

INSTRUCTIONS

IMPORTANT SAFEGUARDS

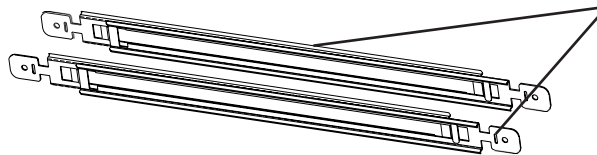
When using electrical equipment, basic safety precautions should always be followed including the following:

1. **READ AND FOLLOW ALL SAFETY INSTRUCTIONS**
2. Before wiring to power supply, disconnect power at fuse or circuit breaker.
3. Disconnect A.C. power before servicing.
4. Refer to wiring instructions sheet for proper connections.
5. Consult your local building code for approved wiring and installation.
6. Do not use outdoors.
7. Do not mount near gas or electric heaters.
8. Use Caution when servicing battery.
9. Equipment should be mounted in locations and at heights where it will not readily be subject to tampering by unauthorized personnel.
10. The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
11. Do not use this equipment for other than intended use.
12. Servicing of this equipment should be performed by qualified service personnel.
13. **SAVE THESE INSTRUCTIONS!**

INSTALLATION

BACKBOX:

Do not install splice box cover into backbox until wiring is complete.



Bar Hangers (4)
telescope when
assembled; adjust
from 14 1/2" to 24"

Figure 1: Bar Hangers (shown assembled)

ROUGH-IN CEILING MOUNT:

SUPPORTING MEMBERS MUST BE ABLE TO SUPPORT A LOAD OF AT LEAST 25 LBS.

1. To install backbox onto t-bars, orient the back box adjustable brackets to allow the hanger bars to slide through the "I" shaped opening (Figure 2). (**NOTE: to access the hardware for the hanger bar adjustment brackets, you must remove the splice cover and/or the battery. Refer to page 3 for instructions on removing the splice box cover, figure 7 and 8).** Adjust the height of bracket, mounted to the backbox, then tighten bolts inside the backbox. Hanger bars will rest directly on drop ceiling t-bars.
2. Align backbox so lamp head opening is flush or slightly behind inner surface of ceiling or wall.
3. Using hardware supplied by others, attach t-bars to wood studs or joists with screws or nails, attach to metal studs with sheet metal screws with a minimum pullout rating of 25 lbs.

MAXIMUM MOUNTING HEIGHT 13 FEET

UNIT IS APPROVED FOR TYPE IC INSTALLATION.

Back Box Adjustable
Bracket

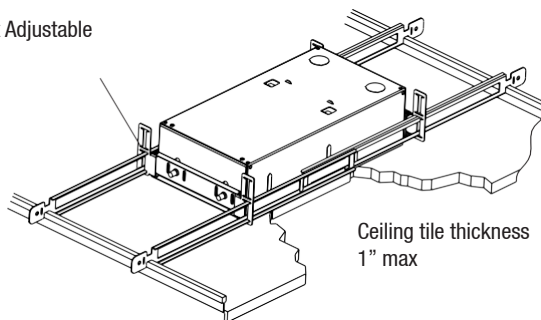


Figure 2: T-Bar Mounting Up to 2" High

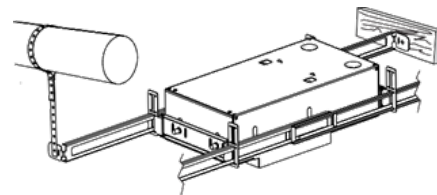


Figure 3: Wood Joist or Stud Mounting

ROUGH-IN WALL MOUNT:

SUPPORTING MEMBERS MUST BE ABLE TO SUPPORT A LOAD OF AT LEAST 25 LBS.

