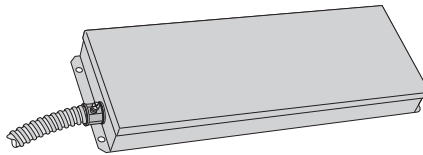


B30

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 most 2' through 8' (17 W - 215 W) T5, T8, T9, T10 and T12 single pin or bipin fluorescent lamps, including energy saving, circline, U-shaped and rapid-start (4-pin) long compact fluorescent lamps.
3. Make sure all connections are in accordance with the National Electrical Code or Canadian Electrical Code and any local regulations.
4. To reduce the risk of electric shock, disconnect both normal and emergency power supplies and battery connector of the emergency ballast before servicing.
5. This emergency ballast is for factory or field installation.
6. This product is suitable for damp locations where the ambient temperature is +5°C minimum, +50°C maximum. Not suitable for heated air outlets and wet 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. The battery is field replaceable. Contact manufacturer for information on replacement. Use caution when replacing battery. Dispose of battery properly. Do not incinerate.
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.**

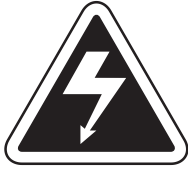
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236 Mt. Pleasant Rd. • Collierville, TN USA 38017-2752 • Tech Support 888-263-4638 • Fax 901-854-1630 • www.philips.com/bodine
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INSTALLATION

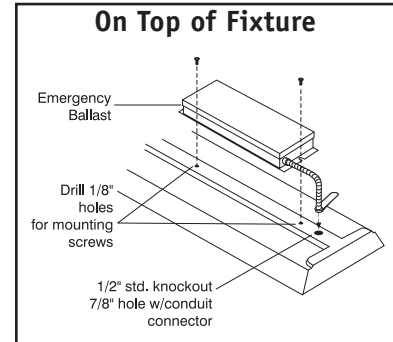


WARNING: TO PREVENT HIGH VOLTAGE FROM BEING PRESENT ON RED & YELLOW OUTPUT LEADS PRIOR TO INSTALLATION, INVERTER CONNECTOR MUST BE OPEN. DO NOT JOIN INVERTER CONNECTOR UNTIL INSTALLATION IS COMPLETE AND AC POWER IS SUPPLIED TO THE EMERGENCY BALLAST.

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.

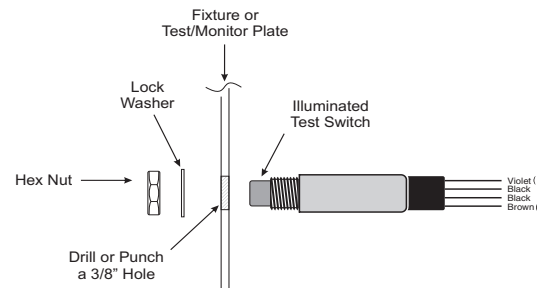
STEP #1 ▶ INSTALLING THE EMERGENCY BALLAST

- > Disconnect AC power from the fixture. Install the emergency ballast as shown. **Remote mounting distance must be less than half the maximum remote mounting distance of the AC ballast. Consult AC ballast manufacturer before remote installation.**



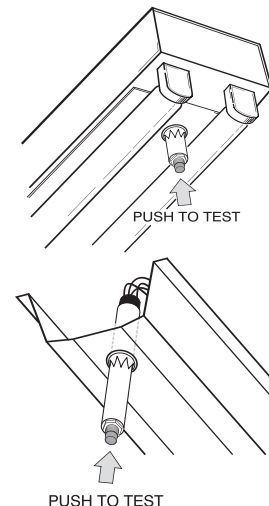
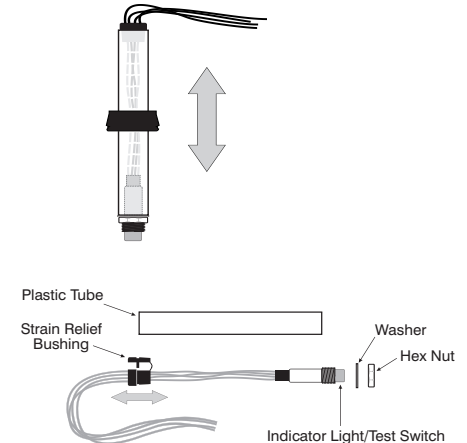
STEP #2a ▶ INSTALLING THE ITS ON WALL PLATE OR FIXTURE SURFACE

