

# **INSTALLATION INSTRUCTIONS**

## **XEB-5 – 500 Lumens**

---

**When using this lighting device  
the safety precautions should be followed at all time**

**PLEASE READ CAREFULLY AND FOLLOW  
ALL INSTRUCTIONS FOR YOUR OWN SAFETY**

- 1. This device is designed for indoor use. Do not use outdoors.**
- 2. Prior to installation, battery connector must be open to prevent high voltage from being present on out put leads (red & yellow).**
- 3. This device is designed for use with 17W–40W single pin or bipin fluorescent lamps. These lamps are commonly available in the market. Please use circline, U-shaped, or 4-pin rapid start long compact fluorescent lamps.**
- 4. Please ensure the electricity connections conforms to the National Electrical Code and local regulations if applicable.**
- 5. To avoid electric shock, please disconnect normal and emergency power supplies, and battery connector of the emergency ballast before servicing.**
- 6. This device is designed for factory or field installation in either the ballast channel, or on top of the indoor fixture, except air handling heated air outlets, wet or hazardous location fixtures. Do not install this device near gas or electric heaters.**
- 7. AC power source of 120 VAC or 277 VAC is required.**
- 8. The battery is sealed, non-maintenance, and is not replaceable in the field. Please contact manufacturer for information on service. Do not attempt to service the battery please.**
- 9. Do not use accessory equipment that is not recommended by manufacturer. Failure to do so may cause unsafe conditions. Servicing should only be performed by qualified service personnel.**
- 10. Do not use the product for other purpose that the product is NOT designed for.**

**PLEASE SAVE THESE INSTRUCTIONS**

# INSTALL INSTRUCTION

**NOTE** All the branch circuit wiring has to be ready as well as an unswitched source of power before the fixture is installed. Confirmed the same branch circuit would match the emergency ballast as AC ballast.

**CAUTION** Battery connector has to be opened for preventing high voltage on output leads (Red and Yellow). Wait until all the installation process is completed and AC is supplying power to the emergency ballast then join the Battery connector.

1. AC power has to be off before installation.
2. Choose the right wiring diagram to connect the emergency ballast to AC ballast and lamp.
3. Please ensure the electricity connections conform to the National Electrical Code and local regulations if applicable.
4. Follow the diagram 1 & 2 to install the emergency ballast on the top of fixture or in the ballast channel.
5. To install the test switch, it would go through the side of a strip fixture or the ballast channel cover of a troffer. Follow diagram 1 & 2 to drill a 1/2" hole and install the test switch. In order to remove AC power from both the emergency ballast and the AC ballast, test switch has to be connected properly (Check diagram 4).
6. Matching violet and brown leads to connect the charging indicator light to the emergency ballast (Check diagram 5). The charging indicator would be on after the fixture is installed properly.
7. Please search in readily visible location and stick the label with "CAUTION: This Unit Has More Than One Power Supply Connection Point. To Reduce The Risk Of Electric Shock, Disconnect Both The Branch Circuit-Breakers Or Fuses And Emergency Power Supplies Before Servicing."
8. Do not join the inverter connector until the fixture is completely installed and supply AC power to the emergency ballast.
9. The battery needs to be charged for one hour in order to have short-term testing on the emergency function. Before having a long-term emergency function testing, the battery in emergency ballast has to be charged for 24 hours.

