

# **NEW YORK CITY Approved Products**



Life Safety Equipment



A Member of the ABB Group





# **Table of Contents**



PN LED Battery Series

2



Exit & Combo NY LED Series

2



Phantom Battery Series

4-5



Mini-Phantom Remote Series

ĥ



NYC Approved Edge-Lit Series

7



LADL30-N Series

ŏ



LADL28 Series

9



Mini Inverter Series

10-11



Low Capacity Mini Inverter Series

12-13









# PN LED BATTERY SERIES

3.6V & 7.2V Steel Enclosure – This series is offered where an attractive conventional emergency lighting unit is required

TYPE	
CATALOG #	
onned "	
NOTES	
NOTES	

# **FEATURES**

#### Housing

- Constructed of 20 guage heavy-duty steel and a durable white powder-coat finish
- The 3PN2-LED unit is furnished with 3 (1W LED) heads and the 2PN2-LED unit is furnished with 2 (1W LED) heads
- Each head provides 100 lumens output

#### **Electronics**

- 120V/277V Input standard
- Low voltage disconnect prevents over discharge of battery
- Brownout protection standard

## Long life Maintenance-Free Battery

3.6V Nickel-Cadmium Battery

# **Approvals**

- UL 924 Standards
- Complies with NEC, Life Safety Code and OSHA.

**Warranty** (subject to proper installation and maintenance)

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

### **SPECIFICATIONS**

Supply and install **Lightalarms® PN LED Battery** Series.

The emergency lighting unit shall be a self-contained fixture including a long life maintenance-free Nickel-Cadmium battery of 3.6V. 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 UL 924 listed.

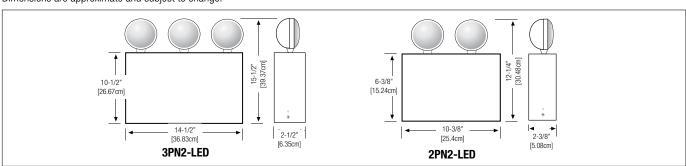
The unit charger shall utilize an integrated circuit which samples the battery in relation to its temperature, state of charge and input voltage fluctuations. The charger shall be current limited, temperature compensated, short-circuit protected and reverse polarity protected. The unit shall be furnished 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 UL 924 specifications. The unit shall be furnished with sealed dust-tight relay, a test switch and dual diagnostic LED indicator lights (hi-charge and AC pilot). The cabinet shall be 20 gauge steel with a front hinged panel. Unit shall have 1/2" conduit knock-outs, rear keyhole slots and universal knock-outs to mount to any standard 4" junction box with provision for mounting up to 3 heads on top of cabinet.

Every **PN LED Battery** Series unit shall be fully warranted for three years, subject to proper installation and maintenance.

Unit shall be **Lightalarms®** catalog number

#### **DIMENSIONS**

Dimensions are approximate and subject to change



## **UNIT RATING CHART**

SERIES	DC S	SPECS	AC SPECS		
	BATTERY TYPE	DC VOLTAGE	UNITS DUAL VOLTAGE <sup>2</sup>	CURRENT MAXIMUM	
2PN2-LED	Nickel-Cadmium	3.6V	120VAC/277VAC	120mA	
3PN2-LED	Nicker-Gaumum	3.6V	120VAG/211VAG	150mA	

 $^{\rm 1}$  National Electrical Code Specification  $^{\rm 2}$  All units 120/277 dual voltage, information based on wiring to specific voltage type

# **ORDERING FORMAT**

SERIES	DESCRIPTION						
2PN2-LED	2 X 1W LED heads						
3PN2-LED	2/3 X 1W LED heads						

**EXAMPLE: 2PN2-LED** 









# EXIT & COMBO NY LED SERIES

Self-Powered Exit and Combination LED Units with 8" Exit Legend



#### **FEATURES**

#### Housing

TYPE

CATALOG #\_

NOTES \_\_\_

- · Heavy duty steel case with white powder-coat finish
- Stencil face has 8" high letters and universal knock out chevrons
- Plastic lamp housing with rated 5VA flame retardant

#### Mounting

- Exit Sign can be ceiling, end or wall mounted
- · Combination Units can be wall mounted

# **Lamp Type**

- 3 (1W) LED lamps, 100 lumens per lamp in combination heads
- LED Exit Legend illumination

#### **Electronics**

- 120V/277V Operation standard
- Universal 120/277 VAC transformer required

#### **Long life Maintenance-Free Batteries**

Nickel-Cadmium Battery

### **Approvals**

- UL 924 Standards
- Complies with NEC, Life Safety Code and OSHA
- Suitable for Damp Location

Warranty (subject to proper installation and maintenance)

- Unit has a three year full warranty (excluding lamps and pilot lights)
- Nickel-Cadmium battery has a five year full, plus five year pro-rata warranty

# **SPECIFICATIONS**

Supply and Install Lightalarms® 8NY LED Steel Exit & Combination Series.

The Exit Sign or combination unit shall be standard with (2) faceplates, (1) backplate and (1) canopy.

