NORTH AMERICAN
Manufacturing Facility

Thomas & Betts has unique North American manufacturing and production capabilities that allow **Emergi-Lite®** to produce exactly what we need when we need it, without waiting for big production runs or imported goods to arrive.

Leading-Edge Research And Development

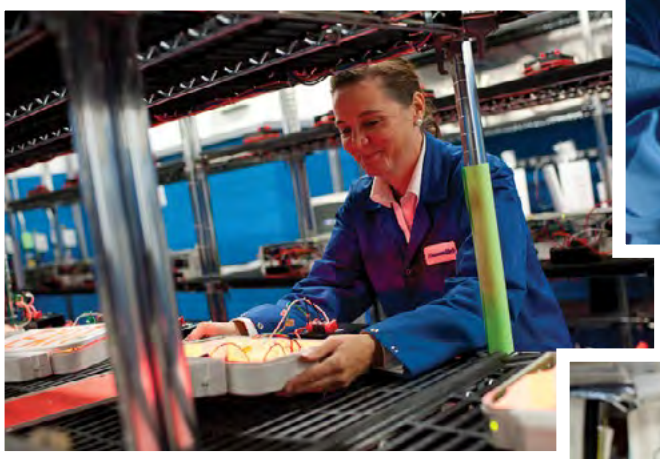
The multi-disciplinary in-house research and development team at **Thomas & Betts/Emergi-Lite®** includes many individuals with over twenty-five years of experience in the emergency lighting industry. Our highly skilled professional electrical and mechanical engineers, designers, and technicians pioneer innovative emergency lighting solutions by using state-of-the-art technology in all specialties from mechanical design to operating system software, lighting design, RF and power electronic design and LED drivers. Unique requests from customers for specific applications are managed in-house with our engineering service capabilities. We implement safety and quality into each product starting at the initial concept and design. To ensure that each unit is code-compliant, and meets the **Emergi-Lite®** quality standards including easy installation and long-term reliability, we create our own specialized testing equipment.

Advanced Circuit Board Production

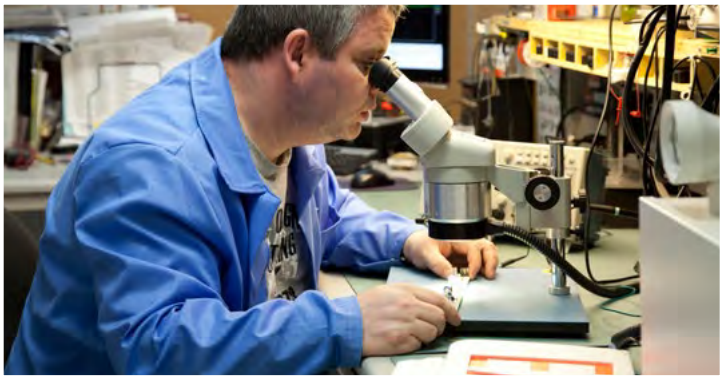
Thousands of universal SMT (surface mount technology) boards and TH (through-hole) insertion boards are produced daily at the **Thomas & Betts** manufacturing facility on technologically advanced printed circuit board production lines. Our ROHS-compliant wave soldering machine meets lead-free criteria, and every station is ESD (electro-static discharge) protected to eliminate static hazards.

Trained according to IPC standards, our skilled production personnel ensure quality by using board traceability and tracking software. High productivity and quality are ensured with the use of automatic silicone coating application and insertion equipment.

The new AOI (automated optical inspection) machine added to the **Thomas & Betts** printed circuit board operation in 2012 is one of the first of its kind in use in North America.



The **Thomas & Betts** North American facility is an emergency lighting center of excellence thanks to the commitment, expertise, and creativity of every employee.



NORTH AMERICAN
Manufacturing Facility

With everything under one roof, we have total control over service, quality and lead time, and we can ensure that our strict quality standards are met at every stage in the process from design to assembly to order completion.

Production & Quality Control

Our electro-mechanical assembly lines are optimized for highly efficient low-volume, high-mix production runs with thousands of final assemblies produced on a daily basis. Color matching, exact wording, specific punching, and other special requests can be completed quickly using our on-site painting capabilities and machine shop.

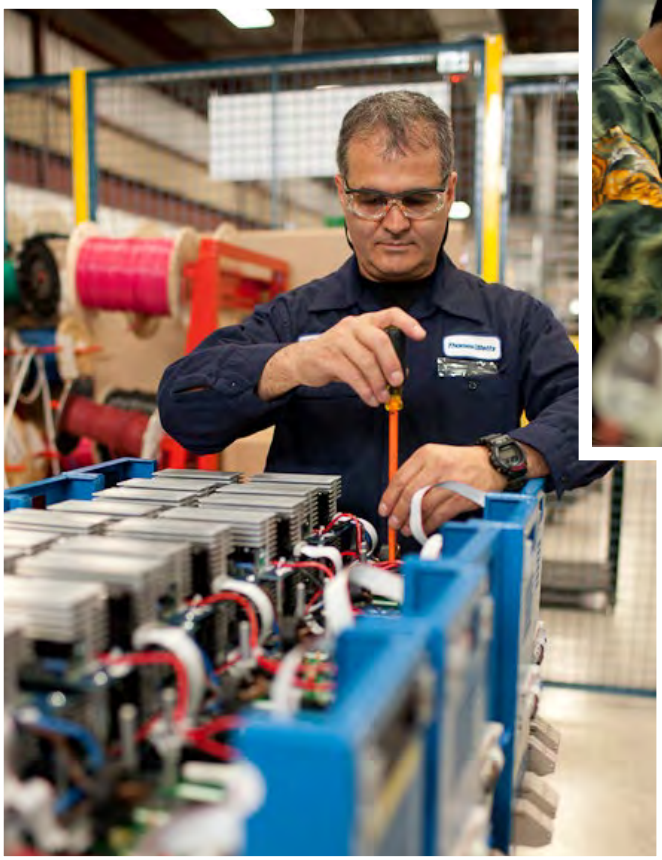
All central power systems undergo high-voltage, high-amperage power outage simulations to test for each customer's specific requirements, and every order must pass functional testing and quality inspection.

Specialized in-house facilities such as temperature and humidity controlled environments; a dark room for color contrast measurement; wall, ceiling and suspended ceiling installation simulations; and cycle testing automation are used to ensure quality.

Streamlined & Environmentally Conscious

Strategically located warehouses throughout the United States hold large inventories ready to ship for fast delivery to customers across the country.

A Sustainable Development policy is in effect at the **Thomas & Betts** manufacturing facility to minimize the environmental impact and reduce the carbon footprint of operations. Reductions in usage of electricity and natural gas, packaging, pallets, water, and water bottles have already been accomplished through a series of initiatives. Forward-looking objectives include increased pallet recycling, paper usage reductions, and the implementation of an eco-delivery schedule.



Since 2001, the **Thomas & Betts** manufacturing facility has been ISO 9001 compliant.

MR16 LED
Emergency Lighting

MR16 LED Illumination

With the remarkable technology technological developments in the last few years, the light-emitting diode (LED) is becoming the preferred solution in low- and medium-power lighting applications. The emergency lighting industry is no exception: today virtually every new product introduced to market includes “white” LEDs for emergency illumination.

Extremely efficient and long-lasting, LED lamps become the natural alternative to incandescent lamps due to three main advantages:

- lamp efficacy: 50 - 90 lumens per watt compared to 15 - 30 lumens per watt of the best halogen lamp.
- operational life: 30,000+ hours, equivalent to a lifetime warranty in emergency lighting.
- lower lamp temperature 80-120°C (176-248°F) is a huge benefit for lighting in hazardous locations.

MR16 LED Lamp Benefits

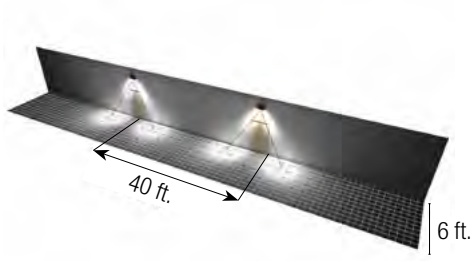
- UL- recognized components CSA C22.2 No. 141 certified.
- Energy-efficient LED MR16 lamp provides equivalent lighting performance to a much higher watt halogen MR16 lamp.
- Reduces required battery capacity by 75-85%, providing necessary illumination with fewer remote heads and battery units for project cost savings.
- Small profile, compact white lighting is ideal for architectural applications.
- Vibration-resistant LED stands up to industrial environments.
- Ideal for indoor and outdoor use.

200-Lumen 4W MR16 LED

Leading the technology trend, **Emergi-Lite®** offers a complete series of 4W MR16 LED lamps available for all the standard battery voltages: 6V, 12V, 24V and 120V. With up to 30,000 hours of operational life and a luminous flux of typically 200 lumens, they are available with most emergency heads designed to hold an MR16 lamp and meet the majority of illumination specifications. For example: one pair of LED emergency heads installed at a height of 7.5 ft illuminates a 6 ft by 40 ft path of egress.

Compared to halogen lamps (16-20W), these 4W MR16 LED lamps illuminate the same area of egress during an emergency situation by using 75% less power. This has a direct impact on the battery size, reducing the back-up capacity needs by 75%. Consequently, it also reduces the total cost of the application, with the use of smaller battery capacity units, the possibility of using fewer fixtures due to superior illumination, thus also reducing electrical wiring, and the environmental footprint.

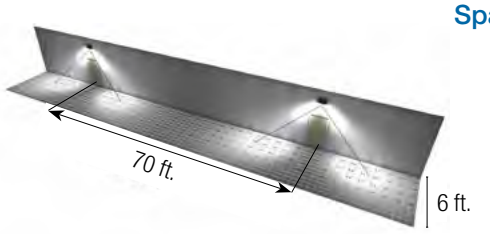
Spacing



340-Lumen 5W MR16 LED

Keeping pace with technology, in 2012 we introduced a 12V-5W MR16 LED lamp. With a typical luminous flux of 340 lumens, this lamp has the same lighting performance as a 20W high-output halogen MR16. A twin emergency head installed at a height of 7.5 ft illuminates more than 70ft of path of egress.

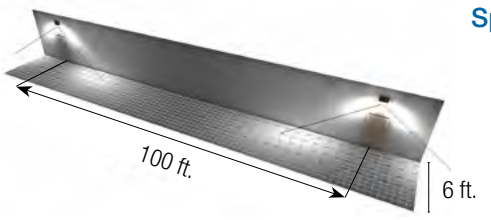
Spacing



540-Lumen 6W MR16 LED

A 6W MR16 LED lamp delivers 540 lumens for an average spacing in emergency lighting of 100 feet with an efficacy of 91.9 Lm/w, it is over 6 times the efficacy of a MR16 35W halogen with similar light output. This lamp can deliver the highest linear foot of illumination per watt on a path of egress! (spacing in feet / watt) 16.7 ft compare to 2.7 ft for a MR16 35W.

Spacing



MR16 LED
Emergency Lighting

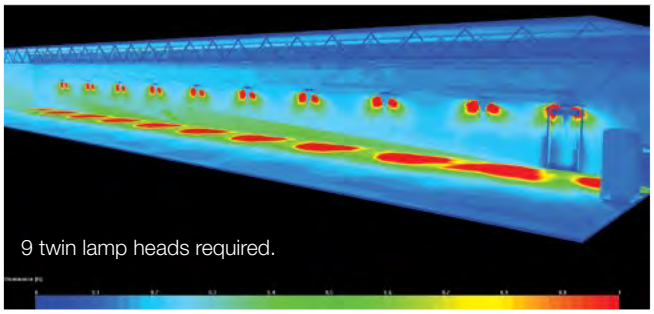
Case Study: Fewer MR16 LED units required

Emergency lighting units with MR16 LED lamps provide the same illumination at floor level using significantly with many additional benefits:

- Reduced Installation Costs, due to reduced product and labor requirements.
- Reduced Energy Costs, keeping fewer batteries charged at full capacity to be ready to respond to an emergency situation at any time.
- Reduced Maintenance and Testing Costs, with fewer units to maintain and test in the Emergency Lighting System.
- Reduced Lamp Replacement Costs. LED lamps have a 30,000+ hour lamp life compared to only a few hundred hours typical with incandescent lamps.
- Reduced Environmental Impact, with less product materials, less batteries, less transportation, less packaging, less labor, and less waste.

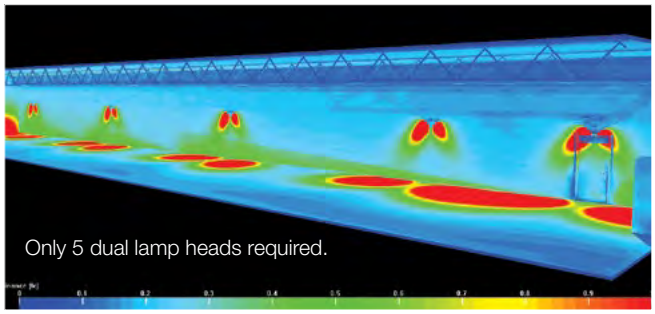
Compare

Where the building code requires an average of 1 foot-candle and a minimum of 0.1 foot-candle at floor level along the path of egress on a 150 ft x 9 ft x 9 ft corridor with an egress door at one end, a 150 ft x 6 ft path of egress, and a 7.5 ft unit mounting height, using high-efficiency LED lamps can reduce the emergency lighting units required from 9 dual-head units down to only 2 dual-head units:



Standard wedge-base 9W incandescent lamp

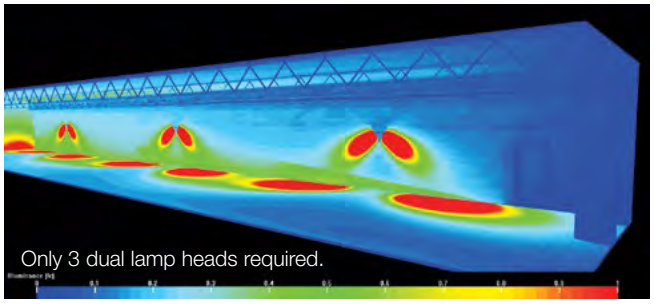
Standard Emergency Lighting Units with 9W wedge-base incandescent lamps



4W MR16 LED lamps

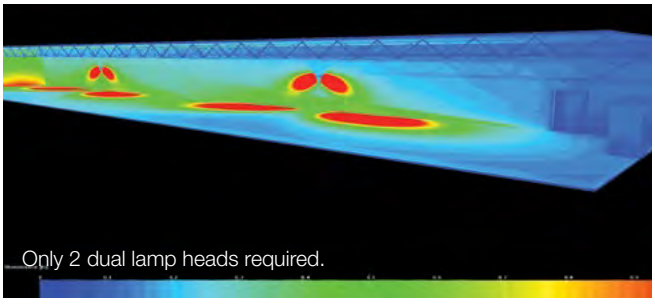
Same Standard Emergency Lighting Units with 4W MR16 LED Lamps

LAMP SUFFIX	VOLTAGE	WATTAGE	LUMENS	REPLACEMENT #
LA	6	4	130	580.0097-E
LG	12	4	170	580.0093-E
LL	24	4	200	580.0098-E



5W MR16 LED lamps

LAMP SUFFIX	VOLTAGE	WATTAGE	LUMENS	REPLACEMENT #
LI	12	5	340	580.0104-E



NEW! 6W MR16 LED lamps

LAMP SUFFIX	VOLTAGE	WATTAGE	LUMENS	REPLACEMENT #
LJ	12	6	540	580.0106-E

NEXUS® EMERGENCY LIGHTING
Management System

Are you prepared for a safety inspection?

Building & Life Safety Codes oblige building owners/managers to ensure the safe evacuation of a building in the event of an emergency. In the interest of public safety, building owners/managers must meet the outlined requirements for exit signs and emergency lighting equipment, including the following:

- Conduct a discharge test every month
- Conduct functional tests annually
- Keep a log book of maintenance information

Complying with these requirements can be labor intensive and costly, especially in large buildings where testing every emergency light requires many man-hours. Disrupting the power supply during lengthy inspections can also put public safety at risk.

Manage Testing with Nexus® to Save Time and Costs

Nexus® is a real-time monitoring system that manages the status of your entire emergency lighting and exit sign system from a central control unit. **Nexus®** runs diagnostics, performs required monthly and annual functional tests, generates maintenance logs and runs compliance reports.

Available in wired or wireless (RF) versions, **Nexus®** installations often pay for themselves in less than two (2) years. In addition to operational savings, **Nexus®** helps increase system reliability and performance and reduces the risk of failed inspections. One building or a group of properties under the same management can be monitored with **Nexus®**.

Maximize System Availability

By allowing maintenance personnel to easily maintain and monitor the emergency lighting system without having to manually check each unit, **Nexus®** reduces the hours required to disrupt the power supply for inspections. With **Nexus®**, monthly tests and reports on the status of all emergency lights and exit signs can be done individually, in groups, or together. Advantages of the **Nexus®** system include saving labor; maximizing system availability by testing units in groups and stages rather than setting all units in recovery mode; and the convenience of self-monitoring. **Nexus®** indicates the location of a faulty unit and reports it instantly without requiring a manual search.

NEXUS® EMERGENCY LIGHTING
Management System

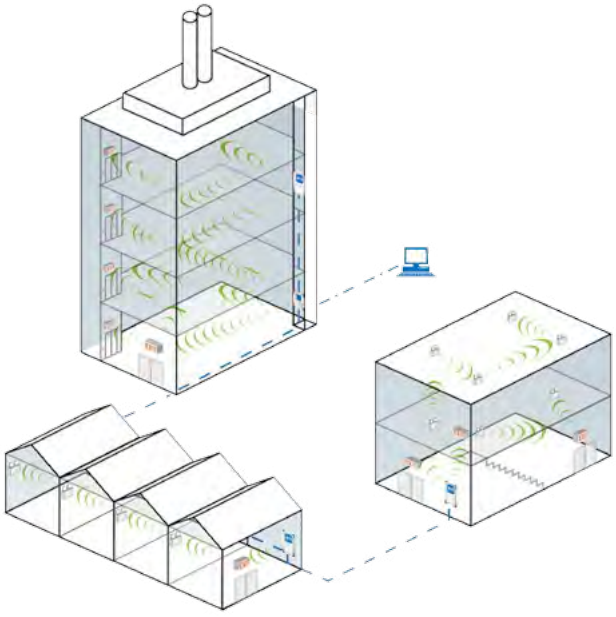
Update Status Instantly

Nexus® passes messages both to and from the emergency units to instruct the units to perform all mandatory testing by communicating between the emergency units and a centrally located controller.

Nexus® is a proven system supported by a 5-year warranty, and can contribute to LEED certification and support green building initiatives.

Small System Example

In a system of less than 100 units it is most likely that the only hardware required, other than the emergency units themselves, is a controller. All communication would occur wirelessly and installation would not vary greatly from a non-monitored system. Once the units are in place, the system will establish the mesh network. The building itself could be quite large as each unit only needs to be able to communicate with its close neighbors and does not need to communicate directly with the controller.



Large System Example

The **Nexus®** RF system has been designed to be extremely flexible and provide a range of system options. Each large site will need to be assessed for the best system solution with the assistance of **Thomas & Betts** technical staff.

The basic **Nexus®** RF system is designed to run on an Ethernet network which is present in most modern buildings. However through a range of interface cards, the backbone of the network could be WLAN. As with the small system example, site performance will be optimized through the careful selection and placement of Area Controller Routers and the Area Controller to form efficient clusters. Building layout and materials will also play some role in determining the best solution to deliver a highly effective means of meeting testing and maintenance requirements.

NEMA-3R **Patent-Pending**

TYPE: _____
CATALOG #: _____
NOTES: _____

Lux-Ray™ LED Series

Features

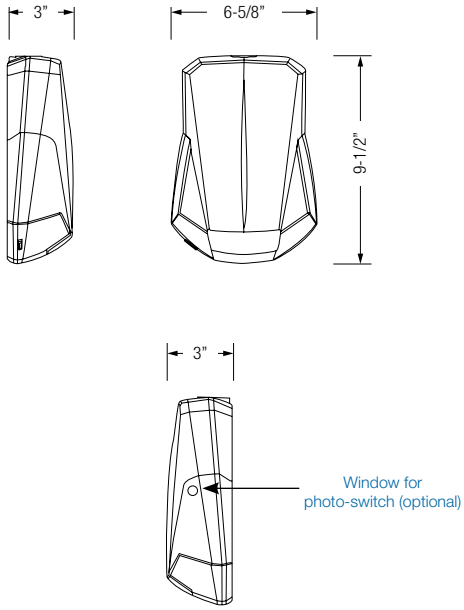
- Die-Cast aluminum housing, available in four finishes: dark bronze, off-white, black, and platinum gray
- Nema-3R rated for indoor/outdoor wet, damp & cold locations:
  -20 to 50°C (-4 to 122°F), SD Model
  -20 to 40°C (-4 to 104°F), ACSD Model
- Wall-mount installation on various junction boxes or via rigid conduit
- Patent-Pending design for easy installation: wall-mount back plate includes electrical wire box with snap-on connector
- Patent-Pending light engine: four power LEDs with redundant connections and wide beam
- Clear polycarbonate lens of reduced size (3" X 1.5"), shock absorbent and UV-resistant
- Battery: environmentally friendly high-temperature rated, Nickel-Metal Hydride technology
- Power consumption in stand-by: less than 5W
- Optional self-test and diagnostic functions, operated by micro-controller
- 5-year limited warranty

Optional Features

- Cold weather: -40°F / -40°C
- Forward-throw light distribution, for applications of outdoor exit discharge (OSHA 1910.36)
- High-lumen output: 25 to 50% additional level of illumination compared to the regular unit
- Dual-mode operation: normal lighting and/or emergency lighting with separate AC inputs
- Photo-switch: dusk-to-dawn control of normal lighting
- Remote test: infrared remote control (keypad ordered separately)
- Time Delay: 5, 10, 15 minutes

Dimensions

Dimensions are approximate and subject to change.



Power Consumption

Model Type	AC SPECS: 120/277VAC				6-12VDC remote
	Normal lighting		Emergency lighting		
	Current (max)	Power (max)	Current (max)	Power (max)	Power (max)
AC, 2AC, ACDC, DC	0.12/0.08A	12W	0.12/0.08A	12W	8W
AC, 2AC, ACDC, DC, -H	0.18/0.11A	18W	0.18/0.11A	18W	14W
ACSD, SD, SD-H	0.12/0.06A	12W	0.05/0.02A	5W	n/a*
SD-CW	-	-	0.15/0.07A	16W	
ACSD-CWP, -CWRC	n/r*		0.22/0.10A	24W	

* Note: Only unswitched AC input; normal lighting with photo-switch or remote control

TYPE: _____

CATALOG #: _____

NOTES: _____

Die-Cast Aluminum LED Emergency Lighting

Photometry performance

Whether installed indoors or outdoors, with spacing measurements for a single unit or between two units center-to-center, the Camray® Series LED delivers a stable and consistent illumination making it easy to specify in a wide range of applications. The outstanding spacing of illumination ranges from 50 to 70 feet for standard units (wide beam) and from 40 to 50 feet with the forward-throw beam option.

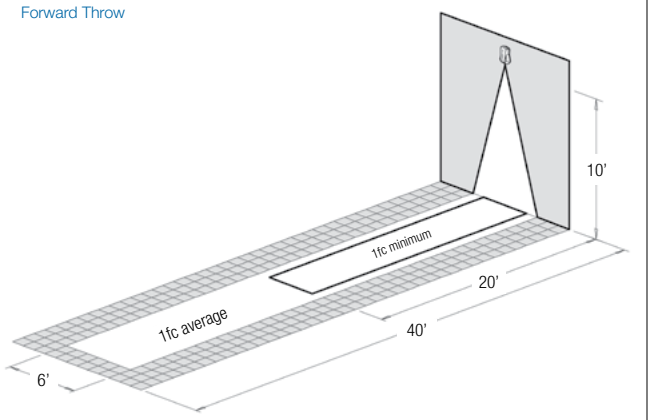
Minimum of 1 foot-candle

TABLE B: SPACING FOR MINIMUM ILLUMINATION = 1FC			
Model Type	Mouting Height	Width X Lenght (ft)	
		Single Unit	Center-To-Center
Standard	9’	4’ x 28’	4’ x 32’
With option -H	11’	4’ x 32’	4’ x 40’
With option -FT	12’	4’ x 22’	—
With option -FTH	15’	4’ x 27’	—

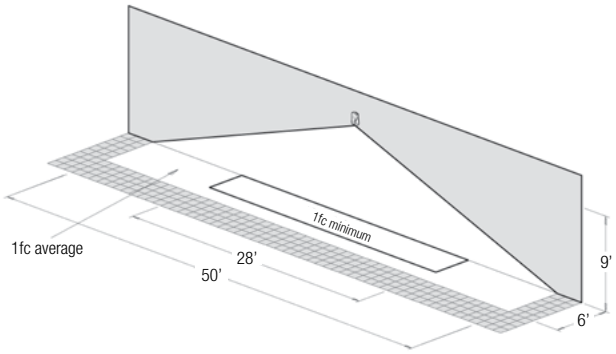
Average of 1 foot-candle

TABLE A: SPACING FOR NFPA101 (AVERAGE = 1FC, SEE NOTE)			
Model Type	Mouting Height	Width X Lenght (ft)	
		Single Unit	Center-To-Center
Standard	9’	6’ X 50’	6’ X 50’
With option -H	11’	6’ X 60’	6’ X 60’
			3’ X 70’
With option -FT	12’	6’ X 40’	—
With option -FTH	15’	6’ X 50’	—

Forward Throw



Wide Beam



How to Order

COLOR	SERIES	MODEL	OPTIONS
B= Black **BZ**= Dark bronze **OW**= Off-white **PG**= Platinum gray	**LUX**= Lux-Ray LED	**SD**= Self-Powered & diagnostic [-4... 122°F (-20… 50°C)] **ACSD**= Dual-mode AC / Self-Powered [-4... 104°F (-20… 40°C)]	**-CW**= Cold weather [-40… 86°F (-40…30°C) N/A with option -H] **-D1**= Time Delay (5 minutes) **-D2**= Time Delay (10 minutes) **-D3**= Time Delay (15 minutes) **-FT**= Forward throw lighting **-H**= High lumen output (max. 86°F/30°C; model SD only) **-P**= Photocell Test Switch (ACSD only) **-RC**= Remote control - infrared* * Remote control keypad (TB-RC1-E) ordered separately

Example: **BZLUXACSD-RC**

TYPE: _____
CATALOG #: _____
NOTES: _____

Revelation™ Series

Virtually Invisible Emergency Lighting

Features

- Fully concealed in open cavity walls or ceiling
- Only visible when needed: during a power failure
- Each unit comes with two (2) MR16 halogen lamps ranging from 12 to 50W each or 2 MR16 style LED lamps
- The Self-Powered unit is contained in a heavy-duty galvanized steel back box that can be concealed in the wall or ceiling and includes a combined test switch and pilot light that is accessible through the frame
- The normally exposed parts of the unit (flat door and frame) are covered with a high-quality powder-coated, textured off-white finish that integrates well with most wall and ceiling paints. The surface finish can also be customized on site with paint, wallpaper or other coverings
- Power requirements: 120/277VAC, 60Hz, 0.25/0.12A
- PulsePlus Charger circuitry offers 120/277VAC 60Hz, 0.25/0.12A, automatic charger, built around a micro-controller integrated circuit. Circuit standard features include current limiting, temperature-compensated cut-off voltage, brownout transfer, low-voltage battery disconnect and battery lock out (prevents activation in DC mode until initial AC activation)
- Special bar hangers for installation in sheet rock or T-bar ceilings are included. The included electrical junction box can be installed on a wall stud or ceiling beam with a simple U-shape bracket
- 5-year warranty on electrical parts (motor, electronic circuitry). Each unit is fully computer-tested and aligned mechanically for optimum operation

Diagnostic/Self Test Feature (optional)

Diagnostic/Self-Test circuitry is optional on all Self-Powered models. This circuitry is programmed to ensure 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 flashing red, indicating a fault. A detailed diagnostic legend is available on the door back and provides fault identification (battery, charger circuitry, lamps) for maintenance personnel. The self-test feature will simulate a power loss for a minimum of 30 seconds every 30 days, 30 minutes every 6 months and 90 minutes annually.

Power Consumption

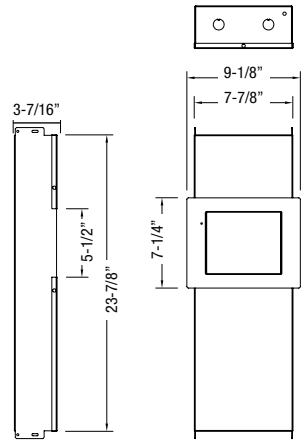
Model	Maximum		Stand-By*	
	Input Current	Input Power	Input Current	Input Power
120V	0.25A	30W	0.1A	11W
277V	0.12A	30W	0.05A	11W

* Stand-by power consumption is 50% lower for Lead-Calcium batteries.

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.



Accessories (order as a separate item)

DESCRIPTION	SUFFIX
Remote Test Switch (metal face plate)	RTS
Remote Text Switch (plastic face plate)	RTS-1

Unit Rating

Model	Watts to 87-1/2% of rated battery voltage*			
	1-1/2 hrs	2 hrs	4 hrs	8 hrs
RTM40, RTN40	40	30	24	-
RTM70, RTN70	70	50	40	24
RTM100, RTN100	100	70	50	40

* National Electrical Code Specification

How to Order

Battery Unit

SERIES	BATTERY TYPE	UNIT CAPACITY	LAMP TYPE/WATTAGE	OPTIONS
RT	**M**= Lead-Cadmium **N**= Ni-Cd	**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 **-2 (LG)**= 12V-4W, MR16 LED **-2 (LI)**= 12V-5W, MR16 LED **-2 (LJ)**= 12V-6W, MR16 LED	**AD**= Advanced Diagnostics (audible)* **ADNA**= Advanced Diagnostics (non-audible)* **DL**= Damp Location** **D1**= Time Delay (5 minutes) **D2**= Time Delay (10 minutes) **D3**= Time Delay (15 minutes) **X**= Back box shipped separately * Available on all models except Ni-Cd 100W ** Minimum lamp load required: 20% of unit capacity

Example: **RTM100-2(50)-D3**

AC Remote Fixture

SERIES	INPUT VOLTAGE	# OF LAMPS	LAMP TYPE/WATTAGE	OPTIONS
RTG= Remote AC Generator	**1**= 120VAC, 60Hz **2**= 277VAC, 60Hz	**-2**= Two lamps standard	**(LG)**= 12V-4W, MR16 LED **(LI)**= 12V-5W, MR16 LED **(LJ)**= 12V-6W, MR16 LED **(12)**= 12W each head **(20)**= 20W each head **(35)**= 35W each head **(50)**= 50W each head **(20H)**= 20W, high lumen output **(35H)**= 35W, high lumen output **(50H)**= 50W, high lumen output	**-DL**= Damp Location **X**= Back box shipped separately

Example: **RTG2-2(LG)-DL**

TYPE: _____

CATALOG #: _____

NOTES: _____

Mini-Revelation™ Series

THE UNSEEN SOLUTION

Virtually Invisible Emergency Lighting

SPEC GRADE

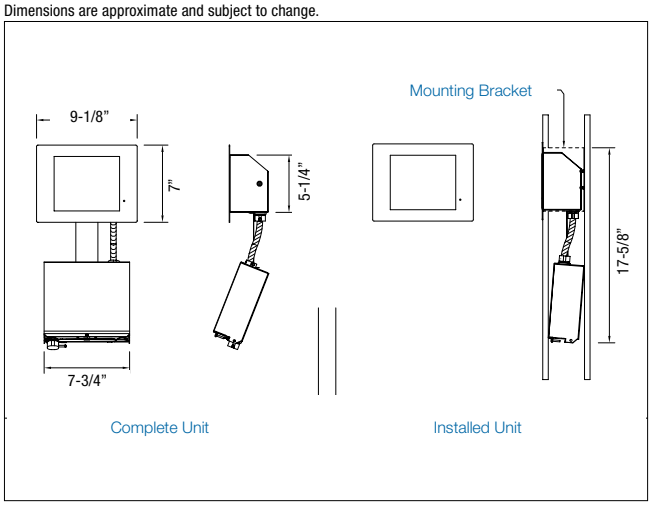
ARCHITECTURAL

Features

- Each unit comes with two (2) MR16 halogen lamps or 2 MR16 style LED lamps
- The Self-Powered battery unit is contained in a heavy-duty galvanized steel back box that can be concealed in the wall or ceiling and includes a combined test switch and pilot light that is accessible through the frame
- The normally exposed parts of the unit (flat door and frame) are covered with a high-quality powder-coated, textured off-white finish that integrates well with most wall and ceiling paints. The surface finish can also be customized on site with paint, wallpaper or other coverings
- Power requirements: 120/277VAC, 60Hz, 0.25/0.12A
- PulsePlus Charger - this automatic charger is built around a micro-controller integrated circuit. Circuit standard features include current limiting, temperature-compensated cut-off voltage, brownout transfer, low-voltage battery disconnect and battery lock out (prevents activation in DC mode until initial AC activation)
- The equipment includes an electrical junction box and can be installed on a wall stud or ceiling beam with a simple U-shape bracket.
- Evaluated to UL 924 Standard
- 5-year warranty on electrical parts (motor, electronic circuitry). Each unit is fully computer-tested and aligned mechanically for optimum operation
- AD or ADNA options include includes a Time Delay function. If needed, it can be enabled/disabled in the field or it can be preset at the factory by including the suffix AD-D_ or ADNA-D_

Dimensions

Dimensions are approximate and subject to change.



Accessories (order as a separate item)

DESCRIPTION	SUFFIX
Remote Test Switch (metal face plate)	RTS
Remote Text Switch (plastic face plate)	RTS-1

Unit Rating

Model	Watts to 87-1/2% of rated battery voltage*			
	1-1/2 hrs	2 hrs	3 hrs	4 hrs
MRT_40	40	30	24	-

* National Electrical Code Specification

Power Consumption

Model	AC Input	Maximum		Stand-By (Ni-Cd, NiMH)*	
		Input Current	Input Power	Input Current	Input Power
MRT40	120VAC	0.25A	30W	0.1A	11W
	277VAC	0.12A	30W	0.05A	11W
MRTG	120VAC	0.95A	110W**	–	–
	277VAC	0.45A	110W**	–	–

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

** Maximum power when equipped with 2 x 50W lamps (generator unit)

How to Order

SERIES	BATTERY TYPE	UNIT CAPACITY	AC INPUT	LAMP TYPE/WATTAGE	OPTIONS
Battery Unit= MRT	**M**= Lead-Calcium **N**= Nickel-Cadmium **H**= Nickel-Metal Hydride	**40**= 12V-40W	**Blank**= 120/277VAC	**-2 (12)**= 12W each head **-2 (20)**= 20W each head **-2 (20H)**= 20W, high lumen output **-2 (LG)**= MR16 LED, 12V-4W **-2 (LI)**= MR16 LED, 12V-5W **-2 (LJ)**= MR16 LED, 12V-6W	**-AD**= Advanced Diagnostics (audible)* **-ADNA**= Advanced Diagnostics (non-audible)* **-D1**= Time Delay (5 minutes) **-D2**= Time Delay (10 minutes) **-D3**= Time Delay (15 minutes) **-DL**= Damp Location (only MRTN40, MRTH40) * Minimum lamp load required: 20% of unit capacity
Generator Unit= MRT	**G**= Remote AC generator	**Blank**= Max. 100W	**1**= 120VAC **2**= 277VAC	**-2 (12)**= 12W each head **-2 (20)**= 20W each head **-2 (35)**= 35W each head **-2 (50)**= 50W each head **-2 (20H)**= 20W, high lumen output **-2 (35H)**= 35W, high lumen output **-2 (50H)**= 50W, high lumen output **-2 (LG)**= 12V-4W, MR16 LED **-2 (LI)**= 12V-5W, MR16 LED **-2 (LJ)**= 12V-6W, MR16 LED	**-DL**= Damp Location

Example: **MRTM40-2(20)-ADNA**

TYPE: _____
CATALOG #: _____
NOTES: _____

PS Series
6 and 12 Volt Square Shooter

Features

- Each unit (standard) comes with one (1) halogen lamp (6V-6W or 12V-8W)
- Surface mount, semi-recessed units and fully recessed kits are constructed of an off-white, impact resistant, flame retardant, polymeric material. Fully-recessed, "FRM" option units have an all-metal back box
- Available with sealed, maintenance-free Nickel-Cadmium, Long Life Lead, or Lead-Calcium batteries
- PulsePlus Charger circuitry offers 120/277VAC 60Hz., 0.3/0.15A (other inputs available), fused output circuit(s), temperature compensated charger, sealed relay, low voltage battery disconnect, brownout protection and lock out (automatic battery connect)
- All models are supplied with a specular reflector and are designed to mount directly to a standard octagonal electric box
- UL Listed. Complies with NEC, Life Safety Code and OSHA. Approved use in the Commonwealth of Pennsylvania
- 3-year full warranty, excluding lamps, pilot lights and fuses

Unit Rating

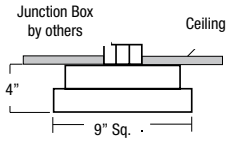
6 volt unit furnished with 6 watt Halogen lamp(s).
12 volt unit furnished with 8 watt Halogen lamp(s).

UNIT EQUIPMENT – NO REMOTE CAPABILITY						
Sealed Maintenance-Free Battery Types	D.C. Voltage	Model Number	Watts to 87-1/2% of rated battery voltage*			
			1-1/2 hrs	2 hrs	3 hrs	4 hrs
Long Life Lead	6	PSE9	9	7	–	–
Lead-Calcium	6	PSM9	9	6	–	–
UNIT EQUIPMENT – WITH REMOTE CAPABILITY						
Nickel-Cadmium	6	PSC18	18	12	9	6
	6	PSC18-2	18	12	9	6
	6	PSC25	25	18	12	9
	6	PSC25-2	25	18	12	9
	12	12PSC36	36	21	15	12
	12	12PSC36-2	36	21	15	12
Long Life Lead	6	PSE18	18	11	8	6
	6	PSE18-2	18	11	8	6

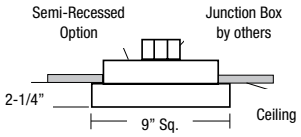
* National Electrical Code Specification
-2 indicates two lamp version

Dimensions

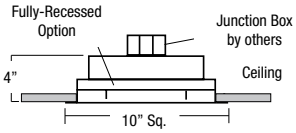
Dimensions are approximate and subject to change.



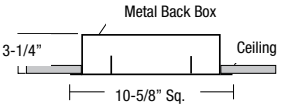
Surface Mount Plastic Square



Semi-Recessed Plastic Square
Requires Optional Mounting Kit



Fully-Recessed Plastic Square
Requires Optional Mounting Kit



Fully-Recessed Metal
Square Optional

Accessories (order as a separate item)

DESCRIPTION	SUFFIX
Semi-Recessed Kit (converts a surface mount unit to semi-recessed)	PS-SRKIT*
Fully-Recessed Kit (converts a surface mount unit to fully-recessed)	PS-FRKIT*
Wire Guard (Surface or Semi-Recessed)	WG1-E
Wire Guard (Fully-Recessed)	WG11-E

* Bar hangers included. For standard units without options only order Model Number. Options are added to units by listing suffix at end of model #

How to Order

SERIES	BATTERY TYPE/CAPACITY	# OF LAMPS	LAMP TYPE	DIAGNOSTIC OPTION	OPTIONS
PS= 6V Series	**C18**= 6V-18W Ni-Cd **C25**= 6V-25W Ni-Cd **E9**= 6V-9W Long Life Lead **E18**= 6V-18W Long Life Lead **M9**= 6V-9W Lead-Calcium	**Blank**= One lamp **-2**= Two lamps	**Blank**= 6V-6W or 12V-8W halogen bi-pin **HB**= 6V-8W halogen bi-pin **HC**= 6V-10W halogen bi-pin **HD**= 6V-12W halogen bi-pin **HG**= 12V-12W halogen bi-pin Note: See lamp data sheet in general information section for details	**Blank**= Standard unit **-AD**= Advanced Diagnostics (audible) **-ADNA**= Advanced Diagnostics (non-audible)	**Blank**= No options **-V**= Voltmeter* **-A**= Ammeter **-D1**= Time Delay (5 minutes) **-D2**= Time Delay (10 minutes) **-D3**= Time Delay (15 minutes) **-J**= Polycarbonate lens **-FRM**= Fully-recessed all-metal unit * Voltmeter not available with -FRM fully recessed and PS-FR kit
12PS= 12V Series	**C36**= 12V-36W Ni-Cd				

Example: **PSC18-2HA-AD-FRM**

TYPE: _____

CATALOG #: _____

NOTES: _____

RS Series

6 and 12 Volt Decorator Recessed Emergency Lighting

Features

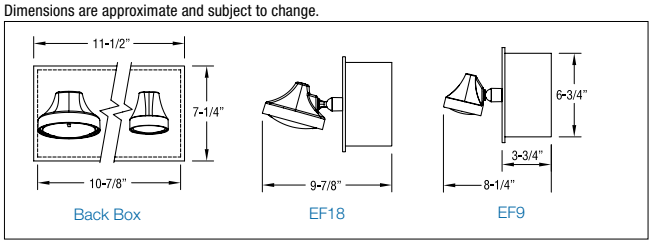
- Each unit comes with two (2) 6 or 12V-9W high-intensity incandescent EF-9 lamp heads (standard). EF-10, EF-18, EF-32 and EF-150 lamp heads are optional
- Constructed of 20-gauge steel with an off-white baked enamel finish
- Available with sealed, maintenance-free Nickel-Cadmium, Long Life Lead, or Lead-Calcium batteries
- PulsePlus Charger circuitry offers 120/277V input 60 Hz., 0.3/0.15A (other inputs available), fused output circuit(s), dual diagnostic indicator lights, temperature compensated charger, sealed relay, low voltage battery disconnect, brownout protection and lock out (automatic battery connect)
- Fully-recessed assembly for ceiling or wall mount. Includes adjustable bar hangers for grid ceilings. Can be framed into studs/joists
- UL924 Listed. Complies with NEC, Life Safety Code and OSHA Approved use in the Commonwealth of Pennsylvania and New York City
- 3-year full warranty, excluding lamps and fuses

Optional Features

DESCRIPTION	SUFFIX
New York City (EF-18 12 Watt Lamps)	**-NYC**
ACCESSORIES	
Wire Guard (Units with EF-9, EF-10 or EF-18, EF-150 Heads)	**WG6-E**
Remote Test Switch (metal face plate)	**RTS**
Remote Test Switch (plastic face plate)	**RTS-1**

Dimensions

Dimensions are approximate and subject to change.



Unit Rating

EF-9 lamp heads: 6 or 12 volt 9 watt High Intensity Incandescent lamps.

Sealed Maintenance-Free Battery Types	D.C. Voltage	Model Number		Watts to 87-1/2% of rated battery voltage*			
		EF-150 Deco	EF-9 Lamp Heads	1½ hrs	2 hrs	3 hrs	4 hrs
UNIT EQUIPMENT – NO REMOTE CAPABILITY							
Ni-Cd	6	RSC18-2150	RSC18-2	18	12	10	–
Long Life Lead	6	RSE18-2150	RSC18-2	18	11	8	–
Lead-Calcium	6	RSM18-2150	RSM18-2	18	12	9	–
UNIT EQUIPMENT – WITH REMOTE CAPABILITY							
Nickel-Cadmium	6	RSC25-2150	RSC25-2	25	18	12	9
	12	12RSC36-2150	12RSC36-2	36	21	15	12
	12	12RSC50-2150	12RSC50-2	50	36	25	18
Long Life Lead	6	RSE27-2150	RSE27-2	27	19	14	10
	6	RSE36-2150	RSE36-2	36	24	17	13
	12	12RSE36-2150	12RSE36-2	36	24	17	13
Lead-Calcium	6	RSM27-2150	RSM27-2	27	18	14	10
	6	RSM36-2150	RSM36-2	36	25	20	14
	12	12RSM36-2150	12RSM36-2	36	25	20	14

* National Electrical Code Specification

How to Order

COLOR	SERIES/BATTERY TYPE	WATTS	HEADS	LAMP TYPE	OPTIONS
Blank= Factory white **B**= Black enclosure	**RSC18**= 6V-18W Ni-Cd **RSC25**= 6V-25W Ni-Cd **RSE18**= 6V-18W Long Life Lead **RSE27**= 6V-27W Long Life Lead **RSE36**= 6V-36W Long Life Lead **RSM18**= 6V-18W Lead-Acid **RSM27**= 6V-27W Lead-Acid **RSM36**= 6V-36W Lead-Acid **12RSC36**= 12V-36W Ni-Cd **12RSC50**= 12V-50W Ni-Cd **12RSE36**= 12V-36W Long Life Lead **12RSM36**= 12V-36W Lead-Acid	**-0**= No head **-1**= One head **-2**= Two heads	**Blank**= EF9 Mini PAR 18 style **10**= EF10 Mini plastic MR16 **18**= EF18 (PAR 36 plastic) **28**= EF28 (PAR 36 metal) **150**= EF150 Deco heads MR16	**Blank**= 6V-9W or 12V-9W Inc. wedge base **LA**= 6V-4W, MR16 LED* **LG**= 12V-4W, MR16 LED* **LI**= 12V-5W, MR16 LED* **LJ**= 12V-6W, MR16 LED* **H_**= Halogen bi-pin **I_**= Inc. DC-bayonet **U_**= Inc. sld-beam** **X_**= Halogen sld-beam** **Z_**= Inc. wedge **M_**= Halogen MR16* NOTE: For a complete list of available lamp types, please refer to the lamp data on pages 146-147 * Available with EF10 and EF150 lamp heads only ** Available with the EF18 lamp head only	**Blank**= No options **-AD**= Advanced Diagnostics (audible) **-ADNA**= Advanced Diagnostics (non-audible) **-V**= Voltmeter **-A**= Ammeter **-D1**= Time Delay (5 minutes) **-D2**= Time Delay (10 minutes) **-D3**= Time Delay (15 minutes)

Example: **BRSC18-210LA-AD**

TYPE: _____
CATALOG #: _____
NOTES: _____

TS Series
6, 12 and 24 Volt T-Bar Units

Features

- Each unit comes with two (2) off-white EF-18 lamp heads (standard) with one 9W wedge-based lamp per head. Provisions for mounting three heads are included
- Constructed of 20-gauge steel with an off-white baked enamel finish
- Available with sealed, maintenance-free Nickel-Cadmium, Long Life Lead, or Lead-Calcium batteries
- PulsePlus Charger circuitry offers 120/277V input 60Hz., 0.3/0.15A (other inputs available), fused output circuit(s), dual diagnostic indicator lights, temperature compensated charger, sealed relay, low voltage battery disconnect, brownout protection and lock out (automatic battery connect)
- Fully-recessed housing for unobtrusive use in T-Bar ceilings. A removable cover on the back box allows for ease of installation and full access to the battery and charger
- UL Listed. Complies with NEC, Life Safety Code and OSHA. Approved use in the Commonwealth of Pennsylvania and New York City
- 3-year full warranty, excluding lamps, pilot lights and fuses

Unit Rating

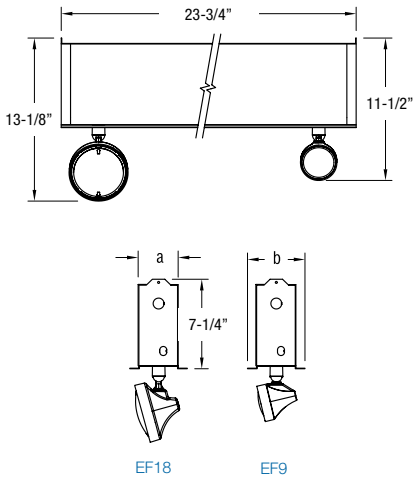
Furnished standard with two 9 watt High Intensity Incandescent lamps.

Sealed Maintenance-Free Battery Types	D.C. Voltage	Model Number	Watts to 87-1/2% of rated battery voltage*				Cabinet Size
			1½ hrs	2 hrs	3 hrs	4 hrs	
UNIT EQUIPMENT – NO REMOTE CAPABILITY							
Nickel-Cadmium	6	TSC18-2	18	12	9	6	S
Long Life Lead	6	TSE18-2	18	11	8	6	S
Lead-Calcium	6	TSM18-2	18	12	10	7	S
UNIT EQUIPMENT – WITH REMOTE CAPABILITY							
Nickel-Cadmium	6	TSC25-2	25	18	12	9	S
	12	12TSC36-2	36	21	15	12	S
	12	12TSC50-2	50	36	25	18	S
	24	24TSC100-2**	100	73	50	37	S**
Long Life Lead	6	TSE27-2	27	19	14	10	S
	6	TSE36-2	36	24	17	13	S
	6	TSE54-2	50	32	22	16	S
	6	TSE110-2	110	74	57	43	L
	12	12TSE36-2	36	24	17	13	S
	12	12TSE54-2	54	37	28	21	S
	12	12TSE72-2	72	62	43	33	L
	12	12TSE110-2	110	74	57	43	L
	24	24TSE72-2	72	48	34	26	L
	24	24TSE110-2	110	74	57	43	L
Lead-Calcium	6	TSM27-2	27	18	14	10	S
	6	TSM36-2	36	25	20	14	S
	6	TSM54-2	54	37	28	21	S
	6	TSM81-2	81	54	42	30	L
	6	TSM110-2	110	72	56	40	L
	12	12TSM36-2	36	25	20	14	S
	12	12TSM54-2	54	37	28	21	S
	12	12TSM110-2	110	72	56	40	L
	24	24TSM110-2	110	72	56	40	L

* National Electrical Code Specification
** AD & ADNA not available
= New York City Approved

Dimensions

Dimensions are approximate and subject to change.



Cabinet Size	Dimensions	
	a	b
S	3-1/4"	4-5/8"
L	5-5/8"	7-1/8"

Accessories (order as a separate item)

DESCRIPTION	SUFFIX
Remote Test Switch (metal face plate)	RTS
Remote Test Switch (plastic face plate)	RTS-1

TYPE: _____

CATALOG #: _____

NOTES: _____

TS Series

6, 12 and 24 Volt T-Bar Units

How to Order

SERIES	SERIES/BATTERY TYPE/ CAPACITY	# OF HEADS	HEAD STYLE	LAMP TYPE/WATTAGE	OPTIONS
Blank= Factory white **B**= Black enclosure	**TSC18**= 6V-18W Ni-Cd **TSC25**= 6V-25W Ni-Cd **TSE18**= 6V-18W Long Life Lead **TSE27**= 6V-27W Long Life Lead **TSE36**= 6V-36W Long Life Lead **TSE54**= 6V-54W Long Life Lead **TSE110**= 6V-110W Long Life Lead **TSM18**= 6V-18W Lead-Acid **TSM27**= 6V-27W Lead-Acid **TSM36**= 6V-36W Lead-Acid **TSM54**= 6V-54W Lead-Acid **TSM81**= 6V-81W Lead-Acid **TSM110**= 6V-110W Lead-Acid **12TSC36**= 12V-36W Ni-Cd **12TSC50**= 12V-50W Ni-Cd **12TSE36**= 12V-36W Long Life Lead **12TSE54**= 12V-54W Long Life Lead **12TSE72**= 12V-72W Long Life Lead **12TSE110**= 12V-110W Long Life Lead **12TSM36**= 12V-36W Long Life Lead **12TSM54**= 12V-54W Long Life Lead **12TSM110**= 12V-110W Long Life Lead **24TSC100**= 24V-100W Ni-Cd **24TSE72**= 24V-72W Long Life Lead **24TSE110**= 24V-110W Long Life Lead **24TSM110**= 24V-110W Lead-Acid	**-0**= No head **-1**= One head **-2**= Two heads **-3**= Three heads	**Blank**= EF18 (PAR 36 plastic) **28**= EF28 (PAR 36 metal) **9**= EF9 mini plastic **10**= EF10 Mini plastic MR16 **150**= EF150 MR16 lamp heads	**Blank**= 6V-9W or 12V-9W Inc. wedge base **LA**= 6V-4W, MR16 LED* **LG**= 12V-4W, MR16 LED* **LL**= 24V-4W, MR16 LED* **LI**= 12V-5W, MR16 LED* **LJ**= 12V-6W, MR16 LED* **H_**= Halogen bi-pin **I_**= Inc. DC-bayonet **U_**= Inc. Sld-beam** **X_**= Halogen sld-beam** **Z_**= Inc. wedge **M_**= Halogen MR16* NOTE: For a complete list of available lamp types, please refer to the lamp data on pages 146-147 * Available with EF10 and EF150 lamp heads only ** Available with the EF18 lamp head only	**-AD**= Advanced Diagnostics (audible)* **-ADNA**= Advanced Diagnostics (non-audible)* **-V**= Voltmeter **-A**= Ammeter **-D1**= Time Delay (5 minutes) **-D2**= Time Delay (10 minutes) **-D3**= Time Delay (15 minutes) **-NEX**= Nexus® wired (consult your sales representative) **-NEXRF**= Nexus® wireless (consult your sales representative) * Minimum lamp load required: 20% of unit capacity Not available with 100W Ni-Cd 24V

Example: **BTSC17-210L_-AD**

US

TYPE: _____
CATALOG #: _____
NOTES: _____

EFR2™ Distinction Series

Self-Powered Recessed Down Light

Standard Features

- One 6V-6W MR16 halogen lamp can be adjusted by rotating the gimbal through 359° in azimuth and or positioning the lamp through 90° in pitch
- The recessed gimbal is constructed of durable, powder-coated, Die-Cast aluminum. A metal, fully-recessed back box houses the electronics, battery and wiring
- Self-Powered. Sealed long-life Nickel-Cadmium battery for operation of at least 90 minutes as required by NFPA 101 Life Safety Code
- Power requirements: 120V, 60Hz, 0.046A, 4.17W; 277V, 60Hz, 0.024A, 4.76W
- Operation is completely automatic. A brownout sensitive transfer circuit automatically connects the emergency lamp upon either complete loss of normal AC power or when the AC voltage drops down to a point where normal AC lighting will not function. The unit also monitors DC battery voltage and disconnects the lamps before the battery can go into deep discharge (in conditions of extended power failures). When the AC power is restored the charger automatically returns the battery to full charge in 24 hours, and monitors the battery to maintain full charge
- Includes bar hanger kit. Quick disconnect feature allows the contractor to easily install the trim on the housing
- Easy to access for maintenance personnel
- Evaluated to UL 924 standards

Unit Data

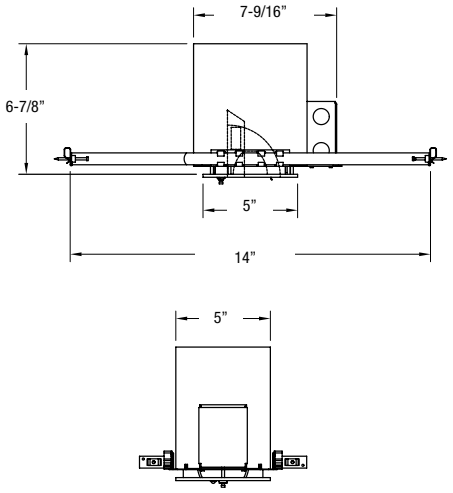
The recessed gimbal is constructed of a durable, powder coated, Die-Cast aluminum and is furnished with an MR16 lamp source powered by a sealed Nickel-Cadmium battery. The unit will be furnished with a metal, fully recessed back box to house the electronics, battery and all associated wiring. Furnished standard with bar hanger kit.

The light source shall be adjusted by rotating the gimbal through 359° in azimuth and or positioning the lamp through 90° in pitch.

The light source will be 6 volts 6 watts MR16 halogen lamp. The emergency lighting fixture will provide illumination in the emergency mode directly from the internally mounted Nickel-Cadmium battery. The duration of operation provided by the Nickel-Cadmium battery will be no less than 90 minutes as required by NFPA 101 Life Safety Code.

Dimensions

Dimensions are approximate and subject to change.



EFR2 Series including back box

Charger

Electrical power requirements: 120V, 60Hz, 0.046A, 4.17W
277V, 60Hz, 0.024A, 4.76W

Transfer: Dust tight relay automatically and instantly energizes lamp load upon failure of AC supply.

Battery protection circuit automatically shuts down lamp load when battery reaches 87-1/2% of its rated voltage. Charger is 100% solid state, includes auto-equalize, temperature compensation and is controlled by a 1% Zener reference.

Accessories (order as a separate item)

DESCRIPTION	SUFFIX
Remote Test Switch (metal face plate)	RTS
Remote Test Switch (plastic face plate)	RTS-1
Replacement lamp number (6V-6W)	580.0074-E

How to Order

SERIES	COLOR	STANDARD	MODEL
EFR2= Distinction	**WH**= White **BK**= Black **BN**= Brushed nickel **CH**= Chrome **PB**= Polished brass	**SP**= Self-Powered	**-U**= USA model

Example: **EFR2WHSP-U**

TYPE: _____

CATALOG #: _____

NOTES: _____

GS Series

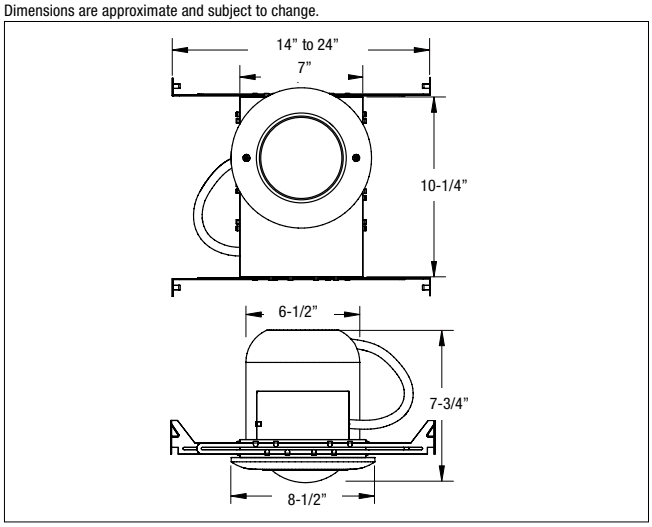
6 Volt Recessed Down Light

Standard Features

- An adjustable gimbal directs the light from one (1) 6V wedge-base PAR 36 lamp head
- The low-profile trim ring is molded in tough polycarbonate with a semi-gloss white finish to complement a variety of ceilings. The fully-recessed back box is constructed of 20-gauge steel
- Available with sealed, maintenance-free Nickel-Cadmium, Long Life Lead, or Lead-Calcium batteries
- PulsePlus Charger circuitry offers 120/277VAC 60 Hz., 0.3/0.15 Amp, fused output circuit(s), long life LED pilot indicator, temperature compensated, sealed relay, low voltage battery disconnect, brownout protection and lock out (automatic battery connect)
- Inconspicuously mounted and easily accessed. The test switch and LED pilot light are located on the side of the lamp ring on the standard unit
- A slide-out chassis and two quick-connect plugs make installation and servicing easy. Adjustable bar hangers included
- UL Listed. Complies with NEC, Life Safety Code and OSHA
- 3-year full warranty, excluding lamps, pilot lights and fuses

Dimensions

Dimensions are approximate and subject to change.



Accessories (order as separate item)

DESCRIPTION	SUFFIX
Remote Test Switch (metal face plate)	RTS
Remote Test Switch (plastic face plate)	RTS-1

Unit Rating

The GSM10 unit is furnished with one 6V-10W wedge-base lamp. Other wattages available, see lamp data sheet for selection of PAR lamps.

Sealed Maintenance-Free Battery Types	D.C. Voltage	Model Number	Watts to 87-1/2% of rated battery voltage*				A.C. Voltage	
			1½ hrs	2 hrs	3 hrs	4 hrs	Unit Dual Voltage	Current Maximum
Lead-Calcium	6	GSM10-BH	10	8	–	–	120VAC	.3A
Long Life Lead	6	GSE9-BH	8	–	–	–		
UNIT EQUIPMENT – WITH REMOTE CAPABILITY								
Nickel-Cadmium	6	GSC18-BH	18	12	9	–	277VAC	.15A

* National Electrical Code Specification

= New York City Approved

How to Order

For standard units without options only order Series, Battery and Watts. Options are added to units by listing suffix at end of model number.
NOTE: Includes standard lamp (570.0016)

COLOR	SERIES	BATTERY TYPE	LAMP OPTION	MOUTING OPTION	MODEL
Blank= White **B**= Black*	**GS**= Series	**M10**= 10W Lead-Calcium **E9**= 9W Long Life Lead **C18**= Nickel-Cadmium	Wedge Base 9W standard*	**BH**= Bar hanger (standard)	**-NYC**=Approved model*
* Black not available on GSM10-BH			* Only C18 has other lamps available. For a complete list of available lamp types, please refer to the lamp data on pages 146-147.		* Includes 12 watt lamp and metal trim.

