



# Compact

**Emergency Operation for Compact Fluorescent Lamp Fixtures**  
The Philips Bodine Compact Fluorescent Emergency Ballasts

**PHILIPS**  
**bodine**

Philips Bodine compact FEBs are compatible with most electronic, standard, energy-saving and dimming AC ballasts, as well as with energy management systems.

# Compact

Philips Bodine compact fluorescent emergency ballasts (FEBs) are designed specifically for compact lamp fluorescent fixtures. They allow you to easily convert new or existing fluorescent fixtures into code-compliant emergency lighting. Philips Bodine compact FEBs operate most 2- and 4-pin compact fluorescent lamps, including twin-tube, double twin-tube (quad), triple twin-tube, long compact and 2D.

Philips Bodine compact FEBs are compatible with most electronic, standard, energy-saving and dimming AC ballasts, as well as with energy management systems, such as occupancy detectors and photo sensors. In addition, the wide variety of compact products we design and build means that we have something for almost any emergency lighting application.

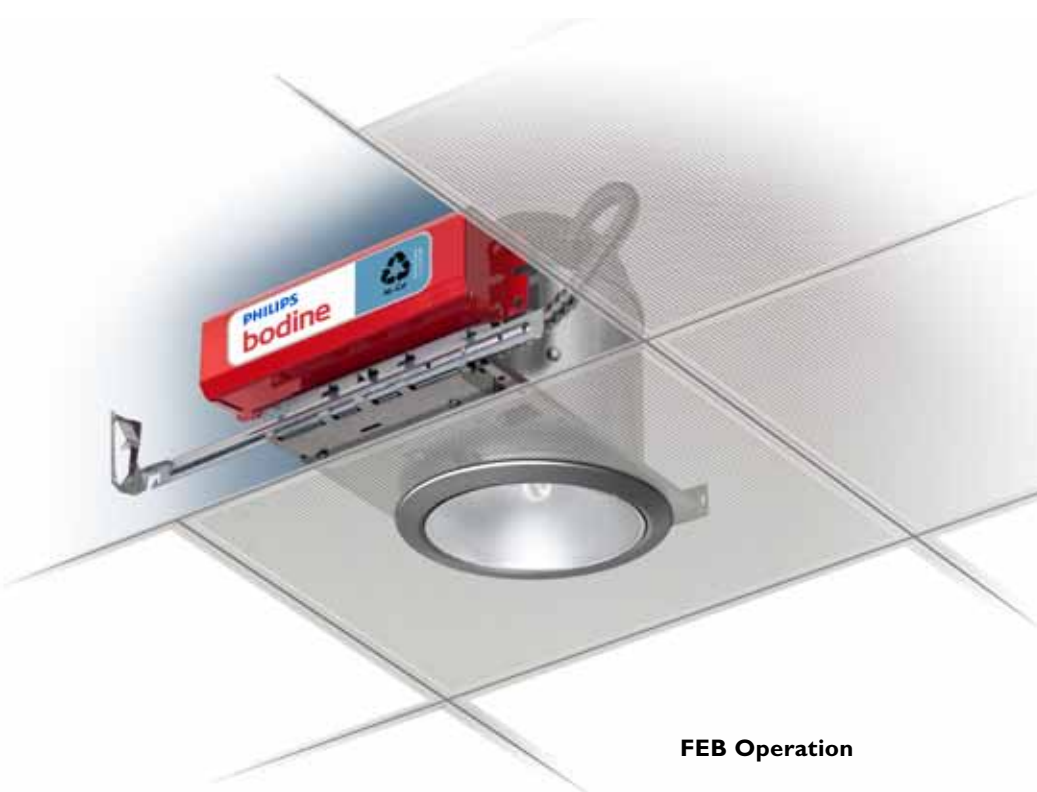
## **What is a Fluorescent Emergency Ballast?**

A Philips Bodine compact FEB is a battery-powered device that, in the absence of normal AC power, supports one or two fluorescent lamps, providing a minimum 90 minutes of emergency lighting. Emergency lighting is vital to life safety programs and is required in all commercial, industrial and institutional facilities. When normal power fails, emergency lighting guides building occupants along the path of egress to designated exits and helps them avoid obstacles en route.