The frame, faceplate, and backplate shall be constructed of 20 gauge steel, canopy shall be Thermoplastic. Frame, faceplate, backplate and canopy shall be matching in color (W) white. Faceplate shall be (W) white with a (R) red legend.

The faceplate shall come standard with two field-selectable, removable knockout chevron indicators. The Exit Sign shall be suitable for surface mount, wall, end or ceiling installations and Combination Unit is suitable for wall mounting and side mounting.

The Exit illumination source shall be Light Emitting Diodes (LED) in (R) red color. The LEDs shall provide illumination in normal and emergency operation mode. The LEDs shall be mounted inside the Exit Sign housing. A color matching LED sensitive legend diffuser of (R) red, shall be mounted in front of the LEDs to provide the 6" high by 3/4" stroke EXIT letters with even illumination and no visible LEDs or hot spots.

Self-Powered 8NY models shall be 120/277VAC, 60Hz, with a power consumption of less than 3W and supplied with a long life maintenance-free 3.6V Nickel-Cadmium battery, providing at least 90 minutes illumination upon AC failure.

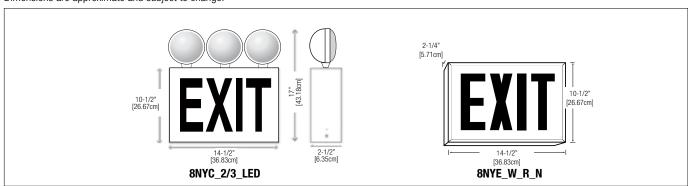
Combination 8NY models shall be 120/277VAC, 60Hz, with power consumption of less than 5W and supplied with a long life maintenance-free 7.2V load capacity Nickel-Cadmium battery providing at least 90 minutes illumination upon AC failure.

The Exit Sign and Combination Unit shall be tested by Underwriters Laboratories, listed to UL 924 standards and shall meet NFPA101 (Life Safety Code), NFPA 70-NEC and OSHA illumination standards. Includes a three-year full warranty.

The Exit Sign or Combination Unit shall be **Lightalarms®** Model \_\_\_\_\_.

## **DIMENSIONS**

Dimensions are approximate and subject to change.



# **ORDERING FORMAT**

SERIES	COLOR LEGEND DESCRIPTION
	8" Exit Self-Powered, white with Red legend 8" Combo 2/3 heads, white Red legend

**EXAMPLE: 8NYC-2/3-LED** 







# PHANTOM™ SERIES

The Unseen Solution
12V up to 100W Capacities – Generator Capable
Lead-Calcium or Nickel-Cadmium battery

## **FEATURES**

#### Housing

- 20 gauge galvanized steel back-box
- Head assembly designed for easy access to internal components
- 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 mount into ceiling or wall with cavities
- Special bar hangers included for installation in dry wall or T-bar ceilings
- Includes the electrical junction box
- Installed on the wall stud or ceiling beam with simple, U-shape bracket.
- Head assembly includes keyhole slot and quick-connect plugs for easy 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 one minute monthly, 30 minutes every six months and 90 minutes annually. For complete information refer to page 7.

#### **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

## **Approval**

CSA-US

Warranty (subject to proper installation and maintenance)

- Unit has a five year full warranty (excluding lamps and fuses)<sup>1</sup>
- 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
- <sup>1</sup> For LED lamps warranty, refer to page 168 paragraph 3.2

# **ACCESSORIES** (Order as a separate item)

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

### **SPECIFICATIONS**

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

The emergency lighting unit shall be a self-contained fixture including a sealed maintenance-free Lead-Calcium or Nickel-Cadmium battery of 12V, wattage as specified in the unit rating chart. 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 approved.

The unit charger shall utilize an micro-controller which samples the battery in relation to 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 UL 924 specifications. The unit shall be furnished with sealed dust-tight relay, recessed illuminated combination test switch and indicator light.

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 or 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 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; as well 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 one minute monthly, 30 minutes every six months and 90 minutes annually.

Every  $\textbf{Phantom}^{\intercal M}$  Series unit shall be fully warranted for five years, subject to proper installation and maintenance.

Unit shall be **Lightalarms®** catalog number\_\_\_\_\_\_.



	_	-
-/	4	P
•	a	В
`	•	-



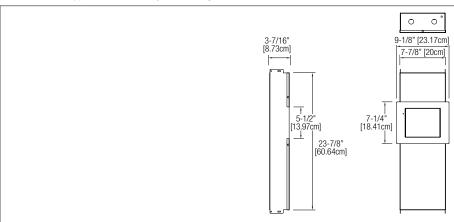


Visually invisible and architecturally designed for unobtrusive use in wallswith cavity (dry wall with 4-inch studs) or un-insulated ceilings with horizontal beams or T-bar structures



# **DIMENSIONS**

Dimensions are approximate and subject to change.



Charger & Battery Compartment: For use in walls or ceilings with a cavity, not for use in block walls or solid ceilings.

