HOWARD

3/7/2012

BAL500/PAC0314

Fluorescent Emergency Ballast 350-500 Lumens

- Works in conjunction with an AC ballast to convert new or existing fluorescent fixtures into unobtrusive emergency lighting
- Maintains illumination of one lamp in the emergency mode for a minimum of 90 minutes

Features

- Provides a minimum of 90 minutes of emergency illumination
- Can be installed inside, on top or in remote* of the fixture
- Can be used in both switched and unswitched fixtures
- UL 924 Listed for damp location
- UL listed for Retrofit/Field Installation
- Life safety NFPA 101
- NEC/OSHA
- Meets most state and local codes

Electrical

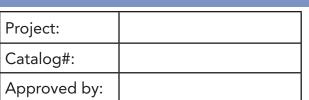
- Dual Voltage Input 120V/277 VAC, 60Hz
- Solid-state charger circuit
- Test Switch/Power Indicator light
- Temperature Rating (Ambient): 0°C to 50°C [32°F to 122°F]
- Maintenance-free, long life, Sealed Nickel Cadmium Battery
- Maximum battery recharge time: 24 hours

Housing

Painted-white steel housing

Illumination

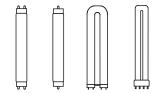
 Operates one lamp in the emergency mode for a minimum of 90 minutes – please refer to page 2 for more information. Provides a maximum initial lumen output of 500 Lumens



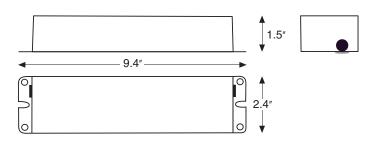


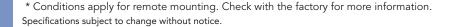
Lamp Compatibility

- Compatible with 1-lamp, 2-lamp, 3-lamp and 4-lamp fixtures with many ballast types including standard, rapid start, slimline, instant start, dimming and electronic AC ballast – consult factory regarding specific applications
- Compatible with many different lamp types refer to back of page or contact customer service for more information



Dimensions







Emergency Ballast

Lamp Compatibility Data

Project:	
Catalog#:	
Approved by:	

Ballast Model No.		No. Of Lamps Operated	BAL650C-2	BAL650C-4	BAL500	BAL700	BAL1400	BAL3000	
Lumen Ouput			650	750	500	700	1400	3000	
Linear Fluorescent Lamps	Т8	1 Lamp	-	17-40	17-40	40-110	40-110	40-215	
		2 Lamp	-	-	-	17-40	17-40	17-40	
	T10	1 Lamp	-	17-40	17-40	-	-	-	
	110		2 Lamp	-	-	-	17-40	17-40	17-40
	T12		1 Lamp	-	17-40	17-40	40-110	40-215	40-215
			2 Lamp	-	-	-	17-40	17-40	17-40
Compact Fluorescent Lamps	4-Pin CFL		1 Lamp	-	40-42	13-39	40-42	40-42	-
			2 Lamp	-	13-39	-	13-39	13-39	13-42
	4-Pin Long CFL		1 Lamp	-	40-42	13-39	40-50	40-50	40-55
			2 Lamp	-	18-40	-	18-40	18-40	18-40
	2-Pin CFL		1 Lamp	13-26	-	-	-	-	-
	T9 Circline CFL		1 Lamp	-	20	20-40	-	-	-
			2 Lamp	-	-	-	20-40	20-40	20-40
Special Fluorescent Lamps	U-Bent	Т8	1 Lamp	-	32,40	32,40	-	-	-
			2 Lamp		-		32,40	32,40	32,40
		T12	1 Lamp	-	32,40	34,40	-	-	-
			2 Lamp	-	-	-	34,40	34,40	34,40

In applications involving 2, 3, or 4-lamp instant start ballasts, 1 lamp will go dim in the test mode. When power is cut off to the fixtures, both one lamp will come on (in Emergency Mode) as it is suppose to do.



