

B100

Fluorescent Emergency Ballast

PHILIPS bodine

Convenient code compliance

A Division Of Philips Electronics North America Corporation

Product Summary

UL LISTED

Factory or Field Installation



Illumination Time

90 Minutes

Initial Light Output

350 - 450 Lumens

Full Warranty

1 Year (NOT pro-rata)

Dual Input Voltage

120/277 VAC, 60 Hz

AC Input Current

280 mA

AC Input Power Rating

2.5 Watts

Test Switch

Single Pole

Battery

High-Temperature,
Maintenance-Free
Nickel-Cadmium Battery
7- to 10-Year Life Expectancy

Batter Charging Current

280 mA

Recharge Time

24 Hours

Charging Indicator Light

LED

Temperature Rating (Ambient)

0°C to +55°C
(32°F to 131°F)

Dimensions

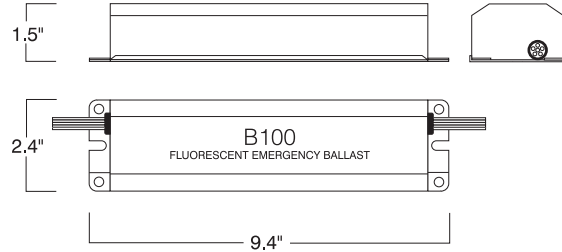
9.4" x 2.4" x 1.5"
(238 mm x 60 mm x 38 mm)
Mounting Center 8.9" (226 mm)

Weight

2.1 lbs. (.95 kg)

Emergency ballasts can be modified to accommodate special voltages, frequencies and longer run times.

CSA Certified model also available.



APPLICATION

The B100 fluorescent emergency ballast works in conjunction with an AC ballast to convert new or existing fluorescent fixtures into emergency lighting. The emergency ballast consists of a high-temperature nickel-cadmium battery, charger and electronic circuitry in one compact red case. The B100 can be used with one 17 - 40 W (2' - 4') T8, T10 or T12 fluorescent lamp without an integral starter, including U-shaped, HO, VHO, circline and energy-saving, or (4-pin) long compact. It is also compatible with most one-, two-, three- and four-lamp electronic, standard, energy-saving and dimming AC ballasts. If used in an emergency-only fixture, no AC ballast is necessary. The B100 is suitable for indoor locations. It is not suitable for air handling heated air outlets or wet, damp or hazardous locations. For information about specific lamp and ballast compatibility, please call the factory.

OPERATION

When AC power fails, the B100 immediately switches to the emergency mode, operating one lamp at a reduced lumen output for a minimum of 90 minutes. When AC power is restored, the emergency ballast automatically returns to the charging mode.

INSTALLATION

The B100 does not affect normal fixture operation and may be used with either a switched or unswitched fixture. If a switched fixture is used, an unswitched hot lead must be connected to the emergency ballast. The emergency ballast must be fed from the same branch circuit as the AC ballast. The B100 may be installed inside, on top of or remote from the fixture. The emergency ballast may be remotely installed up to half the distance the AC ballast manufacturer recommends removing the AC ballast from the lamp or up to 50 feet, whichever is less. Installation is not recommended with fixtures where the ambient temperature may fall below 0°C.

UL and CODE COMPLIANCE

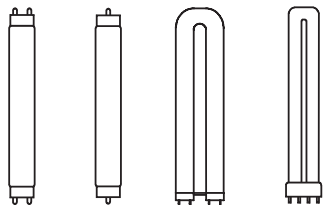
The B100 has been tested by Underwriters Laboratories in accordance with the standards set forth in UL 924, "Emergency Lighting and Power Equipment," and is UL Listed for factory or field installation. Emergency illumination time exceeds the National Electrical Code (NEC), Life Safety Code (NFPA-LSC) and UL 90-minute requirements.

Specifiers Reference

Project _____ Type _____ Model No. _____
Comments _____

L2000007

01/29/09 © Philips Emergency Lighting
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Tech. Support 888-263-4638
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B100

Fluorescent Emergency Ballast

Convenient code compliance

EMERGENCY ILLUMINATION

Depending on the wattage and type of lamp select, the B100 produces 350 to 450 lumens initial emergency light output. During emergency illumination, one lamp is illuminated, even if installed with a multi-lamp AC ballast. Emergency lumen output will be less with a compact fluorescent lamp.

