e-conolight ZR-RK Series LED Retrofit Troffer Kit Instruction Manual

Contents

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IMPORTANT SAFEGUARDS

When using electrical equipment, basic safety precautions should always be followed including the following:

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

1. **DANGER** – RISK OF SHOCK – DISCONNECT POWER BEFORE INSTALLATION
   DANGER – RISQUE DE CHOC – COUPER L'ALIMENTATION AVANT L'INSTALLATION
2. **WARNING** – Risk of fire or electric shock. Luminaire wiring and electrical parts may be damaged when drilling for installation of the LED upgrade kit. Check for enclosed wiring and components.
3. **WARNING** – Risk of fire or electric shock. LED Retrofit Kit installation requires knowledge of luminaires electrical systems. If not qualified, do not attempt installation. Product must be installed in accordance with NEC or your local electrical code. If you are not familiar with these codes and requirements, contact a qualified electrician.
4. **WARNING** – Risk of fire or electric shock. Install this kit only in the luminaires that have the construction features and dimensions shown in the photographs and/or drawings where the input rating of the retrofit kit does not exceed the input rating of the luminaire.
5. Only the holes indicated in the photographs or drawings may be made or altered as a result of the kit installation. Do not leave any other holes open in a wiring enclosure or electrical component.
6. **WARNING** – To prevent wiring damage or abrasion, do not expose wires to the edge of sheet metal or any other sharp objects.
7. **CAUTION:** Changes or modifications not expressly approved could void your authority to use this equipment.
8. The retrofit kit is accepted as a component of a luminaire where the suitability of the combination shall be determined by authorities having jurisdiction. Product must be installed by a qualified electrician in accordance with the applicable and appropriate electrical codes. The installation\ guide does not supersede local or national regulations for electrical installations.
9. Examine all parts that are not intended to be replaced by the retrofit kit for damage and replace any damaged

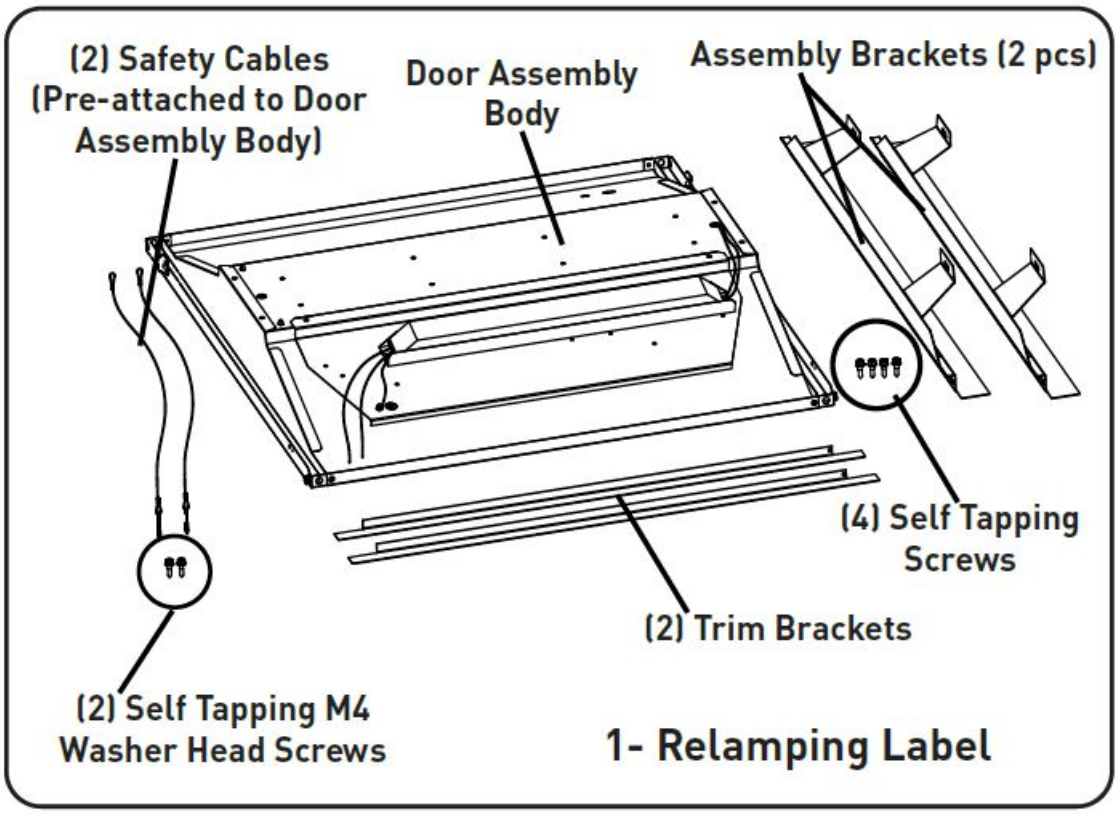
parts prior to installation of the retrofit kit.

