

INSTRUCTIONS IMPORTANT SAFEGUARDS

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

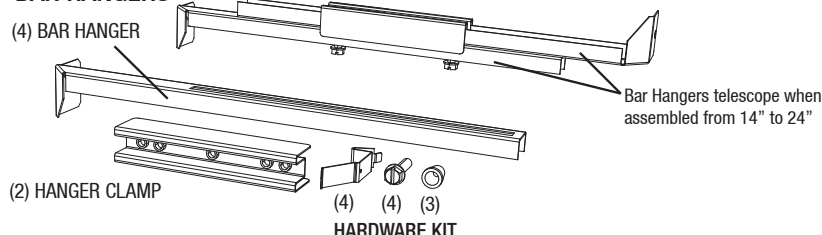
1. **READ AND FOLLOW ALL SAFETY INSTRUCTIONS**
2. Before wiring to power supply, disconnect power at fuse or circuit breaker.
3. Disconnect AC power before servicing
4. Refer to wiring instructions sheet for proper connections
5. Consult your local building code for approved wiring and installation.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

INSTALLATION

BACKBOX:

DO NOT INSTALL SPLICE BOX COVER INTO BACKBOX UNTIL WIRING IS COMPLETE.

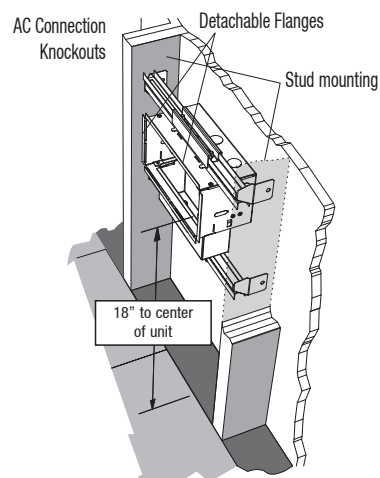
BAR HANGERS



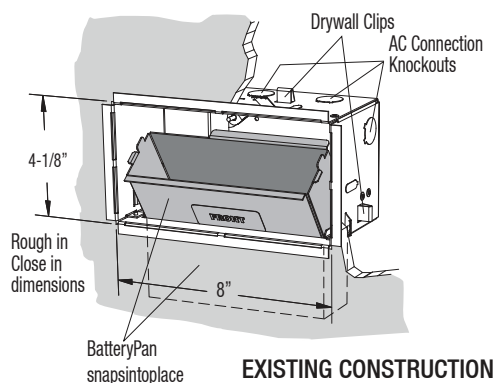
ROUGH-IN WALL MOUNT:

SUPPORTING MEMBERS MUST BE ABLE TO SUPPORT A LOAD OF AT LEAST 15 LBS.

1. Remove appropriate mounting knockouts on top, bottom or sides of backbox. Attach Bar Hangers to backbox using bolts and hanger clamps supplied.
2. Using hardware supplied by others, attach 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.
3. Use supplied drywall clips if unit is secured to drywall.



NEW CONSTRUCTION



EXISTING CONSTRUCTION

CLOSE-IN CEILING AND WALL MOUNT:

DRY WALL

1. Cutout hole in ceiling material should be 4 1/8" high by 8" wide. Align backbox so lamphead opening is flush, or slightly behind wall surface.

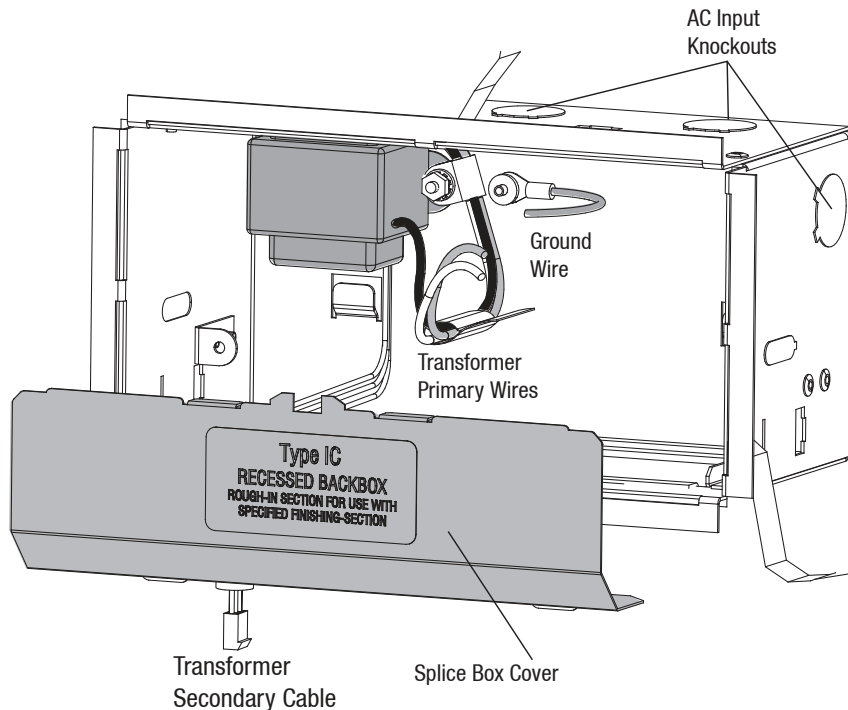
WET WALL

1. Plaster flush up against lamphead opening.

WIRING INSTRUCTIONS

DE-ENERGIZE BRANCH CIRCUIT AT BREAKER PANEL

1. Select and remove desired knockout(s) for AC power input with at least 6" of AC power leads extending into backbox. Secure cable with approved wire clamp and 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

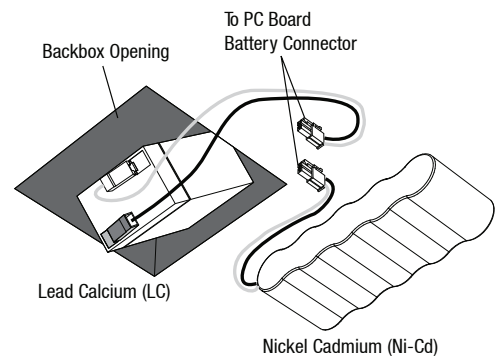
Connect Green/Yellow lead for ground

Press AC and ground wires down to
bottom of backbox

**DO NOT REAPPLY POWER UNTIL
FINAL SETUP**

INSTALL SPLICE BOX COVER

1. Feed transformer secondary cable (with connector) through hole in splice box cover and insert tabs into slots on the rear of the back box. Snap front tabs into slots on the top, front flange of the backbox.

