

IMPORTANT SAFEGUARDS

INSTALLATION INSTRUCTIONS INSTRUCTIONS D'INSTALLATION

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

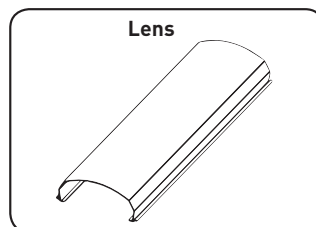
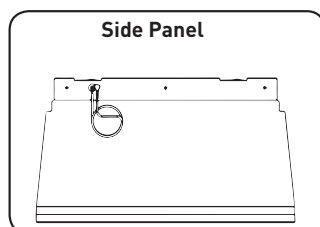
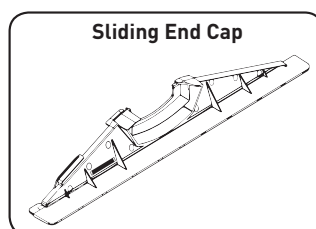
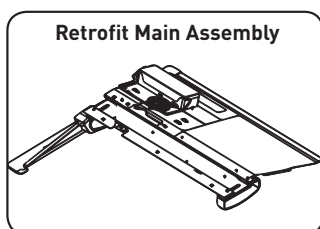
READ AND FOLLOW ALL SAFETY INSTRUCTIONS

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.**
ATTENTION - Risque d'incendie ou de choc électrique. Câblage électriques peuvent être endommagés lors du perçage pour l'installation du kit upgrade LED. Vérifier les fils et composants.
3. **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.**
ATTENTION- Risque d'incendie ou de choc électrique. L'installation du kit upgrade LED exige la connaissance des systèmes électriques pour luminaires. Si non qualifié, ne tentez pas d'installation. Ce produit doit être installé conformément à NEC ou votre code électrique local. Si vous n'êtes pas familier avec ces codes et ces exigences, veuillez contacter un électricien qualifié.
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.**
ATTENTION - Risque d'incendie ou de choc électrique. Installez ce kit seulement dans les luminaires qui ont les caractéristiques de construction et les dimensions dans les photographies ou les dessins de la page suivante.
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.**
Seulement les trous indiqués dans les photographies ou les dessins peuvent être faits ou altérés pour l'installation du kit upgrade LED. Ne laissez aucun trou ouvert dans le compartiment électrique.
6. **WARNING – To prevent wiring damage or abrasion, do not expose wires to the edge of sheet metal or any other sharp objects.**
ATTENTION - Pour éviter les dégâts de câblage par l'abrasion, ne pas mettre en contact les fils électriques avec des bords de tôle ou d'autres objets pointus.
7. **CAUTION: Changes or modifications not expressly approved could void your authority to use this equipment.**
8. **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