DIAGRAM 1

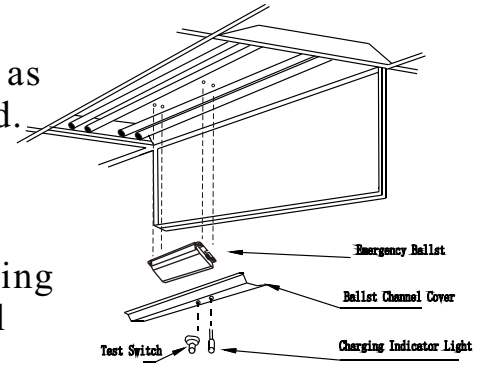


DIAGRAM 2

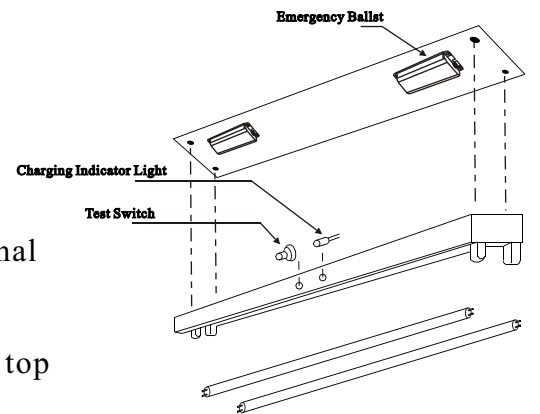


DIAGRAM 3

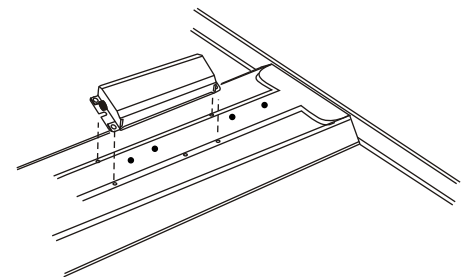
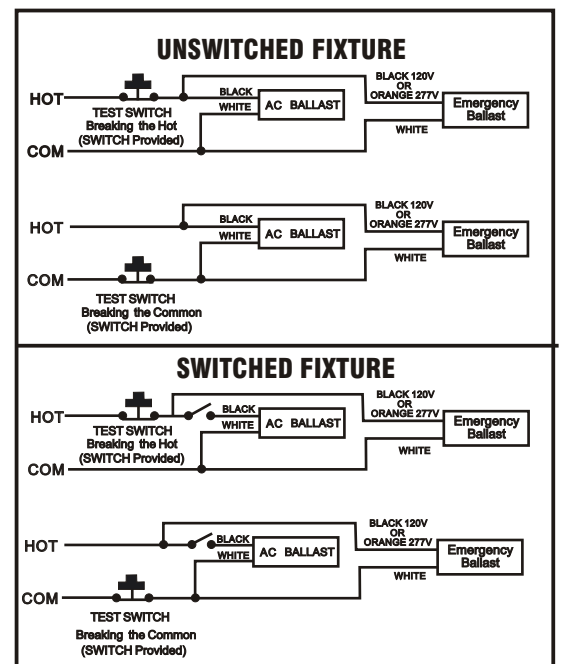


DIAGRAM 4



**NOTE: MARK AN APPROPRIATE LABEL ON INDICATOR LIGHT AND TEST SWITCH AFTER INSTALLATION.**

# OPERATION

THE CHARGING INDICATOR LIGHT WOULD BE ON TO INDICATE THE BATTERY IS BEING CHARGED WHEN AC POWER IS APPLIED.

THIS EMERGENCY BALLAST WOULD FUNCTION AND OPERATE ONE OR TWO LAMPS AT LEAST 90 MINUTES WHEN THE AC POWER IS FAILED.

THE DEVICE OF THIS EMERGENCY BALLAST WILL OPERATE 17WATT TO 40WATT LAMPS AT LEAST 90MINUTES.

