

CF94

Installation Instructions

EMERGENCY LIGHTING EQUIPMENT

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 - 42 W or two 13 W - 39 W (4-pin) compact fluorescent lamps without integral starters.
3. The emergency ballast must be connected to an unswitched AC power source (120 or 277 VAC, 60 Hz).
4. When installing the emergency ballast, make sure all connections are in accordance with the National Electrical Code and any local regulations.
5. To reduce the risk of electric shock, disconnect both normal and emergency power supplies and inverter connector of emergency ballast before servicing.
6. This product is for use with indoor fixtures except air handling heated air outlets, and wet, damp, or hazardous locations.
7. Do not attempt to service the battery. The emergency ballast uses a sealed, no-maintenance battery. Contact the manufacturer for information on service.
8. The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
9. Do not install near gas or electric heaters.
10. Servicing should be performed by qualified service personnel.
11. Do not use this equipment for other than intended use.

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



WARNINGS:

1. TO PREVENT DAMAGE TO THE EMERGENCY BALLAST, JOIN THE BATTERY CONNECTOR BEFORE SUPPLYING AC POWER TO THE EMERGENCY BALLAST.
2. 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.

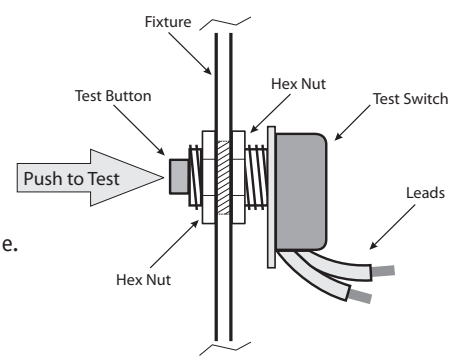
NOTE: Make sure that the necessary branch circuit wiring is available. An unswitched source of power is required. The emergency ballast must be fed from the same branch circuit as the AC ballast.

STEP #1  **INSTALLING THE EMERGENCY BALLAST**

- > Mount the emergency ballast and battery inside the fixture.

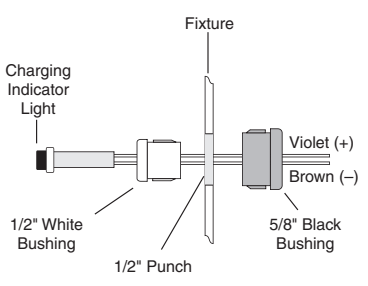
STEP #2  **INSTALLING THE TEST SWITCH**

- > Install the test switch on the fixture so it can be accessed after fixture installation.
- > See illustration below showing basic switched and unswitched fixture connections for test switch installation. Refer to the diagrams and wire the test switch so that it removes AC power from both the emergency ballast and the AC ballast at the same time.
- > Drill a 1/2" hole and install the switch as shown.

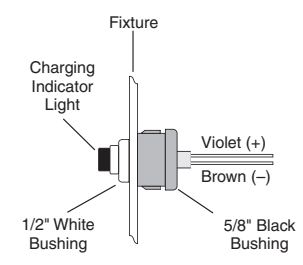


STEP #3  **INSTALLING THE CHARGING INDICATOR LIGHT**

- > Install the CHARGING INDICATOR LIGHT as shown in the illustration so it will be visible after the fixture is installed.



STEP 1



STEP 2

NOTE: After installing the charging indicator light and test switch, mark each with the appropriate label.

INSTALLATION

STEP #4 ► WIRING THE EMERGENCY BALLAST

- > Determine the type of AC ballast installed in the fixture.
- > Select the appropriate wiring diagram to connect the emergency ballast to the AC ballast and lamp.
- > See back page for more detailed wiring schematics. The emergency ballast can be used with multi-lamp fixtures. It operates one or two lamps in the emergency mode.
- > On switched fixtures, an additional unswitched hot (120 or 277 VAC) lead must be connected to the emergency ballast.
- > The emergency ballast must be connected to an unswitched 120 or 277 VAC power source. Do not connect to other voltages. After fixture installation is complete:
 - A. **Join the battery connector.**
 - B. **Supply AC power to the emergency ballast.**
 - C. **Join inverter connector.**
- > For short-term testing of the emergency ballast, 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. Refer to OPERATION.
- > 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 lamp at reduced illumination. When AC power is restored, the emergency ballast returns to the charging mode and delays AC ballast operation for five seconds to prevent false-tripping of AC ballast (end-of-lamp-life) shutdown circuits. This emergency ballast will operate 13 W through 42 W 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 FOR 1-LAMP EMERGENCY OPERATION

