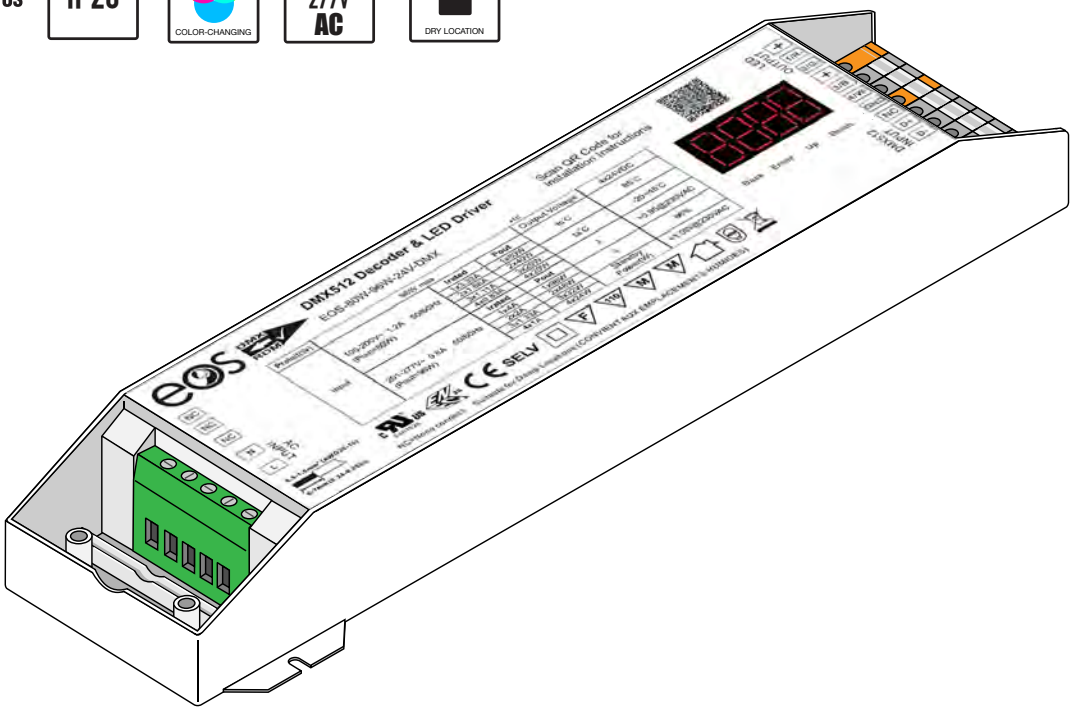
DMX DECODER AND DRIVER

INSTALLATION GUIDE



SAFETY & WARNINGS

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

1. Install in accordance with national and local electrical code regulations.
2. This product is intended to be installed and serviced by a qualifie , licensed electrician.
3. Do not modify or disassemble this product beyond instructions or the warranty will be void.
4. Do not use if there is any damage to the fixture or wiring. Inspect periodically.
5. Do not submerge in liquids or use the product in the vicinity of standing water or other liquids.
6. Do not install near areas with exposure to salt water or chlorinated water.
7. Do not install in direct sunlight.
8. Do not attempt to fix this product in the fiel
9. Failure to follow safety warnings, and installation instructions will void the warranty for this product.

QUICK SPECS / MODELS

SKU	EOS-80W-96W-24V-DMX
Input	120VAC / 277VAC 50/60Hz
Power Output	80W - 96W
Ambient Temp †	-4° - 176°F (-20° - 80°C)
Environment	Indoor / IP20

† Do not install product in environment outside listed temperature.

***NOT FOR USE IN SUBMERSIBLE APPLICATIONS, OR WITHIN 5 FEET OF A SWIMMING POOL.**

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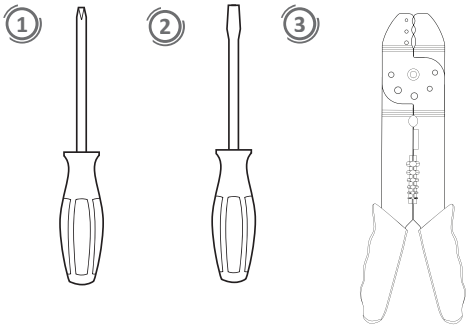
REQUIRED TOOLS

