BAL1400
Fluorescent Emergency Ballast
1100-1400 Lumens

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 or two lamps 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 1400 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

* Conditions apply for remote mounting. Check with the factory for more information.
Specifications subject to change without notice.
## Lamp Compatibility Data

<table>
<thead>
<tr>
<th>Ballast Model No.</th>
<th>No. Of Lamps Operated</th>
<th>BAL650C-2</th>
<th>BAL650C-4</th>
<th>BAL500</th>
<th>BAL700</th>
<th>BAL1400</th>
<th>BAL3000</th>
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<tbody>
<tr>
<td><strong>Lumen Output</strong></td>
<td></td>
<td>650</td>
<td>750</td>
<td>500</td>
<td>700</td>
<td>1400</td>
<td>3000</td>
</tr>
<tr>
<td><strong>Linear Fluorescent Lamps</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T8</td>
<td>1 Lamp</td>
<td>-</td>
<td>17-40</td>
<td>17-40</td>
<td>40-110</td>
<td>40-110</td>
<td>40-215</td>
</tr>
<tr>
<td></td>
<td>2 Lamp</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>17-40</td>
<td>17-40</td>
<td>17-40</td>
</tr>
<tr>
<td>T10</td>
<td>1 Lamp</td>
<td>-</td>
<td>17-40</td>
<td>17-40</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>2 Lamp</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>17-40</td>
<td>17-40</td>
<td>17-40</td>
</tr>
<tr>
<td>T12</td>
<td>1 Lamp</td>
<td>-</td>
<td>17-40</td>
<td>17-40</td>
<td>40-110</td>
<td>40-215</td>
<td>40-215</td>
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<tr>
<td></td>
<td>2 Lamp</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>17-40</td>
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<td>17-40</td>
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<tr>
<td><strong>Compact Fluorescent Lamps</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>4-Pin CFL</td>
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<td>-</td>
<td>40-42</td>
<td>13-39</td>
<td>40-42</td>
<td>40-42</td>
<td>-</td>
</tr>
<tr>
<td>4-Pin Long CFL</td>
<td>1 Lamp</td>
<td>-</td>
<td>40-42</td>
<td>13-39</td>
<td>40-50</td>
<td>40-50</td>
<td>40-55</td>
</tr>
<tr>
<td></td>
<td>2 Lamp</td>
<td>-</td>
<td>18-40</td>
<td>-</td>
<td>18-40</td>
<td>18-40</td>
<td>18-40</td>
</tr>
<tr>
<td>2-Pin CFL</td>
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<td>T9 Circline CFL</td>
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<td>20</td>
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<tr>
<td></td>
<td>2 Lamp</td>
<td>-</td>
<td>20-40</td>
<td>-</td>
<td>20-40</td>
<td>20-40</td>
<td>20-40</td>
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<tr>
<td><strong>Special Fluorescent Lamps</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U-Bent T8</td>
<td>1 Lamp</td>
<td>-</td>
<td>32,40</td>
<td>32,40</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>2 Lamp</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>32,40</td>
<td>32,40</td>
<td>32,40</td>
</tr>
<tr>
<td>T12</td>
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<td>-</td>
<td>32,40</td>
<td>34,40</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>2 Lamp</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>34,40</td>
<td>34,40</td>
<td>34,40</td>
</tr>
</tbody>
</table>

In applications involving 2, 3, or 4-lamp instant start ballasts, for 2-lamp emergency operation, only 1 lamp will go dim in the test mode. When power is cut off to the fixtures, both lamps will come on (in EM Mode) as they are suppose to.

Specifications subject to change without notice.
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 our put leads (red & yellow).

3. This device is designed for use with most 17W through 215W (2’ -8’) T5, T8, T9, T10, or T12 fluorescent lamps without integral starters, including U-shaped, HO, VHO, circline, energy saving, and (4-pin) long compacts.

4. Please ensure the electrical connections conform 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 fixtures. Do not install this device near gas or electric heaters.

7. AC power source of 120VAC or 277VAC 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.

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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 emergency ballast to AC ballast and lamp.
3. Please ensure the electricity connections conform to the National Electrical Code and local regulations if applicable.
4. Follow diagram 1 & 2 to install the emergency ballast on the top of 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 diagram 1 & 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 (check diagram 4).
6. Matching violet and brown leads to connect the charging indicator light to the emergency ballast (Check diagram 5). The charging indicator would be on after the fixture is installed properly.
7. Please search in readily visible location and stock the label with “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.”
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 emergency ballast has to be charged for 24 hours.

NOTE: MARK AN APPROPRIATE LABEL ON INDICATOR LIGHT AND TEST SWITCH AFTER INSTALLATION
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 OR TWO LAMPS WHEN THE AC POWER IS FAILED.

THE DEVICE OF THIS EMERGENCY BALLAST WILL OPERATE 17 WATT TO 215 WATT LAMPS 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 OR TWO LAMPS SHOULD BE OPERATED FOR NO LESS THAN 90 MINUTES.

TABLE 1 (FOR BROWN CONNECTOR)

<table>
<thead>
<tr>
<th>Lamp Diameter</th>
<th>1”, 1-1/4”, 1-1/2” (T8, T10, T12)</th>
<th>1”, 1-1/4”, 1-1/2” (T8, T10, T12)</th>
<th>LONG COMPACT</th>
<th>COMPACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Type</td>
<td>SINGLE OR BIPIN</td>
<td>SINGLE OR BIPIN</td>
<td>4-PIN (2G11)</td>
<td>4-PIN (G24q, GX24q)</td>
</tr>
<tr>
<td>Number of Emerg. Lamps</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Brown Connector</td>
<td>CLOSE</td>
<td>OPEN</td>
<td>CLOSE</td>
<td>OPEN</td>
</tr>
</tbody>
</table>

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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 One Lamp Emergency Operation

One (1) Lamp Instant Start AC Ballast

Two (2) Lamp Instant Start AC Ballast

Three (3) Lamp Instant Start AC Ballast

Four (4) Lamp Instant Start AC Ballast

One (1) Lamp Rapid Start AC Ballast

Two (2) Lamp Rapid Start AC Ballast

NOTE: Use the proper tap cap to unswitched AC lead.

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