BALT5-800

LOW-PROFILE FLUORESCENT EMERGENCY BALLAST

APPLICATION

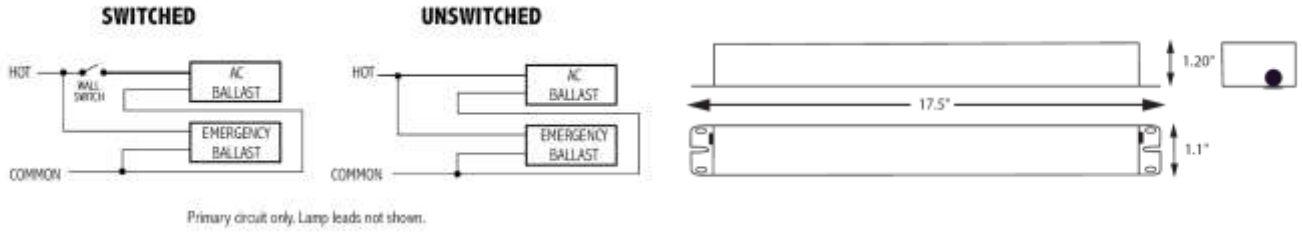
The BALT5-800 low-profile fluorescent emergency ballast works in conjunction with the AC ballast to convert new or existing fluorescent fixtures into emergency lighting. The emergency ballast consists of a high-temperature nickel cadmium battery, charger and electronic circuitry in one compact case. The BALT5-800 can be used with one (1) 14W-54W (2' - 4') T5 fluorescent lamps, 17W-40W T8 lamps without integral starters, and 17W-55W 4-pin long compact lamps. It is also compatible with most electronic and dimming AC ballasts. If used in an emergency-only fixture, no AC ballast is necessary. This ballast is not suitable for use in air handling heated air outlet fixtures, and wet or hazardous location fixtures. For information about specific lamp and ballast compatibility, please consult the factory. This ballast has additional features, such as time-delay enhancement and open circuit isolation that enables the emergency battery pack to function smoothly with 'End-of-Lamp-Life' circuitry in newer AC ballasts. This would provide an additional level of unit production from over-voltage caused by an absence of lighting load.

OPERATION

When AC power fails, the BALT5-800 immediately switches to the emergency mode, keeping one lamp illuminated at a reduced lumen output for a minimum of 90 minutes. When AC power is restored, the ballast automatically returns to the charging mode.

INSTALLATION

The BALT5-800 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 BALT5-800 may be installed inside or on top of the fixture. Installation is not recommended with fixtures where the ambient temperature may fall below 0ºC for extended periods.



Primary circuit only. Lamp leads not shown.

UL AND CODE COMPLIANCE

The BALt5-800 has been tested by Underwriters Laboratories in accordance with the standards set forth in UL924, "Emergency Lighting and Power Equipment," and is UL Listed for factory and field installation. Emergency illumination time exceeds the National Electrical Code (NEC), Life Safety Code (NFPA-LSC) and UL 90-minute requirements.

BATTERY

Because high temperatures exist in fluorescent fixtures, the BALT5-800 uses a specifically constructed, high-temperature nickel cadmium battery. This battery requires no maintenance and has a life expectancy of 7 – 10 years.

EMERGENCY ILLUMINATION

The BALT5-800 produces 800 lumens initial emergency light output. During illumination, one lamp is illuminated, even if 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 Best BALT5-800 emergency ballast. This emergency ballast shall consist of a high-temperature, maintenance-free nickel cadmium battery, charger and electronic circuitry contained in one 17.5" x 1.1" x 1.2" white 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 (1) 14W-54W (2' - 4') T5, 14W-40W T8 fluorescent lamps without integral starters, and 17W-55W 4-pin long compact lamps at reduced illumination in the emergency mode for a minimum of 90 minutes. The BALT5-800 shall produce 800 lumens initial emergency light output, have 2.5 Watts of input power, a 15 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.

WARRANTY

Model BALT5-800 is warranted for five (5) full years from date of purchase. This warranty covers only properly installed Howard emergency ballasts use under normal conditions. For the warranty period Howard will, at its option, repair or replace without charge, a defective emergency ballast provided it is returned to the factory transportation 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.

PRODUCT SUMMARY

UL LISTED
Factory or Field Installation

ILLUMINATION
90 Minutes

INITIAL LIGHT OUTPUT
800 Lumens

FULL WARRANTY
5 Years (NOT pro-rata)

DUAL VOLTAGE INPUT
120/277VAC 60 Hz

AC INPUT CURRENT
128mA/122mA

AC INPUT POWER RATING
2.5 Watts

TEST SWITCH
Single pole

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

BATTERY CHARGING CURRENT
128mA/122mA

RECHARGE TIME
24 Hours

CHARGING INDICATOR LIGHT
LED

TEMPERATURE RATING (AMBIENT)
0°C TO 50°C (32°F TO 112°F)

DIMENSIONS
17.5" X 1.1" X 1.2"
Mounting center 16.9"

WEIGHT
1.7lbs (0.8 kg)

UL LISTED

CAUTION :Contains nickel-cadmium rechargeable battery. Must be recycled or disposed of properly. Ni-Cd

Installation Instructions

When using this lighting device the safety precautions should be followed at all times.

