Lumination® LED Luminaire

Suspended Linear Retrofit Kit (LUR Series)

BEFORE YOU BEGIN

Read these instructions completely and carefully.

⚠ WARNING/AVERTISSEMENT

RISK OF FIRE OR ELECTRIC SHOCK

- Turn power off before inspection, installation or removal.
- Properly ground electrical enclosure.
- Follow all NEC and local codes.
- Only those open holes indicated in the photographs and/or drawings may be made or altered as a result of kit installation. Do not leave any other open holes in an enclosure of wiring or electrical components.
- LUR LED retrofit kit installation requires knowledge of luminaires electrical systems. If not qualified, do not attempt installation. Contact a qualified electrician.
- To prevent wiring damage or abrasion, do not expose wiring to edges of sheet metal or other sharp objects.
- Install this kit only in the luminaires that have the construction features and dimensions shown in the photographs and/or drawings and where the input rating of the retrofit kit does not exceed the input rating of the luminaire.
- Use only UL approved wire for input/output connections. Minimum size 18 AWG or 14 AWG for continuous runs.
- When using multi-branch wire circuits with a shared neutral, do not operate any circuit with the neutral open. Also ensure all neutral connections are secure before energizing the circuit. An open neutral can cause an overvoltage condition at the luminaire power supply.

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. CAN ICES-005 (A) / NMB-005 (A).

NOTE: 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.

Important Notes for Installation

IMPORTANT - Maximum Length of Electrical Run

Ensure that maximum safe working load of the fixture's suspension brackets is not exceeded after LUR retrofit kit is added.

Prepare Electrical Wiring

Electrical Requirements
The LED fixture must be supplied with 120-277VAC, 50/60Hz and protected by a max. 20A circuit breaker. Use min. 75°C supply conductor.

Grounding Instructions
The grounding and bonding of the overall system shall be done in accordance with National Electric Code (NEC) Article 600 and local codes.

IMPORTANT - Maximum Length of Electrical Run

	Lumen Code		
Voltage	[42] [84]	[52] [A0]	[62] [A2]
120V	232'	176'	160'
277V	536'	412'	369'

IMPORTANT - During Installation

1. When installing, use clean gloves in order to avoid fouling the reflective surface.
2. To ensure a clean fixture, install the fixture with the plastic bag around the fixture, and then remove plastic bag upon completion of any and all construction related activity.
3. All provided screws must be screwed in and tightened to ensure that the retrofit kit is safely attached to existing luminaire. Max torque: 33 lbf-in.
4. Minimum distance from ceiling to luminaire: 3".
5. Minimum distance between heat producing components: 3".
6. Minimum size of enclosure: the existing luminaire being retrofitted must have an electrical enclosure of 48" by 3" by 1.5" or greater.
7. It is recommended to use the optional tether kit (93064841) to ensure extra mechanical security on final install.
8. Do not remove spacers on the brackets' screws, as they are meant to stay on screws after installation.
9. Cap 0-10V dimming gray and purple wires (see Wiring Diagram) if not in use.

Save These Instructions

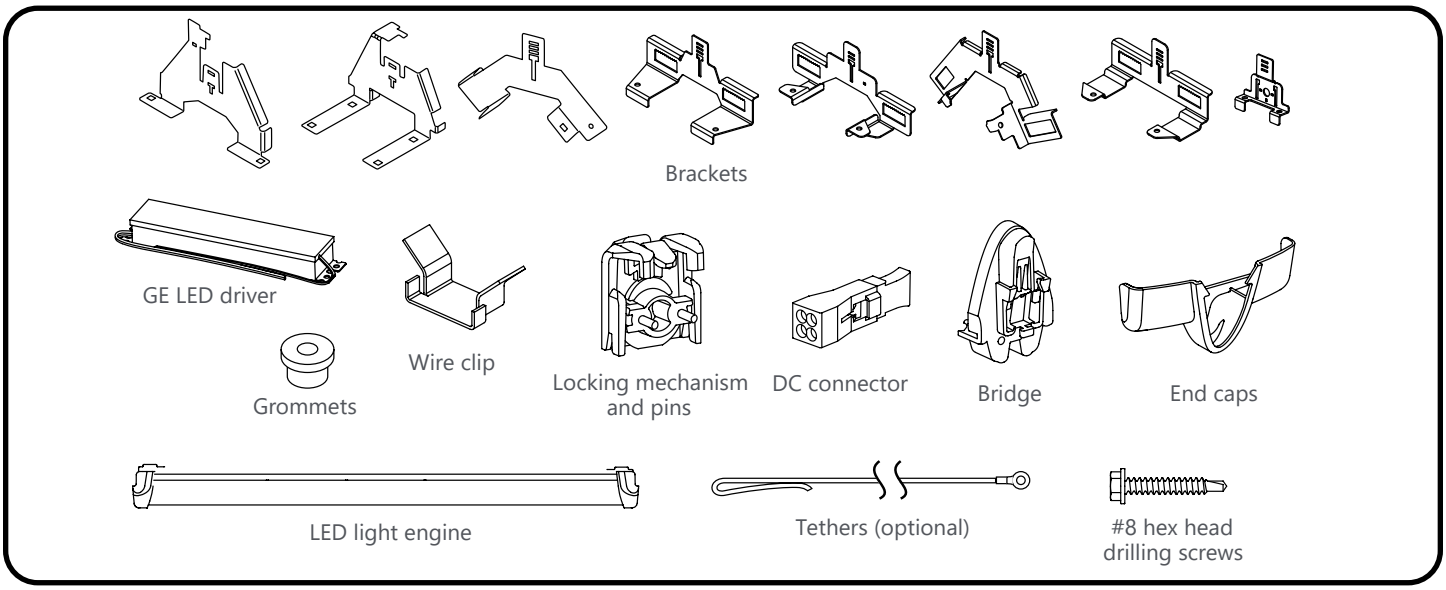
These instructions do not purport to cover all details or variations in components nor to provide for every possible contingency to be met in connection with installation, operation or maintenance. Should further information be desired or should particular problem arise which are not covered sufficiently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