10. **CAUTION:** Changes or modifications not expressly approved could void your authority to use this equipment.
11. For Emergency Luminaires, to reduce the risk of electric shock, disconnect both standard and emergency power supplies and converter connector of the emergency driver before servicing.

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE

LIST OF SUPPLIED COMPONENTS

Kit contains the following parts:

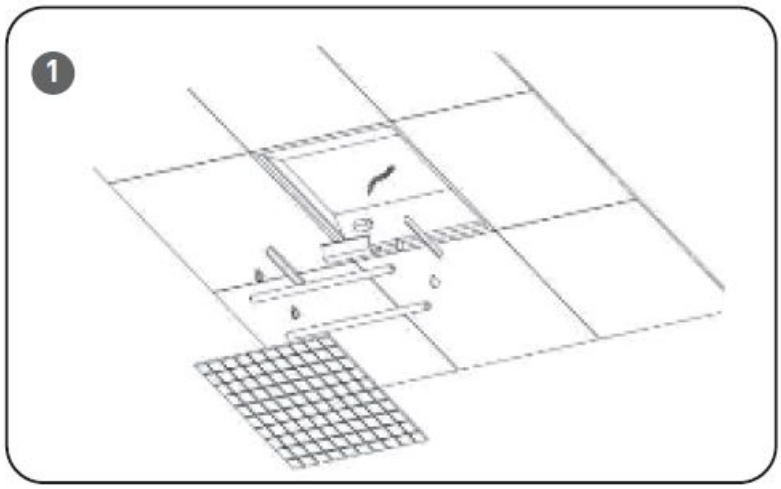


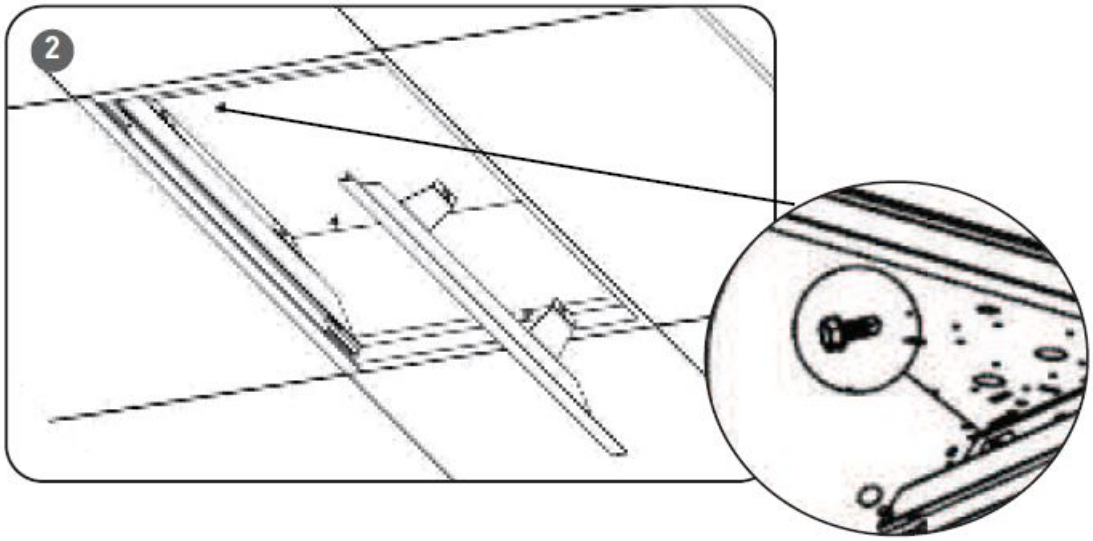
NOTES:

