

### Automatic code compliance testing; One- or two-lamp emergency illumination

#### Product Summary

##### UL LISTED

Factory or Field Installation

##### U.S. Patent No.

5,666,029

##### Illumination Time

90 Minutes

##### Initial Light Output

1100 - 1400 Lumens

##### Full Warranty

5 Years (NOT pro-rata)

##### Dual Input Voltage

120/277 VAC, 60 Hz

##### AC Input Current

320 mA

##### AC Input Power Rating

4 Watts

##### Test Switch

Single Pole

##### Battery

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

##### Battery Charging Current

320 mA

##### Recharge Time

24 Hours

##### Charging Indicator Light

Two-color LED (Red & Green)

##### Temperature Rating (Ambient)

0°C to +55°C  
(32°F to 131°F)

##### Dimensions

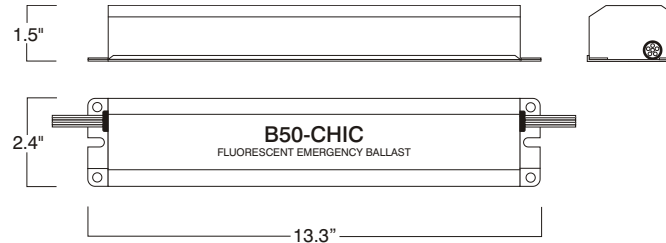
13.3" x 2.4" x 1.5"  
(339 mm x 60 mm x 38 mm)  
Mounting Center 12.8" (325 mm)

##### Weight

3.6 lbs. (1.64 kg)

##### Audible Alarm

User Selectable



#### APPLICATION

The REDITEST® B50CHIC 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 B50CHIC can be used with most 17 - 215 W (2' - 8') T8, T9, T10 and T12 fluorescent lamps without integral starters, including U-shaped, HO, VHO, circline and energy-saving, and (4-pin) twin, quad, triple and quadruple twin-tube compacts. One- or two-lamp operation may be selected (see Table 1). 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. B50CHIC is suitable for indoor locations and for sealed & gasketed fixtures, including fixtures rated for wet 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

During normal operation, the REDITEST® B50CHIC constantly monitors charging current and battery voltage. When AC power fails, the B50CHIC immediately switches to the emergency mode, operating either one or two lamps at a reduced lumen output for a minimum of 90 minutes. When AC power is restored, the B50CHIC automatically returns to the charging mode. While in the charging mode, the B50CHIC indicates if the battery is fully charged by the two-color light indicator. If the light indicator is red and not flashing, the battery is not fully charged. When the battery becomes fully charged, the light indicator will change from red to green. During automated testing, the B50CHIC simulates an AC power failure, causing the emergency ballast to switch to emergency mode and conduct a discharge test to monitor battery voltage and discharge current. If the B50CHIC detects a problem, the status indicator light flashes red and, if selected, the audible alarm sounds. When testing is complete, the B50CHIC returns to the charging mode. The B50CHIC automatically tests emergency lighting for 30 seconds every 30 days and 90 minutes once a year.

#### INSTALLATION

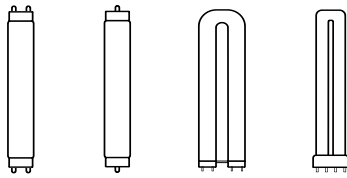
The REDITEST® B50CHIC does not affect normal fixture operation and may be used with either a switched or unswitched fixture. If a switched fixture is used, an unswitched hot lead must be connected to the emergency ballast. The emergency ballast must be fed from the same branch circuit as the AC ballast. The B50CHIC 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.