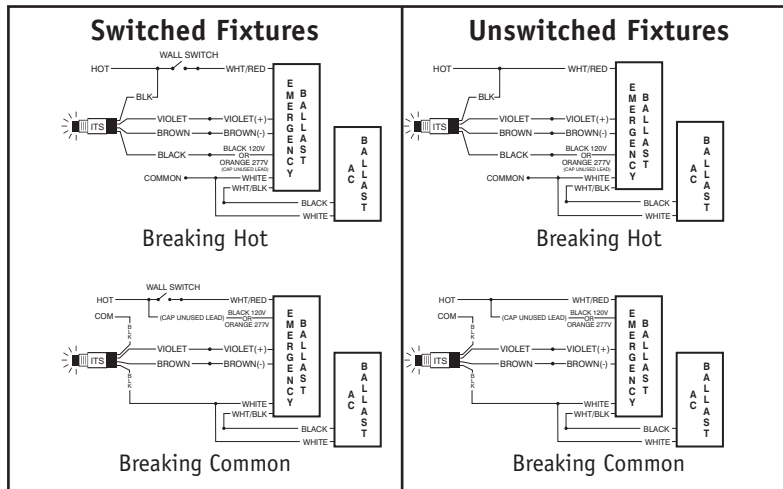
- > Drill a 3/8" hole and install the test switch (e.g. through the side of a surface mounted fixture).
- > Refer to the illustrations below and wire the test switch so that it removes AC power from both the emergency ballast and the AC ballast at the same time.
- > If wired correctly, the ITS indicator light should be ON when AC power is supplied to the fixture, indicating that the emergency ballast battery is charging. After installing, mark with the "PUSH TO TEST" and "CHARGING INDICATOR LIGHT" labels.



STEP #2b ▶ INSTALLING THE ITS ON THE BALLAST CHANNEL COVER

- > Drill or punch a 7/8 inch hole in ballast channel cover and insert bushing.
- > Slide the ITS tube up or down to adjust the height and visibility of the charging indicator light.
- > If the tube is too long, cut the plastic tubing to necessary length.
- > After cutting the tube to the proper length, assemble the ITS. To assemble the ITS:
 - > Remove the washer and hex nut from the ITS.
 - > Place the strain relief bushing on the wires back from the tip of the switch approximately the length of the plastic tube.
 - > Feed the switch through the plastic tubing and seat the tapered end of the strain relief bushing into the tubing. The threaded end of the switch should protrude slightly from the plastic tubing. If the threaded end of the switch is not extending beyond the end of the plastic tubing or is protruding too far, reposition the strain relief bushing until you achieve the desired result.
 - > Place the washer and hex nut back on the switch and tighten.





STEP #3 ► WIRING THE EMERGENCY BALLAST

- > Determine the type of AC ballast installed in the fixture.
- > Select the appropriate wiring diagram on back to connect the emergency ballast to the AC ballast and lamp(s). Make electrical connections in accordance with the National Electrical Code, Canadian Electrical Code and any local regulations.
- > After installation is complete, supply AC power to the emergency ballast and join the inverter connector.
- > At this point, power should be connected to both the AC ballast and the emergency ballast, and the Charging Indicator Light should illuminate indicating the battery is charging.
- > A short-term discharge test may be conducted after the emergency ballast has been charging for one hour. Charge for 24 hours before conducting a long-term discharge test. Refer to OPERATION.
- > In a readily visible location, attach the label "**CAUTION - This Unit Has More Than One Power 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 that the battery is being charged. When power fails, the emergency ballast automatically switches to emergency power (internal battery), operating either one or two lamps at reduced illumination for at least 90 minutes. 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.

SELF-TESTING OPERATION

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.
4. The life expectancy of the battery is 7 to 10 years. If the battery fails to provide 90 minutes of illumination, it should be replaced.