# **POWER CONSUMPTION / UNIT RATING CHART**

SERIES			DC SPECS				AC SPECS				
	BATTERY TYPE	DC VOLTAGE	87.5% BATTERY CAPACITY (IN WATTS) <sup>1</sup>		UNITS DUAL	CUR	RENT	POW	ER <sup>3</sup>		
			90 MIN.	2 HRS.	3 HRS.	4 HRS.	VOLTAGE <sup>2</sup>	MAXIMUM	STAND BY	MAXIMUM	STAND BY
PHM40	Lead-Calcium	12V	40	30	24	12					
РНМ70		12V	70	50	40	24					
PHM100		12V	100	70	50	40	120VAC	0.25A	0.10A	30W	11W
PHN40	Nickel-Cadmium	12V	40	30	24	12	277VAC	0.12A	0.05A	30W	11W
PHN70		12V	70	50	40	24					
PHN100	]	12V	100	70	50	40					

National Electrical Code Specification
 All units 120/277 dual voltage, information based on wiring to specific voltage type
 Stand-by power consumption is 50% lower for Lead-Calcium Batteries

# **ORDERING FORMAT**

	SERIES	BATTERY TYPE	UNIT CAPACITY	# OF HEADS	LAMF	TYPE	OPTIONS
BATTERY UNIT	PH	M= Lead-Calcium N= Nickel-Cadmium	<b>40</b> = 12V-40W <b>70</b> = 12V-70W <b>100</b> = 12V-100W	-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	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 Location²  -X= Back box shipped separate
					For complete 12V MR16 page 100 Remote Fixture Lamp Selection Chart		ID & -IDNA 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*     D- option not available with PHN100 unit

# EXAMPLE: PHM100-2(20)DL

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

EXAMPLE: PHG1-2(20)











# REMOTE FIXTURE PHANTOM™ SERIES

Virtually Invisible, Architecturally Pleasing

TYPE
CATALOG #
NOTES

## **FEATURES**

### **Description**

- Indoor use
- Two lamp MR16 remote fixture with a choice of halogen or LED
- One-piece all-metal module design (does not require large galvanized steel back box as does the battery back-up unit)
- Complete 360° door rotation, 180° to open 180° to close
- Slip gear mechanism protects the unit from objects that would cause the door rotation to be forcibly stopped.

#### **Finish**

- Flat door and frame are covered with a high-quality, powder coated textured off-white finish
- Surface finish can be customized on site with paint, wallpaper or other coverings.

## Mounting

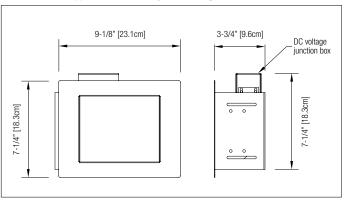
- The DC-remote fixture unit includes as an option (specify when ordering a hardware kit for installation in T-Bar ceiling structure).
- The module includes the electrical junction box and is installed on the wall stud or ceiling beam with the help of a simple, U-shape bracket.
- Key-hole slot for ease of installation

# **Approval**

CSA-US

## **DIMENSIONS**

Dimensions are approximate and subject to change.



## LAMP SELECTION CHART

	MR 16 HALOGEN LAMPS									
LAMP SUFFIX	VOLTAGE	WATTAGE	LUMENS	REPLACEMENT #						
M12	12	12	80	580.0080-L						
M20	12	20	150	580.0064-L						
MH20	12	20-H	400	580.0068-L						
M35	12	35	430	580.0083-L						
MH35	12	35-H	830	580.0090-L						
M50	12	50	700	580.0076-L						
MH50	12	50-H	1460	580.0089-L						
M12	24	12	82	580.0070-L						
M20	24	20	240	580.0077-L						
M35	24	35	235	580.0084-L						
M50	24	50	670	580.0076-L						

MR 16 LED LAMPS								
LAMP SUFFIX VOLTAGE WATTAGE LUMENS REPLACEMENT								
LD7	12	4	170	580.0093-L				
LD9	12	5	340	580.0101-L				
LD10	12	6	540	580.0106-L				
LD13	24	4	200	580.0098-L				

# **ORDERING FORMAT**

SERIES	LAMP SUFFIX	OPTIONS
12PMR2= 12 VDC¹ 24PMR2= 24 VDC¹	/1	DL= Damp location
<sup>1</sup> Double lamp remote fixture	¹Choose from lamp selection chart	

EXAMPLE: 12PM2R-M50



TYPECATALOG #	-
NOTES	_





# **EDGE-LIT SERIES**

8" Edge-Lit Exit Sign



#### **FEATURES**

#### Construction

- Extruded Aluminum Housing
- Impact resistant Thermoplastic plastic end caps and canopy
- High grade acrylic panel
- 8 inch EXIT lettering legend, available in red
- Complete product only available in single face red on clear
- Double face red on mirror panel sold separately

#### Mounting

#### **Universal Mount Model**

- Single face acrylic panel with clear background
- Pivoting panel design allows for recessed\* ("not intended for closed ceilings such as sheetrock or plaster), surface, wall or ceiling mount installation
- A ratcheting mechanism allows the panel to be set in place from 0° to 180° for wall or sloped ceiling mounting
- Canopy included for surface wall, end or ceiling mount application
- Trim plate, 27 inch adjustable T-Bar hangers and a junction box included for recessed application

