



HIGH BAY RETROFIT (HBR) INSTALLATION INSTRUCTIONS

These instructions do not purport to cover all details or variations in components nor to provide for every possible contingency to be met in connection with installation, operation, or maintenance. Should further information be desired or should a particular problem arise which is not covered sufficiently for the purchaser's purpose, the matter should be referred to Linmore LED Labs. Linmore does not claim liability for any installation not performed according to this guide or not by a qualified electrician.

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 to a T5 or T8, nominal 4' fluorescent high bay.
2. Consult your local authority regarding disposal or recycling of removed ballast and lamps.

LIST OF SUPPLIED COMPONENTS:

1. ParaBar™ or URS Light Bars per Chosen Kit. Referred to as Light Bars hereafter.
2. LED Drivers(s) as Ordered
3. Optional: High Bay Adapter

LIST OF ITEMS INSTALLER MAY HAVE TO SUPPLY:

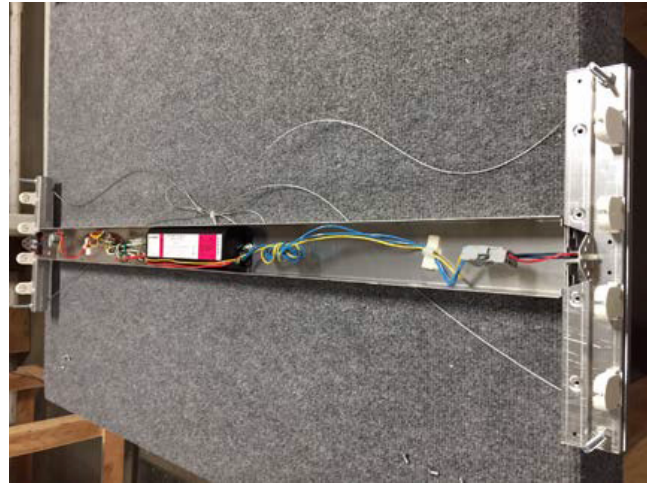
1. Additional wire to extend wire length or make jumpers
2. Wire nuts
3. Fasteners

NOTE: THE INSTRUCTIONS BELOW REFLECT THE STEPS NECESSARY FOR RETROFIT OF A TYPICAL NOMINAL 4' FLUORESCENT HIGH BAY.

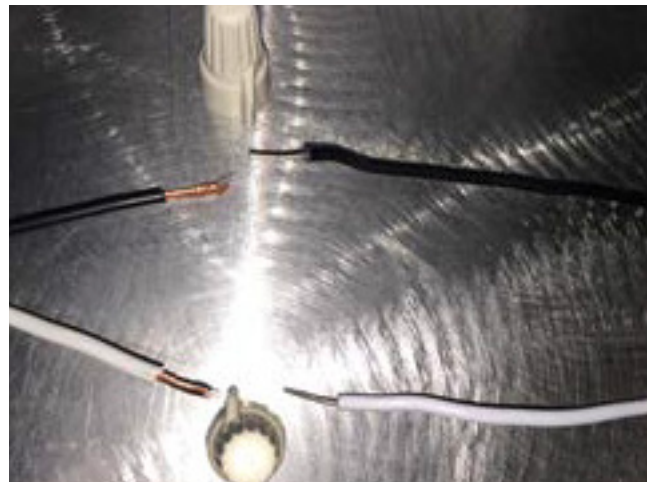
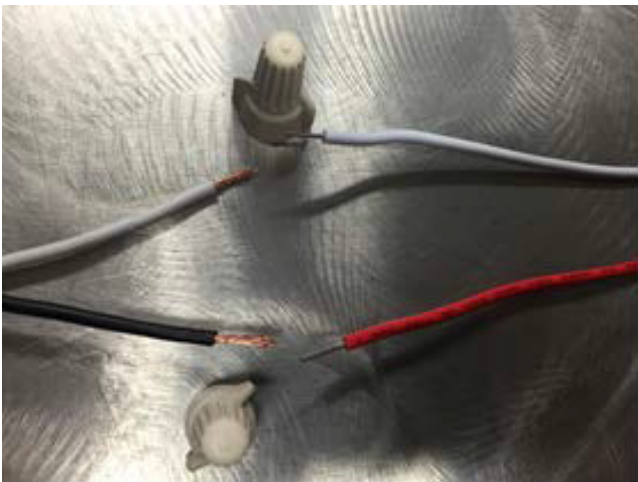
1. **Step 1:** Remove the fluorescent tubes and dispose of properly and in accordance with applicable laws.



2. **Step 2:** If equipped, remove the reflectors.



3. **Step 3:** Gain access to the existing fluorescent ballast(s).
4. **Step 4:** Cut the leads from the ballast to the lamp holder housing on both sides of the ballast. When cutting the leads, leave the smallest amount of wire attached to the lamp holders. Remove ballast from housing and dispose of properly.
5. **Step 5:** Optional: Remove the lamp holders.
6. **Step 6:** Prepare input power by stripping input power leads 5/8".
7. **Step 7:** Bring new driver into housing using mounting holes from old ballast when possible and secure it using supplied self-tapping screws. Ensure that the existing luminaire housing is properly grounded to ensure proper driver grounding.
8. **Step 8:** Make the input electrical connection per diagram on the face of the LED Driver. The White Input Wire is the Neutral. The Black or Red Input Wire is Line Voltage Input from 100 – 277 Volts. Ensure that the driver is properly grounded to the luminaire.



9. **Step 9:** The LED Driver comes standard with 0-10 Volt Dimming. The Red with White Stripe, Purple, and Grey wires on the output side of the driver are for dimming functions.

If the dimming functions will be used, this is the function of the dimming wires:

Purple: 0-10V + Dimming Input

Grey: 0-10V – Dimming Input

Red: Input Power Supply for Dimmer at 12 Volts (when required by dimming system).

10. **Step 10:** Reinstall any ballast/driver covers.

11. **Step 11:** Optional High Bay Adapter Plate: Mount the High Bay Adapter Plate to the fixture with appropriate fasteners. Each fixture is different and a qualified electrician will need to determine the appropriate fasteners to secure the Adapter Plate to the fixture. Bring the driver output leads through the provided slot at the end of the Adapter.



12. **Step 12:** Install the Light Bars on to the Adapter Plate or the fixture. It is the installer's responsibility to ensure that the proper type, style, and size of fastener is used to properly secure the Light Bars. Start a fastener for one end of the ParaBar in the chosen location. Slide one end of the Light Bar End Cap under the head of the fastener. Locate the opposite end of the Light Bar and set fastener in the chosen location. Go back to the fastener that was started and finish securing.

13. **Step 13:** Finish installing the remainder of the Light Bars in the manner described in Step 12.



14. **Step 14:** The Light Bars have a press-in style connector on each end visible through the clear end caps. The press-in connectors are both marked by color (red=positive and black=negative) and printed on the LED strip is "+" & "-" indications of the same, respectively.

15. **Step 15:** Restore the power supply to the fixture and ensure proper operation.