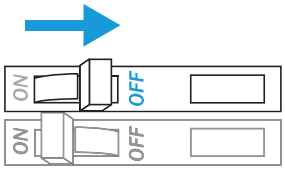


1. Phillips-head Screwdriver
2. Flat Head (Standard) Screwdriver
3. Wire Stripper (Recommended)

INSTALLATION

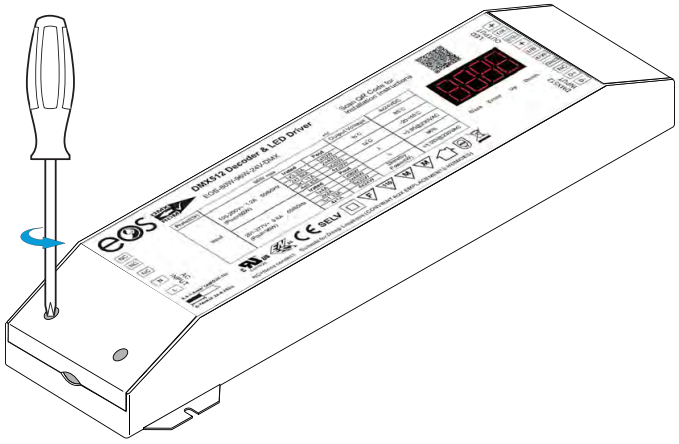
1 TURN POWER OFF AT CIRCUIT BREAKER

SHOCK HAZARD! May result in serious injury or death.
Turn power OFF at circuit breaker prior to installation.



2 UNSCREW AND REMOVE COVER FROM DECODER

Use a phillips-head screwdriver to unscrew cover.



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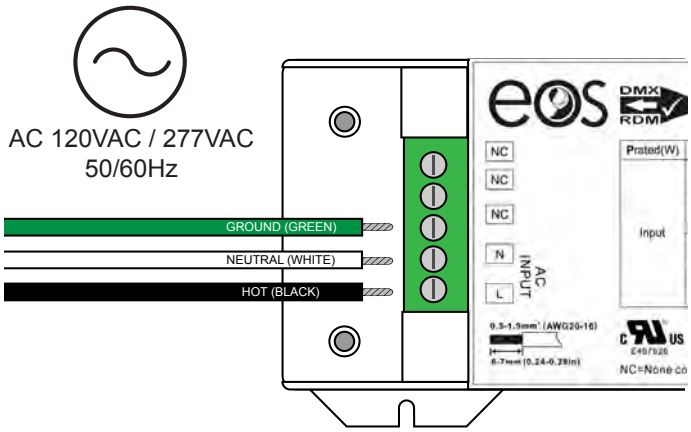
INSTALLATION (CONT.)

