



EZ-2™ Series I

Decorative and efficient emergency lighting unit designed for fast, easy installation.

Spectron Series®

Self-Testing/Self-Diagnostic Electronics System

Catalog Number	
Comments	Type



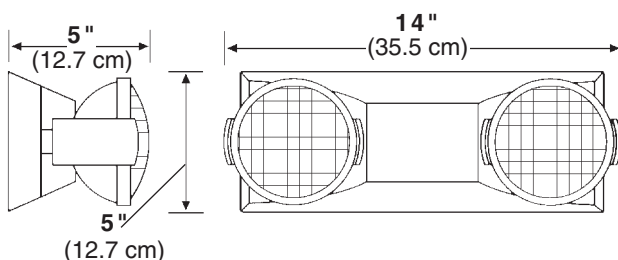
Unit Features

- Fully automatic, 90-minute operation
- Compact, low-profile design
- Easy installation
- Injection-molded, flame-rated, thermoplastic housing
- Universal mounting plate
- Low power consumption
- Universal 120/277VAC operation
- Maintenance-free battery
- Fully automatic, solid-state electronics
- Fully adjustable, glare-free lighting heads
- Temperature range: 20°C to 30°C (68°F to 86°F)
- UL924 Listed (Emergency Lighting)
- U.S. Patent No. 4,799,039

Spectron Features

- Meets UL standards for self-testing/self-diagnostic models
- Provides automatic self-diagnostic monitoring and testing of unit operation
- Automatically performs routine maintenance and assures operational readiness at all times
- Monitors battery, charger, transfer and lamp operation
- Routine discharge cycles insure optimum battery performance and maximum useful life
- Automatic 1-minute self-test every 28 days and 30-minute self-test every 6 months
- Automatic battery protection
- Automatic unit transfer in brownout conditions
- Automatic AC lockout circuit
- Temperature compensated charger
- 15-minute retransfer delay
- Flashing LED indication of unit malfunction or test cycle
- All detected malfunctions retained in memory until corrected and retested
- Test switch allows a programmable 1, 5, 30 or 60-minute system check at any time

Dimensions



Spectron Electronics

The Spectron self-testing/self-diagnostic electronics provide:

- Visual indication of AC power status
- Visual Indication of all self-diagnostic test cycles
- Visual indication of unit malfunctions including:
 - Battery fault • Charger fault • Transfer fault • Lamp fault

LED Indicators

Red Status LED

Under normal operating conditions, the red Status LED indicator will remain off. In the event the Spectron Controller detects a malfunction, the red Status LED will indicate the fault per the table at right.

Red Status LED Code	Description
One blink ON/pause	Battery not connected
Two blinks ON/pause	Battery fault
Three blinks ON/pause	Charger fault
Four blinks ON/pause	Transfer circuit fault
Five blinks ON/pause	Lamp head fault

Green Status LED

The green Status LED serves as both an AC power and a self-test indicator. During normal operation, the green status LED will be constantly illuminated, indicating the presence of AC power. During all automatic or manual self-test cycles, the green Status LED will blink at a 1 cycle per second rate.

Manual Tests

Using the unit test switch, users can initiate 1, 5, 30 or 60-minute diagnostic/discharge cycles per the table at right.

Initiating Action	Test Cycle
Press test switch once	1 minute
Press test switch twice	5 minute
Press test switch 3 times	30 minute
Press test switch 4 times	60 minute

Product Selector

Fixture Type	Model No.	Description
	EZ-2I	Two-headed emergency unit
(✓)	Options (add suffix to model number)	
	-A2	AC line cord - 120VAC operation
(✓)	Accessory Items (order separately)	
	WGEL	Wire guard
	VRS	Vandal-resistant shield



Hubbell Lighting, Inc.