SPECIFICATION

Emergency lighting shall be provided by using a standard fluorescent fixture equipped with a Bodine B100 emergency ballast. This emergency ballast shall consist of a high-temperature, maintenance-free nickel-cadmium battery, charger and electronic circuitry contained in one 9 3/8" x 2 3/8" x 1 1/2" red metal case. A solid-state charging indicator light to monitor the charger and battery, a single-pole test switch and installation hardware shall be provided. The emergency ballast shall be capable of operating one 17 - 40 W (2' - 4') T8, T10 or T12 fluorescent lamp or (4-pin) long compact fluorescent lamp at reduced illumination in the emergency mode for a minimum of 90 minutes. It shall be suitable for indoor locations. The B100 shall produce 350 to 450 lumens initial emergency light output, have 3.5 Watts of input power and a 9.6 Watt-hour battery capacity and comply with emergency standards set forth by the current NEC. The emergency ballast shall be UL Listed for installation inside, on top of or remote from the fixture and shall be warranted for a full year from date of purchase.

WARRANTY

Model B100 is warranted for one (1) full year from date of purchase. This warranty covers only properly installed Bodine emergency ballasts used under normal conditions. For the warranty period, Bodine will, at its option, repair or replace without charge a defective emergency ballast, provided it is returned to the factory transportation prepaid and our inspection determines it to be defective under terms of the warranty. Repair or replacement, as stated above, shall constitute the purchaser's exclusive warranty, which does not extend to transportation, installation, labor or any other charges; nor does it apply to any equipment of another manufacturer used in conjunction with the emergency ballast.

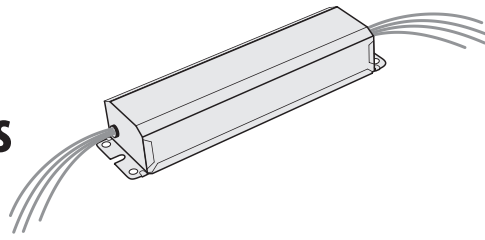
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B100

Installation Instructions

FLUORESCENT EMERGENCY BALLAST



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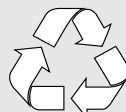
! IMPORTANT SAFEGUARDS !

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 17 W through 40 W 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 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 in either the ballast channel or on top of the fixture.
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.**

01/29/09

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INSTALLATION

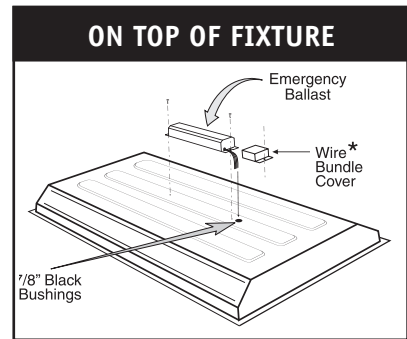
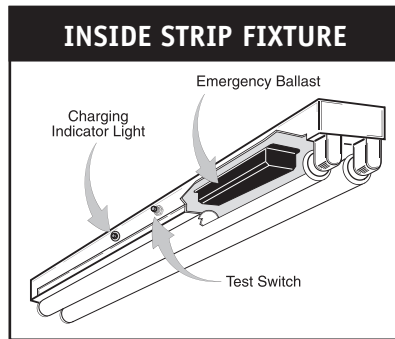
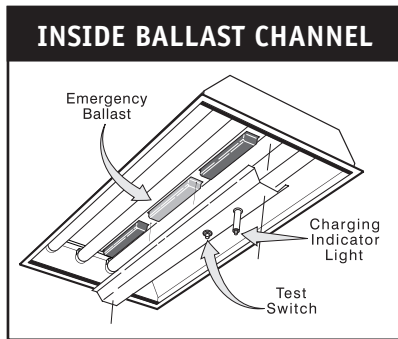


WARNING: TO PREVENT HIGH VOLTAGE FROM BEING PRESENT ON RED & YELLOW OUTPUT LEADS PRIOR TO INSTALLATION, INVERTER CONNECTOR MUST BE OPEN. DO NOT JOIN INVERTER CONNECTOR UNTIL INSTALLATION IS COMPLETE AND AC POWER IS SUPPLIED TO THE EMERGENCY BALLAST.