CAUTION: To replace battery, disconnect inverter connector and both switched and unswitched AC power from the fixture. Remove two screws (located on each end of lid), remove lid, and unplug and remove old battery. Plug in new battery, place inside ballast case, then replace lid and two screws. Supply AC power to fixture and reconnect inverter connector. Charging indicator light should be illuminated. Contact manufacturer for battery replacement.

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

WIRING DIAGRAMS

The following diagrams are typical schematics only.
The unit may be used with other ballasts.
Consult the factory for other wiring diagrams.

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.

Table 1 - Lamp Compatibility

LAMP DIAMETER (T8, T9, T10, T12)	BASE	WATTAGE (Length)	NO. of LAMPS (EMERGENCY)	BROWN CONNECTOR
1", 1¼", 1½"	Single or Bipin	17 - 40 W (2' - 4')	1	CLOSED
		32 - 215 W (5' - 8')	2	OPEN
Long Compact	4-PIN (2G11)	18 - 39 W	1	CLOSED
			2	OPEN
		40 - 55 W	1	OPEN
Twin/Quad Twin-Tube Compact	4-PIN (G24q, GX24q)	18 - 42 W	1	CLOSED
			2	OPEN
2D	4-PIN (GR10q)	16 - 38 W	1	CLOSED
			2	OPEN
		55 W	1	OPEN
T5 (5/8")	Bipin	14 - 54 W (2' - 4')	1	CLOSED