PLEASE READ CAREFULLY AND FOLLOW ALL INSTRUCTIONS FOR YOUR OWN SAFETY

1. Caution – To prevent Electrical shock, do not mate unit connector until installation is complete and AC power is supplied to the unit.
2. Caution – This fixture provides more than one power supply output source. To reduce the risk of electrical shock, disconnect both normal and emergency sources by turning off the AC branch circuit and by disconnecting the unit connector.
3. Caution – This is a sealed unit. The integral, high temperature Ni-Cad battery is not replaceable. Replace the entire unit when necessary and recycle or dispose of the Nickel-Cadmium battery properly.
4. The BALT5-800 is for use with grounded, UL listed, indoor fixtures except in heated air outlets or hazardous locations. This unit cannot be used outdoors.
5. The BALT5-800 requires an unswitched AC power source of either 120V or 277V. Properly cap the unused AC lead.
6. Do not mount near gas or electric heaters.
7. The BALT5-800 should be mounted in locations and heights where it will not readily be subjected to tampering by unauthorized personnel.
8. The BALT5-800 will cold strike and operate for 90 minutes one 2’ to 4’ 14-54W T5 or T8 linear lamp, including HO and 4-pin long compact fluorescent lamps from 17-55W in the emergency mode. It is compatible with all AC magnetic and electronic ballasts including multiple lamp ballasts.
9. The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition. Do not use this equipment for other than its intended use.
10. Install in accordance with the National Electrical Code and local regulations. Installation and servicing should be performed by qualified personnel.

UL LISTED

CAUTION :Contains nickel-cadmium rechargeable battery. Must be recycled or disposed of properly. Ni-Cd

INSTALLATION INSTRUCTIONS

INSTALLATION

Caution – Before installing, turn off the main circuit breaker to avoid any possible shock. Also, make sure that the inverter connector is disconnected.

1. Mounting the BALT5-800: Remove the ballast channel cover. Mount the BALT5-800 in the ballast channel at least 1/2" away from the AC ballast(s). When battery backs are remote mounted, the remote distance cannot exceed ½ the distance from the ballast to lamp specified by the AC ballast manufacturer. For example, if the AC ballast manufacturer recommends no more than 25' remote distance, then the battery pack should not exceed 12 1/2'. Under no circumstances should the battery pack exceed a distance of 50' from the lamp.
2. Wiring: Refer to the wiring diagrams on the last page for the appropriate wiring of lamp(s) and ballast. Install in accordance with the National Electrical Code and local regulations. For additional wiring diagrams consult Customer Service.
3. Installing the LED COMBO SWITCH:
    a. Linear Fixture – Select a convenient location on the fixture so that the LED COMBO SWITCH can be seen after installation. Allow for proper clearance inside the fixture and drill or punch a 1/2" hole. Remove the nut from the LED COMBO SWITCH. Push the switch housing into the ½" hole and secure with the nut. Connect the LED wires from the unit to the LED COMBO SWITCH (Red to Red, White/Red to White). Refer to figure 1.
    b. Recessed Troffer Fixture – Select a convenient location with proper clearance in the ballast cover and drill or punch a 7/8" bushing into the hole. Push the plastic tube through the bushing. Route the leads of the LED COMBO SWITCH through the plastic tube. Connect the LED wires from the unit to the switch (Red to Red, White/Red to White). Push the entire assembly back into the tube until the lens collar rests against the plastic tube. The plastic tube should be adjusted so that the LED COMBO SWITCH is within ¼" of the fixture lens. The switch must be visible after installation. Refer to figure 2.

