Highbay Rail™ 95W/ 150W/ 185W/ 225W Installation Instructions

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@rabweb.com

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

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.

WARNING: Make certain power is OFF before installing or maintaining fixture. No user serviceable parts inside.

Mounting Fixture to Ceiling
Mount Housing to sturdy ceiling structure as follows:

1. **V Hooks (2)** are provided for chain mounting. Secure **V Hooks** through **Bracket Hole** at back of **Housing** as in **Fig. 1**.

2. Connect to two (2) equal lengths of chain (by others) and/or appropriate hardware (by others) suitable for mounting surface, to suspend **Housing** from **V Hooks**.

3. Fixture mounting height and spacing should be determined by application requirements. Use chain suitable to support four (4) times the weight of the fixture.

4. **Brackets (2)** should be positioned near end of Housing as shown in **Fig. 2**. Secure **Housing** to ceiling mounting surface and adjust **Brackets** evenly to ensure **Housing** is stabilized.

5. If ordered with **LOSBAY800** sensor (suffix /LOS) or similar sensor or LightCloud controller, re-attach pre-wired sensor on **Side Cap** to **Housing**. Tighten **Side Cap Screw** as shown in **Fig. 3**.

6. Remove **Access Plate** and feed supply wire with strain relief conduit connector through **Access Plate** and make electrical connections as shown in wiring diagram. Use approved wiring connectors and wire to local NEC codes. Push all wires back into **Housing**. Be careful not to pinch wires.

7. Secure **Access Plate** and tighten **Screws (2)**.

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Fig. 1

Fig. 2

Fig. 3
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Installation Instructions

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0-10V Dimmable Wiring
Universal voltage driver permits operation at 120V thru 277V, 50 or 60 Hz. Units ordered with (/480/D10) suffix are 480V, 50Hz or 60Hz. For 0-10V Dimming, follow the wiring directions as in Fig. 4.
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.
4. Connect the purple fixture lead to the (V+) DIM lead.
5. Connect the gray fixture lead to the (V-) DIM lead.
6. Cap the yellow fixture lead, if present. Do NOT connect.

Bilevel Dimmer Option
For 100% light output (disabling the dimmer), splice red wire with black line wire.
For chosen output only, leave red wire capped.
For Bilevel Function, connect red wire to switched device.
1. Determine what % light output is desired and set switch prior to installation. Options are: 25%, 50%, and 75%.
2. Connect purple wire with driver's purple wire.
3. Connect gray wire with driver's gray wire.
4. Connect black wire with driver and supply line wires.
5. Connect white wire with driver and supply neutral wires.

Cleaning & Maintenance
CAUTION: Be sure fixture temperature is cool enough to touch. Do not clean or maintain while fixture is energized.
1. Lens should be washed in a solution of warm water and any mild, non abrasive household detergent, rinsed with clean water and wiped dry. Do not use chemicals to clean fixture.
2. Do not open fixture to clean the LED. Do not touch the LED.

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.
IMPORTANT
READ CAREFULLY BEFORE INSTALLING FIXTURE. RETAIN THESE INSTRUCTIONS FOR FUTURE REFERENCE.
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.
WARNING: Make certain power is OFF before installing or maintaining fixture. No user serviceable parts inside.

MOUNTING Fixture TO CEILING
Mount Housing to sturdy ceiling structure as follows:

FOR PENDANT MOUNTING
1. Choose length of 3/4” NPS Pendant Stem (supplied by others).
2. Loosen screws (2) and remove Side Panel as shown in Fig. 1.
3. Loosen Screws (4) and slide Pendant Box from Pendant Box Plate/ Housing as shown in Fig. 2a.
4. Secure Pendant Stem to the clearance hole on Pendant Box using Locknut and Support Nut (supplied by others) as shown in Fig. 2b. Add thread locking compound and tighten locknut/nut to prevent fixture rotation.
5. Slide Pendant Box onto Pendant Box Plate/ Housing and tighten Screws (4).
6. Feed supply wires through Pendant Stem. Wire the housing leads to supply wires using UL listed wire connectors according to NEC and local codes in the Pendant Box. Push all wires back into Pendant Box. Be careful not to pinch wires.
7. Replace Side Panel and tighten screws (2) as shown in Fig. 1.
8. If ordered with LOSBAY800 sensor (suffix /LOS) or similar sensor or LightCloud™ controller, re-attach pre-wired sensor on Side Cap to Housing. Tighten Side Cap Screw as shown in Fig. 3.