#### **Finishes**

- Satin Aluminum housing
- Gray end caps and black canopy
- Choice of Legend panel color: red on clear on single face or red on mirror for double face panel

#### Chevrons

 (4) Factory installed translucent chevrons, allowing for easy peel-off removal as required

#### LEDs

· Red long life Light Emitting Diodes (LED) illumination

## **Self-Diagnostics**

Not available

## **Special Wording Panels**

Not available

#### **Approvals**

- Listed to UL 924 Standards
- UL Listed for Damp location (32°F to 104°F, 0°C to 40°C)
- Meets, NFPA101, (Life Safety Code) NFPA 70 NEC and OSHA illumination Standards

# Warranty

Three Year full warranty (subject to proper installation and maintenance)

#### POWER CONSUMPTION CHART

MODEL		AC SPECS		DC SPECS		
Red	Self-	120VAC, 60Hz	2.0-2.6W	Ni-Cd battery	Min. 90 Minutes	
	Powered	277VAC, 60Hz	2.6-3.1W	Ni-Cd battery	Min. 90 Minutes	

#### **SPECIFICATIONS**

Supply and Install Lightalarms® NYC Approved Universal Edge-Lit Series.

The Exit Sign specified as universal mount shall be standard with (1) legend panel, design for single face applications with (2) peel-off translucent directional chevrons; (1) housing, (1) canopy (1) Trim plate (2) 27 inch T-Bar hangers and (1) junction box. Double face panel sold separately.

Housing shall be fabricated of extruded aluminum; canopy and end caps shall be impact resistant Thermoplastic. Housing shall be satin aluminum with gray canopy and end caps. Legend panel colors shall be, (RC) red on clear as specified.

Acrylic panel shall be in single face EXIT legend configuration printed in red, as specified, on a clear background. The acrylic panel shall pivot and ratchet lock into positions from 0° to 180° to allow for wall, flat or sloped ceiling applications. (4) Factory installed translucent chevrons, allowing for easy peel-off removal to be configured in the field as required by Code.

The illumination source shall be Light Emitting Diodes (LED) in (R) red color. The LEDs shall provide illumination in normal and emergency operation mode. The LEDs shall be mounted inside the Exit Sign housing on a PCB strip. A color matching LED sensitive EXIT letters silkscreen in (R) red, provides the 6" high by %" stroke EXIT letters with even illumination and no visible LEDs or hot spots.

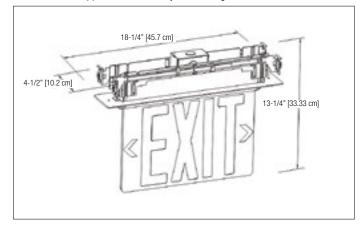
Self-Powered models shall be 120/277VAC, 60Hz, with a power consumption of less then 4W and supplied with a sealed maintenance-free Nickel-Cadmium battery, providing a minimum of 90 minutes illumination upon AC failure.

The Exit Sign shall be tested by the Underwriting Laboratories and listed to UL 924 Standards. Meeting NFPA101 (Life Safety Code), NFPA 70-NEC and OSHA illumination standards. Includes a three-year full warranty.

The Exit Sign shall be **Lightalarms**® Model: \_\_\_\_\_

# **DIMENSIONS**

Dimensions are approximate and subject to change.



# ORDERING FORMAT

LEGEND	SERIES		HOUSING COLOR	LEGEND COLOR	FACE
8= 8" Exit with universal chevrons	<b>UEN</b> = Self-Powered	AG=	Brushed aluminum and gray end cap	RC= Red on clear	1= Single

# **EXAMPLE: 8UENAGRC1**

## **PANEL**

UEP8RM2= Panel only two face red on mirror











# **LADL30-N SERIES**

Convert new or existing fluorescent fixtures into emergency lighting units 3000 lumen emergency ballast

TYPECATALOG #	
NOTES	

## **FEATURES**

#### Housing

- Steel housing contains, battery, battery charger, transfer circuit and high frequency inverter
- Operating temperature 32°F to 122°F (0°C to 50°C)

#### Mounting

External mounting to a fluorescent fixture

**Lamp Type Operation** (refer to Ballast/Lamp Reference Chart for specific lamp type)

- Compatible with most one-, two-, three-, and four-lamp electronic standard and dimming AC ballast
- Operates two 8W-54W T5/T5HO, two 17W-40W, one 17W-215W T8 through T12, two 13W-42W 4-pin compact, two 18W-50W or one 18W-55W 4-pin long compact fluorescent lamps

# **Lumen Output**

- (1) Lamp 825-3000 Lumens
- (2) Lamps 900-3000 Lumens per lamp

#### **Electronics**

- Can be wired to operate switched, un-switched or normally off fixtures without affecting normal operation
- Will cold start and illuminate lamps
- Fully Automatic solid state charger
- High capacity, automatic, dust-tight instantaneous transfer relay
- Low voltage disconnect prevents over discharge of battery
- Automatic brownout protection
- Battery connector prevents battery discharge during installation

#### Controls

- Red charger monitor LED indicates charging of the battery and AC present
- Momentary test switch allows for quick operational check of entire system