WIRING DIAGRAMS FOR 1-LAMP EMERGENCY OPERATION

FIG A ONE (1) LAMP INSTANT START BALLAST

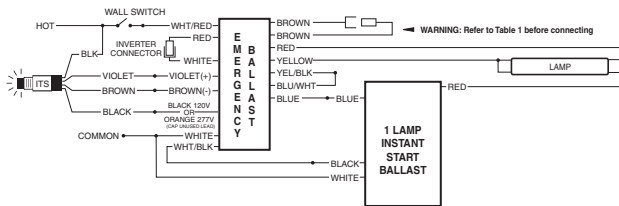


FIG B ONE (1) LAMP RAPID START BALLAST

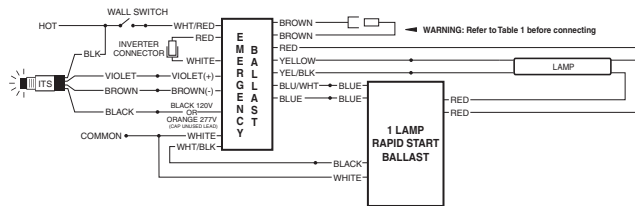


FIG C TWO (2) LAMP INSTANT START BALLAST

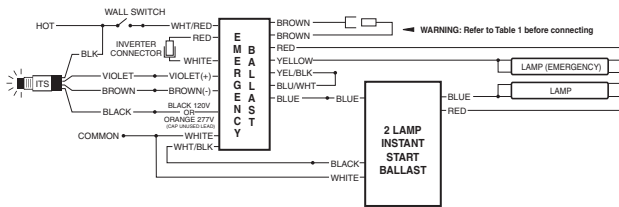


FIG D TWO (2) LAMP RAPID START BALLAST

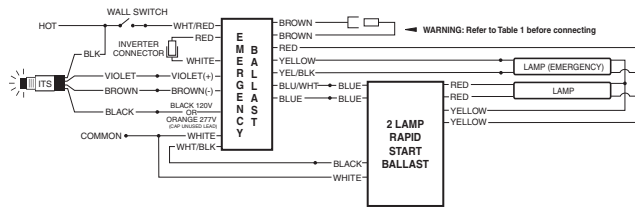


FIG E THREE (3) LAMP INSTANT START BALLAST

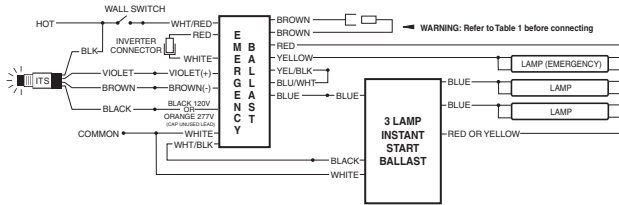


FIG F THREE (3) LAMP RAPID START BALLAST

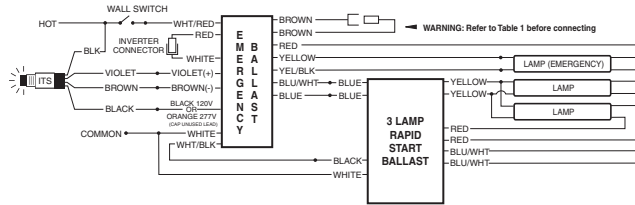


FIG G FOUR (4) LAMP INSTANT START BALLAST

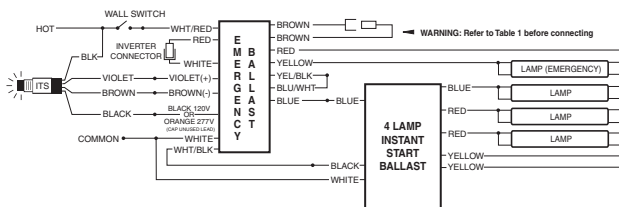


FIG H FOUR (4) LAMP RAPID START BALLAST

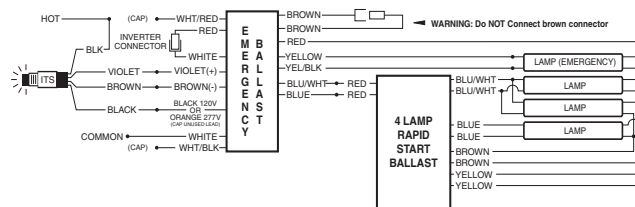


FIG I ONE (1) 4-PIN COMPACT LAMP RAPID START BALLAST

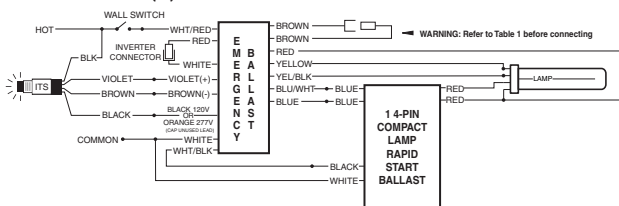
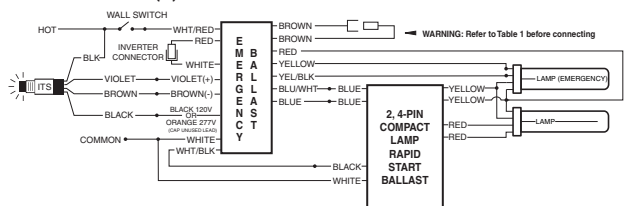
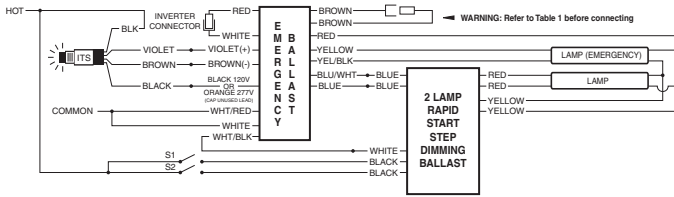


FIG J TWO (2) 4-PIN COMPACT LAMP RAPID START BALLAST



WIRING DIAGRAMS FOR 1-LAMP EMERGENCY OPERATION

FIG K TWO (2) LAMP RAPID START STEP DIMMING BALLAST



THE WHITE/BLACK LEAD MUST CONNECT TO THE WHITE LEAD OF THE STEP-DIMMING BALLAST ASSOCIATED WITH THE EMERGENCY BALLAST ONLY. CONNECTIONS TO OTHER BALLASTS OR FIXTURES COULD RESULT IN ABNORMAL OPERATION AND CAUSE PRODUCT DAMAGE.