NOTE: Make sure 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

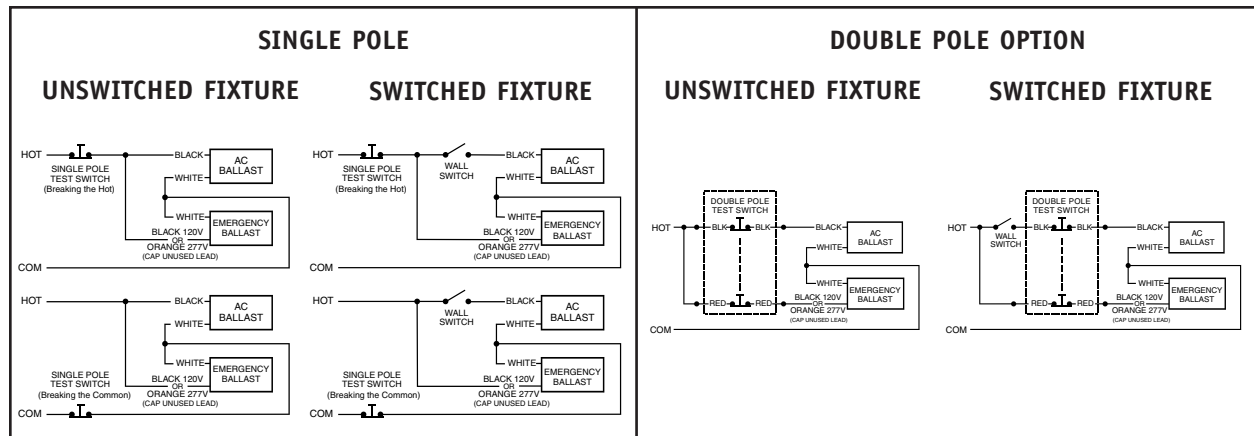
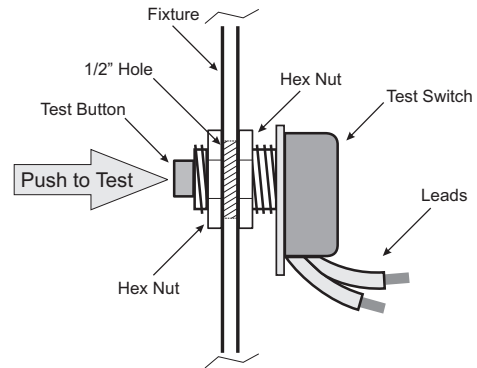
- > Disconnect AC power from the fixture. Remove the ballast channel cover and install the emergency ballast either in the ballast channel or on top of the fixture. *
- > Depending on the type of fixture in use install emergency ballast using one of the methods illustrated below.



* For installation on top of the fixture, wire bundle covers (RMC-60) may be required by state or local codes. These covers are available from the manufacturer as an accessory kit and must be ordered separately. Call your local distributor or the factory for complete information.

STEP #2 ▶ INSTALLING THE TEST SWITCH

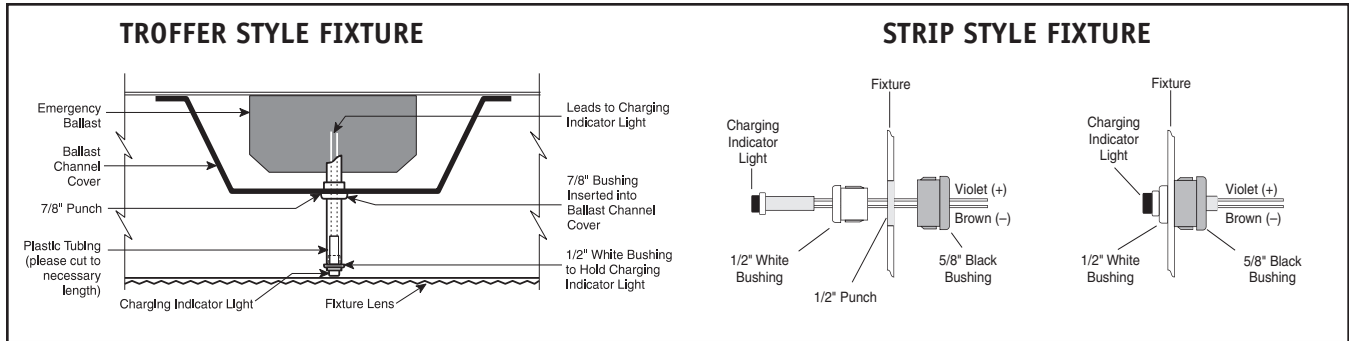
- > Refer to the illustrations above and install the test switch through the ballast channel cover of a troffer or through the side of a strip fixture.
- > Drill a 1/2" hole and install the switch as shown.
- > Refer to the diagrams below and wire the test switch so that it removes AC power from both the emergency ballast and the AC ballast at the same time.



