TROFFER RETROFIT INSTALLATION
RTLED1X4, 2X2 & 2X4

Thank you for buying RAB lighting fixtures. Our goal is to design the best quality products to get the job done right. We'd like to hear your comments. Call the Marketing Department at 888-RAB-1000 or email: marketing@rablighting.com

IMPORTANT
READ CAREFULLY BEFORE INSTALLING FIXTURE. RETAIN THESE INSTRUCTIONS FOR FUTURE REFERENCE.

RAB fixtures must be wired in accordance with the National Electrical Code and all applicable local codes. Proper grounding is required for safety. THIS PRODUCT MUST BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE INSTALLATION CODE BY A PERSON FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THE PRODUCT AND THE HAZARDS INVOLVED.

Make certain power is OFF before installing or maintaining fixture.

SAFETY INSTRUCTIONS

WARNING - Risk of fire or electric shock. Luminaire wiring and electrical parts may be damaged when drilling for installation of LED retrofit kit. Check for enclosed wiring and components.

WARNING - Risk of fire or electric shock. Install this kit only in 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.

Only those open holes indicated in the 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.

Do not make or alter any open holes in an enclosure of wiring or electrical components during kit installation.

WARNING - To prevent wiring damage or abrasion, do not expose wiring to edges of sheet metal or other sharp objects to lampholder lead wires by employing applicable connectors.

RECESSED CEILING MOUNTING

The fixture is suitable only for INDOOR RECESSED CEILING application. To mount in an insulated or non-insulated ceiling exposed Flat Tee Grid Ceiling follow the steps below.

1. Remove existing lamps, door frame (if applicable), reflector and cover. Depending on clearance space, ballast may need to be removed.

2. Gently lift the original luminaire housing and slide in both side brackets between the housing and the T-grid. Lower the housing to rest on the brackets, securing them in place. (fig. 1 & 2)

3. Hang the retrofit kit body by hooking the T-hinges into the respective on one mounting brackets. (fig. 3)

4. Attach the safety cables to the original luminaire housing using the self-tapping hex screws provided.

5. Connect the retrofit kit power to the AC power. Insert the black wire (line) from the power into the provided LED quick connector marked with a black circle. Insert the white wire (neutral) into the unmarked port. Connect the power supply to the retrofit kit.

6. Wire the existing fixture's green wire (ground) to the retrofit kit’s green wire. If a ground wire is missing from the power supply, attach the retrofit kit’s ground wire directly to the luminaire housing.

7. For 4ft long fixtures, secure the housing by locking to the side bracket. Secure the left and center bracket together and then right side latch. Be sure the side bracket is pushed close to retrofit kit.
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0-10V DIMMABLE WIRING
Universal voltage driver permits operation at 120V thru 277V, 50 or 60 Hz. 0-10V control wires must be rated for 300V minimum. For 0-10V Dimming, follow the wiring directions shown below.
1. Connect the black fixture lead to the LINE supply lead.
2. Connect the white fixture lead to the COMMON supply lead.
3. Connect the GROUND wire from fixture to supply ground. Do NOT connect the GROUND of the dimming fixture to the output.
4. Connect the violet fixture lead to the (V+) DIM lead.
5. Connect the gray fixture lead to the (V-) DIM lead.

CLEANING & MAINTENANCE
CAUTION: Be sure fixture temperature is cool enough to touch. Do not clean or maintain while fixture is energized.
1. Clean polycarbonate lens & fixture with non-abrasive cleaning solution.
2. Do not open fixture to clean the LEDs. Do not touch the LEDs.

TROUBLESHOOTING
1. Check that the line voltage at fixture is correct. Refer to wiring directions.
2. Be sure the fixture is grounded properly.

Note: These instructions do not cover all details or variations in equipment nor do they provide for every possible situation during installation, operation or maintenance.
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TROFFER RETROFIT RTLED 1X4 2X2 2X4
LED EMERGENCY BATTERY BACK UP INSTALLATION INSTRUCTIONS

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WARNING: Make certain power is OFF before installing or maintaining fixture.

THIS IS AN EMERGENCY BATTERY BACKUP FIXTURE THAT CONTAINS A RECHARGEABLE NICKEL-CADMIUM BATTERY. THE BATTERY MUST BE RECYCLED OR DISPOSED OFF PROPERLY.

SAFETY INSTRUCTIONS

WARNING - Risk of fire or electric shock. Luminaire wiring and electrical parts may be damaged when drilling for installation of LED retrofit kit. Check for enclosed wiring and components.

WARNING - Risk of fire or electric shock. Install this kit only in 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. Only those open holes indicated in the 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. Do not make or alter any open holes in an enclosure of wiring or electrical components during kit installation.

WARNING - To prevent wiring damage or abrasion, do not expose wiring to edges of sheet metal or other sharp objects. If necessary, remove connections to lampholder lead wires by employing applicable connectors.