WIRING DIAGRAMS for 2-LAMP emergency operation (T8 or T12, 2' - 4', 17- 40 W lamps only)

FIG L TWO (2) LAMP INSTANT START BALLAST

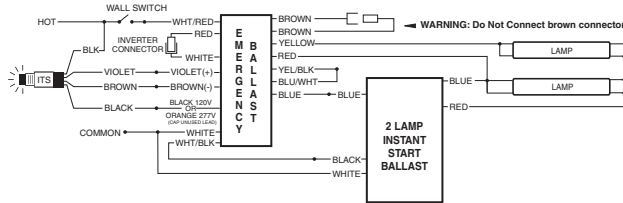


FIG M TWO (2) LAMP RAPID START BALLAST

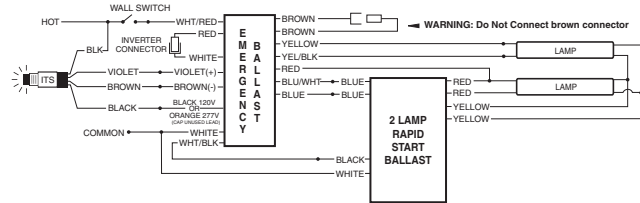


FIG N THREE (3) LAMP INSTANT START BALLAST

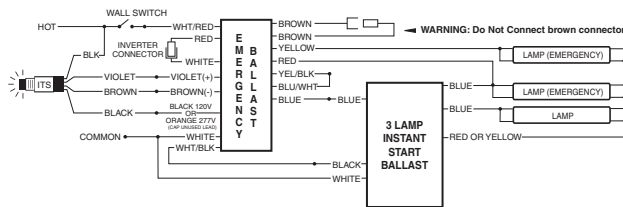


FIG O THREE (3) LAMP RAPID START BALLAST

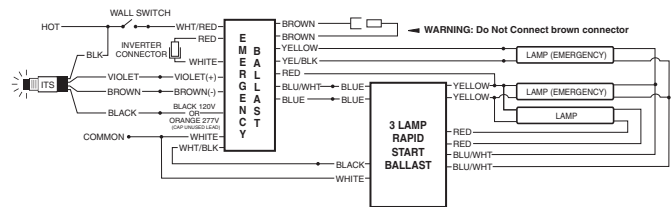


FIG P FOUR (4) LAMP INSTANT START BALLAST

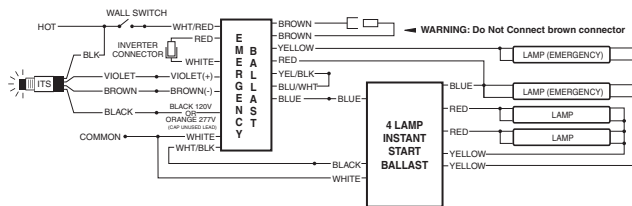


FIG Q FOUR (4) LAMP RAPID START BALLAST

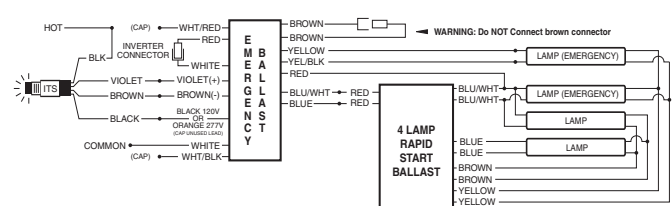
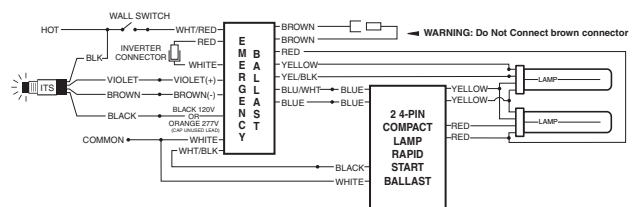


FIG R TWO (2) 4-PIN COMPACT LAMP RAPID START BALLAST



WIRING DIAGRAM for EMERGENCY-ONLY fixtures

FIG S ONE (1) 17-215 W LAMP WITHOUT AC BALLAST

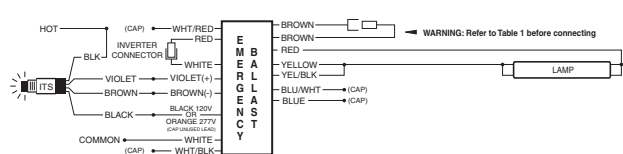


FIG T TWO (2) T8 OR T12 17-40 W LAMPS WITHOUT AC BALLAST