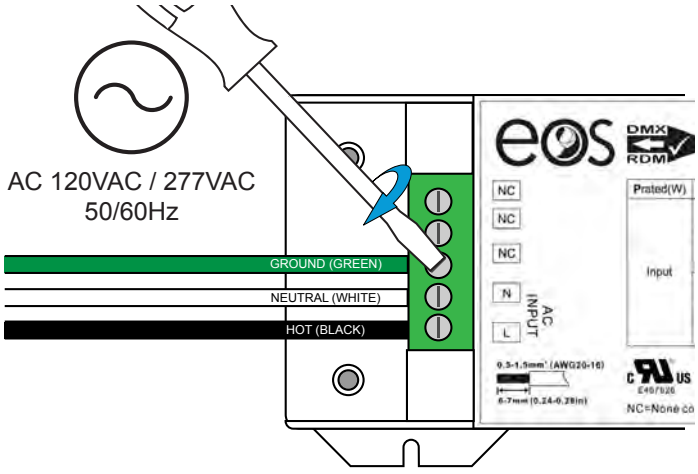
3 CONNECT 120VAC / 277VAC LINE VOLTAGE WIRES TO INPUT OF DECODER

Insert each wire into the corresponding terminal.*

**Note: Terminals labeled "NC" have no connection and are not used.*

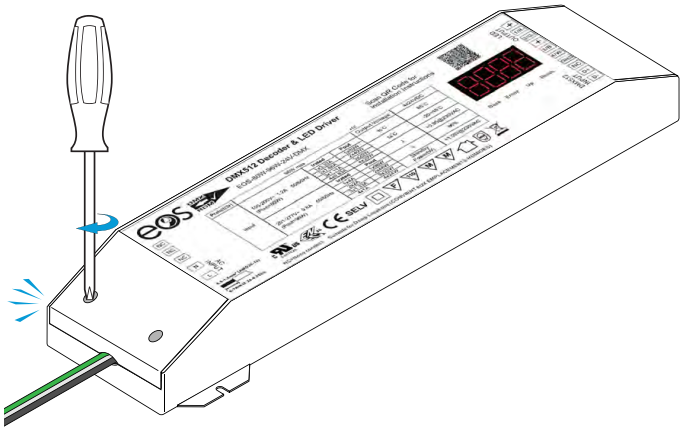


Use a flat head screwdriver to secure each wire in each corresponding terminal.



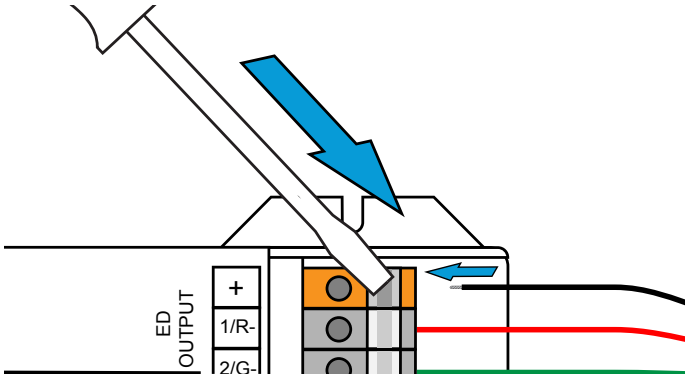
4 FASTEN DECODER COVER

Use a phillips-head screwdriver to fasten cover.



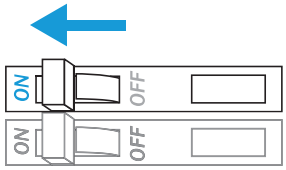
5 CONNECT LEDS TO DECODER

Use flat head screwdriver to press down on white terminal tab while inserting wire. Release terminal to secure wire.



*For further details, refer to **SYSTEM DIAGRAMS** on page 4.*

6 TURN POWER ON AT CIRCUIT BREAKER



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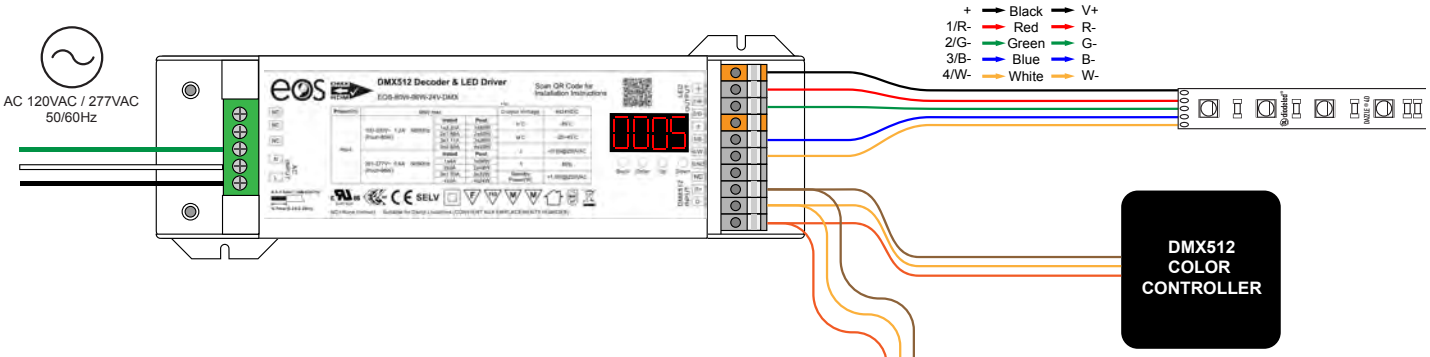
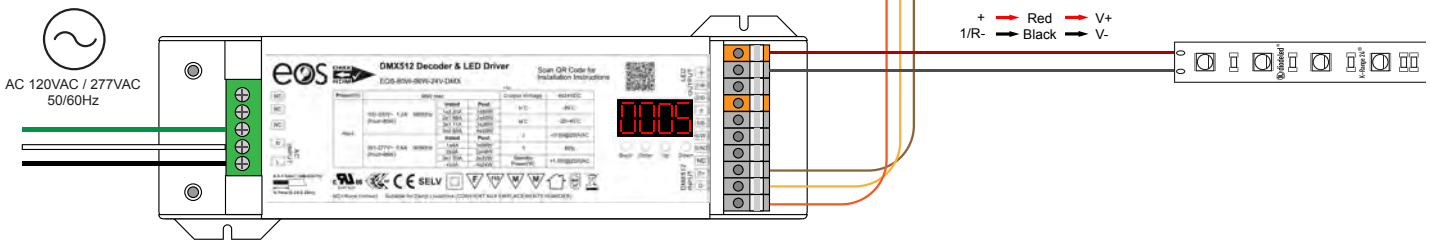
SYSTEM DIAGRAMS