1. Remove appropriate knockouts on side of backbox for stud mounting. Using hardware supplied by others, attach t-bars to wood studs or joists with screws or nails, attach to metal studs with sheet metal screws with a minimum pullout rating of 25 lbs.
2. Align backbox so lamp head opening is flush, or slightly behind inner surface of ceiling or wall. Secure in place by tightening the bolts inside the backbox. **(NOTE: SPLICE BOX NOT SHOWN FOR CLARITY)**

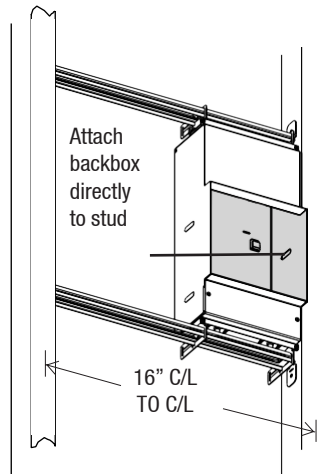


Figure 4: Wall Mount

CLOSE-IN CEILING AND WALL MOUNT:

DRY WALL

1. Cutout hole in ceiling material should be 5-1/4" high by 5- 1/2" wide (Figure 5). Align backbox so lamp head opening is flush, or slightly behind inner ceiling or wall surface.

WET WALL

3. Plaster flush up against lamphead opening.

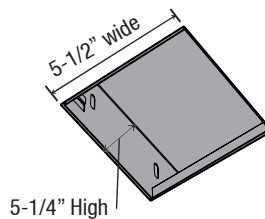


Figure 5: Ceiling Cut-Out

WIRING INSTRUCTIONS

DE-ENERGIZE BRANCH CIRCUIT AT BREAKER PANEL

Select and remove desired knockout(s) for AC power input (Figure 6) with at least 6" of AC power leads extending into backbox.

DO NOT REAPPLY POWER UNTIL FINAL SETUP

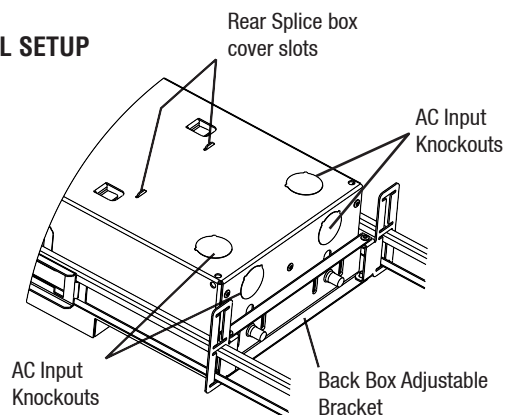


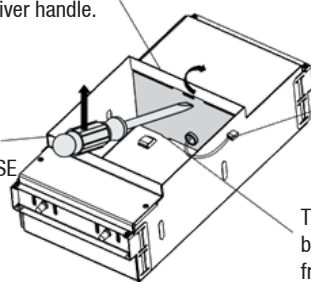
Figure 6: Back Box Rear View with Knockouts

REMOVING SPLICE BOX

Remove the splice box cover to gain access to the transformer leads and ground wire. Place a flat head blade screwdriver into the slot on the splice box cover to help to pull the splice box tabs from the bottom of the back box as shown below.

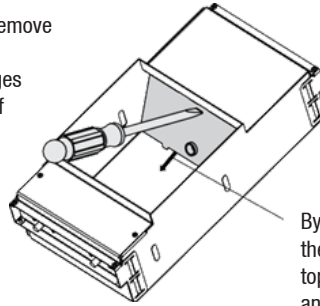
Gently pull-on tab (in the direction shown) to relieve tension from the tabs on top of the splice box cover while simultaneously pulling up on the screw driver handle.

CAUTION: DO NOT PUSH DOWN ON THE SCREW DRIVER AS THIS MAY CAUSE DAMAGE FLANGE BELOW.



This motion will allow the bottom tabs to disengage from the back box

Care to be taken to remove transformer wires away from sharp edges during the removal of the splice box cover.