RECESSED CEILING MOUNTING
The fixture is suitable only for INDOOR RECESSED CEILING application. To mount in an insulated or non-insulated ceiling exposed Flat Tee Grid Ceiling follow the steps below.

1. Remove existing lamps, door frame (if applicable), reflector and cover. Depending on clearance space, ballast may need to be removed.
2. Gently lift the original luminaire housing and slide in both side brackets between the housing and the T-grid. Lower the housing to rest on the brackets, securing them in place. (fig. 1 & 2)
3. Hang the retrofit kit body by hooks the T-hinges into the respective on one mounting brackets. (fig. 3)
4. Attach the safety cables to the original luminaire housing using the self-tapping hex screws provided.
5. Connect the retrofit kit power to the AC power. Insert the black wire (line) from the power into the provided LED quick connector marked with a black circle. Insert the white wire (neutral) into the unmarked port. Connect the power supply to the retrofit kit.
6. Wire the existing fixture’s green wire (ground) to the retrofit kit’s green wire. If a ground wire is missing from the power supply, attach the retrofit kit’s ground wire directly to the luminaire housing.
7. For 4ft long fixtures, secure the housing by locking to the side bracket. Secure the left and center bracket together and then right side latch. Be sure the side bracket is pushed close to retrofit kit.
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LED EMERGENCY BATTERY BACK UP INSTALLATION INSTRUCTIONS

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WIRING
CAUTION: THIS IS AN EMERGENCY BATTERY BACKUP FIXTURE. Voltage could be present in Battery. To prevent high voltage from being present on output leads, inverter connector must be open. Do not join inverter connector until installation is complete and AC power is supplied to the emergency ballast.

NOTE: Make sure that the necessary branch circuit wiring is available. An unswitched AC source of power is required. The emergency ballast must be fed from the same branch circuit as the AC ballast. Do not use any supply voltage other than those specified below.

1. Connect the UNSWITCHED black fixture lead to the HOT supply lead.
2. Connect red and black lead together, if not using a switching method.
3. If switching, connect SWITCHED red lead to a switch.
4. Connect the COMMON fixture lead to the COMMON supply lead.
5. For 0-10V Dimming, connect DIM (+) purple lead and DIM (-) gray lead to 0-10V dimmer. Do not connect the yellow lead.
6. Connect the GROUND wire from fixture to supply ground. Do NOT connect the GROUND of the dimming to the output.
7. All unused leads must be capped and insulated.
8. After installation is complete, supply AC power to the emergency ballast and join the inverter connector.
9. At this point, power should be connected to both the AC ballast and the emergency ballast, and the Charging Indicator Light should illuminate indicating the battery is charging.
10. A short-term discharge test may be conducted after the emergency ballast has been charging for one hour. Charge for 24 hours before conducting a long-term discharge test. Refer to OPERATION.

OPERATION
1. When AC power is applied, the charging indicator light is illuminated, indicating that the battery is being charged.
2. When power fails, the emergency ballast automatically switches to emergency power (internal battery), operating at reduced illumination. The emergency ballast supplies 7W of power (measured at nominal battery voltage) at a maximum rated current of 270mA with a maximum voltage of 50VDC in emergency mode for a minimum of 90 minutes.
3. When AC power is restored, the emergency ballast automatically returns to charging mode.

CLEANING
CAUTION: Be sure fixture temperature is cool enough to touch. Do not clean or maintain while fixture is energized.

1. Clean polycarbonate lens & fixture with non-abrasive cleaning solution.
2. Do not open fixture to clean the LEDs. Do not touch the LEDs.

MAINTENANCE
Although no routine maintenance is required to keep the emergency ballast functional, it should be checked periodically to ensure that it is working. The following schedule is recommended:

1. Visually inspect the charging indicator light monthly. It should be illuminated.
2. Test the emergency operation of the fixture at 30-day intervals for a minimum of 30 seconds.
3. Conduct a 90-minute discharge test once a year. Fixture would operate at reduced illumination for a minimum of 90 minutes.

To reduce the risk of electric shock, disconnect both normal and emergency power supplies and converter connector of the emergency ballast before servicing. Do not attempt to service the emergency ballast. The use of accessory equipment may cause an unsafe condition. Do not use this product for other than intended use. Refer any servicing indicated by these checks to a Qualified Service Personnel.

TROUBLESHOOTING
1. Check that the line voltage at fixture is correct. Refer to wiring directions.
2. Be sure the fixture is grounded properly.

Note: These instructions do not cover all details or variations in equipment nor do they provide for every possible situation during installation, operation or maintenance.
WIRING DIAGRAM for EMERGENCY OPERATION at 120V-277V

Emergency Ballast and AC Ballast must be fed from the same circuit.