The following diagrams are provided as example system designs. For information regarding larger systems or systems not pictured below, please see our web page or contact technical support. Always review each component installation guide for detailed and up-to-date wiring instructions. Install in accordance with national and local electrical codes.

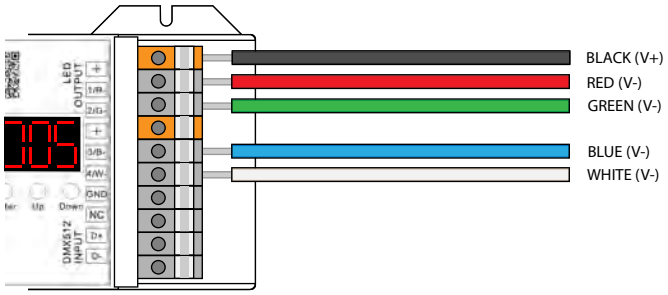
RGB(W) INSTALLATION



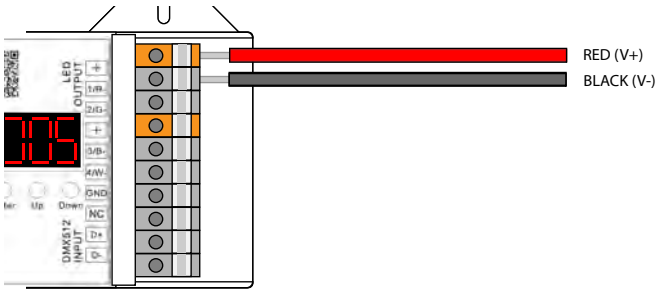
SINGLE COLOR INSTALLATION



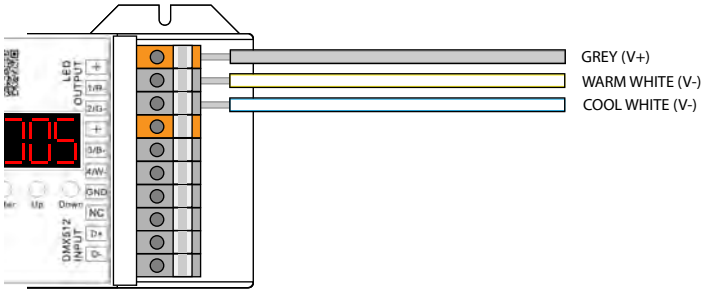
RGB(W) DETAILS



SINGLE COLOR DETAILS



K-RANGE DETAILS



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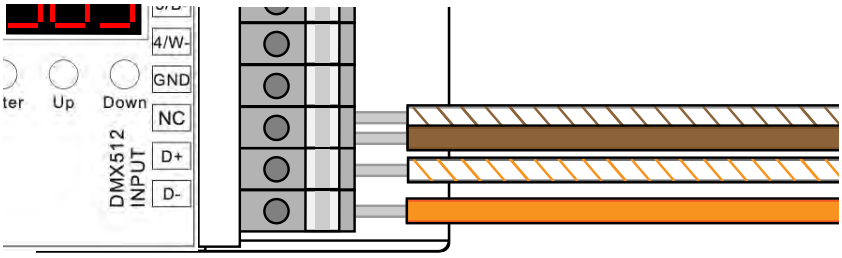
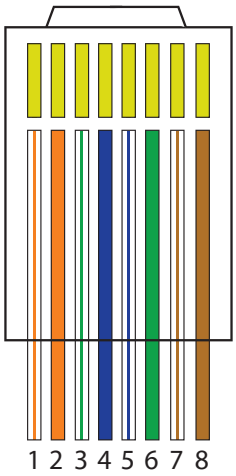
DATA CONNECTION