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. This device is designed for indoor use. Do not use outdoors.
- 2. Prior to installation, battery connector must be open to prevent high voltage from being present on out put leads (red & yellow).
- 3. This device is designed for use with 17W–40W single pin or bipin fluorescent lamps. Please use energy-saving, circline, U-shaped, or 4-pin rapid start long compact fluorescent lamps.
- 4. Please ensure the electricity connections conforms to the National Electrical Code and local regulations if applicable.
- 5. To avoid electric shock, please disconnect normal and emergency power supplies, and battery connector of the emergency ballast before servicing.
- 6. This device is designed for factory or field installation in either the ballast channel, or on top of the indoor fixture, except air handling heated air outlets, wet or hazardous location fixtures. Do not install this device near gas or electric heaters.
- 7. AC power source of 120 VAC or 277 VAC is required.
- 8. The battery is sealed, non-maintenance, and is not replaceable in the field. Please contact manufacturer for information on service. Do not attempt to service the battery please.
- 9. Do not use accessory equipment that is not recommended by manufacturer. Failure to do so may cause unsafe conditions. Servicing should only be performed by qualified service personnel.
- 10. Do not use the product for other purpose that the product is NOT designed for.

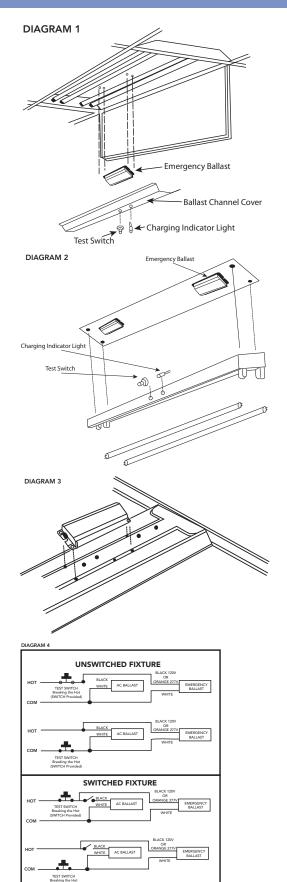


Installation Instructions

NOTE: All the branch circuit wiring has to be ready as well as an unswitched source of power before the fixture is installed. Confirm that the same branch circuit runs the emergency ballast and the AC ballast.

CAUTION: Battery connector has to be opened for preventing high voltage on output leads (red & yellow). Wait until all the installation process is completed and AC is supplying power to the emergency ballast then join the battery connector.

- 1. AC power has to be off before installation.
- 2. Choose the right wiring diagram to connect the ballast to the AC ballast and lamp.
- 3. Please ensure the electricity connections conform to the National Electrical Code and local regulations.
- 4. Follow diagrams 1 and 2 to install the battery pack on the top of the fixture or in the ballast channel.
- 5. To install the test switch, it would go through the side of a strip fixture or the ballast channel cover of a troffer. Follow diagrams 1 and 2 to drill a 1/2" hole and install the test switch. In order to remove AC power from both the emergency ballast and the AC ballast, the test switch has to be connected properly (see diagram 4).
- 6. Match violet and brown leads to connect the charging indicator light to the battery pack (see diagram 5). The charging indicator will be on after the fixture is installed properly.
- 7. Please search for a readily visible location to apply the CAUTION label which reads, "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 supply before servicing."
- 8. Do not join the inverter connector until the fixture is completely installed and supply AC power to the emergency ballast.
- 9. The battery needs to be charged for one hour in order to have short-term testing on the emergency function. Before having a long-term emergency function testing, the battery in the emergency ballast has to be charged for 24 hours.



NOTE: MARK AN APPROPRIATE LABEL ON INDICATOR LIGHT AND TEST SWITCH AFTER INSTALLATION

Specifications subject to change without notice.



Installation Instructions

OPERATION:

THE CHARGING INDICATOR LIGHT WOULD BE ON TO INDICATE THE BATTERY IS BEING CHARGED WHEN AC POWER IS APPLIED.

THIS EMERGENCY BALLAST WOULD FUNCTION AND OPERATE ONE LAMP WHEN THE AC POWER IS FAILED.

THE DEVICE OF THIS EMERGENCY BALLAST WILL OPERATE ONE 17 WATT TO 40 WATT LAMP AT LEAST 90 MINUTES.

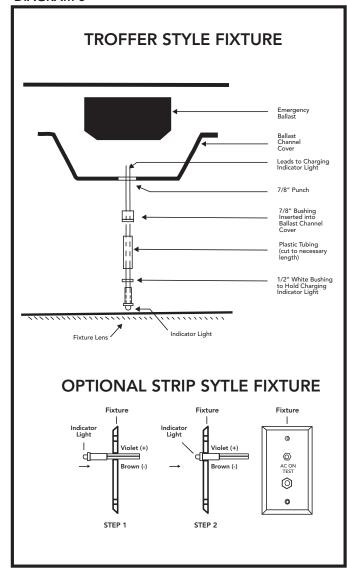
MAINTENANCE:

NOTE: SERVICES SHOULD ONLY BE PERFORMED BY QUALIFIED PERSONNEL.