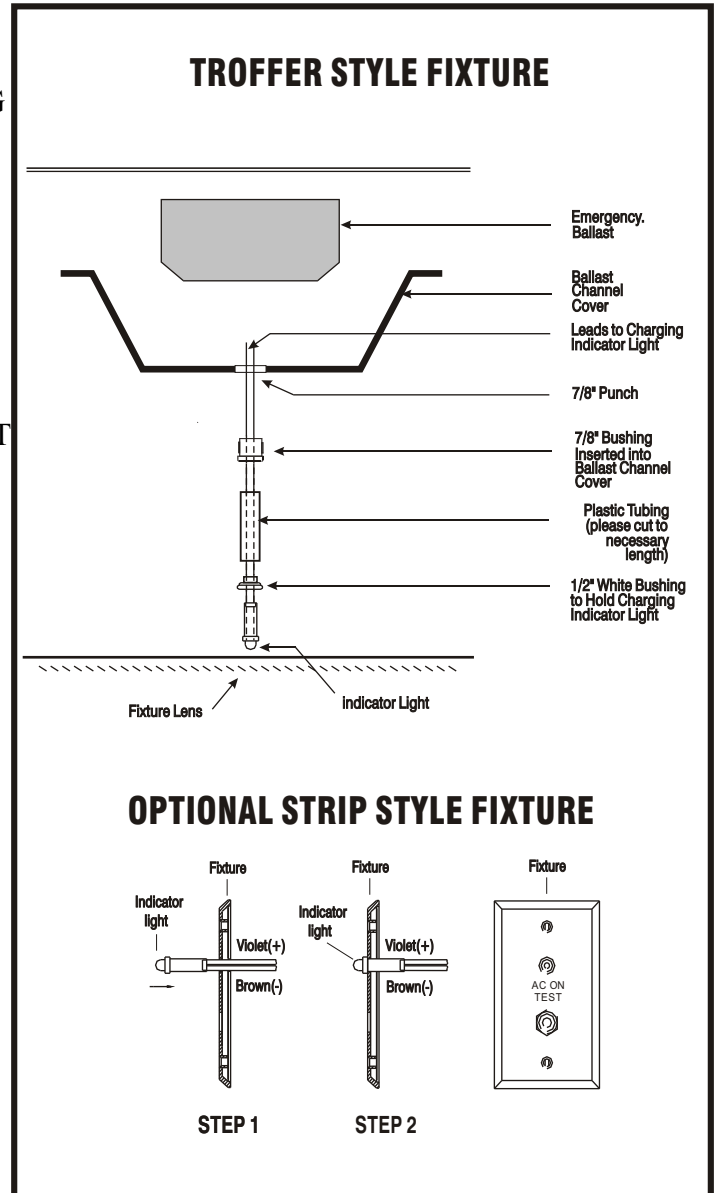
# MAINTENANCE

NOTE: SERVICES SHOULD ONLY PERFORMED BY QUALIFIED PERSONNEL.

THE EMERGENCY BALLAST SHOULD BE CHECKED PERIODICALLY TO CONFIRM FUNCTIONING AND THE FOLLOWING SCHEDULE IS RECOMMENDED.

- 1) TO INSPECT THE CHARGING INDICATOR EVERY MONTH AND CONFIRM THAT IS ILLUMINATED.
- 2) PUSH THE TEST SWITCH FOR 30 SECONDS TO ENSURE THE EMERGENCY BALLAST IS FUNCTIONING. RECOMMENDED TO PERFORM THIS TESTING IN EVERY 30 DAYS.
- 3) PERFORMING A LONG-TERM TEST (90 MINUTE BATTERY DISCHARGE) IN EVERY YEAR. ONE OR TWO LAMPS SHOULD BE OPERATED FOR NO LESS THAN 90 MINUTES.

**DIAGRAM 5**



**NOTE:** MARK AN APPROPRIATE LABEL ON INDICATOR LIGHT AND TEST SWITCH AFTER INSTALLATION.

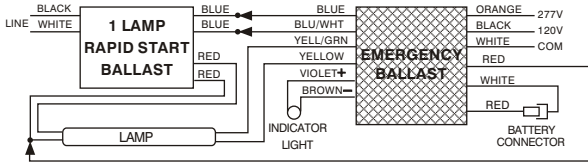
# WIRE DIAGRAMS FOR 1-LAMP EMERGENCY OPERATION

## EMERGENCY BALLAST AND AC BALLAST MUST BE FED FROM THE SAME BRANCH CIRCUIT

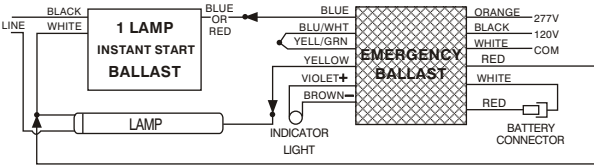
TYPICAL SCHEMATICS ONLY. MAY BE USED WITH OTHER BALLASTS. CONSULT THE FACTORY FOR OTHER WIRING DIAGRAMS.