Example: **GSM10BH-NYC**

TYPE: _____
CATALOG #: _____
NOTES: _____

Prestige™ Edge-Lit Series

Die-Cast Aluminum Edge-Lit Exit Sign

Design upgrade: introducing new features

1. Easier installation: component-free back-box housing and canopy can be installed in advance, like a regular junction box.
2. 20 – 30% less power consumption: max. 1.4W (AC-only models) and max. 2.3W (Self-Powered)
3. Bi-color LED pilot light allows visual diagnostic without the need to open the unit (self-test and diagnostic option)
4. Listed by the Underwriting Laboratories UL Listed
5. Also available with white LEDs for custom-design legends: pictograms, special wording, etc. (Ask your sales representatives)

Features

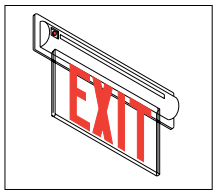
- Designed to achieve superior visual clarity and performance with a red and green LED light source.
- Clear acrylic panel provides optimum light transmission. Illumination is 100% in both AC and emergency mode.
- Computer engraving is used to crisply define each letter and chevron. LED sensitive inks are formulated to provide a rich color in red or green. Choice of legend background includes clear (for single face), white or mirror (for single or double face signs).
- Clean trim plate design eliminates visible fasteners. Choice of trim plates: circular or angular. Standard finish is brushed aluminum for the housing, trim plate, trim ring and canopy.
- Self-Powered models contain a sealed maintenance-free Nickel-Cadmium battery that provides 90 minutes of emergency illumination.
- Two-wire universal 120 through 277VAC, 50/60Hz for AC-only and Self-Powered models. AC-only signs consume maximum 1.4W. Self-Powered signs use 2.3W max while recharging batteries. Solid state transfer automatically and instantly supplies the LED lamps from the back-up battery upon failure of AC supply. Close tolerance electronic circuit activates emergency unit when utility power dips below nominal voltage for brownout protection. Current-limited and short-circuit-proof charger. Full battery recharge is made in compliance with UL924 specifications. Test switch incorporates a green LED AC pilot light.
- Self-test and silent diagnostic is optional on all Self-Powered models. It is programmed to ensure product readiness and reliability by continuously monitoring every critical function of the unit. The unit is self-tested for one minute every 30 days, 30 minutes every 60 days and 90 minutes annually. When a fault is detected the pilot light will change color from green to red and blink following a particular code, identifying the cause: battery, charger circuitry, or LED lamps.
- Modular design allows for several mounting configurations. A trim ring and two 27-inch bar hangers are used for recessed mounting on walls or ceilings. A canopy allows for surface mounting on ceilings or walls as back- or end-mount. Face panels snap securely into trim plate on all mounting configurations.
- UL listed to UL 924 Standard.
- 5-year full warranty.

Electrical

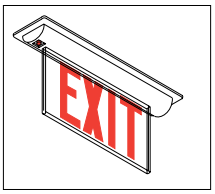
Power requirements: 120 to 277VAC, 50/60Hz. AC-only signs use 1.4 watts max, Self-Powered signs use 2.3 watts max while recharging batteries

Available Models

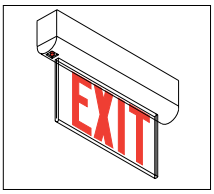
Circular trim plate models shown.
optional Angular trim plate available.



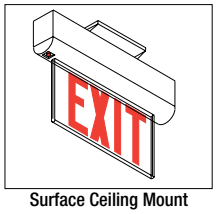
Recessed Wall Mount



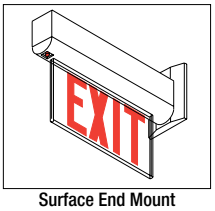
Recessed Ceiling Mount



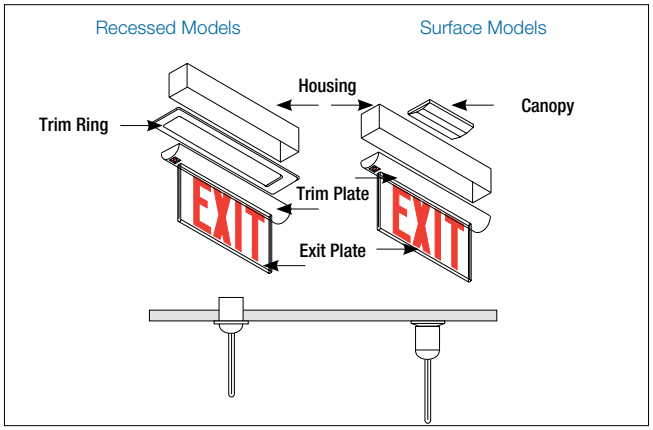
Surface Wall Mount



Surface Ceiling Mount



Surface End Mount



Accessories (order as a separate item)

DESCRIPTION	SUFFIX
White Pendant	P*-WT
Black Pendant	P-*BK
Gray Pendant	P*-GY

* Custom pendant lengths and colors available, specify (12", 24", 36", etc)

Power Consumption

Model	AC Specs		DC Specs	
AC-only	120 to 277VAC	Less than 1.4W		
AC/DC-remote	120 to 277VAC	Less than 1.4W	6 to 24VDC	Less than 1.4W
Self-Powered	120 to 277VAC	Less than 2.3W	Ni-Cd battery	Min. 90 minutes
Self-Powered diagnostic	120 to 277VAC	Less than 2.3W	Ni-Cd battery	Min. 90 minutes

TYPE: _____

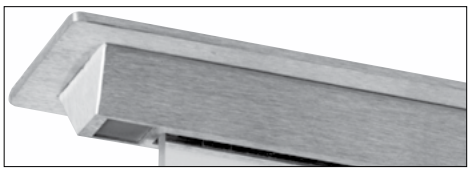
CATALOG #: _____

NOTES: _____

Prestige™ Edge-Lit Series

Die-Cast Aluminum Edge-Lit Exit Sign

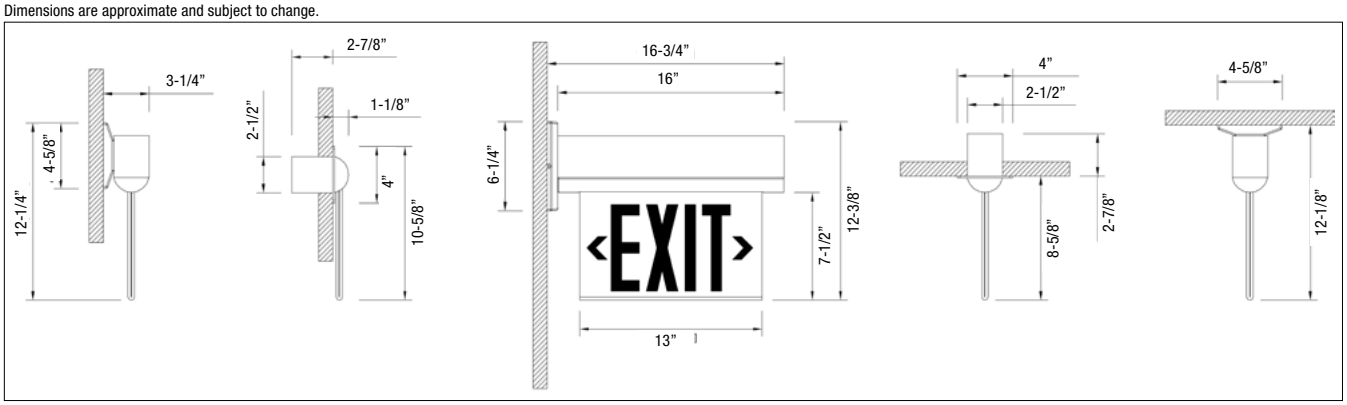
Standard
Circular Trim Plate



Optional
Angular Trim Plate

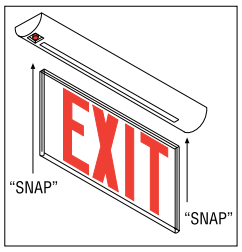
Dimensions

Dimensions are approximate and subject to change.



Mounting Configurations

All mounting configurations use the same basic components. Inserting a trim ring allows for recessed mounting on walls or ceilings. Applying a canopy allows for surface mounting on ceilings or walls as back or end mount.



Arrow (Chevron) Designation

EXIT>	<EXIT	<EXIT>	EXIT> <EXIT
Arrow Right (R)	Arrow Left (L)	Double Arrow (D)	Arrow Right & Left (RL) Represents each side of a double face panel.

*Wording and chevrons not to scale. For illustration purposes only.

How to Order

HOUSING COLOR	SERIES	FACES	DESIGNATION	LEGEND COLOR	BACKGROUND COLOR	ARROWS	TRIM	MOUNTING	OPTIONS	LEGEND SIZE
Blank= Brushed aluminum **W**= White **B**= Black **PB**= Polished brass **CH**= Polished chrome **BR**= Bronze	**LX**= AC-only **LXN**= Self-Powered	**1**= Single face **2**= Double face	**N**= New design	**R**= Red **G**= Green	**C**= Clear (single face only) **W**= White **M**= Mirror	**Blank**= No arrow **L**= Arrow left **R**= Arrow right **RL**= Right and left (double face) **D**= Double arrow **UA**= Universal filled installed arrows	**-A**= Angular **-C**= Circular	**Blank**= Universal mount **S**= Surface mount (canopy)	**Blank**= No option **-NEX**= Nexus® Wired (consult your sales representative) **-NEXRF**= Nexus® Wireless (consult your sales representative) **-FA**= Fire alarm **-D**= Self-Test and diagnostic **-DC**= AC/DC remote 6-24 VDC **-2CKT**= Two circuit, AC only **-FZ**= Flasher & buzzer (Self-Powered only) **-X**= Back box shipped separately	**Blank**= 6" EXIT legend **-8**= 8" EXIT legend (red only) **-LP**= Panel shipped separately

Example: **WLXN2NRWR-A-D**

TYPE: _____
CATALOG #: _____
NOTES: _____

Prestige™ X40 Series

Edge-Lit Recessed Ceiling-Mount Only Exit Sign

Design upgrade: introducing new features

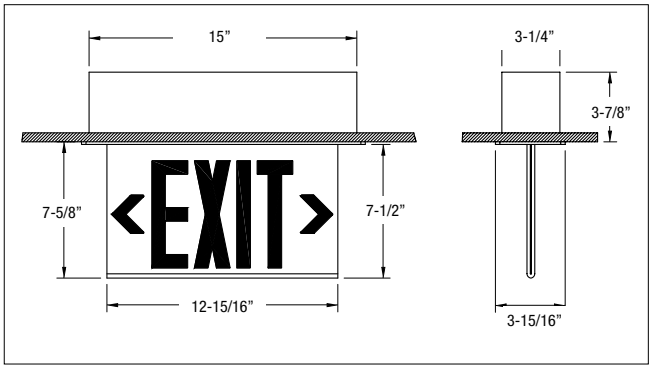
1. Easier installation: component-free back-box can be installed in advance, like a regular junction box
2. 20 – 30% less power consumption: max. 1.4W (AC-only) and max. 2.3W (Self-Powered)
3. Bi-color LED pilot light allows visual diagnostic without the need to open the unit (self-test and diagnostic option)
4. Listed by the Underwriting Laboratories UL Listed
5. Also available with white LEDs for custom-design legends: pictograms, special wording, etc. (Ask your sales representative)

Features

- Designed to achieve superior visual clarity and performance with an LED light source. High brightness red or green LEDs transmit light directly into both ends of a unique U-shaped panel. LED sensitive inks are formulated to provide a rich color in red or green
- Clear acrylic panel provides optimum light transmission. Illumination is 100% in both AC and emergency mode
- Clear acrylic panel is silkscreened and computer engraved. Computer engraving is used to crisply define each letter and chevron. LED sensitive inks are formulated to provide a rich color in red or green. Choice of legend background: clear (for single face), white or mirror (for single or double face signs)
- Rugged cast brushed aluminum trim plate (optional colors available).
- Low energy consumption LED lamps consume less than 2.3W per sign, single or double face, AC-only or Self-Powered
- Available with sealed maintenance-free Nickel-Cadmium batteries.
- Fully automatic charger circuitry offers two-wire universal 120 to 277VAC input, temperature compensated charger, solid state transfer, low voltage battery disconnect, and brownout protection
- Self-test and silent diagnostics are optional on all Self-Powered models. Diagnostics are programmed to ensure product readiness and reliability by continuously monitoring every critical function of the unit. The unit is self-tested for one minute every 30 days, 30 minutes every 60 days and 90 minutes annually. When a fault is detected the pilot light will change color from green to red and flash following a particular code, identifying the cause: battery, charger circuitry, or LED lamps
- Designed to fit integrally with a 20 gauge steel back box. Each unit includes a bar hanger kit
- UL listed to UL 924 Standard
- Prestige LED Series signs are unaffected by the vibrations, ambient temperature swings and typical power surges detrimental to standard exit light sources
- 5-year full warranty

Dimensions

Dimensions are approximate and subject to change.



Power Consumption Chart

Model	AC Specs		DC Specs	
AC-only	120 to 277VAC	Less than 1.4W		
AC/DC-remote	120 to 277VAC	Less than 1.4W	6 to 24VDC	Less than 1.4W
Self-Powered	120 to 277VAC	Less than 2.3W	Ni-Cd battery	Min. 90 minutes
Self-Powered diagnostic	120 to 277VAC	Less than 2.3W	Ni-Cd battery	Min. 90 minutes

Accessories (order as a separate item)

DESCRIPTION	
Special wording	Contact your sales representative
DESCRIPTION	
Two 27-inch adjustable bar hangers*	TBH

* Bar hangers supplied with unit, order as replacement only

Arrow (Chevron) Designation

Arrow Right (R) | Arrow Left (L) | Double Arrow (D) | Arrow Right & Left (RL) Represents each side of a double face panel.

*Wording and chevrons not to scale. For illustration purposes only.

How to Order

HOUSING	SERIES	FACES	DESIGNATION	LEGEND COLOR	BACKGROUND COLOR	ARROWS	OPTIONS	LEGEND SIZE
Blank= Brushed aluminum **W**= White **B**= Black **PB**= Polished brass **CH**= Polished chrome **BR**= Bronze	**LX**= AC **LSNX**= Self-Powered	**40**= Less panel **42**= Single face **43**= Double face	**N**= New design	**R**= Red **G**= Green	**C**= Clear (single face only) **W**= White **M**= Mirror	**Blank**= No arrow **L**= Arrow left **R**= Arrow right **RL** = Right & left (double face) **D**= Double arrow **UA**= Universal field installed arrows	**Blank**= No option **-AD**= Advanced Diagnostics (audible) **-FA**= Fire Alarm **-DC**= AC/DC remote 6-24 VDC **-2CKT**= Two circuit, AC only **-FZ**= Flasher & buzzer (Self-Powered only) **-NEX**= Nexus® Wired* **-NEXRF**= Nexus® Wireless* * Consult your sales representative.	**Blank**= 6" EXIT legend **-8**= 8" EXIT legend (red only) **-L**= 6" EXIT low profile panel **-LP**= Panel shipped separately **-X**= Back box shipped separately

Example: **WLSNX42NRWR-AD**

TYPE: _____

CATALOG #: _____

NOTES: _____

Prestige™ DX Series

Die-Cast Exit Sign

Features

- Red and green LED light source
- Constructed of Die-Cast aluminum. Finished with a deep brushed face and black body. Optional finishes available. Self Contained. Batteries and circuitry are located inside the exit housing
- Available with sealed maintenance-free Nickel-Cadmium batteries that provide 90 minutes of emergency operation. Batteries recharge per UL924 requirements
- Fully automatic charger is solid state. All models are Universal 2-wire, 120 through 277VAC, 50/60Hz
- Continuous self-diagnostic monitoring. Self-testing per Life Safety Code requirements. Diagnostic / Self Test circuitry is standard on all Self-Powered models. This circuitry is programmed to ensure the exit's readiness and reliability by continuously monitoring every critical function of the unit. If a problem occurs, a single "service required" indicator illuminates immediately. A detailed diagnostic display that will further indicate the nature of the fault is located on the inside of the exit sign, out of sight from the general public. The self test will test the unit for a minimum of 30 seconds every 30 days, 30 minutes every 60 days and 90 minutes annually
- Can be wall, end or ceiling mounted
- Evaluated to UL 924 Standard. AC-Only Signs are Listed for use in damp locations
- Unaffected by the vibrations, ambient temperature swings and typical power surges detrimental to standard exit light sources
- Universal directional chevron knockouts are completely concealed and easily removed from the face plate
- 5-year full warranty

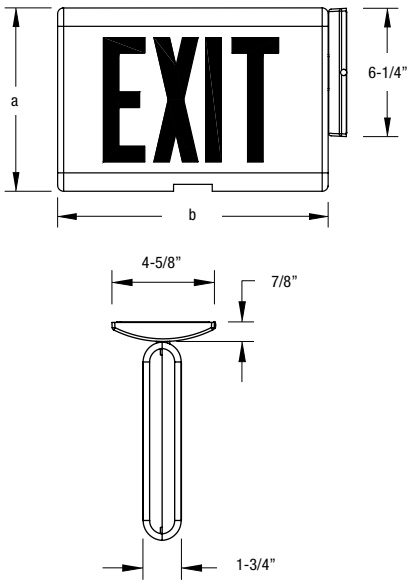
Accessories (order as a separate item)

DESCRIPTION	SUFFIX
White Pendant	PD**W
Black Pendant	PD**B
Pendant Mount Gray	PD**GY
Wire Guard (Wall Mount) (6 in.)	WG12-E
Wire Guard (Ceiling Mount) (6 in.)	WG5-E
Wire Guard (End Mount) (6 in.)	WG5-E

* Specify Pendant Length (12", 24", 36", etc)

Dimensions

Dimensions are approximate and subject to change.



Letters	Dimensions	
	a	b
6"	8-7/8"	13-1/16"
8"	10-1/2"	15-1/4"

Power Consumption

Model 6"	AC Specs	DC Specs	
AC-only	120 to 277VAC	–	–
AC/DC-remote	120 to 277VAC	6 to 48VDC	Less than 1.5W
Self-Powered	120 to 277VAC	Ni-Cd battery	Min. 90 minutes
Model 8"	**AC Specs**	**DC Specs**	
AC-only	120 to 277VAC	–	–
AC/DC	120 to 277VAC	6 to 24VDC	1.6W
Self-Powered	120 to 277VAC	Ni-Cd battery	Min. 90 minutes

How to Order

COLOR FRAME/ FACEPLATE	SERIES	# OF FACE	LEGEND COLOR	LETTERS	DIAGNOSTIC OPTIONS	OPTIONS	VERSION
Blank= Black/brushed aluminum **WW**= White/white **WA**= White/brushed aluminum **BZ**= Bronze/bronze **BB**= Black/black **AA**= All brushed aluminum	**DXN**= Self-Powered unit **DX**= AC/DC* * Not available with Nexus® Wireless option	**1**= Single face **2**= Double face	**R**= Red **G**= Green **Open face** **RW**= Red on white **GW**= Green on white * Open face required for special wording	**Blank**= 6" letters **8**= 8" letters	**Blank**= Standard **NEX**= NEXUS® wired (consult your sales representative)	**Blank**= Standard **DL**= Damp Location **FA**= Fire alarm activated flasher **FZ**= Flasher buzzer (Self-Powered only)* **VR**= Vandal Resistant screws **VR1**= Polycarbonate shield with tamper proof screws **2CKT**= 2 Circuit (120/120 or 277/277, AC only)* *Not available with Nexus® option	**-N**= New design* * Not required for 8" letters

Example: **DXN1R-N**

TYPE: _____
CATALOG #: _____
NOTES: _____

Prestige™ Floor Proximity Series

Master with Remote Exit Sign

Standard Features

- Low energy consumption LED light source (see Power Consumption chart). Red and green LEDs provide excellent visual performance, high reliability and low maintenance costs
- Self-Powered Master Units have self-contained batteries and circuitry inside the housing
- Available with sealed maintenance-free Nickel-Cadmium batteries for superior performance and long life. Provides 90 minutes of emergency operation and remote power for Proximity EXIT sign
- Remote Floor Proximity EXIT signs have power and diagnostics supplied from the DX/DXN Series Master Units only
- Stand alone AC-Only and Self-Powered Units: 120/277VAC dual voltage
- Master EXIT sign comes standard with the Self-Test/Diagnostic Feature. Its circuitry also monitors and supplies diagnostics to the Remote Floor Proximity EXIT sign. The self-test/diagnostic feature continuously monitors the charger assembly, battery and LED assembly current. If a fault is indicated, the "external service" required indicator will illuminate. The internal fault indicators will then indicate the nature of the fault. The self-test diagnostic will self test for minimum 30 seconds every 30 days, 30 minutes every 60 days and 90 minutes annually. Meets NFPA 101 Life Safety Code requirements for periodic testing
- Available for surface or recessed mounting at floor level
- Evaluated to UL 924 Standard for floor proximity applications
- 5-year full warranty. Each unit is fully tested

Accessories (order as a separate item)

DESCRIPTION	SUFFIX
Wire Guard (for floor proximity recessed)	WG11-E

Features (optional)

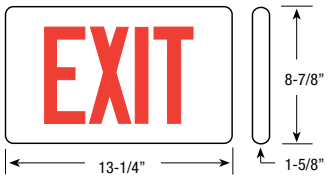
DESCRIPTION	SUFFIX
Vandal-Resistant shield and screws	VR1

Dimensions

Dimensions are approximate and subject to change.

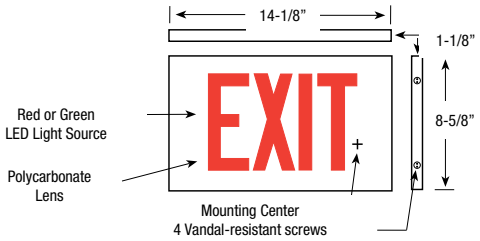
Self-Powered/AC-Only Master

DXN1G-M-N
DX1G-M-N



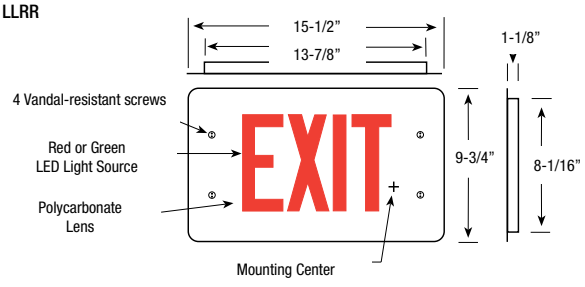
Floor Proximity Slave Surface Mount

LLGS
LLRS



Floor Proximity Slave Recessed Mount

LLGR
LLRR



TYPE: _____

CATALOG #: _____

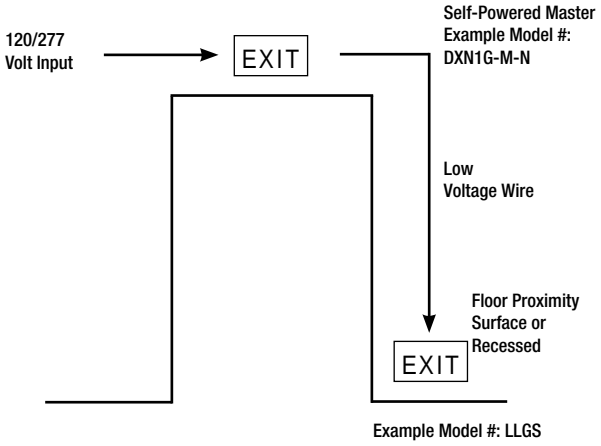
NOTES: _____

US

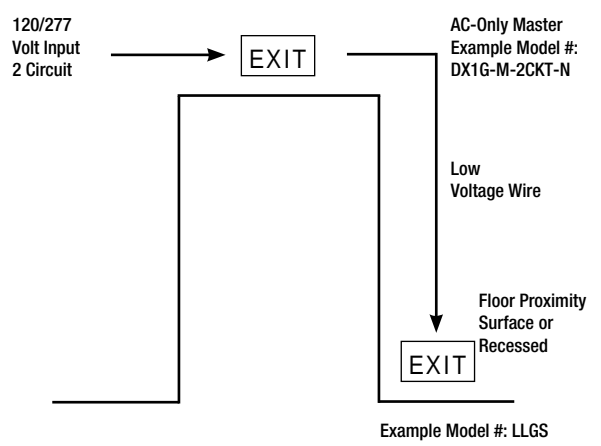
Prestige™ Floor Proximity Series

How to Order for a Typical Application

Self-Powered Master with Floor Proximity Unit



AC-Only Master with Floor Proximity Unit 2 Circuit Application



How to Order Self-Powered Master (Unit for above door)

COLOR OPTION PREFIX	SERIES	FACES	STENCIL FACE LAMP COLOR	MASTER UNIT	STANDARD SERIES DESIGNATOR
Blank= Brushed alum. face, black body **WW**= All white **BB**= All black	**DXN**	**1**= Single face **2**= Double face	**R**= Red **G**= Green open face* **RW**= Red/white **GW**= Green/white	**-M**	**-N**

Example: **DXN1G-M-N**

How to Order AC-Only Master (Unit for above door)

COLOR OPTION PREFIX	SERIES	FACES	STENCIL FACE	MASTER UNIT	CIRCUIT	STANDARD SERIES DESIGNATOR
Blank= Brushed alum. face, black body **WW**= All white **BB**= All black	**DX**	**1**= Single face **2**= Double face	**R**= Red **G**= Green open face* **RW**= Red/white **GW**= Green/white	**-M**	**-2CKT**	**-N**

Example: **DX1G-M-2CKT-N**

Floor Proximity Unit (Unit on side of door)

COLOR OPTION PREFIX	SERIES	STENCIL FACE LAMP COLOR	MOUNTING	OPTION
Blank= Brushed alum. face, black body **W**= All white **B**= All black	**LL**	**R**= Red **G**= Green **RW**= Red/white **GW**= Green/white	**R**= Recessed **S**= Surface	**-VR1**= Vandal-resistant screws/ polycarbonate shield

Example: **LLGS-VR1**

* Open face required for special wording (please contact your sales representative)

Floor Proximity Unit (Unit on side of door)

COLOR OPTION PREFIX	SERIES	STENCIL FACE LAMP COLOR	MOUNTING	OPTION
Blank= Brushed alum. face, black body **W**= All white **B**= All black	**LL**	**R**= Red **G**= Green	**R**= Recessed **S**= Surface	**-VR1**= Vandal-resistant screws/ polycarbonate shield

Example: **LL-GS-VR1**

* Open face required for special wording (please contact your sales representative)

Power Consumption Chart

Color	Model	AC Specs		DC Specs	
Red	AC-only	120/277VAC	1.3W	–	–
	AC-2 circuit	120/277 and 277/277VAC	2.6W	–	–
	Self-Powered	120/277VAC	3.8W	Ni-Cd battery	Min. 90 minutes
Green	AC-only	120/277VAC	1W	–	–
	AC-2 circuit	120/277 and 277/277 VAC	3.3W	–	–
	Self-Powered	120/277VAC	5W	Ni-Cd battery	Min. 90 minutes

TYPE: _____
CATALOG #: _____
NOTES: _____

Premier™ Series

Thermoplastic Housing 6V up to 60W & 12V up to 72W Capacities Emergency Light

Features

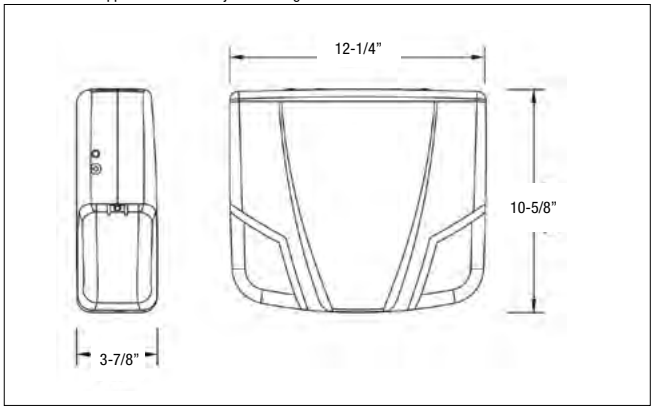
- Simple, compact and contemporary design
- Wall-mount or ceiling-mount installation (optional)
- Two-piece housing of injection-molded thermoplastic
- MR16 halogen or LED lamps, shielded by clear polycarbonate covers
- Sealed, maintenance-free, Lead-Calcium or Nickel-Cadmium batteries
- Dual voltage input: 120/277VAC.
- Total load capacity up to 72W
- UL924 Listed
- Advanced Diagnostic-Audible (optional)
- Certified for Damp Locations (optional)
- NEXUS® interface (optional)
- 5-year full warranty (excluding lamps and fuses)

Wire Guards

WG1-E	Wall or flat ceiling mount

Dimensions

Dimensions are approximate and subject to change.



Flat Ceiling Mount

Power Consumption and Unit Rating

Model	AC Specs		Watts to 87-1/2% of rated battery voltage*			
			1-1/2 hrs	2 hrs	3 hrs	4 hrs
18M	6V	120/277VAC	18	14	9	-
30M	6V		30	20	15	10
40M	6V		40	30	20	15
60M	6/12V		60	40	30	20
72M	12V		72	54	36	27
20NC	6V	120/277VAC	20	15	10	8
40NC	12V		40	30	20	15
50NC	12V		50	36	24	18

* National Electrical Code Specification

How to Order

HOUSING COLOR	SERIES/CAPACITY	# OF LAMPS	LAMP TYPE/WATTAGE	UNIT TYPE	OPTIONS
Blank= White **B**= Black	**PR18M**= 6V-18W Lead-Calcium **PR30M**= 6V-30W Lead-Calcium **PR60M**= 6V-60W Lead-Calcium **12PR40M**= 12V-40W Lead-Calcium **12PR60M**= 12V-60W Lead-Calcium **12PR72M**= 12V-72W Lead-Calcium **PR20NC**= 6V-20W Ni-Cd **12PR40NC**= 12V-40W Ni-Cd **12PR50NC**= 12V-50W Ni-Cd	**Blank**= No head **2**= 2 heads	**LA**= 6V-4W, MR16 LED **LG**= 12V-4W, MR16 LED **LI**= 12V-5W, MR16 LED **LJ**= 12V-6W, MR16 LED **MI**= 6V-6W MR16 **MJ**= 6V-10W MR16 **MO**= 12V-10W MR16 **MK**= 12V-12W MR16 **MG**=12V-20W MR16* * Not available with Damp Location	**Blank**= Standard **-D**= Advanced Diagnostics (non-audible)* **-DA**= Advanced Diagnostics (audible) **-NEX**= Nexus® Wired (consult your sales representative) **-NEXRF**= NEXUS® wireless (consult your sales representative) * Minimum lamp load required: 20% of unit capacity	**Blank**= No option **-D1**= Time Delay (5 minutes) **-D2**= Time Delay (10 minutes) **-D3**= Time Delay (15 minutes) **-CM**= Ceiling mount **-DL**= Damp Location **-PM**= Pendant mount

Example: **PR18M2MI**

TYPE: _____

CATALOG #: _____

NOTES: _____

nexus ADVANCED AD DIAGNOSTICS

Premier™ Series Combo

Thermoplastic Combination Unit

SPEC GRADE

COMMERCIAL

Features

- Indirect refractive technology provides bright, even illumination
- Choice of MR16 Halogen Lamps, shielded by a clear polycarbonate cover Optional MR16 LED lamps with a life expectancy of 50,000+ hours
- Exit sign long-life LED light source for low maintenance costs and superior illumination
- Durable injection-molded thermoplastic housing with push-to-snap design. Optional vandal-resistant shield with tamper-proof screws
- Available with sealed, maintenance-free, Lead-Calcium or Nickel-Metal Hydride batteries
- Dual voltage input: 120/277 VAC. Optional advanced diagnostic circuitry, flasher/buzzer, fire alarm activated flasher
- Remote load capacity up to 50 watts when supplied with no heads
- Available in single or double face configurations both with means for ceiling mounting. Easy-to-install canopy and field-selectable snap-in/out chevrons for quick and easy installation
- UL924 Listed
- 5-year full warranty (excluding lamps and fuses)

Accessories (order as a separate item)

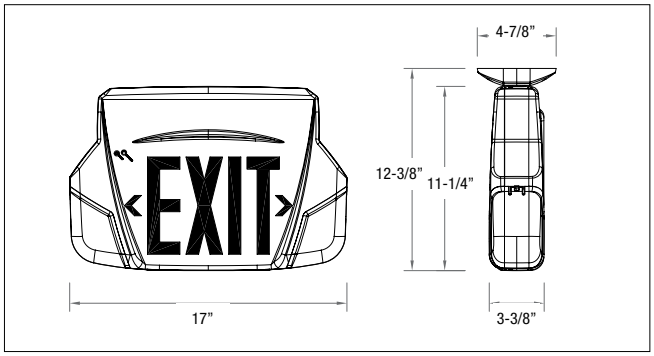
DESCRIPTION	SUFFIX
Wire Guard (Wall mount)	WG2-E
Pendant White	081439-E
Pendant Black	081439-E

* Specify pendant length

REPLACEMENT BATTERIES	REPLACEMENT LAMPS
860.0004-E Lead-Calcium	580.0074-E 6V-6W, MR16
022318-E NiMH 6V-12W	580.0079-E 6V-10W, MR16
022319-E NiMH 12V-24W	580.0097-E 6V-4W, MR16 LED
022320-E NiMH 12V-40W, 50W	580.0099-E 12V-10W, MR16
–	580.0080-E 12V-12W, MR16
–	580.0075-E 12V-20W, MR16 LED
–	580.0093-E 12V-4W, MR16 LED
–	580.0104-E 12V-5W, MR16 LED
–	580.0106-E 12V-6W, MR16 LED

Dimensions

Dimensions are approximate and subject to change.



Power Consumption and Unit Rating

Model	AC Specs			Watts to 87-1/2% of rated battery voltage*			
				1-1/2 hrs	2 hrs	3 hrs	4 hrs
Exit Sign Module	Battery Type	120/277VAC	Less than 2W	–	–	–	–
612M	Lead-Calcium	120/277VAC	0.11 / 0.05 A	12	8	–	–
612H	NiMH	120/277VAC	0.11 / 0.05 A	12	9	–	–
624M	Lead-Calcium	120/277VAC	0.11 / 0.05 A	24	16	12	9
1224M	Lead-Calcium	120/277VAC	0.22 / 0.08 A	24	16	12	9
1224H	NiMH	120/277VAC	0.22 / 0.08 A	24	18	12	9
1240H	NiMH	120/277VAC	0.22 / 0.08 A	40	30	20	15
1250H	NiMH	120/277VAC	0.22 / 0.08 A	50	36	24	18

*National Electrical Code Specification

CONVERT SINGLE FACE TO DOUBLE FACE IN THE FIELD	
Red/White	005715-E
Red/Black	005716-E
Green/White	005717-E
Green/Black	005718-E

How to Order

HOUSING COLOR	SERIES	VOLTAGE/CAPACITY/ BATTERY	FACES	LEGEND COLOR	# OF HEADS	LAMP TYPE/ WATTAGE	OPTIONS
W= White **B**= Black	**PR**= Series	**Lead-Calcium** **612M**= 6V-12W, Lead-Calcium **624M**= 6V-24W, Lead-Calcium **1224M**= 12V-24W, Lead-Calcium **Nickel-Metal Hydride** **612H**= 6V-12W, NiMH, rated Damp Location **1224H**= 12V-24W, NiMH, rated Damp Location **1240H**= 12V-40W, NiMH, rated Damp Location **1250H**= 12V-50W, NiMH, rated Damp Location	**1**= single face (ceiling or wall mount) **2**= double face (ceiling mount) **1N**= single face no canopy (wall mount) **4**= universal (2 faces, back plate and canopy)	**G**= Green legend **R**= Red legend	**Blank**= No heads **2**= Two heads	**LA**= 6V-4W, MR16 LED **LG**= 12V-4W, MR16 LED **LI**= 12V-5W, MR16 LED **LJ**= 12V-6W, MR16 LED **MI**= 6V-6W, MR16 **MJ**= 6V-10W, MR16 **MO**= 12V-10W, MR16 **MK**= 12V-12W, MR16 **MG**= 12V-20W, MR16	**Blank**= No option **-AD**= Advanced Diagnostics (audible) not available with 1250H* **-ADNA**= Advanced Diagnostics (non-audible) not available with 1250H* **-BA**= Brushed aluminum exit stencil **-FZ**= Flasher buzzer **-FL**= Flasher **-FA**= Fire alarm activated flasher **-FBF**= Flasher buzzer + fire alarm activated flasher **-D3**= Time Delay (15 minutes) **-VR**= Tamper-proof screws **-VR1**= Polycarbonate shield with tamper-proof screws **-NEX**= NEXUS® wired (consult your sales representative)* **-NEXRF**= NEXUS® wireless (consult your sales representative)* *Not available for 612M with "MI" lamp.

Example: **WPR612M1R2MI**

SPEC GRADE

COMMERCIAL

nexus ADVANCED AD DIAGNOSTICS

TYPE: _____

CATALOG #: _____

NOTES: _____

Premier™ Series

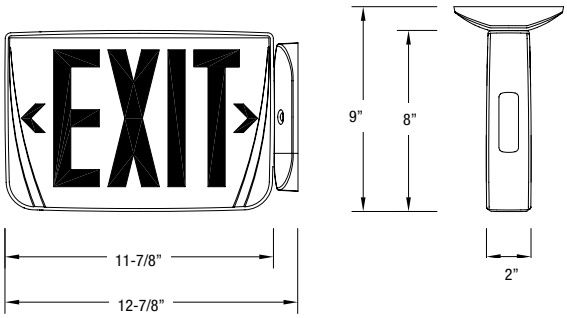
LED Thermoplastic, universal-mount & snap-fit Exit Sign

Features

- Indirect reflective technology provides bright, even illumination
- Long-life LED light source for low maintenance costs and superior illumination
- Durable, injection-molded, thermoplastic housing. Optional vandal-resistant shield with tamper-proof screws
- Energy efficient power consumption: less than 3.5 watts for Self-Powered version and less than 3W for AC only single or double face
- Available with a sealed, maintenance-free Nickel-Cadmium battery
- Dual voltage input: 120/277VAC. Optional Advanced Diagnostic circuitry, flasher/buzzer, and fire alarm-activated flasher
- Standard Universal, supplied with two faceplates, back plate for wall mount and easy install canopy for end and ceiling mounting. Universal, field-selectable snap in/out chevrons
- UL924 Listed. All models are UL Listed for damp locations
- 5-year full warranty

Dimensions

Dimensions are approximate and subject to change.



Wire Guards

WALL	CEILING	END
WG1-E	WG5-E	WG5-E

Accessories (order as a separate item)

DESCRIPTION	SUFFIX
Pendant White	PRE-P-WH*
Pendant Black	PRE-P-BK*
Wire Guard (wall mount)	WG1-E
Wire Guard (ceiling mount and end mount)	WG5-E

* Specify pendant length

Optional Self-Test/Self-Diagnostic

Continuous self-diagnostic monitoring. Self-testing per Life Safety Code requirements. This circuitry is programmed to ensure the exit sign's readiness and reliability by continuously monitoring every critical function of the unit. If a problem occurs, a single "service required" indicator illuminates immediately. A detailed diagnostic display that will further indicate the nature of the fault is located on the inside of the exit sign, out of sight from the general public. The self-test will test the unit a minimum of 30 seconds every 30 days, 30 minutes every 60 days and 90 minutes annually.

Power Consumption

Each unit is furnished with one HIT lamp per head.

MODEL	AC SPECS		DC SPECS	
AC-Only	120/277VAC, 60Hz	Less than 2.5W	–	–
AC / DC-remote	120/277VAC, 60Hz	Less than 2W	6 to 48VDC	Less than 1.5W
Self-Powered	120/277VAC, 60Hz	Less than 3.3W	Ni-Cd battery	Min. 90 minutes
Self-Powered with Diagnostic	120/277VAC, 60Hz	Less than 2.8W	Ni-Cd battery	Min. 90 minutes

How to Order

HOUSING COLOR	SERIES	UNIT TYPE	COLOR	OPTIONS
W= White **B**= Black	**PREM**= LED plastic EXIT	**Standard models** **AC**= AC only (120/277V) **U**= 120/277VAC & 6 to 48VDC **SNX**= Self-Powered Ni-Cd **Optional models** **2C1**= Dual AC circuit (2x120V) **2C2**= Dual AC circuit (2x277V) **DN**= Self-Powered advanced diagnostic circuitry **NEX**= NEXUS® wired (consult your sales representative) **NEXRF**= NEXUS® wireless (consult your sales representative)	**R**= Red universal **R1**= Red single face* **R2**= Red double face* **G**= Green universal **G1**= Green single face* **G2**= Green double face* **Open face** **RW**= Red on white **GW**= Green on white (Open face required with special wording legends) * Available with VR & VR2 options only	**Blank**= No option **BA**= Brushed aluminum exit stencil **FZ**= Flasher buzzer (DN model only) **FL**= Flasher (DN model only) **FA**= Fire alarm activated flasher (AC, U, 2C1, 2C2 and DN models only) **FBF**= Flasher buzzer + fire alarm activated flasher (DN model only) **VR**= Vandal-resistant screws* **VR1**= Polycarbonate shield with tamper proof screws* * Please specify single or double face, red or green

Example: **WPREMACR**

TYPE: _____

CATALOG #: _____

NOTES: _____

Provider™ PRO-2N/PRO-3N Series

6 Volt Thermoplastic Housing

SPEC GRADE

COMMERCIAL

Features

- Completely self-contained, thermoplastic construction with a polycarbonate lens that protects the fully-adjustable self-locking heads
- Available with sealed, maintenance-free Lead-Calcium batteries
- Integrated circuitry offers 120/277VAC 60Hz standard operation, LED pilot light rocker type, test switch, temperature compensated, low voltage battery disconnect, brownout protection and lock out (automatic battery connect)
- Optional MR16 LED lamps with life expectancy 50,000+ hours
- Optional advanced diagnostic circuitry monitors every critical function of the unit and provides an audible and visual indicator when a fault is detected (non-audible versions available)
- Optional tamper-proof screws
- Optional NEXUS® wired and NEXUS® wireless systems
- Universal wall mounting pattern keyhole slots and a conduit knockout provide alternate mounting methods
- Optional ceiling mount includes safety wire and pre-machined housing to receive a securement screw.
- UL Listed. Complies with NEC, Life Safety Code and OSHA UL Listed for use in Damp Locations
- 3-year full warranty, excluding lamps, pilot lights, and fuses.

Accessories (order as a separate item)

DESCRIPTION	SUFFIX
Replacement lamps	570.0012-E
Additional special bit for tamper-proof screws	690.0454-E
REPLACEMENTS LAMPS	
570.0012-E	HIT 6V-5.4W
580.0097-E	MR16 LED 6V-4W

Power Consumption and Unit Rating

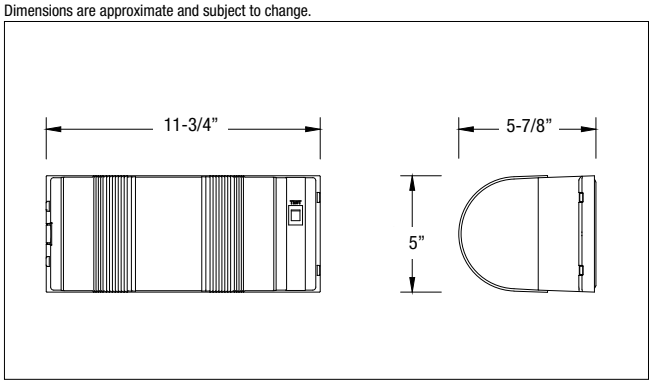
Each unit are furnished with one HIT lamp per head.

PROVIDER™ BATTERY UNIT						
Sealed Maintenance-Free Battery Types	D.C. Voltage	Model Number	Watts to 87-1/2% of rated battery voltage			
			1-1/2 hrs	2 hrs	3 hrs	4 hrs
Lead-Calcium	6	PRO-2N	10.8	8.5	–	–
	6	PRO-3N	18	12	10	7

*National Electrical Code Specification

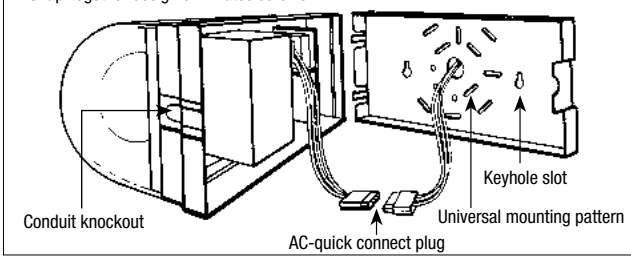
Dimensions

Dimensions are approximate and subject to change.



Fast and Easy Installation

Snap-together design eliminates screws.



Provider’s AC quick-connect plug, battery lock out feature and snap-together design make installation fast and easy. With the AC quick-connect plug, contractors simply make the AC connection to the plug, mount the back plate and plug in the unit.

The battery lock out feature is an AC activated load switch that prevents the batteries from discharging until the unit is energized with AC power. This allows the contractor to install the Provider™ and connect the batteries in one convenient operation.

Universal mounting pattern keyhole slots and a conduit knock out provide alternate mounting methods.

How to Order

COLOR	SERIES	LAMP TYPE	UNIT TYPE	OPTIONS
Blank= Off white **B**= Black	**PRO-2N**= 6V-10.8W **PRO-3N**= 6V-18W	**-LA**= 6V-4W, MR16 LED **-ZP**= mini tungesten, 6V-5.4W	**Blank**= Standard Unit **-AD**= Advanced Diagnostics (audible) **-ADNA**= Advanced Diagnostics (non-audible) **NEX**= NEXUS® wired (consult your sales representative)* **NEXRF**= NEXUS® wireless (consult your sales representative)* * Available with PRO-2N only.	**V**= Voltmeter * **DL**= Damp Location **VR**= Vandal-resistant screws **C**= Line Cord 120V - Supplied but not installed **CM**= Ceiling mount - Supplied with metal harness * Available with Standard unit type only.

Example: **BPRO-2N-LADL**

TYPE: _____
CATALOG #: _____
NOTES: _____

EC-2/ECX-2 Series

Thermoplastic Housing 6V-12W Capacity Lead-Calcium Battery

Features

- Each self-contained unit comes with two (2) 5.4W high intensity incandescent lamps mounted in polished reflectors
- Housing and heads are constructed of high-impact UL 94, 5VA flame classification, off-white thermoplastic. Resists denting, peeling, scratching and corrosion
- Available with sealed, maintenance-free Lead-Calcium batteries
- Integrated circuitry offers 120/277VAC 60 Hz, 0.3/0.15A standard operation, LED pilot light, automatic charging, instantaneous transfer, temperature compensated charger, low voltage battery disconnect, brownout protection, lock out (automatic battery connect) and reverse polarity protection
- Universal mounting pattern, keyhole slots and conduit entry provide alternate mounting capability. The housing and back plate snap together for ease of installation
- UL Listed. Complies with NEC, Life Safety Code and OSHA. UL Listed for use in damp locations
- The EC-2 (12W max.) and ECX-2 (24W max.) Series have a 3-year full warranty, excluding lamps and fuses

Unit Rating Chart

Furnished with two 5.4W high intensity incandescent lamps.

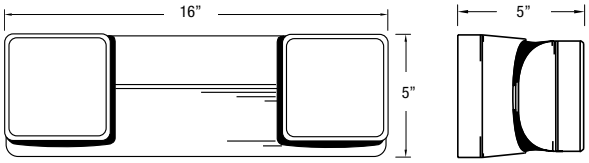
UNIT EQUIPMENT				
Sealed Maintenance-Free Battery Types	D.C. Voltage	Model Number	Watts to 90 minutes	Remote Watts
Lead-Calcium	6	EC-2	12	–
Lead-Calcium	6	ECX-2	12	12
Lead-Calcium	6	EC-2-AD	12	–
Lead-Calcium	6	ECX-2-AD	12	12
Nickel-Cadmium	6	EC-2-AD-N	12	–
Nickel-Cadmium	6	ECX-2-AD-N	12	12

ECX-2 SERIES UNIT EQUIPMENT - WITH REMOTE CAPABILITY				
Sealed Maintenance-Free Battery Types	Watts to 87-1/2% of rated battery voltage*			
	1-1/2 hrs	2 hrs	3 hrs	4 hrs
Lead-Calcium	24	15	–	–
Nickel-Cadmium**	24	18	12	–

* National Electrical Code Specification
** Only available with Diagnostics

Dimensions

Dimensions are approximate and subject to change.



Flexibility in an emergency lighting unit

• On the specification...

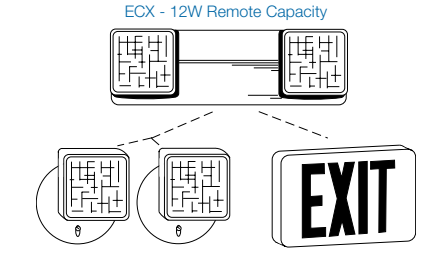
Its contemporary design allows you to coordinate the aesthetics of emergency specifications with matching models – an emergency unit and a remote head.

• On the job...

Changes on the job are never a problem with the EC Series. Its modular design allows you to field upgrade the basic model to a master unit for powering matching remote lighting heads or AC/DC exit signs, including the new LED even illumination models.

• On the shelf...

The modular design of the EC Series gives you a contemporary family of decorative emergency lighting units, matching exit signs and remotes.



How to Order

COLOR	SERIES	HEADS/LAMPS	OPTIONS	BATTERY OPTION
B= Black housing **Blank**= Off white	**EC**= 6V-12W battery unit **ECX**= 6V-24W battery unit	**Heads** **-2**= Two heads (12W remote) **Lamps** **-2HA**= 6V-6W bi-pin halogen **-2HB**= 6V-8W bi-pin halogen **-2HC**= 6V-10W bi-pin halogen **-2HD**= 6V-12W bi-pin halogen	**-EG**= Standard unit **-AD**= Advanced Diagnostics (audible) **-ADNA**= Advanced Diagnostics (non-audible) **-D1**= Time Delay (5 minutes) **-D2**= Time Delay (10 minutes) **-D3**= Time Delay (15 minutes) **-DL**= Damp Location listed (AD/ADNA units only)	**Blank**= Lead-Calcium **-N**= Nickel-Cadmium battery (AD/ADNA units only)

Example: **BEC-2-EG-N**

TYPE: _____

CATALOG #: _____

NOTES: _____

ECC and ECM Series

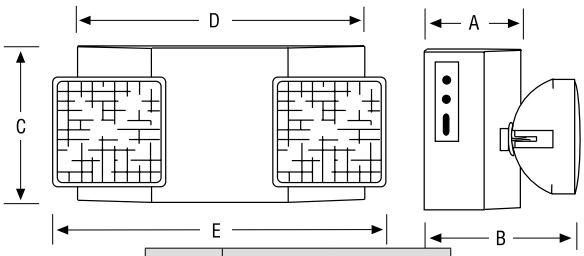
6 and 12V Steel Unit

Features

- Each unit comes with two (2) front-mounted EF-23 heads with 9W high intensity incandescent lamps (standard)
- Constructed of 20-gauge steel with an off-white baked enamel finish
- Available with sealed, maintenance-free Nickel-Cadmium or Lead-Calcium batteries
- PulsePlus Charger circuitry offers 120/277VAC 60 Hz., 0.3/0.15A (other inputs available), fused output circuit(s), dual diagnostic indicator lights, temperature compensation, sealed relay, low voltage battery disconnect, brownout protection and lock out (automatic battery connect)
- Hinged front door
- UL Listed. Complies with NEC, Life Safety Code and OSHA. Approved for use in the Commonwealth of Pennsylvania and New York City
- 3-year full warranty, excluding lamps and fuses

Dimensions

Dimensions are approximate and subject to change.



Letters	Cabinet Size	
	S	L
A	3-1/2"	4"
B	6-1/8"	6-3/4"
C	5-1/4"	6-1/4"
D	11"	12-1/2"
E	15-1/4"	16-1/2"

Accessories (order as a separate item)

DESCRIPTION	SUFFIX
Mounting bracket (S cabinet only)	BJ-EG
Wire guard	WG10-E
Clear polycarbonate vandal-resistant shield	VRS-BB**
Clear NEMA 4X polycarbonate vandal-resistant shield	VRSBB-4X**

** S cabinet only, order on separate line.

Unit Rating

Sealed Maintenance-Free Battery Types	D.C. Voltage	Model Number	Watts to 87-1/2% of rated battery voltage				
			1-1/2 hrs	2 hrs	3 hrs	4 hrs	Cabinet Size
Nickel-Cadmium	6	ECC18-2	18	12	–	–	S
	6	ECC25-2	25	18	12	9	S
	12	12ECC36-2	36	21	15	12	S
	12	12ECC50-2	50	36	25	18	S
Lead-Calcium	6	ECM18-2	18	12	10	7	S
	6	ECM27-2	27	18	14	10	S
	6	ECM36-2	36	24	20	14	S
	6	ECM54-2	54	37	28	21	L
	12	12ECM36-2	36	25	20	14	S
	12	12ECM54-2	54	37	28	21	L

How to Order

COLOR	DC VOLTAGE	SERIES	BATTERY TYPE	WATTAGES	# OF HEADS	LAMP TYPE	OPTIONS
Blank= Off white **B**= Black	**Blank**= 6V **12**= 12V	**EC**	**C**= Ni-Cd **M**= Lead-Calcium	**18**= 6V-18W Nickel or Lead-Calcium **25**= 6V-25W Nickel-Cadmium **27**= 6V-27W Lead-Calcium **36**= 6V, 12V-36W Nickel or Lead-Calcium **50**= 12V-50W Nickel-Cadmium **54**= 6V, 12V-54W Lead-Calcium	**-1**= One head **-2**= Two heads	**Blank**= 6V, 12V-9W wedge **H_**= Bi-pin halogen lamps **Z_**= High intensity incandescent wedge base NOTE: For a complete list of available lamp types, please refer to the lamp data on pages 146-147. For units without heads please see the JS series	**Blank**= No options **-AD**= Advanced Diagnostics (audible) **-ADNA**= Advanced Diagnostics (non-audible) **-NEX**= Nexus® wired (consult your sales representative) **-NEXRF**= Nexus® wireless (consult your sales representative) **-V**= Voltmeter **-A**= Ammeter (S cabinet units. choose only one meter) **-D1**= Time Delay (5 minutes) **-D2**= Time Delay (10 minutes) **-D3**= Time Delay (15 minutes) **-K**= Lamp Disconnect Switch

Example: **B12ECC50-2HG**

TYPE: _____
CATALOG #: _____
NOTES: _____

JC Series

Steel Housing 6V up to 40W & 12V up to 50W Capacities

Features

- Each unit comes with two (2) impact-resistant, flame retardant thermoplastic EF10 heads with 6W MR16 halogen or MR16 LED lamps (standard). Available with up to 20W(MW) high-output illumination heads
- Compact steel cabinet with corrosion-resistant undercoating in white (standard). Black available as an option
- Available with sealed, maintenance-free Nickel-Cadmium, or Lead-Calcium batteries
- Power Requirements: 120/277VAC 60Hz, 0.3/0.15 Amp
- Automatic, temperature-compensated solid state charger with a high capacity, automatic, dust-tight instantaneous transfer relay. Low voltage disconnect prevents over discharge of battery. Automatic brown out protection. Labor saving AC line latch prevents battery discharge during installation to a non-energized circuit. Fused output circuit. Optional Advanced Diagnostics comes with a micro controller based pulse-type charger
- Rear keyhole mounting slots. Designed to mount directly to any standard 4" junction box
- UL Listed
- 3-year full warranty, excluding lamps and fuses

Accessories (order as a separate item)

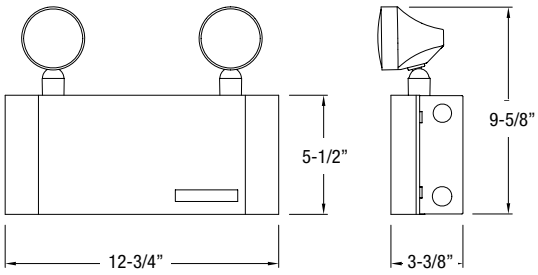
DESCRIPTION	SUFFIX
Wire Guard (EF10, EF9 and EF150)	WG1-E
Wire Guard (EF18, EF23 and EF28)	WG2-E

Power Consumption Chart

Model #	AC Input	Maximum	
		Input Current	Input Power
JC	120VAC	0.20A	24W
	277VAC	0.08A	24W
12JC	120VAC	0.24A	30W
	277VAC	0.12A	30W

Dimensions

Dimensions are approximate and subject to change.



Unit Rating

Furnished standard with two MR16 6V-6W.

Sealed Maintenance-Free Battery Types	D.C. Voltage	Model Number	Watts to 87-1/2% of rated battery voltage			
			1-1/2 hrs	2 hrs	3 hrs	4 hrs
Lead-Calcium	6	JCM	18	12	–	–
		JCM20	20	15	12	–
		JCM27	27	18	15	–
		JCM30	30	20	18	–
		JCM36	36	27	20	12
		JCM40	40	30	24	15
	12	12JCM36	36	27	20	12
		12JCM40	40	30	24	15
Nickel-Cadmium	6	JCC20	20	18	12	–
	12	12JCC36	36	24	15	12
		12JCC50	50	36	24	18

* National Electrical Code Specification

How to Order

COLOR	SERIES DC VOLTAGE/CAPACITY	# OF HEADS	HEAD STYLE	LAMP TYPE/WATTAGE	OPTIONS
Blank= Off white **B**= Black	**JCM18**= 6V-18W, Lead-Calcium **JCM20**= 6V-20W, Lead-Calcium **JCM27**= 6V-27W, Lead-Calcium **JCM30**= 6V-30W, Lead-Calcium **JCM36**= 6V-36W, Lead-Calcium **JCM40**= 6V-40W, Lead-Calcium **12JCM36**= 12V-36W, Lead-Calcium **12JCM40**= 12V-40W, Lead-Calcium **JCC20**= 6V-20W, Ni-Cd **12JCC36**= 12V-36W, Ni-Cd **12JCC50**= 12V-50W, Ni-Cd	**-0**= No head **-2**= Two heads	**10**= EF10 mini plastic MR16 **150**= EF150 lamp heads	**LA**= 6V-4W, MR16 LED **LG**= 12V-4W, MR16 LED **LI**= 12V-5W, MR16 LED **LJ**= 12V-6W, MR16 LED **MH**= 6V-5W, MR16 **MI**= 6V-6W, MR16 **MJ**= 6V-10W, MR16 **MK**= 12V-12W, MR16 **MA**= 12V-20W, MR16 **MW**= 12V-20W high output IR	**-AD**= Advanced Diagnostics (audible)* **-ADNA**= Advanced Diagnostics (non-audible)* **-NEX**= NEXUS® wired (consult your sales representative)* **-NEXRF**= NEXUS® wireless (consult your sales representative)* **-FM**= Front mount heads * Not available with 6V - 40W unit (JCM40)

Example: **JCM18-210MI-AD**

TYPE: _____

CATALOG #: _____

NOTES: _____

JA Series

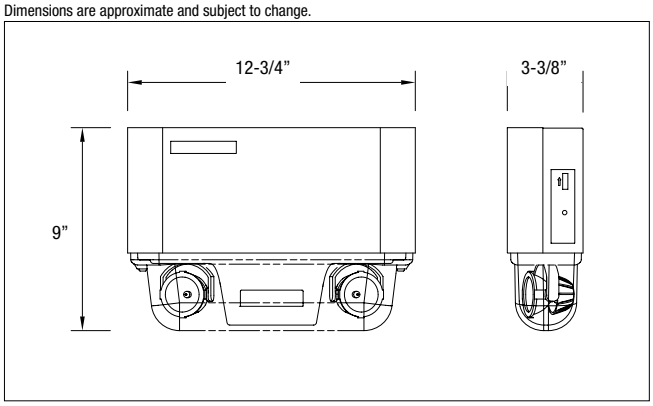
Steel Housing with Protected Lighting Heads
6V up to 40W & 12V up to 50W Capacities

Features

- Each unit comes with two (2) emergency heads with adjustable swivels and long-life MR16 halogen or LED lamps 6V or 12V, available with up to 20W high output illumination
- Steel cabinet with an anti-corrosion undercoating. The emergency heads are protected by a shock-absorbent, transparent polycarbonate cover. The cover is attached to the cabinet with two screws
- Available with sealed, maintenance-free Nickel-Cadmium or Lead-Calcium batteries
- Power requirements: 120/277 VAC 60Hz, 0.3/0.15 Amp
- Solid State Charger is an automatic, temperature compensated type charger with high capacity, dust-tight instantaneous transfer relay and automatic brownout protection. Low voltage disconnect prevents over discharge of battery. Labor saving AC line latch prevents battery discharge during installation to a non-energized circuit. Fused output circuit. Optional Advanced Diagnostics comes with a micro controller based pulse type charger
- The emergency heads are installed at the bottom of the unit, providing illumination in any downward direction and do not require a tool for adjusting or aiming
- UL Listed
- 3-year full warranty, excluding lamps and fuses.