# **Sealed Maintenance-Free Battery**

- Nickel-Cadmium battery
- Provides 90 minutes of emergency operation

#### **Power Requirements**

Dual voltage 120/277VAC, 60Hz, 5.1W

# **Approvals**

- UL 924 Standards
- Damp location listed

Warranty (subject to proper installation and maintenance)

Ballast has a five year full warranty

## **ACCESSORIES** (order as separate item)

Remote Test Switch (Metal faceplate)	PSW
Remote Test Switch (Plastic faceplate)	PSW1
Recommended for inaccessible locations. Test switch and charging indicator on a single mounting plate.	Charging Indicator Light  Push Button Test Switch
Replacement Test Switch	TBTSB-L

## ORDERING FORMAT

SERIES	OPTIONS
LADL30-N	Blank= Standard Unit
	-DL= Damp location Listed

**EXAMPLE: LADL30-N** 

## **SPECIFICATIONS**

Supply and install Lightalarms® LADL30-N Series.

The **LADL30-N** fluorescent emergency ballast shall be a single steel housing self-contained unit including a sealed maintenance-free Nickel-Cadmium battery, battery charger, transfer circuit and high frequency inverter. The unit shall be rated 120/277VAC, 60 Hz and be UL924 listed.

The LADL30-N fluorescent emergency ballast, sealed dust-tight relay inverter charger transfer circuit shall be of a solid state design being automatic and instantaneous capable of supplying an initial 3000 lumens output to cold start, operate switched, un-switched or normally off fixtures without affecting normal operation. The battery shall supply emergency operation for a minimum of 90 minutes and shall be capable of full recharge in compliance with UL924 specifications.

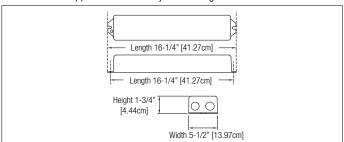
The unit shall be furnished with, red charger monitor LED indicates charging of the battery and AC present to unit as well as a momentary test switch allows for quick operational check of entire system.

Every **LADL30-N** Series unit shall be fully warranted for five years, subject to proper installation and maintenance. UL listed to standard 924, complies with NEC, Life Safety Code and OSHA requirements.

Unit shall be Lightalarms® catalog number\_\_\_\_\_

# **DIMENSIONS**

Dimensions are approximate and subject to change.



# **COMPATIBLE LAMP CHART**

LAMP	VOLTAGE	WATTAGE	INITIAL	LUMENS
			1-LAMP	2-LAMPS
T5	120/277V	14W	1150	1200
T5		21W	1750	1800
T5		28W	2350	2425
T5H0		39W	2700	2850
T5H0		54W	2900	3000
T8		17W	1100	1150
T8		32W	2950	3000
T12		20W	875	900
T12		40W	2250	2400
T8		59W	2800	-
T12		110W	2950	_
T12		215W	3000	_
4-pin PL CF		13W	825	900
4-pin PL CF		18W	1100	1200
4-pin PL CF		26W	1500	1600
4-pin PL CF		32W	2200	2300
4-pin PL CF		42W	2450	2500
4-pin Long CF		18W	1250	1400
4-pin Long CF		24W	1750	1900
4-pin Long CF		36W	2200	2300
4-pin Long CF		40W	2350	2400
4-pin Long CF		50W	2250	2400
4-pin Long CF		55W	2500	-



TYPE	_
NOTES	_







# **LADL28 SERIES**

Convert new or existing fluorescent fixtures into emergency lighting fixtures 500 lumen emergency ballast



#### **FEATURES**

#### Housing

- Steel housing contains, battery, battery charger, transfer circuit and high frequency inverter
- Optional end caps available
- Operating temperature 32°F to 122°F (0°C to 50°C)

#### Mounting

Slim Design, for internal or external mounting to a fluorescent fixture

**Lamp Type Operation** (refer to Ballast/Lamp Reference Chart for specific lamp type)

- Compatible with most one-, two-, three-, and four-lamp electronic standard and dimming AC ballast
- Operates one 21W-28W T5 fluorescent lamp. Refer to compatible lamp chart for a complete list of lamps

#### **Lumen Output**

• (1) Lamp 325-500 Lumens

#### **Electronics**

- Can be wired to operate switched, un-switched or normally off fixtures without affecting normal operation
- Will cold start and illuminate lamps
- Fully Automatic solid state charger
- High capacity, automatic, dust-tight instantaneous transfer relay
- Low voltage disconnect prevents over discharge of battery
- Automatic brownout protection
- Battery connector prevents battery discharge during installation

#### **Controls**

- Red charger monitor LED indicates charging of the battery and AC present
- Momentary test switch allows for guick operational check of entire system

#### **Sealed Maintenance-Free Battery**

- Nickel-Cadmium battery
- Provides 90 minutes of emergency operation

# **Power Requirements**

Dual voltage 120/277VAC, 60Hz, 2.7W

# **Approvals**

- UL 924 Standards
- Damp location listed

**Warranty** (subject to proper installation and maintenance)

Ballast has a five year full warranty

# **ACCESSORIES** (order as separate item)

	External mounting kit includes wire bundle cover	EC6
Remote	Test Switch (Metal faceplate)	PSW
Remote	Test Switch (Plastic faceplate)	PSW1
Recommended for inaccessible locations.  Test switch and charging indicator on a single mounting plate.		Charging Indicator Light  Push Button Test Switch
Replace	ment Test Switch	TBTSBB-L

# **ORDERING FORMAT**

SERIES				
LADL28				

#### **EXAMPLE: LADL28**

# **SPECIFICATIONS**

Supply and install Lightalarms® LADL28 Series.