Figure 1

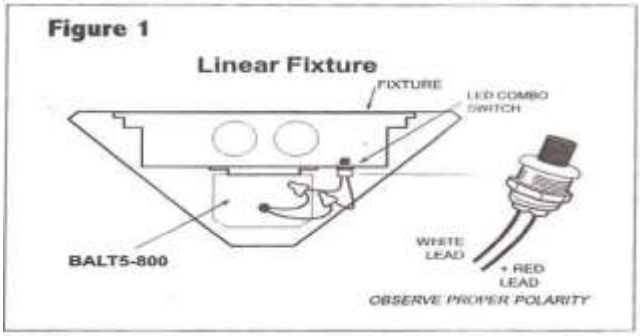
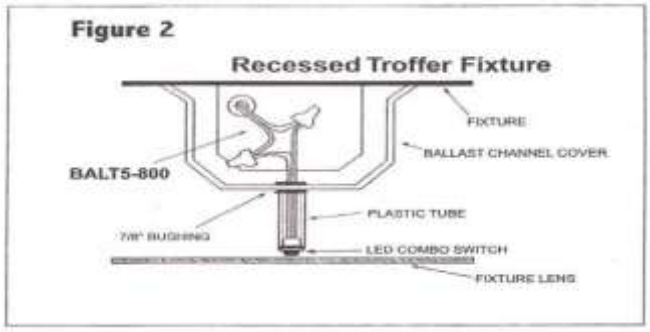
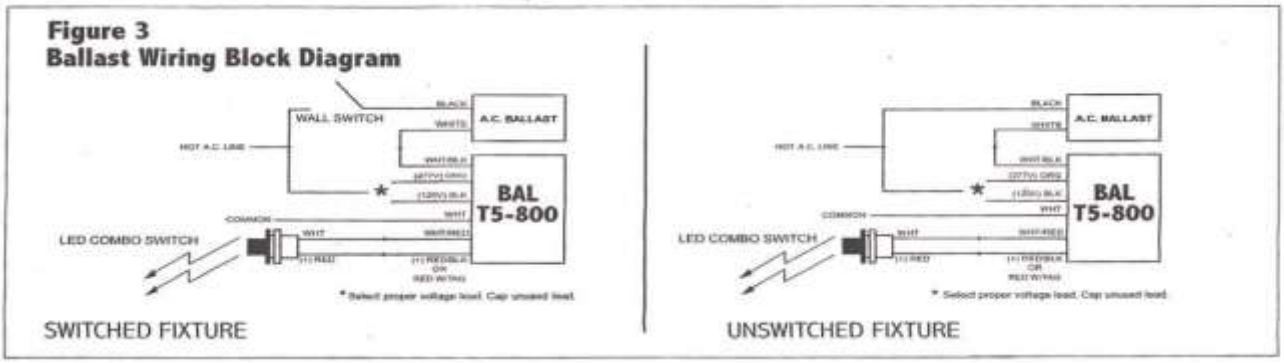


Figure 2



4. Power Supply: The BALT5-800 and AC ballast must be on the same branch circuit. It requires an unswitched AC power source of either 120 or 277V. Select the proper voltage lead and cap the unused lead. When the BALT5-800 is used with a switched fixture, the AC input to the emergency ballast must be connected ahead of the fixture switch. Refer to the fixture below for switched and unswitched fixture wiring diagrams.

Figure 3
Ballast Wiring Block Diagram



INSTALLATION INSTRUCTIONS continued.

5. Labels: Attach the appropriate labels adjacent to the LED COMBO SWITCH. The 'Caution' and the Re-Lamping labels must be on the fixture in the readily visible location to anyone attempting to service the fixture.
6. When installation of the ballast is complete, switch the AC power on and join the BALT5-800 unit inverter connector.

OPERATION

Normal Mode – When AC power is present, the AC ballast operates the fluorescent lamp(s) as intended. The BALT5-800 is in the standby charging mode. The LED COMBO SWITCH will be lit providing a visual indication that the battery is being charged.

Emergency Mode – When AC power fails, the LED COMBO SWITCH sensed the AC power failure and automatically switches to the Emergency mode. One lamp is illuminated, at reduced output, for a minimum of 90 minutes. When the AC power is restored, the BALT5-800 switches the system back to the Normal mode and resumed battery charging.

TESTING AND MAINTENANCE

Pushing the red lens on the LED COMBO SWITCH turns off the light (on the switch) and forces the unit into emergency mode. , interrupting power to the designated AC ballast. The emergency lamp is now being lit by the BALT5-800 ballast. After releasing the LED COMBO SWITCH, the fixture returns to normal operation after a momentary delay. To simulate a 'BLACK OUT' use the circuit breaker to turn off the AC ballast.

Allow the unit to charge approximately one (1) hour, and then press the switch to conduct a short discharge test. The ballast needs to be charged for at least 24 hours before conducting a one hour test.

The BALT5-800 is a maintenance-free unit, however, periodic inspection and testing is required. Per NFPA 101 and Life Safety Codes, a monthly and annual inspection needs to be done on the ballast. Servicing should always be performed by qualified personnel. Written records of the testing shall be kept by the owner for inspection by the authority having jurisdiction.

Monthly – Insure that the LED COMBO SWITCH is illuminated. Conduct a 30-second discharge test by depressing the switch. One lamp should operate at reduced output.

Annually – Insure that the LED COMBO SWITCH is illuminated. Conduct a full 1 ½ hour discharge test. The unit should operate as intended for the duration of the test.