FOR SURFACE MOUNTING
1. Follow Step 2 and 3 in For Pendant Mounting section.
2. Mount Pendant Box to ceiling by drilling out Drill Out Locations as shown on Fig. 4. Use appropriate mounting hardware suitable for the mounting surface.
3. Slide Pendant Box onto Pendant Box Plate/ Housing and tighten Screws (4).
4. Wire the housing leads to supply wires using UL listed wire connectors according to NEC and local codes in the Pendant Box. Push all wires back into Pendant Box. Be careful not to pinch wires.
5. Replace Side Panel and tighten screws (2) as shown in Fig. 1.
6. Follow Step 8 in For Pendant Mounting section, if ordering with sensor/ controller option.
CEILING MOUNT DRILL OUT LOCATIONS
(Not to scale)

BILEVEL DIMMER OPTION
For 100% light output (disabling the dimmer), splice red wire with black line wire.
For chosen output only, leave red wire capped.
For Bilevel Function, connect red wire to switched device.
1. Determine what % light output is desired and set switch prior to installation.
   Options are: 25%, 50%, and 75%.
2. Connect purple wire with driver’s purple wire.
3. Connect gray wire with driver’s gray wire.
4. Connect black wire with driver and supply line wires.
5. Connect white wire with driver and supply neutral wires.

CLEANING & MAINTENANCE
CAUTION: Be sure fixture temperature is cool enough to touch. Do not clean or maintain while fixture is energized.
1. Lens should be washed in a solution of warm water and any mild, non-abrasive household detergent, rinsed with clean water and wiped dry. Do not use chemicals to clean fixture.
2. Do not open fixture to clean the LED. Do not touch the LED.

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

0-10V DIMMABLE WIRING
Universal voltage driver permits operation at 120V thru 277V, 50 or 60 Hz. Units ordered with (/480/D10) suffix are 480V, 50Hz or 60Hz. For 0-10V Dimming, follow the wiring directions as in Fig. 5.
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.
4. Connect the purple fixture lead to the (V+) DIM lead.
5. Connect the gray fixture lead to the (V-) DIM lead.
6. Cap the yellow fixture lead, if present. Do NOT connect.
   NOTE: Do not connect DIM V+ (purple)/ DIM V- (gray) to line voltage or supply ground.


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.
Highbay Rail™ 95W/ 150W/ 185W/ 225W
Emergency Battery Backup Instructions

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IMPORTANT

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WARNING: Make certain power is OFF before installing or maintaining fixture. No user serviceable parts inside.

MOUNTING FIXTURE TO CEILING

Mount Housing to sturdy ceiling structure as follows:

FOR V HOOK MOUNTING

1. V Hooks (2) are provided for chain mounting. Secure V Hooks through mounting hole at back of Housing as in Fig. 1.
2. Connect to two (2) equal lengths of chain (by others) and/or appropriate hardware (by others) suitable for mounting surface, to suspend Housing from V Hooks.
3. Fixture mounting height and spacing should be determined by application requirements. Use chain suitable to support four (4) times the weight of the fixture.
4. Remove Access Plate and feed supply wire with strain relief conduit connector through Access Plate and make electrical connections as shown in wiring diagram. Use approved wiring connectors and wire to local NEC codes. Push all wires back into Housing. Be careful not to pinch wires.
5. Tighten screws (2) and secure Access Plate.