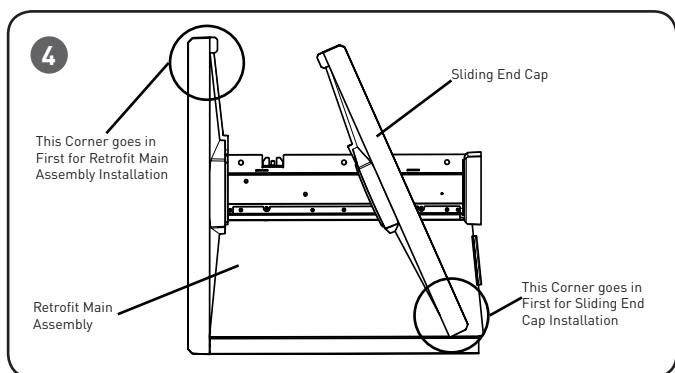
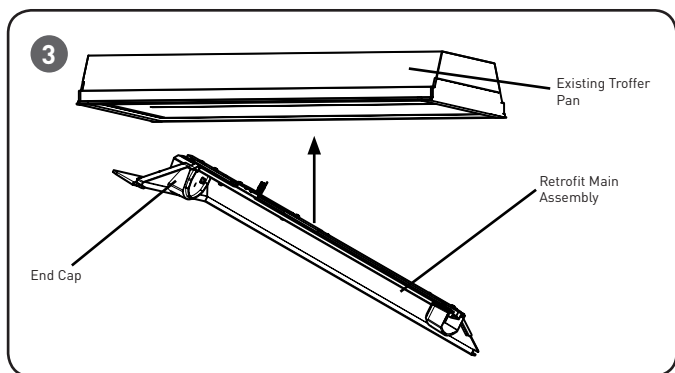
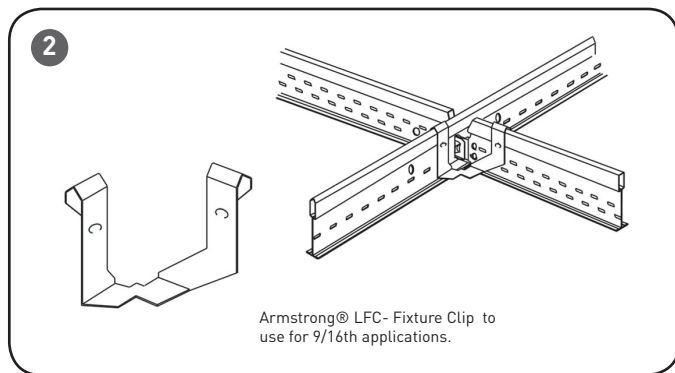
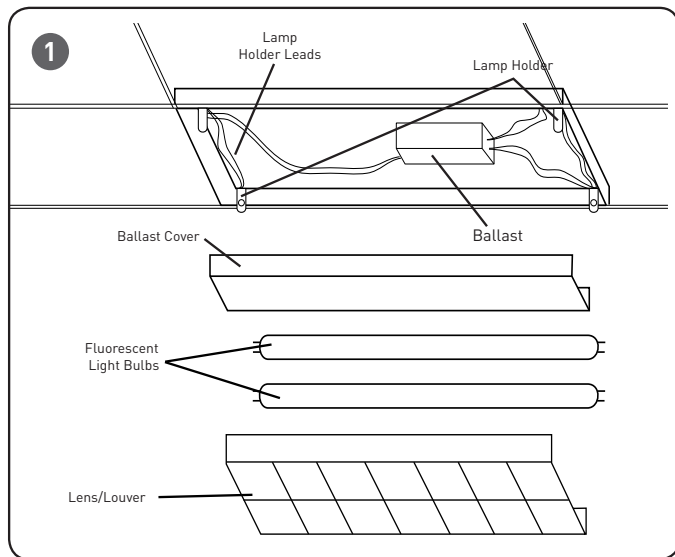
Kit contains the following parts:



NOTES:

1. Upgrade Kit is for installation in 2x2 or 2x4 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:
 - 2x2 – 23.5" (W) x 23.5"(L) x 3" (H)
 - 2x4 – 23.5" (W) x 47.5"(L) x 3" (H)
4. Designed for use in 120-277V 50-60 Hz protected circuit (fuse box, circuit breaker). Supply wire sized as per NEC or governing code(s), 90C rated.
5. Products with the -EB suffix are provided with a factory-installed emergency lighting LED battery pack and are eligible to serve as part 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 illuminance 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.
9. ** Not intended for use with 9/16" T-Bar grids unless used with a 9/16" accessory clip like "Armstrong® LFC- Fixture Clip" which can be purchased through distribution. Consult factory for non-standard grid applications. Refer to **Figure 2**.

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, unless 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

NOTE: Bring the sliding end cap with you while installing the retrofit main assembly to have for Step 2. The sliding end cap has a belt hook feature that allows for easy carrying on your belt loop. The sliding end cap needs to be installed in Step 2 before stepping away or letting go of the main assembly to ensure the retrofit is secured into existing troffer pan.

STEP 1:

Bring the retrofit main assembly into the existing troffer pan at an angle as shown in **Figure 3**. Insert the corner of the main assembly that is circled in **Figure 4** into the corner of the existing troffer pan between the existing troffer pan and the t-grid. Then slide the other end of the main assembly into the existing troffer pan. Gently push the full main assembly up into the existing troffer pan. Ensure that the end cap is flushed with the ceiling grid and that there are no gaps.

NOTE: Do not let go off the assembly until Step 2 is finished.

STEP 2:

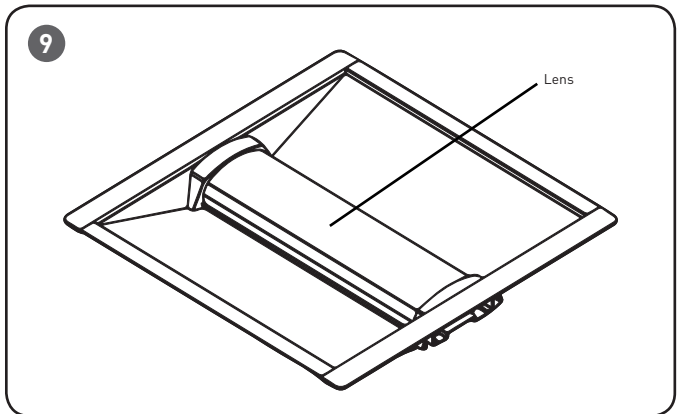
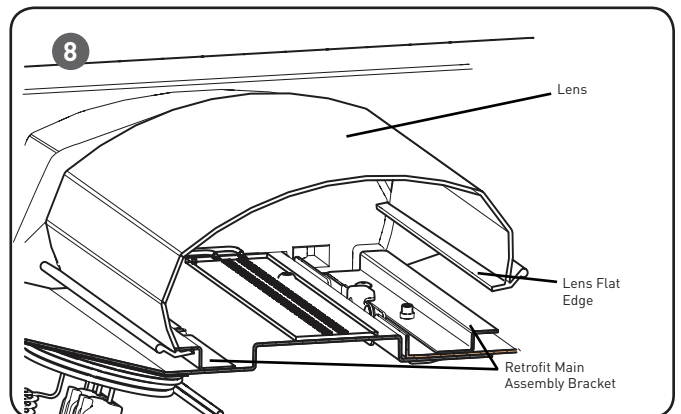
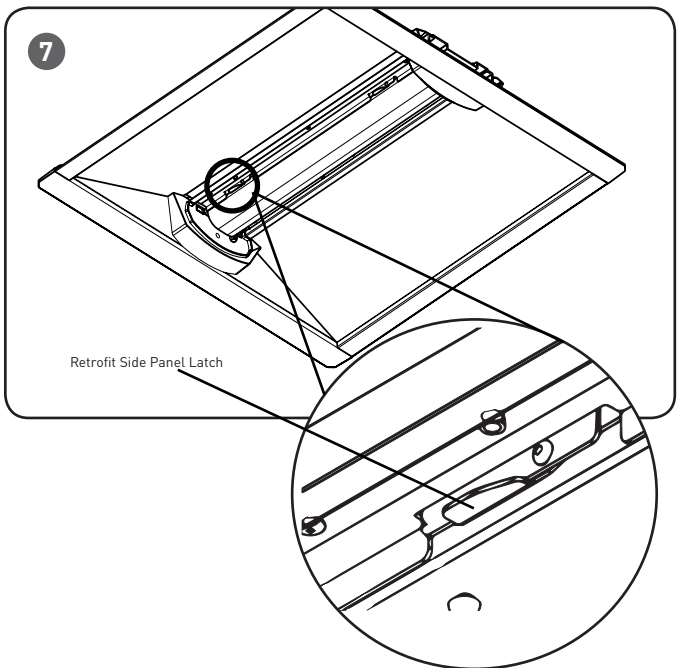
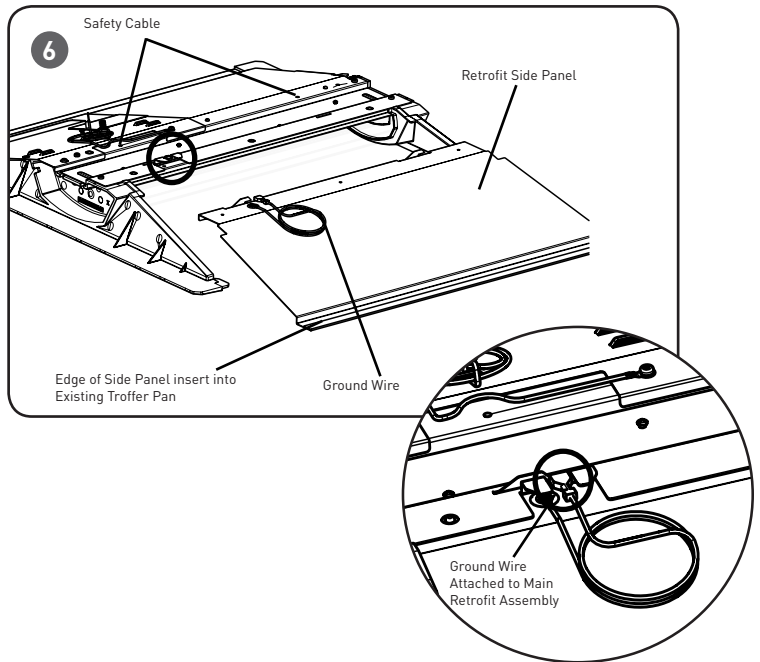
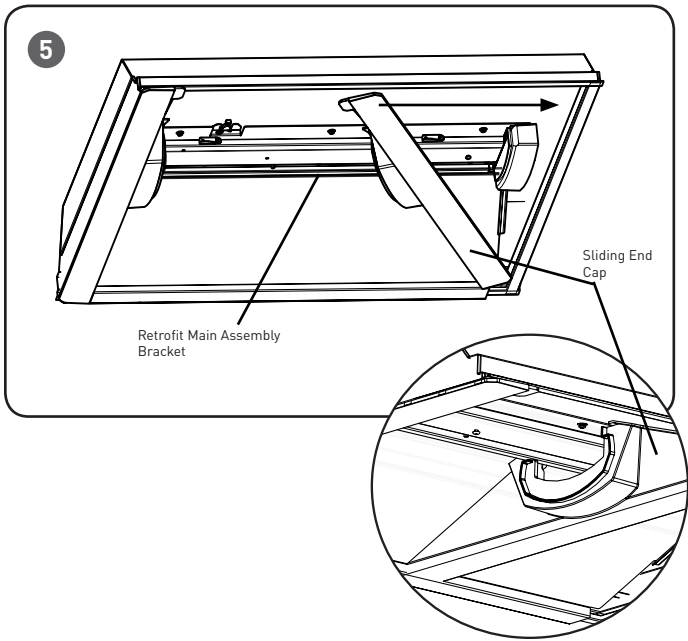
While holding onto the retrofit main assembly insert the corner of the sliding end cap that is circled in **Figure 4** into the corner of the existing troffer pan between the existing troffer pan and the t-grid. Then attach the sliding end cap over the retrofit main assembly bracket. Once attached over the bracket slide the other end of the sliding end cap into place. Ensure that the sliding end cap and the main assembly are flushed together and that there are no gaps between the two. See **Figure 5**.

