**Lumination™ Controls Accessory**

**LCA Series, Controller Box**

**STOP**

**BEFORE YOU BEGIN**

Read these instructions completely and carefully.
Save these instructions for future use.

### WARNING / AVERTISSEMENT

<table>
<thead>
<tr>
<th>RISK OF FIRE OR ELECTRIC SHOCK</th>
<th>RISQUES D'INCENDIE OU DE DÉCHARGES ÉLECTRIQUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Turn power off before inspection, installation or removal.</td>
<td>• Coupez l'alimentation avant d'inspecter, installer ou déplacer le luminaire.</td>
</tr>
<tr>
<td>• Properly ground electrical enclosure.</td>
<td>• Assurez-vous de correctement mettre à la terre le boîtier d'alimentation électrique.</td>
</tr>
<tr>
<td>• Follow all NEC and local codes.</td>
<td>• Respectez tous les codes NEC et codes locaux.</td>
</tr>
<tr>
<td>• Do not make or alter any open holes in an enclosure of wiring or electrical components during kit installation.</td>
<td>• Ne pas percer ou altérer les trous d'un boîtier contenant fil ou composant électrique durant l'installation.</td>
</tr>
<tr>
<td>• Fixture may fall down if not installed properly, follow installation instructions.</td>
<td>• Le luminaire peut tomber s'il n'est pas installé correctement, suivre les instructions d'installation.</td>
</tr>
<tr>
<td>• Wear safety glasses and proper aid during installation and maintenance.</td>
<td>• Porter des lunettes de sécurité et les aides appropriées lors de l'installation et de l'entretien.</td>
</tr>
<tr>
<td>• Luminaire wiring and electrical parts may be damaged when drilling for installation of LED retrofit kit. Check for enclosed wiring and components.</td>
<td>• Câblage du luminaire et pièces électriques peuvent être endommagés lors du fraisage pour l'installation du kit de conversion à DEL. Vérifier le câblage et les composants clos.</td>
</tr>
<tr>
<td>• Install this kit only in the luminaires that has the construction features and dimensions shown in the photographs and/or drawings.</td>
<td>• Installez ce kit uniquement dans les appareils d'éclairage qui a les caractéristiques de la construction et les dimensions indiquées dans les photographies et/ou dessins.</td>
</tr>
<tr>
<td>• Above ceiling access required.</td>
<td>• Accès requis au-dessus du plafond.</td>
</tr>
</tbody>
</table>

**Prepare Electrical Wiring**

**Electrical Requirements**
The LCA Controller Box must be supplied with 120V/277V, 50/60Hz, for LCAMBXXXXFM.

**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.

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.

**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 Lighting does not claim liability for any installation not performed according to this guide or not by a qualified electrician.
Part identification

1 INSTALLATION

Part identification

2 DISCONNECT POWER

Disconnect incoming power to the fixture at the panel.

3 INSTALL UNIT IN CEILING

There are two mounting options for installing the unit in the ceiling application.

Option 1: Fasten box to stud/member with screws.
Use the two available holes in the box assembly to install two, #8 self-tapping screws and drive those into a stud or other supporting member. These holes may also be used for attaching to code approved mounting clips.

Option 2: Mounting Controller Box With Cable.
Use a flat head screw driver to fold the tabs (tab on each corner) on the box sides into a vertical position. Use to tie mounting cable or attach to rigid structure.

4 MAKE SUPPLY CONNECTIONS

Make supply (input) connections to the controller within the Controller Box Assembly. The installer will need to remove the top cover of the Controller Box. There will be leads provided with 2-port connectors for the installer to use to tap into for Black (hot) and White (Neutral) leads. The installer will also need to tap into a 4-port connector provided for the Ground connection. The installer should make certain to reference the label on the Controller Unit as there will be designation marks directing what leads are for “Input” and what leads are for “Output”.

Installation Tips:
- Refer to Wiring Diagram to identify proper connections.
- Installer should take note that there is a wire barrier or space within the enclosure that separates Class 1 and Class 2 wiring.
**Electrical Output Connections**

Make electrical output to fixture connections between the load (i.e., fixture) and Controller Box Assembly. The installer shall make the connection between the Black (Hot), White (Neutral) and Green (Ground) leads of the Controller Box Assembly and the corresponding fixture.

**Installation Tips:**
- Refer to Wiring Diagram to identify proper connections.
- The installer should note that there are 4-port connectors spliced in the output leads in the Controller Box to enable the installer to hook up the Controller Box unit to multiple fixtures. Use additional knockouts provided for these connections. The max output load is dictated by the controller unit - reference product label for output capacity. Reference Wire Compatibility table in Step 3 to understand the proper wire to use with the connectors.
- Installer should take note that there may be a barrier within the enclosure that separates high and low voltage wiring. If no barrier is provided keep the high and low voltage wires spaced apart within the box.

**2-Port & 4-Port Connectors Wire Compatibility**

<table>
<thead>
<tr>
<th>Wire Range</th>
<th>1/2&quot; strip length</th>
<th>3/8&quot; strip length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid</td>
<td>12-20 AWG</td>
<td>12-22 AWG</td>
</tr>
<tr>
<td>Stranded</td>
<td>12-14 AWG (≤19 strand)</td>
<td>12-14 AWG (≤19 strand)</td>
</tr>
<tr>
<td></td>
<td>16 AWG (≤19 strand)</td>
<td>16 AWG (≤26 strand)</td>
</tr>
<tr>
<td>Tin Bonded</td>
<td>14-18 AWG (≤19 strand)</td>
<td>14-20 AWG (≤19 strand)</td>
</tr>
</tbody>
</table>

**Dimming Output Connections**

Make 0-10V dimming electrical connections between the load (i.e., fixture) and Controller Box Assembly. The installer shall make the connection between the Violet (+), and Gray (-) leads of the Controller Box Assembly and the corresponding fixture.

![Dimming Output Connections Diagram]
**7 WIRING DIAGRAMS**

![Wiring Diagrams]

**8 INSTALL SENSOR**

Position and install sensor in the ceiling using provided hardware (if applicable).

**9 LIGHT UP SELF-TEST**

A. Luminaire with Enlighted Sensor – LCAMBXXQNFM

When the luminaire is turned on for the first time, it will perform a self-light up test with Enlighted Sensor. When power is applied to the system, a red LED should turn on the sensor for less than 1 second and then turn off. Following this, the luminaire will dim from 100% to 20% and then back up to 100%. Finally, the green LED will turn on the sensor. This completes the check.

**Questions**

For any further questions related to the sensor, please contact the following representatives:
- For SKUs LCAMBXXSQFM, please contact GE Lighting at 1-888-694-3533
- For SKUs LCAMBXXTQFM, please contact GE Lighting at 1-888-694-3533
- For SKUs LCAMBXXTSFM, please contact GE Lighting at 1-888-694-3533
- For SKUs LCAMBXXQNFM, please refer to www.enlightedinc.com

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