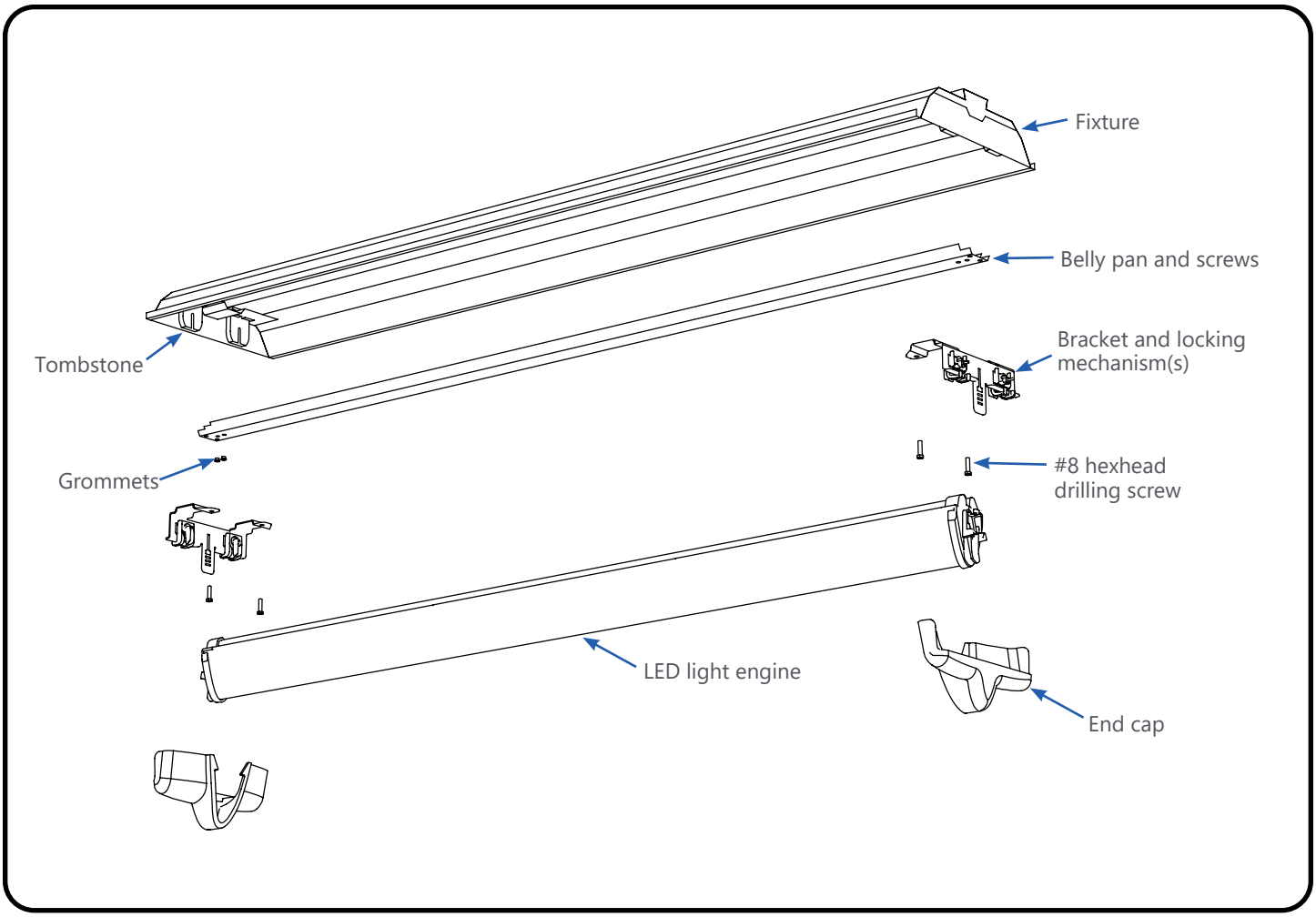
Required Tools

- Wire cutters/strippers
- Portable drill with 1/4" hex drive bit
- Punch tool 1/4"
- Screwdriver for ballast mounting screws

Components

NOTE: Appearance of components may vary slightly depending on fixture being retrofitted.





Important Notes When Handling

AK-LUR-A-T2-20-XXXX
Sensor holder with sensor will have Node Identification Label for customer's floor plan. Please do not throw away.

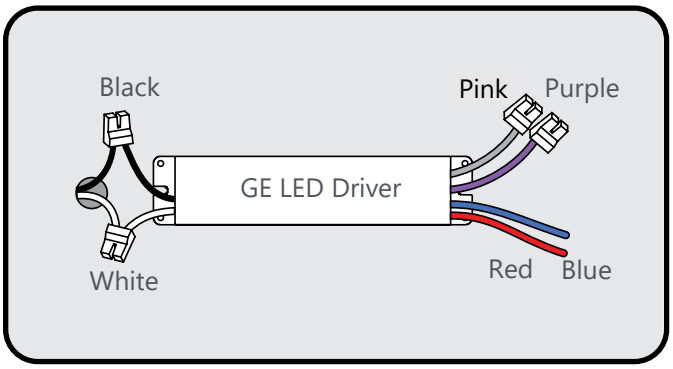
AK-LXX-A-LG-20-XXXX
Control module (PIHN-W005A) will have Node Identification Label for customer's floor plan. Please do not throw away

Installation of a Retrofit Kit

NOTE: Fixture shown below is an example; please follow steps as needed according to the fixture being retrofitted.

1. Remove the fluorescent tubes.

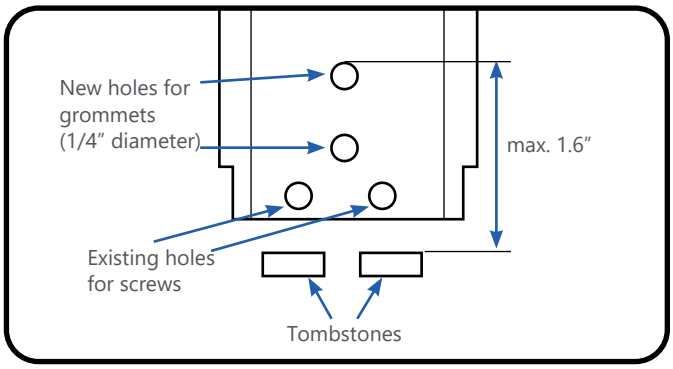
2. Open fixture (remove belly pan) and remove the old ballast.



3. Install LED driver using the ballast mounting screws and connect it to existing power previously utilized by the fluorescent ballast.

   NOTE: Connect 0-10V dimming wires (pink and purple) to dimming controllers or sensors; if not in use, cap these wires.

   NOTE: For additional control options, refer to page 13.

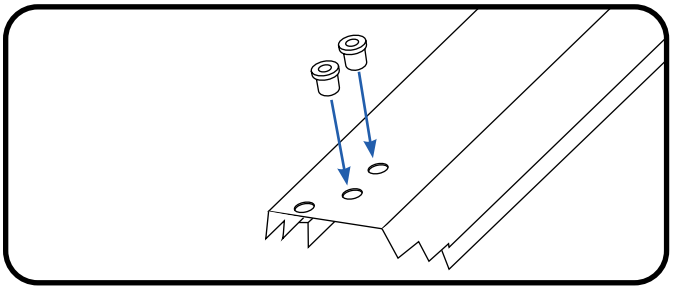


4. Make two 1/4" holes in belly pan using a punch tool.

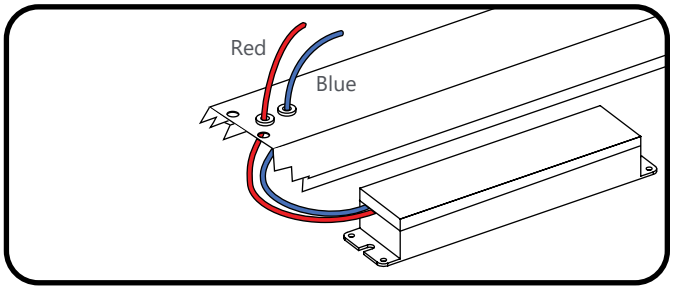
   NOTE: Locate the hole(s) wherever possible (examples shown) such that the belly pan does not deform and the red/blue wires of the driver can reach through to the red/black wires of the LED light engine.

