



## NEW & Improved Design Revelation Series

NOW AVAILABLE WITH NICKEL CADMIUM-BATTERIES

**THE UNSEEN SOLUTION**  
 Virtually Invisible Emergency Lighting  
 Evaluated to UL924 Standards

- One standard back box for all unit wattages and battery types
- Complete 360° door rotation 180° to open, 180° to close
- "Snap-in" modular design, lighting module has keyholes for ease of installation
- Slip gear mechanism protects the unit and objects that would cause the door rotation to be forcibly stopped before reaching a full 180° degrees turn
- Each model, including battery, weighs less than 6 lbs.



### General Information

The Revelation Series is architecturally designed for unobtrusive use in walls with cavity (dry-wall with 4-inch studs) or un-insulated ceilings with horizontal beams or T-bar structures. In normal conditions (stand-by) the unit is completely concealed in the wall or ceiling. In case of power failure the door of the unit rotates open 180° and exposes the emergency lights (two high-efficiency MR16 lamps) to illuminate the path of egress. Once AC power returns or at the end of discharge period, the lights turn off and the door rotates closed automatically, driven by a patent-pending, energy-storage circuit. If needed the backbox can be shipped separately.

### Standard Features

**Reliability:** Each unit is fully computer-tested and aligned mechanically for optimum operation. The electrical parts (motor, electronic circuitry) carry a five-year warranty.

**Unit Data:** The normally exposed parts of the unit (flat door and frame) are covered with a high-quality, powder coated textured off-white finish, which integrates well with most wall and ceiling paints. The surface finish can also be customized on site with paint, wallpaper or other coverings. The self-powered unit is contained in a heavy-duty galvanized steel back-box, concealed in the wall or ceiling and includes a combined test switch and pilot light, accessible through the frame. Special bar hangers for installation in sheet rock or T-bar ceilings are included in the package. The module includes the electrical junction box and is installed on the wall stud or ceiling beam with the help of a simple, U-shape bracket. Each unit comes standard with two (2) MR-16 halogen lamps of, of specified power ranging from 12W to 50 Watts each. The DC-remote unit does not require connection to the AC power.

**Pulse-Plus Battery Charger:** The charger circuitry offers a 120/277 Vac 60 Hz, 0.25/0.12 Amp, automatic charger, built around a micro-controller integrated circuit. Circuit standard features: current limiting, temperature-compensated cut-off voltage, brown-out transfer, low-voltage battery disconnect and battery lockout (Prevents activation in the d.c. mode until initial a.c. activation).

### Electrical

**Power requirements:** 120/277 Vac, 60 Hz, 0.25/0.12 Amps  
**Transfer:** dust-tight, sealed relay; automatically deploys the door assembly and powers the emergency lights.

**LVD:** (low-voltage battery disconnect): automatically removes the electrical load (lamps, motor) when the battery reaches 87% of its nominal voltage.

**Lockout:** labor-saving electronic circuit automatically connects the battery when the AC circuit is activated.

**Brown-out:** close-tolerance electronic circuit activates the emergency lights when the utility power dips below 80 – 85% of nominal voltage.

**Charger:** the Pulse-Plus charging circuit utilizes a micro-controller integrated circuit, that samples the battery in relation to the ambient temperature, state of charge, and input voltage fluctuations. The charger is current limited, temperature compensated, short-circuit proof, and reverse-polarity protected. The circuit will charge in accordance with UL924 requirements.

### Power Consumption Chart

AC Input	Maximum		Stand-By (Nickel-Cadmium battery*)	
	Input Current	Input Power	Input Current	Input Power
120V	0.25 A	30 watts	0.1 A	11 watts
277V	0.12 A	30 watts	0.05 A	11 watts

\*Stand-by power consumption is 50% lower for Lead-calcium batteries

### Unit Rating Chart

Model Number	*Watts to 87 1/2% of rated battery voltage			
	1 1/2 hrs.	2 hrs.	3 hrs.	4 hrs.
RTM40, RTN40	40	30	24	-
RTM70, RTN70	70	50	40	24
RTM100, RTN100	100	70	50	40

\*National Electrical Code Specification

### Diagnostic/Self Test Feature (Optional)

Diagnostic / Self-Test circuitry is optional on all self-powered models. This circuitry is programmed to ensure the equipment readiness and reliability by continuously monitoring every critical function of the unit. If a problem occurs, the pilot light located on the front of the unit, will change color from solid green to a flashing red light, indicating a fault. A detailed diagnostic legend is available on the door back side and provides fault identification (battery, charger circuitry, lamps) for the maintenance personnel. The self test will test the unit for a minimum 30 seconds every 30 days, 30 minutes every six months and 90 minutes annually.