Construction

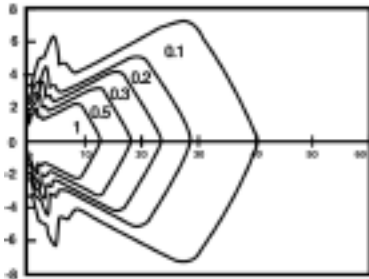
Unit and Lamp Housings: Unit housing, back plate, lamp housings and swivels constructed of flame-rated, UV stable thermoplastic
Finish: Textured off-white finish

Illumination

Lamp Type: Incandescent sealed beam type
Lamp Voltage: 6 volts
Lamp Wattage: 7.2 watts
Rated Lamp Life: 100 hours

Photometrics

6 volt, 7.2 watt SBT lamp (Horizontal Isofootcandle Distribution)
Photometrics measured by independent testing laboratory



Installation

Unit Wall Mounting: Unit mounts to 3 1/2", 4" octagon, or 4" square outlet boxes and standard plaster rings. Back plate provides a universal knockout pattern for mounting to outlet box. Keyholes provided for securing unit housing to wall surface. Knockout provided on top of housing for surface wiring connection.
Wiring: Pre-stripped AC input leads provided. All AC connections made inside unit housing.

Operating Temperature Range

EZ-2I model: 20°C to 30°C (68°F to 86°F)

Electronics

Input: 120/277VAC, 60 Hz. (standard)
Charger: Constant voltage, current limited, temperature compensated type
Transfer: Solid-state design
Built-in Protection: AC lockout, transformer isolation, low battery voltage disconnect, brownout protection and 15-minute retransfer delay
Battery Recharge Cycle: Per UL time standards
Test Means: Integral test switch

Self-Diagnostic Operation

LED Indicators: Red "Service Alert" LED indicator and Green "Operating Status" LED indicator
Visual Fault Indications: Battery fault, charger fault, transfer fault and lamp fault
Service Alert Memory: All detected malfunctions remain in memory until corrected and retested

Self-Testing Operation

Automatic Test Cycles: 1-minute self-test every 28 days (± 3.5 hours) and a 30 minute self-test every 6 months (± 1 day)
Manual Tests: Test switch allows a programmable 1, 5, 30 or 60 minute system check at any time

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Battery

Type: Maintenance-free, Lead-Acid

Power Consumption

120VAC: 6.7 watts
277VAC: 7.2 watts

Compliances

UL 924
NFPA-101

Warranty

Unit and Electronics: 5 years full
Battery: 10 years (5 years full, 5 years pro-rata)

Suggested Specifications

Self-contained emergency lighting unit shall be Dual-Lite Model EZ-2I constructed entirely of flame-rated thermoplastic in textured off-white finish and designed for easy installation. A universal mounting plate shall allow fast, easy wall installation to standard electrical boxes. A universal transformer shall allow operation for 120 or 277VAC, 60 Hz source. Lamp housings shall be fully directional. Emergency illumination shall be provided by two 6 volt, 7.2 watt sealed beam type lamps of glare-free design. Emergency power source shall be a fully rechargeable, maintenance-free, lead-acid battery. SPECTRON electronics operation shall be fully automatic. Accidental discharge of the unit battery prior to energization will be prevented by an AC lockout circuit. The unit's green Status LED located on the Spectron display panel will illuminate to indicate the presence of AC power. The unit's red Status LED will blink after application of AC power if the battery connection is not completed. During normal operation, the unit's charging circuit will maintain the battery at full capacity and the Spectron Controller shall constantly monitor charger performance. Should the terminal voltage vary from design parameter values, the unit's red Status LED will blink, indicating a malfunction of the battery or charger. Upon interruption of normal AC power, or brownout conditions exceeding a 20% drop from nominal voltage, the Spectron Controller shall automatically switch the emergency lighting load to the battery. Emergency power will be provided for a minimum of 90 minutes. During emergency operation, the battery shall be protected from deep discharge by a low-voltage battery disconnect circuit. Upon return of normal utility power the unit will remain in emergency mode for a period of 15 minutes and the charger shall then begin a recharge cycle. The charger will bring the battery to full capacity within acceptable UL time standards. The Spectron Controller will automatically initiate a one minute discharge/diagnostic test every 28 days ± 3.5 hours and a 30-minute discharge/diagnostic test every 6 months ± 1 day. These tests will be designed to exercise the unit's battery and allow the SPECTRON Controller to analyze emergency operation performance. Any malfunction of the unit's transfer circuit or emergency lamps will cause the red Status LED on the unit's display panel to blink. Under normal operation, all red Status LED blinking indications of unit malfunction shall remain latched until corrected and retested. A manual test switch will allow a user-programmable 1, 5, 30 or 60-minute diagnostic/discharge test at any time. During all automatic and user initiated self-tests, the unit's green Status LED will blink to indicate a diagnostic cycle in process. User self-tests can be canceled at any time by pressing the test switch.