INSTALLATION

STEP #3 ▶ INSTALLING THE CHARGING INDICATOR LIGHT

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



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

STEP #4 ▶ 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 sure all connections are in accordance with the National 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 one lamp at reduced illumination. This emergency ballast will operate 17 W through 40 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 lamp should operate at reduced illumination.
3. Conduct a 90-minute discharge test once a year. One lamp 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 52a ONE (1) LAMP INSTANT START BALLAST

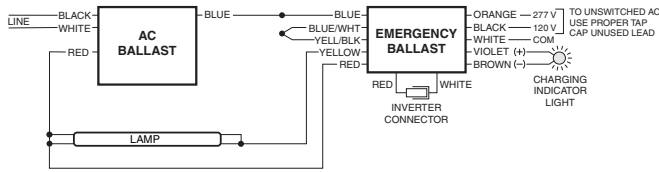


FIG 2a ONE (1) LAMP RAPID START BALLAST

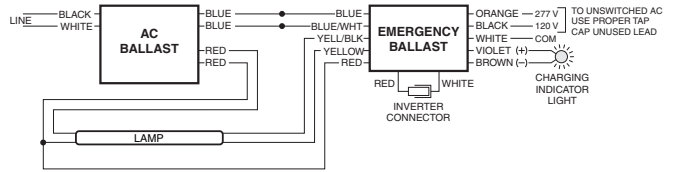


FIG 36a TWO (2) LAMP INSTANT START BALLAST

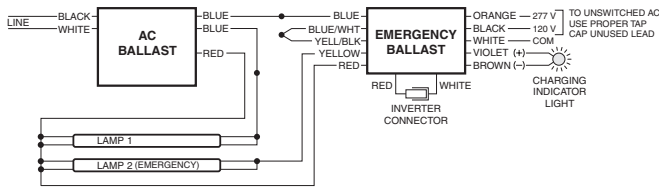


FIG 3a TWO (2) LAMP RAPID START BALLAST

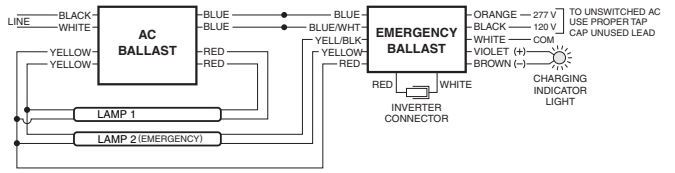


FIG 7a THREE (3) LAMP INSTANT START BALLAST

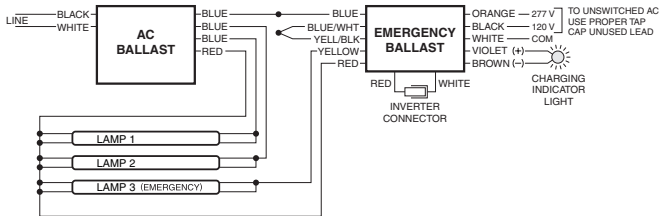


FIG 15a THREE (3) LAMP RAPID START BALLAST

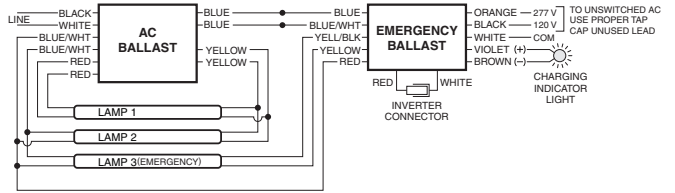


FIG 14a FOUR (4) LAMP INSTANT START BALLAST

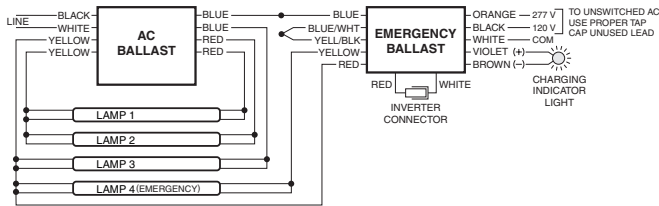
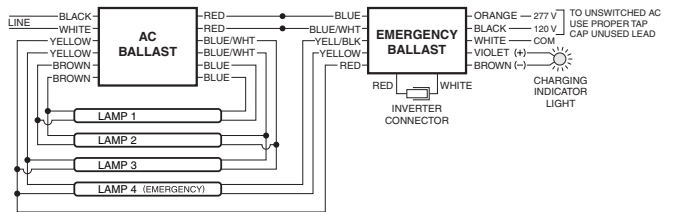


FIG 51a FOUR (4) LAMP RAPID START BALLAST



WIRING DIAGRAM for EMERGENCY-ONLY fixtures

FIG 1a ONE (1) 17-40 W LAMP WITHOUT AC BALLAST