   NOTE: Add additional holes as needed for sensor connection.

   NOTE: It is recommended to place the hole(s) such that each hole: is not visible below the fixture, does not require punching through multiple pieces of metal, and is a maximum of 1.6" (as shown) from the tombstones.



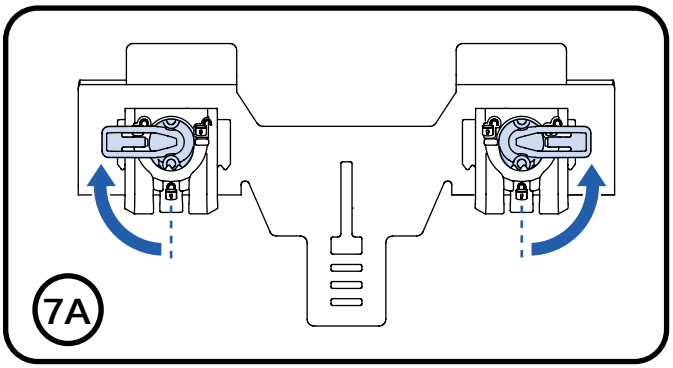
5. Insert grommets in belly pan.

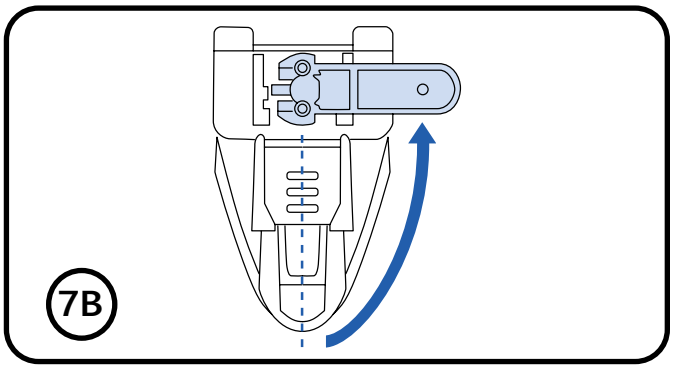


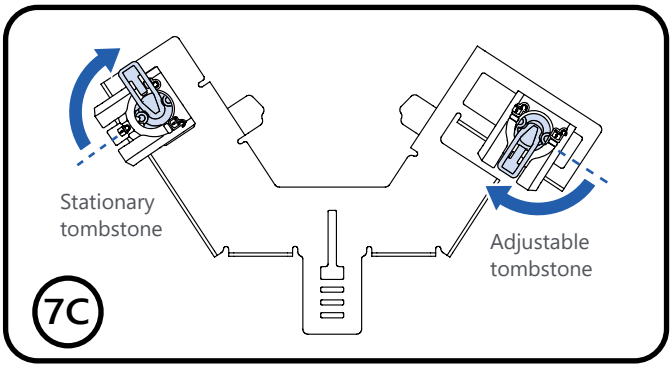
6. Pass red and blue wires of the LED driver through the grommets (one wire per grommet).

NOTE: The following brackets use a locking mechanism.

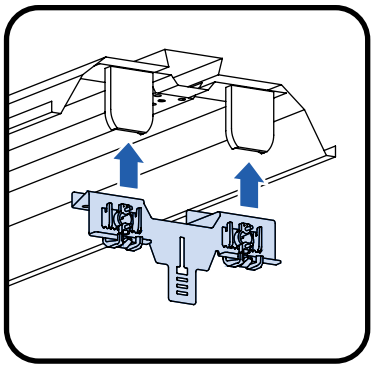
NOTE: All with tombstones come with one drilling screw. All brackets without tombstones come with two drilling screws.

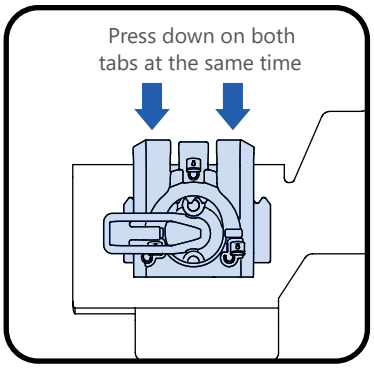


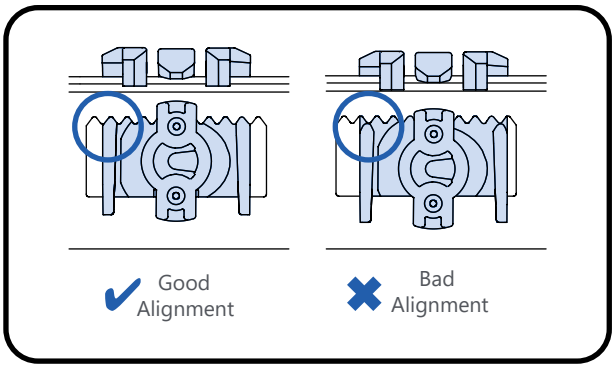




7 ***BRACKETS (A) OR (B) OR (C):*** Rotate the locking mechanism(s) on each bracket to the unlocked position as shown.

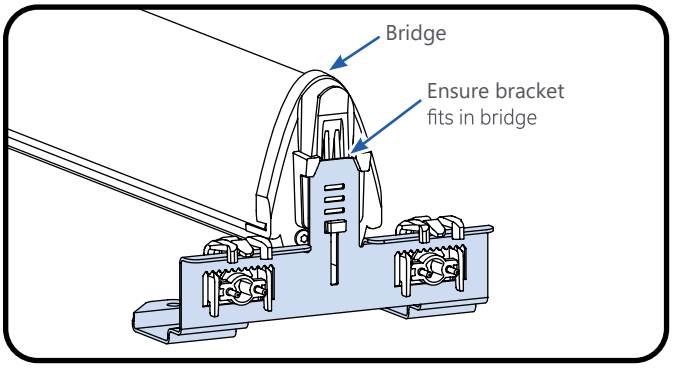


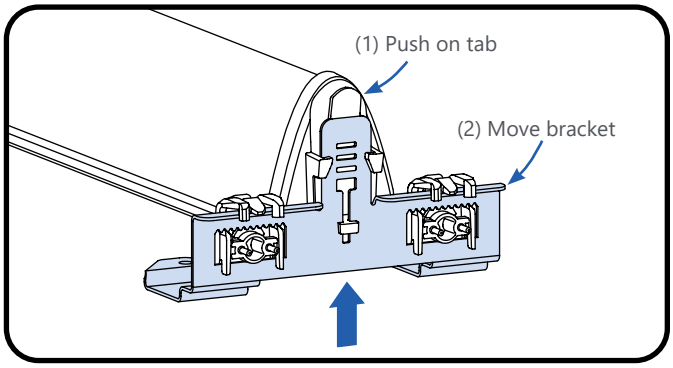




8 ***BRACKET (A):*** In the unlocked position, check if the pins from both locking mechanisms can slide into the slots in the fixture's tombstones at the same time (left). If they are not aligned, press down on the tabs and slide the mechanism left or right to match the distance between the tombstones (left). Check alignment and repeat until correct alignment found. Move locking mechanisms on all brackets to the same position before proceeding to next step.