When AC power fails, Philips Bodine compact FEBs immediately switch to emergency mode, operating one or two lamps for a minimum of 90 minutes.







### FEB Installation

Philips Bodine compact FEBs 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. Philips Bodine FEBs may be installed inside, on top of or remote from the fixture, depending on factors such as FEB model and fixture type.

### FEB vs. AC Ballast

Fluorescent lamps require AC ballasts for start-up and for current regulation during normal operation. When AC power fails and normal lamp operation ceases, the Philips Bodine battery-powered compact FEBs are critical. The FEBs supply power to the lamp(s) and allow the lamp(s) to provide illumination for a minimum of 90 minutes in compliance with national safety codes for emergency lighting (e.g., NFPA® Life Safety Code®, National Electrical Code®).

### FEB Operation

When AC power fails, Philips Bodine compact FEBs immediately switch to emergency mode, operating one or two lamps for a minimum of 90 minutes. When AC power is restored, the emergency ballasts return to charging mode. FEBs are fully recharged in 24 hours.

## Compact Lamps

Philips Bodine compact FEBs operate most 2- and 4-pin compact fluorescent lamps, including twin-tube, double twin-tube (quad), triple twin-tube, long compact and 2D.



4-pin lamp



2-pin lamp



Twin-Tube



Philips Bodine compact FEBs truly provide emergency lighting you'll never see ...  
until you need it.

### Code Compliance

Philips Bodine compact FEBs are tested by Underwriters Laboratories (UL) in compliance with standards set forth in UL 924, Emergency Lighting and Power Equipment.\* Products are UL Listed for factory and field installation or UL Component Recognized for factory installation only. Emergency illumination time exceeds the National Electrical Code, Life Safety Code and UL 90-minute requirements.

\*Products tested to meet standards for the Canadian Standards Association (CSA) and Normas Oficiales Mexicanas (NOM) are also available. Please check with the factory at 800-223-5728 for more information.

### FEB Benefits

Fluorescent emergency ballasts allow you to use the same light source for normal and emergency lighting. Because the same light source is used, emergency lighting looks similar to normal lighting – no drastic lighting changes or unwanted glare results. In addition, the FEBs' unobtrusive installation does not detract from interior design or encourage vandal activity. Philips Bodine compact FEBs truly provide emergency lighting you'll never see ... until you need it.



Twin-Tube



Quad-Tube



Quad-Tube



Triple Twin-Tube



Triple Twin-Tube



### **Why Philips Bodine Compact FEBs?**

Philips Bodine emergency ballasts paired with fluorescent fixtures:

- 1.) Provide instant backup lighting
- 2.) Complement original lighting design
- 3.) Supply lighting that looks like normal lighting
- 4.) Mount inconspicuously inside, on top of or remote from the fixture to reduce the risk of tampering and vandalism
- 5.) Install quickly and easily to save time, labor and money. A qualified electrician can typically install a Philips Bodine emergency ballast in less than 30 minutes.

Philips Bodine emergency ballasts mount inconspicuously inside, on top of or remote from the fixture to reduce the risk of tampering and vandalism.

# Life Safety

## 7.9.2 Performance of System.

**7.9.2.1** Emergency illumination shall be provided for a minimum of 1 ½ hours in the event of failure of normal lighting. Emergency lighting facilities shall be arranged to provide initial illumination that is not less than an average of 1 ft-candle (10.8 lux) and, at any point, not less than 0.1 ft-candle (1.1 lux), measured along the path of egress at floor level. Illumination levels shall be permitted to decline to not less than an average of 0.6 ft-candle (6.5 lux) and, at any point, not less than 0.06 ft-candle (0.65 lux) at the end of 1 ½ hours. A maximum-to-minimum illumination uniformity ratio of 40 to 1 shall not be exceeded.