DATA CONNECTION DETAILS



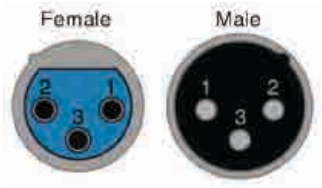
PINOUT CONNECTION GUIDE

The following diagrams/tables indicate the appropriate connections for patching your own CAT5/RJ45, and XLR-3 splice cables. These diagrams are for general reference and may slightly differ between different cable manufacturers.



Pin No.	Wire Color	Function
1	White/Orange	Data +
2	Orange	Data -
3	White/Green	None
4	Blue	None
5	White/Blue	None
6	Green	None
7	White/Brown	May be used as 2nd ground
8	Brown	Ground

Pin No.	Function
1	Ground
2	Data -
3	Data +



PROGRAMMING

SETTING DMX ADDRESS

Each DMX decoder or DMX luminaire needs to be addressed correctly so the controller can distinguish between each decoder. To pair a DMX decoder or luminaire to a specific zone of the controller (1-3), set each decoder/luminaire to one of the following addresses:

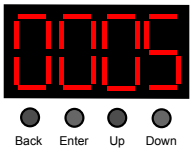
- Zone 1: Set to address ‘001’ (will be fixed to address 001 – 004
- Zone 2: Set to address ‘005’ (will be fixed to address 005 – 008
- Zone 3: Set to address ‘009’ (will be fixed to address 009 – 012

Each zone of the controller is fixed with 4 DMX addresses to control the 4 channels:

CH1 – Red, CH2 – Green, CH3 – Blue, CH4 – White or X.

Example of DMX Addressing Display

Digital Display



Once DMX address is set on luminaire or DMX decoder, ensure to Press Zone 1, 2, or 3 on the controller to control desired zone.

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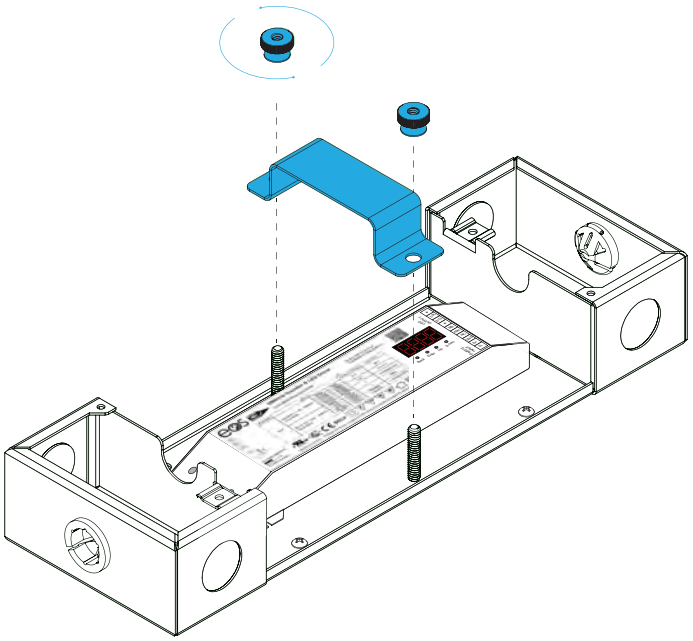
JUNCTION BOX INSTALLATION

Fasten DMX Decoder and Driver to Lo-Pro Junction Box.



TROUBLESHOOTING

Shift in brightness and/or kelvin	• Ensure an appropriate gauge of wire is installed between strip light and LED driver. **See VOLTAGE DROP CHARTS.**
Some LEDs are not functional	• Ensure strip light has not been bent excessively, which could damage circuitry. • Ensure strip light has not been submerged in any liquid for any amount of time.
Lights are flickering	• Ensure a compatible color controller is installed. Check for loose connections.
Lights are turning on/off repeatedly	• Ensure DMX DECODER and DRIVER is not overloaded. An overloaded driver will trip the internal auto-reset repeatedly, turning the system on/off.