## Suggested Specification

Supply and install Emergi-lite Series Revelation: RT \_\_\_-2\_\_\_. The unit shall be designed to be concealed in walls or ceilings with a cavity, including T-bar suspended ceilings. Bar hanger brackets shall be provided with the unit. The equipment shall consist of a metal back box containing the batteries, the lamp assembly and a charging circuitry. The back box shall be constructed of heavy-duty galvanized steel. The unit utilizes a modular design and comes with quick connect plugs for easy installation into the back box. The unit equipment shall be completely concealed in the wall or ceiling during normal power conditions. Upon a power failure the unit will expose the emergency heads by rotating its door by 180° and then will power the lamps. At the restoration of the AC power or the end of the battery discharge, the lamps will turn off and the unit will retract the heads in the wall (ceiling) by rotating the door by 180°. The unit shall not require the presence of AC power in order to rotate the door closed returning the lamps inside the housing. Under normal conditions, the only visible parts of the unit will be the flat door and trim plate, coated with a high-quality off-white finish that can be customized on site with paint or other suitable wall covering. The light source shall be 12V MR16 halogen lamps of specified wattage and light output. The unit shall supply the rated load for a minimum of 90 minutes or until the battery is discharged to 87.5% of its nominal voltage (whichever duration is longer). The charger circuitry shall utilize a micro-controller IC that samples the battery in relation to the ambient temperature, state of charge, and input voltage fluctuations. The charger shall be current limited, temperature compensated, short-circuit proof, and reverse-polarity protected. The circuit will charge in accordance with UL924 requirements. The unit shall be furnished with a recessed, illuminated push button serving as test switch and status indicator light. The equipment shall be Emergi-Lite catalog number: \_\_\_\_\_.

## Optional Features

### Description

Advanced diagnostic (AD=audible, ADNA=non-audible)  
Damp location  
Time delay (D1=5, D2= 10, D3=15 minutes)

\*NOTE: DL Damp location available on all models except RTN100.

### Accessories (order as a separate item)

Remote test switch	<b>Metal Faceplate:</b>	<b>RTS</b>
	<b>Plastic Faceplate:</b>	<b>RTS-1</b>

## How To Order

### Self-Powered Fixture

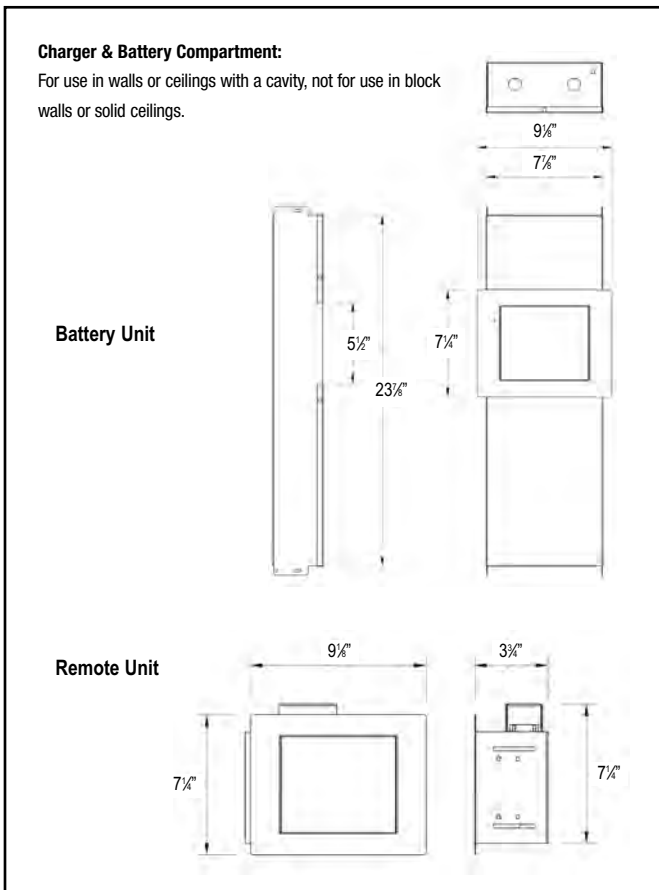
Series	Battery Type	Unit Capacity	Lamp Wattage*	Options
RT	M = Lead-Calcium N = Nickel-Cadmium	40 = 12V, 40W 70 = 12V, 70W 100 = 12V, 100W	-2(12) = 12W, MR16 each head -2(20) = 20W, MR16 each head -2(35) = 35W, MR16 each head -2(50) = 50W, MR16 each head -2 (20H) = 20W, MR16 high lumen output -2 (35H) = 35W, MR16 high lumen output -2 (50H) = 50W, MR16 high lumen output *High lumen output lamps available with 12V only.	AD = advanced diagnostic, audible ADNA = advanced diagnostic, non-audible D1 = time delay 5 minutes D2 = time delay 10 minutes D3 = time delay 15 minutes DL = damp location* X = backbox shipped separate *DL Damp location available on all models except RTN100

### DC-Remote Fixtures

Remote voltage	Series	Wattage, each of the 2 lamps*	Options
12 = 12 volts DC 24 = 24 volts DC	RTR2 = remote fixture	-12 = 12 watts, MR16 -20 = 20 watts, MR16 -35 = 35 watts, MR16 -50 = 50 watts, MR16 -20H = 20 watt, MR16, high lumen output -35H = 35 watt, MR16, high lumen output -50H = 50 watt, MR16, high lumen output *High lumen output lamps available with 12V only.	DL = damp location

## Outline and Dimensions

Dimensions are approximate and subject to change without notice.



\*Opening for remote unit wall or ceiling mount to be 5.75" x 8".

## Battery Warranty\*

Sealed Lead-Calcium: 3-year Full Warranty, plus 3-year pro rata warranty, 8-year life expectancy  
Sealed Nickel-Cadmium: 5-year Full Warranty, 5-year pro rata warranty, 10 year life expectancy

## Unit Warranty\*

Unit equipment (except battery and lamps): five-year limited warranty

\*Subject to proper installation and maintenance

Example: RTM100-2(50)DL

Example: 12RTR2-50

**EMERGI-LITE**

www.emergi-lite.com

**Thomas & Betts**