1. Upgrade Kit is for installation in 1×4, 2×2, and 2×4 recessed troffer that are using NEMA 9/16” or 15/16” T-Bar ceiling grid.
2. We recommend a test installation before final installation due to variety of troffer styles and ceiling grid types. During test installation, determine if lamp holders and ballast need to be removed.
3. Minimum internal pan size of existing pan is:
    - 1’ x 4’ – 48.00” (1219 mm) by 12.28” (312 mm) by 3.43” (87 mm) high
    - 2’ x 2’ – 24.00” (609 mm) by 23.90” (607 mm) by 3.03” (77 mm) high
    - 2×4 – 47.5” (1219 mm) x 23.5” (607 mm) x 3” (77 mm)
4. Designed for use in 120-277V 50-60 Hz (all versions) or 347 60Hz (non-emergency versions only) protected circuit (fuse box, circuit breaker). Supply wire sized as per NEC or governing code(s).
5. Products with the -EB suffix are provided with a factory-installed emergency lighting LED battery pack and are eligible to serve a s apart of a facility’s emergency lighting system in accordance with ANSI/NFPA 101 and Article 700 of ANSI/NFPA 70.

6. When mounted at or below 15ft, -EB products will provide the required 1 foot- candle of luminance on the floor.
7. Make sure to cap off all unused leads.
8. Consult your local authority regarding disposal or recycling of removed ballast and lamp.

TO INSTALL





REMOVAL OF EXISTING LIGHT ENGINE

- **STEP 1:**
  Disconnect power to the host lighting fixture to be replaced.
- **STEP 2:**
  Remove the Lens/Louver, Fluorescent Light Bulbs, Lamp Holders (if applicable), Lamp Holder Leads and Ballast Cover from existing lighting fixture. See Figure 1.
- **STEP 3:**
  Cut the power wires going into the input side of the ballast. The ballast may remain in place, un-less it is determined that it needs to be removed to provide extra clearance.
  NOTE: If parts have to be removed from the host lighting fixture in order to complete the installation of this upgrade kit, then make sure that open holes are closed-off utilizing the existing host lighting fixture hardware (i.e. screws, covers, etc.)

INSTALLATION OF ZR-RK RETROFIT

- **STEP 1:**
  Install the assembly brackets to fit in the existing luminaire by using the (4) #8 1/2 screw. Make sure to secure the assembly bracket flat on the grid. See Figure 2.
- **STEP 2:**
  Apply re-lamping label “This luminaire has been modified to operate LED panel. Do not attempt to install or operate fluorescent lamps in this luminaire” to the surface of the luminaire. You can login into Cree Lighting website to buy the specific model of LED troffer.

Website: **http://www.creelighting.com**

Model:

- ZRRK14-XXL-8XX-10V5-UNV
- ZRRK22-XXL-8XX-10V5-UNV
- ZRRK24-XXL-8XX-10V5-UNV

- **STEP 3:**
  If there is a gap between the luminaire and t-grid, add optional trim brackets. Push up existing troffer housing and slide the trim brackets into place between existing luminaire and t-grid. See Figure 3.
- **STEP 4:**
  Place the door assembly body onto the keyholes of the end brackets and slide the door assembly body horizontally to the end of the slots. See Figure 4 .
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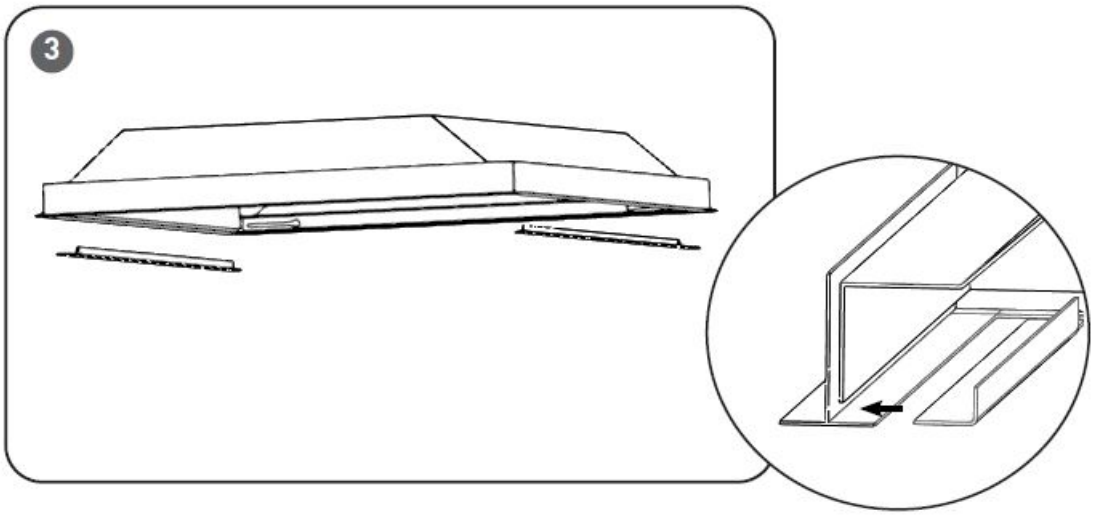
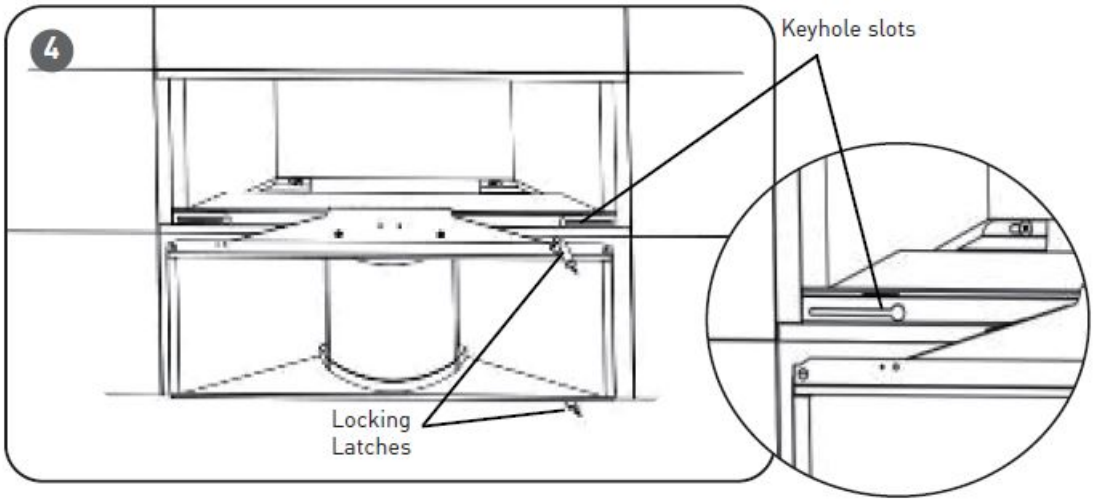