FOR PENDANT MOUNTING

1. Choose length of 3/4” NPS Pendant Stem (supplied by others).
2. Loosen screws (2) and remove Side Panel from Pendant Box.
3. Loosen screws (4) and slide Pendant Box from Pendant Box Plate/ Housing.
4. Secure Pendant Stem to the clearance hole on Pendant Box using Locknut (supplied by others) and Support Nut (supplied by others). Add thread locking compound and tighten locknut/ nut to prevent fixture rotation.
5. Slide Pendant Box onto Pendant Box Plate/ Housing and tighten screws (4).
6. Feed supply wires through Pendant Stem. Wire the housing leads to supply wires using UL listed wire connectors according to NEC and local codes in the Pendant Box. Push all wires back into Pendant Box. Be careful not to pinch wires.
7. Replace Side Panel and tighten screws (2) as shown in Fig. 2.
FOR SURFACE MOUNTING
1. Loosen screws (2) and remove Side Panel from Pendant Box.
2. Mount Pendant Box to ceiling by drilling out Drill Out Locations as shown on Fig. 3. Use appropriate mounting hardware suitable for the mounting surface.
3. Wire the housing leads to supply wires using UL listed wire connectors according to NEC and local codes in the Pendant Box. Push all wires back into Pendant Box. Be careful not to pinch wires.
4. Replace the Side Panel and tighten screws (2) as shown in Fig. 2.

CLEANING
CAUTION: Be sure fixture temperature is cool enough to touch. Do not clean or maintain while fixture is energized.
1. Lens should be washed in a solution of warm water and any mild, non abrasive household detergent, rinsed with clean water and wiped dry. Do not use chemicals to clean fixture.
2. Do not open fixture to clean the LED. Do not touch the LED.

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

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.

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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WIREFORCE
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.

RAILxx/E2 120V-277V, 50/60Hz

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, if present. NOTE: Do not connect DIM V+ (purple)/ DIM V- (gray) to line voltage or supply ground.
6. Connect the GROUND wire from fixture to supply ground.
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 as shown in Fig. 1 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 as shown in Fig. 1 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 25W of power (output power) in emergency mode for a minimum of 90 minutes at a
   - maximum connected load of 0.52A at a rated voltage of 42-48VDC (for RAIL 95W, 150W, 185W)
   - maximum connected load of 0.60A at a rated voltage of 36-42VDC (for RAIL 225W)
3. When AC power is restored, the emergency ballast automatically returns to charging mode.

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.
WIRING DIAGRAM for RAIL95 EMERGENCY OPERATION

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

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>WATTAGE</th>
<th>DIP SWITCH POSITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAIL</td>
<td>95</td>
<td>4</td>
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</tbody>
</table>

Charging Indicator

- Charging Indicator Light: Red
- Test Switch: Black/Unswitched Line 120-277V

EMERGENCY BATTERY

- 25W
- Blue (-)
- Brown (+)

CUSTOMER SHOULD CONNECT ONLY AFTER FINISHING WIRING TO AC POWER. BATTERY COULD HAVE CHARGE & SHOCK LEAVE OPEN DO NOT CONNECT DURING MANUFACTURING

DO NOT CONNECT DURING MANUFACTURING

Black/Unswitched Line 120-277V
- Cap two black wires together

Black/Switched Line 120-277V
- Leave open
- Do not connect during manufacturing

Customer should connect only after finishing wiring to AC power. Battery could have charge & shock. Leave open, do not connect during manufacturing.

DO NOT CONNECT DURING MANUFACTURING...
WIRING DIAGRAM for RAIL 150-185W EMERGENCY OPERATION

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

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>WATTAGE</th>
<th>DIP SWITCH POSITION</th>
</tr>
</thead>
<tbody>
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<td>RAIL</td>
<td>150-185W</td>
<td>4</td>
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</table>
WIRING DIAGRAM for RAIL 225W EMERGENCY OPERATION

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

<table>
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<th>PRODUCT</th>
<th>WATTAGE</th>
<th>DIP SWITCH POSITION</th>
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