The LADL28 fluorescent emergency ballast shall be a single steel housing self-contained unit including a sealed maintenance-free Nickel-Cadmium battery, battery charger, transfer circuit and high frequency inverter. The unit shall be rated 120/277VAC, 60 Hz and be UL924 listed.

The **LADL28** fluorescent emergency ballast, sealed dust-tight relay inverter charger transfer circuit shall be of a solid state design being automatic and instantaneous capable of supplying an initial 500 lumens output to cold start, operate switched, un-switched or normally off fixtures without affecting normal operation. The battery shall supply emergency operation for a minimum of 90 minutes and shall be capable of full recharge in compliance with UL924 specifications.

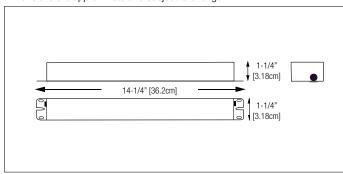
The unit shall be furnished with, red charger monitor LED indicates charging of the battery and AC present to unit as well as a momentary test switch allows for quick operational check of entire system.

Every **LADL28** Series unit shall be fully warranted for five years, subject to proper installation and maintenance. UL listed to standard 924, complies with NEC, Life Safety Code and OSHA requirements.

Unit shall be Lightalarms® catalog number\_\_\_\_\_

#### **DIMENSIONS**

Dimensions are approximate and subject to change.



# **COMPATIBLE LAMP CHART**

LAMP	VOLTAGE	WATTAGE	INITIAL LUMEN
			1-LAMP
T5	120/277V	14W	375
T5		21W	425
T5		28W	500
T8		17W	350
T8		32W	475
4-pin PL CF		13W	325
4-pin PL CF		18W	425
4-pin PL CF		26W	475







# **MINI INVERTER SERIES**

Interruptible Unit Equipment Standard with Non-Audible Improved Self-Diagnostics Circuitry

### **FEATURES**

#### Housing

- 14-Gauge Steel
- · White semi-gloss powered-coat paint finish

#### Mounting

- Surface mount
- Optional recessed T-Bar (125W unit only)

#### **Lamp Types Operated**

- LED
- Incandescent
- Fluorescent
- Operating switched, normally-on or normally-off fixture types
- Incandescent, LED, fluorescent lamps and ballast combinations, including triac dimmable ballasts (consult factory if 0-10V or DALI dimming)

# **Load Capacity**

- 125W, 250W, 400W or 720W
- Line voltage allows for remote mounting of the emergency fixtures at distances up to 1000 feet
- May accept load to it's full capacity when load feature power factor of 0.9 for 250W model and 0.8 for 125, 400 and 720W model

#### **Electronics**

- High-efficiency pure sine wave inverter at 250W capacity or higher
- Temperature compensated charger
- Replaceable output fuse protection
- Low battery voltage disconnect
- Unit comes standard with electronic lockout and brownout circuits

#### **Controls**

- Standard with a non-audible self diagnostic/charger is fully self-contained, fully automatic microcontroller- based system
- Optional audible auto diagnostic available
- Standard lighting control override for 0-10V dimming systems

# Nexus® Option

 Units equipped with NEXUS® self-testing monitoring system circuitry shall selftest, in accordance with NFPA101, Life Safety Code minimum 30 seconds every 30 days, 30 minutes every six months and 90 minutes annually as well as keep a history of all testing logs, plus feature a real-time diagnoses, as well as, be able to locate exact fixture location while notifying service personnel to the status of the fixture via email notification.

Nexus® system interface with an improved minimum load lost detection of 10%

### **Sealed Maintenance-Free Battery**

- 12V oversized Valve Regulated Lead-Calcium (VRLA) battery
- Provides 90 minutes of emergency operation

#### **Power Requirements**

Choice of Voltage 120V in/120V out or 277V in/277V out operation, 60Hz

REPLACEMENT BATTERY
<b>LMIU-125:</b> 860.0024-L
LMIU-250: 2X 860.0024-L
LMIU-400: 2X 860.0043-L
LMIU-720: 2X 860.0096-L

#### **SPECIFICATIONS**

Supply and install Lightalarms® Mini Inverter Series.