THE EMERGENCY BALLAST SHOULD BE CHECKED PERIODICALLY TO CONFIRM FUNCTIONING AND THE FOLLOWING SCHEDULE IS RECOMMENDED

- 1. TO INSPECT THE CHARGING INDICATOR EVERY MONTH AND CONFIRM THAT IS ILLUMINATED.
- 2. PUSH THE TEST SWITCH FOR 30 SECONDS TO ENSURE THE EMERGENCY BALLAST IS FUNCTIONING, RECOMMENDED TO PERFORM THIS TEST EVERY 30 DAYS.
- 3. PERFORMING A LONG-TERM (90 MINUTE BATTERY DISCHARGE) IN EVERY YEAR. ONE LAMP SHOULD BE OPERATED FOR NO LESS THAN 90 MINUTES.

DIAGRAM 5



NOTE: MARK AND APPROPRIATE LABEL ON INDICATOR LIGHT AND TEST SWITCH AFTER INSTALLATION.

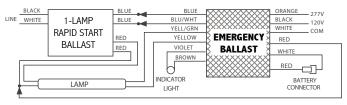


Wiring Diagrams

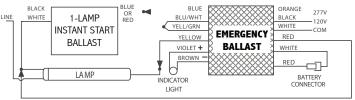
Note: Emergency Ballast and AC Ballast must be fed from the same branch circuit. Typical Schematics only, may be used with other ballasts, consult the factory for other wiring diagrams.

For 1-Lamp Fixtures

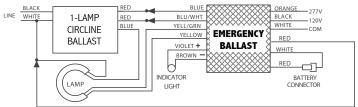
A. Rapid Start AC Ballast



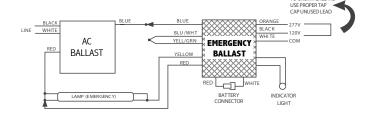
B. Instant Start Slimline Ballast



C. Circline Rapid Start Ballast

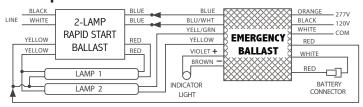


D. One (1) Lamp Instant Start Ballast

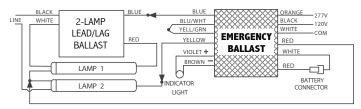


For 2-Lamp Fixtures

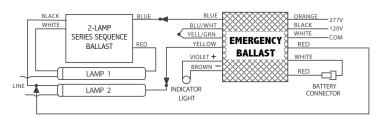
A. Rapid Start AC Ballast



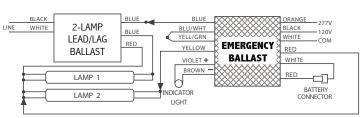
B. Lead/Lag Instant Start Slimline Ballast



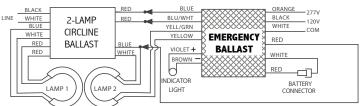
C. Serves Sequence Instant Start Ballast



D. Instant Start Electronic Ballast



E. Circline Rapid Start Ballast



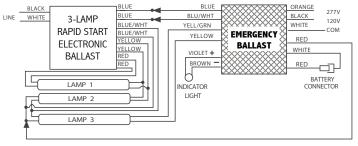
Wiring Diagrams

Note: 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.

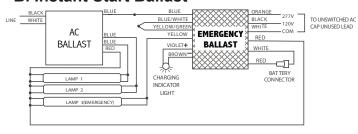
For 3-Lamp Fixtures

A. Rapid Start

Emergency Ballast

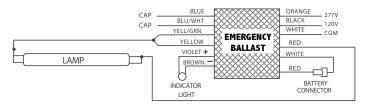


B. Instant Start Ballast



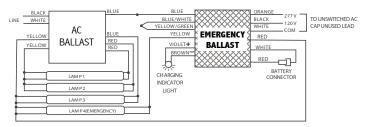
Emergency Only

One (1) Lamp without AC Ballast



For 4-Lamp Fixtures

A. Instant Start Ballast



B. Rapid Start Ballast