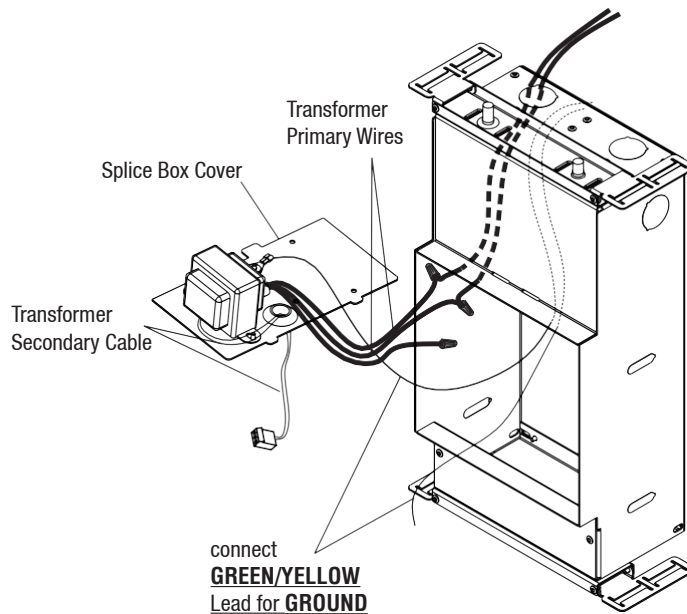
By disengaging the bottom tabs, the splice box cover tabs on the top will slide out of their slots and the splice box cover will rotate free allowing for easy removal to terminate the transformer leads.

Figure 7: Removing Splice Cover

Figure 8: Disengage Splice Cover

DE-ENERGIZE BRANCH CIRCUIT AT BREAKER PANEL

Transformer primary leads are secured to splice plate. Make connections using wire nuts supplied. Connect wires per local codes. Connect to transformer as follows:



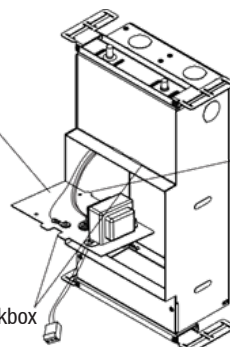
BLACK Lead for 120V or
ORANGE Lead for 277V
(CAP UNUSED LEAD)
WHITE Lead for **Neutral**

connect
GREEN/YELLOW
Lead for **GROUND**

Figure 9: Wiring Instructions

INSTALL SPLICE BOX COVER

Rotate splice box cover to the orientation shown. CARE TO BE TAKEN THAT ALL WIRES ARE AWAY FROM THE SHARP EDGES AND TUCKED INSIDE THE SPLICE BOX.



Tabs on splice box to align with slots on the back box. See next figures for clarity.

Tabs on splice box cover to align with slots on backbox flange.

Figure 10: Install Splice Box

INSTALLING SPLICE BOX CONTINUED

Once the splice box cover is oriented per Figure 10, the steps to securing the splice box into the backbox is the same as the removal process, in reverse.

CARE TO BE TAKEN SUCH THAT NO WIRES ARE PINCHED IN THE PROCESS OF INSTALLING THE SPLICE BOX.

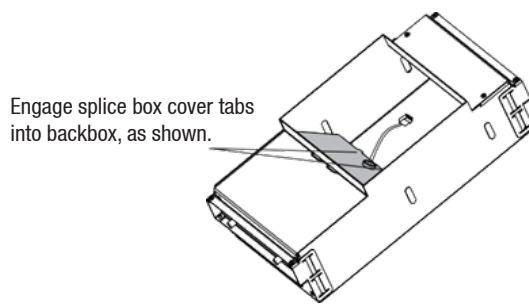


Figure 11: Engage splice box tabs

With tabs engaged, push along bottom edge until the lower tabs are engaged and splice box is in place

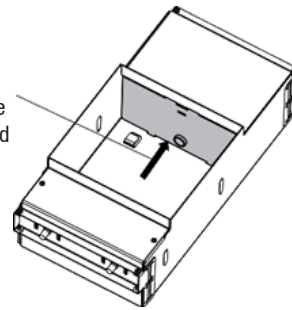


Figure 12: Slide Cover in Place

BATTERY INSTALLATION

THIS PRODUCT IS SUPPLIED WITH NICKEL METAL HYDRIDE (Ni-MH) BATTERIES. The batteries are located on the "bottom" side of the backbox, opposite the transformer assembly/ splice box (as shown below).

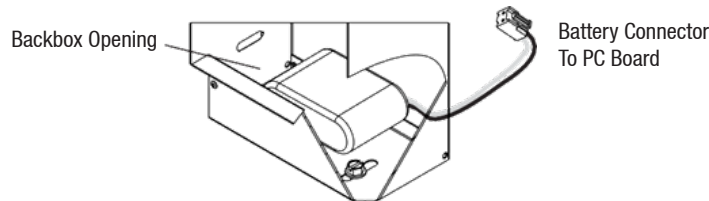


Figure 13: Battery Installation

NOTE: Disconnected Battery must be recharged within 120 days.