Emergency lighting shall be provided by inverter unit equipment designed to operate designated incandescent, fluorescent and LED fixtures on emergency power at their full nominal lumen rating during the full 90 minutes emergency discharge cycle. System output will be rated at \_\_\_\_\_\_\_ watts for 90 minutes and provide used output connections to the load. The system's voltage rating shall be \_\_\_\_\_\_ VAC input/output. The inverter unit shall allow for connected emergency fixture(s) to be normally on, normally off, switched or triac dimmable ballasts without affecting lamp operation during a power failure. Upon utility power loss, the inverter unit shall deliver 100% of its rated output to the emergency fixtures regardless of the local switch or dimmer position, and will provide power to emergency fixtures at distances of up to 1000 feet. The housing shall be manufactured using 14-gauge steel with a white baked-on powder coat paint finish.

The unit's electronics shall include as standard, non-audible self-diagnostics, a self-contained inverter section with a fully automatic, thermal-compensating variable-rate battery charger, AC lockout feature, low voltage battery disconnect, DC overload, short circuit and brownout protection as standard. The unit shall utilize a sealed Lead-Calcium battery with a 10-year design life.

The inverter system shall be UL 924 Listed and labeled. The unit shall be covered under a 3-year full warranty on the electronics, against defects in material or workmanship. The battery includes a 3 year full, plus a 7 year pro-rata warranty.

Unit shall be **Lightalarms®** catalog number \_\_\_\_\_

#### SPECIFICATIONS

#### TRANSFER TIME

Less than 1 second

# **VOLTAGE REGULATION ON EMERGENCY:**

+/- 3%

#### FREQUENCY REGULATION ON EMERGENCY:

60 Hz +/- 1%

## LOAD POWER FACTOR RANGE:

- 250W model: .9 leading to .9 lagging
- 125, 400 & 720W models: 8 leading to .8 lagging

#### OPERATING TEMPERATURE:

68° to 86°F (20° to 30°C)

## **Approvals**

- UL924 Standard
- Meets or exceeds all National Electric Code and Life Safety Code Emergency Lighting Requirements

**Warranty** (subject to proper installation and maintenance)

- Unit has a 3 year full warranty (excluding lamps and fuses)
- Battery has a 3 year full, plus 7 year pro-rata warranty

All **Lightalarms®** inverter products receive 100% quality inspection before shipment to insure proper and satisfactory operation.



TYPE	_
CATALOG #	_
	_
NOTES	_



Interruptible Unit Equipment 125W, 250W, 400W or 720W Standard with Non-Audible Improved Self-Diagnostics Circuitry & Lighting Control Override



# **ELECTRICAL CHARACTERISTICS & DIMENSIONS**

POWER RATING	SINE WAVE	INSTALLATION	CABINI	ET DIMEN	ISIONS	NO. OF BATTERY	WEIGHT	WEIGHT W/O BATTERY
POWER RAILING	SINE WAVE	INSTALLATION	W"	H"	D"		120V & 277V	120V & 277V
125W	Modified	T-Bar	24"	6.5"	8"	1	43 lbs	20 lbs
125W	Modified	Wall	16.5"	12.2"	7.3"	1	41 lbs	18.5 lbs
250W	Pure	Wall	27"	12.2"	7.3"	2	76 lbs	30 lbs
400W	Pure	Wall	24"	10.5"	20"	2	128 lbs	50 lbs
720W	Pure	Wall	24"	14.5"	20"	2	185 lbs	72 lbs

NOTE: For wiring diagram, please refer to instruction sheets.

# POWER CONSUMPTION AND UNIT RATING

MODEL NUMBER	AC SPECS		EMERGENCY POWER AVAILABLE FOR LOAD				
WODEL NUMBER	AC SP	EUS	90MIN	2H	3H	4H	
LMIU-125 LMIU-250 LMIU-400 LMIU-720	120 / 277VAC 120 / 277VAC 120 / 277VAC 120 / 277VAC	1.15 / 0.50 Amps 2.28 / 0.99 Amps 3.73 / 1.62 Amps 6.90 / 2.99 Amps	125W 250W 400W 720W	83W 167W 300W 480W	62W 125W 200W 360W	47W 94W 150W 270W	

# ORDERING INFORMATION

ORDERIN		_		
SERIES	CAPACITY	VOLTAGE IN/OUT	DIAGNOSTIC FEATURE	OPTIONS
LMIU	-125= 125W -250= 250W -400= 400W -720= 720W	BLANK= 120/120VAC or 277/277VAC	Blank= Includes Improved Self-Diagnostics (non-audible)¹ -ID= Improved Self-Diagnostics (audible)¹ -NEX= Nexus® wired -NEXRF= Nexus® wireless	-D1= Time Delay (5 minutes) -D2= Time Delay (10 minutes) -D3= Time Delay (15 minutes) -SAC= Service alarm contact¹ -T= Recessed T-Bar mounting (125W unit only)
				1 Service alarm contact (SAC) shall provide a 24V
			<sup>1</sup> Minimum load required: 10% of unit capacity	Service alarm contact (SAC) shall provide a 24V signal, the charger board will indicate a fault by choosing a contact. Not available with 720 capacity

**EXAMPLE: LMIU-720** 







# LOW CAPACITY MINI INVERTER SERIES

Interruptible Unit Equipment 32W or 55W

### **FEATURES**

#### Housing

- Heavy-duty steel cabinet
- White baked on powder paint coating provides scratch and corrosion resistance

#### Mounting

- Surface mount
- Recessed T-Bar (plenum rated)