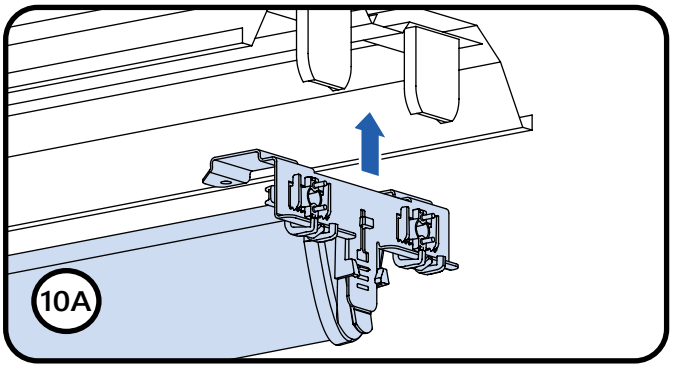
NOTE: The locking mechanism must be aligned on the bracket as shown (right).

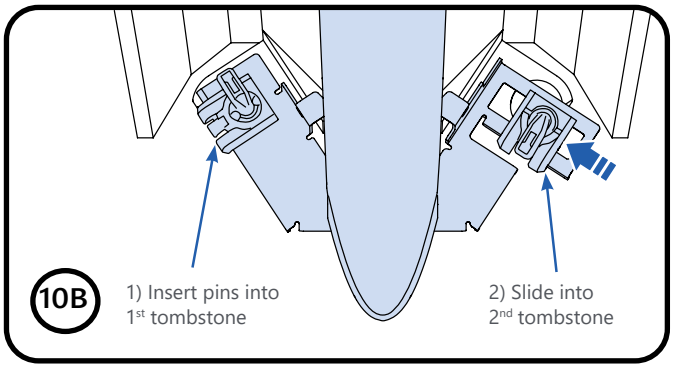




9 To install a bracket on each side of each LED light engine, place each bracket on the LED light engine as shown (left). While pushing back on the tab on the bridge, slide the bracket until the notch on the bridge falls into a slot on the bracket. Choose which slot depending on desired height of light engine (height can be adjusted after installation).

NOTE: Do not remove spacers on the brackets' screws, as they are meant to stay on screws after installation.



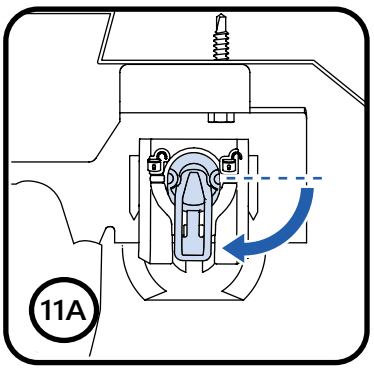


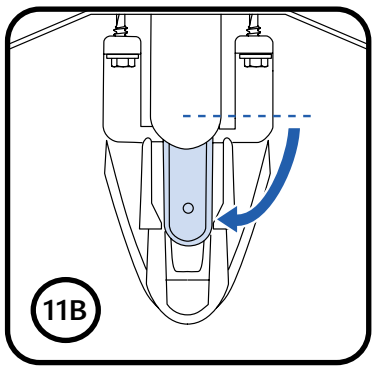
10 ***BRACKETS (A) OR (B):*** Insert the LED light engine in the tombstones. Ensure that the pins of the LED light engine are aligned with the tombstones.

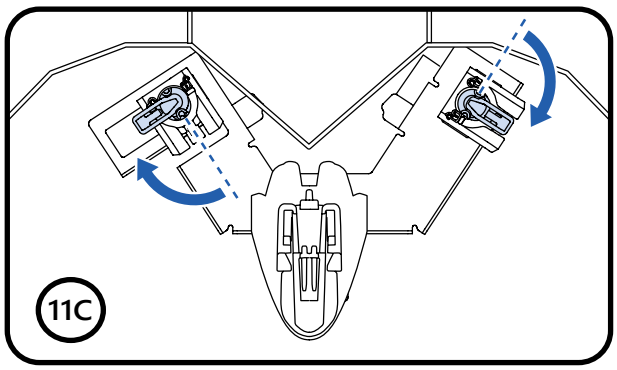
BRACKET (C): Insert the LED light engine in the tombstones: 1st insert the pins on the stationary locking mechanism into the corresponding tombstone, then slide the adjustable locking mechanism into its corresponding tombstone.

NOTE: If connecting two 4ft LED light engines to one 90W LED driver, ensure that the light engines are oriented such that the black and red wires of both light engines are next to each other in the center of the fixture, such that the wires can reach the same connector.

NOTE: Check that the LED light engine height is as desired. If not, adjust the fixture as shown in previous step. Before installing the rest of the fixtures, adjust all of the brackets to the same height (can also be adjusted after installation).







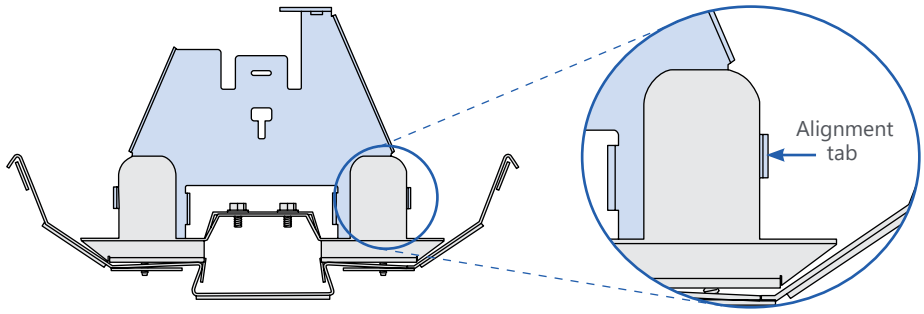
11 ***BRACKET (A) OR (B) OR (C):*** Lock the LED light engine in the tombstones by turning all locking mechanisms to the locked position as shown.

NOTE: The following brackets use an alignment mechanism.

12 Brackets below are for the following fixtures at different alignments:
NOTE: For all fixtures, bracket must be screwed into belly pan of fixture.

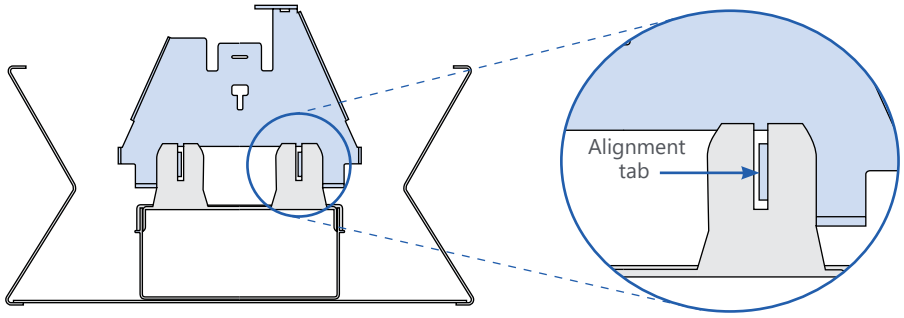
12A

BRACKET A: For GENLYTE fixtures, align the outer most tabs with the outer walls of the tombstones.