Dimensions

Dimensions are approximate and subject to change.



Power Consumption

Model #	AC Input	Maximum	
		Input Current	Input Power
JA	120VAC	0.20A	24W
	277VAC	0.08A	24W
12JA	120VAC	0.24A	30W
	277VAC	0.12A	30W

Accessories (order as a separate item)

DESCRIPTION	SUFFIX
Wire Guard	WG1-E

Unit Rating

Furnished standard with two MR16 6V-6W.

Sealed Maintenance-Free Battery Types	Voltage	Model Number	Watts to 87-1/2% of rated battery voltage			
			1-1/2 hrs	2 hrs	3 hrs	4 hrs
Lead-Calcium	6	JAM20	20	–	–	–
		JAM30	30	20	–	–
		JAM40	40	30	24	–
	12	12JAM40	40	30	24	–
Nickel-Cadmium	6	JAC20	20	–	–	–
	12	12JAC36	36	24	–	–
		12JAC50	50	36	24	–

How to Order

COLOR	SERIES DC VOLTAGE/CAPACITY	# OF HEADS	LAMP TYPE	OPTIONS
Blank= Off white **B**= Black	**JAM20**= 6V-20W, Lead-Calcium **JAM30**= 6V-30W, Lead-Calcium **JAM40**= 6V-40W, Lead-Calcium **12JAM40**= 12V-40W, Lead-Calcium **JAC20**= 6V-20W, Ni-Cd **12JAC36**= 12V-36W, Ni-Cd **12JAC50**= 12V-50W, Ni-Cd	**-2**= Two heads	**LA**= 6V-4W, MR16 LED **LG**= 12V-4W, MR16 LED **LI**= 12V-5W, MR16 LED **LJ**= 12V-6W, MR16 LED **MI**= 6V-6W, MR16 **MH**= 6V-5W, MR16 **MJ**= 6V-10W, MR16 **MK**= 12V-12W, MR16 **MA**= 12V-20W, MR16 **MW**= 12V-20W IR high output	**-AD**= Advanced Diagnostics (audible)* **-ADNA**= Advanced Diagnostics (non-audible)* **-NEX**= NEXUS® wired (consult your sales representative)* **-NEXRF**= NEXUS® wireless (consult your sales representative)* * Not available with 6V-40W unit (JAM40)

Example: **JAM20-2MI-AD**

TYPE: _____
CATALOG #: _____
NOTES: _____

JS Series

Steel Housing 6V & 12V up to 54W Capacities

Features

- Each unit comes with two (2) EF18 heads with 9W high intensity incandescent lamps (standard)
- Constructed of 20-gauge steel with an off-white baked enamel finish
- Available with sealed, maintenance-free Nickel-Cadmium, Long Life Lead or Lead-Calcium batteries
- PulsePlus Charger circuitry offers 120/277VAC 60 Hz., 0.3/0.15A (other inputs available), fused output circuit(s), dual diagnostic indicator lights, temperature compensation, sealed relay, low voltage battery disconnect, brown out protection and lock out (automatic battery connect)
- Hinged cabinet door for easy access
- UL Listed. Complies with NEC, Life Safety Code and OSHA. Approved for use in the Commonwealth of Pennsylvania and New York City
- 3-year full warranty, excluding lamps and fuses

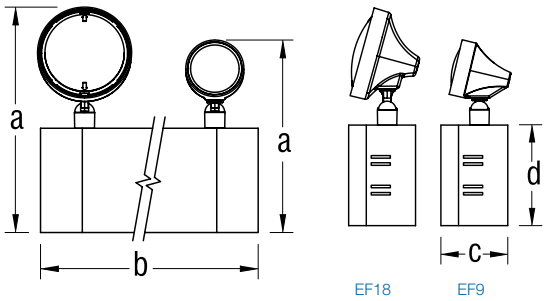
Accessories (order as a separate item)

DESCRIPTION	SUFFIX
Mounting Bracket (S cabinet only)	BJ-E
Wire Guard (S cabinet only)	WG1-E
Wire Guard (L cabinet only)	WG2-E
Wire Guard (front mounted heads)	WG10-E

**S cabinet only, order on separate line.

Dimensions

Dimensions are approximate and subject to change.



Cabinet Size	Dimensions			
	a	b	c	d
S	11-3/8" // 9-3/4"	11"	3-1/2"	5-1/4"
L	12-3/8" // 10-3/4"	12-3/4"	4"	6-1/4"

Unit Rating

Furnished standard with two 9 watt High Intensity Incandescent lamps.

Sealed Maintenance-Free Battery Types	D.C. Voltage	Model Number	Watts to 87-1/2% of rated battery voltage*				Cabinet size
			1-1/2 hrs	2 hrs	3 hrs	4 hrs	
Nickel-Cadmium	6	JSC18-2	18	12	–	–	S
Long Life Lead	6	JSE9-1	9	7	–	–	S
	6	JSE18-2	18	11	8	6	S
Lead-Calcium	6	JSM9-1	9	6	–	–	S
	6	JSM18-2*	18	12	10		S
UNIT EQUIPMENT - WITH REMOTE CAPABILITY							
Nickel-Cadmium	6	JSC25-2	25	18	12	9	S
	12	12JSC36-2	36	21	15	12	S
	12	12JSC50-2	50	36	25	18	S
Long Life Lead	6	JSE27-2	27	16	12	10	S
	6	JSE36-2	36	24	17	13	S
	6	JSE54-2	54	37	28	21	L
	12	12JSE36-2	36	24	17	13	S
	12	12JSE54-2	54	37	28	21	L
Lead-Calcium	6	JSM27-2	27	18	14	10	S
	6	JSM36-2	36	25	20	14	S
	6	JSM54-2	54	37	28	21	L
	12	12JSM36-2	36	25	20	14	S
	12	12JSM54-2	54	37	28	21	L

* National Electrical Code Specification

= New York City Approved

TYPE: _____

CATALOG #: _____

NOTES: _____

JS Series

A complete range of high performance and labor saving features

Optional (FM suffix) Front Mounted Heads for low ceiling applications.

How to Order

COLOR	SERIES/CAPACITY	# OF LAMPS	HEAD STYLE	LAMP TYPE/WATTAGE	OPTIONS
Blank= Off white **B**= Black	**JSC18**= 6V-18W, Ni-Cd **JSC25**= 6V-25W, Ni-Cd	**-0**= No head **-1**= One head **-2**= Two heads	**Blank**= (EF18 PAR 36 style) **9**= mini plastic **10**= mini plastic MR16 **28**= EF28 Metal lamp heads **150**= EF150 lamp heads	**Blank_**= 6V-9W and 12V-9W incandescent wedge base **H_**= Halogen bi-pin **I_**= Incandescent DC-bayonet **U_**= Incandescent sealed-beam **X_**= Halogen sealed-beam **Z_**= Incandescent wedge **M_**= Halogen MR16* **LA**= 6V-4W, MR16 LED* **LG**= 12V-4W, MR16 LED* **LI**= 12V-5W, MR16 LED* **LJ**= 12V-6W, MR16 LED* * Available with EF10 and EF150 Lamp heads only. NOTE: For a complete list of available lamp types, please refer to the lamp data on pages 146-147	**-AD**= Advanced Diagnostics (audible) **-ADNA**= Advanced Diagnostics (non-audible) **-NEX**= NEXUS® wired (consult your sales representative) **-NEXRF**= NEXUS® wireless (consult your sales representative) **-V**= Voltmeter (or ammeter)* **-A**= Ammeter (or voltmeter)* **-D1**= Time Delay (5 minutes) **-D2**= Time Delay (10 minutes) **-D3**= Time Delay (15 minutes) **-K**= Lamp disconnect switch **-FM**= Front mounted heads **-CP**= 120VAC cord & plug ** **-E**= Cord & plug (277VAC) ** * Not available with AD or ADNA options. ** Standard cord is 3ft.
	JSE9= 6V-9W, Long Life Lead **JSE18**= 6V-18W, Long Life Lead **JSE27**= 6V-27W, Long Life Lead **JSE36**= 6V-36W, Long Life Lead **JSE54**= 6V-54W, Long Life Lead				
	JSM9= 6V-9W, Lead-Calcium **JSM18**= 6V-18W, Lead-Calcium **JSM27**= 6V-27W, Lead-Calcium **JSM36**= 6V-36W, Lead-Calcium **JSM54**= 6V-54W, Lead-Calcium				
	12JSC36= 12V-36W, Ni-Cd **12JSC50**= 12V-50W, Ni-Cd				
	12JSE36= 12V-36W, Long Life Lead **12JSE54**= 12V-54W, Long Life Lead				
	12JSM36= 12V-36W, Long Life Lead **12JSM54**= 12V-54W, Long Life Lead				

Example: **JSC18-110LA**

TYPE: _____
CATALOG #: _____
NOTES: _____

LSE Series

6 and 12 Volt Steel Enclosure

Features

- Each unit comes with two (2) EF-18 heads with 9 watt high intensity incandescent lamps (standard). One or three heads available as options
- All-steel construction with an off-white baked enamel finish
- Contains sealed, maintenance-free Long Life Lead batteries
- Constructed of 20-gauge steel with an off-white baked enamel finish
- PulsePlus Charger circuitry offers 120/277VAC, input 60 Hz., 0.3/0.15A (other inputs available), fused output circuit(s), dual diagnostic indicator lights, temperature compensation, sealed relay, low voltage battery disconnect, brownout protection and lock out (automatic battery connect)
- Removable front panel
- UL Listed. Complies with NEC, Life Safety Code and OSHA. Approved for use in the Commonwealth of Pennsylvania and New York City
- 3-year full warranty, excluding lamps and fuses

Optional Features

DESCRIPTION	SUFFIX
Cord set - 120V	-C*
Special-voltage CP (TL 277V)	-E*

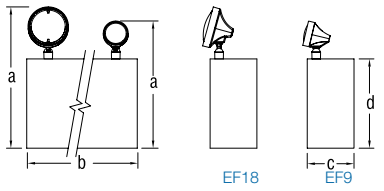
* Standard cord is 3 ft.

Accessories (order as a separate item)

DESCRIPTION	SUFFIX
Mounting bracket (cabinet A)	B1
Mounting bracket (cabinet B)	B2
Mounting shelves (cabinet B)	MP3-EG
Mounting shelves (cabinet C)	MP6-EG
Mounting shelves (cabinet D)	MP12
Wire Guard (cabinet A)	WG2-E
Wire Guard (cabinet B & cabinet C)	WG3-E
Wire Guard (cabinet D)	WG4-E

Dimensions

Dimensions are approximate and subject to change.



Cabinet Size	Dimensions			
	a	b	c	d
A	14-5/8" // 13"	13-3/4"	3-1/8"	8-1/2"
B	16-3/8" // 14-3/4"	16-1/8"	5-7/16"	10-1/4"
C	18-3/8" // 16-3/4"	16-1/2"	7-1/4"	12-1/4"
D	18-3/8" // 16-3/4"	27"	7-1/4"	12-1/4"

Unit Rating

Furnished standard with two 9 watt High Intensity Incandescent lamps.

Sealed Maintenance-Free Battery Types	D.C. Voltage	Model Number	Watts to 87-1/2% of rated battery voltage*				# of Load Fuses	Cabinet size
			1-1/2 hrs	2 hrs	3 hrs	4 hrs		
Long Life Lead	6	LSE18-2	18	11	8	6	1	A
			1-1/2 hrs	2 hrs	4 hrs	8 hrs		
	6	LSE27-2	27	19	10	5	1	A
	6	LSE36-2	36	24	13	7	1	A
	6	LSE54-2	54	36	20	11	1	A
	6	LSE80-2	80	65	35	19	2	B
Long Life Lead	6	LSE110-2	110	74	43	21	2	B
	12	12LSE36-2	36	24	13	7	1	A
	12	12LSE54-2	54	37	21	10	2	A
	12	12LSE72-2	72	48	26	14	2	B
	12	12LSE110-2	110	74	43	21	2	B
	12	12LSE320-2	320	210	120	60	2	D

* National Electrical Code Specification

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How to Order

COLOR	SERIES/CAPACITY	# OF LAMPS	HEAD STYLE	LAMP TYPE/WATTAGE	OPTIONS
Blank= Off white **B**= Black enclosure	**LSE18**= 6V-18W Long Life Lead **LSE27**= 6V-27W Long Life Lead **LSE36**= 6V-36W Long Life Lead **LSE54**= 6V-54W Long Life Lead **LSE80**= 6V-80W Long Life Lead **LSE110**= 6V-110W Long Life Lead **LSE160**= 6V-160W Long Life Lead **12LSE36**= 12V-36W Long Life Lead **12LSE54**= 12V-54W Long Life Lead **12LSE72**= 12V-72W Long Life Lead **12LSE110**= 12V-110W Long Life Lead **12LSE160**= 12V-160W Long Life Lead **12LSE320**= 12V-320W Long Life Lead	**-0**= No head **-1**= 1 head **-2**= 2 heads **-3**= 3 heads	**Blank**= EF18 (PAR 36 plastic) **28**= EF28 (PAR 36 metal) **9**= EF9 (mini plastic) **10**= EF10 (small plastic MR16) **150**= EF150 (MR16 lamp heads)	**Blank**= 6V-9W and 12V-9W incandescent wedge base **H_**= Halogen bi-pin **I_**= Incandescent DC-bayonet **U_**= Incandescent sealed-beam** **X_**= Halogen sealed-beam** **Z_**= Incandescent wedge **M_**= Halogen MR16* **LA**= 6V-4W, MR16 LED* **LG**= 12V-4W, MR16 LED* **LI**= 12V-5W, MR16 LED* **LJ**= 12V-6W, MR16 LED* * Available with EF10 & 150 only ** Available with EF18 & EF28 only NOTE: For a complete list of available lamp types, please refer to the lamp data on pages 146-147	**Blank**= No options **-AD**= Advanced Diagnostics (audible)* **-ADNA**= Advanced Diagnostics (non-audible)* **-NEX**= NEXUS® Wired** **-NEXRF**= NEXUS® Wireless ** **-V**= Voltmeter (A cabinet units. Choose only one) **-A**= Ammeter (A cabinet units. Choose only one) **-D1**= Time Delay (5 minutes) **-D2**= Time Delay (10 minutes) **-D3**= Time Delay (15 minutes) **-FM**= Front mounted lamp heads **-CP**= Cord and plug 120V **-E**= Cord and plug 277V * Minimum lamp load required: 20% of unit capacity ** Consult your sales representative

Example: **BLSE18-128H-A**

TYPE: _____

CATALOG #: _____

NOTES: _____

LC Series

6 and 12 Volt Steel Enclosure

Features

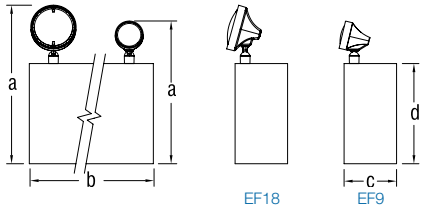
- Each unit comes with two (2) EF-18 heads with 9 watt high intensity incandescent lamps (standard). One or three heads available as options
- All-steel construction with an off-white baked enamel finish
- Contains sealed maintenance-free Lead-Calcium (Immobilized Electrolyte) batteries
- PulsePlus Charger circuitry offers 120/277VAC, input 60 Hz., 0.3/0.15 Amps (other inputs available), fused output circuit(s), dual diagnostic indicator lights, temperature compensation, sealed relay, low voltage battery disconnect, brownout protection and lock out (automatic battery connect)
- Removable front panel
- UL Listed. Complies with NEC, Life Safety Code and OSHA. Approved for use in the Commonwealth of Pennsylvania and New York City
- 3-year full warranty, excluding lamps and fuses

Accessories (order as a separate item)

DESCRIPTION	SUFFIX
Mounting bracket (cabinet B)	B2
Mounting shelves (cabinet B)	MP3-EG
Mounting shelves (cabinet C)	MP6-EG
Mounting shelves (cabinet D)	MP12
Wire Guard (cabinet B & cabinet C)	WG3-E
Wire Guard (cabinet D)	WG4-E

Dimensions

Dimensions are approximate and subject to change.



Cabinet Size	Dimensions			
	a	b	c	d
B	16-3/8" // 14-3/4"	16-1/8"	5-7/16"	10-1/4"
C	18-3/8" // 16-3/4"	16-1/2"	7-1/4"	12-1/4"
D	18-3/8" // 16-3/4"	27"	7-1/4"	12-1/4"

Unit Rating

Furnished standard with two 9 watt High Intensity Incandescent lamps.

	D.C. Voltage	Model Number	Watts to 87-1/2% of rated battery voltage*				# of Load Fuses	Cabinet size
			1-1/2 hrs	2 hrs	4 hrs	8 hrs		
Lead-Calcium (immobilized electrolyte)	6	LC87-2	87	70	41	24	2	B
	6	LC100-2	100	77	47	24	2	C
	6	LC175-2	175	140	82	48	2	C
	6	LC200-2	200	168	96	48	2	C
	12	12LC150-2	150	120	66	36	2	C
	12	12LC175-2	175	140	85	48	2	C
	12	12LC200-2	200	168	96	48	2	C
	12	12LC300-2	300	240	132	72	2	D
	12	12LC350-2	350	280	170	96	2	D
	12	12LC400-2	400	336	192	95	2	D

* National Electrical Code Specification

= New York City Approved

How to Order

COLOR	SERIES/CAPACITY	# OF LAMPS	HEAD STYLE	LAMP TYPE	OPTIONS
Blank= Off white **B**= Black	**LC87**= 6V-87W Lead-Calcium **LC100**= 6V-100W Lead-Calcium **LC175**= 6V-175W Lead-Calcium **LC200**= 6V-200W Lead-Calcium **12LC150**= 12V-150W Lead-Calcium **12LC175**= 12V-175W Lead-Calcium **12LC200**= 12V-200W Lead-Calcium **12LC300**= 12V-300W Lead-Calcium **12LC350**= 12V-350W Lead-Calcium **12LC400**= 12V-400W Lead-Calcium	**-0**= No head **-1**= 1 head **-2**= 2 heads **-3**= 3 heads	**Blank**= EF18 (PAR 36 plastic) **28**= EF28 (PAR 36 metal) **9**= EF9 (mini plastic) **10**= EF10 (small plastic MR16) **150**= EF150 (MR16 lamp heads)	**H_**= Halogen bi-pin **I_**= Incandescent DC-bayonet **U_**= Incandescent sealed-beam** **X_**= Halogen sealed-beam** **Z_**= Incandescent wedge **M_**= Halogen MR16* **LA**= 6V-4W, LED MR16* **LG**= 12V-4W, LED MR16* **LI**= 12V-5W, LED MR16* **LJ**= 12V-6W, LED MR16* * Available with EF10 & 150 only ** Available with EF18 & EF28 only NOTE: For a complete list of available lamp types, please refer to the lamp data on pages 146-147	**Blank**= No options **-AD**= Advanced Diagnostics (audible)* **-ADNA**= Advanced Diagnostics (non-audible)* **-NEX**= NEXUS® wired** **-NEXRF**= NEXUS® wireless** **-A**= Ammeter **-V**= Voltmeter **-D1**= Time Delay (5 minutes) **-D2**= Time Delay (10 minutes) **-D3**= Time Delay (15 minutes) **-K**= Lamp Disconnect Switch **-CP**= Cord and plug 120V*** **-E**= Cord and plug 277V*** * Minimum lamp head required: 20% of unit capacity ** Consult your sales representative *** Standard cord is 3 ft.

Example: **BLC87-128HB-A**

TYPE: _____
CATALOG #: _____
NOTES: _____

LS Series
6 and 12 Volt Steel Enclosure

Features

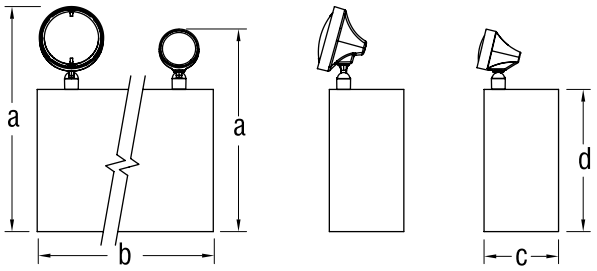
- Each unit comes with two (2) EF-18 heads with 9 watt high intensity incandescent lamps (standard). One or three heads available as options
- Constructed of 20-gauge steel with an off-white baked enamel finish
- Available with sealed, maintenance-free Nickel-Cadmium, or Lead-Calcium batteries
- Power Requirements: 120/277 VAC 60Hz, 0.3/0.15A
- PulsePlus Charger circuitry offers 120/277 VAC 60 Hz., 0.3/0.15A (other inputs available), fused output circuit(s), dual diagnostic indicator lights, temperature compensation, sealed relay, low voltage battery disconnect, brownout protection and lock out (automatic battery connect)
- Removable front panel
- UL Listed. Complies with NEC, Life Safety Code and OSHA. Approved for use in the Commonwealth of Pennsylvania and New York City
- 3-year full warranty, excluding lamps and fuses

Accessories (order as a separate item)

DESCRIPTION	SUFFIX
Mounting bracket (cabinet A)	B1
Mounting bracket (cabinet B)	B2
Mounting shelves (cabinet B)	MP3-EG
Mounting shelves (cabinet C)	MP6-EG
Wire Guard (cabinet A)	WG2-E
Wire Guard (cabinet B & cabinet C)	WG3-E

Dimensions

Dimensions are approximate and subject to change.



EF18 EF9

Cabinet Size	Dimensions			
	a	b	c	d
A	14-5/8" // 13"	12-3/4"	3-1/8"	8-1/2"
B	16-3/8" // 14-3/4"	16-1/8"	5-7/16"	10-1/4"
C	18-3/8" // 16-3/4"	16-1/2"	7-1/4"	12-1/4"

Unit Rating

Furnished standard with two 9 watt High Intensity Incandescent lamps.

UNIT EQUIPMENT - NO REMOTE CAPABILITY								
Sealed Maintenance-Free Battery Types	D.C. Voltage	Model Number	Watts to 87-1/2% of rated battery voltage*				# of Load Fuses	Cabinet size
			1-1/2 hrs	2 hrs	4 hrs	4 hrs		
Nickel-Cadmium	6	LSC18-2	18	12	9	6	1	A
Lead-Calcium	6	LSM18-2	12	12	10	7	1	A
UNIT EQUIPMENT - WITH REMOTE CAPABILITY								
			1-1/2 hrs	2 hrs	3 hrs	8 hrs		
Nickel-Cadmium	6	LSC25-2	25	18	9	–	1	A
	12	12LSC36-2	36	21	12	6	1	A
	12	12LSC50-2	50	36	18	10	1	A
	24	24LSC100-2	100	73	37	20	2	B
Lead-Calcium	6	LSM27-2	27	18	10	6	1	A
	6	LSM36-2	36	25	14	7	1	A
	6	LSM54-2	54	37	21	12	1	A
	6	LSM81-2	81	54	36	18	2	B
	6	LSM110-2	110	72	40	24	2	B
	6	LSM162-2	162	108	60	48	2	C
	6	LSM200-2	200	144	80	48	2	C
	12	12LSM36-2	36	25	14	7	1	A
	12	12LSM54-2	54	37	21	12	1	A
	12	12LSM110-2	110	72	40	24	2	B
	12	12LSM162-2	162	108	60	36	2	C
	12	12LSM220-2	220	144	80	48	2	C

* National Electrical Code Specification

= New York City Approved

TYPE: _____

CATALOG #: _____

NOTES: _____

LS Series

6 and 12 Volt Steel Enclosure

How to Order

COLOR	SERIES/CAPACITY	# OF LAMPS	HEAD STYLE	LAMP TYPE/WATTAGE	OPTIONS
Blank= Off white **B**= Black enclosure	**LSC Series** **LSC18**= 6V-18W Ni-Cd **LSC25**= 6V-25W Ni-Cd **12LSC36**= 12V-36W Ni-Cd **12LSC50**= 12V-50W Ni-Cd **12LSC72**= 12V-72W Ni-Cd **LSM Series** **LSM18**= 6V-18W Lead-Calcium **LSM27**= 6V-27W Lead-Calcium **LSM36**= 6V-36W Lead-Calcium **LSM54**= 6V-54W Lead-Calcium **LSM81**= 6V-81W Lead-Calcium **LSM110**= 6V-110W Lead-Calcium **LSM162**= 6V-162W Lead-Calcium **LSM200**= 6V-200W Lead-Calcium **12LSM36**= 12V-36W Lead-Calcium **12LSM54**= 12V-54W Lead-Calcium **12LSM105**= 12V-105W Lead-Calcium **12LSM110**= 12V-110W Lead-Calcium **12LSM162**= 12V-162W Lead-Calcium **12LSM220**= 12V-220W Lead-Calcium	**-0**= No head **-1**= 1 head **-2**= 2 heads **-3**= 3 heads	**Blank**= EF18 (PAR 36 plastic) **28**= EF28 (PAR 36 metal) **9**= EF9 (mini plastic) **10**= EF10 (small plastic MR16) **150**= EF150 (MR16 lamp heads)	**Blank_**= 6V-9W and 12V-9W incandescent wedge base **H_**= Halogen bi-pin **I_**= Incandescent DC-bayonet **U_**= Incandescent sealed-beam** **X_**= Halogen sealed-beam** **Z_**= Incandescent wedge **M_**= Halogen MR16* **LA**= 6V-4W, MR16 LED* **LG**= 12V-4W, MR16 LED* **LL**= 24V-4W, MR16 LED* **LI**= 12V-5W, MR16 LED* **LJ**= 12V-6W, MR16 LED* * Available with EF10 & EF150 only ** Available with EF18 & EF28 only NOTE: For a complete list of available lamp types, please refer to the lamp data on pages 146-147	**Blank**= No options **-AD**= Advanced Diagnostics (audible)* **-ADNA**= Advanced Diagnostics (non-audible)* **-NEX**= NEXUS® wired (consult your sales representative)* **-NEXRF**= NEXUS® wireless (consult your sales representative)* **-V**= Voltmeter **-A**= Ammeter **-CP**= Cord and plug 120V only** **-D1**= Time Delay (5 minutes) **-D2**= Time Delay (10 minutes) **-D3**= Time Delay (15 minutes) **-E**= Cord and plug 277V * Minimum lamp load required: 20% of unit capacity. Not available with 12V-72W Ni-Cd ** Standard cord is 3 ft.

Example: **BLSC18-110LA-AD**

TYPE: _____
CATALOG #: _____
NOTES: _____

24 LS & 24 LC Series

24 Volt Steel Enclosure

Features

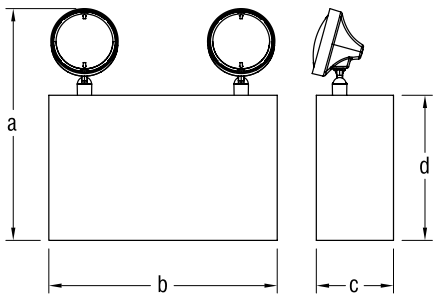
- Each unit comes with two (2) EF-18 heads with 9 watt high intensity incandescent lamps (standard)
- All-steel construction with an off-white baked enamel finish
- Available with sealed, maintenance-free Nickel-Cadmium, Long Life Lead, Lead-Calcium (Immobilized Electrolyte), or Lead-Calcium batteries
- PulsePlus Charger circuitry offers 120/277VAC, input 60 Hz., 0.3/0.15A (other inputs available), fused output circuit(s), dual diagnostic indicator lights, temperature compensation, sealed relay, low voltage battery disconnect, brownout protection and lock out (automatic battery connect)
- Removable front panel
- UL Listed. Complies with NEC, Life Safety Code and OSHA. Approved for use in the Commonwealth of Pennsylvania
- 3-year full warranty, excluding lamps and fuses

Accessories (order as a separate item)

DESCRIPTION	SUFFIX
Mounting bracket (cabinet B)	B2
Mounting shelves (cabinet B)	MP3-EG
Mounting shelves (cabinet C)	MP6-EG
Mounting shelves (cabinet D)	MP12
Wire Guard (cabinet A)	WG2-E
Wire Guard (cabinet B & C)	WG3-E
Wire Guard (cabinet D)	WG4-E

Dimensions

Dimensions are approximate and subject to change.



Cabinet Size	Dimensions			
	a	b	c	d
B	16-3/8"	16-1/8"	5-7/16"	10-1/4"
C	18-3/8"	16-1/2"	7-1/4"	12-1/4"
D	18-3/8"	27"	7-/4"	12-1/4"

Unit Rating

Furnished standard with two 9 watt High Intensity Incandescent lamps.

Sealed Maintenance-Free Battery Types	D.C. Voltage	Model Number	Watts to 87-1/2% of rated battery voltage*				# of Load Fuses	Cabinet size
			1-1/2 hrs	2 hrs	3 hrs	4 hrs		
Nickel-Cadmium	24	24LSC72-2	72	42	24	12	2	B
	24	24LSC100-2	100	73	37	20	2	B
Long Life Lead	24	24LSE72-2	72	48	26	14	2	B
	24	24LSE110-2	110	74	43	21	2	B
	24	24LSE320-2	320	300	148	76	2	D
Lead-Calcium (Immobilized Electrolyte)	24	24LC300-2	300	240	132	72	2	D
	24	24LC350-2	350	280	168	96	2	D
	24	24LC400-2	400	336	192	96	2	D
Lead-Calcium	24	24LSM110-2	110	72	40	24	2	B
	24	24LSM220-2	220	144	80	48	2	C

*National Electrical Code Specification.

How to Order

COLOR	SERIES/CAPACITY	# OF LAMPS	HEAD STYLE	LAMP TYPE	OPTIONS
Blank= Off white **B**= Black enclosure	**LSC Series** **24LSC100**= 24V-100W Ni-Cd **LSE Series** **24LSE72**= 24V-72W Long Life Lead **24LSE110**= 24V-110W Long Life Lead **24LSE320**= 24V-320W Long Life Lead **LSM Series** **24LSM110**= 24V-110W Lead-Calcium **24LSM220**= 24V-220W Lead-Calcium **LC Series** **24LC300**= 24V-300W Lead-Calcium **24LC350**= 24V-350W Lead-Calcium **24LC400**= 24V-400W Lead-Calcium	**-0**= No heads **-1**= 1 head **-2**= 2 heads **-3**= 3 heads	**Blank**= EF18 (PAR 36 plastic) **28**= EF28 (PAR 36 metal) **9**= EF9 mini plastic **10**= EF10 mini plastic MR16 **32**= EF32 cylinder lamp heads **150**= EF150 MR16 lamp heads	**I_**= Incandescent DC-bayonet **Z_**= Incandescent wedge **M_**= Halogen MR16* **LL**= 24V-4W, MR16 LED * Available with EF10 & 150 only ** Available with EF18 & EF28 only NOTE: For a complete list of available lamp types, please refer to the lamp data on pages 146-147	**Blank**= No options **-AD**= Advanced diagnostics* **-ADNA**= Diagnostics non-audible* **-NEX**= Nexus® wired **-NEXRF**= Nexus® wireless **-V**= Voltmeter (A cabinet units. Choose A or V only) **-A**= Ammeter* **-D1**= Time Delay (5 minutes) **-D2**= Time Delay (10 minutes) **-D3**= Time Delay (15 minutes) **-CP**= Cord and plug 120V** **-E**= Cord and plug 277V * Minimum lamp load required: 20% of unit capacity. Not available with 24V-100W Ni-Cd ** Standard cord is 3 ft.

Example: **24LSC100-2150MH**

TYPE: _____

CATALOG #: _____

NOTES: _____

nexus

X10 LED Series

Steel LED Exit & Mini- System Combination Units

SPEC GRADE

COMMERCIAL

Features

- Red or green LED light sources.
- Constructed of rugged 20 gauge steel. Off-white or black epoxy powder finish
- Available with sealed, maintenance-free Nickel-Cadmium, Long Life Lead or Lead-Calcium batteries
- PulsePlus charger circuitry offers 120/277VAC 60Hz, 0.3/0.15A (other inputs available), fused output circuit, pilot and charge indicator lights, temperature compensation, sealed relay, low voltage battery disconnect, brownout protection and lock out (automatic battery connect)
- Universal mounting, single or double face, stencil or open face are available
- UL Listed. Exceeds UL Exit Visibility Requirement
- 3-year full warranty

Power Consumption (Mini-System Combination Units)

120/277VAC 60Hz, 03/0.15 Amp.

Unit Rating

(Total DC power available for local and remote emergency lights.)

UNIT EQUIPMENT - MINI-SYSTEM						
Battery Type	D.C. Voltage	Model Number	Watts to 87-1/2% of rated battery voltage*			
			1-1/2 hrs	2 hrs	3 hrs	4 hrs
Lead-Calcium	6	SBX14	30	20	15	10
Nickel-Cadmium	6	STX14	24	18	12	9

*National Electrical Code Specification

Power Consumption (LED Exit Signs)

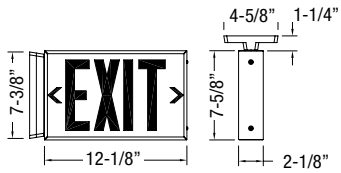
Model	AC Specs		DC Specs	
AC-only: L-X14	120 to 277 VAC	Less than 1.5W	–	–
AC/DC: DCL-X14	120 to 277 VAC	Less than 1.5W	6 to 24 VDC	Less than 1.5W
Self-Powered: L-SNX14	120 to 277 VAC	Less than 3W	Nickel-Cadmium	Min. 90 minutes
Mini-System	120/277VAC	0.3/0.15 Amp		

*National Electrical Code Specification

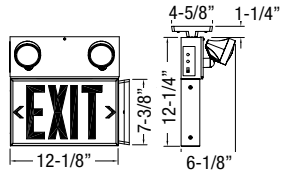
Dimensions

Dimensions are approximate and subject to change.

Exit Sign (SNX) Model Dimensions



Mini System Model Dimensions



Choice of Models

Mini-systems

Remote capacity L-SBX14 models

No EF9 mounted heads = 30W remote capacity

Two 5.4-watt EF9 mounted heads = 19W remote capacity

Remote capacity L-STX14 models

No EF9 mounted heads = 24W remote capacity

Two 5.4-watt EF9 mounted heads = 13W remote capacity

Exit Sign

AC input: universal 2-wire 120 to 277VAC 50/60Hz

AC/DC models: universal 2-wire 6 to 24VDC

Self-Powered models: long-life, sealed Nickel-Cadmium battery

Accessories (order as a separate item)

DESCRIPTION	SUFFIX
White Pendant	P-WT*
Black Pendant	P-BK*
Wire Guard Ceiling Mount (Exit Only)	WG5-E
Wire Guard End Mount (Exit Only)	WG5-E
Wire Guard For Wall Mount (AC Only, AC/DC & Self-Powered Exit Signs)	WG12-E
Wire Guard For Wall Mount (Mini System or Combo)	WG6-E

How to Order

DC INPUT	SERIES	HOUSING COLOR	BATTERY TYPE	LEGEND COLORS	# OF HEADS	LAMP TYPE	OPTIONS
Blank= No DC input **DC**= 6V to 24VDC* * Only available on Exit Sign models	**L**= LED Exit sign	**W**= White **B**= Black **A**= Textured aluminum #- Other color	**Exit Sign Models** **X14**= AC only or AC/DC **SNX14**= Ni-Cd 120/277VAC input (only for DC) **Mini System Models** **SBX14**= 6V-30W Lead-Calcium **STX14**= 6V-24W Nickel-Cadmium	**R**= Red **G**= Green **Open face** **RW**= Red/white **WR**= White/red **GW**= Green/white **WG**= White/green (Open face required with special wording legends)	**Blank**= No head **-1**= 1 head **-2**= 2 heads	**H_**= Halogen bi-pin **I_**= Incandescent DC-bayonet **U_**= Incandescent sealed-beam** **X_**= Halogen sealed-beam** **Z_**= Incandescent wedge **M_**= Halogen MR16* **L_**= MR16 LED* * Available with 10 & 150 lamp head only ** Available with EF18 only NOTE: For a complete list of available lamp types, please refer to the lamp data on pages 146-147	**Blank**= No options **-NEX**= NEXUS® wired (consult your sales representative)* **-NEXRF**= NEXUS® wireless (consult your sales representative)* **D1**= Time Delay (5 minutes) **D2**= Time Delay (10 minutes) **D3**= Time Delay (15 minutes) **-2CKT**= Dual circuit (AC Only) **-FL**= Flasher* **-FZ**= Flasher buzzer combination* **-FA**= Fire alarm activated flasher* **-L**= Brushed aluminum face **-VR**= Vandal-resistant screws * Mini-System Combination Units only

Example: **DCLWX14R-VR**

TYPE: _____
CATALOG #: _____
NOTES: _____

Prestige™ Economizer Series

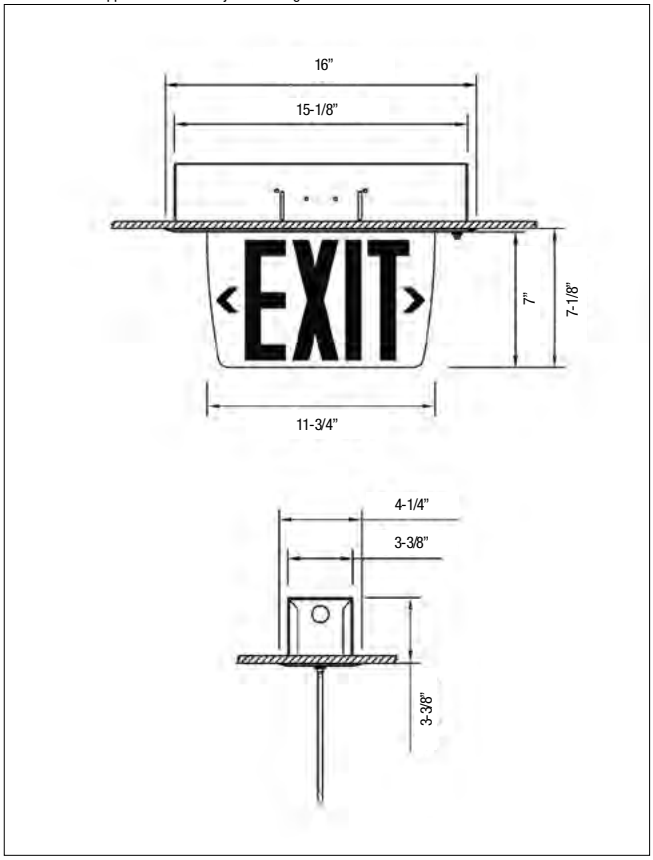
Recessed Mount Edge-Lit Exit Sign

Features

- Rugged, 20-gauge steel back box
- Equipped with bar hanger kit for easy installation
- Formed steel flat trim plate
- Choice of finishes: textured aluminum or off-white
- Acrylic panel with curved contour provides superior clarity and illumination
- Legend with a choice of red or green letters
- Choice of legend background: clear, white (red legend only) or mirror
- Stick-on translucent directional chevrons for field installation
- Simple, two-wire universal AC input (120V to 277VAC 50/60Hz) prevents installation errors
- Sealed Nickel-Cadmium batteries provide 90 minutes of emergency lighting
- Simple, two-wire universal DC input: 6V to 24 VDC
- Long-life LED light for low maintenance costs and superior illumination
- Energy efficient power consumption: less than 2.5W for single or double face legends
- UL 924 Listed

Dimensions

Dimensions are approximate and subject to change.



Power Consumption

Model	AC Specs		DC Specs	
AC-only	120 to 277VAC	Less than 1.5W	–	–
AC/DC-remote	120 to 277VAC	Less than 1.5W	6 to 24VDC	Less than 1.5W
Self-Powered	120 to 277VAC	Less than 2.5W	Ni-Cd battery	Min. 90 minutes

How to Order (Surface Mount Series)

HOUSING COLOR	SERIES	TRIM	FACE	LEGEND COLOR
TA= Textured aluminum **OW**= Off white	**PE**= AC **PES**= AC/DC **PEN**= Self-Powered	**F**= Recessed flat trim	**1**= Single face **2**= Double face	**RC**= Red on clear* **RW**= Red on white **RM**= Red on mirror **GC**= Green on clear* **GM**= Green on mirror *Single face only

Example: **TAPEF1RC**

TYPE: _____

CATALOG #: _____

NOTES: _____

Prestige™ Economizer Series

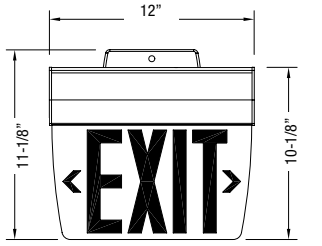
Slim Profile Surface Mount LED Edge-Lit Exit Sign

Features

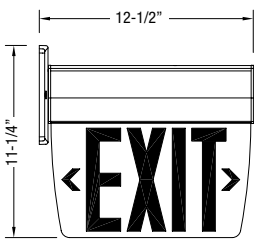
- Acrylic panel with curved contour provides superior clarity and illumination. Long-life LED light for low maintenance costs and superior illumination
- Legend with a choice of red or green six-inch letters, and easy-to-add field-installed stick-on translucent directional arrows. Choice of legend background: clear, white or mirror
- Slim-profile extruded aluminum housing with slim-profile Die-Cast aluminum canopy. Choice of finishes: textured aluminum or off-white
- Energy efficient power consumption: less than 3W for Self-Powered version and less than 2 watts for AC only single or double face
- Available with sealed Nickel-Cadmium batteries that provide 90 minutes of emergency lighting
- Simple, two-wire universal AC input (120V to 277VAC 60Hz) prevents installation errors. Simple, two-wire universal DC input: 6V to 24VDC
- Universal surface mounting: wall, ceiling or end mount. Click-to-open housing door allows easy access to the panel and electrical wiring. For recessed mount please consult your sales representative
- UL 924 Listed
- 3-year full warranty, subject to proper installation and maintenance

Dimensions

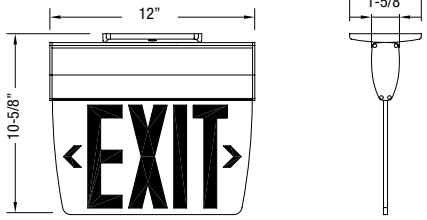
Dimensions are approximate and subject to change.



Wall Mount



End Mount



Ceiling Mount

Accessories (order as a separate item)

DESCRIPTION	SUFFIX
White	PE-P-WH*
Black	PE-P-BK*

Power Consumption

Model	AC Specs		DC Specs	
AC-only	120 to 277VAC	Less than 2W	–	–
AC/DC	120 to 277VAC	Less than 2W	6 to 24VDC	Less than 1.5W
Self-Powered	120 to 277VAC	Less than 3W	Ni-Cd battery	Min. 90 minutes

How to Order (Surface Mount Series)

HOUSING COLOR	SERIES	FACE	LEGEND COLOR
TA= Textured aluminum **OW**= Off white	**PE**= AC **PES**= AC/DC **PEN**= Self-Powered	**1**= Single face **2**= Double face	**RC**= Red on clear* **RW**= Red on white **RM**= Red on mirror **GC**= Green on clear* **GM**= Green on mirror * Single face only

Example: **TAPE1RC**

nexus ADVANCED AD DIAGNOSTICS

TYPE: _____
CATALOG #: _____
NOTES: _____

Preceptor™ Series
Die-Cast Aluminum LED Exit Sign

Features

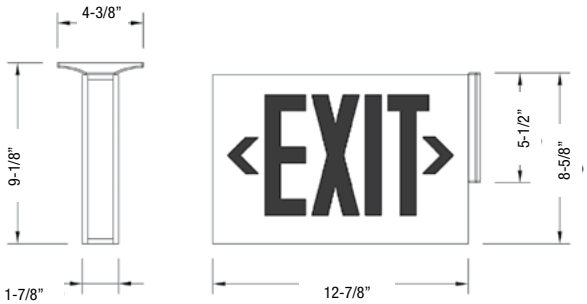
- Housing of Die-Cast aluminum in a variety of finishes
- Slim-line canopy for top and end mounting
- Universal mounting for wall, end, or ceiling
- Universal, field-selectable knock-out chevrons
- Long-life red or green LED light source.
- Dual voltage input: 120/277VAC 60Hz
- Low power consumption: less than 3W in any configuration
- Self-Powered models with sealed maintenance-free Nickel-Cadmium batteries
- UL 924 Listed
- 5-year full warranty

Power Consumption

Model	AC Specs		DC Specs	
AC-only	120/277VAC	Less than 2.5W	–	–
AC/DC-remote	120/277VAC	Less than 2W	6 to 24VDC	Less than 1.5W
Self-Powered	120/277VAC	Less than 3W	Ni-Cd battery	Min. 90 minutes
Self-Powered with Diagnostic	120/277VAC	Less than 2.8W	Ni-Cd battery	Min. 90 minutes

Dimensions

Dimensions are approximate and subject to change.



How to Order

HOUSING COLOR	SERIES/MODELS	# OF FACES	LEGEND COLOR	OPTIONS
BA= Black body/aluminum face **WW**= White body/white face **WA**= White body/aluminum face **BB**= Black body/black face **AA**= Brushed aluminum body and face Other colors available	**Standard Models** **P**= AC only (120/277 volts) **PU**= 120/277VAC & 6 to 24VDC **PXN**= Self-Powered diagnostic Ni-Cd **PDN**= Self-Powered Ni-Cd, No AD **Optional Models** **P2C1**= Dual AC circuit (2 x 120V) **P2C2**= Dual AC circuit (2 x 277V) **PNEX**= NEXUS® wired (consult your sales representative) **PNEXRF**= NEXUS® wireless (consult your sales representative)	**1**= Single face **2**= Double face	**R**= Red **G**= Green **Open Face** **RW**= Red on white **GW**= Green on white Note: Open face required with special wording legends	**Blank**= No options **DL**= Damp Location **FZ**= Flasher buzzer* **FL**= Flasher* **FA**= Fire alarm activated flasher (Not available with PDN) **FBF**= Flasher buzzer + fire alarm activated flasher* **VR**= Tamper-proof screws** **VR1**= Polycarbonate shield with tamper-proof screws** * PXN, PNEX and PNEXFR models only ** Please specify single or double face red or green

Example: **BAPU2R**

TYPE: _____

CATALOG #: _____

NOTES: _____

US

Preceptor™ Recessed Series

Die-Cast LED Exit Sign

SPEC GRADE

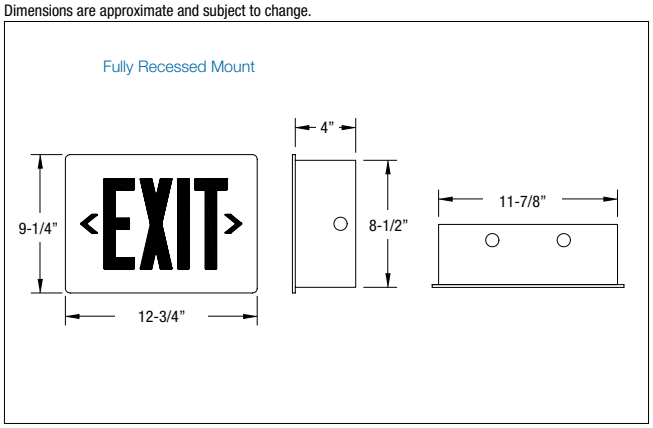
COMMERCIAL

Features

- LED light sources. Long life LEDs eliminate the twice-a-year re-lamping typical of incandescent lamps
- Self-Powered models are self contained; batteries and circuitry are located inside the exit housing
- Available with sealed maintenance-free Nickel-Cadmium batteries to provide 90 minutes of emergency illumination
- Two-wire universal input 120 through 277VAC, 60Hz
- Diagnostic / Self Test circuitry is standard on all Self-Powered models. This circuitry is programmed to ensure the exit sign's readiness and reliability by continuously monitoring every critical function of the unit. If a problem occurs, a single "service required" indicator illuminates immediately. A detailed diagnostic display sign that will further indicate the nature of the fault is located on the inside of the exit sign, out of sight from the general public. The self test will test the unit for 30 seconds every 30 days, 30 minutes every 60 days and 90 minutes annually
- Unaffected by the vibrations, ambient temperature swings and typical power surges detrimental to standard exit light sources
- 5-year full warranty
- UL Listed

Dimensions

Dimensions are approximate and subject to change.



Power Consumption

Model	AC Specs		DC Specs	
AC-only	120 to 277VAC	1.4W	–	–
Self-Powered	120 to 277VAC	1.7W	Ni-Cd battery	Min. 90 minutes

Choice of Models

AC-Only Models:
120 through 277VAC, 60Hz universal input.

"**Self-Powered Models** are self contained, batteries and circuitry are located inside the exit housing": 120 through 277VAC, 50/60Hz universal input.

Sealed maintenance free Nickel-Cadmium battery provides 90 minutes of emergency illumination.

How to Order

RECESSED	FACE COLOR	SERIES	# OF FACES	LEGEND COLOR	OPTIONS	VERSION
FR= Fully recessed	**Blank**= Aluminum face **B**= Black face **W**= White face **PB**= Polished brass face **CH**= Polished chrome face **BZ**= Dark bronze face Custom color vailable, consult your sales representative	**LEDP**= AC only **LEDPXN**= Self-Powered Ni-Cd	**1**= Single face	**R**= Red **G**= Green **RW**= Red on white (Open face) **GW**= Green on white (Open face)	**FZ**= Flasher buzzer (Self-Powered) **FA**= Fire alarm activated flasher (Self-Powered) **DL**= Damp Location **VR**= Vandal-resistant screws **VR1**= Polycarbonate shield with tamper-proof screws **-2CKT**= Dual circuit operation (AC models only)	**-N**= New design

Example: **FRBLEDP1R-VR1-N**

SPEC GRADE

COMMERCIAL

TYPE: _____

CATALOG #: _____

NOTES: _____

Preceptor™ Remote Capacity Series

Die-Cast Aluminum Remote Capacity Exit Sign

Features

- Long-life, high-performance, low power consumption, red or green LEDs provide even illumination in normal and emergency modes.
- Constructed of Die-Cast aluminum with a power canopy that houses the battery, input transformer and printed circuit board. The standard unit color is a black frame with a brushed aluminum face. Specify single or double face as required.
- Available with sealed maintenance-free Lead-Calcium or Nickel-Metal Hydride (cadmium-free, environmentally friendly) batteries.
- Can be ceiling, end or back mounted to the power canopy. The power canopy surface mounts directly to the junction box (supplied by others).
- UL Listed. Complies with NEC, Life Safety Code and OSHA.
- 5-year full warranty.

Accessories (order as a separate item)

DESCRIPTION	SUFFIX
Wire Guard, Back Mount	WG13-E
Wire Guard, Ceiling Mount	WG14-E

Application Flexibility

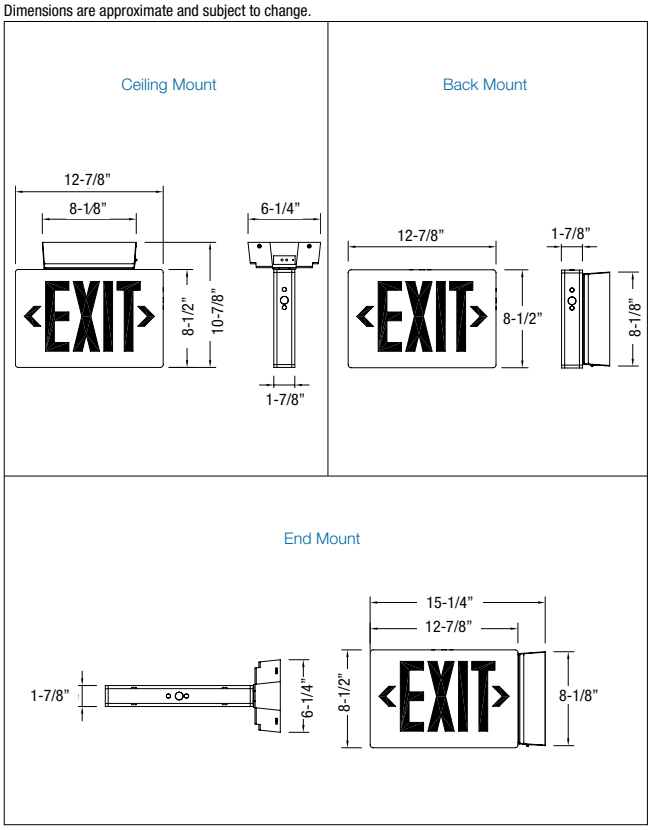
Lead-Calcium Models (RCL) - Sealed, maintenance-free Lead-Calcium batteries power the exit sign for an estimated period of 20+ hours minimum with no remote load or 90-minutes run time with 9 watts remote load.

Nickel-Metal Hydride Models (RCN) - Sealed, maintenance-free Nickel-Metal Hydride batteries power the exit sign for an estimated period of 20+ hours minimum with no remote load or 90-minutes run time with 12 watts remote load.

Nickel-Metal Hydride Models (RCX) - Sealed, maintenance-free Nickel-Metal Hydride batteries power the exit sign for an estimated period of 40+ hours minimum with no remote load or 90-minutes run time with 24 watts remote load.

Dimensions

Dimensions are approximate and subject to change.



Power Consumption & Unit Rating Chart

Series	AC Specs		DC SPECS - WATTS TO 87-1/2% OF RATED BATTERY VOLTAGE*					
	AC Input	Maximum	Voltage	Battery	1-1/2 hrs.	2 hrs.	3 hrs.	4 hrs.
RCL	120/277VAC, 60Hz	0.13/0.06A 15W	6V	Lead-Calcium	9	–	–	–
RCN			6V	NiMH	12	9	–	–
RCX			6V	NiMH	24	18	12	9

* National Electrical Code Specification

How to Order

HOUSING COLOR	SERIES	BATTERY TYPE	# OF FACES	LEGEND COLOR	OPTIONS
BA= Black body/aluminum face **BB**= Black body/black face **WW**= White body/white face **WA**= White body/aluminum face **AA**= Brushed aluminum body and face	**P**= Preceptor	**RCL**= Sealed Lead-Calcium, 9W remote capacity **RCN**= Sealed Nickel-Metal Hydride, 12W remote capacity **RCX**= Sealed Nickel-Metal Hydride, 24W remote capacity	**1**= Single face **2**= Double face	**R**= Red **G**= Green **RW**= Red on white (Open face required for special wording) **GW**= Green on white (Open face required for special wording)	**AD**= Advanced Diagnostics (audible) **ADNA**= Advanced Diagnostics (non-audible) **D1**= Time Delay (5 minutes) **D2**= Time Delay (10 minutes) **D3**= Time Delay (15 minutes) **FZ**= Flasher buzzer **FA**= Fire alarm activated flasher **DL**= Damp Location **VR**= Vandal-resist screws **VR1**= Vandal-resistant polycarbonate lens and screws

Example: **BAPRCL2R**

TYPE: _____

CATALOG #: _____

NOTES: _____

Special Wording Series

Custom Illuminated Signage

Features

- The same sturdy construction and electrical design used in our exit signs is used to produce our custom-worded, illuminated signage
- Sign bodies are available in steel, extruded and Die-Cast aluminum, weatherproof, flame-retardant polycarbonate, high impact thermoplastic and recessed housing
- Also available with combination units
- Custom wording with available in any style of lettering, any language, and alphabet, any special characters
- Graphics can include logos, standard symbols and custom art
- Color choices for sign bodies, message and faceplate panel
- Ilumination from LED (light-emitting diodes); other light sources available
- Contact your local Emergi-Lite® sales representative to discuss your specific requirements

Illuminated Signage

Custom-worded, illuminated signage is available using the same sturdy construction and electrical design as Emergi-Lite® exit signage. A wide range of sign body options and color choices are available to suit any application.

TYPE: _____

CATALOG #: _____

NOTES: _____

nexus NEMA-4X ADVANCED AD DIAGNOSTICS

Survive-All™ SV Series

NEMA-4X, NSF, Vandal-Resistant Housing Battery Unit

SPEC GRADE

INDUSTRIAL

Features

- Equipped with a tool-less MR16 swivel lamp assembly to provide precise beam control. Choice of MR16 LED or halogen lamps of 6V and 12V
- Fully gasketed cast aluminum back plate with clear, UV resistant polycarbonate cover. Tamper-proof screws and bit are included. Available in black, white or gray
- Standard temperature 50°F to 104°F (10°C to 40°C).
- Available with sealed, maintenance-free Nickel-Cadmium (UL Listed for damp and wet locations), or Lead-Calcium batteries
- Standard 120/277VAC 0.3/0.15A input. Non-audible advanced diagnostic charger board, 15 minute Time Delay and lamp disconnect. Audible warning and Time Delay functions can be enabled or disabled during installation. Non-obtrusive, magnetic test switch. Micro-controller diagnostic system tests, detects and indicates battery, charger circuitry or MR16 lamp failures.
- Wall, strut or beam mounting
- UL Listed. Certified to meet UL924 standards, 90 minutes of emergency operation, NEMA-4X rated for high abuse areas, wet locations and cold weather (-40°F/-40°C) applications, NSF Certified for use in food processing plants
- 3-year full warranty, excluding lamps and fuses

Accessories (order as a separate item)

DESCRIPTION	PART NUMBER
Additional special bit for tamper-proof screws	690.0454-E
Universal bracket (for mounting on poles, I-beams or strut metal framing)	PMK-E

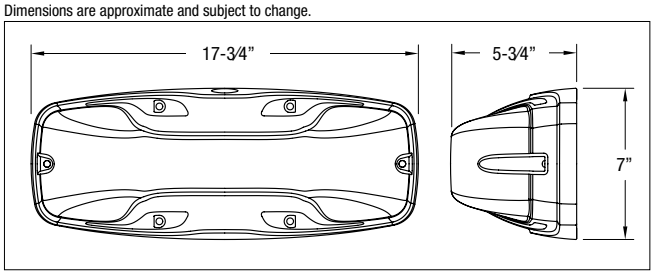
Applications

- Hosedown areas / car washes
- Food processing / preparation facilities
- Marine locations
- Chemical plants
- Schools and other public facilities
- Parking garages
- Food processing / preparation facilities
- Transit platforms
- Sports arenas / swimming pools
- Security areas / prisons
- Warehouse and cold storage facilities
- Heavy industrial facilities

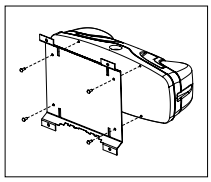
Note: Units installed outdoors must be in a shaded area (Lead-Calcium batteries)

Dimensions

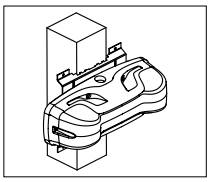
Dimensions are approximate and subject to change.



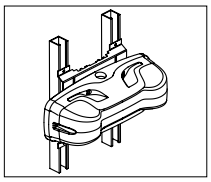
Universal Bracket



PMK KIT
(screws included)



BEAM MOUNTING



STRUT MOUNTING

Unit Rating

UNIT EQUIPMENT - WITH REMOTE CAPABILITY				
Sealed Maintenance-Free Battery Types	Watts to 87-1/2% of rated battery voltage*			
	1-1/2 hrs	2 hrs	3 hrs	4 hrs
Lead-Calcium	18	12	8	–
	24	16	12	8
	36	24	20	14
	54	36	27	20
Nickel-Cadmium	24	18	12	8
	40	27	20	14
Nickel-Metal Hydride	60	40	30	20

* National Electrical Code Specification.