#### **Lamp Types Operated**

- LED
- Incandescent
- Fluorescent
- Operates switched, normally-on or normally-off fixture types, incandescent, LED, fluorescent and ballast combinations, including triac dimmable ballasts

#### **Load Capacity**

- 32W, 55W
- Allows for remote mounting of the emergency fixtures at distances of up to 1000 feet
- May accept load when load feature power factor range from 0.44 lead to 0.44 lag

#### **Electronics**

- True sine wave inverter
- Temperature compensated charger
- Low battery voltage disconnect
- Unit comes standard with electronic lockout and brownout circuits

#### **Controls**

 Control panel with momentary test switch, AC-On, Charger-On and Inverter-On LED indicators

#### **Sealed Maintenance-Free Battery**

- 12V oversized Valve Regulated Lead-Calcium (VRLA) battery
- Provides 90 minutes of emergency operation

# **Power Requirements**

Choice of voltage: 120V in/120V out or 277V in/277V out operation, 60Hz

# **Approvals**

- UL924 Standard
- Meets or exceeds all National Electric Codes and Life Safety Code Emergency Lighting Requirements

**Warranty** (subject to proper installation and maintenance)

- Unit has a 3 year full warranty (excluding lamps and fuses)
- Battery has a 3 year full, plus an additional 3 year pro-rata warranty

All  ${\bf Lightalarms^@}$  inverter products receive 100% quality inspection before shipment to insure proper and satisfactory operation.

# **SPECIFICATIONS**

Supply and install Lightalarms® Low Capacity Mini Inverter Series.

Emergency lighting shall be provided by inverter unit equipment designed to operate designated incandescent, fluorescent and LED fixtures on emergency power at their full nominal lumen rating during the full 90 minutes of emergency discharge cycle. System output will be rated at \_\_\_\_\_\_ watts for 90 minutes. The system's voltage rating shall be 120 / 277 VAC input/output. The inverter unit shall allow for connected emergency fixture(s) to be normally-on, normallyoff, switched or triac dimmable ballasts without affecting lamp operation during a power failure. Upon utility power loss, the inverter unit shall deliver 100% of its rated output to the emergency fixtures regardless of the local switch or dimmer position, and will provide power to emergency fixtures at distances of up to 1000 feet. The housing shall be manufactured with a white baked-on powder coat paint finish. The unit's electronics shall include a self-contained inverter section with a fully automatic, thermal compensating dual mode battery charger, AC lockout feature, low voltage battery disconnect, DC overload, short circuit and brownout protection as standard. The unit shall utilize a sealed Lead-Calcium battery with a 10-year design life. The inverter system shall be UL 924 Listed and labeled. The unit shall be covered under a 3-year warranty on the electronics and battery plus an additional 3-year pro-rata warranty on the battery.

Unit shall be Lightalarms® catalog number \_\_\_\_\_

### SPECIFICATIONS

# TRANSFER TIME

Less than 1 second

# VOLTAGE REGULATION ON EMERGENCY:

+/- 5%

# FREQUENCY REGULATION ON EMERGENCY:

60 Hz +/- 0.5%

# LOAD POWER FACTOR RANGE:

0.44 lead to 0.44 lag

# **OPERATING TEMPERATURE:**

68° to 86°F (20° to 30°C)



TYPE	
CATALOG #	
NOTES	





# **ELECTRICAL CHARACTERISTICS & DIMENSIONS**

SYSTEM TYPE	POWER RATING	SINE WAVE	INSTALLATION	CABINI	ET DIMEN	SIONS	NO. OF BATTERY	WEIGHT
STSTEWLITE	POWEN NATING	SINE WAVE	INSTALLATION	W"	H"	D"	NO. OF BALLENT	120V & 277V
LMILC32-S	32W/VA	Yes	Surface mount	14-3/4"	6-7/8"	3-1/8"	1	14 lbs
LMILC32-T	32W/VA	Yes	Recessed T-bar	23-7/8"	6-1/4"	4"	1	15 lbs
LMILC55-S	55W/VA	Yes	Surface mount	14-3/4"	6-7/8"	4-3/8"	1	18 lbs
LMILC55-T	55W/VA	Yes	Recessed T-bar	23-7/8"	6-1/4"	4"	1	19 lbs

NOTE: For wiring diagram, please refer to instruction sheets.

# **POWER CONSUMPTION AND UNIT RATING**

MODEL NUMBER INPUT RATING		EMERGENCY POWER AVAILABLE FOR LOAD (90MIN)		
LMILC32	41W/VA	32W		
LMILC55	64W/VA	55W		

# **ORDERING INFORMATION**

SERIES	CAPACITY	VOLTAGE IN/OUT	BATTERY TYPE	MOUNTING
LMILC	<b>32</b> = 32W/VA <b>55</b> = 55W/VA	<b>BLANK</b> = 120/277VAC	BLANK= Lead-Calcium	-S= Surface mount housing -T= Plenum rated ceiling T-grid mount housing

**EXAMPLE: LMILC32-S** 





www.lightalarms.com

Thomas@Betts

A Member of the ABB Group