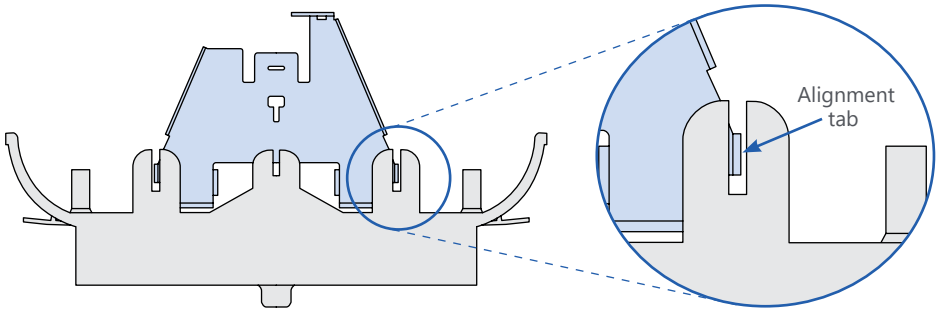
12B

BRACKET B: For DAYBRITE fixtures, align the inner most tabs with the tombstones.



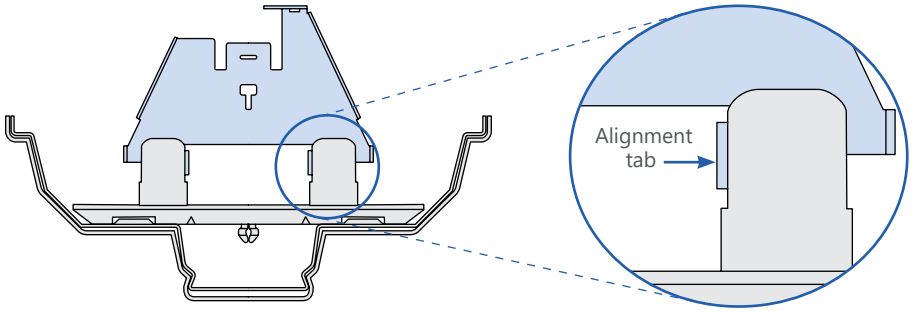
12C

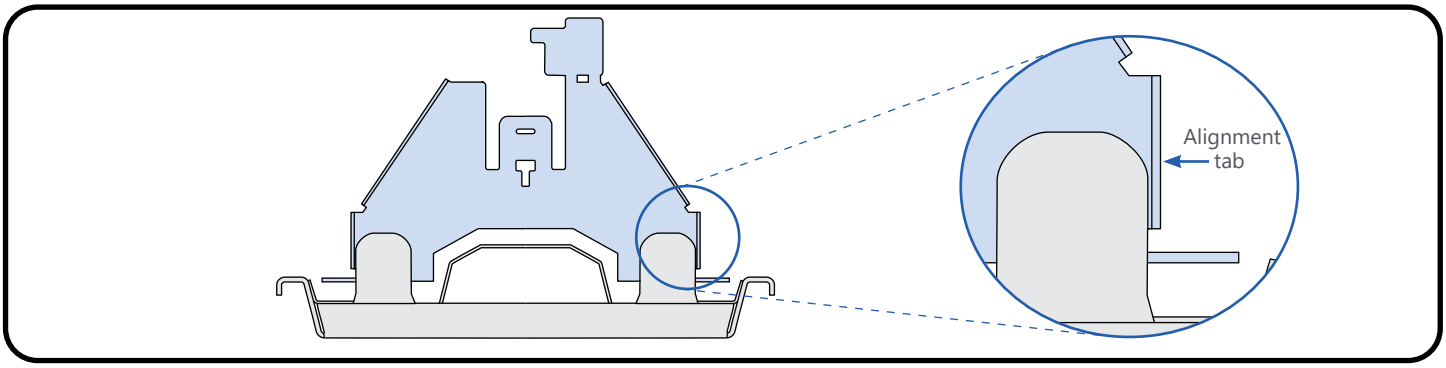
BRACKET C: For LSI fixtures, align the outer most tabs with the tombstones.



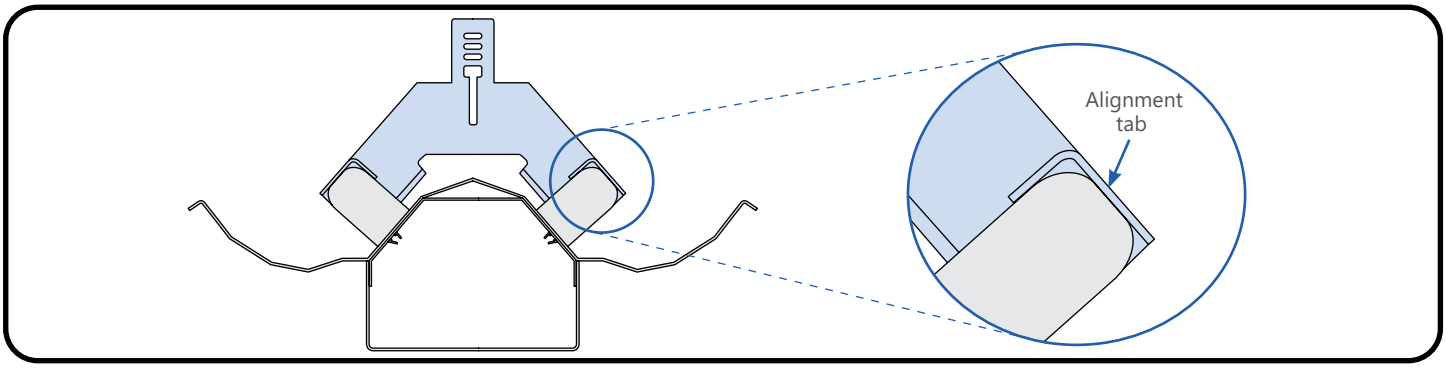
12D

BRACKET D: For LITHONIA fixtures, align the inner most tabs with the inner walls of the tombstones.