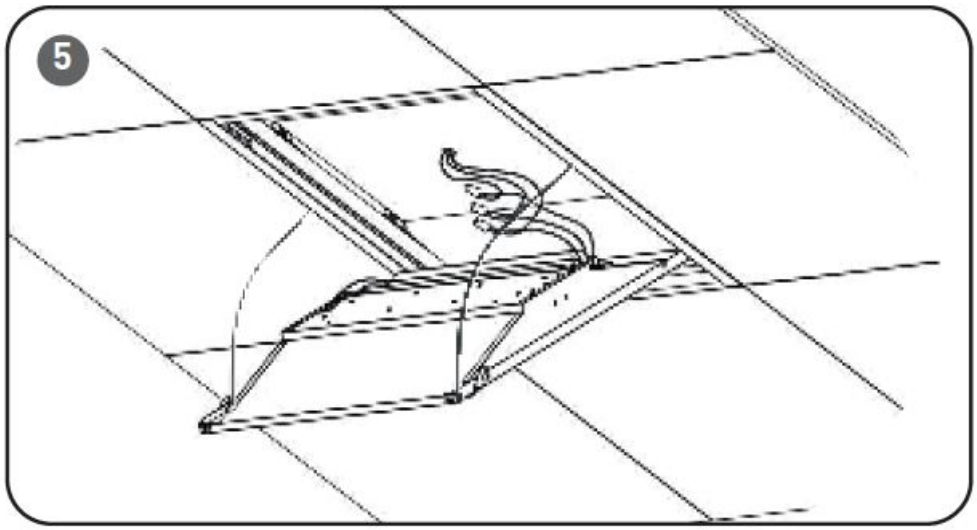


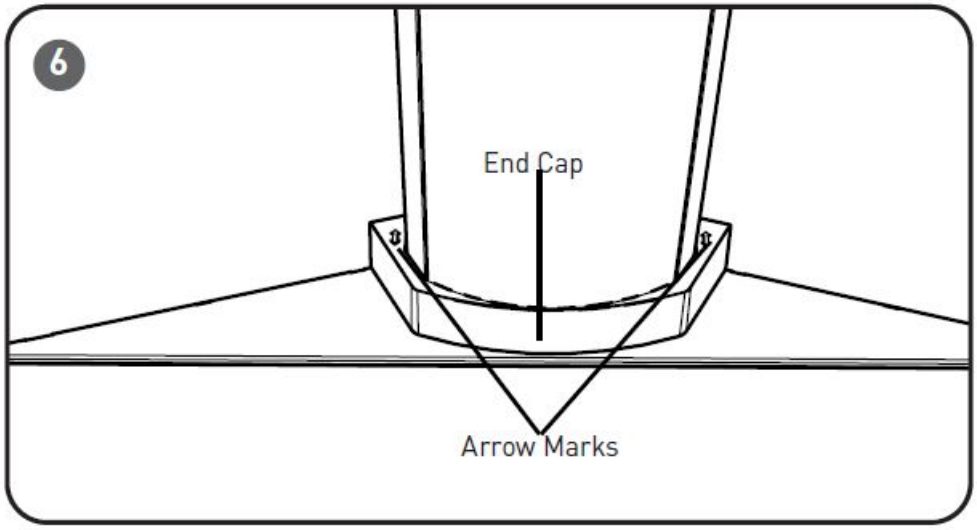
STEP 5:

Attach (2) safety cables to existing troffer housing using washer head M4 screws provided in hardware bag. See Figure 5.

- **STEP 6:**

  Wire luminaire per “Electrical Connections” section and tuck all leads into the back of the existing luminaire housing. Ensure that no leads are pinched. See Figure 5.