How to Order

COLOR	SERIES	# OF LAMPS	LAMPS	DIAGNOSTICS	OPTIONS
B= Black **G**= Gray **W**= White	**SV18M**= 6V-18W Lead-Calcium **12SV24M**= 12V-24W Lead-Calcium **12SV36M**= 12V-36W Lead-Calcium **12SV54M**= 12V-54W Lead-Calcium **12SV24N**= 12V-24W Nickel-Cadmium* **12SV40N**= 12V-40W Nickel-Cadmium* **12SV60H**= 12V-60W NiMH* *= Suitable for Damp-Locations 50°F to 104°F (10°C to 40°C)	**-2**= 2 Lamps	**LA**= 6V-4W, MR16 LED **LG**= 12V-4W, MR16 LED **LI**= 12V-5W, MR16 LED **LJ**= 12V-6W, MR16 LED **MI**= 6V-6W, MR16 **MK**= 12V-12W, MR16 **MW**= 12V-20W, MR16-IR	**-DA**= Advanced Diagnostics (audible)* **-D**= Advanced Diagnostics (non-audible)* **-NEX**= NEXUS® wired (consult your sales representative) **-NEXRF**= NEXUS® wireless (consult your sales representative) * Minimum lamp load: 20% of unit capacity	**Blank**= No options **CW4**= Cold weather -40°F to 104°F (-40°C to +40°C)* * Only available with 12SV24M & 12SV36M Not available with NEX and NEXRF option

Example: **B12SV36M-2LG-DCW4**

nexus NEMA-4X

TYPE: _____
CATALOG #: _____
NOTES: _____

Survive-All™ SVX Series

NEMA-4X, Vandal Resistant and Harsh Environment Combination Unit

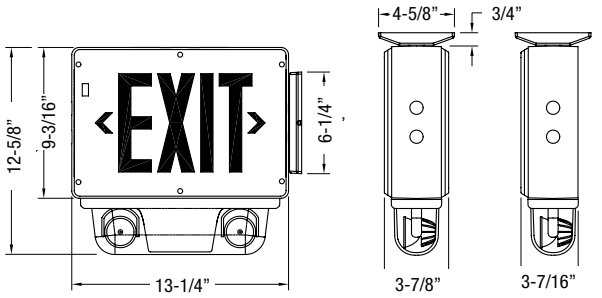
Features

- Each unit comes with two (2) MR16 high intensity lamps (standard). Fully field-adjustable lamp head assembly offers the option of selecting either a halogen lamp or a high efficiency white LED light source for optimum illumination over the path of egress. Exit light source LED
- Rugged PVC body will not dent, peel or corrode. The sealed faceplate is constructed with a heavy duty, vandal-resistant polycarbonate cover and fastened with stainless steel tamper-resistant screws
- Available with sealed, maintenance-free Nickel-Cadmium batteries
- This circuitry is programmed to ensure the exit combination unit's readiness and reliability by continuously monitoring every critical function of the unit. If a problem occurs, a single "Service Required" indicator illuminates immediately. A detailed diagnostic display that will further indicate the nature of the fault is located on the inside of the exit sign, out of sight from the general public. The self test will check the unit for a minimum of 30 seconds every 30 days, 30 minutes every 60 days and 90 minutes annually. PulsePlus Charger circuitry offers 120/277 volt input 60 Hz, 0.3/0.15 Amps (other inputs available), fused output circuit(s), dual diagnostic indicator lights, temperature compensated charger, sealed relay, low voltage battery disconnect, brownout protection and lockout (automatic battery connect). Magnetically operated test switch
- Can be wall, end or ceiling mounted
- NEMA 4X* Rated. UL Listed. Listed for wet and Damp Locations 50°F to 104°F (+10°C/+40°C)
- 5-year full warranty, excluding lamps and fuses

* Nema-4X Certified for wall or ceiling mounting only

Dimensions

Dimensions are approximate and subject to change.



Dimensions without heads | Double Face | Single Face

Unit Rating

Sealed Maintenance-Free Battery Types	Watts to 87-1/2% of rated battery voltage*			
	1-1/2 hrs	2 hrs	3 hrs	4 hrs
Nickel-Cadmium	12	9	–	–
	24	18	12	9

* National Electrical Code Specification.

Power Consumption

Model	AC Specs		DC Specs (90 minutes)	
SVX12N	120/277VAC	0.12/0.06A 13W	6V	12W
SVX24N	120/277VAC	0.17/0.08A 19W	12V	24W

Accessories (order as a separate item)

DESCRIPTION	PART NUMBER
Additional special bit for tamper-proof screws	690.0454-E
Additional test magnet	199.0133-E

Applications

- Hosedown areas / car washes
- Food processing / preparation facilities
- Marine locations
- Chemical plants
- Schools and other public facilities
- Parking garages
- Transit platforms
- Sports arenas / swimming pools
- Security areas / prisons
- Warehouse and cold storage facilities
- Heavy industrial facilities

Note: Units installed outdoors must be in a shaded area (Lead-Calcium batteries)

How to Order

HOUSING/FACE COLOR	SERIES/ CAPACITY	FACES	LEGEND COLOR	DIAGNOSTICS	HOUSING	# OF HEADS	LAMP TYPE/ WATTAGE	OPTIONS
WW= White/white **WB**= White/black **WA**= White/ aluminum **BB**= Black/black **BW**= Black/white **BA**= Black/ aluminum **GA**= Gray/ aluminum **GW**= Gray/white **GB**= Gray/black	**SVX12N**= 6V-12W **SVX24N**= 12V-24W	**1**= Single face **2**= Doubleface	**R**= Red legend **G**= Green legend	**DA**= Advanced Diagnostics (audible) **D**= Advanced Diagnostics (non-audible) **NEX**= NEXUS® wired * **NEXRF**= NEXUS® wireless* * Consult your sales representative	**4X**= Wet/ Damp Locations	**Blank**= 0 heads* **2**= Two heads * A remote load must be connected	**LA**= 6V-4W, MR16 LED **LG**= 12V-4W, MR16 LED **LI**= 12V-5W, MR16 LED **LJ**= 12V-6W, MR16 LED **MI**= 6V-6W, MR16 **MK**= 12V-12W, MR16	**Blank**= No options **CW4**= Cold weather (-40°F/-40°C)* **FA**= Flasher (fire alarm activated) **F/B**= Flasher/buzzer (AC power failure) **FL**= Flasher (AC power failure) **-208V**= 208VAC, 60Hz input **-240V**= 240VAC, 60Hz input **-208V50HZ**= 208VAC, 50Hz input **-CM**= Canopy pendant mount * Single face only

Example: **WWSVX12N1RD4X2LGCW4**

TYPE: _____

CATALOG #: _____

NOTES: _____

NEMA-4X nexus

Survive-All™ SVX Exit Series

NEMA-4X Rated and UL Listed for Wet and Damp Locations

SPEC GRADE

INDUSTRIAL

Features

Reliability

The Survive-All™ SVX Series has a 5-year full warranty.

Unit Data - NEMA-4X* Rated

Rugged polyvinyl chloride body will not dent, peel, rust or corrode. The sealed faceplate is constructed of heavy duty, vandal-resistant polycarbonate and features an evenly illuminated legend. The fully gasketed faceplate is fastened with stainless steel tamper-resistant screws. Magnetically operated test switch. Models can be wall, end or ceiling mounted. Legend and chevron complies with UL and CSA requirements.

Survive-All™ SVX Series signs are unaffected by the vibrations, ambient temperature swings and typical power surges detrimental to standard exit light sources.

NEMA 4X* Rated. UL Listed. Listed for wet and Damp Locations 50°F to 104°F (+10°C/+40°C)

* Nema-4X Certified for wall or ceiling mounting only

Accessories (order as a separate item)

DESCRIPTION	PART NUMBER
Tamper-proof bit	690.0454-E
Convert single to double face, red	DFKR*
Convert single face to double face, green	DFKG*

* Colors available AL-BK-WT

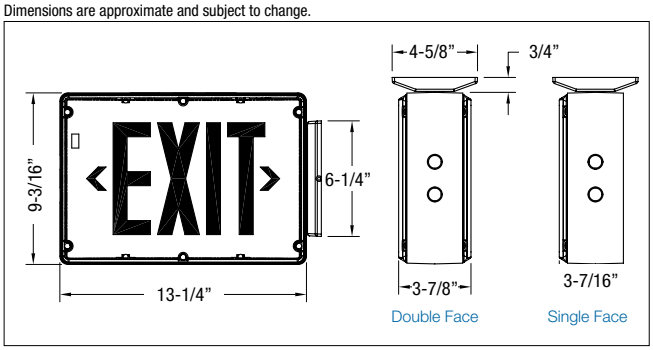
Applications

- Hosedown areas / car washes
- Food processing / preparation facilities
- Marine locations
- Chemical plants
- Schools and other public facilities
- Parking garages
- Food processing / preparation facilities
- Transit platforms
- Sports arenas / swimming pools
- Security areas / prisons
- Warehouse and cold storage facilities
- Heavy industrial facilities

Note: Units installed outdoors must be in a shaded area (Lead-Calcium batteries)

Dimensions

Dimensions are approximate and subject to change.



High Performance Circuitry

- Self Contained – Batteries and circuitry located inside the exit housing.
- Continuous self-diagnostic monitoring and monthly self testing.
- Fully automatic charger is solid state.
- AC, AC/DC and Self-Powered Models have universal, 2-wire input 120V to 277VAC 50/60 Hz.
- Sealed, maintenance-free Nickel-Cadmium battery provides 90 minutes of emergency operation.
- Battery recharges per UL924 requirements.
- Each unit comes standard with one tamper-proof driver bit.

Power Consumption (LED Exit Signs)

Model	AC Specs		DC Specs	
AC-only	120 to 277VAC	1.2W	–	–
AC/DC	120 to 277VAC	1.2W	6 to 24VDC	Less than 1.5W
Self-Powered	120 to 277VAC	3.7W	Nickel-Cadmium	Min. 90 minutes

How to Order

HOUSING COLOR	SERIES	FACE	LEGEND	DIAGNOSTIC	HOUSING	OPTIONS
BB= Black/black **BW**= Black/white **BA**= Black/aluminum **GB**= Gray/black **GW**= Gray/white **GA**= Gray/aluminum **WB**= White/black **WW**= White/white **WA**= White/aluminum	**SVX**= AC only **SVXN**= Self-Powered Ni-Cd	**1**= Single **2**= Double	**R**= Red **G**= Green	**Blank**= Standard **D**= Diagnostic (Self-Powered only) **NEX**= NEXUS® wired (consult your sales representative) **NEXRF**= NEXUS® wireless (consult your sales representative)	**4X**= Wet/Damp Locations* * NEMA 4X rated for wall or ceiling mount only	**Blank**= No options **2CKT**= Dual circuit (AC only)* **CW**= Cold weather (Self-Powered -4°F to 77°F / -20°C to 25°C – AC/DC -40°F to 77°F / -40°C to 25°C) **DC**= 6 to 48 VDC** **FA**= Fire alarm activated flasher* **FL**= Flasher only* **FZ**= Flasher/buzzer (Self-Powered only)* *Not available with Nexus® option **Not available with Self-Power

Example: **BBSVXN1RD4X-FA**

NEMA-4X

TYPE: _____
CATALOG #: _____
NOTES: _____

Survive-All™ EF39 & EF40 Series

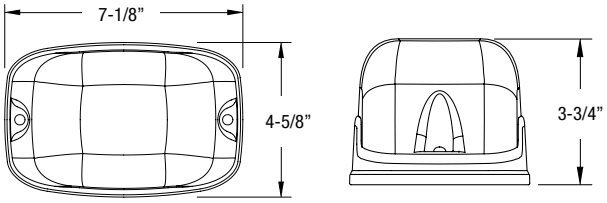
EF39: NEMA-4X & NSF Certified
EF40: Vandal Resistant

Features

- Fully gasketed with a selection of cast aluminum or polycarbonate back plate
- Clear polycarbonate UV and impact resistant-lens
- Choice of single or double lamp models
- Available in 6, 12 and 24V models MR16 or LED
- Easy lamp replacement
- EF39 comes standard with tamper-proof screws and bit
- NSF Certified for food processing plants
- NEMA-4X Certified
- EF39P and EF40P require mounting plate option when installed on surface mount junction box
- CSA Certified to C22.2 No. 141
- Suitable for indoor/outdoor installation

Dimensions

Dimensions are approximate and subject to change.



Accessories (order as a separate item)

DESCRIPTION	PART NUMBER
Additional special bit for tamper-proof screws	690.0454-E

How to Order EF39 Series

SERIES	LAMP TYPE/WATTAGE		LAMP TYPE	OPTION
EF39P= All polycarbonate single head NEMA-4X **EF39PD**= All polycarbonate double head NEMA-4X	**(MI)**= 6V-6W, MR16 **(MJ)**= 6V-10W, MR16 **(MK)**= 12V-12W, MR16 **(MS)**= 24V-12W, MR16	**(LA)**= 6V-4W, MR16 LED **(LG)**= 12V-4W, MR16 LED **(LI)**= 12V-5W, MR16 LED **(LL)**= 24V-4W, MR16 LED **(LJ)**= 12V-6W, MR16 LED	**Blank**= White **-BK**= Black **-GY**= Gray	**SM**= Mounting plate

Example: **EF39P(LG)-BK**

SERIES	LAMP TYPE/WATTAGE		LAMP TYPE
EF39= Die-Cast back plate single head NEMA-4X **EF39D**= Die-Cast back plate double head NEMA-4X	**(MI)**= 6V-6W, MR16 **(MJ)**= 6V-10W, MR16 **(MK)**= 12V-12W, MR16 **(MS)**= 24V-12W , MR16 **(MD)**= 24V-20W, MR16 **(MW)**= 12V-20W, MR16-IR	**(LA)**= 6V-4W, MR16 LED **(LG)**= 12V-4W, MR16 LED **(LI)**= 12V-5W, MR16 LED **(LL)**= 24V-4W, MR16 LED **(LJ)**= 12V-6W, MR16 LED	**Blank**= White **-BK**= Black **-GY**= Gray

Example: **EF39(LG)-BK**

How to Order EF40 Series

SERIES	LAMP TYPE/WATTAGE		LAMP TYPE	OPTIONS
EF40P= All polycarbonate single head for dry location **EF40PD**= All polycarbonate double head for dry location	**(MI)**= 6V-6W, MR16 **(MJ)**= 6V-10W, MR16 **(MK)**= 12V-12W, MR16 **(MS)**= 24V-12W, MR16	**(LA)**= 6V-4W, MR16 LED **(LG)**= 12V-4W, MR16 LED **(LI)**= 12V-5W, MR16 LED **(LL)**= 24V-4W, MR16 LED **(LJ)**= 12V-6W, MR16 LED	**Blank**= White **-BK**= Black **-GY**= Gray	**Blank**= No options **T**= Tamper proof screws **SM**= Mounting plate

Example: **EF40P(MK)**

SERIES	LAMP TYPE/WATTAGE		LAMP TYPE	OPTIONS
EF40= Die-Cast back plate single head for dry location **EF40D**= Die-Cast back plate double head for dry location	**(MI)**= 6V-6W, MR16 **(MJ)**= 6V-10W, MR16 **(MK)**= 12V-12W, MR16 **(MS)**= 24V-12W , MR16 **(MD)**= 24V-20W, MR16 **(MW)**= 12V-20W, MR16-IR	**(LA)**= 6V-4W, MR16 LED **(LG)**= 12V-4W, MR16 LED **(LI)**= 12V-5W, MR16 LED **(LL)**= 24V-4W, MR16 LED **(LJ)**= 12V-6W, MR16 LED	**Blank**= White **-BK**= Black **-GY**= Gray	**Blank**= No options **T**= Tamper proof screws

Example: **EF40D(MD)**

TYPE: _____

CATALOG #: _____

NOTES: _____

HZM Series

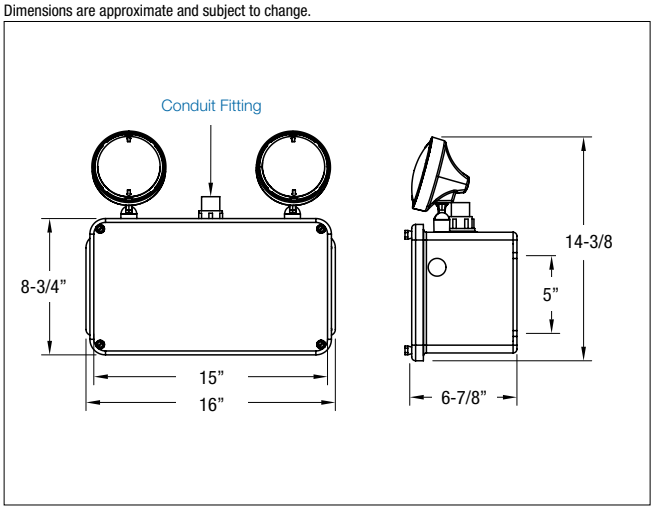
6 and 12 Volt, Class I Division 2, Group A, B, C & D

Features

- Each unit comes with two (2) weather-resistant, impact-resistant, flame-retardant thermoplastic EF-11 lamp heads with 12 watt high intensity sealed beam tungsten halogen lamps (standard)
- Temperature code: T4A (max. 248ºF/120ºC)
- Water and corrosion-resistant cabinet is made of fiberglass-reinforced polyester. Industrial gray cabinet is fully gasketed around the cover. Battery compartment is vented with a breather vent designed to permit exhaust of battery gases without admitting external moisture or corrosives
- Available with sealed, maintenance-free Lead-Calcium batteries
- Fully automatic pulse charger offers 120/277VAC, 60Hz, 0.43/0.2 A, limited current temperature compensation, short circuit proof, reverse polarity protected, low voltage battery disconnect, brownout protection and standard solid state transfer feature
- PAR36 sealed-beam halogen lamps (see lamp selection chart below)
- Standard Self-Diagnostic circuitry continuously monitors every critical function of the unit. If a problem occurs, a single fault indicator on the outside of the fixture flashes immediately. A detailed diagnostic display is located internally. The detailed display will further indicate the nature of the fault as either a battery fault, load fault or a charger fault
- UL Listed. Complies with NEC, Life Safety Code and OSHA. The test switch and AC pilot light are explosion proof in design and exceed requirements for Class I, Division 2, Group A, B, C & D
- 3-year full warranty, excluding lamps, pilot lights and fuses.

Dimensions

Dimensions are approximate and subject to change.



Unit Rating

Furnished standard with two 12W High Intensity Sealed Beam Halogen lamps.

Sealed Maintenance-Free Battery Types	D.C Voltage	Model Number	Watts to 87-1/2% of rated battery voltage*			
			1-1/2 hrs	2 hrs	3 hrs	4 hrs
Lead-Calcium	6	6HZM24-2	24	18	10	6
	12	12HZM56-2	56	37	21	12

* National Electrical Code Specification.

Accessories (order as a separate item)

DESCRIPTION	PART NUMBER
Wire Guard	WG3-E

How to Order

Note: Includes standard lamps. For standard units without options only order Series Number.

SERIES	# OF HEADS	LAMP TYPE	OPTIONS
6HZM24= 6V-24W, Lead-Calcium **12HZM56**= 12V-56W, Lead-Calcium	**-0**= No head **-1**= One head **-2**= Two heads	**XB**= 6V-8W halogen sealed beam **XD**= 6V-12W halogen sealed beam **XF**= 12V-8W halogen sealed beam **XG**= 12V-12W halogen sealed beam Temperature code: T4A (max. 248ºF/120ºC) No other lamp type available	**-D1**= Time Delay (5 minutes) **-D2**= Time Delay (10 minutes) **-D3**= Time Delay (15 minutes) **-H1**= 120V Thermal Jacket Heater (recommended for ambient temperature) **-H2**= 277V Thermal Jacket Heater (recommended for ambient temperature) **-TC**= Shatter resistant teflon coated lens

Example: **6HZM24-2XB-H1**

nexus

US

TYPE: _____

CATALOG #: _____

NOTES: _____

Survive-All™ SVH Series

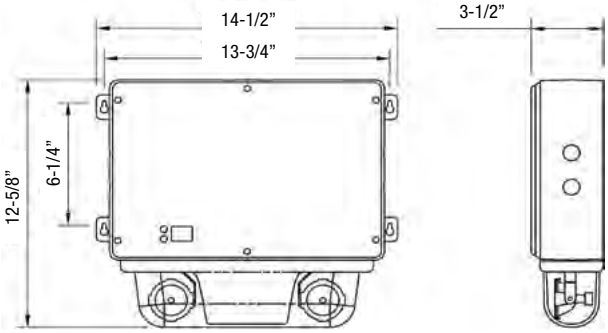
Hazardous Location Battery Unit

Features

- Evaluated to the UL 844 Standard for Class I Division 2, Groups A, B, C and D
- A range of lamp ratings are available for different temperature codes
- Evaluated to the UL924 Standard
- Certified for use in Damp and Wet locations.
- Ambient temperature: 10… 40°C (50… 104°F)
- Advanced Diagnostics option available
- Lead-Calcium batteries are sealed, maintenance-free, with up to 72W emergency power
- Choice of MR16 LED or halogen lamps, shielded by a clear polycarbonate cover
- Two MR16 LED lamps illuminate up to a 60 ft path of egress
- Remote load capacity: illuminate up to a 420 ft path of egress with LED remote heads
- Polyvinyl chloride frame, with built-in gasket to prevent water infiltration
- Heavy-duty 1/8-inch thick aluminum back plate with keyholes for secure wall-mount installation
- Built-in microcontroller-based battery charger and self-test/ self-diagnostic circuitry
- 3/4-inch electrical conduit entry on both sides and at the top

Dimensions

Dimensions are approximate and subject to change.



Temperature Codes

Lamp Rating	Temperature Code	Max. Temperature	Replacement Part #
6V-4W	T4A	120°C	580.0097
6V-10W	T3C	160°C	580.0079
12V-4W	T4A	120°C	580.0080
12V-5W	T4A	120°C	580.0104
12V-12W	T3A	180°C	580.0080
12V-20W-H	T2D	215°C	580.0068

Note: Use qualified replacement lamps to avoid risk of over-heating

Power Consumption

Model	AC Specs		Wattage Capacity				
			1-1/2 hrs	2 hrs	3 hrs	4 hrs	8 hrs
SVH18	120/277VAC	0.17 / 0.09 Amp	18	12	9	–	–
12SVH36		0.30 / 0.15 Amp	36	27	18	14	–
12SVH60		0.30 / 0.15 Amp	60	45	30	24	12
12SVH72		0.30 / 0.15 Amp	72	54	36	28	14

How to Order

COLOR	VOLTAGE AND POWER	# OF HEADS	LAMPS	OPTIONS
G= Gray	**SVH18M**= 6V-18W, Lead-Calcium **12SVH36M**= 12V-36W, Lead-Calcium **12SVH60M**= 12V-60W, Lead-Calcium **12SVH72M**= 12V-72W, Lead-Calcium	**-2**= Two heads **-0**= No heads	**LA**= 6V-4W, 2 X MR16 LED **LG**= 12V-4W, 2 X MR16 LED **LI**= 12V-5W, 2 X MR16 LED **MK**= 12V-12W, MR16 **MW**= 12V-20W, MR16-IR high-output	**-DA**= Advanced Diagnostics (audible)* **-D**= Advanced Diagnostics (non-audible)* **-D3**= Time delay (15 minutes) **-NEX**= NEXUS® wired (consult your sales representative)* **-NEXRF**= NEXUS® wireless (consult your sales representative)* (12SVH only) * Minimum lamp load required: 20% of unit capacity

Example: **G12SVH72M-2MK-DA**

TYPE: _____

CATALOG #: _____

NOTES: _____

nexus ADVANCED AD DIAGNOSTICS

US

Survive-All™ SVXH Series

Hazardous Location Combination and Emergency Battery Unit

SPEC GRADE

INDUSTRIAL

Features

- Exit sign module is illuminated by long-life, energy-efficient LEDs. Fully field adjustable lamp head assembly comes standard with a selection of two (2) MR16 halogen lamps for optimum illumination over the path of egress. Lamps are shielded by a cast aluminum housing and a polycarbonate cover
- Rugged PVC body will not dent, peel or corrode. The sealed faceplate has a heavy-duty, vandal-resistant polycarbonate cover and is fastened with stainless steel tamper-resistant screws. The polyvinyl chloride frame has a built-in gasket to prevent water infiltration. The heavy-duty 1/8" thick aluminum back plate has keyholes for secure wall mount installation
- Available with sealed, maintenance-free Nickel-Cadmium, or Nickel-Metal Hydride batteries
- Fully automatic pulse charger offers 120/277VAC, 60Hz, current limiting temperature compensation, short circuit proof, low voltage battery disconnect, brownout protection and standard solid state transfer feature. The test switch is magnetically operated
- Advanced Diagnostic circuitry is standard on all Self-Powered models. This circuitry is programmed to ensure the combination unit's readiness and reliability by continuously monitoring every critical function of the unit. If a problem occurs, a single "Service Required" indicator illuminates immediately. A detailed diagnostic display that will further indicate the nature of the fault is located on the inside of the exit sign, out of sight from the general public. The self test will test the unit for a minimum of 30 seconds every 30 days, 30 minutes every 60 days and 90 minutes annually
- Designed for wall-mount installation only with a 1/2" electrical conduit entry on both sides and at the top.
- Evaluated to UL 924 standard and to UL 844 standard for hazardous locations: Class I Division 2, Groups A, B, C and D. A range of lamp ratings are available for different temperature codes
- 5-year full warranty, excluding lamps and fuses

Accessories (order as a separate item)

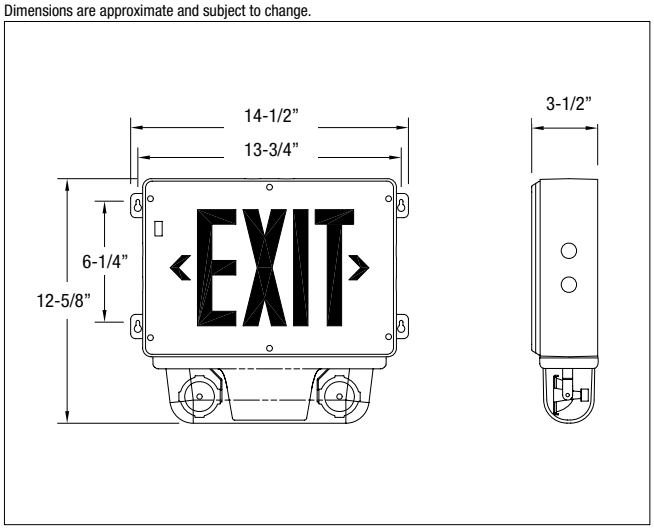
DESCRIPTION	PART NUMBER
Additional special bit for tamper-proof screws	690.0454-E

Applications

- Manufacturing Plants
- Chemical plants
- Paint Shops
- Gas Stations
- Moisture, Dirt or Dust Concerns
- Oil Refineries
- Wet or Corrosive Conditions

Dimensions

Dimensions are approximate and subject to change.



Temperature Codes

Lamp Rating	Temperatude Code	Max. Temperature	Replacement Part #
6V-10W	T3C	320°F/160°C	580.0079-E
12V-12W	T3A	356°F/180°C	580.0080-E
12V-20W	T2D	419°F/215°C	580.0068-E
6V-4W LED	T4A	248°F/120°C	580.0097-E
12V-4W LED	T4A	248°F/120°C	580.0093-E
12V-5W LED	T4A	248°F/120°C	580.0104-E

Note: Use qualified replacement lamps to avoid risk of over-heating

Power Consumption Chart

Model	AC Input	Maximum		Stand-by		Unit Rating*			
		Current	Power	Current	Power	1½ hrs	2 hrs	3 hrs	4 hrs
SVXH	120/277VAC	0.15/0.07A	16W	0.09/0.03A	8W	20	15	–	–
SVXH12N	120/277VAC	0.30/0.08A	29W	0.13/0.05A	10W	24	18	12	–
SVXH12H	120/277VAC	0.30/0.08A	29W	0.13/0.05A	10W	40	30	20	12

* Watts to 87-1/2% of rated battery voltage

How to Order

HOUSING/FACE COLOR	SERIES/CAPACITY	LEGEND COLOR	DIAGNOSTICS	# OF HEADS	LAMP TYPE/WATTAGE*
GG= Gray/gray	**SVXH**= 6V-20W, Ni-Cd **SVXH12N**= 12V-24W, Ni-Cd **SVXH12H**= 12V-40W, NiMH	**R**= Red **G**= Green	**DA**= Advanced Diagnostics (audible) **D**= Advanced Diagnostics (non-audible) **NEX**= NEXUS® wired* **NEXRF**= NEXUS® wireless* * Consult your sales representative	**Blank**= 0 head* **2**= Two heads * A remote load must be connected	**LA**= 6V-4W, MR16 LED **LG**= 12V-4W, MR16 LED **LI**= 12V-5W, MR16 LED **MK**= 12V-12W MR16 **MJ**= 6V-10W MR16 **MW**= 12V-20W MR16 IR high output * No other lamp option available

Example: **GGSVXHRD2MJ**

TYPE: _____
CATALOG #: _____
NOTES: _____

Survive-All™ SVX-HZ Series

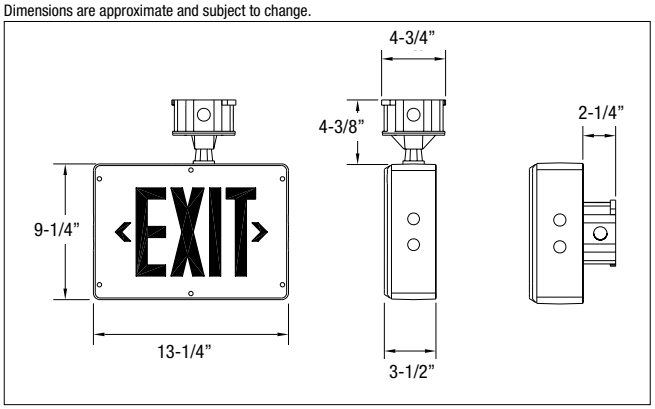
Hazardous Location Exit Sign

Features

- Energy efficient: consumes less than 2.5 watts in any configuration. Exit sign illuminated by long-life, energy-efficient LEDs.
- Single face heavy-duty 1/8" thick aluminum back plate. Polyvinyl chloride frame, with built-in gasket to prevent water infiltration. Will not dent, peel, rust or corrode. The sealed, heavy-duty, vandal-resistant polycarbonate faceplate features an evenly illuminated legend. The fully gasketed faceplate is fastened with stainless steel tamper-resistant screws. Self contained; batteries and circuitry are located inside the exit housing.
- Available with sealed, maintenance-free Nickel-Cadmium batteries that provide 90 minutes of emergency operation. Batteries recharge per UL924 requirements.
- AC and Self-Powered models have universal, 2-wire input 120V to 277VAC 50/60Hz.
- Tamper-resistant, hermetically sealed magnetic test switch for Self-Powered models.
- Diagnostic / Self Test circuitry is standard on all Self-Powered models. This circuitry is programmed to ensure the exit sign's readiness and reliability by continuously monitoring every critical function of the unit. If a problem occurs, a single "service required" indicator illuminates immediately. A detailed diagnostic display that will further indicate the nature of the fault is located on the inside of the exit sign, out of sight from the general public. The self test will test the unit for a minimum of 30 seconds every 30 days, 30 minutes every 60 days and 90 minutes annually.
- Can be wall, end or ceiling mounted. Comes standard with an industrial-grade, Die-Cast aluminum electrical box. 1/2" electrical conduit entry on both sides and at the top. Each unit comes standard with one tamper-proof driver bit.
- Legend and chevron comply with UL requirements. Evaluated to the UL 844 standard for Class I Division 2, Groups A, B, C and D, Temperature Code: T6 (maximum 185°F/85°C). Evaluated to UL 924 and UL1598 standards. Suitable for cold-weather: -4°F/-20°C (Self-Powered model, "CW" option) and -40°F/-40°C (AC only).
- 5-year full warranty

Dimensions

Dimensions are approximate and subject to change.



Power Consumption

Model	AC Specs		DC Specs	
AC-only red	120 to 277VAC	Less than 2W	–	–
AC-only green	120 to 277VAC	Less than 1.5W	–	–
Self-Powered red	120 to 277VAC	Less than 2W	Ni-Cd battery	Min. 90 minutes
Self-Powered green	120 to 277VAC	Less than 2.5W	Ni-Cd battery	Min. 90 minutes

* Note: Cold-weather option does not consume additional power

Accessories (order as a separate item)

DESCRIPTION	PART NUMBER
Tamper-Proof Bit (extra)	690.0454-E
Convert single to double face, red*	DFKR-GY
Convert single face to double face, green*	DFKG-GY

* In the field

Applications

- Manufacturing Plants
- Chemical plants
- Paint Shops
- Gas Stations
- Moisture, Dirt or Dust Concerns
- Oil Refineries
- Wet or Corrosive Conditions

How to Order

COLOR OF BODY/FACE	SERIES	FACE	LEGEND	DIAGNOSTIC	OPTIONS
GG= Gray/gray	**SVXHZ**= AC only **SVXNHZ**= Self-Powered Ni-Cd	**1**= Single (ceiling/ wall mount) **2**= Double (ceiling mount only)	**R**= Red **G**= Green	**-D**= Diagnostic (Self-Powered only) **-NEX**= NEXUS® wired (consult your sales representative)	**Blank**= AC only **CW**= Cold weather (-4°F/-20°C for Self-Powered and -40°F/ -40°C for AC only)

Example: **GGSVXNHZ2R-DCW**

TYPE: _____

CATALOG #: _____

NOTES: _____

US

Survive-All™ EF41 Series

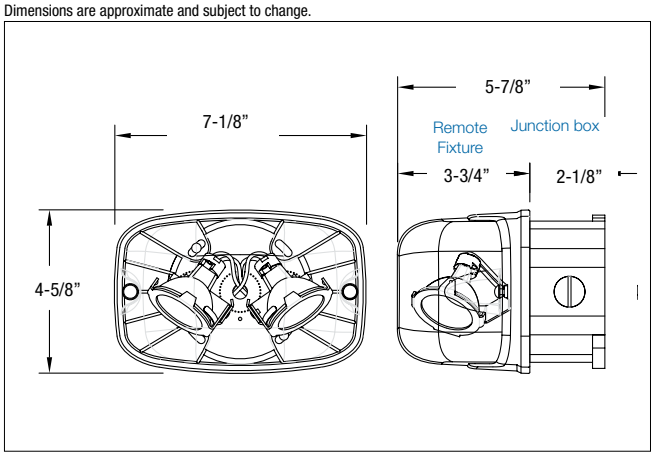
Remote Fixture for Hazardous Locations

Features

- Available with single or double lamp heads with high-efficiency MR16 halogen lamps of 10W, 12W or 20W (see How to Order information) and MR16 high-output LEDs (4W, 5W and 6W)
- Die-Cast aluminum back plate with gasket. Clear polycarbonate cover, UV and impact resistant
- Input voltage: 6V, 12V, 24V or 120V
- Easy installation on a 4" octagonal box (included). Comes standard with tamper-proof screws and bit
- Evaluated to UL 844 Standard for Class I Division 2, Groups A, B, C and D. Temperature Codes: T3B (10W and 12W MR16 lamps) and T2C (20W MR16 lamps) and T4A and T5 MR16 LED.
- Extreme operational temperature range: -40ºF to +104ºF (-40ºC to +40ºC)
- Indoor use
- Fully adjustable tool-less aiming swivel
- Tool-less easy lamp replacement
- Surface mount
- Conduit entry 1/2" NPT

Dimensions

Dimensions are approximate and subject to change.



Lamp Selection Chart and Temperature Code

Lamp Suffix	Voltage	Wattage	Lumens	Replacement #	Temperature Code	Max Temperature
MJ	6	10	74	580.0079-E	T3B	165°C
MK	12	12	80	580.0080-E	T3B	165°C
MW	12	20-H	400	580.0068-E	T2C	230°C
MS	24	12	82	580.0070-E	T3B	165°C
MD	24	20	240	580.0077-E	T2C	230°C
MT	120	20	100	580.0065-E	T2C	230°C
LA	6	4	200	580.0097-E	T4A	120°C
LG	12	4	220	580.0093-E	T5	100°C
LI	12	5	340	580.0104-E	T4A	120°C
LJ	12	6	540	580.0106-E	T4	135°C
LL	24	4	220	580.0098-E	T5	100°C
LW	120	4	230	580.0113-E	T4A	120°C

How to Order

SERIES	LAMP TYPE/WATTAGE	COLOR
EF41= Single **EF41D**= Double	**(LA)**= 6V-4W, MR16 LED **(LG)**= 12V-4W, MR16 LED **(LI)**= 12V-5W, MR16 LED **(LJ)**= 12V-6W, MR16 LED **(LL)**= 24V-4W, MR16 LED **(LW)**= 120V-4W, MR16 LED **(MJ)**= 6V-10W, MR16 **(MK)**= 12V-12W, MR16 **(MW)**= 12V-20W, MR16 IR high output **(MS)**= 24V-12W, MR16 **(MD)**= 24V-20W, MR16 **(MT)**= 120 VAC/VDC-20W MR16 (GU10)	**-GY**= Gray

Example: **EF41(MJ)-GY**

TYPE: _____

CATALOG #: _____

NOTES: _____

IL Series

6, 12 & 24 Volt Heavy Duty Industrial Emergency Power Unit

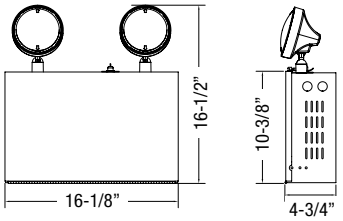
Features

- Each unit comes with two (2) impact resistant, flame retardant thermoplastic EF-18 lamp heads with 9 watt high intensity incandescent lamps (standard).
- All 20 gauge in steel construction ASA61 gray baked enamel finish.
- Available with sealed, maintenance-free Nickel-Cadmium, Long Life Lead, Lead-Calcium (Free Electrolyte) or Lead-Calcium batteries.
- PulsePlus Charger circuitry offers 120/277 volt input 60 Hz, 0.3/0.15A (other inputs available), fused output circuit(s), dual diagnostic indicator lights, temperature compensation, sealed relay, low voltage battery disconnect, brownout protection and lockout (automatic battery connect).
- Provision for mounting to any standard 4" octagonal electrical box. The hinged and lockable front door allows easy access for maintenance and provides security against unauthorized access and vandalism.
- UL Listed. Complies with NEC, Life Safety Code and OSHA. Approved for use in the Commonwealth of Pennsylvania.
- 3-year full warranty, excluding lamps and fuses.

Dimensions

Dimensions are approximate and subject to change.

Knockouts for 1/2" Conduit: -2 each side, 1 rear (7/8" Dia) knockout



Accessories (order as a separate item)

DESCRIPTION	SUFFIX
Mounting bracket	B2
Mounting shelves (gray)	MP3-GY
Wire Guard	WG3-E

Unit Rating Chart

Furnished standard with two 9 watt High Intensity Incandescent lamps.

Sealed Maintenance-Free Battery Types	D.C. Voltage	Model Number	Watts to 87-1/2% of rated battery voltage*				# of Load Fuses
			1-1/2 hrs	2 hrs	4 hrs	8 hrs	
UNIT EQUIPMENT - NO REMOTE CAPABILITY							
Nickel-Cadmium	6	ILSC18-2	18	12	6	–	–
Long Life Lead	6	ILSE18-2	18	11	6	–	–
Lead-Calcium	6	ILSM18-2	18	12	7	–	–
UNIT EQUIPMENT - WITH REMOTE CAPABILITY							
Nickel-Cadmium	6	ILSC25-2	25	18	9	–	–
	12	12ILSC36-2	36	21	12	6	1
	12	12ILSC50-2	50	36	18	10	1
	24	24ILSC72-2	72	42	24	12	2
	24	24ILSC100-2	100	73	36	20	2
Long Life Lead	6	ILSE27-2	27	16	10	6	–
	6	ILSE36-2	36	24	13	7	–
	6	ILSE54-2	54	36	20	11	–
	6	ILSE80-2	80	65	35	19	–
	6	ILSE110-2	110	72	40	24	–
	12	12ILSE36-2	36	24	13	7	1
	12	12ILSE54-2	54	37	21	10	1
	12	12ILSE72-2	72	48	26	14	2
	12	12ILSE110-2	110	74	43	21	2
	24	24ILSE72-2	72	48	26	14	2
	24	24ILSE110-2	110	74	43	21	2
Lead-Calcium (Immobilized Electrolyte)	6	ILC87-2	87	70	41	24	–
	6	ILC100-2	100	77	47	24	–
Lead-Calcium	6	ILSM27-2	27	18	10	6	–
	6	ILSM36-2	36	25	14	7	–
	6	ILSM54-2	54	37	21	12	–
	6	ILSM81-2	81	54	36	18	–
	6	ILSM110-2	110	72	40	24	–
	12	12ILSM36-2	36	25	14	7	1
	12	12ILSM54-2	54	37	21	12	1
	12	12ILSM110-2	110	72	40	24	2
	24	24ILSM110-2	110	72	40	24	2

* National Electrical Code Specification

TYPE: _____

CATALOG #: _____

NOTES: _____

IL Series

6, 12 & 24 Volt Heavy Duty Industrial Emergency Power Unit

How to Order

SERIES/VOLTAGE	UNIT CAPACITY	# OF HEADS	LAMP	OPTIONS
ILC= 6V	**87**= 87W Lead-Calcium **100**= 100W Lead-Calcium	**-0**= No head **-1**= One head **-2**= Two heads **-3**= Three heads	**Blank**= 6V-9W, 12V-9W, 24V-9W incandescent wedge base **H_**= Halogen bi-pin **Z_**= Tungsten incandescent **U_**= Tungsten sealed beam **X_**= Halogen sealed beam	**-AD**= Advanced Diagnostics (audible)* **-ADNA**= Advanced Diagnostics (non-audible)* **NEX**= NEXUS® wired (consult your sales representative)* **NEXRF**= NEXUS® wireless (consult your sales representative)* **-A**= Ammeter **-V**= Voltmeter **-CP**= Cord and plug 120V only **-D1**= Time Delay (5 minutes) **-D2**= Time Delay (10 minutes) **-D3**= Time Delay (15 minutes) **-E**= Cord and plug 277V** **-OW**= Off-white cabinet and heads
ILS= 6V	**C18**= 18W Ni-Cd **C25**= 25W Ni-Cd **E18**= 18W Long Life Lead **E27**= 27W Long Life Lead **E36**= 36W Long Life Lead **E50**= 50W Long Life Lead **E80**= 80W Long Life Lead **E110**= 110W Long Life Lead **M18**= 18W Lead-Calcium **M27**= 27W Lead-Calcium **M36**= 36W Lead-Calcium **M54**= 54W Lead-Calcium **M81**= 81W Lead-Calcium **M110**= 110W Lead-Calcium			
12ILS= 12V	**C36**= 36W Ni-Cd **C50**= 50W Ni-Cd **E36**= 36W Long Life Lead **E54**= 54W Long Life Lead **E80**= 80W Long Life Lead **E110**= 110W Long Life Lead **M36**= 36W Lead-Calcium **M54**= 54W Lead-Calcium **M110**= 110W Lead-Calcium			
24ILS= 24V	**C100**= 100W Ni-Cd **E72**= 72W Long Life Lead **E110**= 110W Long Life Lead **M110**= 110W Lead-Calcium **C72**= 72W Ni-Cd			
			NOTE: For a complete list of available lamp types, please refer to the lamp data on pages 146-147	* Minimum lamp load required: 20% of unit capacity Option not available with 24V-100W Ni-Cd units ** Standard cord is 3 ft

Example: **ILC87-2HB-A**

TYPE: _____

CATALOG #: _____

NOTES: _____

KS Steel Series

6, 12, 24 Volt

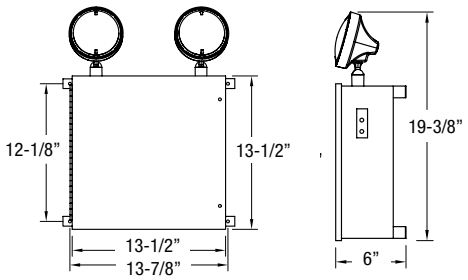
Harsh Environment Enclosure Power Unit

Features

- Up to three weather-resistant thermoplastic heads can be mounted on the enclosure. Each unit comes with two (2) 9W high intensity incandescent lamps (standard)
- Constructed of 14 gauge steel with a fully gasketed hinged door and separate battery compartment. Gray baked epoxy enamel finish
- Available with sealed, maintenance-free Nickel-Cadmium, Long Life Lead, Lead-Calcium (Free Electrolyte), or Lead-Calcium batteries
- PulsePlus Charger circuitry offers 120/277V input 60Hz, 0.3/0.15A (other inputs available), fused output circuit(s), dual diagnostic indicator lights, temperature compensation, sealed relay, low voltage battery disconnect, brownout protection and lockout (automatic battery connect)
- UL Listed. Complies with NEC, Life Safety Code and OSHA
- 3-year full warranty, excluding lamps and fuses

Dimensions

Dimensions are approximate and subject to change.



Unit Rating Chart

Furnished standard with two 9 watt High Intensity Incandescent lamps.

Sealed Maintenance-Free Battery Types	D.C. Voltage	Model Number	Watts to 87-1/2% of rated battery voltage*			
			1½ hrs	2 hrs	3 hrs	4 hrs
Nickel-Cadmium	6	KSC18-2	18	12	10	7
Long Life Lead	6	KSE18-2	18	11	8	6
UNIT EQUIPMENT - WITH REMOTE CAPABILITY						
Nickel-Cadmium	6	KSC25-2	25	18	9	5
	12	12KSC36-2	36	21	21	6
	12	12KSC50-2	50	36	18	10
	12	12KSC100-2	100	73	37	20
	24	24KSC100-2	100	73	37	20
Long Life Lead	6	KSE27-2	27	19	10	5
	6	KSE36-2	36	24	13	7
	6	KSE54-2	54	36	20	11
	6	KSE80-2	80	65	35	19
	6	KSE110-2	110	74	43	21
	6	KSE160-2	160	130	70	38
	12	12KSE36-2	36	24	13	7
	12	12KSE54-2	54	37	21	10
	12	12KSE110-2	110	74	43	21
	12	12KSE160-2	160	130	70	38
	24	24KSE110-2	110	74	43	21
Lead-Calcium (Immobilized Electrolyte)	6	KC87-2	87	70	41	24
	6	KC100-2	100	77	47	24
	6	KC175-2	175	140	85	48
	12	12KC175-2	175	140	85	48
Lead-Calcium	6	KSM27-2	27	18	10	6
	6	KSM54-2	54	37	21	12
	6	KSM81-2	81	54	30	18
	6	KSM110-2	110	72	40	24
	12	12KSM54-2	54	37	21	12
	12	12KSM110-2	110	72	40	24
	24	24KSM110-2	110	72	40	24

*National Electrical Code Specification

TYPE: _____

CATALOG #: _____

NOTES: _____

nexus ADVANCED AD DIAGNOSTICS

KS Steel Series

6, 12, 24 Volt

Harsh Environment Enclosure Power Unit

SPEC GRADE

INDUSTRIAL

How to Order

SERIES/VOLTAGE	UNIT CAPACITY	# OF HEADS	LAMP	OPTIONS
KS= 6V	**C18**= 6V-18W Ni-Cd **C25**= 6V-25W Ni-Cd **E18**= 6V-18W Long Life Lead **E27**= 6V-27W Long Life Lead **E36**= 6V-36W Long Life Lead **E54**= 6V-54W Long Life Lead **E80**= 6V-80W Long Life Lead **E110**= 6V-110W Long Life Lead **E160**= 6V-160W Long Life Lead **M27**= 6V-27W Lead-Acid **M54**= 6V-54W Lead-Acid **M81**= 6V-81W Lead-Acid **M110**= 6V-110W Lead-Acid	**-0**= No head **-1**= 1 head **-2**= 2 heads	**Blank**= 6V-9W, 12V-9W, 24V-9W incandescent wedge base **H_**= Halogen bi-pin **I_**= Incandescent DC-bayonet **U_**= Incandescent sealed-beam **X_**= Halogen sealed-beam **Z_**= Incandescent wedge	**-AD**= Advanced Diagnostics (audible)* **-ADNA**= Advanced Diagnostics (non-audible)* **NEX**= Nexus® wired (consult your sales representative)* **NEXRF**= Nexus® wireless (consult your sales representative)* **-V**= Voltmeter **-A**= Ammeter **-TD**= Time Delay **-D1**= Time Delay (5 minutes) **-D2**= Time Delay (10 minutes) **-D3**= Time Delay (15 minutes) **-K**= Lamp Disconnect Switch **-CP**= Cord and plug 120V for fiberglass enclosure** **-E**= Cord and plug 277V** **-S**= Photometric test switch **-VR**= Tamper proof screws **-FL**= Large cabinet **-TM**= Top mounted heads **-208V**= Input 208VAC, 50/60Hz
12KS= 12V	**C36**= 12V-36W Ni-Cd **C50**= 12V-50W Ni-Cd **C100**= 12V-100W Ni-Cd **E36**= 12V-36W Long Life Lead **E54**= 12V-36W Long Life Lead **E110**= 12V-110W Long Life Lead **E160**= 12V-160W Long Life Lead **M54**= 12V-54W Lead-Acid **M110**= 12V-110W Lead-Acid			
24KS= 24V	**C100**= 24V-100W Ni-Cd **E110**= 24V-110W Long Life Lead **M110**= 24V-110W Lead-Calcium			
K= 6V	**C87**= 6V-87W Lead-Calcium (free electrolytes) **C100**= 6V-100W Lead-Calcium (free electrolytes) **C175**= 6V-175W Lead-Calcium (free electrolytes)			
12K= 12V	**C175-2**= 12V-175W Lead-Calcium (free electrolytes)			

NOTE: For a complete list of available lamp types, please refer to the lamp data on pages 146-147

* Minimum lamp load required: 20% of unit capacity
Option not available on 24V-100W Ni-Cd units

** Standard cord is 3 ft.

Example: **KSC18-2HB-AD**

TYPE: _____
CATALOG #: _____
NOTES: _____

KS Series

6, 12 & 24 Volt
High Impact Enclosure Power Unit

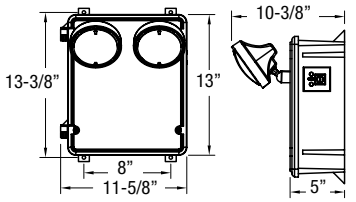
Features

- Each unit comes with two (2) 9W high intensity incandescent lamps (standard).
- Both the "S" and "L" enclosure are corrosion resistant. Both include separate battery compartments, fully gasketed door and stainless steel hardware. The "S" enclosure is constructed of high impact thermoplastic and the "L" enclosure is constructed of fiberglass and is NEMA 3R
- Available with sealed, maintenance-free Nickel-Cadmium, Long Life Lead, Lead-Calcium (Free Electrolyte) or Lead-Calcium batteries.
- PulsePlus Charger circuitry offers 120/277 volt input 60 Hz, 0.3/0.15A (other inputs available), fused output circuit(s), dual diagnostic indicator lights, temperature compensation, sealed relay, low voltage battery disconnect, brownout protection and lockout (automatic battery connect).
- UL Listed. Complies with NEC, Life Safety Code and OSHA.
- 3-year full warranty, excluding lamps and fuses.

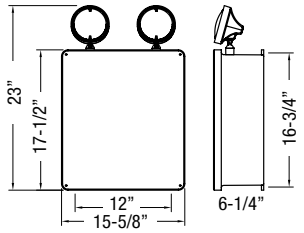
Dimensions

Dimensions are approximate and subject to change.

Small "S" Enclosure
High Impact Thermoplastic Construction



Large "L" Enclosure
Fiberglass Construction
NEMA-3R



Accessories (order as a separate item)

DESCRIPTION	SUFFIX
Wire Guard (Small enclosure)	WG3-E
Wire Guard (Large enclosure)	WG4-E

Unit Rating

UNIT EQUIPMENT - NO REMOTE CAPABILITY							
Sealed Maintenance-Free Battery Types	D.C. Voltage	Model Number	Watts to 87-1/2% of rated battery voltage*				Enclosure Size
			1-1/2 hrs	2 hrs	3 hrs	4 hrs	
Nickel-Cadmium	6	KSC18-2-F	18	12	10	7	S
Long Life Lead	6	KSE18-2-F	18	11	8	6	S
UNIT EQUIPMENT - WITH REMOTE CAPABILITY							
Nickel-Cadmium	6	KSC25-2-F	25	18	9	5	S
	12	12KSC36-2-F	36	21	21	6	S
	12	12KSC50-2-F	50	36	18	10	S
	12	12KSC100-2-F	100	73	37	20	S
	24	24KSC100-2-F	100	73	37	20	S
Long Life Lead	6	KSE27-2-F	27	19	10	5	S
	6	KSE36-2-F	36	24	13	7	S
	6	KSE54-2-F	54	36	20	11	S
	6	KSE80-2-F	80	65	35	19	S
	6	KSE110-2-F	110	74	43	21	S
	6	KSE160-2-F	160	130	70	38	L
	12	12KSE36-2-F	36	24	13	7	S
	12	12KSE54-2-F	54	37	21	10	S
	12	12KSE110-2-F	110	74	43	21	S
	12	12KSE160-2-F	160	130	70	38	L
	24	24KSE110-2-F	110	74	43	21	S
Lead-Calcium (Free Electrolyte)	6	KC87-2-F	87	70	41	24	S
	6	KC100-2-F	100	77	47	24	L
	6	KC175-2-F	175	140	82	48	L
	12	12KC175-2-F	175	140	85	48	L
Lead-Calcium	6	KSM27-2-F	27	18	10	6	S
	6	KSM54-2-F	54	37	21	12	S
	6	KSM81-2-F	81	54	30	18	S
	6	KSM110-2-F	110	72	40	24	S
	12	12KSM54-2-F	54	37	21	12	S
	12	12KSM110-2-F	110	72	40	24	S
	24	24KSM110-2-F	110	72	40	24	S

*National Electrical Code Specification

TYPE: _____

CATALOG #: _____

NOTES: _____

NEMA-3R

KS Series

6, 12 & 24 Volt

High Impact Enclosure Power Unit

How to Order

SERIES/VOLTAGE	UNIT CAPACITY	# OF HEADS	LAMP	ENCLOSURE TYPE	OPTIONS
KS= 6V	**C18**= 6V-18W Ni-Cd **C25**= 6V-25W Ni-Cd **E18**= 6V-18W Long Life Lead **E27**= 6V-27W Long Life Lead **E36**= 6V-36W Long Life Lead **E54**= 6V-54W Long Life Lead **E80**= 6V-80W Long Life Lead **E110**= 6V-110W Long Life Lead **E160**= 6V-160W Long Life Lead **M27**= 6V-27W Lead-Acid **M54**= 6V-54W Lead-Acid **M81**= 6V-81W Lead-Acid **M110**= 6V-110W Lead-Acid	**-0**= No head **-1**= 1 head **-2**= 2 heads	**Blank**= 6V-9W, 12V-9W, 24V-9W incandescent wedge base **H_**= Halogen bi-pin **I_**= Incandescent DC-bayonet **U_**= Incandescent sealed-beam **X_**= Halogen sealed-beam **Z_**= Incandescent wedge	**F**= Fiber glass or high impact thermoplastic	**-AD**= Advanced Diagnostics (audible)* **-ADNA**= Advanced Diagnostics (non-audible)* **NEX**= Nexus® wired (consult your sales representative)* **NEXRF**= Nexus® wireless (consult your sales representative)* **-V**= Voltmeter **-A**= Ammeter **-TD**= Time Delay **-D1**= Time Delay (5 minutes) **-D2**= Time Delay (10 minutes) **-D3**= Time Delay (15 minutes)** **-K**= Disconnect Switch **-CP**= Cord and plug 120V for fiberglass enclosure** **-E**= Cord and plug 277V** **-S**= Photometric test switch **-VR**= Tamper-proof screws **-FL**= Large cabinet **-TM**= Top mounted heads **-208V**= Input 208VAC, 50/60Hz
12KS= 12V	**C36**= 12V-36W Ni-Cd **C50**= 12V-50W Ni-Cd **C100**= 12V-100W Ni-Cd **E36**= 12V-36W Long Life Lead **E54**= 12V-36W Long Life Lead **E110**= 12V-110W Long Life Lead **E160**= 12V-160W Long Life Lead **M54**= 12V-54W Lead-Acid **M110**= 12V-110W Lead-Acid				
24KS= 24V	**C100**= 24V-100W Ni-Cd **E110**= 24V-110W Long Life Lead **M110**= 24V-110W Lead-Calcium				
K= 6V	**C87-2-F**= 6V-87W Lead-Calcium (free electrolytes) **C100-2-F**= 6V-100W Lead-Calcium (free electrolytes) **C175-2-F**= 6V-175W Lead-Calcium (free electrolytes)				
12K= 12V	**C175-2**= 12V-175W Lead-Calcium (free electrolytes)				

NOTE: For a complete list of available lamp types, please refer to the lamp data on pages 146-147

* Minimum lamp load required: 20% of unit capacity
Not available on 24V-100W Ni-Cd units
** Standard cord is 3 ft.

Example: **KS18-2HB-AD**

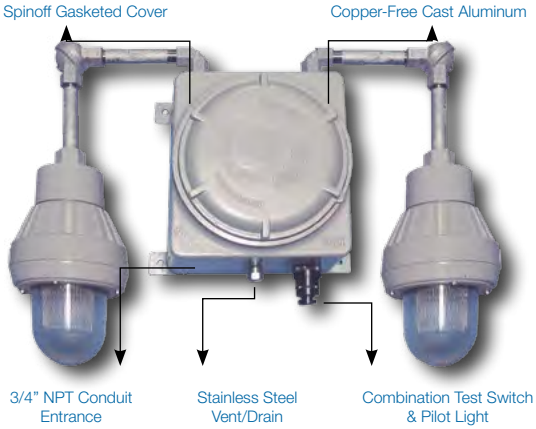
TYPE: _____
CATALOG #: _____
NOTES: _____

EXC Series

6 and 12 Volt – Class I, Div. 1 & 2, Groups C & D and Class II, Div. 1 & 2, Groups E, F & G Power Unit

Features

- Allows mounting up to 3 hazardous area fixtures directly on the power unit or remotely.
- Corrosion-resistant, copper-free cast aluminum construction. A weatherproof gasketed spinoff cover, UL listed stainless steel vent/drain and silicone conformal coating on the circuit board protect the electronics against humidity. Comes standard with epoxy finish for added corrosion protection in harsh environments.
- Available with sealed, maintenance-free Nickel-Cadmium batteries.
- Charger offers 120/277 VAC, 60 Hz, 0.3/0.15A, 36 watt (other inputs available), fused DC output circuit, AC pilot light supervision, temperature compensation, sealed relay, low voltage battery disconnect, brownout protection, lockout (automatic battery connect), solid state, current limited, constant current short circuit proof and reverse polarity protection.
- Meets hazardous location requirements: Class I Division 1 & 2 (Groups C & D), Class II Division 1 & 2 (Groups E, F & G).
- 3-year full warranty, excluding lamps, pilot lights, and fuses.



Fixtures

The **EXC Series** may be supplied with 1 or 2 hazardous fixtures mounted directly on the power unit and/or remotely as the application dictates (for remote fixtures, consult hazardous area fixture data sheet).

Lamp Fixtures (EP Series) See page 72: Fully directional U.L. listed copper-free cast aluminum construction, swivel-mounted, Pyrex® lens, complete with either 9, 18, or 25 watt HIT lamps (halogen optional). Available with optional guard or reflectors. Pyrex® is a registered trademark of Corning Glass.

Exit Fixtures (XP Series) See page 73: Mounted to the power unit, these exit signs are supplied standard with our unique integral transfer switch (TS) and utilize either a 6V-15W XX6 lamp or 12V-25W XX12 lamp. This enables the exit to operate in both the normal AC mode as well as DC mode. The exit sign consists of an EP fixture coupled with a heavy duty steel, baked enamel finish exit shroud with ample downlight. Supplied standard as a single face sign, red stencil faceplate; double face and green stencil also available.

For other legends, please consult your sales representative.

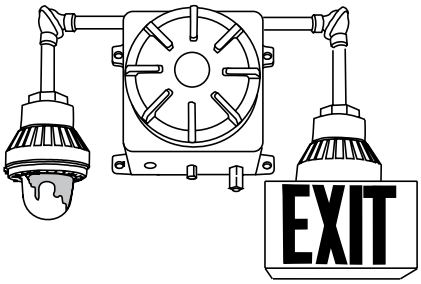
Dimensions

Dimensions are approximate and subject to change.

Housing:
12" X 12" X 91⁄2"
(4) Mounting Lugs:
10" and 131⁄2" on center

Overall dimensions (including fixtures):
38" X 38" X 10"

Note: Dimensions are approximate and are subject to change.