LAMPHEAD INSTALLATION

Connect 2 pin Battery Cable first, then 3 pin Transformer Cable to matching sockets on Printed Circuit Board. **BATTERY CABLE, WITH BATTERIES CONNECTED, MUST BE ATTACHED BEFORE AC POWER IS APPLIED.**

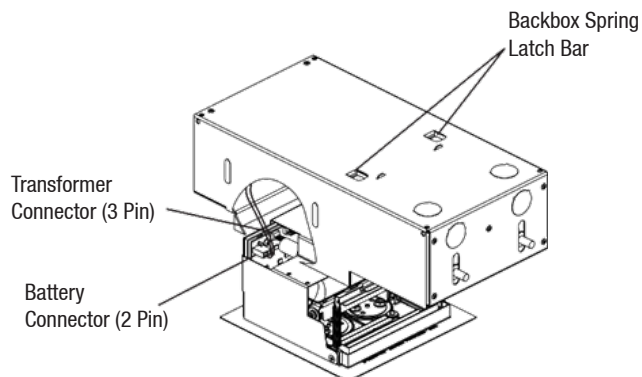


Figure 14: Install Lamp Head

NOTE: Once Battery is connected, unit must be energized

Push door open to access spring latch bar. Insert Phillips screwdriver into hole as shown, push down and forward to engage latches.

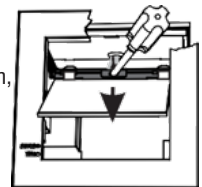


Figure 15: Secure Spring Latch Bar

Install lamphead by first locating in place in Backbox opening.

With pivoting door held open, insert Phillips screwdriver tip into center hole in Spring Latch Bar, push down and forward to engage bar under two formed latch tabs in rear of Backbox.

Transformer secondary cable must be trapped behind Latch Bar to prevent interference with pivoting door.

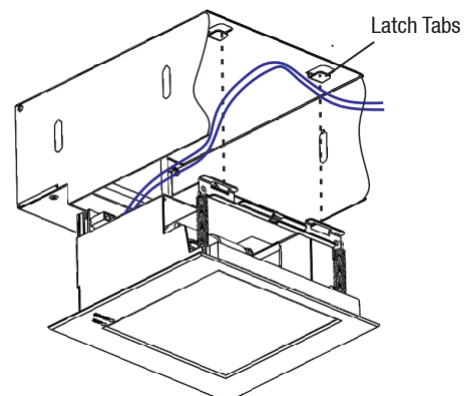


Figure 16: Route Transformer Leads

LAMP ADJUSTMENT

1. This Fully Recessed Emergency Light has an adjustable LED assembly mounted on the moveable door. For wall mounting, the LED assembly should be aimed down towards the floor. For ceiling mounting, the LED assembly should be aimed straight out.

ON-SITE PAINTING

1. The door and frame have been factory painted. If a new finish is applied, extreme care should be taken that a seal is not formed between the door and frame, which may hinder the free operation of the door mechanism.
2. If the finish is sprayed on, we suggest that a thin cardboard or plastic strip be inserted between the door and frame to prevent a paint seal. The indicator light and test switch holes should also be masked.
3. After the new finish is applied, a sharp edge such as a single edge razor or utility knife should be inserted a maximum of ¼ inch into the opening between the door and frame, and run around the door to ensure no seal is formed.

SETUP AND OPERATION

REAPPLY POWER AND NOTIFY THE AUTHORITY HAVING JURISDICTION.

ALLOW BATTERIES TO CHARGE FOR AT LEAST 48 HOURS BEFORE OPERATION UNIT.

STATUS: See the following pages for Status indications.

TEST: The TEST SWITCH is used to simulate failure of AC power. It can be activated with a paper clip.

INFRA-RED REMOTE TESTING: To activate TRANSMITTER, remove tab from back of device. The IR REMOTE TESTING TRANSMITTER can activate the unit up to 50 feet. By aiming TRANSMITTER at face of unit and pushing either 30 SECOND or 90 MINUTE button for 1 second, AC power failure will be simulated for the selected duration. The test can be canceled by pushing button again.