TOOLS & RESOURCES

DMX DECODER AND DRIVER SPECIFICATION SHEET
For full specifications.

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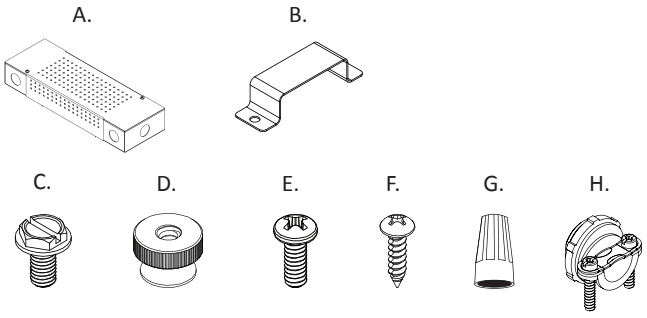
SUPPLIED ACCESSORIES

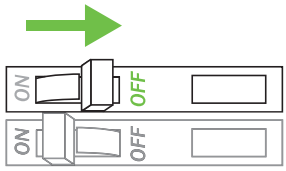
A. Junction Box (1)
B. Driver Mounting Bracket (1)
C. Ground Screw (1)
D. Thumb Screws (2)
E. Cover Screws (2)
F. Mounting Screws (4)
G. Wire Connector 22-14AWG (600V) (6)
H. NM (Non-Metallic) Cable Strain Relief (2) - 3/8”



INSTALLATION

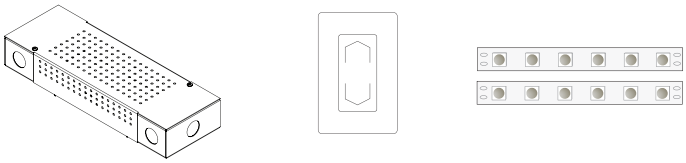
1 TURN POWER OFF AT CIRCUIT BREAKER

SHOCK HAZARD! May result in serious injury or death.
Turn power OFF at circuit breaker prior to installation.



2 DETERMINE LOCATION TO INSTALL COMPONENTS

Refer to **SYSTEM DIAGRAM** under step 7. *Ensure to calculate LED load properly for loading LED driver. See LED luminaire installation guide for calculating loads.*

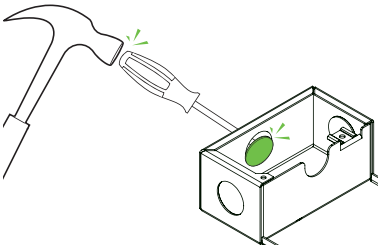


1) Class 2 Driver & Lo Pro Box
2) Control
3) Fixture

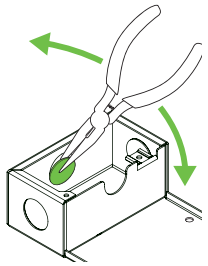
WIRE GAUGE & VOLTAGE DROP

Ensure applicable wire is installed between driver, fixture, and any controls in between. When choosing wire, factor in voltage drop, amperage rating, and type (in-wall rated, wet location rated, etc.)

3 PUNCH OUT KNOCKOUTS FOR CONDUIT ACCESS



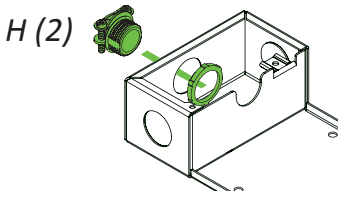
a. Use punch and hammer to loosen K/O.



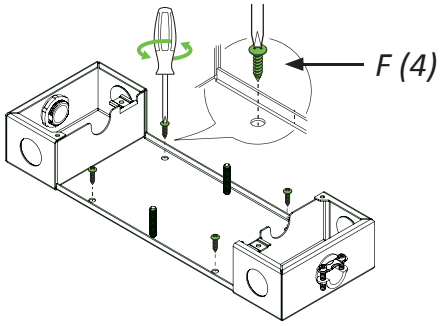
b. Grip K/O with pliers. Bend back and forth until broken off.