Unit Rating

UNIT EQUIPMENT - WITH REMOTE CAPABILITY						
Sealed Maintenance-Free Battery Types	D.C. Voltage	Model Number	Watts to 87-1/2% of rated battery voltage*			
			1-1/2 hrs	2 hrs	4 hrs	8 hrs
Nickel-Cadmium	6	EXC1	18	12	–	–
	6	EXC2	25	18	9	–
	6	EXC3	36	21	12	6
	6	EXC5	50	36	18	10
	12	1EXC3	36	21	12	6
	12	1EXC5	50	36	18	10
	12	1EXC7	72	42	24	12

*National Electrical Code Specification

TYPE: _____

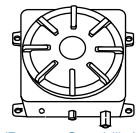
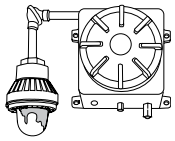
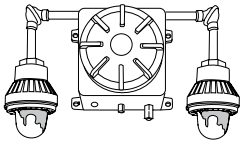
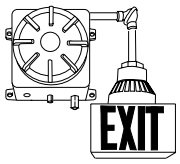
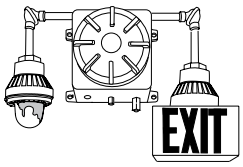
CATALOG #: _____

NOTES: _____

EXC Series

6 and 12 Volt – Class I, Div. 1 & 2, Groups C & D And Class II, Div. 1 & 2, Groups E, F & G Power Unit

Standard Configurations for EXC Series

UNIT	CATALOG NUMBER	DESCRIPTION
 (Remote Capability)	1EXC5-0 1EXC5-TS	12 volt, 50 watt self-contained hazardous area emergency lighting power unit complete with battery and charger. (No heads) 12 volt, 50 watt self-contained hazardous area emergency lighting power unit complete with battery, charger and transfer switch. (No heads)
	1EXC5-1IG 1EXC5-1IG-TS	12 volt, 50 watt, single head unit with 12 volt, 25 watt HIT lamp. (One head) 12 volt, 50 watt, single head unit with built-in transfer switch and 12 volt, 25 watt HIT lamp. (One head)
	EXC3-2IB EXC5-2IB-TS	6 volt, 36 watt, self-contained hazardous area emergency lighting power units complete with battery and charger. Fixture supplied with one (IB) 18 watt HIT lamp (Two heads) 6 volt, 50 watt, double head unit with built-in transfer switch and 12 volt, 25 watt HIT lamp (Two heads)
	EXC2-T1SR	6 volt, 15 watt, self-contained unit with integral low voltage transfer circuit (TS) to operate exit lamp in both normal and emergency modes. Suggested catalog number shown indicates single face exit with red stencil faceplate. For green, substitute G for R. For double face, substitute D for S. (One Exit sign)
	EXC-1HD-T1SR	6 volt, 50 watt unit. In addition to the exit lamp which operates in both normal and emergency modes, emergency lighting can be achieved with (1) additional emergency lighting head. (Example: HD = 6V-12W). (One head & one Exit sign)

Note: Above units are supplied with appropriate wattage (HIT) High Intensity Tungsten lamps (unless otherwise specified). Alternate wattages lamps or halogen lamps may be substituted as required.
Exit provided with 25 watt lamps only.

How to Order

The **EXC Series** is available with a wide variety of fixtures, mountings, voltages, etc. To make your selection easier, we have listed the standard configurations in the chart above. When ordering exit fixtures, additional to the basic catalog number, you must specify single or double face and color of faceplate.
Insert these suffix letters at the end of model number.

SERIES	CAPACITY	NO. OF FIXTURES	LAMPS*	EXIT SIGN*	OPTIONS
EXC= 6V **1EXC**= 12V	**1**= 18W (6V only) **2**= 25W (6V only) **3**= 36W (6V, 12V) **5**= 50W (6V, 12V) **7**= 72W (12V only)	**-0**= No remote **-1**= One remote **-2**= Two remotes	**Blank**= No lamps **HB**= 6V-8W bi-pin halogen **HD**= 6V-12W bi-pin halogen **HF**= 12V-8W bi-pin halogen **HG**= 12V-12W bi-pin halogen * Lamps for emergency lights	**Blank**= No exits **-T1SR**= Single face red **-T1SG**= Single face green **-T1DR**= Double face red **-T1DG**= Double face green * Exit lamp included	**Blank**= No options **TS**= Transfer switch **-D1**= Time Delay (5 minutes) **-D2**= Time Delay (10 minutes) **-D3**= Time Delay (15 minutes) **-RD**= Dome reflector **-RA**= Angle reflector **-GXP**= Aluminum guard

Example: **1EXC7-1HG-T1SR-D1**

EFEPC= Ceiling mount – 11 lbs.

EFEPP= Pendant Mount with hanger box & pendant – 14 lbs

TYPE: _____

CATALOG #: _____

NOTES: _____

EFEP Series

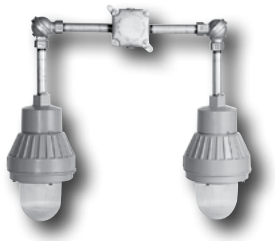
Remote Explosion-Proof Lighting Fixtures

Features

- Available with 6, 12 and 24V lamps for DC operation or 120V AC fixtures.
- Manufactured of heavy cast aluminum with an epoxy finish and a Pyrex® lens. All attached hardware has been designed for explosion-proof applications.
- Designed for mounting in locations that are remote from the power source. If the power source is installed outside hazardous areas, the length of connection wires should be carefully considered to ensure that the voltage of the emergency power unit and the wire size of the connecting circuit are adequate to offset the voltage drop in the circuit.
- EFEPP and EFEP1, 2 and 3 fixtures include elbows swivels, a conduit extension pipe (6" increments), and a combination explosion-proof junction box/mounting plate (4" box, 6 1/4" mounting center).
- Complies with NEC, OSHA and NEMA specifications for the following Classes and Groups:
  Class I, Division 1 & 2, Groups C & D (300W PS-25 max)
  Class II, Division 1 & 2, Groups E, F & G (60W max)
  Class III, Division 1 & 2 (150 watt max)
  UL Listed for use in Paint Spray Areas (75W max)
  Suitable for Wet Locations

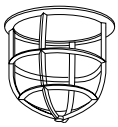
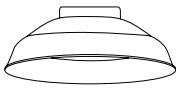
Pyrex® is a registered trademark of Corning Glass.

EFEPW= Wall bracket mount 14 lbs.



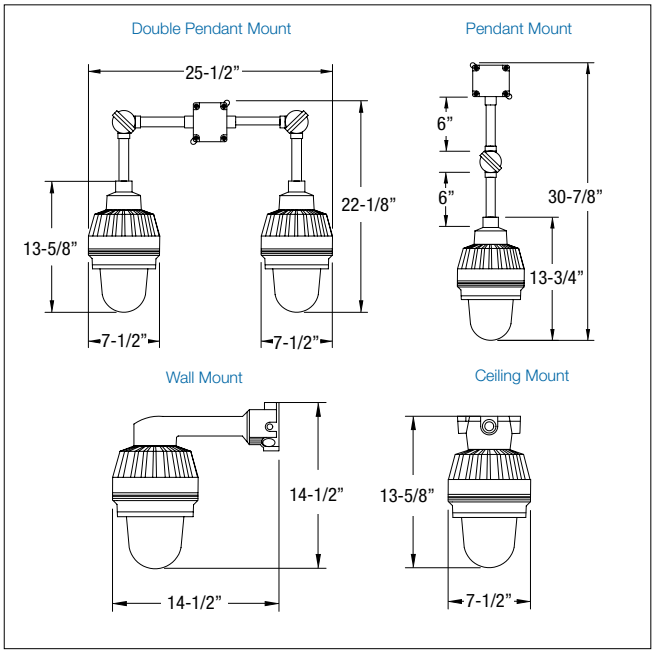
EFEP1= Single 12 lbs.
EFEP2= Double 21 lbs.
EFEP3= Triple 30 lbs.

Standard Configurations for EXC Series

UNIT	DESCRIPTION	SUFFIX
	**Guard** One-piece aluminum casting construction, attaches to globe holder ring with four screws.	GXP
	**Dome Reflector** Highly reflective white finish inside and out, attaches to globe holder ring with four screws.	RD
	**Angle Reflector** Highly reflective white finish inside and out, attaches to globe holder ring with four screws.	RA

Dimensions

Dimensions are approximate and subject to change.



How to Order

SERIES	MOUNTING	LAMPS	OPTIONS
EFEP= Remote series	**C**= Ceiling mount **P**= Pendant **W**= Wall **2**= Double pendant mount	**(HB)**= 6V-8W bi-pin halogen **(HD)**= 6V-12W bi-pin halogen **(XX6)**= 6V-15W bi-pin halogen **(HF)**= 12V-8W bi-pin halogen **(HG)**= 12V-12W bi-pin halogen **(AC)**= 120v-25W A19	**Blank**= No options **-GXP**= Aluminum guard **-RD**= Dome reflector **-RA**= Angle reflector

Example: **EFEPC(HB)-GXP**

TYPE: _____

CATALOG #: _____

NOTES: _____

EFXP Series

Explosion-Proof Remote Exit Signs

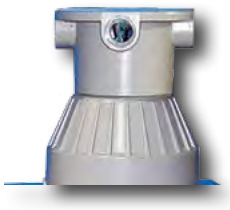
EFXPW= Wall Bracket Mount

Standard Features

- Available with 6, 12 and 24 volt lamps for DC operation or 120 volt AC fixtures
- Exits shown are explosion-proof fixtures of heavy cast aluminum construction with Pyrex® lenses. Exit housing is an 18 gauge fabricated steel box with a baked enamel finish. Stenciled exit lettering is available on one or two faces. All EFXP Series have extra large downlight openings
- EFXP units are designed for mounting in locations that are remote from the power source. If the power source is installed outside hazardous areas, the length of the connection wires should be carefully considered to ensure that the voltage of the emergency power unit and the wire size of the connecting circuit are adequate to offset the voltage drop in the circuit
- Complies with NEC, OSHA and NEMA specifications for the following Classes and Groups:
  Class I, Division 1 & 2, Groups C & D (300W PS-25 max)
  Class II, Division 1 & 2, Groups E, F & G (60W max)
  Class III, Division 1 & 2 (150W max)
  U.L. listed for use in Paint Spray Areas (75W max)
  Suitable for Wet Locations

Pyrex® is a registered trademark of Corning Glass.

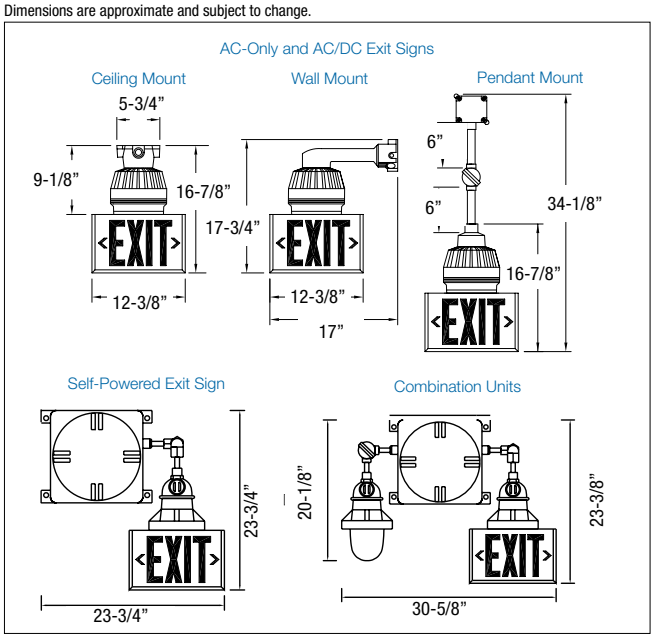
EFXPP= Adjustable Pendant Mount



EFXPC= Ceiling Mount

Dimensions

Dimensions are approximate and subject to change.



Mounting

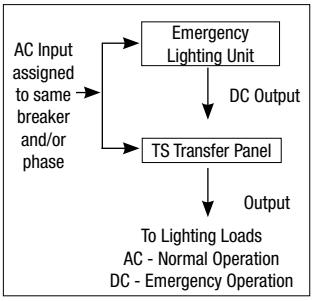
The transfer circuit is not designed for use in hazardous or explosive areas. The transfer circuit is to be mounted remotely from hazardous areas.

Electrical Specifications for Transfer Panel

Input Voltage:
From AC - 120 Volt, 60Hz, 1 phase (other voltages available).
From DC - 6, 12, 24 or 120 Volt (select).

Output Voltage: Must be identical to DC Input Voltage

Wattage: Panel oversized 10-20% greater than total connected load.



Power Consumption Chart

120/277VAC, 60Hz maximum 0.3/0.15A

Lamp Selection

Lamp Type	Voltage	Power	Lamp Type	Average Life (hours)	Suffix
Quartz Bi-Pin	6V	15W	JC-6V15W	2,000	XX6
Medium Base	12V	25W	25A-12	1,000	XX12
	24V	25W	143A	1,000	XX24
	120V	25W	A19	2,500	AC/20
LED Lamp, Red	120V	5W	–	100,000	XX120

How to Order

SERIES	MOUTING	LAMP TYPE		# OF FACES	LETTERS
EFXP= Exit series	**C**= Ceiling mount **P**= Pendant **W**= Wall	**XX6**= 6V-15W (DC only) **XX12**= 12V-25W (DC only) **XX24**= 24V-25W (DC only)	**AC120**= 120V-25W (AC only) **XX120**= 120V-5W LED	**1**= Single face **2**= Double face **3**= Triple face	**-R**= Red **-G**= Green

Example: **EFXPC(XX6)-2R**

AC VOLTAGE	DC VOLTAGE	SERIES	LOAD WATTAGE	
120= 120VAC **277**= 277VAC	**-6**= 6VDC **-12**= 12VDC **-24**= 24VDC	**-TS**= Transfer circuit	**-25**= 25W **-50**= 50W	**-75**= 75W **-100**= 100W

Example: **120-6-TS-25**

TYPE: _____
CATALOG #: _____
NOTES: _____

EverLite™ Series

Self Luminous Exit

Features

- Legend is constructed of non-glare polycarbonate, with 0.015 thick, open letters, field programmable arrows, and white letters with background colors of red or green. Contrast ratio for both conditions exceeds .5, and meets requirements of UL 924 and NFPA 101
- Constructed of rugged thermoplastic, the EverLite™ Series offers contemporary slim line design with smooth rounded corners, and a vibrant faceplate color. Frame finishes include off-white, black or gray. The entire unit is tamperproof and completely self-contained
- Tritium gas energizes the phosphor-coated borosilicate tubes in the EverLite™ sign. The low energy beta emission of tritium striking the phosphor coating inside the Pyrex® glass tubes causes illumination to be generated
- Signs mount flush to wall or ceiling surfaces, a canopy is not required.
- UL Listed. Complies with NFPA, Life Safety Code and OSHA
- EverLite™ signs are spark free and suitable for use in hazardous, explosive, corrosive, humid or any other harsh environment. Emergi-Lite® will replace free of charge any product in which the luminosity is found to be defective during its specified luminous life, or which falls below specified luminous life

Pyrex® is a registered trademark of Corning Glass.

Accessories (order as a separate item)

DESCRIPTION	SUFFIX
White Pendant	P*-WT
Black Pendant	P*-BK
Gray Pendant	P*-GY
Wire Guard-Wall Mount	WG13-E
Wire Guard-Ceiling Mount	WG5-E
Wire Guard-End Mount	WG15-E

* Specify length in inches (12, 24, 36, etc)

Applications

(For use in harsh or dangerous environments)

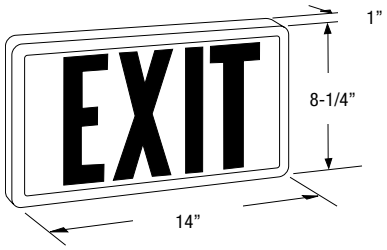
- Meets full test specifications of ANSI (American National Standards Institute)
- Meets requirements of National Electrical Codes, Class I and II conditions
- Licensed for distribution by U.S. Nuclear Regulatory Commission

Licenses and Codes

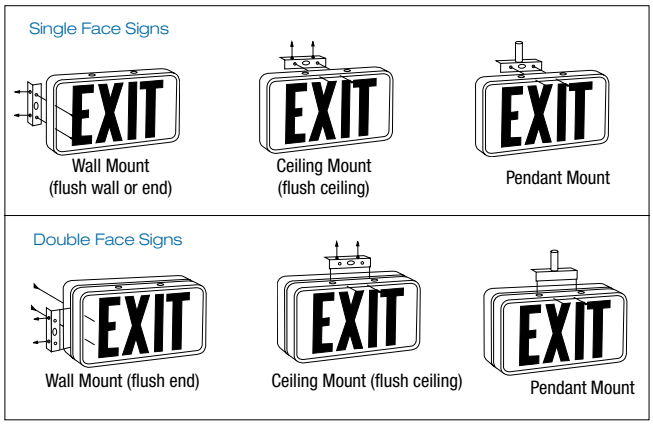
- NFPA Life Safety Code 101
- UL 924
- City of Los Angeles
- State of California
- Council of American Building
- Officials (ICBO, SBCCI)
- OSHA
- USNRC
- ISO 9001

Dimensions

Dimensions are approximate and subject to change.



Mounting



Harsh

Mines	Spray Booth Areas	Refineries
Off Shore Rigs	Paper Mills	Chemical Plants
Food Processing Plants	Grain Elevators	

How to Order

FRAME COLOR	SERIES	SIGN LIFE	# OF FACES	LEGEND	OPTIONS	NEW
W= Off white **B**= Black **G**= Gray	**SLX**= Series	**-10**= 10 years **-20**= 20 years	**61**= Single face **62**= Double face	**R**= Red **G**= Green	**-AF**= Aluminum frame **-AFPC**= Aluminum frame and Polycarbonate shield	**-N**= NEW

Example: **WSLX-1061R-AF-N**

NEMA-3R **Patent-Pending**

TYPE: _____
CATALOG #: _____
NOTES: _____

Luxray™ LED Series

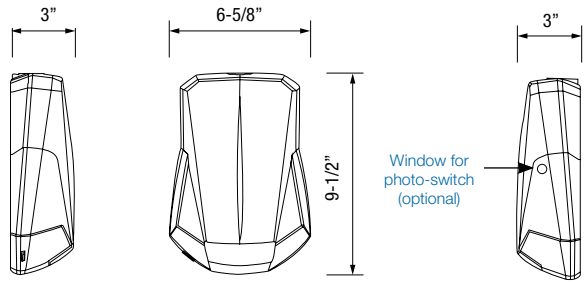
Low-Profile, Slim Look Light Fixture

Features

- Die-Cast aluminum housing, available in four finishes: dark bronze, off-white, black, and platinum gray
- Nema-3R rated for indoor / outdoors wet and Damp Locations: 0-40°C (32-104°F)
- Wall-mount installation on various junction boxes or via rigid conduit
- Patent-pending design for easy installation: wall-mount back-plate includes electrical wire box with snap-on connector
- Patent pending light engine: four power LEDs with redundant connections and very wide beam
- Clear polycarbonate lens of reduced size (3" X 1.5"), shockabsorbent and UV-resistant
- Power consumption in stand-by: less than 5W
- 5-year limited warranty

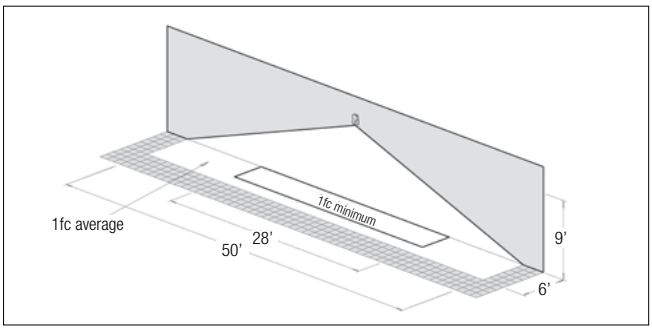
Dimensions

Dimensions are approximate and subject to change.



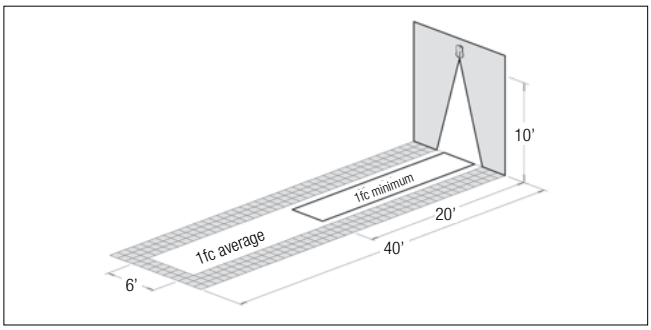
Average of 1 foot-candle

TABLE A: SPACING FOR NFPA101 (AVERAGE = 1FC, SEE NOTE)			
Model Type	Mouting Height	Width X Length (ft)	
		Single Unit	Center-To-Center
Standard	9'	6' X 50'	6' X 50'
With option -H	11'	6' X 60'	6' X 60'
			3' X 70'
With option -FT	12'	6' X 40'	–
With option -FTH	15'	6' X 50'	–



Minimum of 1 foot-candle

TABLE B: SPACING FOR MINIMUM ILLUMINATION = 1FC			
Model Type	Mouting Height	Width X Length (ft)	
		Single Unit	Center-to-Center
Standard	9'	4' x 28'	4' x 32'
With option -H	11'	4' x 32'	4' x 40'
With option -FT	12'	4' x 22'	–
With option -FTH	15'	4' x 27'	–



Power Consumption Chart

Model Type	Normal Lighting (120/277VAC)		Emergency Lighting (120/277VAC)		6-12VDC Remote
	Current (max)	Power (max)	Current (max)	Power (max)	Power (max)
AC, 2AC, ACDC, DC	0.12/0.08A	12W	0.12/0.08A	12W	8W
AC, 2AC, ACDC, DC, -H	0.18/0.11A	18W	0.18/0.11A	18W	14W

* Note: Only unswitched AC input; normal lighting with photo-switch or remote control

How to Order

COLOR	SERIES	MODEL [-40°F ... +122°F (-40°C ... +50°C)]	OPTIONS
B= Black **BZ**= Dark bronze **OW**= Off-white **PG**= Platinum gray	**LUX**= Lux-Ray LED	**AC**= AC-only **ACDC**= AC/6-12VDC remote **DC**= 6-12VDC remote fixture **2AC**= AC-only two circuits: 120/120 or 277/277V	**-FT**= Forward throw lighting **-H**= High lumen output (-40... 86°F/-40…30°C) **-P**= Photocell Test Switch (AC, ACDC only) **-RC**= Remote control - infrared* (AC, ACDC only) * Remote control keypad (TB-RC1-E) ordered separately

Example: **BZLUXDC-FTH**

TYPE: _____

CATALOG #: _____

NOTES: _____

NEMA-3R

Literay™ Series

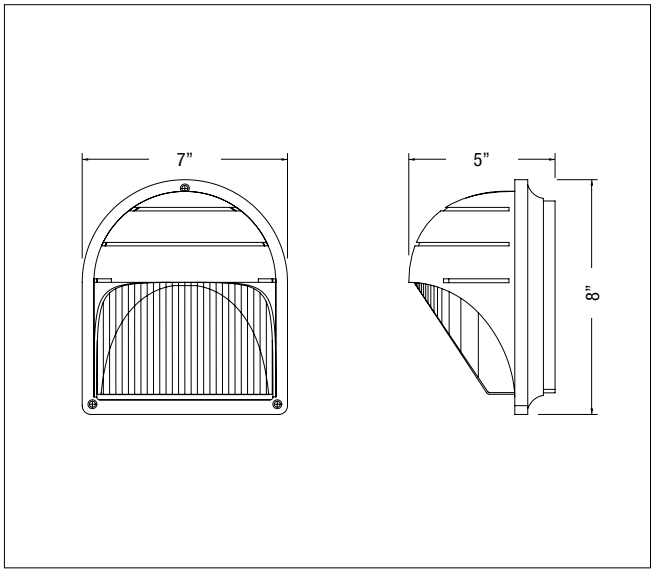
Wall Mount Remote Head for Damp and Wet Locations

Features

- Indoor or Outdoor use
- Die-Cast aluminum construction
- Fully gasketed cover available with (optional) Tamper Proof Screws
- Adjustable tool-less aiming swivel head rotates side to side and tilts in and out
- Surface Wall Mount
- Universal knock-outs for mounting to a standard 4" octagonal electrical box
- Precise beam control is provided with two fully adjustable MR16 halogen or LED lamps secured in an attractive molded swivel assembly for maximum light output
- Provides an average of one-foot candle along the path of egress
- Specially manufactured polycarbonate diffuser maximizes light output, and completes the wall sconce's decorative lines
- Available in four textured powder coat paint finishes: white, black, dark bronze and dark gray

Dimensions

Dimensions are approximate and subject to change.



How to Order

SERIES	# OF LAMPS	LAMP TYPE/WATTAGE	COLOR	OPTIONS
LITE= Exterior remote	**-2**= 2 lamps (standard) **-1**= 1 lamp (AC only)	**(LA)**= 6V-4W, MR16 LED **(LG)**= 2V-4W, MR16 LED **(LL)**= 24V-4W, MR16 LED **(LV)**= 120V-4W, MR16 LED **(LI)**= 12V-5W, MR16 LED **(LJ)**= 12V-6W, MR16 LED **(MI)**= 6V-6W, MR16 **(MJ)**= 6V-10W, MR16 **(MK)**= 12V-12W, MR16 **(MD)**= 24V-20W, MR16 **(MS)**= 24V-12W, MR16 **(MA)**= 12V-20W, MR16 **(AC)**= 1 med. base socket only (max. 60W), no lamp included, for non-emergency	**-WT**= White **-BK**= Black **-DG**= Dark gray **-BZ**= Dark bronze	**Blank**= No options **-VR**= Vandal-resistant screws **-N**= Clear lens

Example: **LITE-2(MI)-WT-VR**

TYPE: _____

CATALOG #: _____

NOTES: _____

Revelation™ DC-Remote Series

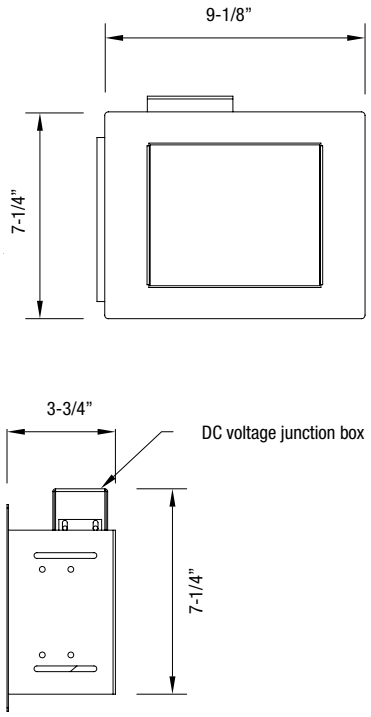
Virtually Invisible, Architecturally Pleasing

Features

- Indoor use
- Two lamp MR16 remote fixture with a choice of halogen or LED lamps
- 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.
- 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.
- Recessed ceiling or wall mount with cavity space; special bar hangers for installation in sheet rock or T-bar ceilings are included.
- 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

Dimensions

Dimensions are approximate and subject to change.



How to Order

INPUT VOLTAGE	SERIES	# OF LAMPS	LAMP TYPE/WATTAGE	OPTIONS
12= 12VDC **24**= 24VDC	**RTR**= Revelation remote	**2**= Two lamps standard	**-12**= 12W MR16 **-20**= 20W MR16 **-35**= 35W MR16 **-50**= 50W MR16 **-LG**= 12V-4W, MR16 LED **-LL**= 24V-4W, MR16 LED **-LI**= 12V-5W, MR16 LED **-LJ**= 12V-6W, MR16 LED	**Blank**= No options **-DL**= Damp Location

Example: **12RTL2-12-DL**

TYPE: _____

CATALOG #: _____

NOTES: _____

Mini-Revelation™ AC Generator Remote Series

THE UNSEEN SOLUTION

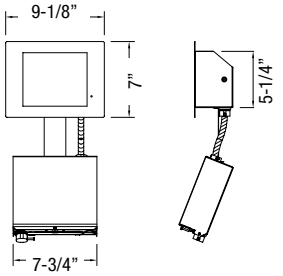
Virtually Invisible Emergency Lighting

Features

- 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
- 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

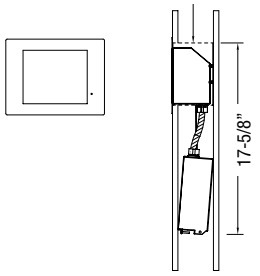
Dimensions

Dimensions are approximate and subject to change.



Complete unit

Mounting Bracket



Installed unit

How to Order

SERIES		AC INPUT	LAMP TYPE/WATTAGE	OPTIONS
MRT	**G**= Remote AC generator	**1**= 120 VAC **2**= 277 VAC	**-2(12)**= 12W each head **-2(20)**= 20W each head **-2(35)**= 35W each head **-2(50)**= 50W each head **-2(20H)**= 20W, high lumen output **-2(35H)**= 35W, high lumen output **-2(50H)**= 50W, high lumen output **-2(-LG)**= 12V-4W, MR16 LED **-2(-LI)**= 12V-5W, MR16 LED **-2(-LJ)**= 12V-6W, MR16 LED	**Blank**= No options **DL**= Damp Location

Example: **MRTG1-2(20)DL**

TYPE: _____

CATALOG #: _____

NOTES: _____

Distinction™ EF150, EF150D & EF150T Series

Surface Mounted Designer Light Fixtures

Features

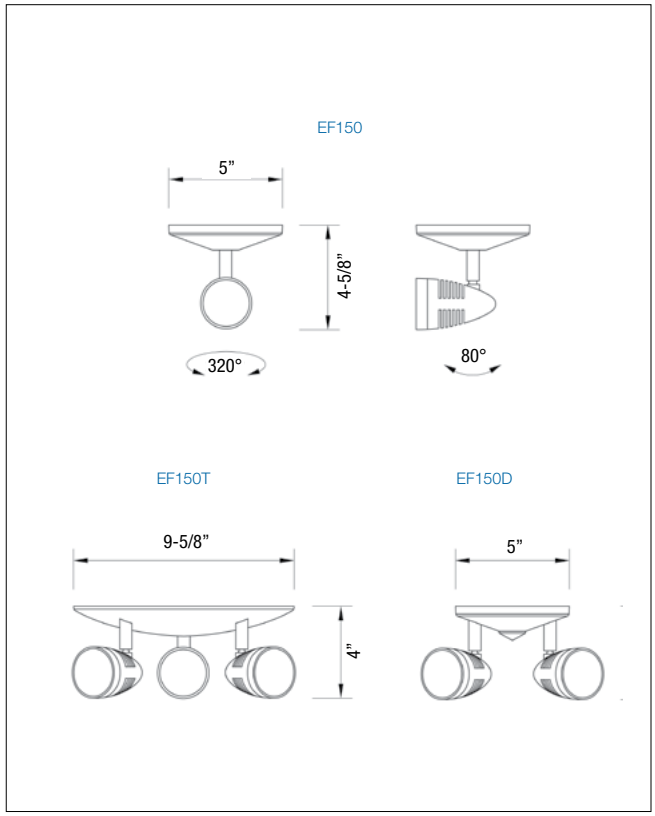
- White or black finish available.
- **EF150:** Single compact adjustable decorative lighting head.
  Dimensions: 4.48" diameter base, 5.2" height
- **EF150D:** Double compact adjustable decorative lighting heads.
  Dimensions: 4.48" diameter base, 4.0" height
- **EF150T:** Triple compact adjustable decorative lighting heads.
  Dimensions: 11.0" diameter base, 5.2" height
- Indoor use
- Die-Cast aluminum
- Fully tool-less adjustable aiming swivel head
- Clear glass lense
- Surface mount
- Includes canopy plate for mounting to a standard 4" octogonal electrical box

Accessories (order as a separate item)

DESCRIPTION	PART NUMBER
Wire Guard for EF150, EF150D	WG8-E
Wire Guard for EF150T	WG2-E

Dimensions

Dimensions are approximate and subject to change.



How to Order

SERIES	# OF HEADS	COLOR	LAMP TYPE/WATTAGE
EF150= Decorative MR16 remote head	**Blank**= Single head **D**= Double head **T**= Triple head	**Blank**= White **-B**= Black	**(LA)**= 6V-4W, MR16 LED **(LG)**= 12V-4W, MR16 LED **(LL)**= 24V-4W, MR16 LED **(LI)**= 12V-5W, MR16 LED **(LJ)**= 12V-6W, MR16 LED **(LV)**= 120V-4W, MR16 LED **(M_)**= Halogen MR16 50W max* * See lamp chart for lamp code 50W use heat shield

Example: **EF150D-B(MK)**

TYPE: _____

CATALOG #: _____

NOTES: _____

Distinction™ Series

Remote Recessed Designer Light Fixtures

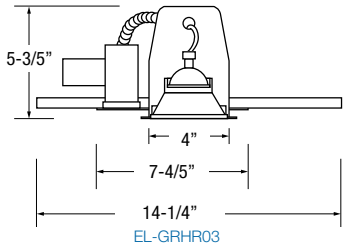
Features

- Indoor Use
- Powder-coated Die-Cast aluminum construction
- Tool-less lamp head adjust ability
- Glass MR16 lamp lens
- Choice of MR16 Halogen or LED lamp
- Choice of White, Black, Chrome, Brushed Nickel or Polished Brass
- Recessed ceiling mount
- Must order appropriate housing with decorative head selection for installation into new construction ceiling (EL-GRHR03) or insulated ceiling (EL-GRHR06)

Dimensions

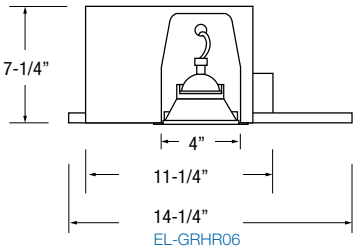
Dimensions are approximate and subject to change.

New construction housing.
Total height: 5.6".



EL-GRHR03

Insulated ceilings housing
Total height: 7.25"



EL-GRHR06

SERIES			LED LAMP SUFFIX
	EFR2	**Description:** Decorative pop-up adjustable lighting head **Dimensions:** 4.0" diameter base **Color Suffix:** -WH= White, -BK= Black, -CH= Chrome, -PB= Polished brass, -BN= Brushed Nickel **Required recessed housing**	**N/A**
	EFR8NB	**Description:** Decorative adjustable lighting head **Dimensions:** 4.0" diameter base **Color Suffix:** -WH= White or -BN= Brushed nickel **Requires recessed housing**	**LA**= 6V-4W, MR16 LED **LG**= 12V-4W, MR16 LED **LL**= 24V-4W, MR16 LED
	EFR8R	**Description:** Decorative adjustable lighting head **Dimensions:** 4.0" diameter base **Color Suffix:** -WH = White or -BN = Brushed nickel **Requires recessed housing**	**LA**= 6V-4W, MR16 LED **LG**= 12V-4W, MR16 LED **LL**= 24V-4W, MR16 LED **LI**= 12V-5W, MR16 LED **LJ**= 12V-6W, MR16 LED **LV**= 120V-4W, MR16 LED
	EFR9WH	**Description:** Decorative adjustable lighting head **Dimensions:** 4.0" diameter base **Color Suffix:** -WH = White **Requires recessed housing**	**LA**= 6V-4W, MR16 LED **LG**= 12V-4W, MR16 LED **LL**= 24V-4W, MR16 LED **LI**= 12V-5W, MR16 LED **LJ**= 12V-6W, MR16 LED **LV**= 120V-4W, MR16 LED
	EL-GRHR03	**Housing Enclosure** **Description:** New construction housing **Dimensions:** 5.6" x 14.24" **New construction housing**	–
	EL-GRHR06	**Housing Enclosure** **Description:** Insulated ceilings housing **Dimensions:** 7.25" x 14.24" **Insulated ceilings housing**	–

How to Order

SERIES		COLOR*	LAMP TYPE/WATTAGE
EFR2 **EFR8NB**	**EFR8R** **EFR9WH**	* Choose color from the above table	**-(L_)**= LED MR16 (see table above)* **-(M_)**= Halogen MR16* * For a complete list of available lamp types, please refer to the lamp data on pages 146-147

Example: **EFR8R-BK-(MA)**

HOUSING

EL-GRHR03= New Construction
EL-GRHR06= Insulated Ceilings

TYPE: _____

CATALOG #: _____

NOTES: _____

Surface Mounted EF9, EF9D & EF9T Series

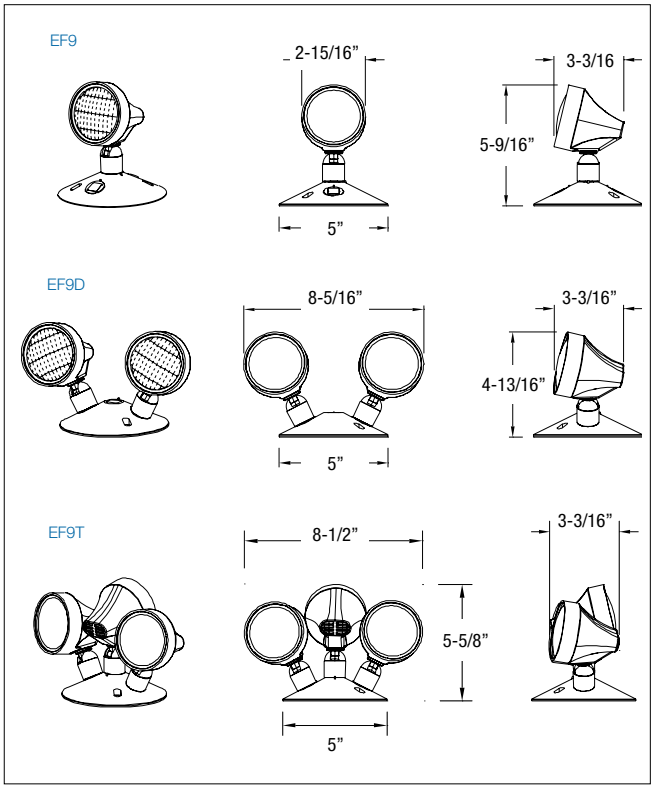
Thermoplastic PAR 18 Size Lamp Head

Features

- Off-white finish; black (BK) optional
- Surface (wall or ceiling) mounting direct to 4" octagonal or single-gang box
- Lamps (for alternate lamp selection, see lamp data sheet): lamp type H: BI-PIN halogen or lamp type Z: High intensity incandescent wedge base
- Thermoplastic construction
- Indoor use
- Fully adjustable tool-less aiming swivel head
- Specular parabolic reflector and prismatic lens for wide-beam, even light distribution
- Snap-out lens for easy lamp replacement
- Surface mount
- Includes a 5" round universal canopy plate with 3 knock-outs (supplied with 2 plugs) for use with single, double or triple head mounting

Dimensions

Dimensions are approximate and subject to change.



How to Order

SERIES	# OF HEADS	LAMPT TYPE/WATTAGE	COLOR
EF9= PAR 18 remote head	**Blank**= Single head **D**= Double head **T**= Triple head	**(H_)**= Halogen bi-pin 12W max* **(Z_)**= Tungsten wedge 18W max* * For a complete list of available lamp types, please refer to the lamp data on pages 144-145	**Blank**= Off white **BK**= Black

Example: **EF9D(HB)BK**

TYPE: _____

CATALOG #: _____

NOTES: _____

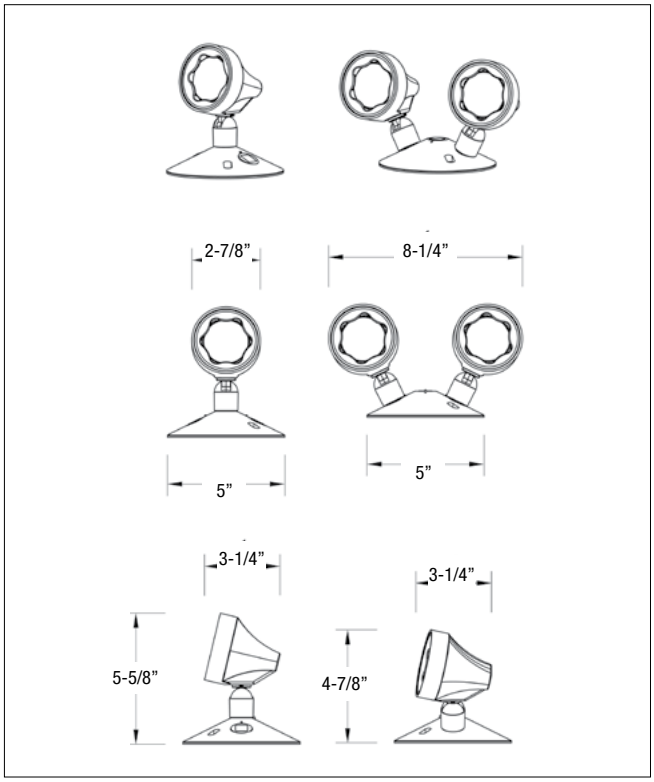
Surface Mounted
EF10, EF10D & EF10T Series
Thermoplastic MR16 Lamp Head

Features

- Thermoplastic construction with off-white finish; black (BK)
- Direct mounting to 4" octagonal electrical box
- Series M Lamps: MR16
- Indoor use
- Available as a single, double or triple PAR 18 size MR16 lighting head
- Fully adjustable tool less aiming swivel head
- Specular parabolic reflector and prismatic lens for wide-beam, even light distribution
- Snap-out lens for easy lamp replacement.
- Surface Mount
- Includes a 5" round universal canopy plate with 3 knock-outs (supplied with 2 plugs) for use with single, double or triple head mounting

Dimensions

Dimensions are approximate and subject to change.



How to Order

SERIES	# OF HEADS	LAMP TYPE/WATTAGE	COLOR
EF10= MR16 PAR18 remote head	**Blank**= Single head **D**= Double head **T**= Triple head	**(LA)**= 6V-4W, MR16 LED **(LG)**= 12V-4W, MR16 LED **(LL)**= 24V-4W, MR16 LED **(LI)**= 12V-5W, MR16 LED **(LJ)**= 12V-6W, MR16 LED **(M_)**= Halogen MR16 20W max* * 20W Halogen is only available in 12V (MA)	**Blank**= Off-white **BK**= Black

Example: **EF10D(LA)BK**

TYPE: _____

CATALOG #: _____

NOTES: _____

Surface Mounted
EF14 Series
Remote Fixture

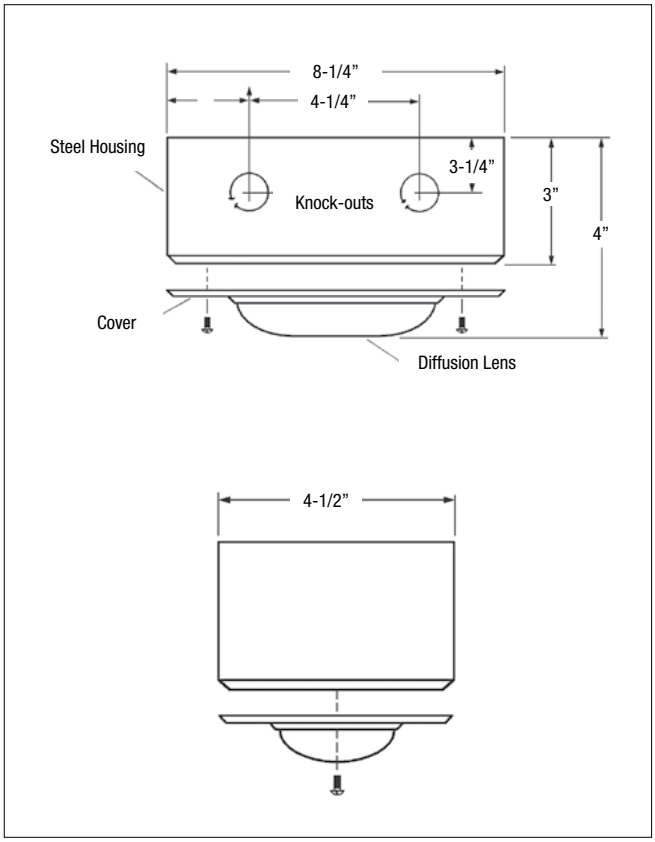
Features

- Rectangular fixture with diffused polycarbonate lens
- White baked enamel finish (specify other)
- Surface wall or ceiling mounting
- Lamps (for alternate lamp selection, see lamp data sheet page 146-147):
  Series I - High intensity tungsten (HIT) double contact bayonet base

Lamp type(s), voltage and maximum wattage available for fixture are shown under lamp description. Determine lamp type, voltage and wattage required for your application, then select lamp from Lamp Chart in the Charts & Diagrams in the Accessories & General Information Section on page 146-147 section. Do not exceed fixture wattage rating. Include lamp suffix and voltage as suffix to model number. Voltage must be stated.

Dimensions

Dimensions are approximate and subject to change.



How to Order

SERIES	LAMP TYPE/WATTAGE	COLOR
EF14= Remote fixture	**(I_)**= Tungsten double contact bayonet base 25W max, (6, 12, 24 Volts)* **(I_)**= Tungsten double contact bayonet base 15W max, (120 VAC)* * For a complete list of available lamp types, please refer to the lamp data on pages 146-147	**Blank**= Off white **BK**= Black

Example: **EF14(IA)BK**

TYPE: _____

CATALOG #: _____

NOTES: _____

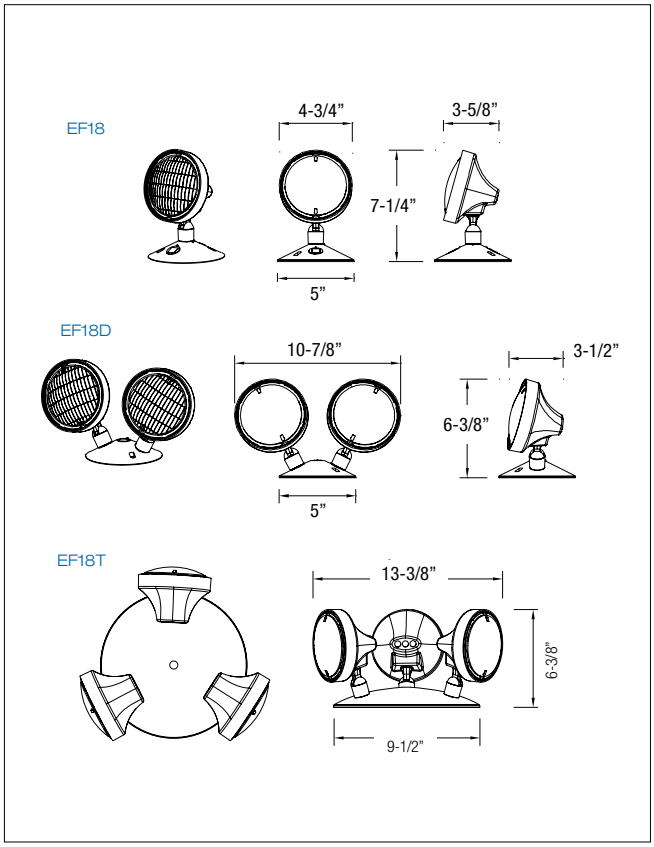
Surface Mounted
EF18, EF18D & EF18T Series
Thermoplastic PAR 36 Lamp Head

Features

- Thermoplastic construction with off-white finish; black (BK) optional
- Lamps (for alternate lamp selection, see lamp data sheet):
  Type H: BI-PIN halogen.
  Type I: High intensity tungsten (HIT) double contact bayonet base.
  Type U: Sealed beam tungsten.
  Type X: Sealed beam halogen
  or Type Z: High intensity incandescent wedge base
- Indoor use
- Available as a single, double or triple PAR 36 size lighting head
- Fully adjustable tool less aiming swivel head
- Specular parabolic reflector and prismatic lens for wide-beam, even light distribution
- Snap-out lens for easy lamp replacement.
- Surface Mount
- Includes a 5" round universal canopy plate with 3 knock-outs (supplied with 2 plugs) for use with single, double or triple head mounting
- Mounts to either a standard 4" octagonal or a single gang electrical box (4-gang plate for EF18T optional)

Dimensions

Dimensions are approximate and subject to change.



Accessories (order as a separate item)

DESCRIPTION	PART NUMBER
Wire Guard	WG9-E

How to Order

SERIES	# OF HEADS	LAMP TYPE/WATTAGE	COLOR
EF18= PAR 36 remote head	**Blank**= Single head **D**= Double head **T**= Triple head	**(H_)**= Halogen bi-pin 20W max* **(I_)**= Tungsten wedge 25W max* **(Z_)**= Tungsten wedge 18W max* **(U_)**= Tungsten sealed beam 30W max* **(X_)**= Halogen sealed beam* 50W max** * For a complete list of available lamp types, please refer to the lamp data on pages 146-147 ** Use high temp enclosure	**Blank**= Off white **BK**= Black

Example: **EF18D(ZD)BK**

TYPE: _____

CATALOG #: _____

NOTES: _____

Surface Mounted EF23 & EF23D Series

Thermoplastic square Lamp Head

Features

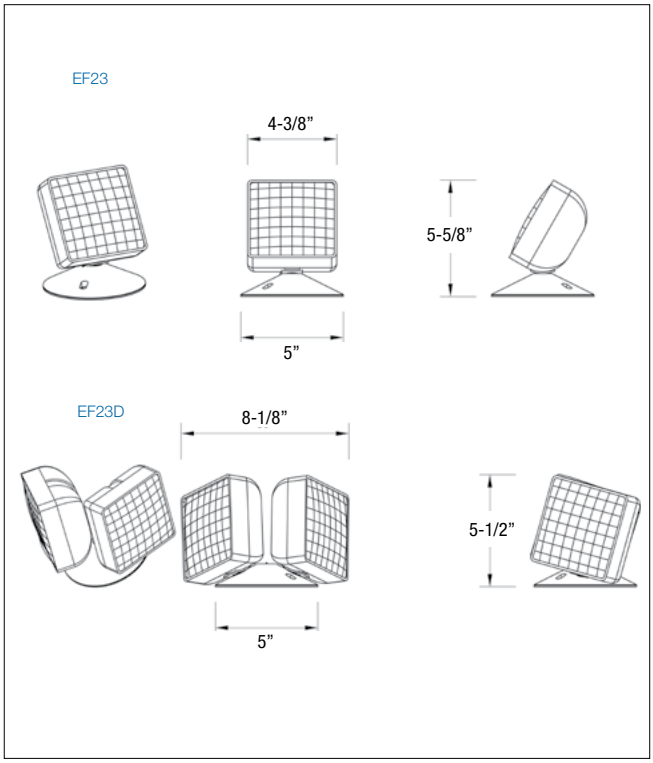
- Thermoplastic construction with off-white or black (BK) finish.
- Available as a single, or double square lighting head
- Fully adjustable tool less aiming swivel
- Specular parabolic reflector and prismatic lens for wide-beam, even light distribution
- Snap-out lens for easy lamp replacement
- Surface Mount
- Mounts to either a standard 4" octagonal or a single gang electrical box. (4-gang plate for EF23D optional)
- Round mounting canopy standard.
- Lamps (for alternate lamp selection, see lamp data sheet):
  Series H: BI-PIN halogen 6, 8 and 12 watt lamps only.
  or Series Z: High intensity incandescent wedge base 5.4, 9 and 12 watt lamps only.

Accessories (order as a separate item)

DESCRIPTION	PART NUMBER
Wire Guard	WG8-E

Dimensions

Dimensions are approximate and subject to change.



How to Order

SERIES	# OF HEADS	LAMP TYPE/WATTAGE	COLOR
EF23= Remote SQ Fixture	**Blank**= Single head **D**= Double head	**(Z_)**= Wedge base, 12W Max, (6, 12, 24 Volts)* **(H_)**= Bi-pin halogen, 12W max, (6, 12 Volts)* * For a complete list of available lamp types, please refer to the lamp data on pages 146-147	**Blank**= Off white **BK**= Black

Example: **EF23D(HB)BK**

TYPE: _____

CATALOG #: _____

NOTES: _____

Surface Mounted EF24 & EF24-2 Series

Surface Mount square

Features

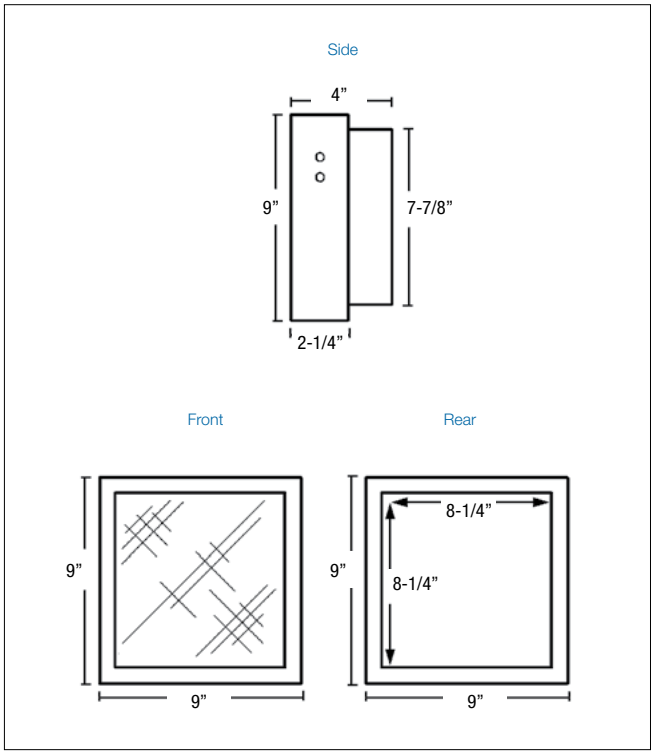
- Decorative square thermoplastic light with prismatic diffusing lens and metal reflector
- Off-white front trim; black back-box
- Dimensions: 9" X 9" X 4" deep
- Surface (wall or ceiling) mounting
- For semi-recessed mounting, order **EF24R**, semi-recessed deep mounting box included (8-1/2" X 8-1/2" X 1-3/4" deep)
- Plated steel reflector for wide-beam, even light distribution
- Snap-out lens for easy lamp replacement
- Lamps (for alternate lamp selection, see lamp data sheet):
  Type H: BI-PIN halogen
  Type I: High intensity tungsten (HIT) double contact bayonet base
  or Type Z: High intensity incandescent wedge base

Accessories (order as a separate item)

DESCRIPTION	PART NUMBER
Wire Guard	WG1-E

Dimensions

Dimensions are approximate and subject to change.



How to Order

SERIES	LAMP TYPE/WATTAGE
EF24= Remote fixture **EF24-2**= Remote fixture lamp double*	**(Z_)**= Wedge base, 20W max, (6, 12, 24 Volts)* **(H_)**= Bi-Pin halogen, 20W max, (6, 12 Volts)* **(I_)**= Double contact bayonet, 20W max, (6, 12, 24 Volts)*
*Only available with Bi-pin halogen lamps	* For a complete list of available lamp types, please refer to the lamp data on pages 146-147

Example: **EF24-2(HA)**

TYPE: _____

CATALOG #: _____

NOTES: _____

Surface Mounted EF28, EF28D, EF28T & EF28D Series

Aluminum PAR 36 Lamp Head

Features

- Single or double metal housing head with fully adjustable swivel
- Spectacular parabolic reflector and prismatic lens for wide-beam, even light distribution
- Include a circular universal canopy plate for mounts a standard 4" octogonal or a single gang electrical box (4-gang plate for EF28T optional. See page 146-147 for detail)
- Chrome finish head (off-white optional)
- EF28: surface mounting; 1 MPC - 1 plate supplied
- EF28D: surface mounting; 3 MPC - 2 plate supplied
- EF28: mounting plate dimensions: 2-1/2" X 4-1/4"
- EF28D: mounting plate dimensions: 6-7/16" X 4-1/2"
- Lamps (for alternate lamp selection, see lamp data sheet):
  Type H: BI-PIN halogen
  Type I: High intensity tungsten (HIT) double contact bayonet base
  Type U: Sealed beam tungsten
  Type X: Sealed beam halogen or Type Z: High intensity incandescent wedge base

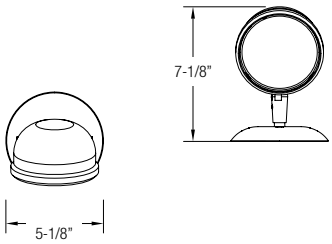
Accessories (order as a separate item)

DESCRIPTION	PART NUMBER
Wire Guard	WG9-E

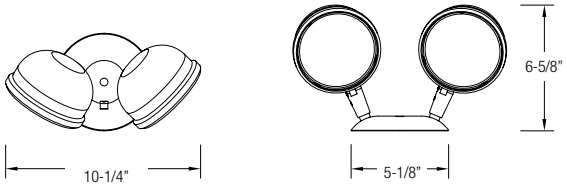
Dimensions

Dimensions are approximate and subject to change.

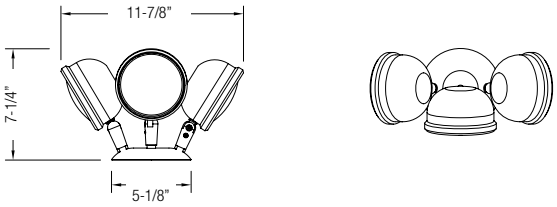
EF28



EF28D



EF28T



How to Order

SERIES	# OF HEADS	LAMP TYPE/WATTAGE	COLOR
EF28= Aluminum Remote Fixture	**Blank**= Single head **D**= Double head **T**= Triple head	**(Z_)**= Wedge base, 18W max, (6, 12, 24 Volts)* **(H_)**= Bi-pin halogen, 20W max, (6, 12 Volts)* **(I_)**= Double contact bayonet, 25W max, (6, 12, 24 Volts)* **(U_)**= Sealed beam incandescent, 30W max, (6, 12 Volts)* **(X_)**= Sealed beam halogen, 50W max, (6, 12 Volts)* * For a complete list of available lamp types, please refer to the lamp data on pages 146-147	**Blank**= Chrome **WT**= Off-white

Example: **EF28D(ZD)WT**

TYPE: _____

CATALOG #: _____

NOTES: _____

Surface Mounted EF32 & EF32D Series

Aluminum Cylinder Lamp Head

Features

- Single miniature fully adjustable aluminum cylinder complete with matching round mounting plate
- Off-white baked enamel finish standard, black (BK) optional.
- Cylinder dimensions: 3" diameter x 4-1/4"
- Lamps (for alternate lamp selection, see lamp data sheet refer to page 146-147):
  Series H: BI-PIN halogen 6 or 12 VDC only
- Indoor use
- Fully adjustable aiming swivel head
- Mirror finished reflector and prismatic lens for wide-beam, even light distribution
- Surface mount
- Includes a round universal canopy plate
- Mounts to a standard 4" octogonal electrical box

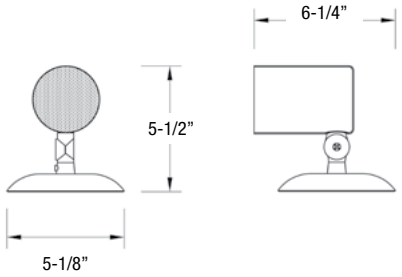
Accessories (order as a separate item)

DESCRIPTION	PART NUMBER
Wire Guard	WG8-E

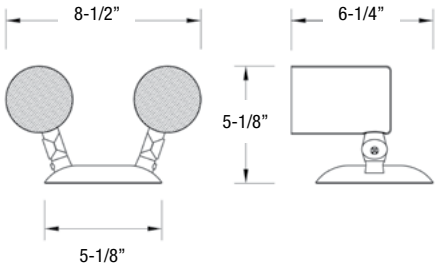
Dimensions

Dimensions are approximate and subject to change.