## 7.9.3 Periodic Testing of Emergency Lighting Equipment.

**7.9.3.1** Required emergency lighting systems shall be tested in accordance with one of the three options offered by 7.9.3.1.1, 7.9.3.1.2, or 7.9.3.1.3.\*

**7.9.3.1.1** Testing of required emergency lighting systems shall be permitted to be conducted as follows:

- (1) Functional testing shall be conducted monthly with a minimum of 3 weeks and a maximum of 5 weeks between tests, for not less than 30 seconds, except as otherwise permitted by 7.9.3.1.1(2).
- (2) The test interval shall be permitted to be extended beyond 30 days with the approval of the authority having jurisdiction.
- (3) Functional testing shall be conducted annually for a minimum of 1 ½ hours if the emergency lighting system is battery powered.
- (4) The emergency lighting equipment shall be fully operational for the duration of the tests required by 7.9.3.1.1(1) and 7.9.3.1.1(3).
- (5) Written records of visual inspections and tests shall be kept by the owner for inspection by the authority having jurisdiction.

(Life Safety Code® 2009)

\*7.9.3.1.2 and 7.9.3.1.3 describe testing requirements for self-testing/self-diagnostic battery-operated emergency lighting systems and computer-based self-testing/self-diagnostic battery-operated emergency lighting systems, respectively. Monthly 30-second and annual 90-minute tests are included for both. They were omitted here because of space constraints. Please see LSC 7.9.3 (2009) for complete testing information.



# Compact Products

Model	# Lamps	Max. Lumens	Types of Lamps Operated	Features
B74CST	1 or 2	1350	One 17-215 W (2'- 8") or two 17- 40 W (2'- 4") T8,T9,T10 or T12 lamps or one 18-55 W or two 18-39 W (4-pin) twin, quad or triple twin tube compacts	Automatic self-test; ELC
B75C	1	1300	One 32-70 W (4-pin) triple twin-tube	Specification grade; Ideal for low-mercury (green) lamps; ELC
B84CG	1	1250	One 13-42 W (4-pin) twin, quad or triple twin-tube	Ideal for low-mercury (green) lamps; Suitable for damp locations; ELC
B94CG	1	750	One 13-42 W (4-pin) twin, quad or triple twin-tube	Ideal for low-mercury (green) lamps; Suitable for damp locations; ELC
B94G	1	750	One 13-42 W (4-pin) twin, quad or triple twin-tube	Ideal for low-mercury (green) lamps; Suitable for damp locations; ELC
B4CF1	1	1250	One 13-42 W twin, quad or triple twin-tube lamp; one 22-40 W T5 circline; or one 18-39 W long compact	Extreme temps; Ideal for low-mercury (green) lamps; Suitable for damp locations; ELC
B4CF2	1	1250	One 13-42 W twin, quad or triple twin-tube lamp; one 22-40 W T5 circline; or one 18-39 W long compact	Extreme temps; Ideal for low-mercury (green) lamps; Suitable for damp locations; ELC
B4CF3	1	1250	One 13-42 W twin, quad or triple twin-tube lamp; one 22-40 W T5 circline; or one 18-39 W long compact	Extreme temps; Ideal for low-mercury (green) lamps; Suitable for damp locations; ELC
B4CFG	1	1250	One 13-42 W twin, quad or triple twin-tube lamp; one 22-40 W T5 circline; or one 18-39 W long compact	Ideal for low-mercury (green) lamps; Suitable for damp locations; ELC
B426	1 or 2	950	One or two 10-26 W (2-pin) twin, quad or triple twin-tube compact lamps	Standard grade; Suitable for damp locations
B463	1	650	One 10-26 W (2-pin) twin, quad or triple twin-tube compact lamp	Economical alternative; Suitable for damp locations
B413	1	625	One 5-13 W (2-pin) twin-tube or 9-13 W (2-pin) quad compact lamp	Minimum code compliance; Suitable for damp locations

For more information, please visit the website at [www.philips.com/bodine](http://www.philips.com/bodine) or contact the factory directly at 800-223-5728.



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Document order number: L0000092 11.1

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