



MINI-PHANTOM™ SERIES

The Full Retrofit Unseen Solution
 12V-40W Capacities – Generator Capable
 Lead-Calcium, Nickel-Cadmium or Nickel-Metal Hydride battery

FEATURES

Housing

- Two 20 gauge steel modules joined by a flexible bracket and electric conduit
- Head assembly door and trim plate powder coated in a white finish
- Finish can be customized on site with paint or wallpaper
- Provision for 2 lighting heads
- Choice of MR16 Halogen or MR16 LED Lamp types and wattages
- Complete 360° head assembly door rotation: 180° to open, 180° to close
- Slip gear mechanism protects unit and objects against forcibly stop

Mounting

- Recessed wall with cavity mount (retrofit into finished wall)
- Designed to install into an 8-1/4" by 5-3/4" inch opening
- Includes electrical junction box
- Key-hole slot for ease of installation

Electronics

- Automatic, temperature-compensated, pulse-type charger
- High capacity, automatic, dust-tight instantaneous transfer relay
- Low voltage disconnect prevents over discharge of battery
- Automatic brownout protection is provided
- Battery lock-out prevents battery discharge during installation
- Fused output circuit

Improved Diagnostics option

- Units equipped with Improved Diagnostics shall self-test, by simulating a power failure, in accordance with NFPA101, Life Safety Code minimum one minute monthly, 30 minutes every six months and 90 minutes annually. For complete information refer to page 8.

Controls

- Recessed illuminated push button serves as test switch and status indicator

Choice of Sealed Maintenance-Free Battery

- 12V Lead-Calcium battery
- 12V Nickel-Cadmium battery
- 12V Nickel Metal Hydride battery

Approval CSA-US

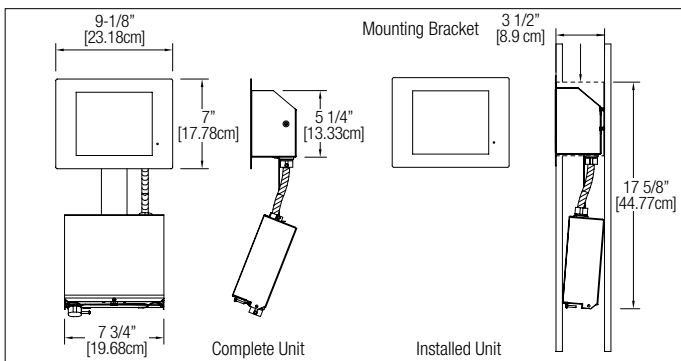
Warranty (subject to proper installation and maintenance)

- Unit has a five year full warranty (excluding lamps and fuses)¹
- Lead-Calcium battery has a three year full, plus three year pro-rata warranty
- Nickel-Cadmium battery has a five year full, plus five year pro-rata warranty
- Nickel-Metal Hydride battery has a five year full, plus five year pro-rata warranty

¹ For LED lamps warranty, refer to page 168 paragraph 3.2

DIMENSIONS

Dimensions are approximate and subject to change.



SPECIFICATIONS

Supply and install **Lightalarms® Mini-Phantom™** Series.

The emergency lighting unit shall be a self-contained fixture including a sealed maintenance-free Lead-Calcium, Nickel-Cadmium or Nickel-Metal Hydride battery of 12V-40W. The unit shall supply the rated wattage load for a minimum of 90 minutes to 87-1/2% of rated battery voltage. The unit shall be rated 120/277VAC, 60Hz and be CSA-US listed.

The unit charger shall utilize an integrated circuit which samples the battery in relation to its temperature, state of charge and input voltage fluctuations. The charger shall be current limited, temperature compensated, short-circuit protected and reverse polarity protected. The unit shall be furnished with an electronic lockout circuit which will connect the battery when the AC circuit is activated, and an electronic brownout circuit which will activate the unit when utility power dips below 80-85% of nominal voltage. A low voltage battery protection circuit shall be provided and will disconnect the load and circuitry from the battery when it reaches 87-1/2% of its nominal voltage. The unit shall be capable of full recharge in compliance with UL924 specifications. The unit shall be furnished with sealed dust-tight relay and recessed illuminated combination test switch and indicator light.