STEP 3:

Make wiring connections per the **Electrical Connections** section.

STEP 4:

Attach the safety cables to the existing troffer pan. Attach one end of each safety cable to the top of the existing troffer pan using supplied #8 self drilling screws.



STEP 5:

Remove the pink EPE plastic foam from over the LEDs by removing each piece of blue tape.

STEP 6:

Bring the retrofit side panel up to the existing troffer pan and connect the ground wire on the back of the side panel to the retrofit main assembly as shown in **Figure 6**. Tuck the ground lead up into the main assembly.

STEP 7:

Insert the edge of the side panel, that is opposite of latches, between the existing troffer pan and t-grid. Then insert the other side into the retrofit main assembly by engaging the 2 latches on the side panel into the 2 slots on the main assembly. See **Figure 6 and 7**.

NOTE: Make sure not to pinch any wires, all wires should be tucked up inside the main assembly.

STEP 8:

Install the lens over the LEDs by putting the lens flat edge over one side of the bracket located on the main assembly. While pushing on the middle of the lens, to widen the lens, insert the other flat end of the lens over the other side of the bracket. See **Figure 8 and 9**.

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)

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

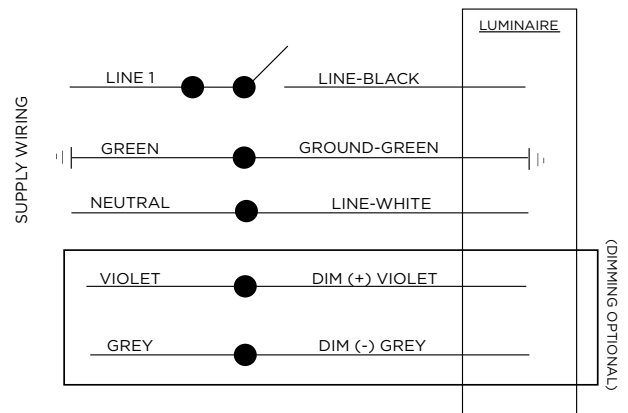
ELECTRICAL CONNECTIONS

FOR ZR22RK and ZR24RK :

STEP 1:

Make the following Electrical Connections:

- Connect the black fixture lead to the voltage supply Line position, Hot.
- Connect the white fixture lead to the neutral supply position.
- 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 0/1-10V 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.
- If 0/1-10V Dimming is used, connect the grey lead to the supply negative dimming lead. If dimming is not being used ensure to cap off the grey lead.



ELECTRICAL CONNECTIONS

FOR ZR22RK-EB and ZR24RK-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:

- Connect the black luminaire lead to the unswitched voltage supply lead.
- Connect the white/red luminaire lead to the switched supply switched.
- Connect white luminaire lead to the neutral supply lead.
- Connect ground bare or green/yellow 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 0/1-10V 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.
- If 0/1-10V Dimming is used, connect the gray lead to the supply negative dimming lead. If dimming is not being used ensure to cap off the gray lead.

STEP 2:

Locate the two red leads in the junction box and connect them using customer supplied connector.

