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

2. WARNING – Risk of fire or electric shock. LED Upgrade 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.

3. 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.

4. WARNING – Risk of fire or electric shock. Check the existing wiring for damage before installing upgrade kit. Do not install if existing wires are damaged.

5. WARNING – To prevent wiring damage or abrasion, do not expose wires to the edge of sheet metal or any other sharp objects.

6. 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.

7. The retrofit assembly is accepted as a component of a luminaire where the suitability of the combination shall be determined by ul or authorities having jurisdiction

8. 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.

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE

NOTES:

1. Upgrade Kit is for installation in a nominal 1x4 or 2x4 Listed dry or damp location fluorescent troffer, wrap or strip luminaire, with or without a diffuser. The luminaire shall have the following minimum dimensions:
   - 2-15/16” deep pan
   - 3” wide minimum wiring compartment
   - 43” minimum length to accommodate lightbars
   - Only ONE kit is to be installed per luminaire

2. Consult your local authority regarding disposal or recycling of removed ballast and lamp.

LIST OF SUPPLIED COMPONENTS

Upgrade UR2 Single Kit contains the following parts:

UR2-48 drivers are used with UR48 Light Bars only.
UR2-24 drivers are used with UR24 Light Bars only.

- (2) – LED lightbars
- (1) – Driver [may be packaged separately]
- (6) – Mounting Clips
- (8) – #6-20 Self Drilling Screws
- (1) - #8-32 Driver Mounting screw
- (1) - Relamping label

Upgrade UR3 Single Kit contains the following parts:

UR3-48 drivers are used with UR48 Light Bars only.
UR3-24 drivers are used with UR24 Light Bars only.

- (3) – LED lightbars
- (1) – Driver [may be packaged separately]
- (9) – Mounting Clips
- (12) – #6-20 Self Drilling Screws
- (1) - #8-32 Driver Mounting screw
- (1) - Extension Cable
- (1) - Relamping label
NOTE: The instructions below reflect the steps necessary for retrofit of a typical fluorescent troffer luminaire. These steps are functionally identical for retrofit of a typical wrap or strip luminaire.

STEP 1:
Locate latches on the lens frame and release them allowing lens frame to swing open. Carefully let lens frame hang. See Figure 1.

STEP 2:
Remove existing linear fluorescent tubes and properly dispose of them. See Figure 2.

STEP 3:
To remove the wiring compartment, squeeze the sides in and pull down and set aside. See Figure 3.

STEP 4:
Locate the existing ballast and remove the screw holding the ballast to the housing. Properly dispose of the screw. See Figure 3.

STEP 5:
To remove the ballast from housing, cut the leads from the ballast to the socket housing on both ends of the luminaire and cap socket leads. See Figure 4 and 5.
NOTE: When cutting leads, leave the smallest amount of wire attached to luminaire.
**STEP 6:**
Cut the leads from the ballast to the input power ensuring to leave as much length as possible for electrical connections. Remove ballast from housing and properly dispose of. See Figure 6.

**STEP 7:**
Push exposed socket leads back into socket housing on each side of the luminaire or cap any exposed accessible leads. See Figure 7.

**STEP 8:**
Prepare input power by stripping input power leads 1/4”. See Figure 8.

**STEP 9:**
Bring new driver into housing using mounting holes from old ballast and secure it using supplied #8-32 screw. Ensure that the existing luminaire housing is properly grounded to ensure proper driver grounding. See Figure 9.

**NOTE:** If housing has multiple locations for power supply, new driver can be secured in any of these locations.

**STEP 10:**
Make electrical connection per “Electrical Connections” section on page 5.

**NOTE:** Ensure that the driver is properly grounded to luminaire using supplied screw from Step 9.

**STEP 11:**
Bring wiring compartment previously removed in Step 3 into the housing. Carefully tuck all leads and wire connectors into the wire compartment. Reattach wire compartment by snapping into place over driver insuring no wires are pinched. See Figure 10.

**NOTE:** Route the driver outgoing leads through the wiring compartment allowing leads to be exposed through the end of the wiring compartment. See Figure 10.
STEP 12: Snap (3) supplied mounting clips onto each LED lightbar. See Figure 11.

STEP 13: Bring LED lightbar into housing and reposition clips on LED lightbar as needed. For temporary placement of LED lightbar the clips have magnets located on the bottom of the clip. Repeat this step for each LED lightbar supplied in kit.

STEP 14: Once all LED lightbars are in desired position permanently secure them to housing by inserting (2) supplied self tapping screws into each end of the LED lightbar. See Figure 12. NOTE: The middle bracket on the LED lightbar DOES NOT need to be secured.

STEP 15: Connect the power supply leads connector, that is exposed at the end of the wiring compartment with the LED lightbar connector. See Figure 13. NOTE: For UR3 kits an extension cord needs to be applied to the lightbar connector farthest from the wiring compartment and the power supply leads at the end of the wiring compartment. See Figure 14. NOTE: Place the relamp label, provided in the kit, on the lighting compartment. Make sure that the label is visible.

STEP 16: Close the lens door and secure the latches.
ELECTRICAL CONNECTIONS

Make the following Electrical Connections:

a. Connect the black fixture lead to the voltage supply Line position, S1 Hot 1 and S2 Hot 2.

b. Connect the white fixture lead to the neutral supply position.

c. For Step Dimming refer to the table.

<table>
<thead>
<tr>
<th>Power Output</th>
<th>Position S1</th>
<th>Position S2</th>
</tr>
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<tbody>
<tr>
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<td>On</td>
</tr>
<tr>
<td>50%</td>
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<td>Off</td>
</tr>
<tr>
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<td>On</td>
</tr>
<tr>
<td>0%</td>
<td>Off</td>
<td>Off</td>
</tr>
</tbody>
</table>

ELECTRICAL CONNECTIONS - 0-10V DIMMING (120-277VAC AND 347V MODELS)

STEP 1:
Connect power conduit and dimming conduit to access plates (and expanded J-Box if needed).

STEP 2:
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 or green/yellow ground lead to the supply ground lead.

d. If 0/1-10v Dimming is used, connect the violet lead to the supply positive dimming lead.

e. If 0/1-10v Dimming is used, connect the gray lead to the supply negative dimming lead.