

Magnetic Multi-Purpose LED Retrofit Kit™

Part Numbers G4LED-RF-C4151 (4000K) and G4LED-RF-C5051 (5000K): Engineered Products Company's (EPCO) Magnetic Multi-Purpose LED Retrofit Kit can lower your energy consumption up to 40%, improve your lighting system, and provide you with long-term sustainable savings. This Kit is intended to retrofit Vapor Tight fluorescent light fixtures using T12 or T8 fluorescent lamps and magnetic ballast and upgrade them to LED Luminaires. The Magnetic Multi-Purpose LED Retrofit Kit meets the requirement of the 2020 National Electric Code, Articles 410.10(A), 410.104(A), 410.130(G)(1), 547.5(C)(1)(2), and 547.8(A)(B).

WARNING: Electrical Shock Hazard

- TO BE INSTALLED BY A QUALIFIED ELECTRICIAN.
- MAKE SURE THAT THE POWER IS "OFF" AT THE CIRCUIT BREAKER BEFORE PROCEEDING.
- THIS LUMINAIRE SHOULD ONLY BE USED WITH COPPER OR INSULATED COPPER WIRE.
- IF THIS DEVICE WILL BE USED WITH ALUMINUM WIRE, USE ONLY DEVICES MARKED WITH CO/ALR.
- TO PREVENT WIRING DAMAGE OR ABRASION, DO NOT EXPOSE WIRING TO EDGES OF SHEET METAL OR OTHER SHARP OBJECTS.
- IF YOU DO NOT UNDERSTAND THESE INSTRUCTIONS OR IF ADDITIONAL INFORMATION IS REQUIRED, CONSULT WITH A QUALIFIED ELECTRICIAN TO ENSURE AN ACCURATE CONNECTION TO THE BRANCH CIRCUIT.

Note: EPCO's Magnetic Multi-Purpose LED Retrofit Kit should only be used with electrical wiring that is in good working order and meets all requirements of the National Electrical Code as well as Local Building Codes and Ordinances. Failure to follow these warnings may result in death, injury, or significant property damage. For your protection, read and follow these installation instructions carefully. These instructions do not attempt to cover all installation situations.

Components:

- One (1) kit is needed for retrofitting a 4-foot Vapor Tight Light Fixture.
- Two (2) kits are needed for retrofitting an 8-foot Vapor Tight Light Fixture.

1. Carefully remove the fluorescent lamps and set them side aside. Remove the gear tray from the fixture housing and place it on a horizontal surface, then invert it so you have access to the ballast. Disconnect the incoming supply conductors "Hot" (Black), "Neutral" (White), and Grounding Conductors (Green).
2. Remove the lamp socket plates from the underside of the gear tray. The fluorescent lamps, ballast, and any remaining wire conductors should be removed and recycled at your local Recycling Service Center. Strip the insulation from the incoming black supply line wire to expose approximately 3/8" of bare copper. Follow this same procedure for the white incoming supply line wire and the ground bonding wire.
3. All old lighting components should now be removed from the gear tray. Figure 1 shows all components in the Magnetic Multi-Purpose LED Retrofit installation kit. The two LED Strips with the magnetic backing are pre-wired at the factory to ensure the incoming power source energizes both LED Strips as follows:

Red Conductor: "Hot" (or +)

Blue Conductor: "Neutral" (or -)

White Conductor: Electrically connects the two LED Strips to ensure both LED Strips are energized

Note: Do not remove the Red, Blue, or White Conductors from the LED Strips or the Warranty will be Void.

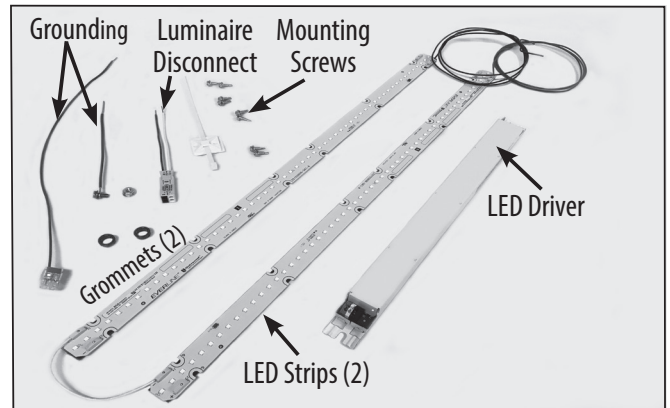


Figure 1: Magnetic Multi-Purpose Installation Kit Components.