#### Specifiers Reference

Project \_\_\_\_\_ Type \_\_\_\_\_ Model No. \_\_\_\_\_  
Comments \_\_\_\_\_

L2000002

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# REDiTEST® B50CHIC

Fluorescent Emergency Ballast

**Automatic code compliance testing;  
One- or two-lamp emergency  
illumination**

## UL AND CODE COMPLIANCE

The REDiTEST® B50CHIC has been tested by Underwriters Laboratories in accordance with the standards set forth in UL 924, "Emergency Lighting and Power Equipment." The B50CHIC also meets the construction requirements of the 2000 Chicago Electrical Code and has been approved by the Chief Electrical Inspector of the City of Chicago, Department of Buildings. The B50CHIC 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. Life Safety Code - NFPA 101 (1997) Excerpt 5-9.3 Periodic Testing of Emergency Lighting Equipment. A functional test shall be conducted on every required battery-powered emergency lighting system at 30-day intervals for a minimum of 30 sec. An annual test shall be conducted for a 1 ½-hr duration. Equipment shall be fully operational for the duration of the test. Written records of visual inspections and tests shall be kept by the owner for inspection by the authority having jurisdiction. Exception: Self-testing/self-diagnostic, battery-operated emergency lighting equipment that automatically performs a minimum 30-sec test and diagnostic routine at least once every 30 days and indicates failures by a status indicator shall be exempt from the 30-day functional test, provided a visual inspection is performed at 30-day intervals.

## EMERGENCY ILLUMINATION

Depending on the number (one or two), wattage and type of lamps selected, the REDiTEST® B50CHIC produces 1100 to 1400 lumens initial emergency light output (see Table 2). If two-lamp operation is selected, light output is evenly divided between the lamps for better distribution of emergency illumination.

## SPECIFICATION

Emergency lighting shall be provided by using a standard fluorescent fixture equipped with a Bodine REDiTEST® B50CHIC self-testing/self-diagnostic fluorescent emergency ballast. Electronic circuitry shall be self-testing in design and automatically test emergency lighting for a minimum of 30 seconds every 30 days and 90 minutes once a year. An embedded microcontroller will continually monitor the battery charging current and voltage. The B50CHIC shall consist of a high-temperature, maintenance-free nickel-cadmium battery, charger and electronic circuitry contained in one 13 3/8" x 2 3/8" x 1 1/2" red metal case. A solid-state status indicator light and audible alarm (selectable) to monitor the charger and battery and to indicate test results and status conditions; a single-pole test switch; and installation hardware shall be provided. The emergency ballast shall be capable of operating [one or two] \_\_\_\_\_ fluorescent lamp(s) (see Table 1) at \_\_\_\_\_ lumens (see Table 2) initial light output in the emergency mode for a minimum of 90 minutes. It shall be suitable for indoor locations and for sealed & gasketed fixtures, including fixtures rated for wet locations. The B50CHIC shall have 4 Watts of input power and a 24 Watt-hour battery capacity and shall exceed 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 five years from date of purchase. The B50CHIC shall be approved by the Chief Electrical Inspector of the City of Chicago, Department of Buildings.

## WARRANTY

Model REDiTEST® B50CHIC is warranted for five (5) full years 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.

Table 1 - Lamp Compatibility

LAMP DIAMETER (T8, T9, T10, T12)	BASE	WATTAGE (Length)	NO. of LAMPS (EMERGENCY)
T8, T9, T10, T12 (1", 1-1/4", 1-1/2")	Single or Bipin	17 - 40 W (2' - 4')	1
			2
		40 - 215 W (5' - 8')	1
Long Compact	4-PIN (2G11)	18 - 39 W	1
		40 - 55 W	2
Compact	4-PIN (G24q, GX24q)	18 - 42 W	1
			2
		42 W	1
2D	4-PIN (GR10q)	16 - 38 W	1
			2
		55 W	1

Table 2 - Initial Lumen Output

LAMP	LUMENS	
	1 Lamp	2 Lamps
FO32, FBO31 T8	1350	1350
FO25, FBO24 T8	1250	1100
FO17, FBO16 T8	1050	950*
FO96, T8	1400	
F40T12, F40/U	1100	1100
F48T12/HO	1200	
F96T12, HO, VHO	1100	
F40 T12 ES (34 W)	975*	975*
PL-L 50 W, F50BX/RS, DULUX L 55 W	900*	
PL-L 40 W, F40/30BX, DULUX L 40 W	900*	
PL-L 36 W, F39/36BX, DULUX L 36 W	1100	1100
PL-L 24 W, F27/24BX/RS, DULUX L 27 W		1000*
F38 2D/4P	1000*	1100
F28 2D/4P	1100	1100

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