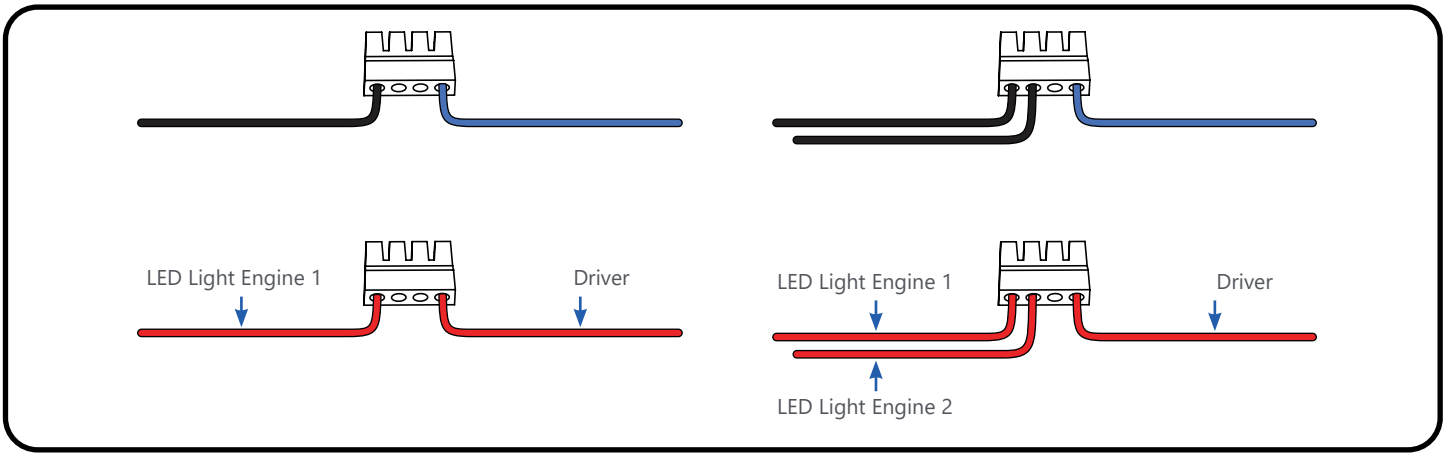


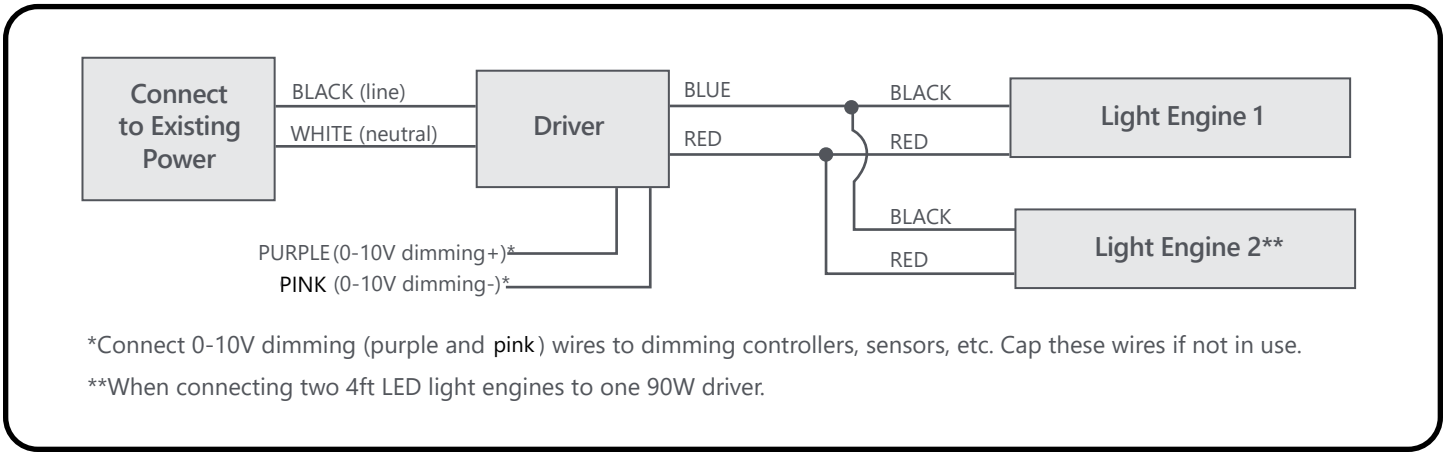


13 For the above bracket, align the outer tabs with the outer walls of the tombstones. Bracket must be screwed into the belly pan of LSI 2 fixtures.



14 For the above bracket, align the squared shaped tabs above the tombstones. Bracket must be screwed into the belly pan of HARRIS 2 fixtures.





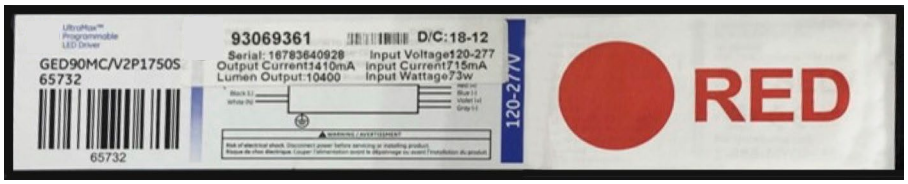
*Connect 0-10V dimming (purple and pink) wires to dimming controllers, sensors, etc. Cap these wires if not in use.

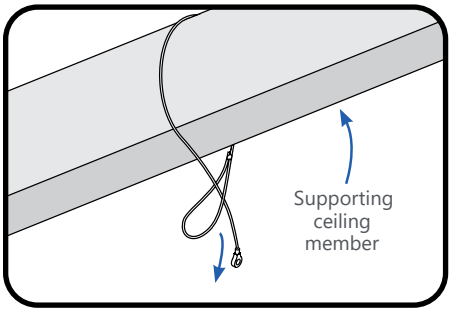
**When connecting two 4ft LED light engines to one 90W driver.

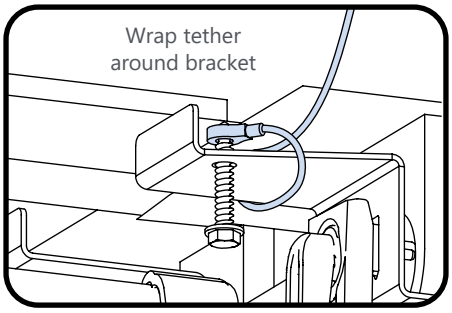
15 If not already connected, insert the blue wire from the LED driver into position “1” and the red wire into position “2” of the DC connector. Insert the black wire from the LED light engine into a position “1” and the red wire into the corresponding position “2” of the other half of DC connector (left). If the wires are long/very visible, push extra length back through the grommets. Ensure that wiring matches wiring diagram shown.

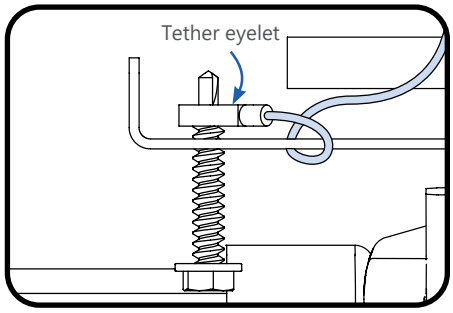
NOTE: If connecting two 4ft LED light engines to one 90W LED driver, ensure that the light engines are oriented such that the black and red wires of both light engines reach the DC connector; connect the black and white red from the second light engine into the two remaining positions in DC connector (right).

NOTE: For single 4ft LED light engines, must connect with provided 50W LED driver with a red label, as shown in the image below.