### For 1 Lamp Ballast

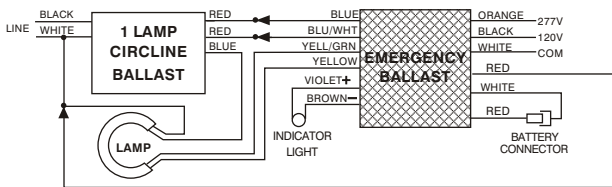
#### A. Rapid Start AC Ballast



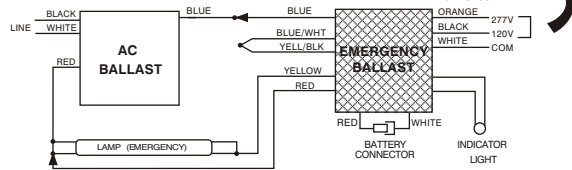
#### B. Instant Start Slimline Ballast



#### C. Circline Rapid Start Ballast

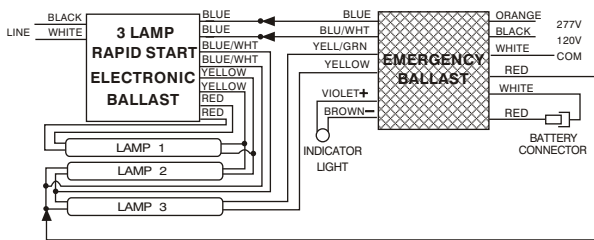


#### D. 1 Lamp Instant Start Ballast

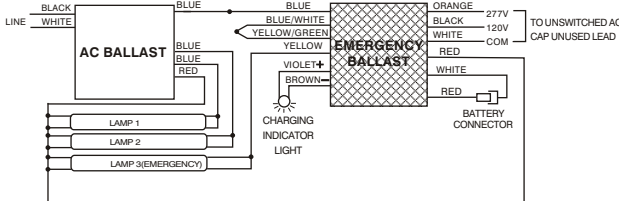


### For 3 Lamp Ballast

#### A. Rapid Start

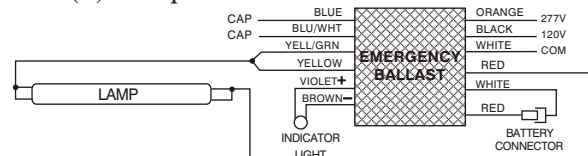


#### B. Instant start Ballast



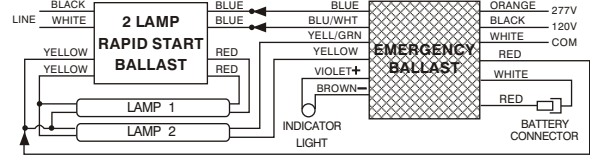
### Emergency only

#### One (1) Lamp Without AC Ballast

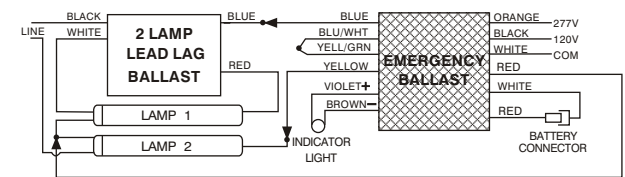


### For 2 Lamp Ballast

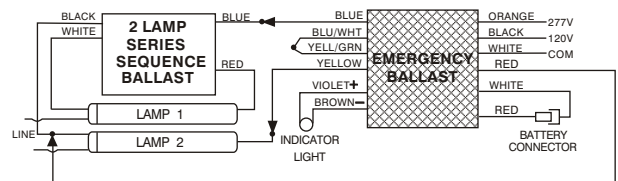
#### A. Rapid Start AC Ballast



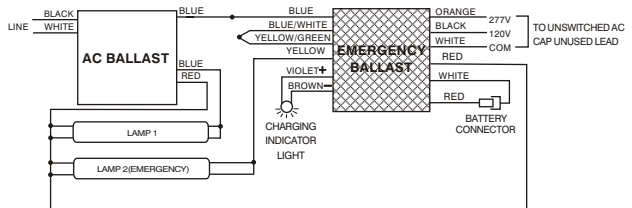
#### B. LEAD/LAG Instant Start Slimline Ballast



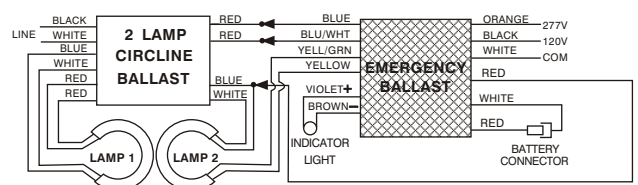
#### C. Serves Sequence Instant Start Ballast



#### D. Instant start Ballast

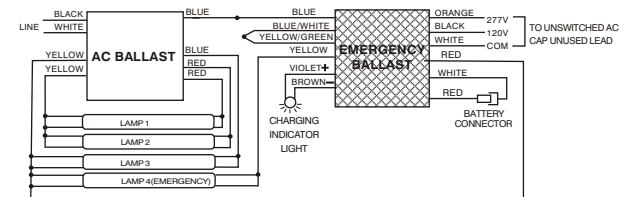


#### E. Circline Rapid Start Ballast

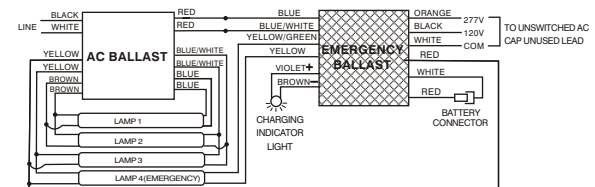


### For 4 Lamp Ballast

#### a. Instant Start Ballast



#### b. Rapid Start Ballast



**NOTE: Use the proper tap to unswitched AC lead**