4 ATTACH INCLUDED 3/8” NM (NON-METTALIC) CABLE STRAIN RELIEF OR OTHER FITTING FOR CONDUIT ACCESS.

Additional fittings for BX cable, flexible conduit and rigid conduit must be purchased at local hardware store.
J-Box actual KO diameter is 0.87” and fits 3/8” fittings.

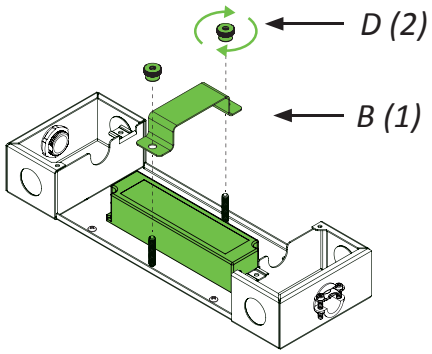


5 MOUNT BOX TO SURFACE WITH 4X SCREWS.



Mount J-Box to a sturdy surface in a position where it can be easily located and accessed for servicing and troubleshooting.

6 FASTEN POWER SUPPLY TO LO-PRO J-BOX.



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INSTALLATION CONT.

7 WIRE DRIVER TO AC INPUT AND LOW VOLTAGE LOAD.

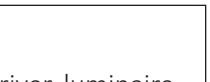
WARNING! SYSTEM DIAGRAM NOTE!

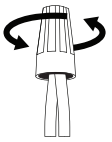
Each compatible LED driver has a unique System Diagram and color-coded wires. Please see each LED driver, luminaire (tape light, puck light, etc.), and control installation guide for System Diagrams, connections and wire colors. Pictured below is a Traditional ON/OFF Switching system. This is for reference only and does not apply to every driver.

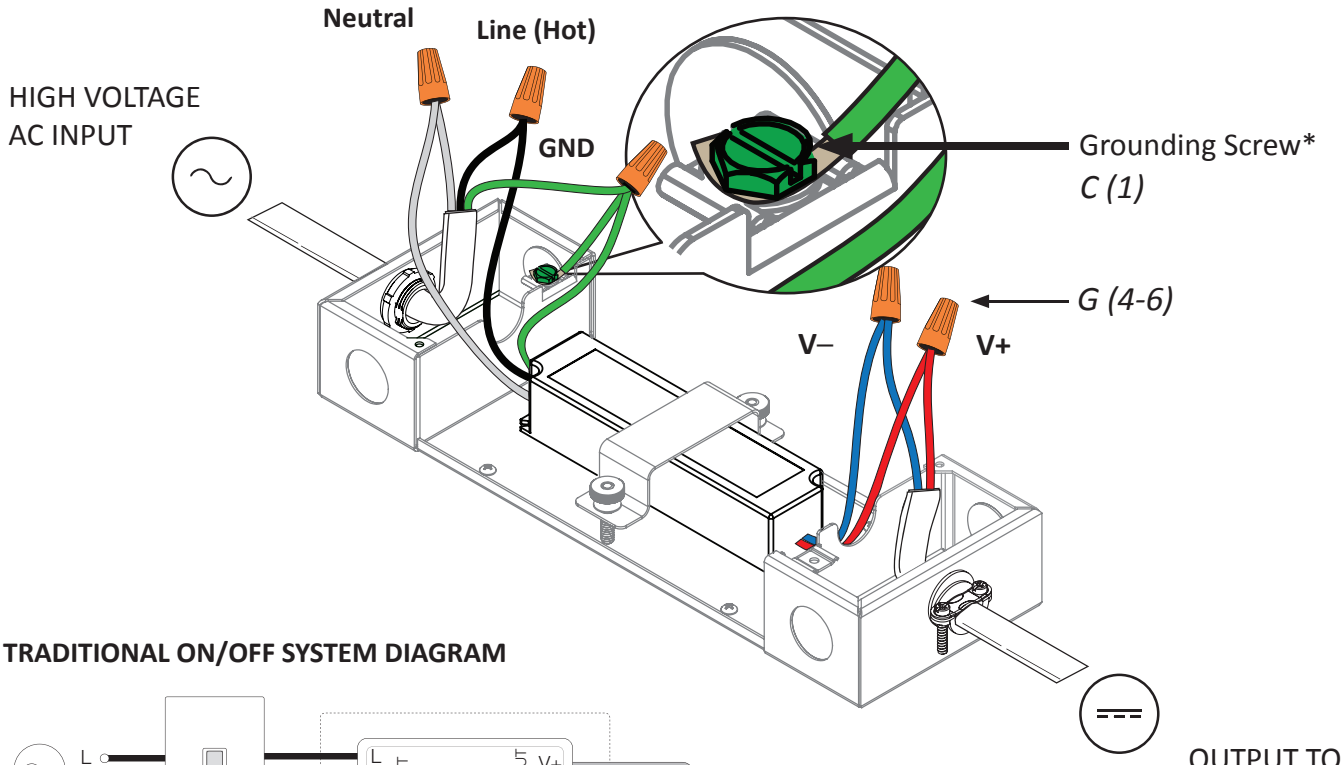
Wire LED Driver. ***Ensure main power is OFF.***