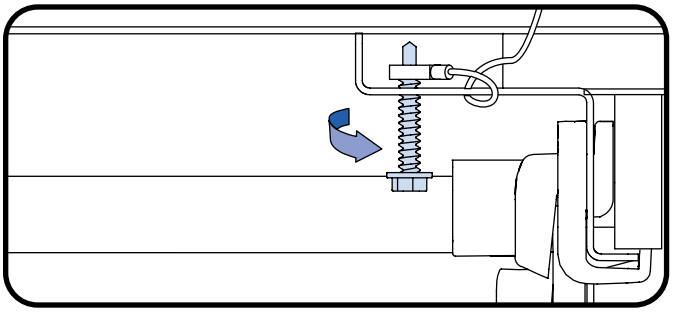








16 ***TETHER WILL BE PRE-INSTALLED ON THE BRACKET:*** Wrap the tether over a supporting ceiling member, and slip its loop around the fixture's metal bracket. (Example shown; choose wrapping location wherever possible). The eyelet will be placed between the screw and the bracket (right). For every row of fixtures , 2 tethers must be installed per 8ft for the first and last fixtures in the row. For all other fixtures, one tether must be installed per 8ft.

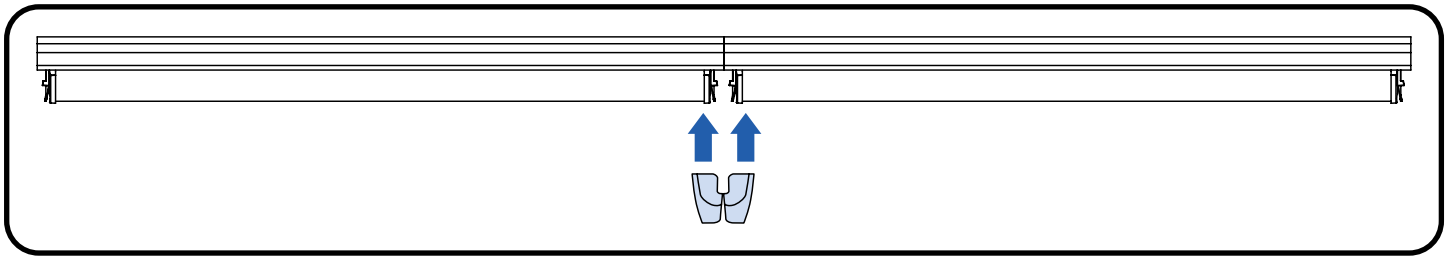


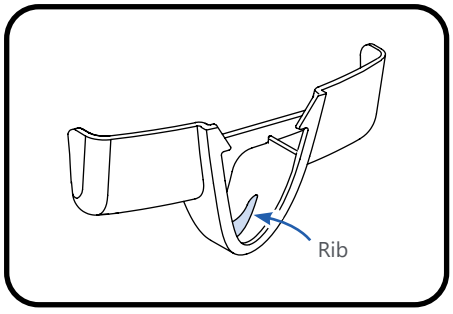
17 Screw brackets into fixture.

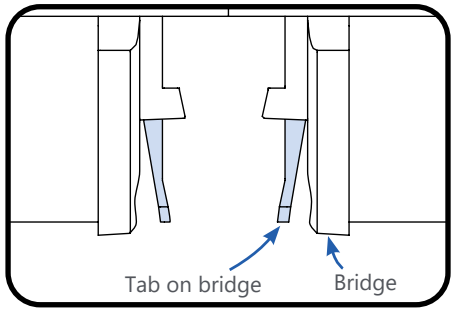
NOTE: Max torque is 33 lbf-in to avoid deforming bracket.

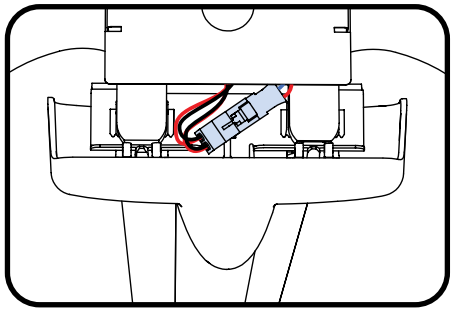
NOTE: Do not remove spacers on the brackets' screws, as they are meant to stay on screws after installation.

Variation of the Fixture 1





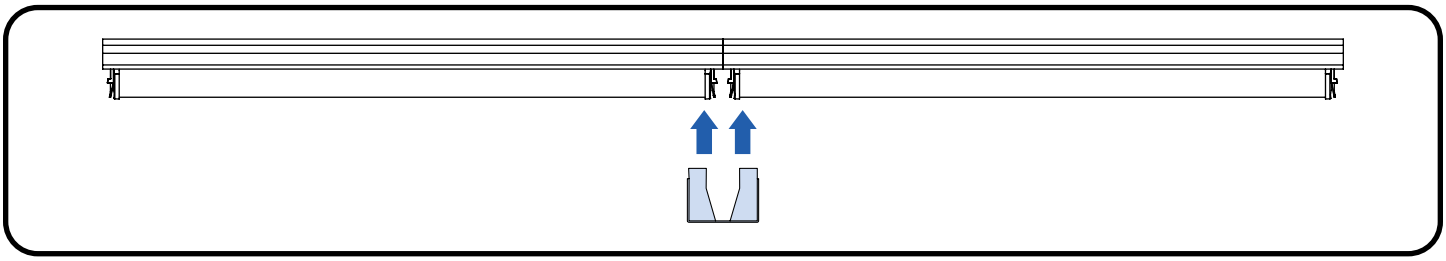


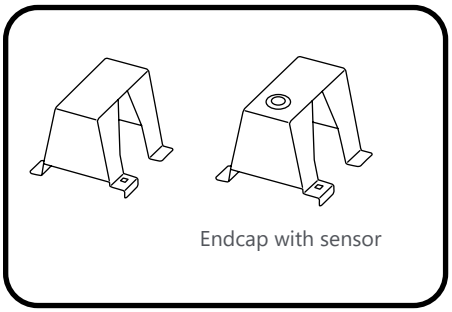


18 Install two plastic end caps in the middle on each side of each light engine (top). Ensure that the rib in the end cap (bottom left) fits between the bridge and its tab (bottom middle).

NOTE: Ensure that connector and wires are located within end cap after installation, ideally as shown (bottom right). If wires are too long, push extra wire length back into grommet. Failure to secure connector and wires within end cap may result in end cap not being mechanically secure.stay on screws after installation.