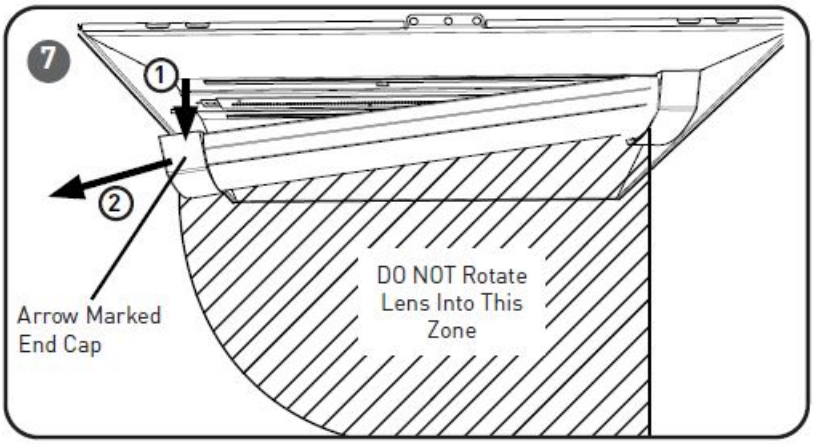


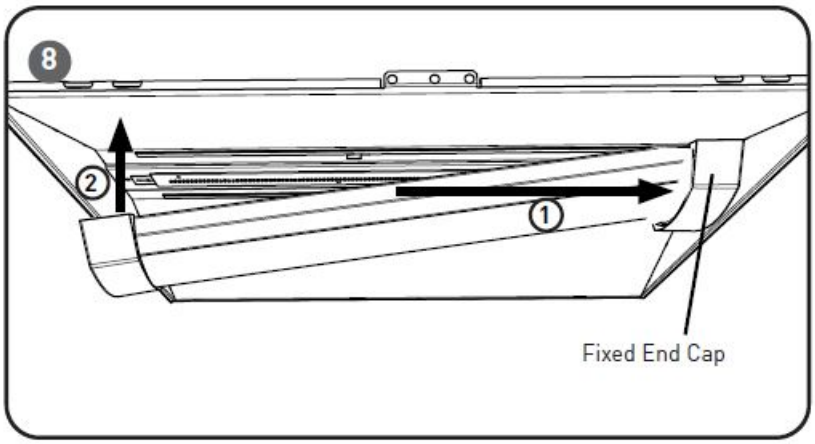


- **STEP 7:**
  Secure the door assembly by gently swinging the door up into the other side of the luminaire and then locking in place with the locking latches riveted on each end off the assembly door frame. See Figure 4.

CLEANING LENS

- **STEP 1:**
  Locate the end cap with the arrow marks on it, indicating that the end cap is removable. See Figure 6.
- **STEP 2:**
  Squeeze the middle of the lens while grabbing the lens section next to the end cap and pull lens and end cap together downward gently until end cap just clears luminaire (about 3” to 4” from original position). See Figure 7.
- **STEP 3:**
  Disengage the other end of the lens from the other end cap. Once lens is removed perform cleaning. See Figure 7.





- **STEP 4:**
  After cleaning is complete insert lens back into fixed end cap. Push the removable end cap upward into the housing and using a gentle rocking motion engage the end cap to retention clip. Check removable end cap for any visible gap between the end cap and end panel. If necessary push end cap against the end panel to eliminate gaps.
  In 1’ X 4’ and 2’ X 4’ products, make sure lens is snapped under lens retention clips in middle of housing. See Figure 8.

EMERGENCY DRIVER CHECK

NOTE: For short-term testing of the emergency function, the battery must be charged for at least one hour. The emergency driver must be charged for at least 24 hours before conducting a long-term test.

STEP 1: When AC power is applied, the charging indicator light is illuminated, indicating the battery is being charged. When power fails, the emergency driver automatically switches to emergency power, operating the LED array. When AC power is restored, the emergency driver returns to the charging mode.

STEP 2: Although no routine maintenance is required to keep the emergency driver functional, it should be checked periodically to ensure that it is working. The following schedule is recommended:

- Visually inspect the charging indicator light monthly. It should be illuminated.
- Test the emergency operation of the fixture at 30-day intervals for a minimum of 30 seconds. When the test switch is depressed, the LED array should operate.
- Conduct a 90-minute discharge test once a year. The LED array should operate for at least 90 minutes.

If the luminaire fails any of these checks, consult service personnel.

REFER ANY SERVICING INDICATED BY THESE CHECKS TO QUALIFIED PERSONNEL EMERGENCY DRIVER AND AC DRIVER MUST BE FED FROM THE SAME BRANCH CIRCUIT.

FCC NOTICE

CAUTION: Changes or modifications not expressly approved could void your authority to use this equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