EF32



EF32D



How to Order

SERIES	# OF HEADS	LAMP TYPE/WATTAGE	COLOR
EF32= Remote Fixture	**Blank**= Single head **D**= Double head	**(H_)**= Bi-pin halogen, 20W max, (6, 12 Volts)* * For a complete list of available lamp types, please refer to the lamp data on pages 146-147	**Blank**= Off-white **BK**= Black

Example: **EF32D(HB)BK**

TYPE: _____

CATALOG #: _____

NOTES: _____

Recessed Mounted EF13 Series

Remote Fixture

Features

- Rectangular fixture with diffused polycarbonate lens
- White baked enamel finish; black also available
- Recessed wall or ceiling mounting
- Trim plate dimensions: 8-1/4" X 4-1/2"
- Back box dimensions: 6-3/8" X 3" X 2-5/8" deep
- Lamps (for alternate lamp selection, see lamp data sheet on page 144):
  Series I - High intensity tungsten (HIT) double contact bayonet base

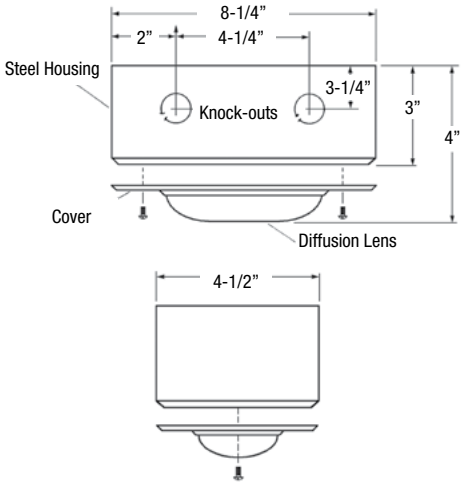
How to Order

SERIES	LAMP TYPE/WATTAGE	COLOR
EF13= Remote fixture	**(I_)**= tungsten double contact bayonet base 25W max, (6, 12, 24 Volts)* **(I_)**= tungsten double contact bayonet base 15W max, (120 VAC)* * For a complete list of available lamp types, please refer to the lamp data on pages 146-147	**Blank**= Off-white **BK**= Black

Example: **EF13(IC)BK**

Dimensions

Dimensions are approximate and subject to change.



Recessed Mounted EF17 Series

Remote Fixture

Features

- Recessed adjustable eyeball PAR 36.
- Brushed aluminum finish (specify others).
- Recessed wall or ceiling mounting.
- Trim ring dimensions: 8-3/4" diameter.
- Back dimensions: 6-3/4" X 3-1/2" deep.

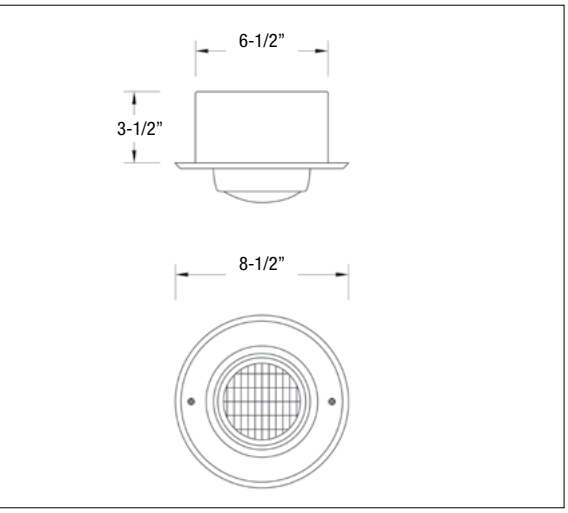
How to Order

SERIES	LAMP TYPE/WATTAGE	COLOR
EF17= Recessed adjustable eyeball	**(Z_)**= Wedge base, 18W max, (6, 12, 24V)* **(H_)**= Bi-pin halogen, 20W max, (6, 12V)* **(I_)**= Double contact bayonet, 25W max, (6, 12, 24V)* **(U_)**= Sealed beam inc, 30W max, (6, 12V)* **(X_)**= Sealed beam halogen, 50W max, (6, 12V)* NOTE: For a complete list of available lamp types, please refer to the lamp data on pages 146-147	**Blank**= Aluminum **WT**= Off- white

Example: **EF17(ZL)WT**

Dimensions

Dimensions are approximate and subject to change.



TYPE: _____

CATALOG #: _____

NOTES: _____

Recessed Mounted EF15 Series

Remote Gimbal Fixture

Features

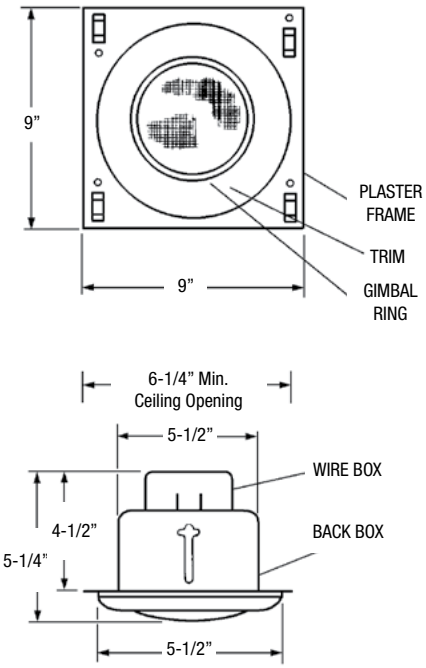
- Indoor use
- A single lamp recessed round Gimbal PAR 36 lighting head
- Lamp has horizontal rotation of 358° and vertical angle adjustable to 42°
- Snapout lens for easy lamp replacement
- Recessed gimbal ring fixture PAR 36 - adjustable in two planes to 45°
- Off-white thermoplastic housing
- Recessed wall or ceiling mounting
- Complete unit, no additional housing needed

Accessories (order as a separate item)

DESCRIPTION	PART NUMBER
Wire Guard	WG11-E

Dimensions

Dimensions are approximate and subject to change.



How to Order

SERIES	LAMP TYPE/WATTAGE	COLOR
EF15= Remote Gimbal Fixture	**(Z_)**= Wedge base, 18W Max, (6, 12, 24V)* **(H_)**= Bi-pin halogen, 20W Max, (6, 12V)* **(I_)**= Double contact bayonet, 25W Max, (6, 12, 24V)* **(U_)**= Sealed beam incandescent 30W Max, (6, 12V)* **(X_)**= Sealed beam halogen, 20W Max, (6, 12V)* * See lamp chart on page 146 for lamp code	**Blank**= Off-white **BK**= Black

Example: **EF15(ZD)BK**

TYPE: _____

CATALOG #: _____

NOTES: _____

Recessed Mounted
EF21R Series
Fully Recessed Metal Decorator Square

Features

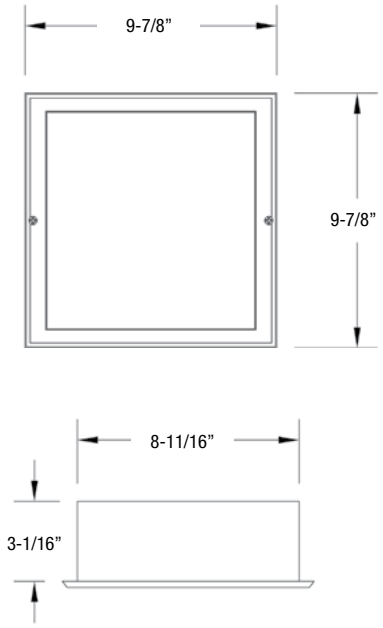
- Fully recessed metal decorator square housing with prismatic diffusing lens and metal reflector
- Off-white baked enamel finish
- Recessed wall or ceiling mounting
- Fully recessed frame, metal construction
- Available as a single, or double lamp lighting head
- Prismatic acrylic lens
- Plated steel reflector for a wide-beam, even light, distribution
- Universal knock-outs to mount a standard 4" octagonal electrical box
- Support bars or rods supplied by others
- Lamps (for alternate lamp selection, see lamp data sheet on page 144):
  Type H: BI-PIN halogen (available at additional cost)
  Type I: High intensity tungsten (HIT) double contact bayonet base
  or Type Z: High intensity incandescent wedge base

Accessories (order as a separate item)

DESCRIPTION	PART NUMBER
Wire Guard	WG11-E

Dimensions

Dimensions are approximate and subject to change.



How to Order

SERIES	LAMP TYPE/WATTAGE
EF21R= Remote recessed metal square decorator fixture	**(Z_)**= Wedge base, 20W max, (6, 12, 24 Volts)* **(H_)**= Bi-pin halogen, 20W max, (6, 12 Volts)* **(I_)**= Double contact bayonet, 20W max, (6, 12, 24 Volts)* * For a complete list of available lamp types, please refer to the lamp data on pages 146-147

Example: **EF21R(ZD)**

TYPE: _____

CATALOG #: _____

NOTES: _____

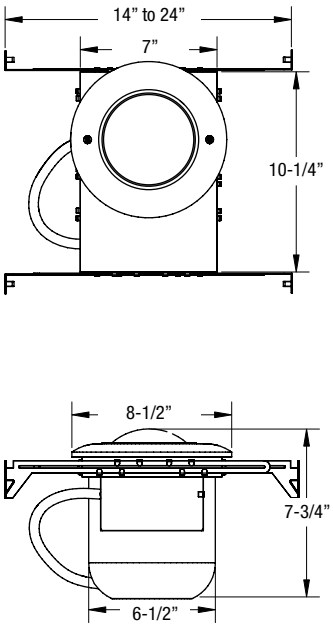
Recessed Mounted
EF35 Series
Remote Fixture

Features

- Gasketed, fully recessed, with fresnel lens; suitable for Damp locations
- Off-white finish
- Fully recessed ceiling mounting
- Trim: plastic, off-white
- Recessed (wall or ceiling). Plaster frame and standard 4" wire box provided
- Trim ring: 8-1/2" diameter
- EF35 Series: Wedge base incandescent 18W MAX
  Double contact Bayonet base 25W MAX
  Bi-pin halogen 20W MAX
- 6, 12, 24VDC
- Maximum power: 25W low voltage

Dimensions

Dimensions are approximate and subject to change.



How to Order

SERIES	LAMP TYPE/WATTAGE
EF35= Remote Metal Fixture Only available with Bi-pin halogen lamps	**(Z_)**= Wedge base, 20W max, (6, 12, 24V)* **(H_)**= Bi-pin halogen, 20W max, (6, 12V)* **(I_)**= Double contact bayonet, 20W max, (6, 12, 24V)* * For a complete list of available lamp types, please refer to the lamp data on pages 146-147

Example: **EF35(IA)**

TYPE: _____

CATALOG #: _____

NOTES: _____

Weatherproof EF11, EF11D & EF11T Series

Thermoplastic Weather-Resistant PAR 36 Lamp Head

Features

- Outdoor use
- Available as a single, double or triple PAR 36 size lighting head
- Thermoplastic construction with aluminum canopy plate
- Fully adjustable aiming swivel head
- Specular parabolic reflector and prismatic lens for a wide-beam, even light distribution
- Sealed for rain; dust-tight; corrosion resistant
- Off-white, black or gray
- Surface mount
- Mounts to a standard 4" octagonal electrical box

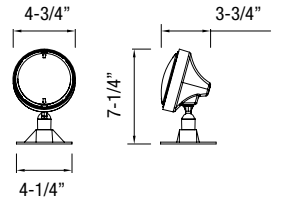
Accessories (order as a separate item)

DESCRIPTION	PART NUMBER
Wire Guard	WG9-E

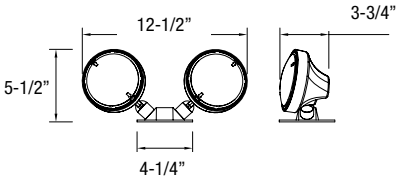
Dimensions

Dimensions are approximate and subject to change.

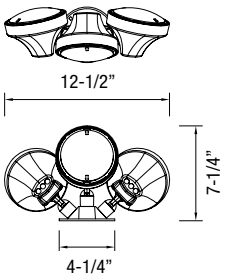
EF11



EF11D



EF11T



How to Order

SERIES	# OF HEADS	LAMP TYPE/WATTAGE	COLOR
EF11= PAR 36 remote head (Weatherproof)	**Blank**= Single head **D**= Double heads **T**= Triple heads	**(H_)**= Halogen bi-pin 20W max* **(I_)**= Tungsten wedge 25W max* **(Z_)**= Tungsten wedge 18W max* **(U_)**= Tungsten sealed beam 30W max* **(X_)**= Halogen sealed beam* 50W max** * For a complete list of available lamp types, please refer to the lamp data on pages 146-147 ** Use high temp enclosure	**Blank**= Black* **WT**= Off-white * XI lamps available in gray only heads

Example: **EF11D(HD)WT**

TYPE: _____

CATALOG #: _____

NOTES: _____

Weatherproof EF11X & EF11DX Series

Class I Division 2 Certified Remote Fixture

Features

- Class I Division 2 - Groups A, B, C, D
- Single lighting head with fully adjustable swivel with gray lamp heads
- Gasketed aluminum canopy and junction box
- Indoor use
- Available as a single or double PAR 36 size
- Surface mount
- Includes a universal aluminum canapy and junction box
- Conduit entry 1/2" NPT
- Lamps: PAR 36 sealed beam (6 or 12VDC maximum 12W)

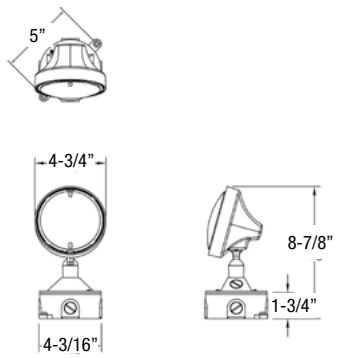
Accessories (order as a separate item)

DESCRIPTION	PART NUMBER
Wire Guard	WG6-E

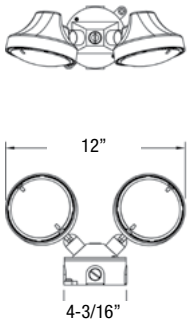
Dimensions

Dimensions are approximate and subject to change.

EF11X



EF11DX



How to Order

EF11X SERIES

SERIES	MODEL	LAMP TYPE/WATTAGE
EF11= Hazardous locations Class.I Div.2 Groups A, B, C and D	**X**= Single head	**(XD)**= 6V-12W halogen sealed beam **(XG)**= 12V-12W halogen sealed beam

Example: **EF11X(XD)**

EF11DX SERIES

SERIES	MODEL	LAMP TYPE/WATTAGE
EF11= Hazardous locations Class.I Div.2 Groups A, B, C and D	**DX**= Double head	**(XD)**= 6V-12W halogen sealed beam **(XG)**= 12V-12W halogen sealed beam

Example: **EF11DX(XG)**

TYPE: _____

CATALOG #: _____

NOTES: _____

NEMA-4X

Survive-All™ EF39 & EF40 Series

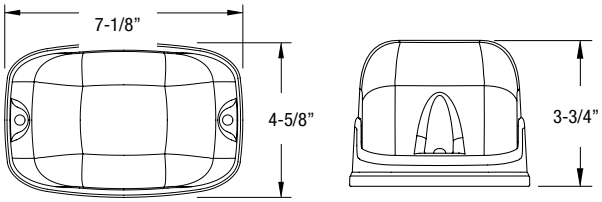
EF39 NEMA-4X & NSF Certified
EF40 Vandal Resistant

Features

- Fully gasketed with a selection of cast aluminum or polycarbonate back plate
- Clear polycarbonate UV and impact resistant lens
- Choice of single or double lamp models
- Available in 6, 12 and 24V models MR16 or LED
- Easy lamp replacement
- EF39 comes standard with tamper-proof screws and bit
- NSF Certified for food processing plants
- NEMA-4X Certified
- EF39P and EF40P require mounting plate option when installed on surface mount junction box
- CSA Certified to C22.2 No. 141
- Suitable for indoor/outdoor installation

Dimensions

Dimensions are approximate and subject to change.



Accessories (order as a separate item)

DESCRIPTION	SUFFIX
Additional special bit for tamper-proof screws	690.0454-E

How to Order EF39 Series

SERIES	LAMP TYPE/WATTAGE		LAMP TYPE	OPTION
EF39P= All polycarbonate single head NEMA-4X **EF39PD**= All polycarbonate double head NEMA-4X	**(MI)**= 6V-6W, MR16 **(MJ)**= 6V-10W, MR16 **(MK)**= 12V-12W, MR16 **(MS)**= 24V-12W, MR16	**(LA)**= 6V-4W, MR16 LED **(LG)**= 12V-4W, MR16 LED **(LI)**= 12V-5W, MR16 LED **(LL)**= 24V-4W, MR16 LED **(LJ)**= 12V-6W, MR16 LED	**Blank**= White **-BK**= Black **-GY**= Gray	**SM**= Mounting plate

Example: **EF39P(LG)-BK**

SERIES	LAMP TYPE/WATTAGE		LAMP TYPE
EF39= Die-Cast back plate single head NEMA-4X **EF39D**= Die-Cast back plate double head NEMA-4X	**(MI)**= 6V-6W, MR16 **(MJ)**= 6V-10W, MR16 **(MK)**= 12V-12W, MR16 **(MS)**= 24V-12W , MR16 **(MD)**= 24V-20W, MR16 **(MW)**= 12V-20W, MR16-IR	**(LA)**= 6V-4W, MR16 LED **(LG)**= 12V-4W, MR16 LED **(LI)**= 12V-5W, MR16 LED **(LL)**= 24V-4W, MR16 LED **(LJ)**= 12V-6W, MR16 LED	**Blank**= White **-BK**= Black **-GY**= Gray

Example: **EF39(LG)-BK**

How to Order EF40 Series

SERIES	LAMP TYPE/WATTAGE		COLOR	OPTIONS
EF40P= All polycarbonate single head for dry locations **EF40PD**= All polycarbonate double head for dry locations	**(MI)**= 6V-6W, MR16 **(MJ)**= 6V-10W, MR16 **(MK)**= 12V-12W, MR16 **(MS)**= 24V-12W, MR16	**(LA)**= 6V-4W, MR16 LED **(LG)**= 12V-4W, MR16 LED **(LI)**= 12V-5W, MR16 LED **(LL)**= 24V-4W, MR16 LED **(LJ)**= 12V-6W, MR16 LED	**Blank**= White **-BK**= Black **-GY**= Gray	**Blank**= No options **T**= Tamper proof screws **SM**= Mounting plate

Example: **EF40P(MK)**

SERIES	LAMP TYPE/WATTAGE		COLOR	OPTIONS
EF40= Die-Cast back plate single head for dry locations **EF40D**= Die-Cast back plate double head for dry locations	**(MI)**= 6V-6W, MR16 **(MJ)**= 6V-10W, MR16 **(MK)**= 12V-12W, MR16 **(MS)**= 24V-12W , MR16 **(MD)**= 24V-20W, MR16 **(MW)**= 12V-20W, MR16-IR	**(LA)**= 6V-4W, MR16 LED **(LG)**= 12V-4W, MR16 LED **(LI)**= 12V-5W, MR16 LED **(LL)**= 24V-4W, MR16 LED **(LJ)**= 12V-6W, MR16 LED	**Blank**= White **-BK**= Black **-GY**= Gray	**Blank**= No options **T**= Tamper-proof screws

Example: **EF40D(MD)**

TYPE: _____

CATALOG #: _____

NOTES: _____

US

Survive-All™ EF41 Series

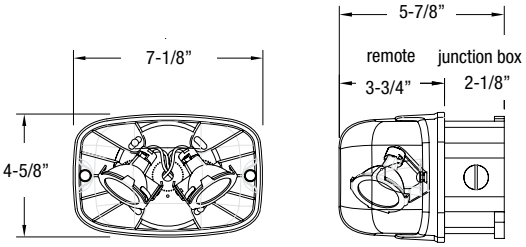
Class I Division II Certified Remote Fixture

Features

- Available with single or double lamp heads with high-efficiency MR16 halogen lamps of 10W, 12W or 20W (see How to Order information) and MR16 high-output LEDs (4W, 5W and 6W)
- Die-Cast aluminum back plate with gasket. Clear polycarbonate cover, UV and impact resistant
- Input voltage: 6V, 12V, 24V or 120V
- Easy installation on a 4" octagonal box (included). Comes standard with tamper-proof screws and bit
- Evaluated to UL 844 Standard for Class I Division 2, Groups A, B, C and D. Temperature Codes: T3B (10W and 12W MR16 lamps) and T2C (20W MR16 lamps) and T4A and T5 MR16 LED.
- Extreme operational temperature range: -40ºF to +104ºF (-40ºC to +40ºC)
- Indoor use
- Fully adjustable tool-less aiming swivel
- Tool-less easy lamp replacement
- Surface mount
- Conduit entry 1/2" NPT

Dimensions

Dimensions are approximate and subject to change.



Lamp Selection Chart and Temperature Code

Lamp Suffix	Voltage	Wattage	Lumens	Replacement #	Temperature Code	Max Temperature
MJ	6	10	74	580.0079-E	T3B	165°C
MK	12	12	80	580.0080-E	T3B	165°C
MW	12	20-H	400	580.0068-E	T2C	230°C
MS	24	12	82	580.0070-E	T3B	165°C
MD	24	20	240	580.0077-E	T2C	230°C
MT	120	20	100	580.0065-E	T2C	230°C
LA	6	4	200	580.0097-E	T4A	120°C
LG	12	4	220	580.0093-E	T5	100°C
LI	12	5	340	580.0104-E	T4A	120°C
LJ	12	6	540	580.0106-E	T4	135°C
LL	24	4	220	580.0098-E	T5	100°C
LW	120	4	230	580.0113-E	T4A	120°C

How to Order

SERIES	LAMP TYPE/WATTAGE	COLOR
EF41= Single lamp **EF41D**= Double lamp	**(MJ)**= 6V-10W, MR16 **(MK)**= 12V-12W, MR16 **(MW)**= 12V-20W, MR16-IR **(MS)**= 24V-12W, MR16 **(MD)**= 24V-20W, MR16 **(MT)**= 120VAC/VDC-20W MR16(GU10) **(LA)**= 6V-4W, MR16 LED **(LG)**= 12V-4W, MR16 LED **(LI)**= 12V-5W, MR16 LED **(LJ)**= 12V-6W, MR16 LED **(LL)**= 24V-4W, MR16 LED **(LW)**= 12V-4W, MR16 LED (C/W wires) * Wattage doubles for "D" 2-lamp version	**-GY**= Gray

Example: **EF41(MJ)-GY**

TYPE: _____

CATALOG #: _____

NOTES: _____

Prestige™ Thin Series

Die-Cast Aluminum Slim Profile Exit Sign With Long-Lasting LED Performance

Standard Features

- Easy to install
- Two popular finishes (see below)
- Self-Powered models with Nickel-Cadmium battery
- Low power consumption
- Field-selectable, knockouts chevrons
- Universal installation: top, end and back-mounting
- UL 924 Damp Location listed
- Meets UL 924, NFPA 101, NFPA 70-NEC and OSHA illumination standards
- Five-year full warranty

Construction

- Die-Cast aluminum housing, thin profile
- Clear lacquer, brushed aluminum inhibits fingerprints and other surface contaminants. Also available with white finish
- Universal directional chevron knockout are completely concealed and easily removed from face-plate
- Letters are 6" high with 3/4" stroke and 100 ft viewing distance rating

Electrical

- Dual-voltage input capability 120/277VAC
- Self-Powered models are provided with test switch, LED pilot light and rechargeable Nickel-Cadmium battery
- Battery: Sealed, maintenance-free, Nickel-Cadmium battery delivers 90 minutes of emergency power on all Self-Powered models

Installation

Universal mounting – top, back or end. Mounting knockout and hole plugs are easily removed. Die-Cast aluminum canopy is provided (white canopy with white frame and black canopy with black frame)

Listings

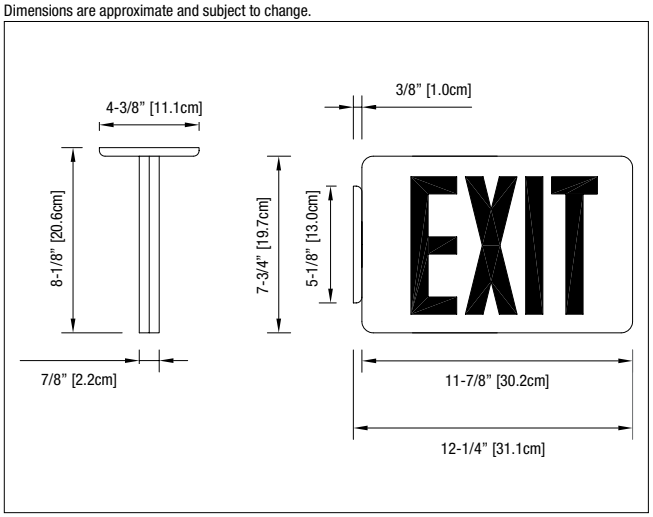
UL Listed. Damp Location listing 32°F to 122°F (Ø°C to 50°C). Meets UL 924, NFPA 101 (Life Safety Code), NFPA 70-NEC and OSHA illumination standards.

Warranty

Five-year full warranty

Dimensions

Dimensions are approximate and subject to change.



Power Consumption Chart

Model	AC Specs			DC Specs	
AC-only	120/277 VAC 60Hz	Typical 1W	Less than 1.5W	–	–
Self-Powered	120/277 VAC 60Hz	Typical 1W	Less than 1.5W	Ni-Cd battery	Min. 90 minutes

Accessories (order as a separate item)

DESCRIPTION	SUFFIX
Wire Guard (wall mount)	WG1-E
Wire Guard (ceiling mount and end mount)	WG5-E

How to Order

FRAME COLOR/FACE PLATE	SERIES	# OF LAMPS	LEGEND COLOR
BA= Black body/brushed aluminum face **WW**= White/white	**TX**= AC only **TXN**= Self-Powered unit (90 min.)	**1**= Single face **2**= Double face	**R**= Red **G**= Green

Example: **BATXN1R**

TYPE: _____

CATALOG #: _____

NOTES: _____

Total Edge™ Series

Single and Double Face, Surface and Recessed Mount Edge-Lit Exit Sign

Standard Features

- Surface, recessed* or end-mount
- High performance low power consumption LEDs
- Peel-off chevrons
- Special wording panel not available

Construction

- Brushed aluminum housing and black plastic end-caps, with high grade acrylic panel.
- Choice of legend colors: red on mirror or green on mirror

Electrical

- Dual-voltage input capability 120/277VAC
- Self-powered models feature battery delivering more than 90 minutes capacity in emergency mode

Installation

Surface mount: Pivoting panel design allows for surface installation in any applications, including ceilings and walls.

Semi recessed* mount: Includes back box and necessary hardware for joist or T-Bar ceilings and is vertically adjustable to install in most ceiling thickness. Mounting bars lock in place with two screws.

Listings

UL924 listed

Warranty

3 year full warranty, excluding lamps and fuses

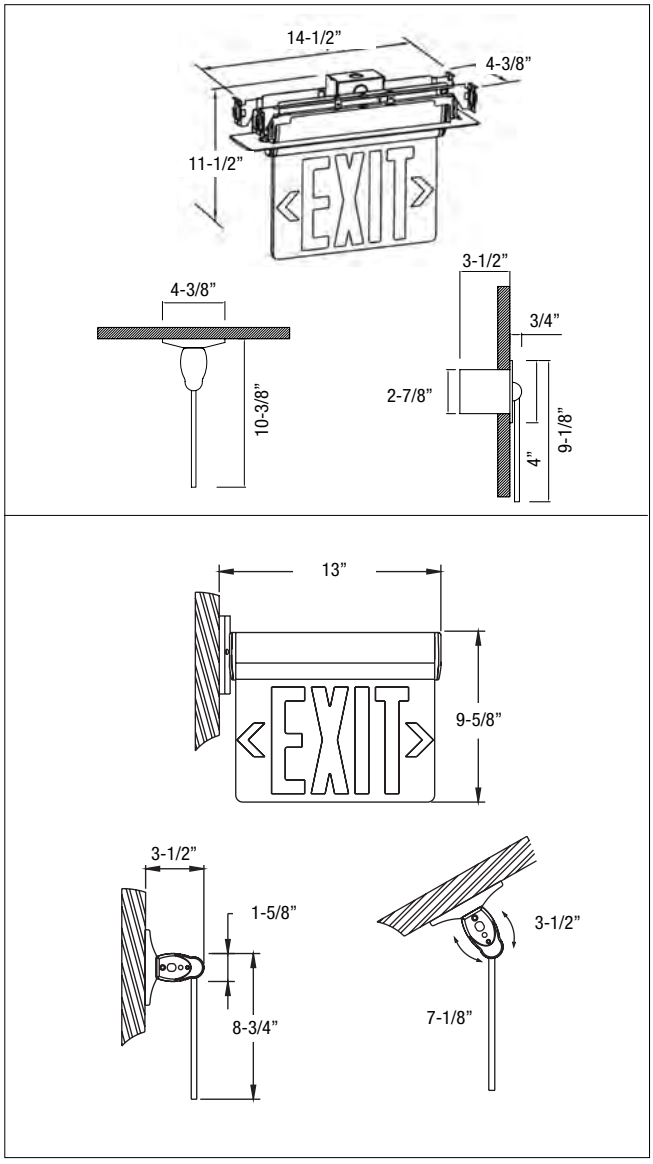
* Not intended for closed ceilings such as sheet-rock or plaster.

Power Consumption

Model		AC Specs		DC Specs	
Red	AC Only	120VAC, 60Hz	2.0-2.6W	-	-
		277VAC, 60Hz	2.6-3.1W	-	-
	Self-Powered	120VAC, 60Hz	2.0-2.6W	Ni-Cd battery	Min. 90 Minutes
		277VAC, 60Hz	2.6-3.1W	Ni-Cd battery	Min. 90 Minutes
Green	AC Only	120VAC, 60Hz	2.8-3.3W	-	-
		277VAC, 60Hz	3.5-4W	-	-
	Self-Powered	120VAC, 60Hz	2.8-3.3W	Ni-Cd battery	Min. 90 Minutes
		277VAC, 60Hz	3.5-4W	Ni-Cd battery	Min. 90 Minutes

Dimensions

Dimensions are approximate and subject to change.



How to Order

SERIES	COLOR	LEGEND
PA= AC Only **PN**= Self-Powered **PA2**= AC only Dual Circuit	**R**= Red on mirror **G**= Green on mirror	**6**= 6" EXIT Single & Double face with universal chevrons

Example: **PAR6**

TYPE: _____

CATALOG #: _____

NOTES: _____

EL-2LED Series

Low Energy, Low Maintenance Emergency Lighting for Moderate Budget Applications

Features

- Fully adjustable LED glare-free heads
- 3.6V-3.6W long-life LED illumination with life expectancy of 50,000 hrs

Construction

- Injection-molded, UV stabilized thermoplastic
- UL94, 5VA flame rated body
- Snap-together design
- Corrosion and scratch-resistant in mist white color

Electrical

- 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
- Battery lock-out prevents discharge during installation
- Sealed maintenance free 3.6V Nickel-Metal Hydride battery
- Red charger monitor LED indicates charging of the battery
- Momentary test switch allows for quick operational check of entire system

Installation

- Ceiling or wall mount
- Rear keyhole slots and universal knock-outs to mount to any standard 4" junction box

Listings

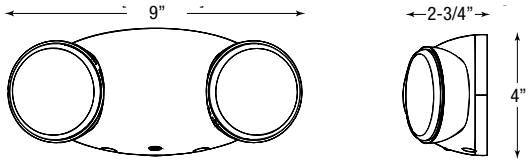
- UL Listed to UL924 Listed
- Damp location listing is standard (68° F to 86° F)

Warranty

- 3 year full warranty, excluding lamps and fuses

Dimensions

Dimensions are approximate and subject to change.



Power Consumption

Model	Current (A) / Power (W)	
EL_2LEDR	**120VAC, 60Hz**	**277VAC, 60Hz**
	0.191/0.92	0.129/1.62

How to Order

SERIES	LAMP OPTION	OPTIONS
EL	**_2LED**= round LED array	**R**= One double head dedicated remote

Note: Remote capacity can only be used to power the EF43D or EF44D remote fixtures or to extend the battery units emergency run time beyond the standard 90 minutes.

Example: **EL_2LEDR**

TYPE: _____

CATALOG #: _____

NOTES: _____

THE ESCORT II SERIES

ELXN400 LED Series

Low energy and low maintenance for moderate budget application

Features

- Fully adjustable LED glare-free heads
- 3.6V-3.6W long-life LED illumination with life expectancy of 50,000 hrs
- Legend illumination by red or green long-life LEDs

Construction

- Frame, faceplate, backplate and canopy are made of injection-molded, UV stabilized thermoplastic
- UL94, 5VA flame rated body
- Snap-together design
- Corrosion and scratch-resistant of mist white color

Electrical

- 3.6V Nickel-Metal Hydride battery
- Dual-voltage input capability 120/277VAC
- Self-diagnostics is not available

Installation

- Surface mount ceiling or wall
- Canopy included for ceiling installation
- Backplate features universal knockouts for a standard 4" junction box, used in wall mount applications

Listings

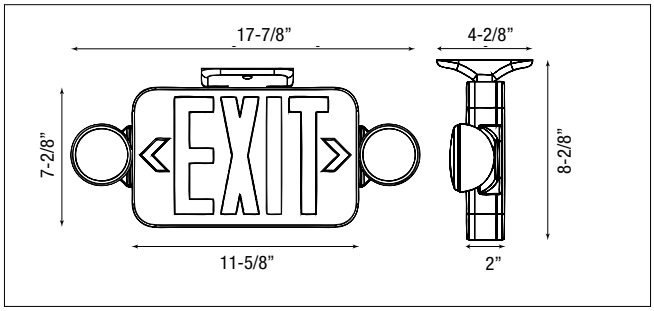
- UL Listed to UL 924 Listed
- Damp location listing is standard (68°F to 86°F)
- NFPA101 (Life Safety Code), NFPA70 NEC and OSHA illumination standard

Warranty

- 3 year full warranty, excluding lamps and fuses

Dimensions

Dimensions are approximate and subject to change.



Power Consumption

Model	Current (A) / Power (W)	
	120VAC, 60Hz	277VAC, 60Hz
ELXN400R-2LEDR	0.044/3.56	0.037/4.06
ELXN400G-2LEDR	0.042/3.2	0.036/3.8

How to Order - Combination Unit

SERIES	LEGEND COLOR	LAMP	OPTIONS
ELXN400= ELX Combo Series	**R**= Red exit **G**= Green exit	**-2LED**= Round LED array	**R**= One double head dedicated remote

Example: **ELXN400R-2LED**

EF43D & EF44D Series

Dedicated Indoor and Outdoor Remote Emergency Lighting

Features

- Plastic housing and high output LED lamp source only available in 2-heads configurations
- Can only be powered from the EL-2LEDR battery or ELXN400-LEDR Combo exit unit
- 3 year full warranty
- EF43D is for remote indoor applications; draws 3.6V-3.36W
- EF44D is for remote outdoor applications; draws 3.8W

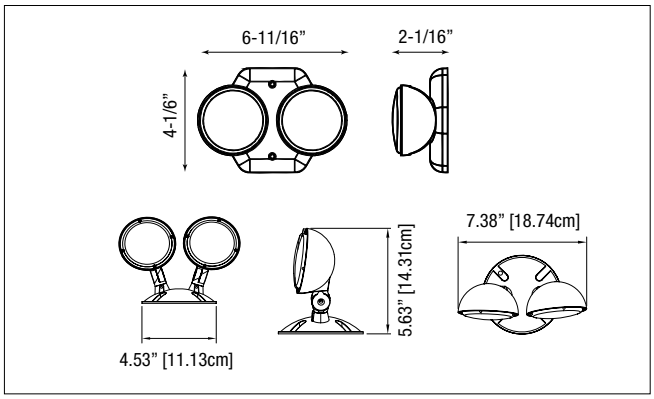
How to Order - Remote Heads

SERIES	NO. OF HEADS	LAMP	OPTIONS
EF43= Indoor series **EF44**= Outdoor weatherproof series	**D**= 2	**-LED**= round LED array	**Blank**= Indoor remote **WP**= Outdoor weather proof remote

Example: **EF43D-LED**

Dimensions

Dimensions are approximate and subject to change.



TYPE: _____

CATALOG #: _____

NOTES: _____

DLM-2 Series

Thermoplastic Housing 6V-12W Capacity Lead-Calcium Battery Unit

Standard Features

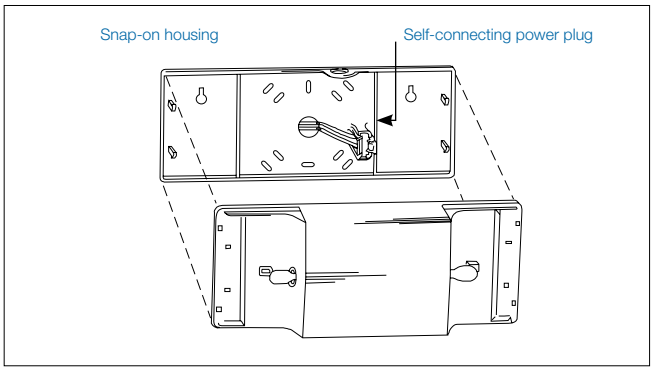
- Each self-contained unit comes with two (2) 6V high intensity glass wedge based incandescent lamps.
- Constructed of high-impact UL recognized 94V 5VA thermoplastic. Resists denting, peeling, scratching and corrosion. Transparent polycarbonate lens.
- Sealed, maintenance-free Lead-Calcium batteries.
- Integrated circuitry offers 120/277VAC 0.08/0.04A standard, automatic charging, instantaneous transfer, test switch, long life LED AC charge monitor light, temperature compensated charger, short-circuit proof and reverse polarity protected. Low battery voltage disconnect, brownout protection, and lockout (automatic battery connection).
- Can be mounted in any orientation on walls or ceilings. No screws or other mounting hardware is visible.
- Listed to UL 924 Standard. Complies with NEC, Life Safety Code and OSHA.
- 3-year full warranty, excluding lamps, pilot lamps and fuses.
- Damp location standard.

Performance

In both mechanical and electrical performance, the **DLM-2** is a superior value in its class.

Its tough thermoplastic body and flush mounted heads will not dent, peel or corrode. The snap-together lens and body and self-connecting power plug make installation quick and easy.

Electrical performance is assured by a 6 volt maintenance-free Lead-Calcium battery and a solid state charger with premium features such as: lockout, Temperature compensation, and low voltage disconnect. Selectable 120/277 standard operation.



Accessories (order as a separate item)

DESCRIPTION	PART NUMBER
Wire Guard	WG3-E

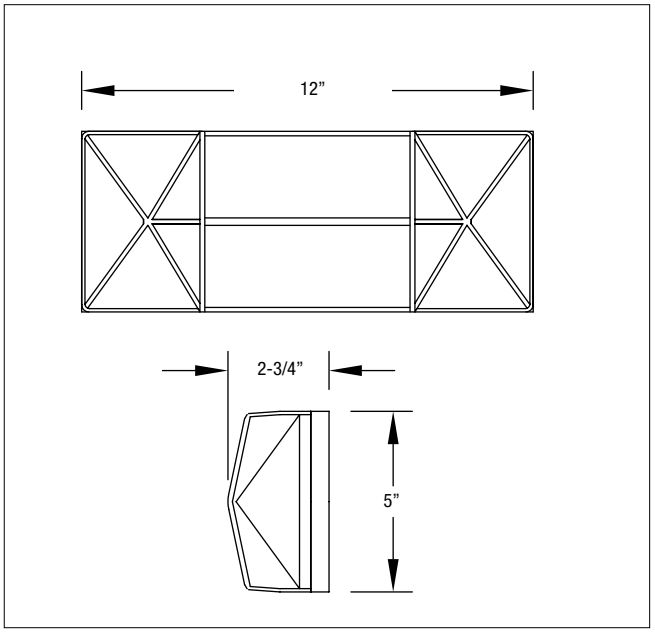
How to Order

SERIES
DLM-2= DLM-2 Battery-Powered Emergency Lighting

Example: **DLM-2**

Dimensions

Dimensions are approximate and subject to change.



Power Consumption/Unit Rating

Series	Battery Type	DC Voltage	Watts to 87-1/2% of rated battery voltage*				Units Dual Voltage*	Current Maximum
			1-1/2 hrs	2 hrs	3 hrs	4 hrs		
DLM-2	Lead-Calcium	6V	12	–	–	–	120VAC 277VAC	08A .04A

* Stand-by power consumption is 50% lower for Lead-Calcium batteries.

TYPE: _____

CATALOG #: _____

NOTES: _____

GS Series

Recessed Gimbal 6V up to 18W Capacity
Lead-Calcium or Nickel-Cadmium Battery Unit

Features

- An adjustable gimbal directs the light from one (1) 6 volt 10 watt wedge-base PAR 36 lamp head.
- The low-profile trim ring is molded in polycarbonate with a semi-gloss white finish to complement a variety of ceilings. The fully recessed back box is constructed of 20-gauge steel.
- Contains a sealed, maintenance-free Lead-Calcium battery.
- A slide out chassis and two quick-connect plugs make installation and servicing easy. Adjustable bar hangers included.
- UL Listed. Complies with NEC, Life Safety Code and OSHA.
- 3-year full warranty, excluding lamps, pilot lights and fuses.

Accessories (order as a separate item)

DESCRIPTION	SUFFIX
Remote Test Switch (metal face plate)	RTS-S
Remote Test Switch (plastic face plate)	RTS-1

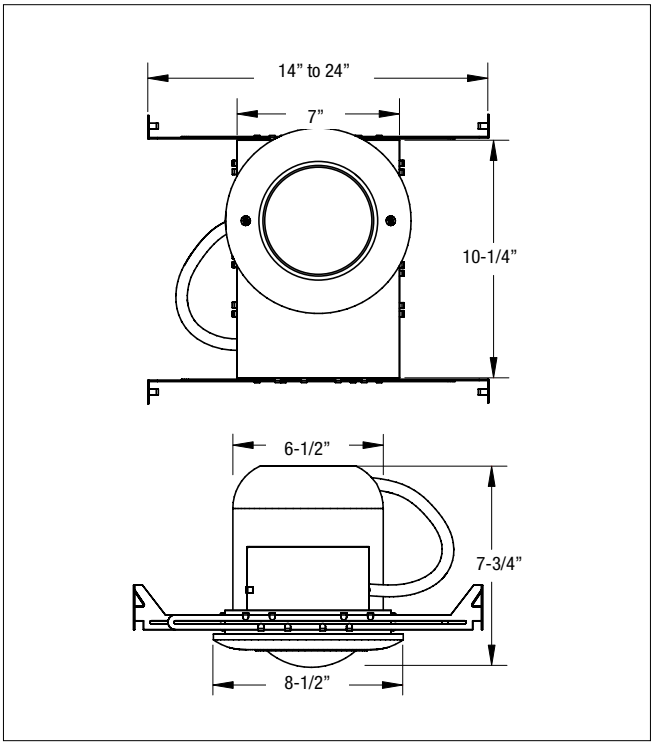
Unit Rating

UNIT EQUIPMENT - NO REMOTE CAPABILITY						
Sealed Maintenance-Free Battery Types	D.C. Voltage	Model Number	Watts to 87-1/2% of rated battery voltage*			
			1-1/2 hrs	2 hrs	3 hrs	4 hrs
Lead-Calcium	6	GSM10-BH	10	–	–	–

* Stand-by power consumption is 50% lower for Lead-Calcium batteries.

Dimensions

Dimensions are approximate and subject to change.



How to Order

SERIES	BATTERY/WATTAGE TYPE	OPTIONS
GS= 6V series	**M10**= Lead calcium 10W	**-BH**= Bar hangers

Example: **GSM10-BH**

TYPE: _____

CATALOG #: _____

NOTES: _____

EL-2SQ Series

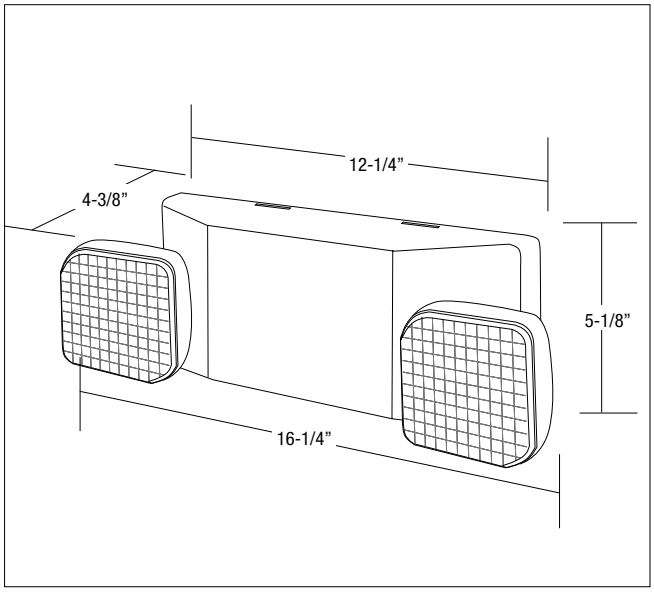
Thermoplastic Housing 6V up to 23W Capacity Lead-Calcium Battery Unit

Features

- Two (2) fully adjustable glare-free 6V-5.4W DC T5 wedge base lamps for emergency mode egress light.
- Injection-molded UV stabilized thermoplastic housing and back plate. UL 94 Liste, 5VA flame rated.
- Sealed, maintenance-free Lead-Calcium batteries. Designed to power 11 watts remote load or extended unit run time.
- 120/277 VAC dual voltage operation. LED indicator light and push button test switch. Remote capacity may power additional remote heads (up to 6V-11W). Low voltage battery disconnect.
- Innovative, snap-together design allows for fast installation. Wall or ceiling mounting. Universal knock-out pattern on the back plate allows for junction box mounting.
- UL Listed. Complies with NEC, Life Safety Code and OSHA. Damp location listing is standard in all models.
- 3-year full warranty, excluding lamps and fuses.

Dimensions

Dimensions are approximate and subject to change.



Accessories (order as a separate item)

DESCRIPTION	SUFFIX
Replacement battery	860.0018-E
Replacement lamp (standard)	570.0012-E
Vandal shield	VRS.BB
Vandal shield (NEMA 4X)	VRSBB.4X
Wire Guard (heads in any position)	WG10-E

Unit Rating

Series	Battery Type	DC Voltage	Watts to 87-1/2% of rated battery voltage*				Units Dual Voltage*	Current Maximum
			1-1/2 hrs	2 hrs	3 hrs	4 hrs		
EL-2SQ	Lead-Calcium	6V	12	–	–	–	120VAC 277VAC	08A .04A
EL-2SQR		6V	23	16	–	–		

* National Electrical Code Specification

How to Order

SERIES	LIGHT HEADS	CAPACITY INDICATOR
EL= Self-Powered	**-2SQ**= Standard lamp 6V-5.4W Incandescent	**Blank**= No remote capacity **R**= 11 watts remote capacity* * Do not exceed rated unit capacity.

Example: **EL-2SQR**

TYPE: _____

CATALOG #: _____

NOTES: _____

THE ESCORT II SERIES

ELX400 SQ Series

Thermoplastic Combination Units and Remote Capacity Exit Sign

Standard Features

- Comes with two fully adjustable glare-free SQ light heads for egress lighting, with two (2) 6V-5.4 watts DC T5 wedge base lamps.
- Low power consumption – LED lamps are operated in normal (AC input) and emergency (DC input) modes.
- Injection-molded UV stabilized thermoplastic housing, faceplates, and canopy. UL 94, 5VA flame rating. Two faces, backplate, and canopy.
- Available with a sealed, maintenance-free Lead-Calcium battery. Additional battery available for 12 watts remote load or extended unit run time (see How To Order).
- 120/277 VAC dual voltage operation. LED indicator light and push button test switch. Remote capacity exit with two heads may power additional remote heads up to 6 Volt, 12 watts. Remote capacity exit with no heads may power additional remote heads up to 6 Volt, 22 Watts. Low voltage battery disconnect.
- Innovative, snap-together design allows for fast installation. Wall or ceiling mounting. Canopy snaps to housing with a twist-lock feature tightly securing the canopy to the housing. Replaceable directional chevron inserts are easily removed and reinserted.
- UL Listed. Complies with NEC, Life Safety Code and OSHA. Damp location listing is standard on all models.
- 3-year full warranty, excluding lamps, pilot lights and fuses.

Accessories (order as a separate item)

DESCRIPTION	SUFFIX
Wire Guard (heads in any position)	WG10-E
Replacement battery	860.0004-E
Replacement lamp	570.0012-E

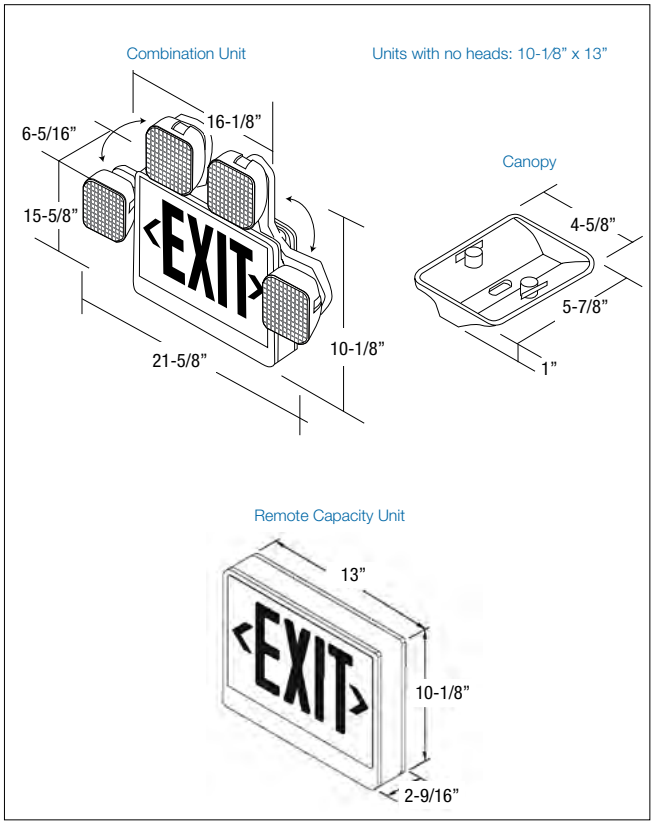
* Do not exceed rated unit capacity.

Power Consumption Chart

DESCRIPTION
120/277VAC, 60Hz maximum 0.11/0.05A

Dimensions

Dimensions are approximate and subject to change.



Note: Heads move from side to top in field

How to Order

SERIES	LEGEND	LIGHT HEADS	CAPACITY INDICATOR	OPTION
ELXN400	**R**= Red **G**= Green	**-0**= Combo no heads* **-2SQ**= Lamp standard 6V-5.4W * Only available with remote capacity AD and red legend	**Blank**= No remote capacity **R**= 12W remote capacity* *Do not exceed rated unit capacity	**Blank**= No options **-AD**= Advanced Diagnostics (audible)* * Only available with remote capacity and red stencil

Example: **ELXN400R-2SQR-AD**

TYPE: _____

CATALOG #: _____

NOTES: _____

EL-2MRS & 12EL50-2MRS Series

Completely Self-Contained or Heavy Duty Thermoplastic Battery Unit

Features

- Each self-contained unit comes with two (2) 6V MR16 halogen or LED lamps housed in adjustable, gimbal-type assemblies to provide clean, adequate lighting
- High impact thermoplastic construction is UL recognized 94, 5VA
- Sealed, maintenance-free Lead-Calcium batteries
- Reliable integrated circuitry offers 120/277VAC 0.1/0.05A input standard, automatic charging, instantaneous transfer, test switch, long-life LED AC charge monitor, temperature compensated charger, short circuit protection, low battery voltage disconnect, brownout protection, and lock out (automatic battery detection during installation)
- Snap-together thermoplastic housing facilitates mounting in any orientation
- UL Listed. Complies with NEC, Life Safety Code and OSHA Damp location listing is standard
- 3-year full warranty, excluding lamps and fuses

Accessories (order as a separate item)

EL-2MRS

DESCRIPTION	PART NUMBER
Replacement MR16 lamp 6V-5W	580.0072-E
Wire Guard	WG13-E
Replacement Battery	860.0004-E
Replacement MR16 LED lamp 6V-4W	580.0097-E

Accessories (order as a separate item)

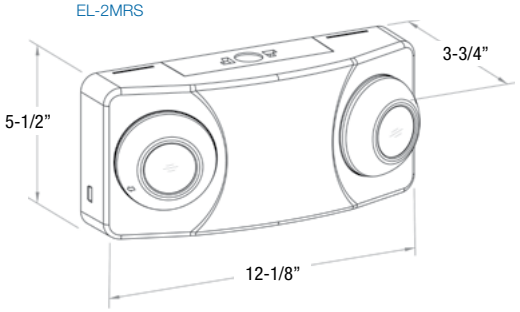
12EL50-2MRS

DESCRIPTION	PART NUMBER
Wire Guard	WG13-E
Replacement MR16 lamp 12V-4W LED	580.0093-E
Replacement MR16 lamp 12V-12W Halogen	580.0080-E
Replacement MR16 lamp 12V-20W Halogen	580.0064-E

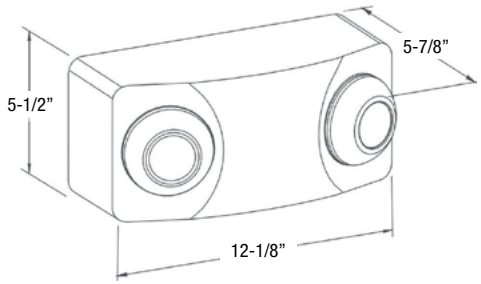
Dimensions

Dimensions are approximate and subject to change.

EL-2MRS



12EL50-2MRS



Power Consumption: EL2MRS

Series	Battery Type	DC Voltage	Watts to 87-1/2% of rated battery voltage				Dual Voltage	Current Maximum	Power Maximum
			1-1/2 hrs	2 hrs	3 hrs	4 hrs			
EL-2MRS	Lead-Calcium	6V	12	–	–	–	120VAC 277VAC	.1A .05A	7.5W 7.5W
EL-2MRS-LA		6V	12	–	–	–			

Power Consumption: 12EL50-2MRS

Series	Battery Type	DC Voltage	Watts to 87-1/2% of rated battery voltage				Dual Voltage	Current Maximum	Maximum
			1-1/2 hrs	2 hrs	3 hrs	4 hrs			
12EL50-2MRS	Lead-Calcium	12V	50	32	25	16	120VAC 277VAC	.21A .1A	23W 23W

How to Order: EL-2MRS

SERIES	LAMP OPTION
EL= Series	**-2MRS**= 6V-5W MR16 **-2MRS-LA**= 6V-4W, MR16 LED

Example: **EL-2MRS-LA**

How to Order: 12EL50-2MRS

VOLTAGE	SERIES	CAPACITY (W)	LAMP
12= 12 Volts	**EL**	**50**	**-2MRS-MK**= 12V-12W Halogen (Standard) **-2MRS-LG**= 12V-4W, MR16 LED **-2MRS-MG**= 12V-20W Halogen

Example: **12EL50-2MRS-MK**

TYPE: _____

CATALOG #: _____

NOTES: _____

THE ESCORT II SERIES

ELX-MRS Series

Thermoplastic Exit Sign and Combination Unit

Features

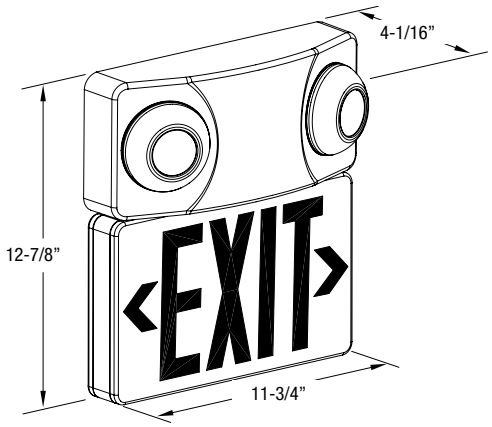
- Rugged off-white thermoplastic construction
- Even illumination for excellent legibility
- Snap-together design for quick and easy installation
- Universal mounting, complete with 2 faces, backplate, and canopy
- Replaceable knockout directional chevrons
- Energy efficient, long-life red or green LEDs
- Listed to UL 924 Listed
- Complies with NEC, Life Safety Code and OSHA.
- Damp location listing is standard on all models.
- 6 volt, sealed, maintenance-free Lead-Calcium battery
- Fully adjustable, glare-free, 6 volt MR16 lamps
- 3-year full warranty, excluding lamps and fuses
- 4 watt LED lamps available

Charger

- 120/277VAC input
- Fully automatic charger
- Temperature compensated
- Brownout protection
- Short circuit protected
- Low voltage battery disconnect
- Push to test switch
- AC pilot light

Dimensions

Dimensions are approximate and subject to change.



Accessories (order as a separate item)

DESCRIPTION	SUFFIX
Replacement MR16 lamp 6V-5W	580.0072-E
Wire Guard Wall Mount	WG6-E

Power Consumption

DESCRIPTION
120/277VAC, 60Hz 0.11/0.05A

How to Order

SERIES	STENCIL FACE	LIGHT HEADS
ELXN400	**R**= Red **G**= Green	**-2MRSN**= 6V-5W MR16 **-2MRSN-LA**= 6V-4W, LED MR16

Example: **ELXN400R-2MRSN**

TYPE: _____

CATALOG #: _____

NOTES: _____

ELX Series

Economical, Thermoplastic LED Exit Signs

Features

- Rugged off-white thermoplastic construction
- Even illumination for excellent legibility
- Snap-together design for quick and easy installation
- Universal mounting, complete with 2 faces, backplate, and canopy
- Replaceable knockout directional chevrons
- Energy efficient, long-life red or green LEDs
- Listed to UL 924 Listed
- Complies with NEC, Life Safety Code and OSHA.
- Damp location listing is standard on all models
- 3-year full warranty, excluding lamps and fuses

ELX Series Models

AC-only exit signs, red or green
Self-powered exit signs, red or green

Self-Powered Emergency Models

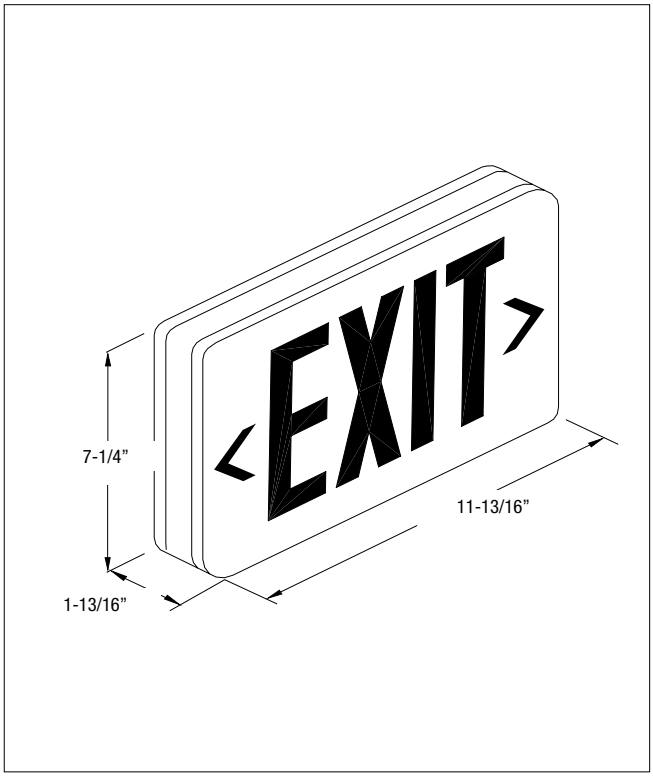
- Replaceable, sealed Nickel-Cadmium battery
- Provides a minimum 90 minutes of continuous emergency illumination
- Energy star compliant
- Batteries recharge per UL924 specifications
- Consumes less than 5W

Charger

- 120/277VAC input
- Fully automatic
- Temperature compensated
- Brownout protection
- Short circuit protected
- Low voltage battery disconnect
- Push to test switch
- AC pilot light

Dimensions

Dimensions are approximate and subject to change.



Accessories (order as a separate item)

DESCRIPTION	SUFFIX
Wire Guard - Wall Mount	WG1-E
Ceiling or end mount	WG5-E

Power Consumption

DESCRIPTION
120/277VAC, 60Hz maximum 2.5W

How to Order

SERIES	STENCIL FACE
ELX400= AC-only **ELXN400**= Self-Powered	**RN**= Red **GN**= Green

Example: **ELXN400RN**

TYPE: _____

CATALOG #: _____

NOTES: _____

Quick Switch Series

LED Replacement Lamps LED Retrofit Kits

Quick Switch

- Quick and easy to install
- Available with wide range of lamp bases for quick lamp to lamp replacement
- High brightness LEDs
- 120 VAC only
- Two bulbs per pack

Power Consumption (LED Exit Signs)

Model	AC Specs	
QS	120VAC	0.9W
QS-F	120VAC	1.6W

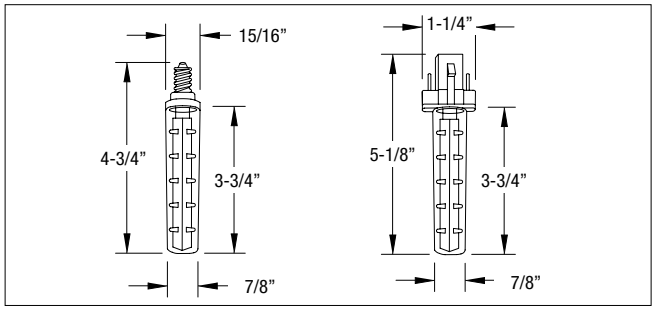
How to Order

SERIES	BASE
QS	**-C**= Candelabra **-I**= Intermediate **-M**= Medium **-B**= Bayonet **-F30**= Compact fluorescent

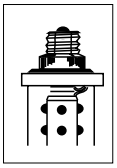
Example: **QS-C**

Dimensions

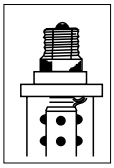
Dimensions are approximate and subject to change.