TIME DELAY: A 15 minute time delay is available as a factory option. This option will keep the unit operating on battery backup for 15 minutes after power is restored.

SELF-TESTING / SELF-DIAGNOSTICS

This unit meets the requirements of NFPA 101 for periodic testing of emergency lighting equipment. It provides visual indication of unit malfunctions including battery fault, charger fault, transfer fault, lamp fault and door fault.

SELF-TEST

An automatic self-test and diagnostic function will be performed every 28 days. A load test will be performed for 30 seconds checking for a lamp, battery or transfer fault. On every fourth test, the load test will follow a door function test, during which the door will open for approximately 1 second and then close, without the lamps turning on. This automatic self-test and diagnostic function will be performed only if the battery is fully charged. If not, the test will automatically reschedule. The charger function is monitored continuously.

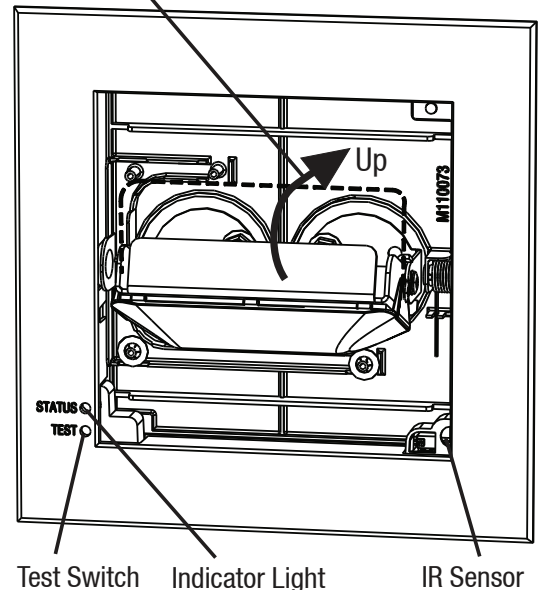
DEFEAT MONTHLY DIAGNOSTICS TESTING - The option to defeat the standard monthly testing is available as a factory option. This will allow the user to bypass the testing schedule that is provided standard with all units.

USER-TEST

A manual user-test can be performed for 30 seconds or 90 minutes. By pushing the test switch for 1 second, the door will open and the lamps will illuminate for 30 seconds. If the status indicator shows green indicating a fully charged battery and the switch is pushed for 4 seconds, the door will open and the lamps will illuminate for 90 minutes. If the battery is not fully charged, the 30 second test will run.

In either mode, the USER-TEST can be cancelled by pushing and holding the "TEST" switch for 1 second after the lamps come on.

Adjustable LED Assembly
Down position for Wall Mounting
Up position for Ceiling Mounting



UNIT WITH DOOR OPEN

LAMP LOAD LEARN

The self-diagnostic system learns the lamp load during the first test. Subsequent tests compare the measured lamp load during the test to the learned lamp load values.

CLEARING FAILURE INDICATIONS

Failure indications can be cleared by correcting the indicating fault and pushing and holding the test switch for 1 second.

STATUS INDICATIONS

Status indications for the self-testing / self-diagnostic system are shown below.

STATUS DISPLAY	FUNCTION	ACTION
Continuous Green	Battery in Float/Trickle Charge	None
Continuous Red	Battery High Charging	Wait for Green Status
Flashing Green	In Test Mode	Wait for Test to Complete
Alternate Red and Green	Insufficient Charge For User Test	Wait for Adequate Charge*
Red: One Blink ON / Pause	Transfer System Failure	Factory Service
Red: Two Blinks ON / Pause	Battery Failure	Check Connections / Replace Battery
Red: Three Blinks ON / Pause	Charger Failure	Factory Service
Red: Four Blinks ON / Pause	Door Failure	Check for Paint Seal
Red: Five Blinks ON / Pause	Lamp Failure	Replace Lamp

* For 90 minute User Tests, wait for full charge. For 30 minute User Tests, try again after an hour of charging

MAINTENANCE

REMOVAL OF SPLICE BOX COVER: Splice box cover can be removed from backbox by prying forward the top, front flange of the back box with a flat blade screwdriver