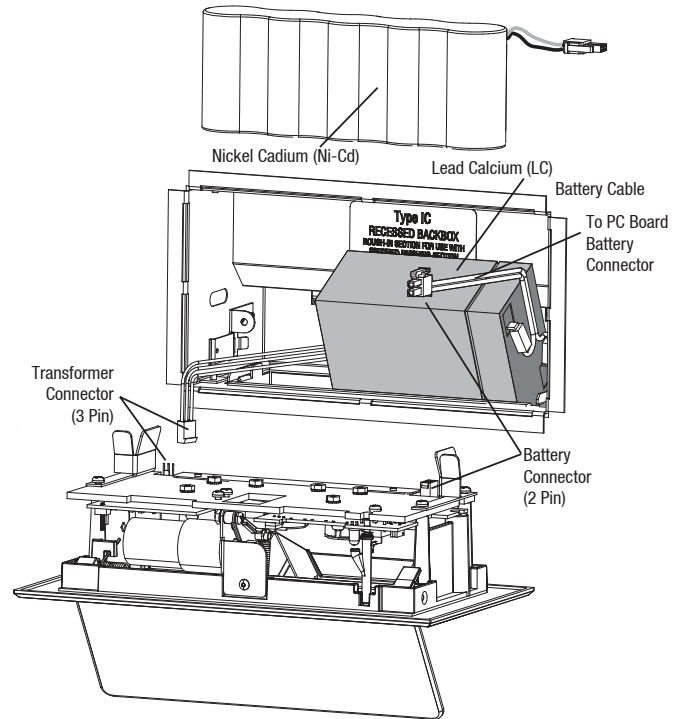


BATTERY INSTALLATION

1. This product is supplied with a choice of 2 types of battery sources: Sealed Lead Calcium (LC) or Nickel Cadmium (Ni-Cd)
2. Attach battery cable to LC battery ensuring that proper polarity is observed.
3. Insert Battery (TERMINALS OR CONNECTORS FACING OUT) through lamphead opening. Allow transformer cable to extend out through lamphead opening.
4. 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.**

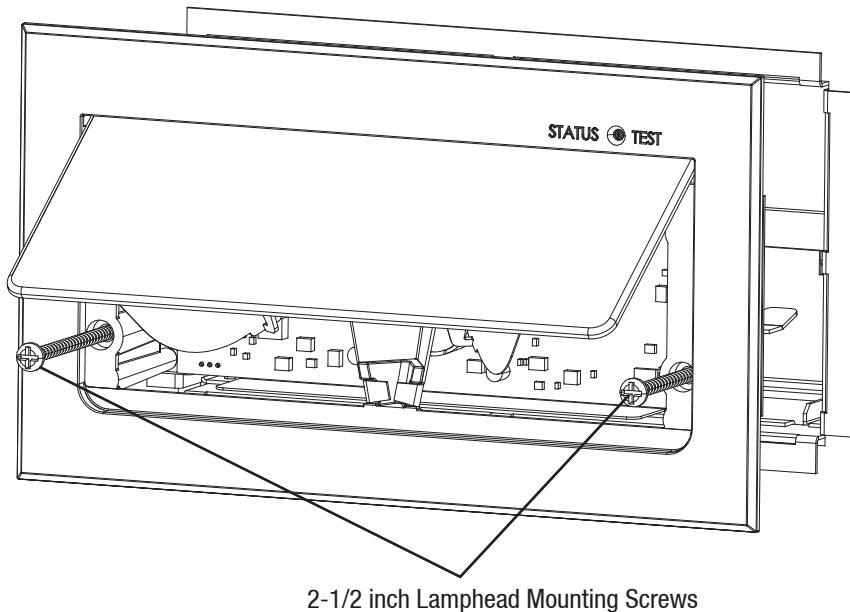
NOTE - Once battery is connected, unit must be energized within 30 days

NOTE - Disconnected battery must be recharged within 120 days



LAMPHEAD INSTALLATION

1. Install lamphead by first locating in place in backbox opening.
2. Fully push the lamphead back until the frame is flush to the wall surface.
3. Secure with two 2-1/2 inch lamphouse mounting screws (supplied).



2-1/2 inch Lamphouse Mounting Screws

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 1/4 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 cancelled 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. This feature allows HID lamps to warm up before the emergency lights are extinguished.

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 forth 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.

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.

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

BATTERY: The battery supplied in this unit requires no maintenance. However, it should be periodically tested (see TEST or IR Remote Testing) and replaced whenever it will no longer operate the emergency lamps for the durations specified. Replace using the BATTERY INSTALLATION procedure. Contact factory for replacement battery.

Used batteries may not be disposed of in the municipal solid waste stream. Arrangements for recycling can be made with the local municipal waste location near you.

The lamps listed herein when used according to the instructions with this unit are in accordance with the requirements of CSA Standard C22.2, No. 141 – Unit Equipment for Emergency Lighting.