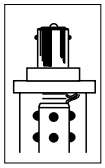
QS-C Candelabra Base



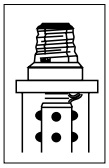
QS-I Intermediate Screw Base



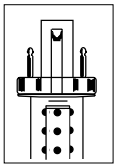
QS-B D.C. Bayonet Base



QS-M Medium Screw Base



QS-F30 PL 5, 7 or 9 Watt Base



LED Retrofit Kit – Standard Features

- Easiest to install in its class
- Compact size makes it ideal for virtually all exit signs
- Can be retrofitted directly on fluorescent ballast
- Long-Life, energy-efficient red LED technology
- Available with AC adaptor for all type of lamp sockets

How to Order

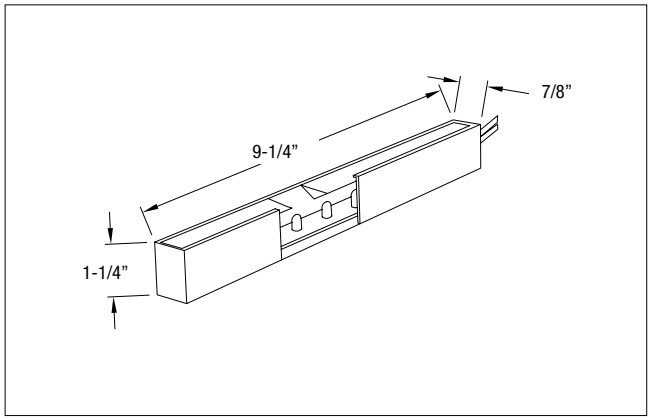
NOTE: Please consult your sales representative for Green LED option.

SERIES	BASE
LED-RX	**-C**= Candelabra **-I**= Intermediate **-M**= Medium **-B**= Bayonet **-F**= Compact fluorescent **-120-HW**= Hard wired **-277-HW**= Hard wired

Example: **LED-RX-C**

Dimensions

Dimensions are approximate and subject to change.



Power Consumption (LED Exit Signs)

MODEL	AC SPECS	
LED-RX	120VAC	0.7W
LED-RX-120-HW	120VAC	0.7W
LED-RX-277 HW	277VAC	0.7W

TYPE: _____

CATALOG #: _____

NOTES: _____

FPDL Series

Fluorescent Emergency Lighting Ballasts

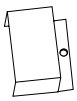
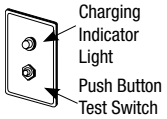
Six models meet different application requirements:

- **FPDL-32** 500 lumens emergency ballast operates with most 2'-4' T8 linear fluorescent lamps and also with 28W T5 lamps
- **FPDL/U** 1400 lumens emergency ballast operates with most 2'-4' T8 and T5 linear fluorescent lamps and also with most 4-pin compact fluorescent lamps
- **FPDL13-42-N** 650 lumens emergency ballast operates with most 13-42W 4-pin quad and triple tube fluorescent lamps with one or two lamps (max. 18W)
- **FPDL-28** 700 lumens emergency ballast operates with most 2'-4' T8 and T5 linear fluorescent lamps
- **FPDL-10-26** 650 lumens emergency ballast operates with most 10-26W 2-pin compact fluorescent lamps
- **FPDL-HL-N** is a high-output emergency ballast capable of producing up to 3000 lumens

Features

- Compatible with standard, energy-saving, dimming and electronic AC ballasts
- Can be wired to operate with switched, un-switched or normally-off fixtures without affecting normal operation
- Sealed, maintenance-free Nickel-Cadmium batteries
- Upon failure of AC power, the FPDL-32 and FPDL10-26 models automatically switch to emergency mode, maintaining illumination of one lamp within the fixture. FPDL/U, FPDL13-42-N, FPDL-28 and FPDL-HL-N units will maintain operation of one or two lamps when switched to the emergency mode
- When AC power is restored, the FPDL Series automatically returns the fluorescent lamps to normal operating mode and the solid state charger begins recharging the battery
- Self-contained in one compact housing for easy installation and maximum mounting flexibility
- UL Listed for damp locations to Standard 924; complies with NEC, Life Safety Code and OSHA, and field installation
- 3-year full warranty
- Each unit is fully computer tested

Accessories (order as a separate item)

DESCRIPTION	PART NUMBER
External mounting kit includes wire bundle cover for external mounting (not needed for FPDL13-42-N, FPDL10-26 and FPDL-HL-N)	**EC6** 
Remote test switch comes with single gang plastic mounting plate (included in FPDL13-42-N and FPDL10-26)	**RTS-1** 

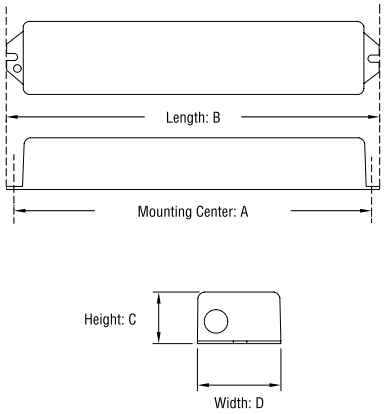
How to Order

SERIES	
FPDL-32	**FPDL-28**
FPDL-U	**FPDL10-26**
FPDL13-42-N	**FPDL-HL-N**

Example: **FPDL-32**

Dimensions

Dimensions are approximate and subject to change.



Cabinet Size	Dimensions			
	a	b	c	d
FPDL-32	9-1/2"	10-1/8"	1-1/8"	2-1/8"
FPDL/U	13-3/4"	14-1/4"	1-1/8"	2-1/8"
FPDL13-42-N	8-7/8"	9-3/8"	1-1//"	2-3/8"
FPDL-28	13-3/4"	14-1/4"	1-1/8"	2-1/8"
FPDL10-26	8-7/8"	9-3/8"	1-1/2"	2-3/8"
FPDL-HL-N	15-3/4"	16-1/4"	1-3/4"	5-1/2"

Power Consumption

Series	Lamp Operated in Emergency Mode*	Emergency Illumination Time	Lumens
FPDL-32	1 lamp 2'-4' (20W-40W)	90 minutes	500
FPDL/U	1 lamp 2'-8' (20W-60W) or 2 lamps 2'-4' (20W-32W)	90 minutes	1400
FPDL13-42-N	1 compact 4-pin (13W-42W) or 2 compact 4-pin (13W-18W)	90 minutes	650
FPDL-28	1 lamp 2'-4' (20W-54W) or 2 lamps 2'-4' (20W-32W)	90 minutes	700
FPDL10-26	1 compact 2-pin (10W-26W)	90 minutes	650
FPDL-HL-N	- 1 lamp 2'-8' or - 2 lamps 2'-4' or - 1 compact 4-pin (18W-70W) or - 2 compact 4-pin (18W-32W)	90 minutes	3000

TYPE: _____

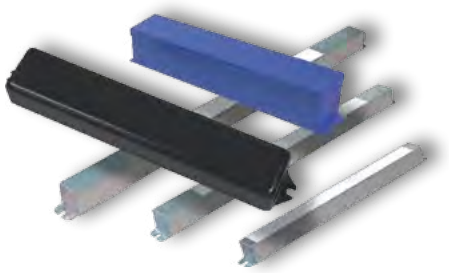
CATALOG #: _____

NOTES: _____

nexus

FPS Series

Fluorescent Emergency Lighting Ballasts



Seven models are offered to satisfy different applications requirements and lumen output:

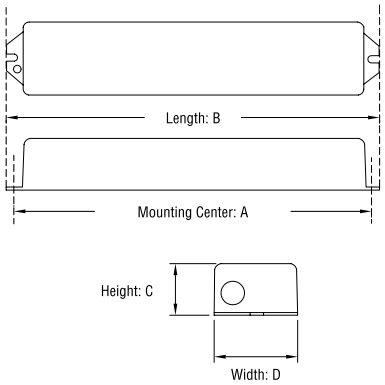
- **FPS-500 and FPS-825** operate with most 2'-4' T5 or T8 PL lamps. The FPS-825 also operates HO and 4 pin long compact fluorescent lamps from 40 through 55 watts.
- **FPS-540** operates T5 or T8 lamps, including HO and 4-pin long compact fluorescent lamps of 40-55 watts, with an initial output of up to 1300 lumens. Testing the FPS-540 is made easy with a one-piece indicator and test switch.

Features

- FPS-80 is offered with Nexus® wired and wireless monitoring system which includes Nexus® fluorescent emergency ballast as well as Nexus® (wired or wireless) communication modem
- Compatible with standard, energy-saving, dimming and electronic AC ballasts
- Can be wired to operate with switched, un-switched or normally-off fixtures without affecting normal operation
- Sealed, maintenance-free Nickel-Cadmium batteries
- Upon failure of AC power, the FPS-500, FPS-825 and FPS-540 models automatically switch to emergency mode, maintaining illumination of one lamp within the fixture. FPS-80 units will maintain operation of one or two lamps when switched to the emergency mode
- When AC power is restored, the FPS Series automatically returns the fluorescent lamps to normal operating mode and the solid state charger begins recharging the battery
- Self-contained in one compact housing for easy installation and maximum mounting flexibility
- UL Listed to Standard 924; complies with NEC, Life Safety Code and OSHA
- 3-year full warranty
- Each unit is fully computer tested

Dimensions

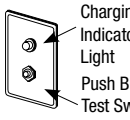
Dimensions are approximate and subject to change.



Cabinet Size	Dimensions			
	A	B	C	D
FPS-500	13-3/4"	14-1/4"	1-3/16"	1-3/16"
FPS-825	17"	17-1/2"	13/16"	1-3/16"
FPS-540	12-1/2"	13-1/8"	11/2"	2-1/4"
FPS-80D	12-3/4"	12-3/4"	11/2"	2-3/8"
FPS-80NEXUS-N	12-3/4"	12-3/4"	11/2"	2-3/8"

Accessories (order as a separate item)

DESCRIPTION	PART NUMBER
External mounting kit includes wire bundle cover for external mounting	**-R**
Damp Location listing	**-DL**
Remote test switch includes single gang chrome finished mounting plate	**RTS-1**
Test switch kit for fluorescent	**-TBTS**
Test switch kit for FPS80D/Nexus®	**LPTS**



How to Order

SERIES		OPTION SUFFIX
FPS-500 **FPS-825** **FPS-540** **FPS-80D**	**FPS-80NEX-N*** **FPS-80NEXRF-N***	**External Mounting Kit**
	* Including Nexus® communcation module	

Example: **FPS-80D**

Power Consumption

Series	Lamp Operated in Emergency Mode*	Emergency Illumination Time	Lumens	Wire End Caps
FPS-500	1 lamp 2'-4'	90 minutes	500	Optional, order #EC54
FPS-825	1 lamp 2'-4'	90 minutes	825	Optional, order #EC54
FPS-540	1 lamp 2'-4' (40W-50W) Most 2'-4' T5 or T8 and 40-55W 4 pin compact fluorescent	90 minutes	1300	Not required
FPS-80D	Most 2' - 4' single, bi-pin T8 & T12HO and VHO, including long compacts and 2' - 4' 14W to 54W T5 lamps	90 minutes	1100	Not required
FPS-80NEX-N FPS-80NEXRF-N	Most 2' - 4' single, bi-pin T8 & T12HO and VHO, including long compacts and 2' - 4' 14W to 54W T5 lamps	90 minutes	1100	Not required

TYPE: _____

CATALOG #: _____

NOTES: _____

FPS-R & FPS-T Series

Fluorescent Emergency Packs

Features

- All-metal construction with off white baked enamel finish and 3" pre-wired fixture whip
- Sealed, maintenance-free Nickel-Cadmium, Long Life Lead, or Lead-Calcium batteries
- During normal operation, when the AC line voltage is present, the fixture will fully illuminate by means of the regular ballast. While supplied with AC, the emergency ballast transforms AC into a low DC voltage to recharge the battery and maintain it fully charged
- When the AC fails, a solid state voltage sensor instantly turns on a high frequency inverter which supplies one or two lamps in the fixture for a minimum of 90 minutes. Only FPS-T can run 2 lamps in a 2 or 4 lamp fixture.
- At the end of the rated time a low voltage sensor disconnects the battery to prevent over-discharging
- When the AC returns, the inverter switches off and the battery begins to recharge
- Charger circuitry offers 120/277VAC, 60 Hz., 0.3/0.15A (other inputs available), fused output circuit(s), dual diagnostic indicator lights, temperature compensation, sealed relay, low voltage battery disconnect, brownout protection and lockout (automatic battery connect).
- 3-year full warranty
- Each unit is fully computer tested

Accessories (order as a separate item)

DESCRIPTION	PART NUMBER
Remote test switch Available for installation where routine testing via the units standard integral test switch would be difficult due to either fixture location or inaccessibility. This option consists of a push button test switch and pilot light, mounted on a single gang switch plate plastic white	**RTS-1**
Test switch and charging indicator on a single gang chrome mounting plate	**RTS**

Cabinets

DESCRIPTION
Remote: (external) mounts on top or beside fixture. #18 gauge steel, finish white baked enamel finish and pre-wired 3" flexible conduit fixture whip.
T-Bar: mounts in T-Bar struts beside fixture. #18 Gauge steel, finish white baked enamel finish and mounting eyes for fixture suspension and a pre-wired 3" flexible conduit fixture whip.
Servicing: Backplate lifts off for full access to battery and input/output wires.

How to Order

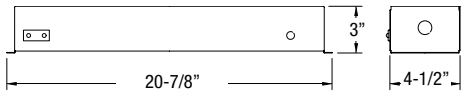
SERIES	CABINET TYPE	LUMENS	BATTERY TYPE	# OF LAMPS
FPS= Fluorescent series	**-R**= Remote **-T**= T-Bar	**-720**= 720 lumens **-1800**= 1800 lumens	**-C**= Ni-Cd **-E**= Long life lead **-M**= Lead-Calcium	**-1**= One lamp **-2**= 2 lamps* * Only available with FPS-T

Example: **FPS-T-720-M-1**

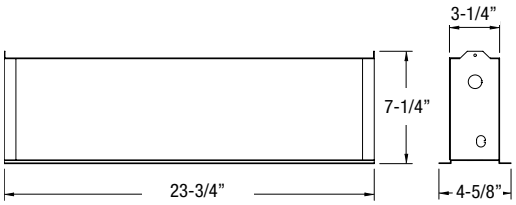
Dimensions

Dimensions are approximate and subject to change.

REMOTE (FPS-R)



T-BAR (FPS-T)



Unit Rating

Series	Lumens	Battery Suffix	Sealed Maintenance-Free Battery Types	Number of lamps
REMOTE MOUNTED (FPS-R)				
FPS-R	720	C	Nickel-Cadmium	1
FPS-R	720	E	Long Life Lead	1
FPS-R	720	M	Lead-Calcium	1
FPS-R	1800	C	Nickel-Cadmium	1
FPS-R	1800	E	Long Life Lead	1
FPS-R	1800	M	Lead-Calcium	1
T-BAR MOUNTED (FPS-T)				
FPS-T	720	C	Nickel-Cadmium	1
FPS-T	720	E	Long Life Lead	1
FPS-T	720	M	Lead-Calcium	1
FPS-T	1800	C	Nickel-Cadmium	1
FPS-T	1800	E	Long Life Lead	1
FPS-T	1800	M	Lead-Calcium	1
FPS-T	720	C	Nickel-Cadmium	2
FPS-T	720	E	Long Life Lead	2
FPS-T	720	M	Lead-Calcium	2
FPS-T	1800	C	Nickel-Cadmium	2
FPS-T	1800	E	Long Life Lead	2
FPS-T	1800	M	Lead-Calcium	2

TYPE: _____

CATALOG #: _____

NOTES: _____

FTS Series

Emergency Transfer Switch for Generator Supplies

Features

- Compatible with standard, energy-saving, dimming and electronic AC ballasts
- UL Listed
- Will cold start and operate all specified lamps
- Galvanized steel case
- Dual Voltage 120/277V 60hz
- Available in flex or non-flex configuration
- Meets or exceeds all National Electrical Code and Life Safety Code Emergency Lighting Requirements
- 5-Year Warranty. See Warranty page for details.

Advantages

- Full light output
- Allows auxiliary generator power on a switched fixture.

Lamps Operated

Will operate any lamp in the designated circuit for the duration of the generator supply

Technical Specifications

Input Voltage ..... (Dual) 120/277V, 60Hz
Input Current ..... 250 mA

Maximum Switching Voltage:
- 3A @ 120V
- 3A @ 277V Circuit Protection
- 3A on Control Input
- 3A on Neutral and 120/277V Outputs

Emergency Operation
The FTS will operate any lamp type in the designated fixture for the duration of the generator supply

Initial Illumination
The FTS will operate the designated lamp at full light output

Weight ..... 1.0 lbs.
Approval ..... UL Listed

Options

Configuration
- FTS (no flex)
- FTS-R (w/ flex)

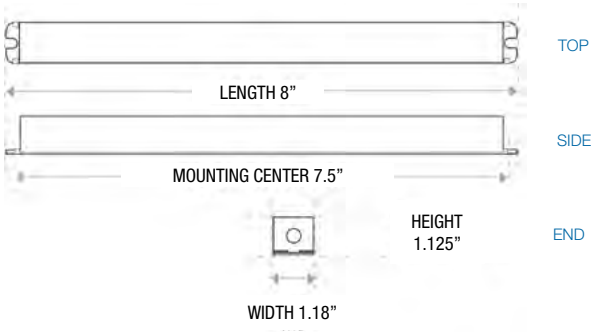
How to Order

SERIES	CABINET TYPE	LUMENS	BATTERY TYPE	# OF LAMPS
FTS= Flourescent series	**-R**= Remote **-T**= T-Bar	**-720**= 720 lumens **-1800**= 1800 lumens	**-C**= Ni-Cd **-E**= Long life lead **-M**= Lead-Calcium	**-1**= One lamp **-2**= 2 lamps* * Only available with FPS-T

Example: **FPS-T-720-M-1**

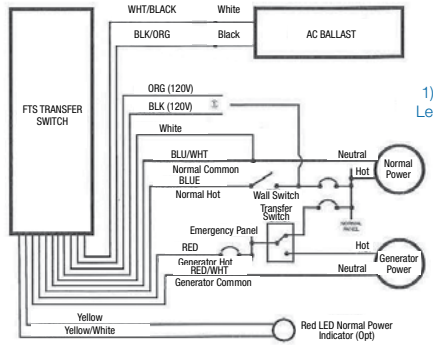
Dimensions

Dimensions are approximate and subject to change.

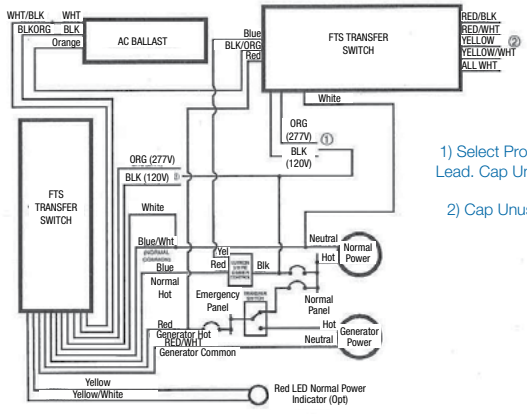


Wiring Diagrams

TYPICAL BALLASTS/GENERATOR APPLICATION



TYPICAL DIMMING BALLASTS/GENERATOR APPLICATION



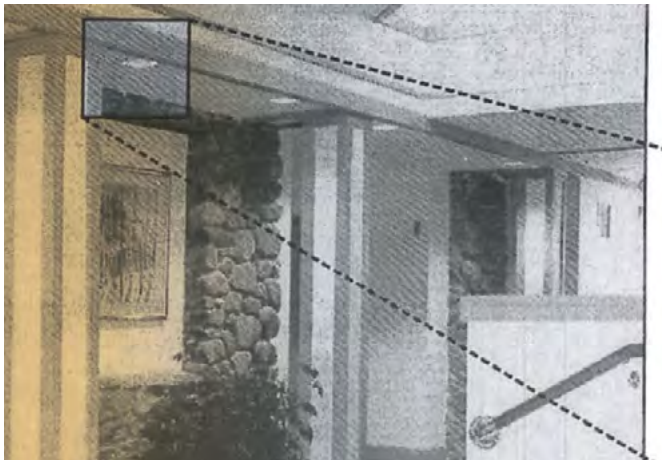
TYPE: _____

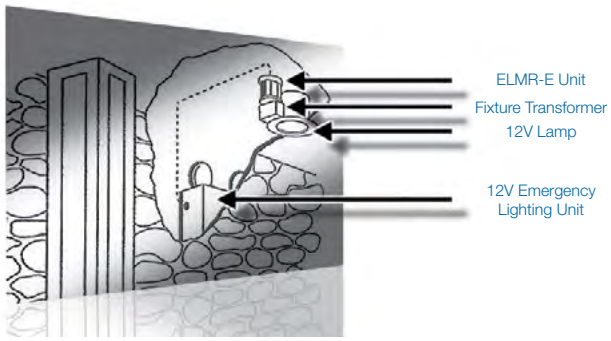
CATALOG #: _____

NOTES: _____

ELMR-E Interface Module Series

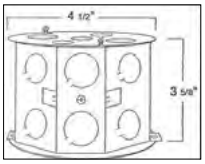
Enables Normally-On Low Voltage (12V) Lamps To be Used as Emergency Lighting





Application: To maintain the integrity of lighting decor, **Emergi-Lite®** offers an interface module, **"ELMR-E"**; which is designed to be incorporated with MR16, PAR36, R12, or R14 low voltage lighting fixtures that are being used as both normal lighting fixtures, and as emergency lighting fixtures.
These dual-function fixtures are used in a variety of accent applications, especially in retail store lighting.

Module Information



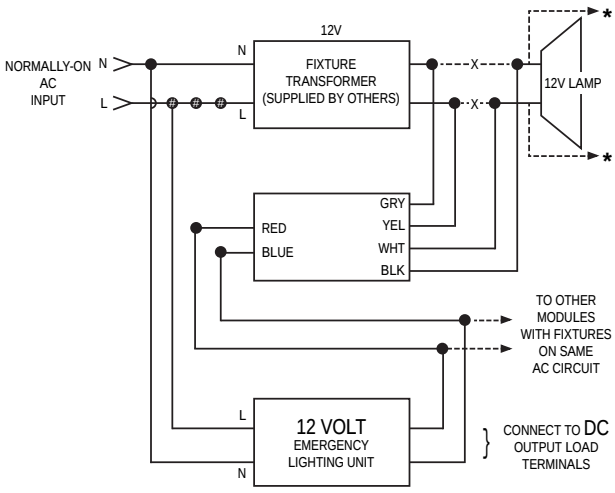
The **Emergi-Lite®** "ELMR-E" interface module consists of a relay transfer panel enclosed in an octagonal electrical box which measures 4-1/2 inches in diameter by 3-5/8 inches deep. The module is designed to operate 12 volt lamps up to a total of 200 watts. A remotely located **Emergi-Lite®** 12 volt emergency lighting unit, in conjunction with the **"ELMR-E"**, supplies 12 volt during an emergency situation regardless if the fixture is switched on or off.

Installation

The **"ELMR-E"** interface module is provided with a 1/2 inch threaded conduit nipple for fast, easy, field installation and mounts directly to the step-down transformer junction box of the low voltage lighting fixture. For applications requiring remote mounting, not only is a fixture "stud plate" is provided, as well as two mounting tabs with 3/16 inch diameter holes on 4-9/16 inch centers. Electrical connection is made by splicing to the secondary winding of the step-down transformer and connecting it and the remote feed from the 12 volt battery pack to the **"ELMR-E"** module. One **"ELMR-E"** is required for each fixture that contains an internally mounted step-down transformer. However, if several low-voltage lamps are assigned to a single, centrally-located step-down transformer, only one **"ELMR-E"** is needed to operate all lamp fixtures, up to 200W.

Operation

In the event of a power failure the 12 volt **Emergi-Lite®** battery unit would supply the **"ELMR-E"** module with 12 volt DC power. The **"ELMR-E"** module would then transfer the lighting fixture from its normal 12 volt AC source (transformer) to the 12 volt DC battery power. Upon restoration of the normal AC power supply, the module will transfer the lighting fixture back to its normal operating mode.
Note: Remote battery pack must have sufficient capacity to support the connected load for a minimum of 90 minutes.



Notes: X Denotes "Cut Original Wiring"
*: "To other low-voltage lamps" (multiple-lamp, single transformer arrangements only)
#: Install wall switch here, (if required)

IMPORTANT: Emergency lighting units must be fed from same branch feeder circuit (normally-on circuit)

Consult **Emergi-Lite®**'s technical data section for wire run length and wire size requirements. Emergency lighting unit must be capable of supplying total wattage lamp loads for a minimum of 90 minutes. Applications may require longer time durations. Consult NFPA Life Safety Code and National Electric Code and National Electric Code Article 700 with regard to standard engineering practices. Local codes may vary.

TYPE: _____

CATALOG #: _____

NOTES: _____

Emergency Ballast Series
Reference Chart

EMERGI-LITE® MODEL #	FPDL-32	FPDL/U	FPDL13-42	FPDL-28	FPDL10-26	FPDL-HL	FPS500	FPS80D	FPS825	FPS540
Lumens	**500**	**1400**	**650**	**700**	**650**	**3000**	**500**	**1300**	**825**	**1300**
LAMP TYPE (# OF LAMPS)	**LINEAR LAMPS**									
2'-4' Rapid, Instant, Energy Saving, T8 thru T12 (1)	X	X		X		X	X	X	X	X
2'-4' Rapid, Instant, Energy Saving, T8 thru T12, HO & VHO (2)		X		X		X		X		
2'-8' Rapid, Instant, Energy Saving, T8 thru T12, HO & VHO (1)		X				X		X		
F17 T8 (1)	X	X		X		X	X	X	X	X
F17 T8 (2)		X		X		X		X		
F25 T8 (1)	X	X		X		X	X	X	X	X
F25 T8 (2)		X		X		X		X		
F32 T8 (1)	X	X		X		X	X	X	X	X
F32 T8 (2)		X		X		X		X		
F40 T8 (1)		X		X		X			X	X
FO96 T8 59W (1)						X		X		
14W T5 (1)	X	X		X			X		X	X
21W T5 (1)	X	X		X		X	X		X	X
24W T5 (1)	X	X		X		X	X		X	X
28W T5 (1)	X	X		X		X	X	X	X	X
39W T5 (1)		X		X		X		X	X	X
54W T5 HO (1)		X		X		X		X	X	X
F20 T12 (1)	X	X		X		X		X		
F20 T12 (2)		X		X		X				
F40 T12 (1)	X	X		X		X		X		
F40 T12 (2)		X				X				
F48 T12 (1)		X				X		X		
F96 T12 60W (1)		X				X		X		
LAMP TYPE (# OF LAMPS)	**COMPACT LAMPS**									
18W Long Compact (1)	X	X		X		X				
24W Long Compact (1)	X	X		X		X				
36W Long Compact (1)	X	X		X		X		X	X	X
40W Long Compact (1)	X	X		X		X		X	X	X
40W Long Compact (2)						X				
50W Long Compact (1)		X		X		X		X	X	X
55W Long Compact (1)		X				X		X	X	X
7W PL CF 2-Pin (1)					X					
9W PL CF 2-Pin (1)					X					
13W PL CF 2-Pin (1)					X					
18W PL CF 2-Pin (1)					X					
26W PL CF 2-Pin (1)					X					
13W PL CF 4-Pin (1 or 2)		X	X	X						
18W PL CF 4-Pin (1 or 2)		X	X			X				
26W PL CF 4-Pin (1)		X	X	X		X				
26W PL CF 4-Pin (2)						X				
32W PL CF 4-Pin (1)		X	X	X		X				
32W PL CF 4-Pin (2)						X				
42W PL CF 4-Pin (1)		X	X			X				
42W PL CF 4-Pin (2)										
57W PL CF 4-Pin (1)		X				X		X		
57W PL CF 4-Pin (2)										
70W PL CF 4-Pin (1)		X				X		X		
20W Circline (1)	X	X	X	X		X		X	X	X
22W Circline T9 (1)		X	X	X		X		X		
22W Circline T5 (1)		X	X	X		X		X	X	X
40W Circline T8 (1)	X	X		X		X		X		
40W Circline T5 (1)		X		X		X				
55W Circline T5 (1)		X				X				
F28 2D (1)			X							
F28 2D (2)										
F38 2D (1)										
F38 2D (2)										

TYPE: _____

CATALOG #: _____

NOTES: _____

Mini-Inverter Series

Interruptible Unit Equipment

Highlights

The **Mini-Inverter** is a UL Listed stand-alone pure sine wave (250W and up) output inverter designed to provide power to designated emergency lighting fixtures. In a power loss situation, it will supply power from the onboard battery supply.

The **Mini-Inverter** works in conjunction with incandescent, LED, and fluorescent fixture types and will automatically run switched, normally-on, or normally-off designated emergency fixtures.

The **Mini-Inverter** is ideal for applications requiring an emergency source for lighting arrangements that utilize multiple lamp and fixture types and is available in surface mount and comes with a three year warranty and seven-year pro-rata battery warranty.

Features

- Lamps operated: Incandescent LED, fluorescent lamps and ballast combinations, including dimming ballasts
- Components: High-efficiency pure sine wave inverter (250W and up), temperature-compensated charger 12V oversized Valve Regulated Acid (VRLA) battery
- Construction: 14-gauge steel housing
- Emergency lighting supplied from one convenient source
- Input/Output voltage 120V 60 Hz or 277V 60 Hz
- Replacable output fuse protection
- Line voltage allows for remote mounting of emergency fixtures at distances up to 1000 feet
- Low Voltage Battery Disconnect
- Unit comes standard with electronic lockout and brownout circuits
- Meets or exceeds all National Electrical Code and Life Safety Code Emergency Lighting Requirements
- Cabinet in factory white semi-gloss powder-coat paint finish
- May accept load to its full capacity when load feature power factor of 0.9 or more
- Standard auto-diagnostic, non-audible, Nexus® system interface optional with an improved minimum load lost detection of 10%

Suggested Specification

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 dimmed 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 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-Acid 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 and a 7-year pro-rata warranty on the battery.

Specifications

Transfer Time	less than 1 second
Voltage Regulation on Emergency	+/- 3%
Frequency Regulation on Emergency	60 Hz +/- 1%
Load Power Factor Range	.9 leading to .9 lagging
Operating Temperature	68° to 86°F (20° to 30°C)

Warranty

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

When operated under normal conditions, **Emergi-Lite®** inverter products will provide years of dependable service. This unit is backed by a 3/7 year warranty. The unit is covered by a complete 3-year warranty against defects in material or workmanship, and a 7-year pro-rata battery warranty.

The inverter unit shall be **Emergi-Lite®** model: _____

NEW!

Electrical Characteristics & Dimensions

POWER RATING	SINE WAVE	INSTALLATION	CABINET DIMENSIONS			NO. OF BATTERY	WEIGHT	WEIGHT W/O BATTERY
			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

TYPE: _____

CATALOG #: _____

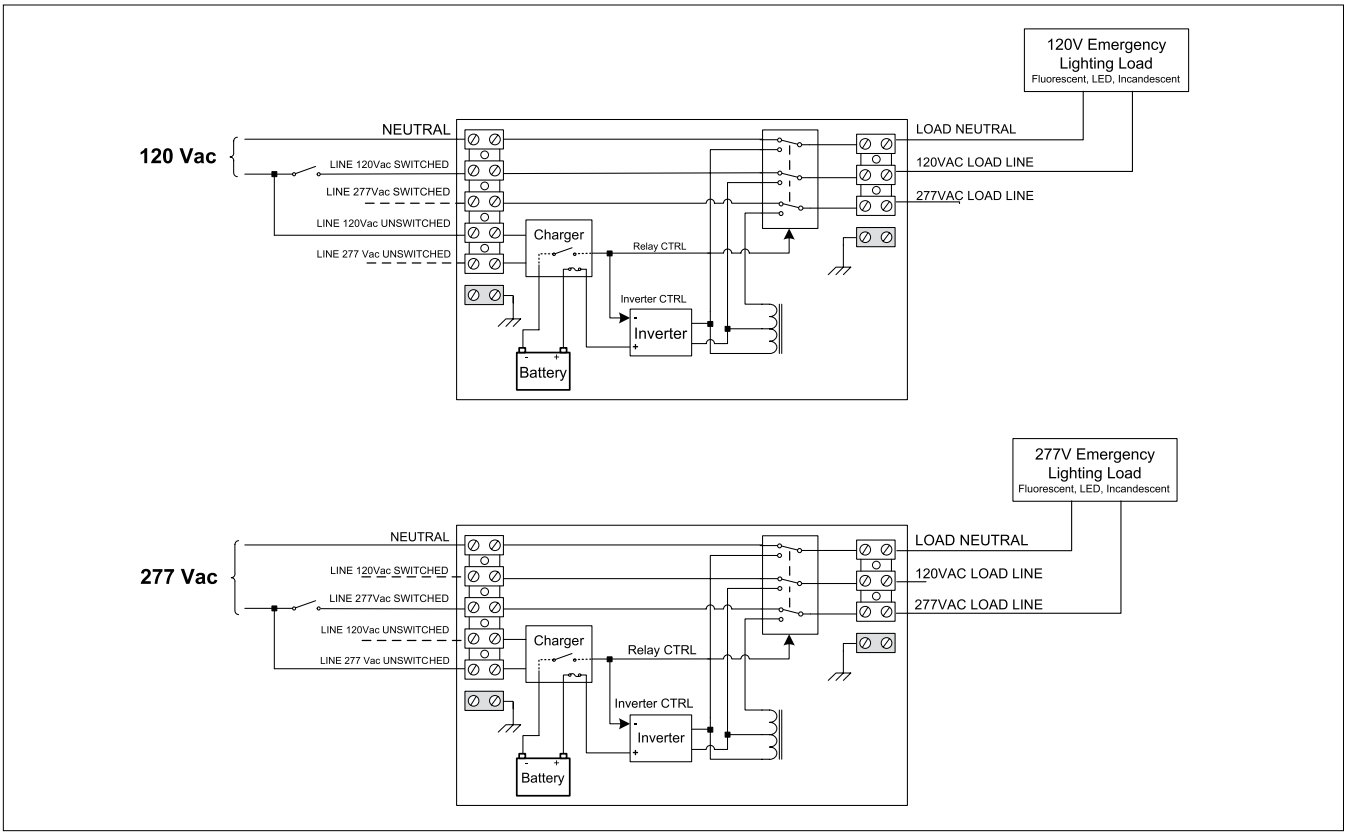
NOTES: _____

nexus

Mini-Inverter Series

Interruptible Unit Equipment

Wiring Diagram



Power Consumption And Unit Rating

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

How to Order

SERIES	CAPACITY	VOLTAGE	OPTIONS
EMIU	**-125**= 125W **-250**= 250W **-400**= 400W **-720**= 720W	**BLANK**= 120/120VAC or 277/277VAC	**-NEX**= Nexus® wired **-NEXRF**= Nexus® wireless **-D3**= Time Delay (15 minutes) **-T**= Recessed T-Bar mounting (125W unit only) **-AD**= Advanced-Diagnostic, audible* **-SAC**= Service Alarm Contact** * Minimum load required: 10% of unit capacity ** Not available with 720 capacity Note: The unit comes standard with Improved Diagnostics (non-audible)

Example: **EMIU-720**

EMERG-POWER SYSTEMS

Features & Benefits

Highlights

PERFORMANCE
Emerg-Power Systems work with any type of lighting load to provide full light output for a minimum of 90 min. They are designed to support incandescent, fluorescent, HID*, quartz re-strike, LED or halogen lamps. They will work to power into these loads at cold starts for all normally off circuits or normally on circuits.
* Except IPS systems

TRUE SINE WAVEFORM
Using a solid-state, pulse width modulation (PWM) inverter the systems produce pure sinusoidal output waveform with less than 3% maximum Total Harmonic Distortion (THD) for linear loads. Microprocessor and crystal controlled.

RELIABILITY
Emerg-Power Systems use third generation inverter technology. The proven solid design and double ratings of all critical components. LVD (Low Voltage Disconnect) for long power outages eliminates battery drain.

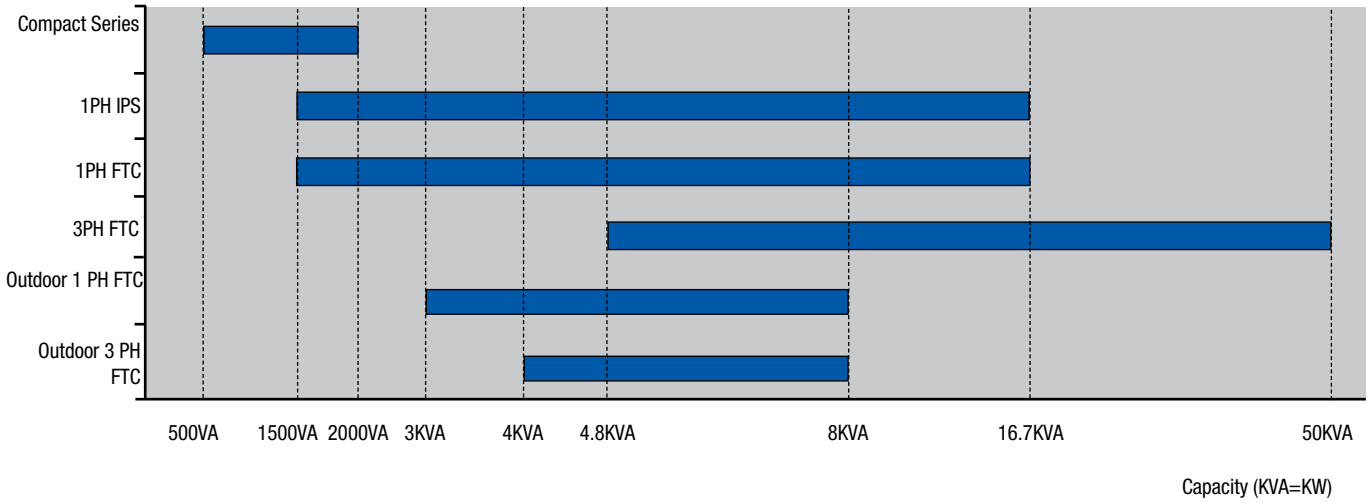
BATTERIES
Front access connections for easy installation significantly reduce the footprint, installation and maintenance time while increasing safety. Automatic restart and recharge upon restoration of utility.

APPROVALS
UL listed to UL924. Meets UL 924 Listed, NFPA101, NFPA70, NFPA 110, OSHA, UBC, SBCCI.
New York City approved.

APPLICATIONS
Emerg-Power Systems can be used in almost every type of building, and are well-suited for architecturally sensitive applications or areas where maintenance costs and individual testing of unit equipment becomes significant.
Emerg-Power Systems are designed to work with power factor corrected as well as the most recent T5 and T5-HO electronic ballasts.

OPTIONS
The full range of options available, such as integrated output circuit breakers, bypass relays, dry contacts, etc., makes Emerg-Power Systems an industry leader in emergency lighting central systems.

System type



EMERG-POWER SYSTEMS

Features & Benefits

Features	Benefits
SELF-DIAGNOSTIC/SELF-TESTING • Programmable monthly and annual self-testing. Proven self-diagnostic with over 120 parameters stored in separate memory logs for Test, Event and Alarm. • Microprocessor monitoring and control.	**COMPLIANCE WITH NFPA101** • Self-testing meets the requirements of NFPA and UL. User programmable time of testing. • Test results, events and alarms can be downloaded from history logs. Load monitoring. Reduced testing/service time.
LOW HEAT DISSIPATION • Very low heat loss technology in normal operating mode (see specifications for exact values). Convection cooling in normal mode with forced air during emergency mode. • Battery cabinets: convection cooling only.	**LESS AIR-CONDITIONING** • Reduced costs for air-conditioning required to ensure the optimum operating temperature when compared with equivalent systems that dissipate much more heat. • Higher reliability of fans and the electronic components.
MAXIMUM EFFICIENCY • Highest efficiency in the industry, 98% at 100% load with no requirement for cooling in normal operating mode. • Low input harmonic distortion <10%.	**LOWER ENERGY BILLS** • Low consumption of the system itself will result in lower energy bills paid over the system life time. Comparative analysis available on request.
VERSATILE INSTALLATION • Modular design, easy front access freestanding cabinets, fasten together when more than one cabinet is required. • Optional seismic kit available. • All wiring provided is pre-cut and terminated, along with the necessary hardware and electrical fittings, for proper installation.	**EASY TO INSTALL** • Quick installation and connection through flexible cable entries and fast access terminal blocks. • Reduced footprint for systems with stackable cabinets. • Low MTTR (<15 min.) due to modular design, quick disconnect means and frontal access.
COMPLETE PROTECTION • Input circuit breaker and fused battery circuit are standard. • Systems offer overload capacity, short-circuit protection, current-limiting, low-battery disconnect, reverse polarity and brownout protection as standard.	**REDUCED DAMAGE RISKS** • Full system protection eliminates damage created by external events and increases the lifetime of the electronics and batteries. Also will provide safety during maintenance.
THERMAL PERFORMANCE • Bonded fin heat sink technology for maximum thermal performance. • Cooling fans are energized only in inverter mode.	**INCREASED MTBF** • Increased reliability and reduced preventative maintenance. • No air filters needed.
MONITORING AND CONTROL • User-friendly programmable interface with LED indicators and LCD display provides full metering values, easy program and control functions and a wide range of visual and audible alarms.	**EASY MAINTENANCE** • Easier diagnostic, troubleshooting, preventative maintenance and service through the indicators and display or by using the history logs. • Remote versions available.

Emerg-Power Systems Compact Series

Features

- 98% efficient at full load
- PWM/MOSFET technology
- Self-testing/Self-diagnostic
- User programmable with password protection
- Standard input circuit breaker
- Standard output circuit breaker
- Micro-processor controlled
- Floor or wall mountable
- Field upgradeable (500VA steps)
- 90 min. standard run time
- Electronic and magnetic ballast compatible
- Automatic event, test and alarm log
- LCD display
- Small footprint (stackable cabinets)
- Maintenance-free standard batteries
- Forced air cooling during emergency mode only

UL listed to UL924. Meets NFPA101, NFPA70, NFPA 110, OSHA, UBC, SBCCI. N.Y City approved.

Electrical/Mechanical Characteristics[4]

(data provided for standard Lead Calcium batteries)[1,4]

POWER RATING[1] VA= W	EFFIC. AT FULL LOAD %	MAX. INPUT CURRENT (A)		HEAT LOSS IN NORMAL MODE (BTU/HR)	BATT. VDC	BATT. A	NO. OF BATT.	UPS CABINET DIMENSIONS			BATTERY CABINET DIMENSIONS[2,3]			NO. OF BATT CAB.	BATT. CAB. WEIGHT LBS	UPS CAB. WEIGHT LBS	BATT. WEIGHT LBS	TOTAL SYSTEM WEIGHT LBS
		120V	277V					W"	H"	D"	W"	H"	D"					
500	98	5.2	2.3	34	48	13.5	4	26	10	10	26	10	10	1	22 lbs	77 lbs	107 lbs	206 lbs
1000	98	10.5	4.5	68	48	26.5	8	26	10	10	26	10	10	2	22 lbs	77 lbs	214 lbs	335 lbs
1500	98	15.6	6.8	102	48	40	12	26	10	10	26	10	10	3	22 lbs	77 lbs	321 lbs	464 lbs
2000	98	20.8	9	136	48	52	16	26	10	10	26	10	10	4	22 lbs	77 lbs	428 lbs	592 lbs

[1] System capacity can be upgraded in the field up to 2000VA by adding more battery cabinets. Re-programming required by factory service technician.
[2] Batteries are installed in separate modular cabinets
[3] Battery cabinets are stackable. Must be installed under the electronics cabinet
[4] Special voltages can change the size, weight or number of cabinets

How to Order

INPUT VOLTAGE*	BATTERY TYPE	VA/W	SYSTEM TYPE	OUTPUT VOLTAGE*	RUN TIME*	INPUT BREAKER	OUTPUT BREAKERS*	OPTIONS*
120 **277** * Special voltages may change the size, weight or number of cabinets	**SG**= Lead-Calcium	**500** **1000** **1500** **2000**	**-FTCM**	**-120** **-277** * Special voltages may change the size, weight or number of cabinets	**-90** * Other run times available	**-ICB**	**-OCBxxxx**= No trip alarm* **-OCAxxxx**= With trip alarm* * Max. 3 more additional output breakers for a total of 4. See page 137 for output breakers details.	**-NOFF**= Normally OFF output **-WB**= Wall mount bracket **-DCS**= Dry summary alarm contacts **-INVON**= Inverter on dry contact **-VTD**= Variable time delay **-BPR**= Bypass relay **-RMP**= Remote metering panel **-RSAP**= Remote summary alarm panel **-RS232**= Communication interface **-MOD**= Modem **-FLR**= Floor blanket * See page 137 for options description

Example: **120SG1500-FTCM-120-90-ICB-OCB0420-WB**

TYPE: _____

CATALOG #: _____

NOTES: _____

Uninterruptible Emergency Lighting, 1PH, Inverter System 500VA – 2000VA

System Specifications

GENERAL

Design	Stand-by no break. PWM inverter type utilizing MOSFET technology with 2ms transfer time
Control	• Microprocessor controlled, 2 x 20-character display with touch pad controls & functions • 5 LED indicators & alarm with ring-back feature
Metering	Input & Output Voltage, Battery Voltage, Battery & Output Current, Output VA, Temperature, Inverter Wattage
Communications	Optional RS-232 port (DB9)

ELECTRICAL INPUT

Voltage	120 or 277VAC, 1-phase 2-wire, +10%/ -15% Contact factory for all other voltage.
Input Power Walk-In	Limiting inrush current to less than 125%, 10 times for 1 line cycle
Input Frequency	60Hz, +/-3Hz
Protection	Standard Input Circuit Breaker
Harmonic Distortion	<10%
Power Factor	0.5 lag/lead

ELECTRICAL OUTPUT

Voltage	120 or 277VAC, 1-phase 2-wire Contact factory for all other voltage.
Static Voltage	Load current change +/-2%, battery discharge +/-12.5%
Dynamic Voltage	+/-2% for +/-25% load step change, +/-3% for a 50% load step change, recovery within 3 cycles
Harmonic Distortion	<3% THD for linear load
Output Frequency	60Hz +/- 0.05Hz during emergency mode
Load Power Factor	0.5 lag to 0.5 lead
Inverter Overload	115% for 5 minutes
Protection	Standard Output Circuit Breaker (normally on)
Crest Factor	2.8

ENVIRONMENTAL CONDITIONS

Storage/Transport	• -4ºF to 158ºF (-20ºC to 70ºC) without batteries • 0ºF to 104ºF (-18ºC to 40ºC) with batteries (max. 3 months at 104° F (40° C)
Operating Temperature	System operates safely from 32°F to 104°F (0°C to 40°C) but optimum operation is between 68° F and 86°F (20°C to 30°C). Battery performance can be affected by temperature
Altitude	<10,000 feet (above sea level) without de-rating
Relative Humidity	0 to 95% non-condensing
Audible Noise	45 dBA @ 1m from surface in emergency mode

Characteristics, specifications and dimensions subject to change without notice.

CABINETS
Modular design, freestanding or wall mount NEMA Type 1 steel cabinets powder coated for corrosion and scratch resistance. Front access design. Cabinets are stackable. Top and left side conduit entry with knockouts.

INVERTER
Using MOSFET/PWM technology the inverter converts the DC voltage supplied by the batteries to AC voltage of a precise stabilized amplitude and frequency, suitable for most sophisticated electrical equipment. True sinusoidal output waveform with very low distortion (less than 3% for linear loads). Overload capability of up to 150% for 12 line cycles.

CHARGER
Fully automatic, temperature compensated, microprocessor controlled charger recharges fully discharged batteries in maximum 24 hours at nominal AC input voltage. AC input current limiting and over-voltage protection included.

BATTERY
System is provided with 10 year, maintenance free, sealed valve regulated Lead-Calcium batteries. 90 min. standard discharge time at full load under normal operating temperature. Low Voltage Disconnect protection included. No special ventilation required.

SELF-DIAGNOSTIC
Automatic self-test consists of a 5-minute monthly and 90-minute annual function. The front-mounted control panel includes 5 LED indicators, a 2-line 20-character LCD display, a keypad to control and monitor the internal operation of the system. This allows the operator to easily "watch" system functions as they occur and check on virtually any aspect of the system's operation. Self-diagnostic function monitors, controls, generates alarms and memorizes events.

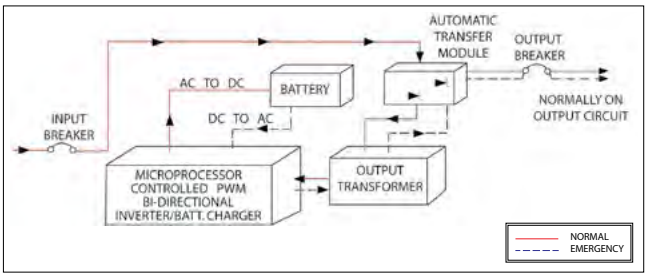
ALARMS
High/Low Battery Charger Voltage, High/Low AC Input Voltage, Near Low Battery, Low Battery, Load Reduction Fault, Output Overload, High Ambient Temperature, Inverter Fault, Output Fault, Optional Output Circuit Breaker Trip

OPTIONAL FEATURES
Normally OFF output, Output Circuit Breakers, Output Trip Alarm, RS232 communication port, 12 Hours Fast Recharge, Remote Meter Panel, Remote Summary Alarm Panel, Summary Alarm Dry Form C Contact, Inverter on Dry Contacts, Variable Time Delay, Modem, Bypass Relays, Wall mount bracket

FACTORY START-UP
Includes one additional year of warranty. See warranty conditions.

WARRANTY
(full limited warranty conditions available upon request)
Limited manufacturer warranty is one-year, parts and labor, for system electronics or two-year with factory start-up program. Battery warranty is one year full plus 9 years pro-rata for a total of 10 years, under normal operating conditions.
System must be put in service within 180 days from ship date in order to validate warranty.

SINGLE LINE DIAGRAM



Emerg-Power Systems IPS
Single Phase Series

Features

- 98% efficient at full load
- PWM/IGBT technology
- Self-testing/Self-diagnostic
- User programmable with password protection
- Standard input circuit breaker
- Standard Normally Off and on output
- RS232 communication port
- Micro-processor controlled
- Automatic event and alarm log
- 90 min. standard run time
- Generator compatibility
- Electronic and magnetic ballast compatible
- Custom voltages available
- Automatic event, test and alarm log
- LCD display
- Reduced footprint (stackable cabinets)
- Maintenance free standard batteries
- Forced air cooling during emergency mode only

UL listed to UL924. Meets NFPA101, NFPA70, NFPA 110, OSHA, UBC, SBCCI. N.Y City approved.

Electrical/Mechanical Characteristics[4]

(Data provided for standard Lead Calcium batteries)[1].

POWER RATING[1] KVA= KW	EFFIC. AT FULL LOAD %	MAX. INPUT CURRENT (A)		HEAT LOSS IN NORMAL MODE (BTU/HR)	BATT. VDC	BATT. A	NO. OF BATT.	UPS CABINET DIMENSIONS			BATTERY CABINET DIMENSIONS[2, 3]			NO. OF BATT CAB.	BATT. CAB. WEIGHT LBS (EMPTY)	UPS CAB. WEIGHT LBS	BATT. WEIGHT LBS	TOTAL SYSTEM WEIGHT LBS
		120V	277V					W"	H"	D"	W"	H"	D"					
1.5	98	16	7	102	48	39	4	30	47	25	NA	NA	NA	NA	NA	250 lbs	296 lbs	546 lbs
2.25	98	24	11	153	72	38	6	30	47	25	NA	NA	NA	NA	NA	265 lbs	444 lbs	709 lbs
3	98	32	14	204	96	38	8	30	47	25	NA	NA	NA	NA	NA	295 lbs	592 lbs	887 lbs
3.75	98	39	17	255	120	37	10	30	47	25	NA	NA	NA	NA	NA	305 lbs	740 lbs	1045 lbs
5	98	50	22	340	144	40	12	30	47	25	NA	NA	NA	NA	NA	315 lbs	888 lbs	1203 lbs
6	98	63	27	408	180	40	15	30	47	25	30	47	25	1	210 lbs	350 lbs	1110 lbs	1670 lbs
8	98	84	36	544	240	39	20	30	47	25	30	47	25	1	232 lbs	375 lbs	1480 lbs	2087 lbs
10	98	105	45	680	144	82	24	30	47	25	30	47	25	2	420 lbs	435 lbs	1776 lbs	2631 lbs
12.5	98	131	57	850	180	82	30	30	47	25	30	47	25	2	420 lbs	465 lbs	2220 lbs	3105 lbs
16.7	98	174	76	1136	240	80	40	30	47	25	30	47	25	2	464 lbs	530 lbs	2960 lbs	3954 lbs

[1] Consult factory for 20 year type batteries or for wet nickel cadmium batteries.
[2] Batteries are installed in the electronics cabinet for 1.5 to 5kVA systems
[3] Battery cabinets are stackable. To be installed on the right side of the electronics cabinet
[4] Special voltages or batteries may change the size, weight or number of cabinets

How to Order

INPUT VOLTAGE*	BATTERY TYPE	VA/W RATING	SYSTEM TYPE	OUTPUT VOLTAGE*	RUN TIME*	INPUT BREAKER	RS232 PORT	OUTPUT BREAKERS*	OPTIONS*
120 **208** **240** **277**	**SG**= Sealed Lead-Calcium **NC**= Wet Ni-Cd	**1500** **2250** **3000** **3750** **5000** **6000** **8000** **10000** **12500** **16700**	**-IPS**	**-120** **-277** **-208** **-120/140** **-120/277**	**-90**	**-ICB**	**-RS232**	**-OCBxxxx** = no trip alarm* **-OCAxxxx** = with trip alarm*	**-20Y**= 20 yr sealed batteries **-12HR**= 12 hr fast recharge **-MBYP**= Internal bypass switch **-EMBP**= External bypass switch** **-RMP**= Remote metering panel **-RSAP**= Remote summary alarm panel **-DCS**= Dry summary alarm contacts **-INVON**= Inverter on dry contacts **-VTD**= Variable time delay **-MOD**= External modem **-FAX**= Fax modem **-BPR**= Bypass relays **-DIAL**= Autodialer **-SEIS**= Seismic mounting **-ZONEM**= Zone monitoring **-BATM**= Battery cycle warranty monitor
* Special voltages may change the size, weight or number of cabinets				* Special voltages may change the size, weight or number of cabinets	* Other run times available			* Max. 12 unsupervised single pole positions or 8 with trip alarm. For more output breakers please consult factory. See page 137 for output breakers option details.	* See page 137 for options description ** External bypass switch is not compatible with integrated output circuit breakers. Input/output voltage has to be the same.

Example: **277SG6000-IPS-277-90-ICB-RS232-OCB0420-DCS-20Y**

TYPE: _____

CATALOG #: _____

NOTES: _____

Interruptible Emergency Lighting Inverter System 1.5Kva –16.7Kva

System Specifications

GENERAL

Design	Stand-by. PWM inverter type utilizing IGBT technology with 50ms transfer time.
Control	• Microprocessor controlled , 2 x 20-character display with touch pad controls & functions •5 LED indicators & alarm with ring-back feature
Metering	Input & Output Voltage, Battery Voltage, Battery & Output Current, Output VA, Temperature, Inverter Wattage
Communications	RS-232 port (DB9)

ELECTRICAL INPUT

Voltage	120 or 277VAC 1-phase 2-wire +10% - 15%. Contact factory for all other voltages
Input Power Walk-In	Limiting inrush current to less than 125%, 10 times for 1 line cycle
Input Frequency	60Hz, +/-3%, 50Hz available upon request
Protection	Input circuit breaker
Harmonic Distortion	<10%
Power Factor	0.5 lag/lead

ELECTRICAL OUTPUT

Voltage	120 or 277VAC 1-phase 2-wire. Contact factory for all other voltages.
Static Voltage	Load current change +/-2%, battery discharge +/-12.5%
Dynamic Voltage	+/-2% for +/-25% load step change +/-3% for a 50% load step change, recovery within 3 cycles
Harmonic Distortion	<3% THD for linear load
Output Frequency	60Hz +/- 0.05Hz during emergency mode
Load Power Factor	0.5 lag to 0.5 lead
Inverter Overload	115% for 10 minutes, 150% for 16 line cycles
Protection	Optional Distribution Circuit Breaker
Crest Factor	2.8

ENVIRONMENTAL CONDITIONS

Storage/Transport	• -4ºF to 158ºF (-20ºC to 70ºC) without batteries • 0ºF to 104ºF (-18ºC to 40ºC) with batteries (max. 3 months at 104° F (40° C)
Operating Temperature	System operates safely from 32°F to 104°F (0°C to 40°C) but optimum operation is between 68° F and 86°F (20°C to 30°C). Battery performance can be affected by temperature
Altitude	<10,000 feet (above sea level) without de-rating
Relative Humidity	0 to 95% non-condensing
Audible Noise	Audible noise 45 dBA @ 1m from surface in emergency mode

Characteristics, specifications or dimensions subject to change without notice.

CABINETS
Modular design, freestanding NEMA Type 1 steel cabinets powder coated for corrosion and scratch resistance. Front access design through hinged lockable doors requires only 39" front clearance and 12" top clearance. Cabinets are stackable if required to further reduce the footprint. Top and left side conduit entry with knockouts.

INVERTER
Using IGBT/PWM technology the inverter converts DC voltage supplied by the batteries to AC voltage of a precise stabilized amplitude and frequency, suitable for most sophisticated electrical equipment. True sinusoidal output waveform with very low distortion (less than 3% for linear loads). Overload capability of up to 150% for 12 line cycles.

CHARGER
Fully automatic, temperature compensated, microprocessor controlled charger recharges fully discharged batteries in maximum 24 hours at nominal AC input voltage. AC input current limiting and over-voltage protection included.

BATTERY
System is provided standard with 10 year, maintenance free, sealed valve regulated, front terminals Lead-Calcium batteries. 20 year sealed Lead-Calcium or wet Nickel-Cadmium batteries also available. 90 min. standard discharge time at full load under normal operating temperature. Low Voltage Disconnect protection included. No special ventilation required.

SELF-DIAGNOSTICS
Automatic self tests consist of a 5-minute monthly and 90-minute annual function. The front-mounted control panel includes 5 LED indicators, a 2-line 20-character LCD display, a keypad to control and monitor the internal operation of the system. This allows the operator to easily "watch" system functions as they occur and check on virtually any aspect of the system's operation.
Standard RS232 diagnostic interface.

ALARMS
High/Low Battery Charger Voltage, High/Low AC Input Voltage, Near Low Battery, Low Battery, Load Reduction Fault, Output Overload, High Ambient Temperature, Inverter Fault, Output Fault, Optional Output Circuit Breaker Trip

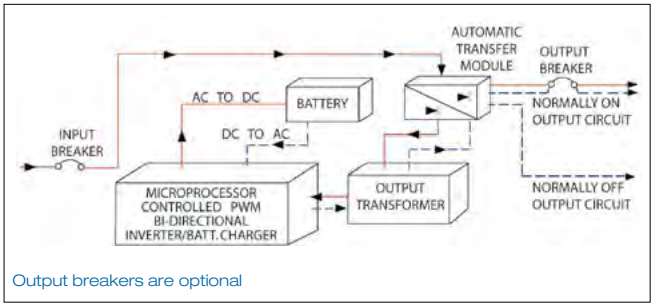
OPTIONAL FEATURES
Output Circuit Breakers, Output Trip Alarms, 20 Years Sealed Batteries, 12 Hours Fast Recharge, Internal/External Maintenance Bypass Switch, Remote Meter Panel, Remote Summary Alarm Panel, Summary Alarm Dry Form C Contact, Inverter on Dry Contacts, Fax/Modem, Bypass Relays, Auto Dialer, Seismic Mounting.