INSTALLATION INSTRUCTIONS

- The Installer can position the two LED Strips onto the top side of the gear tray ensuring the LED Strips do not interfere with other components on the gear tray. Included in the Magnetic Multi-Purpose LED Retrofit Kit are two (2) grommets. If your gear tray does not have an existing 1/2" hole, use a 1/2" drill bit and drill a hole into the gear tray to accommodate the grommet.
- Affix the grommets to each end of the gear tray to prevent damage or abrasion to the Red and Blue Conductors. When the two LED Strips are located where you want them, feed the Red Conductor through the grommet on one end of the gear tray and feed the Blue Conductor through the grommet on the opposite end of the gear tray. See Figure 2.
- Invert the gear tray and position the LED Driver on the bottom side of the gear tray (the magnetic backing on the LED Strips will hold them in place). The LED Driver also has a magnetic backing to simplify and expedite positioning. Self-Tapping screws are included in the installation kit to firmly secure the LED Driver to the gear tray (installer choice). However, if you choose to use the self-tapping screws, make sure you do not make any contact with the LED Strips on the opposite side of the gear tray, or you will damage the circuit path on the LED Strips and they will not work!!!
- When the location of the LED Driver is determined, feed the Red and Blue Conductors to each of the designated "color-coded" ports, press the respective button down, and push the stripped copper lead for each conductor. The two (2) ports bring power from the LED Driver to the LED Strips. See Figures 3 and 4.
- Connect the Black (Hot) and White (Neutral) conductors to the designated color-coded ports and press down the respective button and push the stripped copper lead for each conductor. See Figure 4. These two (2) conductors bring power from the incoming supply to the LED Driver.
- To ensure safe operation the Installer should "ground-bond" the LED Driver and the gear tray by first inserting the stripped end of the long Green Ground Bonding PigTail into the Green port on the LED Driver, similar to the installation of the Black and White conductors as shown in Figure 4.
- The second (shorter) stripped end of the Ground Bonding PigTail should now be inserted into the Green Ground Bonding connector. Locate a hole in close proximity to the LED Driver on the gear tray. Then insert the green ground screw through the hole on the gear tray and attach the locking nut to ground the LED Driver and the gear tray to the service panel. This completes the electrical connection.
- Use the enclosed zip tie to neatly consolidate (or bundle) all conductors, then remove the adhesive backing from the zip tie base and attach it to the gear tray. Invert the gear tray carefully push all conductors so they fit underneath the gear tray and into the fixture housing.
- Restore power to the circuit breaker.

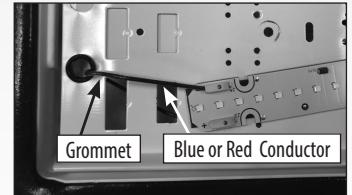


Figure 2: Feeding the Red and Blue conductors through the grommets.

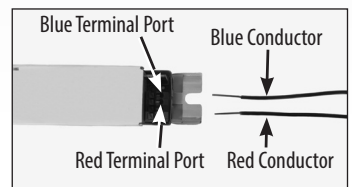


Figure 3: Connecting the Red and Blue Conductors to the Terminal Ports on the LED Driver.

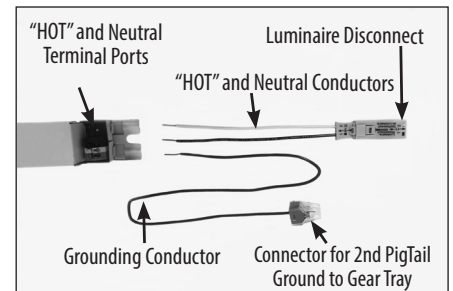


Figure 4: Connecting the "HOT", Neutral, and Ground Conductors to the Terminal Ports on the LED Driver.