1. GND*: Attach to J-Box and to Primary Ground
2. Neutral: To Primary High Voltage Neutral
3. Line (Hot): To Primary High Voltage Line Hot
4. V+: To Low Voltage Load V+
5. V–: To Low Voltage Load V–

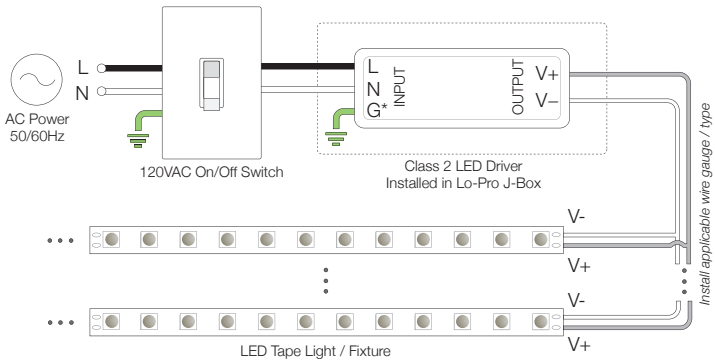
Wire Combination Range	Wire Combination Range (mm)
600V Max 22 to 14 AWG Min. (1) #18 & (2) #20 Max. (2) # 14	600V Max 0.34mm² to 2.5mm² Min. (1) 0.75mm² w/ (1) 0.50mm² Max. (4) 1.5mm² w/ (1) 0.50mm²







TRADITIONAL ON/OFF SYSTEM DIAGRAM



**** LED Driver and J-Box must be grounded in accordance with local and national electrical codes.*** *Ground the LED Driver and J-Box with the included Green Grounding Screw. Some compatible LED drivers are Class II certified and do not require a FG (Fault Ground Connection). Refer to the LED driver label and installation guide for more information.*

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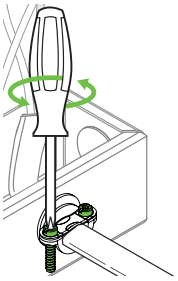
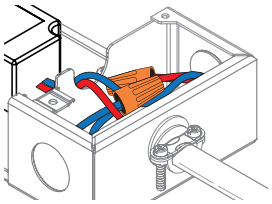
INSTALLATION CONT.

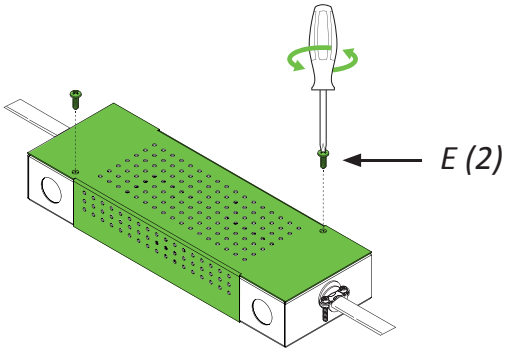
8 FINISH ASSEMBLY.



a. Tighten Strain Relief.

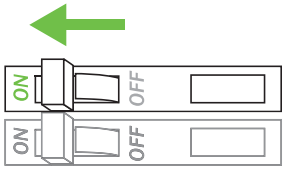


b. Tuck Wires into compartments.



b. Fasten lid to Lo-Pro Junction Box.

9 TURN POWER ON AT CIRCUIT BREAKER.



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