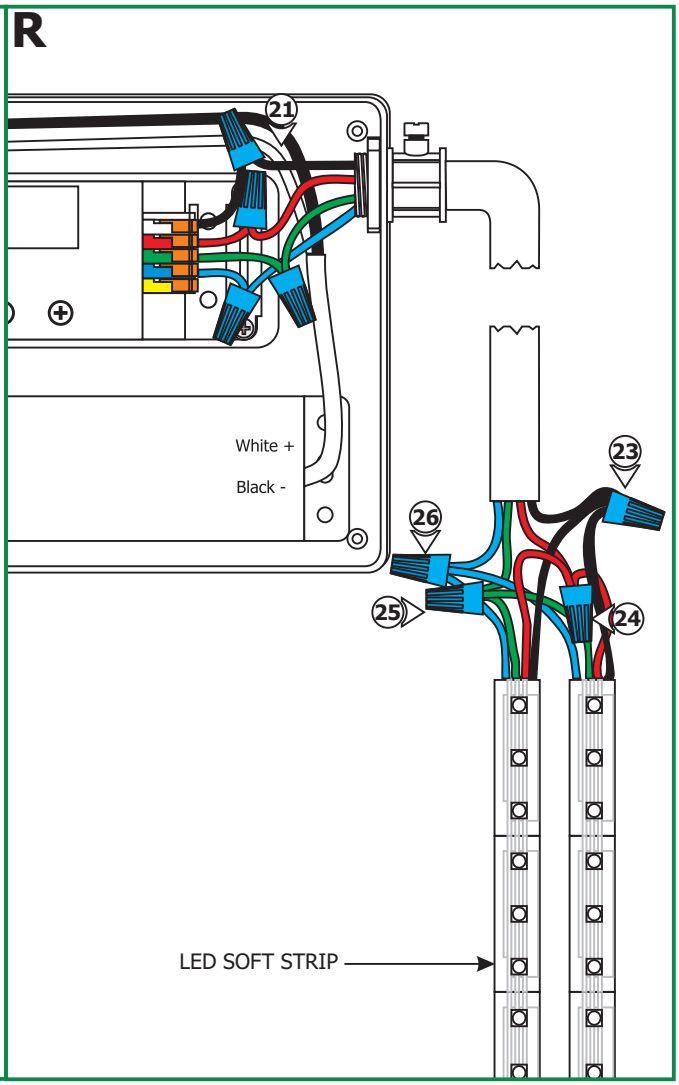
22: Run the proper size green, red, blue, and black wires from the RGB LED soft strip to the power supply case.

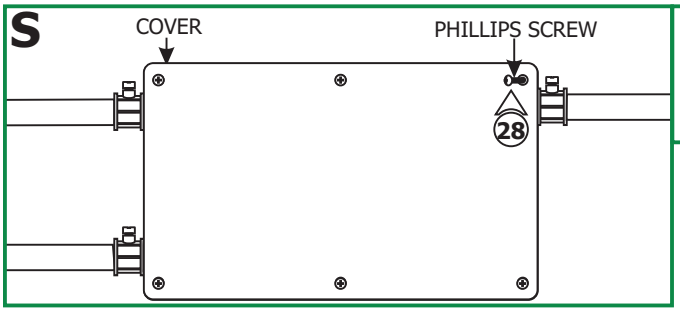
23: Connect the black wire into DVR-RBG-60 "LED SUPPLY +" white terminal. Connect the other end to RGB soft strip black wire(s).

24: Connect the red wire into DVR-RBG-60 "Group 1-" red terminal. Connect the other end to RGB soft strip red wire(s).

25: Connect the green wire into DVR-RBG-60 "Group 2-" green terminal. Connect the other end to RGB soft strip green wire(s).