The unit shall be designed to be concealed in walls with a cavity. The unit shall consist of a metal housing containing two modules joined by a flexible bracket and electric conduit. One module contains the battery, charger circuitry and electrical connection box; the other module contains the head assembly.

Upon a power failure, the unit will expose the emergency lighting 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 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 or MR16 LED lamps of specified voltage and wattage.

Units specified with Improved Diagnostics shall continuously monitor every critical function of the unit. If a malfunction occurs, if audible, a high-pitch audible alarm will sound; and; the recessed illuminated combination test switch and indicator light located on the front of the unit will change color from solid green to a flashing red light, indicating a fault. If non-audible, only the recessed illuminated combination test switch and indicator 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 as battery, charger circuitry or lamps failure. The microcontroller shall automatically self-test, by simulating a power failure, in accordance with NFPA101, Life Safety Code for minimum one minute monthly, 30 minutes every six months and 90 minutes annually.

Every **Mini-Phantom™** Series unit shall be fully warranted for five years, subject to proper installation and maintenance.

Unit shall be **Lightalarms®** catalog number _____.

ACCESSORIES (Order as a separate item)

Remote Test Switch (Metal Faceplate)	PSW
Remote Test Switch (Plastic Faceplate)	PSW-1



TYPE _____

CATALOG # _____

NOTES _____

Designed for retrofitting in finished walls with a cavity (dry-wall with 4-inch studs).



POWER CONSUMPTION / UNIT RATING CHART

SERIES	DC SPECS						AC SPECS				
	BATTERY TYPE	DC VOLTAGE	87.5% BATTERY CAPACITY (IN WATTS) ¹				UNITS DUAL VOLTAGE ²	CURRENT		POWER ³	
			90 MIN.	2 HRS.	3 HRS.	4 HRS.		MAXIMUM	STAND BY	MAXIMUM	STAND BY
MPHM40	Lead-Calcium	12V	40	30	24	12	120VAC 277VAC	0.25A 0.12A	0.10A 0.05A	30W 30W	11W 11W
MPHN40	Nickel-Cadmium	12V	40	30	24	12					
MPHH40	Nickel-Metal-Hydride	12V	40	30	24	12					

¹ National Electrical Code Specification

² All units 120/277 dual voltage, information based on wiring to specific voltage type

³ Stand-by power consumption is 50% lower for Lead-Calcium Batteries

ORDERING FORMAT

	SERIES	BATTERY TYPE	UNIT CAPACITY	# OF HEADS	LAMP TYPE	OPTIONS
BATTERY UNIT	MPH	M= Lead-Calcium N= Nickel-Cadmium H= Nickel-Metal Hydride	40= 12V-40W	-2= Two Lamps	MR16 Halogen (12)= 12V-12W (20)= 12V-20W MR16 Halogen High Output (20H)= 12V-20W MR16 LED (LD7)= 12V-4W (LD9)= 12V-5W (LD10)= 12V-6W	Blank= No Options -ID= Improved Diagnostics (audible) ¹ -IDNA= Improved Diagnostics (non audible) ¹ -T1= Time Delay (5 minute) -T2= Time Delay (10 minute) -T3= Time Delay (15 minute) -DL= Damp Location ²
					For complete 12V, up to 20W MR16 lamp information refer to page 100 Remote Fixture, Phantom™ Series, Lamp Selection Chart	¹ -ID & -INDA include a time delay feature that can be enabled/disabled in the field or set by the factory by including -ID-TD* or -IDNA-TD* ² Available on all models except Lead-Calcium

EXAMPLE: MPH40-2(20)DL

	SERIES	INPUT VOLTAGE	# OF HEADS	LAMP TYPE	OPTIONS
GENERATOR UNIT	MPHG	1= 120VAC, 60Hz 2= 277VAC, 60Hz	-2= Two Lamps	MR16 Halogen (12)= 12V-12W (20)= 12V-20W (35)= 12V-35W (50)= 12V-50W MR16 LED (LD7)= 12V-4W (LD9)= 12V-5W (LD10)= 12V-6W	MR16 Halogen High Output (20H)= 12V-20W (35H)= 12V-35W (50H)= 12V-50W -DL= Damp Location
				For complete 12V MR16 lamp information refer to page 100 Remote Fixture, Phantom™ Series, Lamp Selection Chart	

EXAMPLE: MPHG1-2(20)-DL