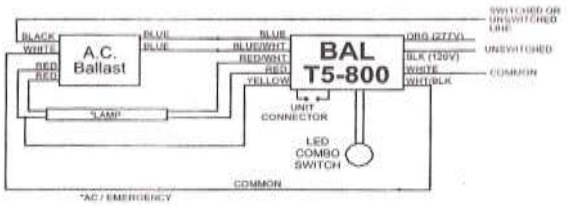
UL LISTED

CAUTION :Contains nickel-cadmium rechargeable battery. Must be recycled or disposed of properly. Ni-Cd

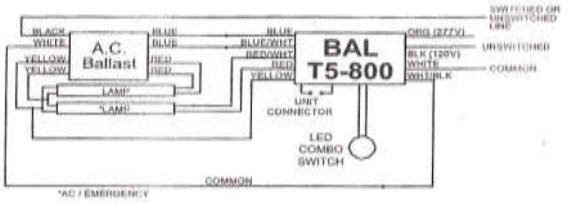
TYPICAL WIRING DIAGRAMS

For wiring diagrams of ballasts not shown, consult our Customer Service.

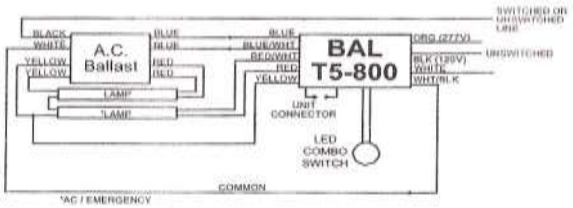
1. ONE LAMP RAPID START BALLAST



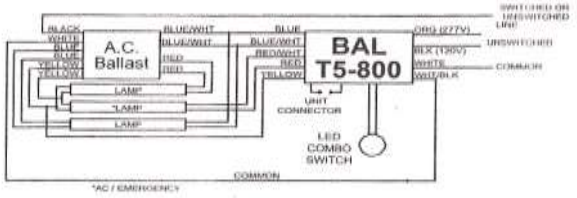
2. TWO LAMP RAPID START BALLAST



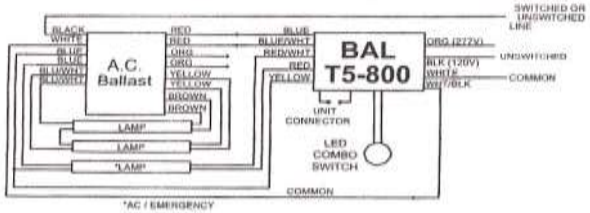
3. TWO LAMP RAPID START BALLAST



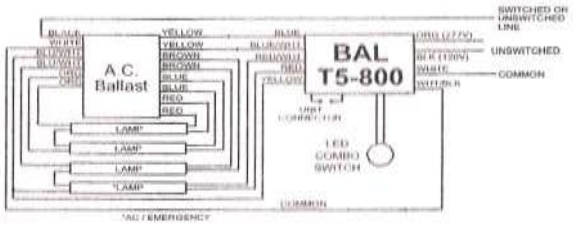
4. THREE LAMP RAPID START BALLAST



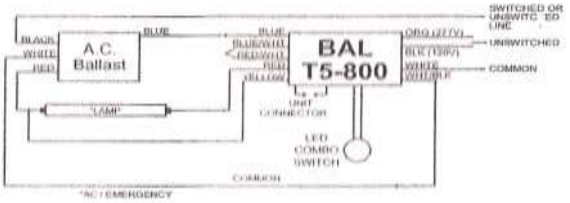
5. THREE LAMP RAPID START BALLAST



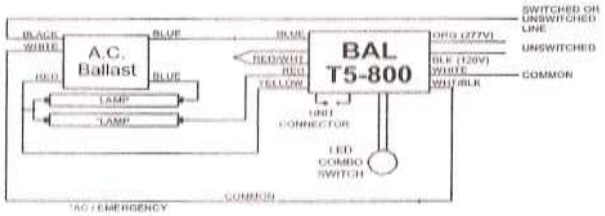
6. FOUR LAMP RAPID START BALLAST



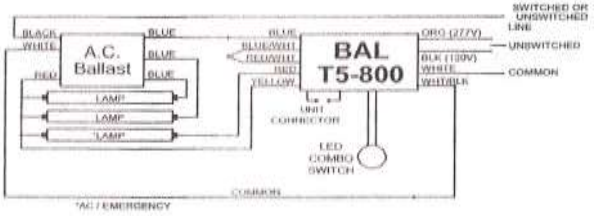
7. ONE LAMP INSTANT START BALLAST



8. TWO LAMP INSTANT START BALLAST



9. THREE LAMP INSTANT START BALLAST



10. FOUR LAMP INSTANT START BALLAST