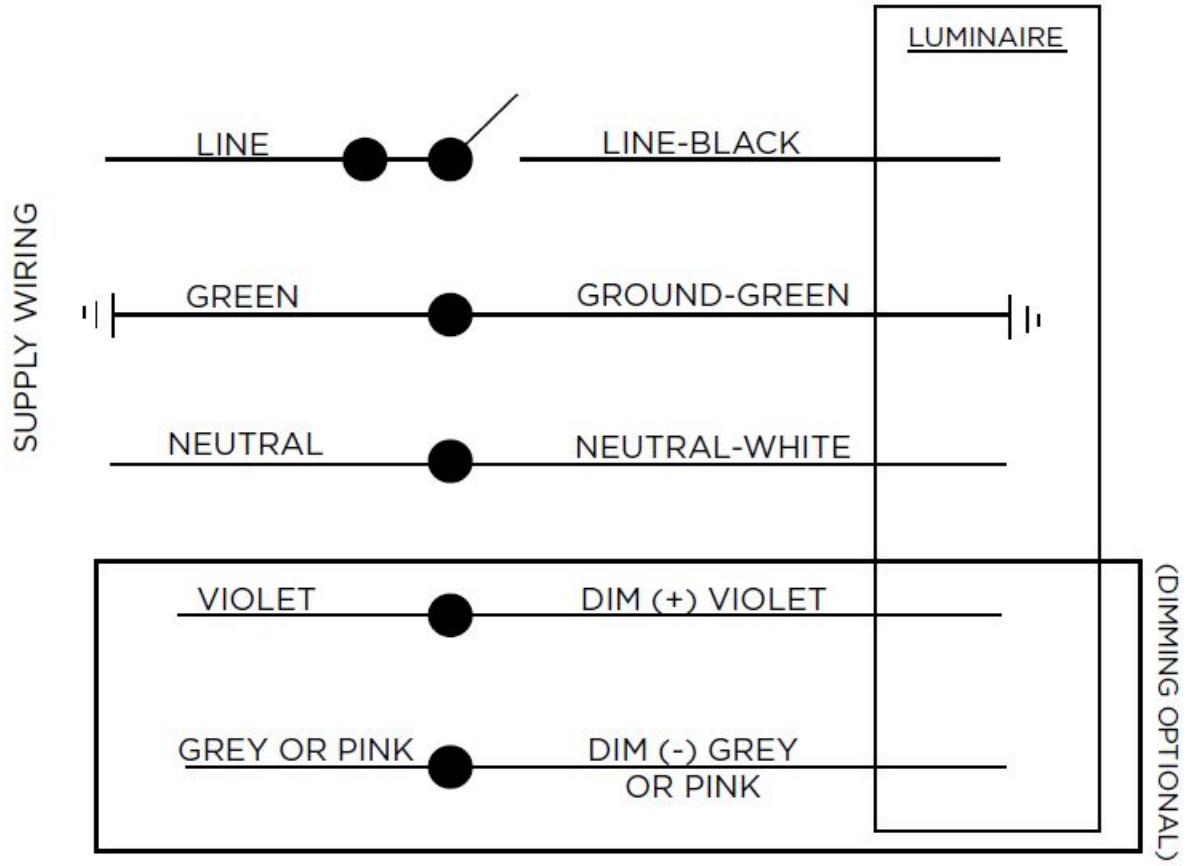
1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
CAN ICES-005 (A)/NMB-005 (A)

ELECTRICAL CONNECTIONS- ZRRK14, ZRRK22, AND ZRRK24

STEP 1: Make the following Electrical Connections:

- a. Connect the black fixture lead to the voltage supply Line position, Hot.
- b. Connect the white fixture lead to the neutral supply position.
- c. Connect the green ground lead to the incoming ground lead from the conduit or screw the green ground lead to the existing troffer pan if the safety ground is made through the pan on the existing troffer.
- d. If 0/1-10V Dimming is used, connect the violet lead to the supply positive dimming lead. If dimming is not being used ensure to cap off the violet lead.
- e. If 0/1-10V Dimming is used, connect the grey or pink lead to the supply negative dimming lead. If dimming is not being used ensure to cap off the grey or pink lead.

