Lightalarms

PHANTOM SERIES

TYPE:

CATALOG #:

NOTES:

New & Improved Design

NOW AVAILABLE WITH
NICKEL-CADMIUM BATTERIES

Decorative and Discreet
Emergency Lighting
Evaluated to UL924 Standards

id improved diagnostics

NEW YORK CITY APPROVED

SA US

Design Improvements

- 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 that 6 lbs.

General Information

The Phantom Series is architecturally designed for unobtrusive use in walls with cavity (dry-walls 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. For remote AC generator applications, please consult factory.

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 DC-remote unit comes as a compact, one-piece module and does not require the large galvanized steel back-box. 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 wide angle (flood), 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 87½% 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

	Maximum		Stand-By	
AC Input	**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-acid batteries

Unit Rating Chart

*Watts to 87½% of wattages battery voltage				
Model #	**1 1/2 hrs.**	**2 hrs.**	**3 hrs.**	**4 hrs.**
PHM40, PHN40	40	30	24	-
PHM70, PHN70	70	50	40	24
PHM100, PHN100	100	70	50	40

Do not exceed unit rating with lamp selection.

* National electrical code specification

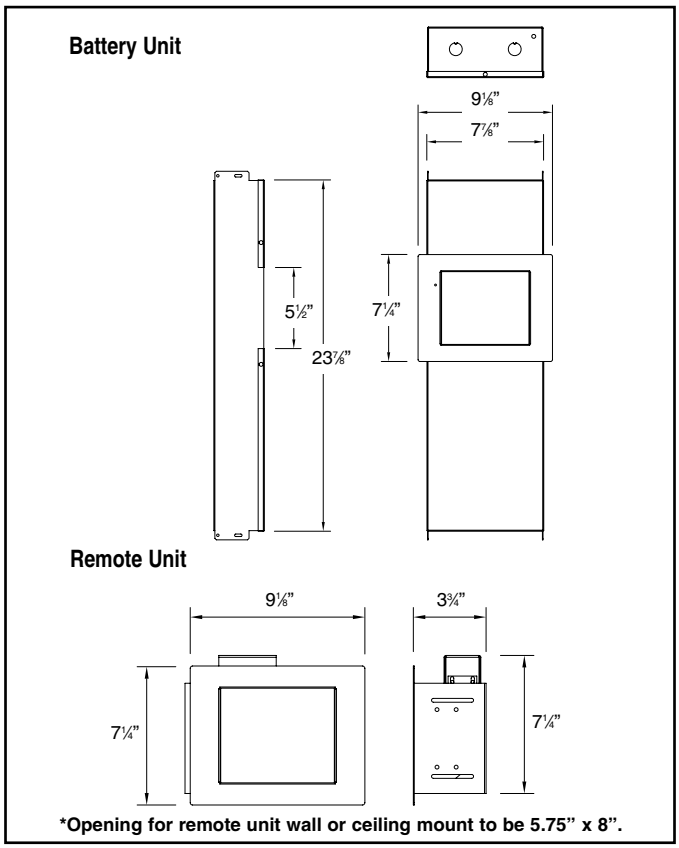
Improved Diagnostic (optional)

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 feature will simulate a power loss for one minute monthly, 30 minutes every sixth months, and a full 90-minute test every 12 months.

Specifications for series PHANTOM

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, plus 5-year pro rata warranty, 10-year life expectancy.

*Unit Warranty

Unit equipment (except battery and lamps): 5-year limited warranty

**Subject to proper installation and maintenance*

Suggested Specification

Supply and install Lightalarms Series Phantom: PH___-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 Lightalarms catalogue number: _____.

Options

Add suffix to Model No.	**Suffix**
Damp location listing	**DL***
Improved diagnostic (audible)	**ID**
Improved diagnostic (non-audible)	**IDNA**
Time delay (T1=5,T2=10, or T3=15 minutes)	**T1, T2, T3**

Notes: *Damp location with Nickel-Cadmium batteries: Up to a 70W maximum

Accessories (order as a separate item)

Remote test switch ..... Metal Faceplate: PSW

.....Plastic Faceplate: PSW-1

Ordering Format

Example: PHM100-2(20)DL

Series	Battery Type	Unit Capacity	Lamp Wattage*	Options
PH	**M** = Lead-Calcium	**40** = 12V, 40W	**-2(12)** = 12W, MR16 each head	**ID** = improved diagnostic, audible
	N = Nickel-Cadmium	**70** = 12V, 70W	**-2(20)** = 20W, MR16 each head	**IDNA** = improved diagnostic, non-audible
		100 = 12V, 100W	**-2(35)** = 35W, MR16 each head	**T1** = time delay 5 minutes
			-2(50) = 50W, MR16 each head	**T2** = time delay 10 minutes
			-2 (20H) = 20W, MR16 high lumen output	**T3** = time delay 15 minutes
			-2 (35H) = 35W, MR16 high lumen output	**DL** = damp Location*
			-2 (50H) = 50W, MR16 high lumen output	**X** = Backbox Shipped separate
			* *Note*: High lumen-output available with 12V only	**Note* : Damp location with Nickel-Cadmium batteries Only: Up to 70w max

Remote Ordering Format

Example: 12PMR2-50

Remote Voltage	Series	Lamp Wattage	Option
12 = 12V, DC	**PHR2** = remote fixture	**-12** = 12W MR16	**DL** = damp location
24 = 24V, DC		**-20** = 20W MR16	*Note : Damp location with Nickel-Cadmium batteries Only: Up to 70w max
		-35 = 35W MR16	
		-50 = 50W MR16	
		-20H = 20W MR16, high lumen output	
		-35H = 35W MR16, high lumen output	
		-50H = 50W MR16, high lumen output	
		* *Note*: High lumen-output available with 12V only	

Lightalarms

www.lightalarms.com

Thomas&Betts

All information and specifications contained in this flyer are subject to change due to engineer design, errors and omissions. Illustrations and diagrams within this flyer may vary from actual products.