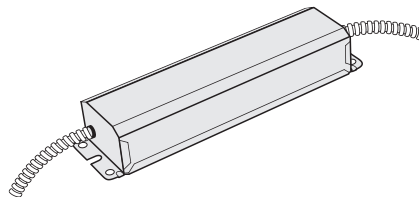


# B94C

## Installation Instructions

FLUORESCENT EMERGENCY BALLAST



**PHILIPS**  
**bodine**



### **! IMPORTANT SAFEGUARDS !**

**WHEN USING ELECTRICAL EQUIPMENT, BASIC SAFETY PRECAUTIONS SHOULD ALWAYS BE FOLLOWED, INCLUDING THE FOLLOWING:**

## **READ AND FOLLOW ALL SAFETY INSTRUCTIONS**

1. To prevent high voltage from being present on red & yellow output leads prior to installation, inverter connector must be open. Do not join inverter connector until installation is complete and AC power is supplied to the emergency ballast.
2. This product is for use with one 13 W through 42 W or two 13 W through 39 W (4-pin) compact fluorescent lamp(s) without integral starters.
3. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
4. To reduce the risk of electric shock, disconnect both normal and emergency power supplies and inverter connector of the emergency ballast before servicing.
5. This emergency ballast is for factory or field installation.
6. This product is for use in indoor fixtures except air handling heated air outlets, and wet, damp, or hazardous locations.
7. An unswitched AC power source is required (120 or 277 VAC, 60 Hz).
8. Do not install near gas or electric heaters.
9. Do not attempt to service the battery. A sealed, no-maintenance battery is used that is not field replaceable. Contact the manufacturer for information on service.
10. The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
11. Do not use this product for other than intended use.
12. Servicing should be performed by qualified service personnel.

### **SAVE THESE INSTRUCTIONS**



Ni - Cd

**THIS PRODUCT CONTAINS A RECHARGEABLE NICKEL-CADMIUM BATTERY.  
THE BATTERY MUST BE RECYCLED OR DISPOSED OF PROPERLY.**

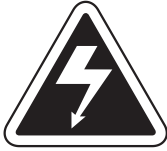
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# INSTALLATION

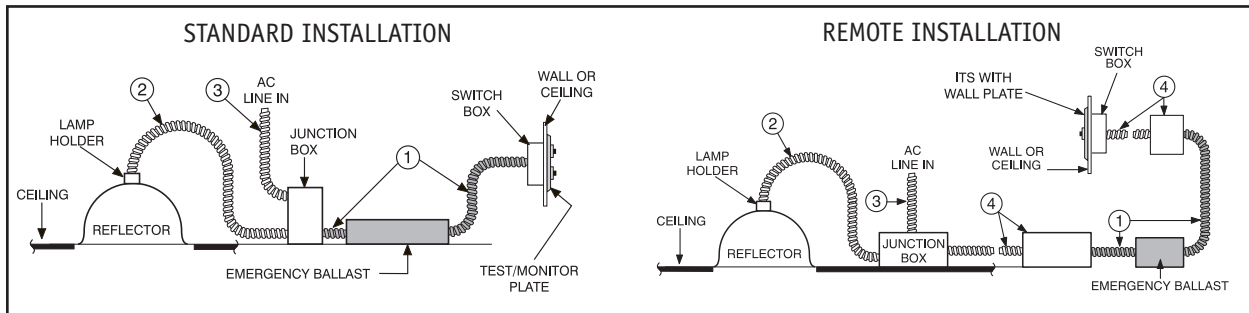


**WARNING: TO PREVENT HIGH VOLTAGE FROM BEING PRESENT ON RED & YELLOW OUTPUT LEADS PRIOR TO INSTALLATION, INVERTER CONNECTOR MUST BE OPEN. DO NOT JOIN INVERTER CONNECTOR UNTIL INSTALLATION IS COMPLETE AND AC POWER IS SUPPLIED TO THE EMERGENCY BALLAST.**

**NOTE:** Make sure that the necessary branch circuit wiring is available. An unswitched source of power is required. The emergency ballast must be fed from the same branch circuit as the AC ballast.

## STEP #1 ▶ INSTALLING THE EMERGENCY BALLAST

- > Disconnect AC power from the fixture.
- > Refer to illustration below to install the emergency ballast and test/monitor plate. Make electrical connections in accordance with the National Electrical Code and any local regulations. The test/monitor plate may be installed close to the fixture in the ceiling or at a remote location (up to 50 feet). **Remote mounting distance must be less than half the maximum remote mounting distance for the AC ballast. Consult AC ballast manufacturer before remote installation.** If no AC ballast is used, the emergency ballast can be remotely mounted up to 50 feet away. Note: A switch box is not supplied.