Variation of the Fixture 2



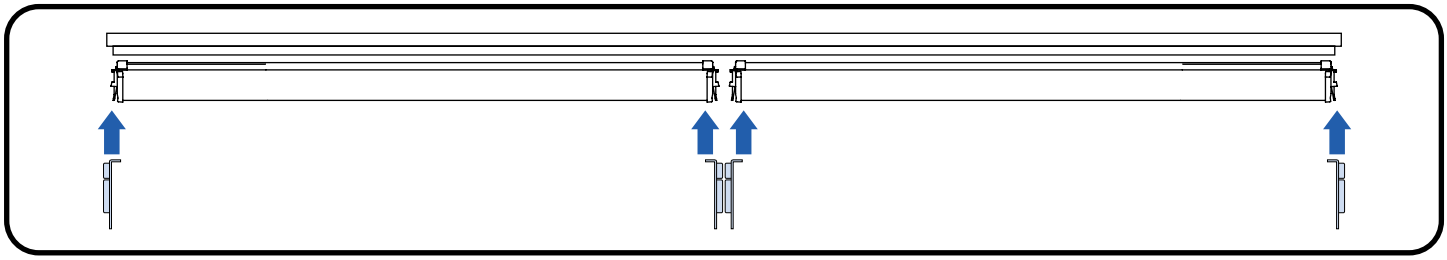


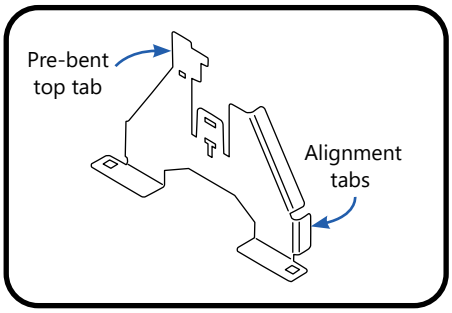
19 Install only one end cap in the middle on each side of each light engine (top).

NOTE: Ensure that connector and wires are located within end cap after installation. If wires are too long, push extra wire length back into grommet. Failure to secure connector and wires within end cap may result in end cap not being mechanically secure.

NOTE: For control option, the sensor will be attached with the appropriate wires for the connector in module.

Variation of the Fixture 3

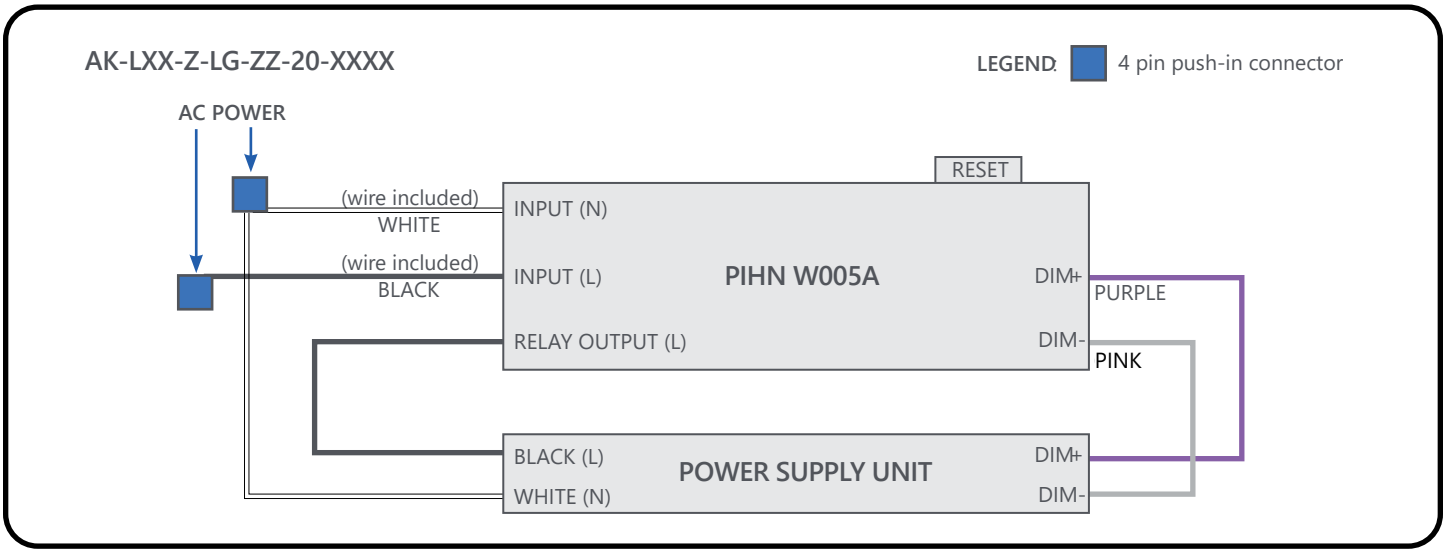




20 Bracket with bendable tab is meant to replace the plastic end caps. Brackets are shipped pre-bent. To connect the wires, un-bend the top tab to connect all necessary wires, then re-bend the top tab to cover the wires.

NOTE: Ensure that connector and wires are located within the bracket after installation. If wires are too long, push extra wire length back into grommet. Failure to secure connector and wires within end cap may result in end cap not being mechanically secure.

Wiring Diagrams



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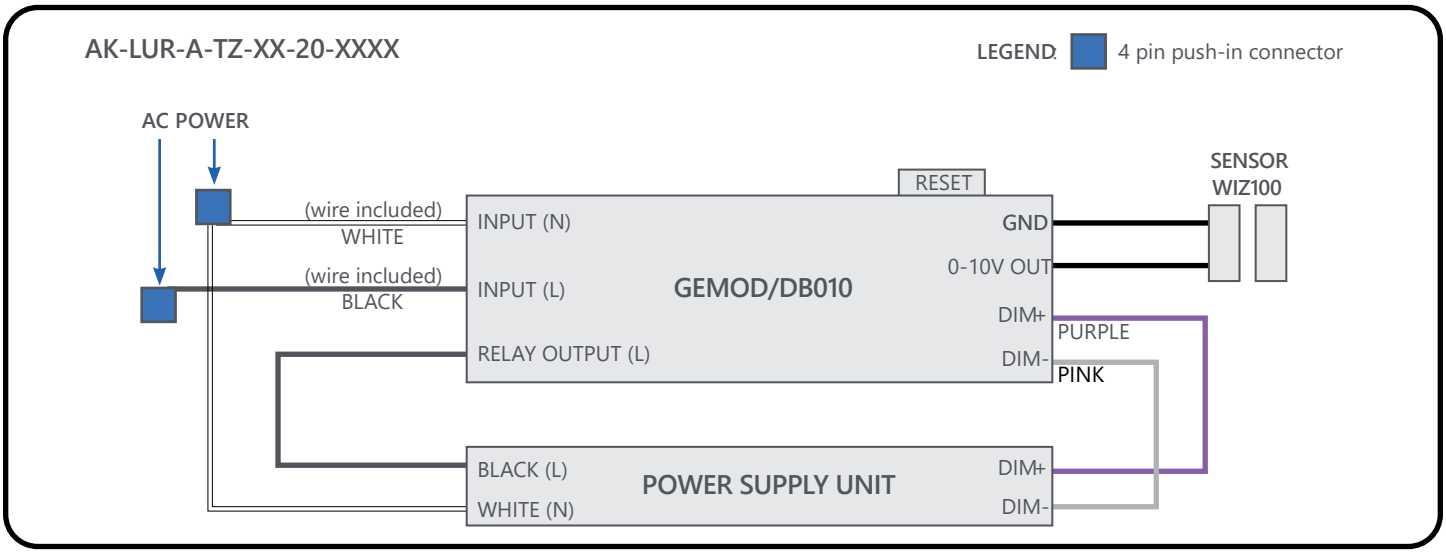

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Troubleshooting

Symptom	Solution
Luminaire will not turn on	• Check that the color of the supply side wires match the color of the wires they are connected to. • Check that all wire connectors are properly connected. • Verify that the input voltage is within specs.