FIG A ONE (1) LAMP CIRCLINE RAPID START BALLAST

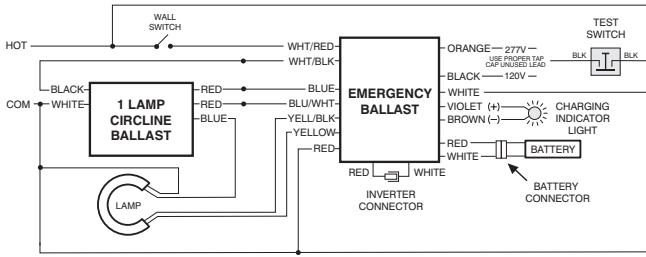


FIG B TWO (2) LAMP CIRCLINE RAPID START BALLAST

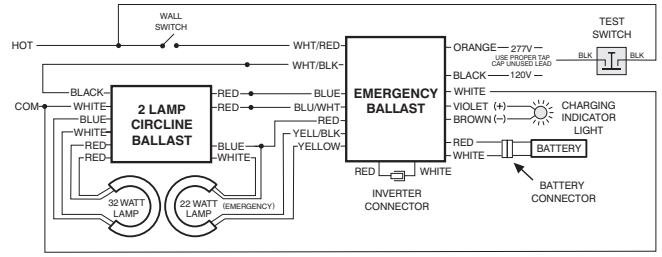


FIG C ONE (1) FOUR PIN COMPACT LAMP RAPID START BALLAST

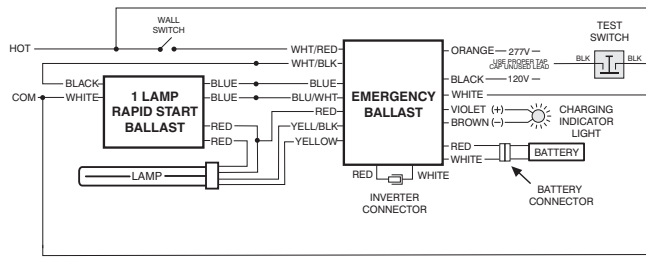
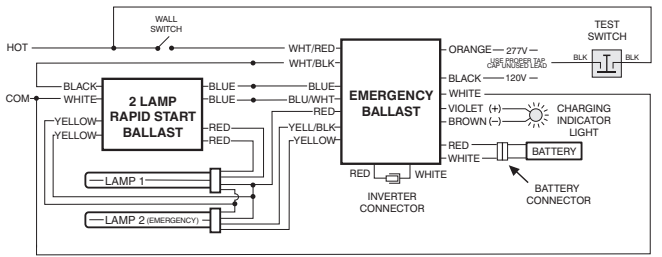


FIG D TWO (2) FOUR PIN COMPACT LAMP RAPID START BALLAST



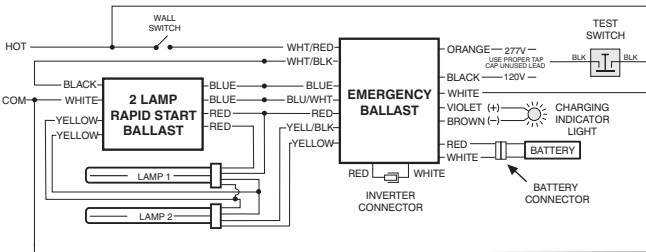
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WIRING DIAGRAMS FOR 2-LAMP EMERGENCY OPERATION



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

FIG E TWO (2) FOUR PIN COMPACT LAMP RAPID START BALLAST



WIRING DIAGRAM for Emergency-Only fixtures



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FIG F ONE (1) FOUR PIN COMPACT LAMP WITHOUT AC BALLAST

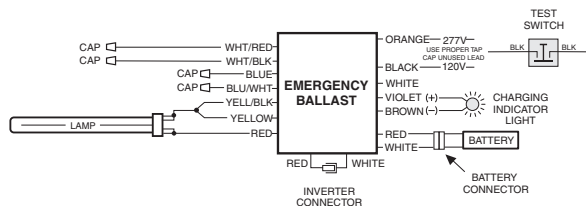


FIG G TWO (2) FOUR PIN COMPACT LAMPS WITHOUT AC BALLAST
 (Two lamp emergency operation for 4-pin compact lamps up to 39 W)