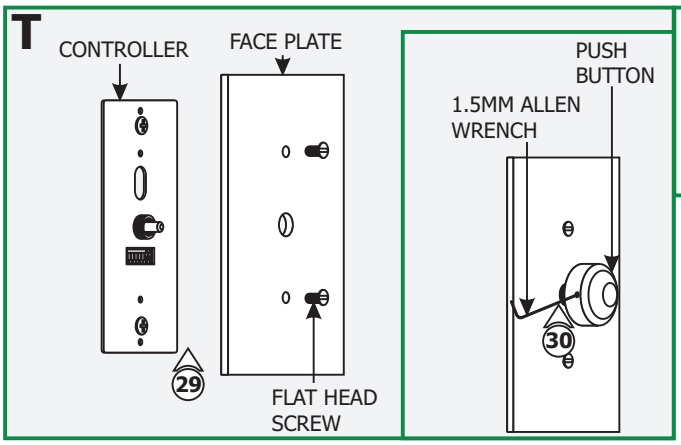
26: Connect the blue wire into DVR-RGB-60 "Group 3-" blue terminal. Connect the other end to RGB soft strip red wire(s).





27: Replace the DVR-RGB-60 cover.

28: Replace the power supply cover and secure it by tightening the six Phillips screws.

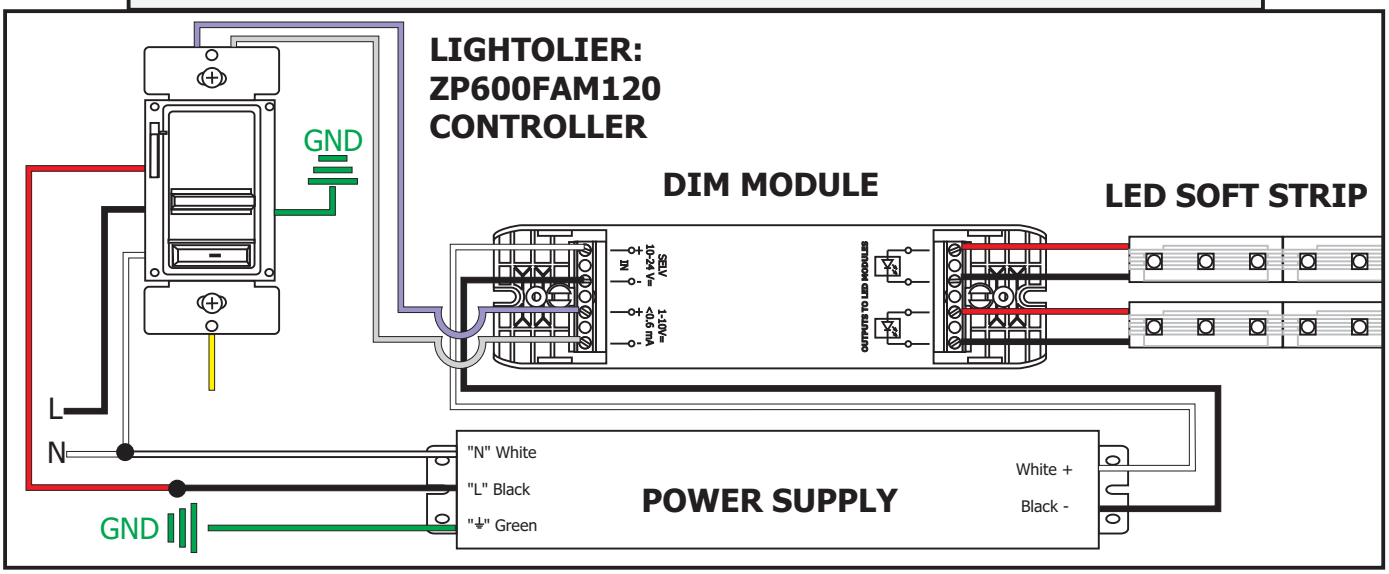


29: Align the face plate to the controller and secure using the two flat head screws.