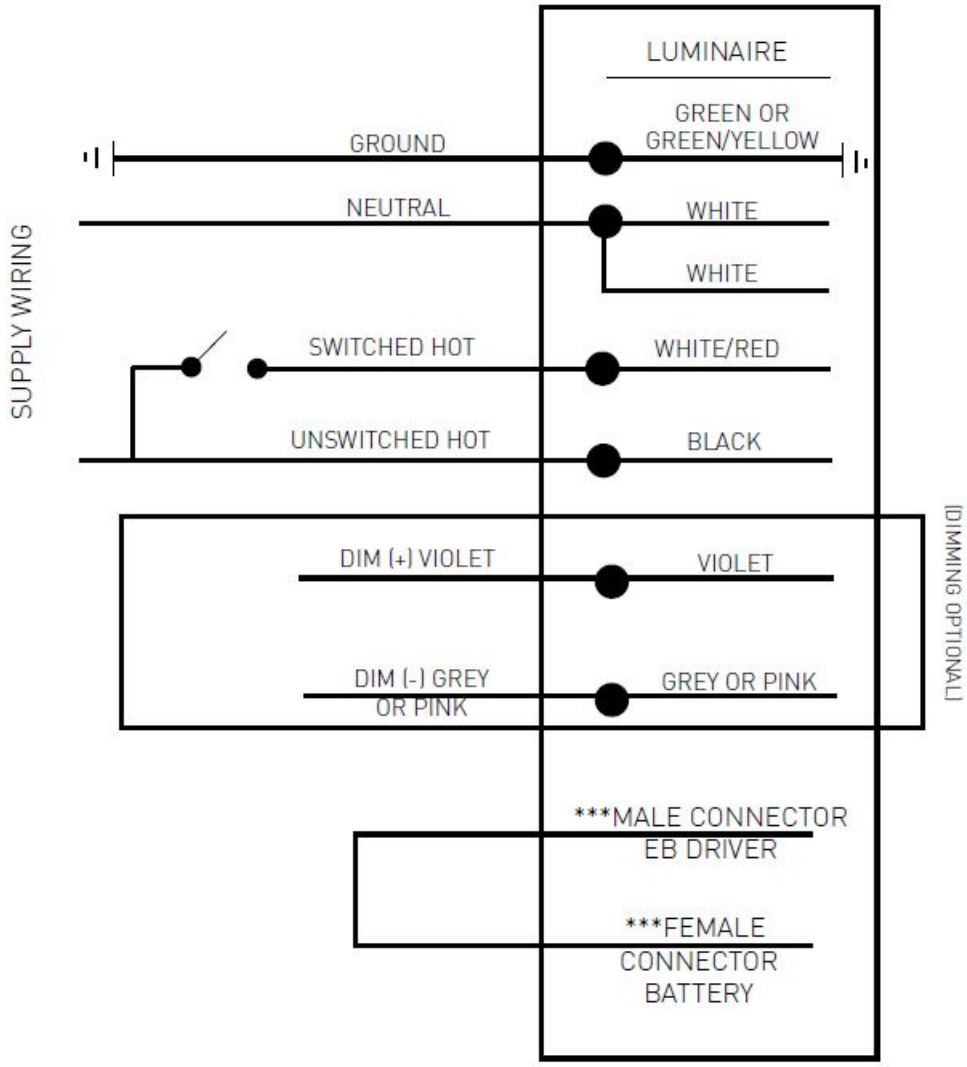


ELECTRICAL CONNECTIONS- ZRRK14-EB, ZRRK22-EB, AND ZRRK24-EB

NOTE: The emergency driver must be fed from the same branch as the AC Driver.

STEP 1:
Using customer supplied 90°C minimum rated wire connectors, make the following electrical connections:

- a. Connect the black luminaire lead to the unstitched voltage supply lead.
- b. Connect the white/red luminaire lead to the switched supply switched.
- c. Connect white luminaire lead to the neutral supply lead.
- d. Connect the green ground lead to the incoming ground lead from the conduit or screw the green ground lead to the existing troffer pan if the safety ground is made through the pan on the existing troffer If 0 -10V Dimming is used, connect the violet lead to the supply positive dimming lead.
- e. If dimming is not being used ensure to cap off the violet lead.
- f. If 0 -10V Dimming is used, connect the grey or pink lead to the supply negative dimming lead. If dimming is not being used ensure to cap off the grey or pink lead.
- g. Secure incoming dimming leads to the existing strain relief, to prevent contact with primary wiring.



STEP 2:
Locate the battery female connector to the male connector on the emergency driver.

***NOTE:** Do Not mate male connector from the emergency driver to the female connector from the battery until installation is complete and AC power is supplied

Documents / Resources

	e-conolight ZR-RK Series LED Retrofit Troffer Kit [pdf] Instruction Manual ZR-RK Series LED Retrofit Troffer Kit, ZR-RK Series, LED Retrofit Troffer Kit, Retrofit Troffer Kit, Troffer Kit, Kit

References

- Home - Cree Lighting