 Emergency ballast

 No Shading – Equipment supplied by others

- ① – Flexible conduit (supplied) to connect ballast wires.
- ② – Existing conduit to run existing wires to lamp holder (AC ballast on junction box). If AC ballast is on reflector, run yellow, yellow/black, blue/white, blue and red wires from emergency ballast through this conduit.
- ③ – AC line in.
- ④ – Conduit and junction box (not supplied), necessary for remote installation.

## STEP #2 ▶ WIRING THE EMERGENCY BALLAST

- > See back page for detailed wiring schematics. The emergency ballast can be used with one- or two- lamp fixtures, and operates one or two lamps in the emergency mode.
- > Cut fixture wire between the lamp holder and AC ballasts and connect the blue and blue/white emergency ballast wires to the AC ballast and the yellow and yellow/black wires to the lamp holder.
- > On switched fixtures, an additional unswitched hot (120 or 277 VAC) wire must be run to the junction box and connected to the emergency ballast.
- > Connect LED by matching violet and brown leads.
- > After installation is complete, supply AC power to the emergency ballast and then join the inverter connector.

### STEP #3 ► EMERGENCY BALLAST QUICK CHECK AND LABELING

- > For short-term testing of the emergency function, the battery must be charged for at least one hour. The emergency ballast must be charged for at least 24 hours before conducting a long-term test.
- > In a readily visible location, attach the label "**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.**"

## OPERATION

When AC power is applied, the charging indicator light is illuminated, indicating the battery is being charged. When power fails, the emergency ballast automatically switches to emergency power, operating one or two lamps at reduced illumination. When AC power is restored, the emergency ballast returns to the charging mode and delays AC ballast operation for approximately three seconds to prevent false-tripping of AC ballast (end-of-lamp-life) shutdown circuits. This emergency ballast will operate 13W through 42W lamps for a minimum of 90 minutes.

## 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. One or two lamps should operate at reduced illumination.
3. Conduct a 90-minute discharge test once a year. One or two lamps should operate at reduced illumination for at least 90 minutes.

**! REFER ANY SERVICING INDICATED BY THESE CHECKS TO QUALIFIED PERSONNEL !**

### 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.

## WIRING DIAGRAMS



**CAUTION:** DO NOT USE TWO-LAMP EMERGENCY WIRING DIAGRAMS FOR ALL 4-PIN COMPACT FLUORESCENT BALLASTS MANUFACTURED BY UNIVERSAL. THESE BALLASTS ARE NOT COMPATIBLE FOR TWO-LAMP EMERGENCY OPERATION.

FIG 501 TWO (2) 4-PIN COMPACT LAMP RAPID START BALLAST  
(13-39 W Lamps Only)

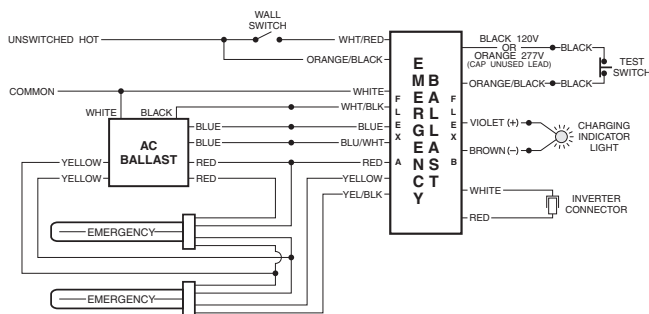


FIG 502 TWO (2) 4-PIN COMPACT LAMP RAPID START BALLAST

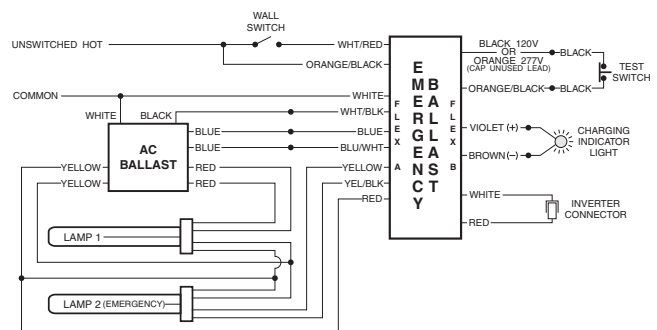


FIG 503 ONE (1) 4-PIN COMPACT LAMP RAPID START BALLAST