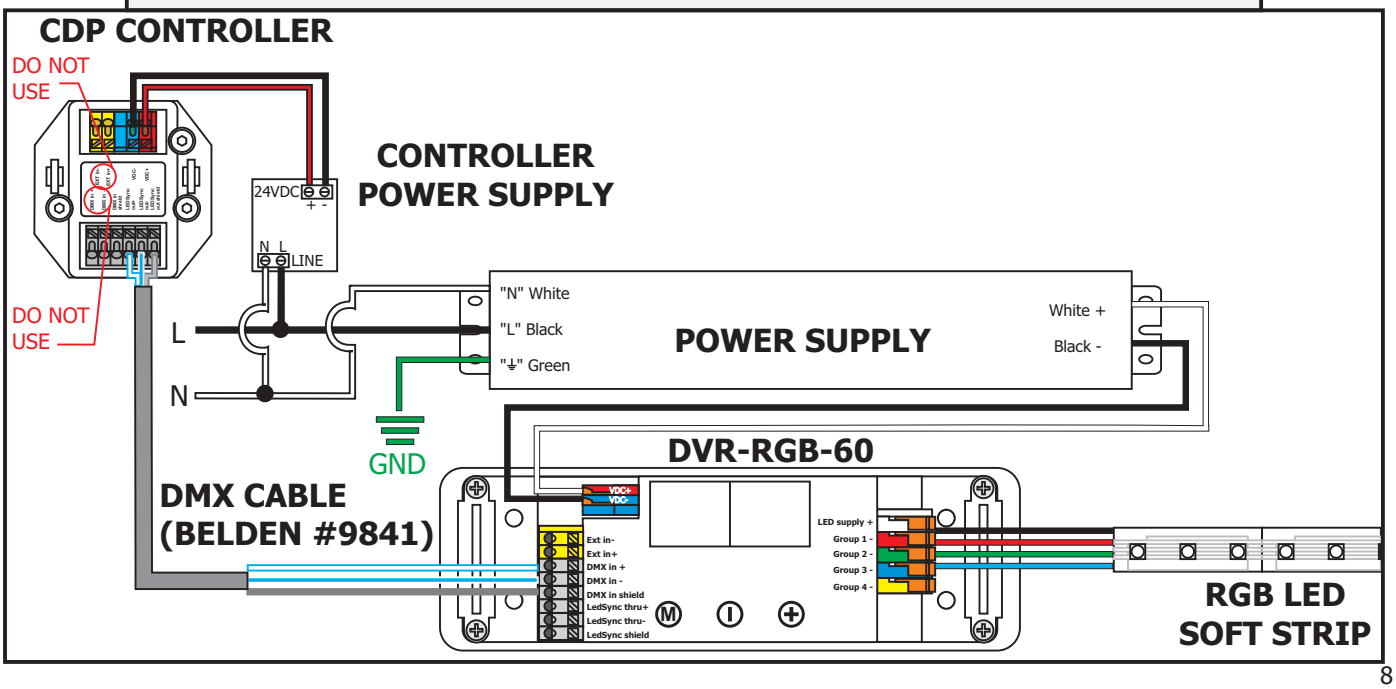
30: Attach the push button onto the controller center rod and secure by tightening the M3 set screw with the 1.5mm Allen wrench provided.

Wiring Diagrams

Using LED Power Supply with Warm White Soft Strip & 0-10 Volt Dimmer



Using LED Power Supply with RGB Soft Strip & CDP or CTP Controll



Selecting Modes

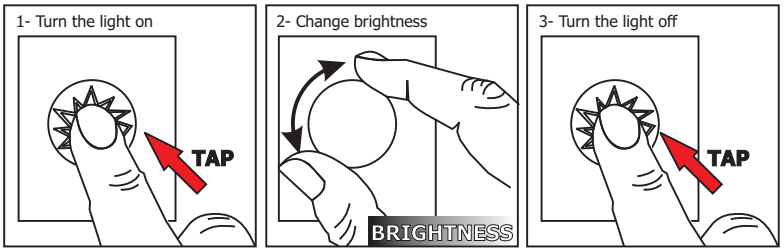
Configure your CDP by setting the DIP switches on the front:

COLOR MODE

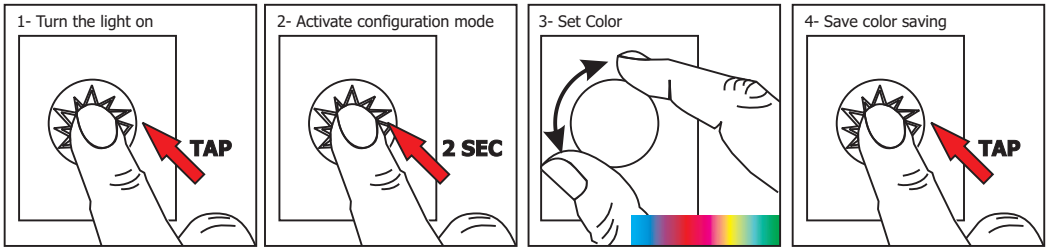
CHASE MODE

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 CDP



Advanced Operation for Color Mode



Advanced Operation for Chase Mode