FACTORY START-UP
Includes one additional year of warranty. See warranty conditions.

WARRANTY
(full limited warranty conditions available upon request)
Limited manufacturer warranty is one-year, parts and labor, for system electronics or two-year with factory start-up program. Battery warranty is one year full plus 9 years pro-rata for a total of 10 years, under normal operating conditions. System must be put in service within 6 months from ship date in order to validate warranty.

2-Consult factory for other type batteries than the standard one.

SINGLE LINE DIAGRAM



Output breakers are optional

Emerg-Power Systems
FTC Single Phase Series

Features

- 98% efficient at full load
- PWM/IGBT technology
- Self-testing/Self-diagnostic
- User programmable with password protection
- Standard input circuit breaker
- RS232 communication port
- Micro-processor controlled
- Automatic event and alarm log
- 90 min. standard run time
- Generator compatibility
- Electronic and magnetic ballast compatible
- Custom voltages available
- Automatic event, test and alarm log
- LCD display
- Reduced footprint (stackable cabinets)
- Maintenance free standard batteries
- Forced air cooling during emergency mode only

UL listed to UL924. Meets NFPA101, NFPA70, NFPA 110, OSHA, UBC, SBCCI. N.Y City approved.

Electrical/Mechanical Characteristics[4]

(Data provided for standard Lead Calcium batteries)[1,4]

POWER RATING[1] KVA= KW	EFFIC. AT FULL LOAD %	MAX. INPUT CURRENT (A)		HEAT LOSS IN NORMAL MODE (BTU/HR)	BATT. VDC	BATT. A	NO. OF BATT.	UPS CABINET DIMENSIONS			BATTERY CABINET DIMENSIONS[2,3]			NO. OF BATT CAB.	BATT. CAB. WEIGHT LBS (EMPTY)	UPS CAB. WEIGHT LBS	BATT. WEIGHT LBS	TOTAL SYSTEM WEIGHT LBS
		120V	277V					W"	H"	D"	W"	H"	D"					
1.5	98	16	7	102	48	39	4	30	47	25	NA	NA	NA	NA	NA	250 lbs	296 lbs	546 lbs
2.25	98	24	11	153	72	38	6	30	47	25	NA	NA	NA	NA	NA	265 lbs	444 lbs	709 lbs
3	98	32	14	204	96	38	8	30	47	25	NA	NA	NA	NA	NA	295 lbs	592 lbs	887 lbs
3.75	98	39	17	255	120	37	10	30	47	25	NA	NA	NA	NA	NA	305 lbs	740 lbs	1045 lbs
5	98	50	22	340	144	40	12	30	47	25	NA	NA	NA	NA	NA	315 lbs	888 lbs	1203 lbs
6	98	63	27	408	180	40	15	30	47	25	30	47	25	1	210 lbs	350 lbs	1110 lbs	1670 lbs
8	98	84	36	544	240	39	20	30	47	25	30	47	25	1	232 lbs	375 lbs	1480 lbs	2087 lbs
10	98	105	45	680	144	82	24	30	47	25	30	47	25	2	420 lbs	435 lbs	1776 lbs	2631 lbs
12.5	98	131	57	850	180	82	30	30	47	25	30	47	25	2	420 lbs	465 lbs	2220 lbs	3105 lbs
16.7	98	174	76	1136	240	80	40	30	47	25	30	47	25	2	464 lbs	530 lbs	2960 lbs	3954 lbs

[1] Consult factory for 20 year type batteries or for wet nickel cadmium batteries.
[2] Batteries are installed in the electronics cabinet for 1.5 to 5kVA systems
[3] Battery cabinets are stackable. To be installed on the right side of the electronics cabinet
[4] Special voltages or batteries may change the size, weight or number of cabinets

How to Order

INPUT VOLTAGE*	BATTERY TYPE	VA/W RATING	SYSTEM TYPE	OUTPUT VOLTAGE*	RUN TIME*	INPUT BREAKER	RS232 PORT	OUTPUT BREAKERS*	OPTIONS*
120 **208** **240** **277**	**SG**= Sealed Lead-Calcium **NC**= Wet Nickel-Cadmium	**1500** **2250** **3000** **3750** **5000** **6000** **8000** **10000** **12500** **16700**	**-FTC**	**-120** **-277** **-208** **-120/140** **-120/277**	**-90**	**-ICB**	**-RS232**	**OCBxxxx**= no trip alarm* **OCAxxxx**= with trip alarm*	**-20Y**= 20 yr sealed batteries **-12HR**= 12 hr fast recharge **-MBYP**= internal bypass switch **-EMBP**= external bypass switch** **-RMP**= remote metering panel **-RSAP**= remote summary alarm panel **-DCS**= dry summary alarm contacts **-INVON**= inverter on dry contacts **-NOFF**= normally OFF output*** **-MOD**= external modem **-FAX**= fax modem **-BPR**= bypass relays **-DIAL**= autodialer **-SEIS**= seismic mounting **-ZONEM**= zone monitoring **-BATM**= battery cycle warranty monitor
* Special voltages may change the size, weight or number of cabinets				* Special voltages may change the size, weight or number of cabinets	* Other run times available			* Max. 12 unsupervised single pole positions or 8 with trip alarm. For more output breakers please consult factory. See page 181 for output breakers option details.	* See page 137 for options description ** External bypass switch is not compatible with integrated output circuit breakers. Input/output voltage has to be the same. *** Normally off loads cannot exceed 20% of total KVA rating with any combination of H.I.D. loads

Example: **277SG6000-FTC-277-90-ICB-RS232-OCB0420-DCS-20Y**

TYPE: _____

CATALOG #: _____

NOTES: _____

Uninterruptible Emergency Lighting Inverter System 1.5KVA –16.7KVA

System Specifications

GENERAL

Design	Stand-by. PWM inverter type utilizing IGBT technology with 2ms transfer time
Control	• Microprocessor controlled , 2 x 20-character display with touch pad controls & functions • 5 LED indicators & alarm with ring-back feature
Metering	Input & Output Voltage, Battery Voltage, Battery & Output Current, Output VA, Temperature, Inverter Wattage
Communications	RS-232 port (DB9)

ELECTRICAL INPUT

Voltage	120 or 277VAC 1-phase 2-wire +10% - 15%. Contact factory for all other voltages
Input Power Walk-In	Limiting inrush current to less than 125%, 10 times for 1 line cycle
Input Frequency	60Hz, +/-3%, 50Hz available upon request
Protection	Input Circuit Breaker
Harmonic Distortion	<10%
Power Factor	0.5 lag/lead

ELECTRICAL OUTPUT

Voltage	120 or 277VAC 1-phase 2-wire. Contact factory for all other voltages.
Static Voltage	Load current change +/-2%, battery discharge +/-12.5%
Dynamic Voltage	+/-2% for +/-25% load step change +/-3% for a 50% load step change, recovery within 3 cycles
Harmonic Distortion	<3% THD for linear load
Output Frequency	60Hz +/- 0.05Hz during emergency mode
Load Power Factor	0.5 lag to 0.5 lead
Inverter Overload	115% for 10 minutes, 125% for 5 minutes, 150% for 12 cycles
Protection	Optional Distribution Circuit Breakers
Crest Factor	2.8

ENVIRONMENTAL CONDITIONS

Storage/Transport	• -4ºF to 158ºF (-20ºC to 70ºC) without batteries • 0ºF to 104ºF (-18ºC to 40ºC) with batteries (max. 3 months at 104° F (40° C)
Operating Temperature	System operates safely from 32°F to 104°F (0°C to 40°C) but optimum operation is between 68° F and 86°F (20°C to 30°C). Battery performance can be affected by temperature
Altitude	<10,000 feet (above sea level) without de-rating
Relative Humidity	0 to 95% non-condensing
Audible Noise	Audible noise 45 dBA @ 1m from surface in emergency mode

CABINETS
Modular design, freestanding NEMA Type 1 steel cabinets powder coated for corrosion and scratch resistance. Front access design through hinged lockable doors requires only 39" front clearance and 12" top clearance. Cabinets are stackable if required to further reduce the footprint. Top and left side conduit entry with knockouts.

INVERTER
Using IGBT/PWM technology the inverter converts the DC voltage supplied by the batteries to AC voltage of a precise stabilized amplitude and frequency, suitable for most sophisticated electrical equipment. True sinusoidal output waveform with very low distortion (less than 3% for linear loads). Overload capability of up to 150% for 12 line cycles.

CHARGER
Fully automatic, temperature compensated, microprocessor controlled charger recharges fully discharged batteries in maximum 24 hours at nominal AC input voltage. AC input current limiting and over-voltage protection included.

BATTERY
System is provided standard with 10 year, maintenance free, sealed valve regulated, front terminals Lead Calcium batteries. 20 year sealed Lead Calcium or wet Nickel Cadmium batteries also available. 90 min. standard discharge time at full load under normal operating temperature. Low Voltage Disconnect protection included. No special ventilation required.

SELF-DIAGNOSTICS
Automatic self tests consist of a 5-minute monthly and 90-minute annual function. The front-mounted control panel includes 5 LED indicators, a 2-line 20-character LCD display, and a keypad to control and monitor the internal operation of the system. This control panel allows the operator to easily "watch" system functions as they occur and check on virtually any aspect of the system's operation. Standard RS232 diagnostic interface.

ALARMS
High/Low Battery Charger Voltage, High/Low AC Input Voltage, Near Low Battery, Low Battery, Load Reduction Fault, Output Overload, High Ambient Temperature, Inverter Fault, Output Fault, Optional Output Circuit Breaker Trip

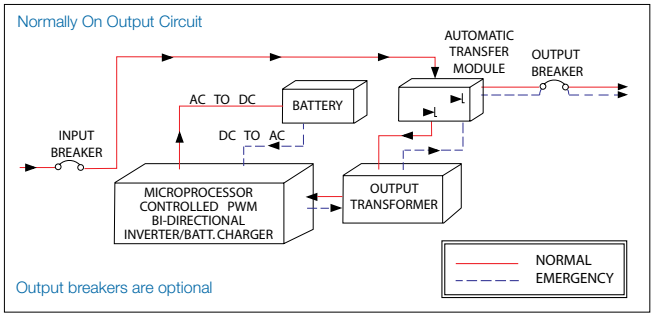
OPTIONAL FEATURES
0utput Circuit Breakers, Output Trip Alarms, 20 Years Sealed Batteries, 12 Hours Fast Recharge, Internal/External Maintenance Bypass Switch, Remote Meter Panel, Remote Summary Alarm Panel, Summary Alarm Dry Form C Contact, Inverter on Dry Contacts, Normally OFF output, Fax/Modem, Bypass Relays, Auto Dialer, Seismic Mounting.

FACTORY START-UP
Includes one additional year of warranty. See warranty conditions.

WARRANTY
(full limited warranty conditions available upon request)
Limited manufacturer warranty is one-year, parts and labor, for system electronics or two-year with factory start-up program. Battery warranty is one year full plus 9 years pro-rata for a total of 10 years, under normal operating conditions. System must be put in service within 6 months from ship date in order to validate warranty.

2-Consult factory for other type batteries than the standard one.

SINGLE LINE DIAGRAM



Emerg-Power Systems
3FTC Three Phase Series

Features

- 98% efficient at full load
- PWM/IGBT technology
- Self-testing/Self-diagnostic
- User programmable with password protection
- Standard input circuit breaker
- Standard internal bypass switch
- RS232 communication port
- Micro-processor controlled
- Automatic event and alarm log
- 90 min. standard run time
- Generator compatibility
- Available in Y or Δ input configuration
- Custom voltages available
- Automatic event, test and alarm log
- LCD display
- Reduced footprint
- Maintenance free standard batteries
- Forced air cooling during emergency only

UL listed to UL924. Meets NFPA101, NFPA70, NFPA 110, OSHA, UBC, SBCCI. N.Y City approved.

Electrical/Mechanical Characteristics[4]

(Data provided for standard Lead Calcium batteries)[1,4]

POWER RATING[1] KVA= KW	EFFIC. AT FULL LOAD %	MAX. INPUT CURRENT (A)		HEAT LOSS IN NORMAL MODE (BTU/HR)	BATT. VDC	BATT. A	NO. OF BATT.	UPS CABINET DIMENSIONS			BATTERY CABINET DIMENSIONS[3]			NO. OF BATT CAB.	BATT. CAB. WEIGHT LBS (EMPTY)	UPS CAB. WEIGHT LBS	BATT. WEIGHT LBS	TOTAL SYSTEM WEIGHT LBS
		120V/ 208V	277V/ 480V					W"	H"	D"	W"	H"	D"					
4.8	98	17	7	326	144	39	12	30	47	25	30	47	25	1	NA	535	888	1633
6	98	21	9	408	180	39	15	30	47	25	30	47	25	1	NA	535	1110	1855
8	98	28	12	544	240	39	20	30	47	25	30	47	25	1	NA	535	1480	2247
10	98	35	15	680	144	81	24	30	47	25	30	47	25	2	NA	639	1776	2835
12.5	98	43	19	850	180	81	30	30	47	25	30	47	25	2	NA	639	2220	3279
16.7	98	58	25	1136	240	81	40	30	47	25	30	47	25	2	210 lbs	639	2960	4063
24	98	84	36	1632	240	117	60	48	72	31	48	72	31	1	232 lbs	1250	4440	6390
33	98	115	50	2244	240	160	40	48	72	31	48	72	31	2	420 lbs	1250	6080	8630
40	98	139	60	2720	240	194	100	48	72	31	48	72	31	2	420 lbs	1450	7400	10150
50	98	174	75	3400	240	243	60	48	72	31	48	72	31	2	464 lbs	1450	9120	11980

[1] Consult factory for 20 year type batteries or for wet Nickel-Cadmium batteries.
[2] KVA=KW
[3] Battery cabinets up to 16.7KVA are stackable. To be installed on the right side of the electronics cabinet
[4] Special voltages or batteries may change the size, weight or number of cabinets

How to Order

INPUT VOLTAGE*	BATTERY TYPE	VA/W RATING	SYSTEM TYPE	OUTPUT VOLTAGE*	RUN TIME*	INPUT BREAKER	RS232 PORT	INTERNAL BYPASS SWITCH	OUTPUT BREAKERS*	OPTIONS*
120/208 **277/480**	**SG**= Sealed Lead-Calcium **NC**= Wet Ni-Cd	**4800** **6000** **8000** **10000** **12500** **16700** **24000** **33000** **40000** **50000**	**-3FTC**	**120/208** **277/480**	**90**	**ICB**	**RS232**	**MBYP**	**OCBxxxx**= no trip alarm* **OCAxxxx**= with trip alarm*	**-20Y**= 20 yr sealed batteries **-12HR**= 12 hr fast recharge **-NOFF**= normally off output 1PH** **-EMBP**= external bypass switch*** **-RMP**= remote metering panel **-RSAP**= remote summary alarm panel **-DCS**= dry summary alarm contacts **-INVON**= inverter on dry contacts **-NOFF3**= normally OFF output 3PH** **-MOD**= external modem **-FAX**= fax modem **-BPR**= bypass relays **-DIAL**= autodialer **-SEIS**= seismic mounting **-ZONEM**= zone monitoring **-BATM**= battery cycle warranty monitor
* Special voltages may change the size, weight or number of cabinets				* Special voltages may change the size, weight or number of cabinets	* Other run times available				[4] Max. 12 unsupervised single pole positions or 8 with trip alarm, up to 16.7kVA systems. 24 unsupervised or 16 with trip alarm for systems 24kVA to 50kVA. For more output breakers please consult factory. See page 137 for output breakers option details.	* See page 137 for options description ** External bypass switch is not compatible with integrated output circuit breakers. Input/output voltage has to be the same. *** Normally off loads cannot exceed 20% of total KVA rating with any combination of H.I.D. loads

Example: **277SG6000-FTC-277-90-ICB-RS232-OCB0420-DCS-20Y**

TYPE: _____

CATALOG #: _____

NOTES: _____

Uninterruptible Emergency Lighting Inverter System 4.8KVA – 50KVA

System Specifications

GENERAL

Design	Stand-by. PWM inverter type utilizing IGBT technology with 2ms transfer time
Control	• Microprocessor controlled , 2 x 20-character display with touch pad controls & functions • 5 LED indicators & alarm with ring-back feature
Metering	Input & Output Voltage, Battery Voltage, Battery & Output Current, Output VA, Temperature, Inverter Wattage
Communications	RS-232 port (DB9)

ELECTRICAL INPUT

Voltage	120/208 or 277/480 3 phase 4-wire +10% - 15%. Contact factory for all other voltages
Input Power Walk-In	Limiting inrush current to less than 125%, 10 times for 1 line cycle
Input Frequency	60Hz, +/-3%, 50Hz available upon request
Protection	Input Circuit Breaker
Harmonic Distortion	<10%
Power Factor	0.5 lag/lead

ELECTRICAL OUTPUT

Voltage	120/208 or 277/480VAC 3-phase 4-wire Contact factory for all other voltages.
Static Voltage	Load current change +/-4%, battery discharge +/-4%
Dynamic Voltage	+/-3% for +/-25% load step change +/-6% load step change, recovery within 3 cycles
Harmonic Distortion	<3% THD for linear load
Output Frequency	60Hz +/- 0.05Hz during emergency mode
Load Power Factor	0.5 lag to 0.5 lead
Inverter Overload	115% for 5 minutes, 125% for 10 minutes, 280% for line cycles
Protection	Optional Distribution Circuit Breakers
Crest Factor	2.8

ENVIRONMENTAL CONDITIONS

Storage/Transport	-4ºF to 158ºF (-20ºC to 70ºC) without batteries (max. 3 months at 104° F (40° C) -0ºF to 104ºF (-18ºC to 40ºC) with batteries
Operating Temperature	System operates safely from 32°F to 104°F (0°C to 40°C) but optimum operation is between 68° F and 86°F (20°C to 30°C). Battery performance can be affected by temperature
Altitude	<10,000 feet (above sea level) without de-rating
Relative Humidity	0 to 95% non-condensing
Audible Noise	45 dBA @ 1m from surface in emergency mode

Characteristics, specifications or dimensions subject to change without notice.

CABINETS
Modular design, freestanding NEMA Type 1 steel cabinets powder coated for corrosion and scratch resistance. Front access design through hinged lockable doors requires only 39" front clearance and 12" top clearance. Cabinets are stackable up to 16.7kVA, if required to further reduce the footprint. Top and left side conduit entry with knockouts up to 16.7kVA. Left side only for 24kVA and up.

INVERTER
Using IGBT/PWM technology the inverter converts the DC voltage supplied by the batteries to AC voltage of a precise stabilized amplitude and frequency, suitable for most sophisticated electrical equipment. True sinusoidal output waveform with very low distortion (less than 3% for linear loads). Overload capability of up to 150% for 12 line cycles

CHARGER
Fully automatic, temperature compensated, microprocessor controlled charger recharges fully discharged batteries in maximum 24 hours at nominal AC input voltage. AC input current limiting and over-voltage protection included.

BATTERY
System is provided standard with 10 year, maintenance free, sealed valve regulated, front terminals lead calcium batteries. 20 year sealed Lead Calcium or wet Nickel Cadmium batteries also available. 90 min. standard discharge time at full load under normal operating temperature. Low Voltage Disconnect protection included. No special ventilation or filters required

SUPERVISION
Automatic self tests consist of a 5-minute monthly and 90-minute annual function. The front-mounted control panel includes 5 LED indicators, a 2-line 20-character LCD display, a keypad to control and monitor the internal operation of the system. This allows the operator to easily "watch" system functions as they occur and check on virtually any aspect of the system's operation. Standard RS232 diagnostic interface.

ALARMS
High/Low Battery Charger Voltage, High/Low AC Input Voltage, Near Low Battery, Low Battery, Load Reduction Fault, Output Overload, High Ambient Temperature, Inverter Fault, Output Fault, Optional Output Circuit Breaker Trip.

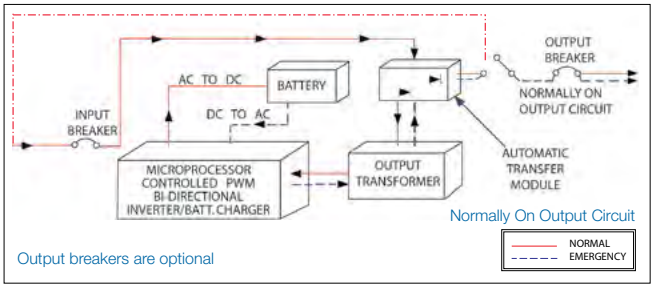
OPTIONAL FEATURES
Output Circuit Breakers, Output Trip Alarms, 20 Years Sealed Batteries, 12 Hours Fast Recharge, External Maintenance Bypass Switch, Remote Meter Panel, Remote Summary Alarm Panel, Summary Alarm Dry Form C Contact, Inverter on Dry Contacts, Normally OFF output, Fax/Modem, Bypass Relays, Auto Dialer, Seismic Mounting.

FACTORY START-UP
Includes one additional year of warranty. See warranty conditions.

WARRANTY
(full limited warranty conditions available upon request)
Limited manufacturer warranty is one-year, parts and labor, for system electronics or two-year with factory start-up program. Battery warranty is one year full plus 9 years pro-rata for a total of 10 years, under normal operating conditions. System must be put in service within 6 months from ship date in order to validate warranty.

2- Consult factory for other type batteries than the standard one.

SINGLE LINE DIAGRAM



TYPE: _____

CATALOG #: _____

NOTES: _____

Emerg-Power Systems FTC3R & 3FTC3R

Outdoor Uninterruptible Emergency Lighting Inverter System 3KVA-8KVA

Features

- 98% efficient at full load
- PWM/IGBT technology
- Self-testing/Self-diagnostic
- Standard input circuit breaker
- Standard internal bypass switch
- RS232 communication port
- Standard seismic zone 4 brackets
- Standard summary dry contacts
- Automatic event and alarm log
- NEMA 3R cabinet for outdoors
- 90 min. standard run time
- Generator compatibility
- Custom voltages available
- Automatic event, test and alarm log
- LCD display
- One size cabinet
- Maintenance free standard 5 year batteries
- Temperature controlled cooling fans

UL listed to UL924. Meets NFPA101, NFPA70, NFPA 110, OSHA, UBC, SBCCI. N.Y City approved.

Electrical/Mechanical Characteristics[3, 4]

POWER RATING KVA= KW	EFFIC. AT FULL LOAD %	HEAT LOSS (BTU)	BATT. VDC	BATT. A	NO. OF BATT.[2]	UPS CABINET DIMENSIONS			UPS CAB. WEIGHT LBS	BATT. CAB. WEIGHT LBS	TOTAL SYSTEM WEIGHT LBS
						W"[1]	H"	D"			
3 (1PH)	98	255	120	37	10	48	76	30	535 lbs	888 lbs	1633 lbs
4 (1PH)	98	340	144	40	12	48	76	30	535 lbs	1110 lbs	1855 lbs
5 (1PH)	98	408	180	40	15	48	76	30	535 lbs	1480 lbs	2247 lbs
6.5 (1PH)	98	544	240	39	20	48	76	30	639 lbs	1776 lbs	2835 lbs
8 (1PH)	98	680	144	82	24	48	76	30	639 lbs	2220 lbs	3279 lbs
4 (3PH)	98	326	144	39	12	48	76	30	639 lbs	2960 lbs	4063 lbs
5 (3PH)	98	408	180	39	15	48	76	30	1250 lbs	4440 lbs	6390 lbs
6.5 (3PH)	98	544	240	39	20	48	76	30	1250 lbs	6080 lbs	8630 lbs
8 (3PH)	98	680	144	81	24	48	76	30	1450 lbs	7400 lbs	10150 lbs

[1] Factory installed floor mount brackets; add 2.5" to each side (total 53")
[2] Standard batteries are 5 year life expectancy. Batteries are installed in the same cabinet with electronics
[3] UL rated for 90 min. run time for temperatures: 50ºF to 104ºF (10ºC to 40ºC) or -4ºF to 104ºF (-20ºC to 40ºC) with optional heater
[4] NEMA type 3R, freestanding, two-door powder coat cold rolled steel cabinet standard. Stainless steel enclosure is optional

How to Order

INPUT VOLTAGE*	BATTERY TYPE	VA/W RATING*	SYSTEM TYPE	OUTPUT VOLTAGE*	RUN TIME*	INPUT BREAKER	RS232 PORT	INTERNAL BYPASS SWITCH	OUTPUT BREAKERS*	OPTIONS*
120, 1PH **208,** 1PH **240,** 1PH **277,** 1PH **120/208,** 3PH **277/480,** 3PH	**SG**= Sealed Lead-Calcium	**3000** **4000** **5000** **6500** **8000**	**FTC3R**= single phase **3FTC3R**= 3 phase	**120** **208** **277** **120/208** **277/480**	**90**	**ICB**	**RS232**	**MBYB**	**OCBxxxx**= no trip alarm* **OCAxxxx**= with trip alarm*	**10Y**= 10 yr sealed batteries **12HR**= 12 hr fast recharge **NOFF**= normally off output** **EMBP**= external bypass switch*** **RMP**= remote metering panel **RSAP**= remote summary alarm panel **HTR**= heater **INVON**= inverter on dry contacts **MOD**= external modem **FAX**= fax modem **BPR**= bypass relays **SS**= stainless steel enclosure
* 1PH are input voltages available for 1 phase systems. 3PH are input voltages available for 3phase systems.		* Not available in 3 phase version		* 1PH are input voltages available for 1 phase systems. 3PH are input voltages available for 3phase systems.	* Other run times available				* Max. 14 unsupervised single pole positions or 8 with trip alarm. For more output breakers please consult factory. See page 137 for output breakers option details.	* See page 137 for options description Summary alarm dry contacts and seismic brackets are standard. ** Normally off loads cannot exceed 20% of total KVA rating with any combination of H.I.D. loads *** Not available in 3 phase version.

Example: **120SG4000-FTC3R-120-90-ICB-RS232-MBYB-OCB0420-10Y**

EMERG-POWER SYSTEMS
Option Details

INTEGRATED OUTPUT CIRCUIT BREAKERS:

-OCB	12	20			
Trip Alarm **OCB** - No Breaker Trip Alarm **OCA** - With Breaker Trip Alarm	**Number of Circuit Breakers** Combination of 1 pole, 2 pole and 3 pole breakers available. * For max. number of circuit breakers available please consult factory	**Breaker Rating (Amps)** * Various ratings available	**Number of poles** Blank - 1 pole -2P - 2 poles -3P - 3 poles	**Breaker Voltage** **Blank-** matches system output voltage **-120VAC** **-208VAC** **-240VAC** **-277VAC** **-480VAC**	**Operation Mode** **Blank:** Normally-On **-NOFF:** Normally-Off

Distribution circuit breakers are for output load protection. Protection for the normally on and/or for the normally off loads.
All circuit breakers are rated for 10,000 AIC.
If ordered, an audible and visual alarm activates when an output distribution circuit breaker is open or has tripped.

(-20YR) 20 YEAR SEALED LEAD CALCIUM BATTERIES
Maintenance free battery requires no addition of water over the life of the battery. The battery cells are housed in protective, modular steel trays. Life expectancy is designed for 20-years at 77ºF (25ºC).

(-12HR) 12 HOUR FAST RECHARGE
Battery charger upgrade option which decreases the time required to return a fully discharged battery to the fully charged state. The normal 24 hour recharge cycle is reduced to a 12 hour period.

(-MBYP) INTERNAL MAINTENANCE BYPASS SWITCH
Internally mounted device permits maintenance personnel to easily bypass the protected equipment directly to the AC utility power. The manual make before break switch isolates the system to perform routine maintenance or servicing without interruption of utility power to the connected load.

(-EMBP) EXTERNAL MAINTENANCE BYPASS SWITCH
The external maintenance bypass switch is mounted in a 20"H x 16"W x 9"D NEMA 1 separate enclosure, used to completely isolate the inverter system from the connected load and AC utility input. This option allows the system to be safely powered down for maintenance or service. The option may not be used on systems with more than one single pole output circuit breaker which must be sized for the total system output current.

(-RMP) REMOTE METER PANEL
The panel allows monitoring of parameters and control from remote locations up to 150 feet away from the inverter system. Also, the remote panel provides a complete touch pad interface allowing the user to monitor, control and program the inverter system.

(-RSAP) REMOTE SUMMARY ALARM PANEL
Wall mountable box provides visual and audible alarms with silent switch. The panel consists of LED indicators and built-in audible alarm and may be located up to 1,000 feet away from the inverter system.

(-DCS) SUMMARY ALARM DRY CONTACTS
Form C dry contacts for remote monitoring purposes. Rated at 5 amps max. (250VAC/30VDC), the contacts will change state when any of the following alarms: are tripped High/Low Battery Charger Voltage, High/Low AC Input Voltage, Near Low Battery Voltage, Low Battery Voltage, Load Reduction Fault, High Ambient Temperature, Inverter Fault, Output Fault, Output Overload or Optional circuit breaker.

(-INVON) INVERTER ON DRY CONTACTS
Form C dry contacts that will change state when the system transfers to battery operation

(-VTD) VARIABLE TIME DELAY (FOR NORMALLY OFF CIRCUITS)
After a return of AC utility power, delays retransfer of the inverter for up to 15 min. and continues to supply emergency power to the normally off circuits.

(-NOFF) NORMALLY OFF OUTPUT
This output circuit is dedicated for the "emergency only" equipment. Emergency only equipment operates during power outages and when the system is on battery back up. This option leaves the normally off load circuits off during normal utility power conditions. A 1-pole circuit breaker is provided. For 3 phase systems, 3 pole normally off circuits are available as well.

(-MOD) EXTERNAL MODEM
External modem device is designed to boost the signal level of the RS-232 diagnostic interface to remote monitoring locations located more than 100 feet away from the system.

(-FAX) INTERNAL FAX MODEM
The internal fax modem enables the system to send a fax automatically to several pre-programmed numbers when one of the following conditions occurs: utility failure, output failure or any alarm. The Fax Modem option requires a user supplied dedicated phone line.

(-BPR) BYPASS RELAYS
Internal bypass relays will allow overriding circuits that can be switched on/off, so in case of a power failure the emergency circuits will be supplied from the inverter system whatever the position of the switching device. Please consult factory for more details.

(-DIAL) AUTO DIALER
The Auto Dialer modem option automatically dials up to four user-programmable phone numbers in the event of any system alarm condition. The option is designed to deliver a predetermined digital or audible message when activated. The Auto Dialer option requires a user supplied dedicated digital or analog phone line.

(-SEIS) SEISMIC MOUNTING KIT
The seismic mounting kit option is designed to prevent system movement during seismic events. Heavy-duty brackets are provided to secure system cabinetry to floor surfaces. Meets Zone 4 requirements.

(-ZONEM) ZONE MONITORING
Allows voltage monitoring of different circuits than the standard AC utility input. When the voltage of one of these circuits drops, the inverter system will go into battery back-up operation mode. Number and voltage of the monitored circuits to be specified.

(-RS232) DIAGNOSTIC INTERFACE
A microprocessor-based data acquisition system designed to monitor all the system parameters remotely. Monitors alarm log, event log and automatic test log. User can command the system to perform a battery test and review all system parameters. Access is through a DB9 connector and transmits at 9600 baud.

(-BATM) BATTERY CYCLE WARRANTY MONITOR
Device providing battery monitoring at string level or cell level. Please consult factory for more details.

EMERG-POWER SYSTEMS

Control Panel & Display

Meter Functions

- AC Voltage Input
- AC Voltage Output
- AC Current output
- Battery Voltage
- Battery Current
- VA Output
- Inverter Watts
- Ambient Temperature
- System Days (cumulative)
- Inverter Minutes (cumulative)

Program Functions

- Set Date
- Set Time
- Set Monthly Test Date and Time
- Set Annual Test Date and Time
- Set Load Fault Reduction Setting
- Set Low Battery Alarm
- Set Near Low Battery Alarm
- Set Low AC Voltage Alarm
- Set High AC Alarm
- Set Ambient Temperature Alarm

Alarms

- High Battery Charger Voltage
- Low Battery Charger Voltage
- High AC Input Voltage
- Low AC Input Voltage
- Near Low Battery Voltage
- Low Battery Voltage
- Load Reduction Fault
- High Ambient Temperature
- Inverter Fault
- Output Fault
- Output Overload

Control Functions

- Test and Event Logs (75 logs stored) Logs record the following data: Date, Time, Duration, Output Voltage, Output Current, Ambient Temperature and Alarms Present.
- Alarm Logs (50 logs stored) Logs record the following data: Date,Time and Alarm type
- Buzzer On/Off (toggle)
- 5 LED Indicators and Alarms with Ringback Feature

System Testing

Manual tests of system may be performed at any time using the control panel test key. Automatic self-diagnostic tests consist of a 5-minute monthly and 90-minute annual function (the user can program the date and time of day the test is to take place). The microprocessor automatically records the last 75 test events in its own separate test result log.

EMERG-POWER SYSTEMS

Central Systems Request Data

1) Input voltage

Single phase	(2 wire + ground)	120VAC ☐	208VAC ☐	240VAC ☐	277VAC ☐
Three phase	(4 wire + ground, Y)	120/208VAC ☐	277/480VAC ☐	347/600VAC ☐	
Three phase	(3 wire + ground, Δ)	208VAC ☐	480VAC ☐	600VAC ☐	

2) Output voltage

Single phase	(2 wire + ground)	120VAC ☐	208VAC ☐	277VAC ☐
Single phase	(3 wire + ground)	120/240VAC ☐	120/277VAC ☐	
Three phase	(4 wire + ground, Y)	120/208VAC ☐	277/480VAC ☐	

3) System capacity

KVA rating: _____ System Series Type: _____

a) Please consider power consumption and maximum current of the complete lamp fixture not just the lamp wattage (ie: ballasts consumption)

b) Please consider loads power factor

c) Even if the systems can run with 100% load, it is recommended as standard practice to use a system with a capacity at least 10% over maximum connected load

4) Type of loads

☐ Incandescent ☐ Fluorescent ☐ H.I.D (metal halide, high pressure sodium, etc.)

☐ Other _____

5) Mode of operation

☐ Normally ON (24/7) ☐ Normally OFF (emergency only) ☐ Switched loads ON/OFF ☐ LED

Please consider internal bypass relays or external override relays for switched On/Off loads.
Each switched output circuit will require a bypass relay. Maximum 20 A per circuit.

6) Integrated output circuit breakers

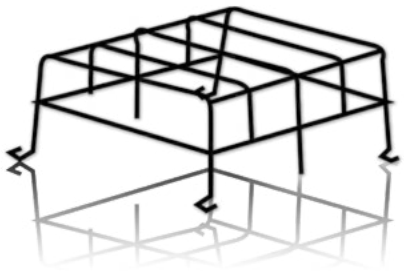
# of CB _____	Amps _____	Voltage _____	# of poles _____	NON ☐	NOFF ☐	Trip alarm ☐
# of CB _____	Amps _____	Voltage _____	# of poles _____	NON ☐	NOFF ☐	Trip alarm ☐

7) Type of Batteries (check availability for each type system)

☐ 10 yr sealed lead calcium ☐ 20 yr sealed lead calcium ☐ wet nickel cadmium

8) Options (refer to available options for each system type)

☐ (12HR-) 12 Hour Fast Recharge
☐ MBYP- internal bypass switch
☐ EMBP- external bypass switch
☐ RMP- remote meteing panel
☐ RSAP- remote summary alarm panel
☐ DCS- dry summary alarm contacts
☐ INVON- inverter on dry contacts
☐ RS232- diagnostic interface
☐ NOFF – normally OFF output
☐ MOD- external modem
☐ FAX- fax modem
☐ BPR- bypass relays How many ____
☐ DIAL- auto-dialer
☐ SEIS- seismic mounting kit
☐ ZONEM- zone monitoring
☐ VTD- variable time delaye
☐ BATM – battery cycle warranty monitor

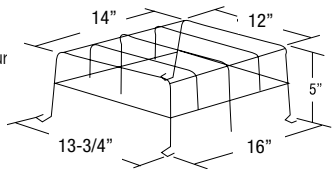


Wire Guards

Catalog Number WG1-E

Application

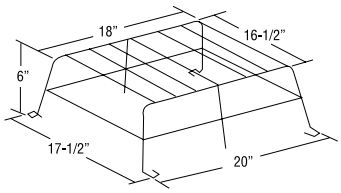
- JS Series (small cabinet)
- PS Series (surface or semi-recessed)
- EF24 or EF24R remote lighting fixtur
- Premier™ Battery Unit
- Premier™ Exit Sign (wall mount)



Catalog Number WG2-E

Application

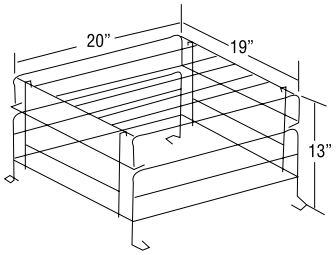
- JS Series (large cabinet)
- All A cabinets
- Premier™ Combo Series (wall mount)



Catalog Number WG3-E

Application

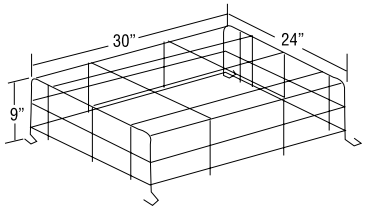
- IL Series
- All B and C cabinets



Catalog Number WG4-E

Application

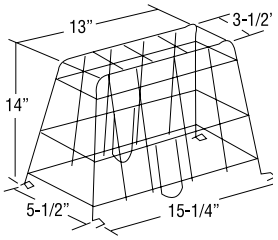
- All D cabinets
- KS Series (not for front mounted heads)



Catalog Number WG5-E

Application

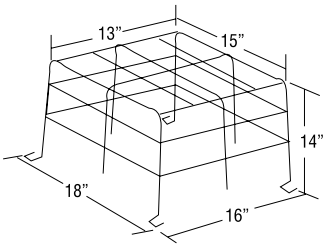
- X10 (end or ceiling mounted) AC and AC/DC or Self-Powered exit with no mounted heads
- ECL & ECLXN Series LED (end or ceiling mounted) AC and AC/DC or Self-Powered
- Preceptor™ Series LED (AC and AC/DC or Self-Powered) (end or ceiling mounted)
- Prestige™ DX Series LED and Thin Die-Cast Series (end or ceiling mount)
- Premier™ Exit Sign (end or ceiling mount)



Catalog Number WG6-E

Application

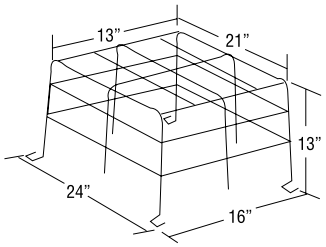
- Single EF22 head
- X10 mini systems (wall mounted) with front mounted EF9 head(s) (wall mounted)
- KS Series with front mounted heads



Catalog Number WG7-E

Application

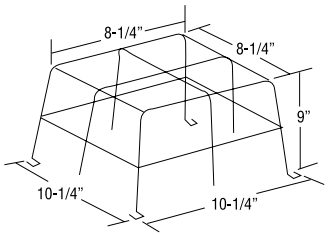
- EF22D heads
- RS Series with cylinder
- EF32 heads



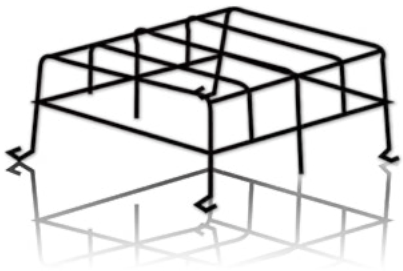
Catalog Number WG8-E

Application

- Single remote EF9, EF11,
- EF16, EF18, EF28, or
- EF32 lighting head



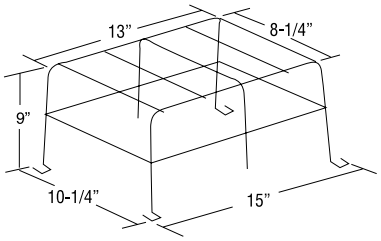
Wire Guards



Catalog Number WG9-E

Application

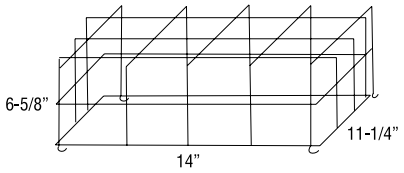
- Double or triple remote EF9, EF11, EF18, EF28 or EF32 lighting heads
- RS Series with EF9 or EF18 heads
- ECS-2 Series



Catalog Number WG13-E

Application

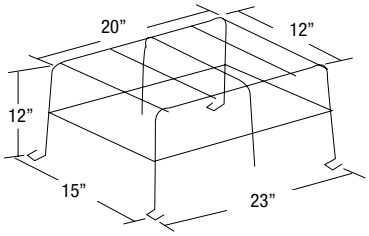
- PRO-2N Series
- Preceptor™ Series Self-Powered (wall mount)



Catalog Number WG10-E

Application

- JS Series with front mounted heads

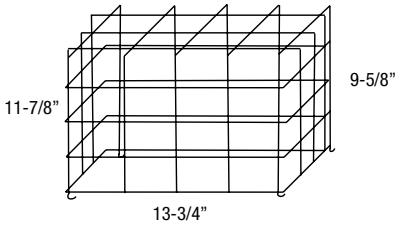


Catalog Number WG14-E

Application

Exit Signs (Ceiling Mount)

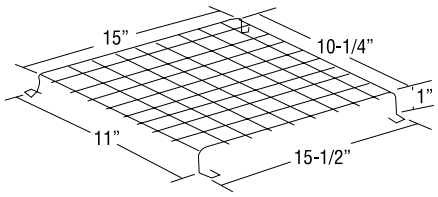
- Prestige™ Floor Proximity Series (6” & 8”);
- Preceptor™ Die-Cast Series;
- Prestige™ Thin Die-Cast Series;
- X10 LED Series,
- Premier™ Exit Series;



Catalog Number WG11-E

Application

- Fully recessed PS Series
- GS Series
- EF15, EF20, EF21R, EF35 lighting fixtures
- Fully recessed Preceptor™ Series
- Prestige™ Thin Die Cast Exit Sign (wall mounted)

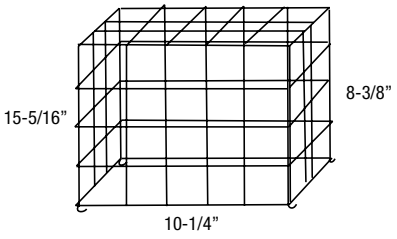


Catalog Number WG15-E

Application

Exit Signs (Ceiling Mount)

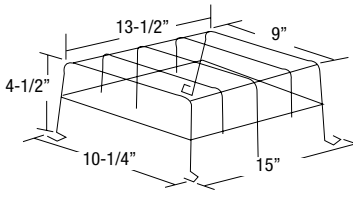
- Prestige™ Floor Proximity Series (6” & 8”);
- Preceptor™ Die-Cast Series;
- Prestige™ Thin Die-Cast Series;
- X10 LED Series,
- Premier™ Exit Series;



Catalog Number WG12-E

Application

- X10 Series LED (AC and AC/DC or Self-Powered) (wall mount)
- ECL & ECLXN Series LED AC and AC/DC or Self-Powered (wall mount)
- Preceptor™ Series LED (AC and AC/DC or Self-Powered) (wall mount)
- Prestige™ DX Series LED AC and AC/DC or Self-Powered (wall mount)
- Remote EF13, EF14, or EF17 fixtures



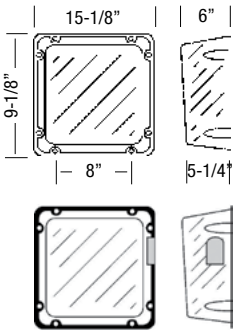
Accessories

Catalog Number VRS or VRS-4X

Application

NEMA-4X

- ME Series with top mounted heads
- PS Series all mountings
- X10 LED, (wall mounted) AC and AC/DC or Self-Powered exit with no mounted heads
- ECL Series LED (wall mounted) AC and AC/DC or Self-Powered
- Preceptor™ Series LED, (wall mounted) AC and AC/DC

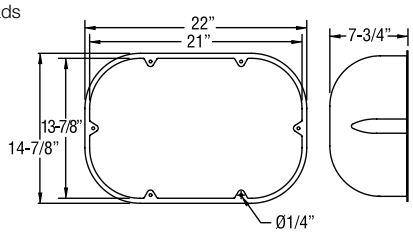


Catalog Number VRS-BB or VRSBB-4X

Application

NEMA-4X

- JS Series (small cabinet) top or front mounted heads
- ECC & ECM Series (small cabinet)

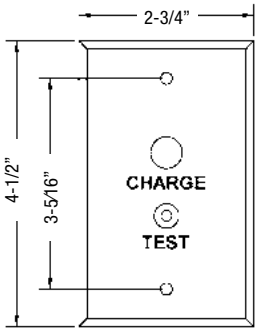


Remote Test Switch

Make testing your ceiling mounted equipment easier with the remote test switch. Compatible with 120 or 277 VAC circuits, the remote test switch will interrupt the line voltage to your equipment by means of a momentary push button switch. AC on/Charge status indicator lamp assures that power is going to your emergency lighting.

How To Order

Metal faceplate, chrome	**RTS**
Plastic Faceplate plastic, off white	**RTS-1**

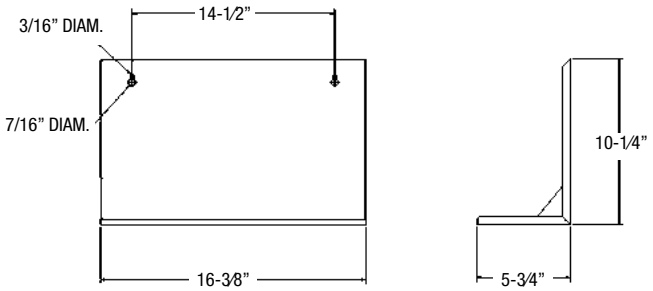


MP3 Mounting Platform

Constructed of 18 gauge. steel, the MP3 mounting platform will accommodate all our unit equipment in our 'B' cabinet.

How To Order

Mounting platform	**MP3-EG**
Mounting platform, gray	**MP3-GY**



MP6, MP12, MP24 Mounting Platform

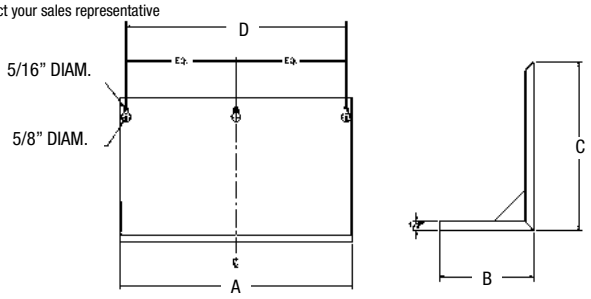
Constructed of 18 gauge. steel, the MP6, MP12, and MP24 mounting platform will accommodate our unit equipment in our 'C', 'D', and 'E' cabinets respectively.

How To Order

Mounting platform (off white)	**MP6-EG**
Mounting platform (off white)	**MP12**
Mounting platform (off white)	**MP24**

Optional colors available, contact your sales representative

Part #	A	B	C	D
MP6	17"	7.75"	12.25"	16"
MP12	27.5"	7.75"	12.25"	16"
MP24	27.5"	11.63"	12.25"	16"



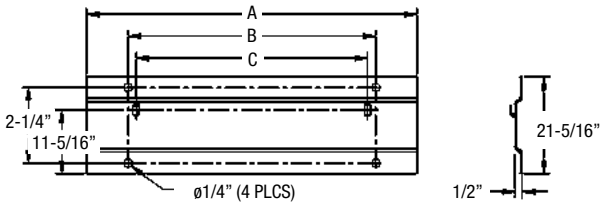
B1 and B12 Mounting Brackets

Constructed of 16 gauge. steel, the B1 and B2 mounting bracket will accommodate our unit equipment in our 'A' and 'B' cabinets respectively.

How To Order

Mounting bracket (off white)	**B1**
Mounting bracket (off white)	**B2**

Part #	A	B	C
B1	10"	7"	7 1/2"
B2	14 1/4"	11 3/4"	12 5/8"



Specify mounting plate designation as a suffix to fixture type model number. Plates ordered separately, specify plate designation and fixture type.

230.1238-E & 230.1239-E

- Single, Double or Triple Round
- Thermoplastic Construction
- Off-white or black finish only
- Mount direct to 4" octagonal box

Dimensions: 5" diameter - slotted mounting holes
3 to 3 9/16" mounting center

Standard: EF18, EF18D; and EF9, EF9D

Off-White - 230.1238-E | Black - 230.1239-E

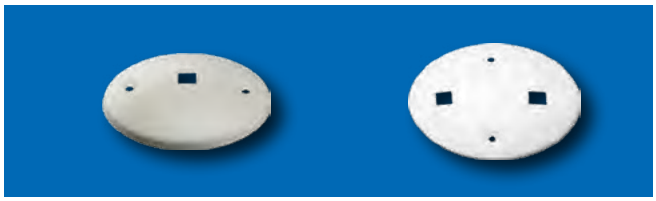
430.0765-E & 430.0766-E

- Single or double round
- Aluminum construction
- Matte white baked enamel finish
- Black finish optional
- Mount direct to 4" octagonal box

Dimensions: 5 1/4" diameter
3 7/16" mounting center

Standard: EF32 and EF32D

Off-White Single - 430.0765-E | Off-White Double - 430.0766-E



450.0129-E, 450.0397-E & 450.0398-E

- Single, double or triple rectangular
- Single, triple or 4-gang steel construction
- Chrome plated finish only
- Mount direct to standard outlet box

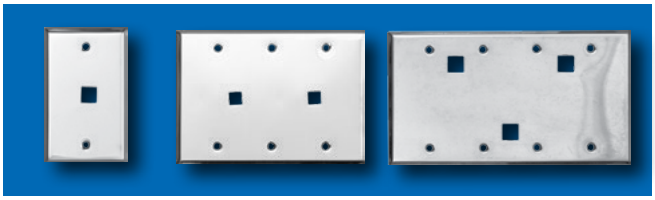
Dimensions: single - 2 3/4" X 4 1/2" (for 1 fixture)
3-gang - 6 7/16" X 4 1/2" (for 2 fixtures)
4-gang - 8 3/8" X 4 1/2" (for 3 fixtures)

Standard: EF28, EF28D; EF18T and EF28T

450.0129-E - No Square Hole
450.0194-E - 1/2" Square Hole

450.0397-E - No Square Hole
450.1153-E - 1/2" Square Hole

450.0398-E - No Square Hole
450.1155-E - 1/2" Square Hole



330.7583-E & 330.7584-E

- Single or double round
- Die-cast aluminum construction
- Gasketed weatherproof
- Off-white or black powder paint finish only
- Mount direct to 4" octagonal box

Dimensions: 4 1/8" diameter
3 9/16" mounting center

Standard: EF11 and EF11D

Off-White Single 330.7583-E | Black Single 330.7577-E | Off-White Double 330.7584-E | Black Double 330.7578-E

Gasket - 245.0100-E

12804-E & 12805-E

- Single or double rectangular
- Die-cast aluminum construction
- Gasketed weatherproof
- Silver gray enamel finish only
- Mount direct to standard outlet box

Dimensions: 4 5/8" X 2 7/8"
3 1/4" mounting center

Standard: Non standard mounting plate

12804-E | 12805-E

Lamp Data

General Information

All Emergi-Lite® Lighting Fixtures are furnished complete with lamps; however, **all fixtures and unit model numbers must include a lamp designation.** Unless otherwise noted, the standard lamp furnished with each lighting fixture is a 9W High Intensity Incandescent lamp of the designated voltage.

Example

FIXTURES	PART NUMBER
EF18 (ZD)	LSM 110-2Z (6V-9W)
EF18 (ZF)	12LSM 110-2Z (12V-9W)
EF18 (ZN)	24LSM 110-2Z (24V-9W)

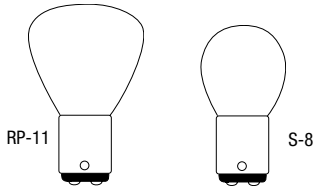
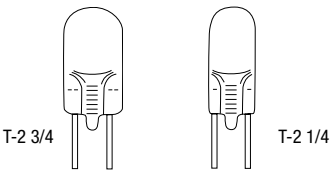
When an alternate lamp is required, refer to the lamp selection charts below, select the lamp type, the voltage and wattage required and add the symbol designation to the catalog number. Not all lighting fixtures and lamp types are compatible, always check individual lighting fixture "How to Order" information.

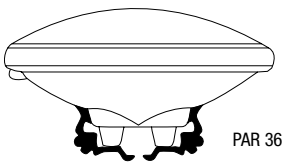
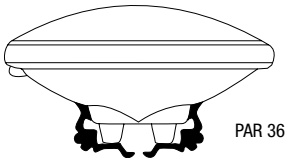
Example:

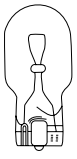
A Normally Furnished Lamp: EF18 (ZD)
(6V-9W Wedge Base Incandescent)

Lighting Head Requiring different Lamp: (6V-25W Sealed Beam Lamp)

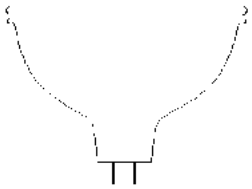
Change Catalog Number to: EF18 (UC)

LAMP TYPE	PART NUMBER	LAMP CODE	VOLTAGE (V)	POWER (W)	AVERAGE LUMEN	TOTAL CANDLE POWER (CP)	LAMP #	BULB TYPE
High Intensity Tungsten (HIT) Lamps  Double Contact Bayonet Base	570.0010	IA	6	9	126	10	135	S-8
	570.0020	IM	6	13	188	15	88	S-8
	570.0037	IB	6	18	300	24	1130	S-8
	570.0038	IC	6	25	400	32	1134	RP-11
	570.0011	IE	12	9	126	10	138	S-8
	570.0022	IN	12	13	188	15	94	S-8
	570.0030	IF	12	18	276	22	139	S-8
	570.0031	IG	12	25	400	32	1076	S-8
	570.0058	II	24	9	75	6	304	C-2F
	570.0040	IJ	24	18	250	20	142	S-8
	570.0061	IK	24	25	400	32	1638	S-8
Bi-Pin Halogen Lamps 	580.0012	HA	6	6	113	9	784	T-2 1/4
	580.0013	HB	6	8	163	13	785	T-2 1/4
	580.0017	HC	6	10	200	16	787	T-2 1/4
	580.0011	HD	6	12	240	19	786	T-2 1/4
	580.0022	HE	6	20	400	32	788	T-2 1/4
	580.0014	HF	12	8	163	13	774	T-2 1/4
	580.0015	HG	12	12	276	22	783	T-2 1/4
	580.0016	HH	12	14	300	24	789	T-2 3/4
	580.0027	HI	12	20	314	25	782	T-2 3/4

LAMP TYPE	PART NUMBER	CATALOG SUFFIX	VOLTAGE	WATTS	AVERAGE LUMEN	CENTER-BEAM CANDLE POWER (CBCP)	LAMP #	BULB TYPE
Sealed Beam Halogen Lamps 	550.0022	XA	6	6	107	400	H7556	PAR 36
	550.0036	XB	6	8	155	550	H7551	PAR 36
	550.0037	XC	6	10	190	650	H7552	PAR 36
	550.0019	XD	6	12	225	850	H7553	PAR 36
	550.0021	XE	6	20	380	1,400	H7554	PAR 36
	550.0024	XF	12	8	130	550	H7555	PAR 36
	550.0025	XG	12	12	240	850	H7557	PAR 36
	550.0047	XH	12	37	700	70,000	H7616	PAR 36
	550.0012	XI	12	50	950	2,000	H7614	PAR 36
Sealed Beam Incandescent Lamps 	550.0018	UA	6	8	130	400	7613	PAR 36
	550.0030	UI	6	12	180	1,100	4042	PAR 36
	550.0016	UB	6	18	270	1,500	4014	PAR 36
	550.0017	UC	6	25	400	800	4510	PAR 36
	550.0035	UD	6	30	460	5,500	4515	PAR 36
	550.0026	UE	12	12	190	1,110	4044	PAR 36
	550.0027	UF	12	18	210	1,500	4414	PAR 36
	550.0023	UG	12	25	395	400	4446	PAR 36
	550.0034	UH	12	30	430	35,000	4416	PAR 36

LAMP TYPE	PART NUMBER	CATALOG SUFFIX	VOLTAGE	WATTS	AVERAGE LUMEN	TOTAL CANDLE POWER (CP)	LAMP #	BULB TYPE
High Intensity Incandescent, Wedge Base  T-5	570.0012	ZP	6	5.4	68	5.4	939	T-5
	570.0026	ZL	6	7.2	100	8	927	T-5
	570.0016	ZD	6	9	150	12	908	T-5
	570.0025	ZF	12	9	138	11	915	T-5
	570.0028	ZG	12	12	150	12	912	T-5
	570.0029	ZH	12	18	264	21	921	T-5
	570.0045	ZN	24	9	113	9	EMS2209W	T-5
	570.0046	ZO	24	18	240	19	EMS2218W	T-5

Lamp Data
General Information

LAMP TYPE	PART NUMBER	CATALOG SUFFIX	VOLTAGE	WATTS	AVERAGE LUMEN	CENTER-BEAM CANDLE POWER (CBCP)	BEAM ANGLE (DEGREES)	BULB TYPE
MR16 Halogen Lamps 	580.0072	MH	6	5.4	34	73	36	MR16
	580.0074	MI	6	6	40	130	24	MR16
	580.0079	MJ	6	10	77	790	16	MR16
	580.0099	MO	12	10	86	200	36	MR16
	580.0080	MK	12	12	135	320	36	MR16
	580.0064	MG	12	20	270	525	36	MR16
	580.0075	MA	12	20-A	245	600	36	MR16
	580.0068	MW	12	20-H	417	950	36	MR16
	580.0083	MB	12	35	490	3300	24	MR16
	580.0076	MC	12	50	785	2800	24	MR16
	580.0089	MM	12	50-H	1550	5700	24	MR16
	580.0070	MS	24	12	95	280	36	MR16
	580.0077	MD	24	20	240	740	24	MR16
	580.0094	MN	24	20-A	195	890	24	MR16
	580.0084	ME	24	35	460	990	36	MR16
	580.0078	MF	24	50	875	3200	24	MR16
	580.0065	MT	120	20	100	240	36	MR16
	580.0066	MU	120	35	230	520	36	MR16
	580.0067	MV	120	50	460	1100	36	MR16
MR16 LED Lamps 	580.0097	LA	6	4	130	600	24	MR16
	580.0093	LG	12	4	170	440	30	MR16
	580.0104	LI	12	5	340	900	24	MR16
	580.0106	LJ	12	6	540	1800	25	MR16
	580.0098	LL	24	4	200	900	24	MR16
	580.0095	LV	120	4	200	900	24	MR16

LAMP TYPE	PART NUMBER	CATALOG SUFFIX	VOLTAGE	WATTS	AVERAGE LUMEN	TOTAL CANDLE POWER (CP)	LAMP #	BULB TYPE
EXIT Signs, Hazardous Locations Incandescent Lamps	580.0086	XX6	6	15	210	17	JC6V-15W2KG4	Bi-Pin G4
	570.0071	XX12	12	25	220	18	13769	A19
	570.0118	XX24	24	25	220	18	24227-1	A19
	570.0136	AC	120	25	215	17	97478	A19

LAMP TYPE	PART NUMBER	VOLTAGE	WATTS	AVERAGE LUMEN	TOTAL CANDLE POWER (CP)	LAMP #	BASE TYPE
EXIT Signs, 120VAC Incandescent	570.0013	145	15	150	12	15T6145	Candelabra Screw Base
	570.0024	120	20	90	7	20T61/2	Intermediate Screw Base
	570.0035	145	15	150	12	15T6	Intermediate Screw E17
	595.0010	120	7	330	26	PL7-T4	G23

Important: Lumen rating and candle power values are only for general reference.
The data was obtained from the manufacturer's catalogs, calculations or third-party laboratory measurements. Actual performance in the field may and will vary.

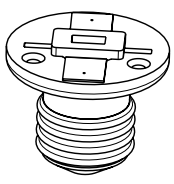
Explosion-Proof Incandescent Lamps

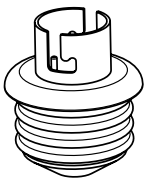
ITEM P/N	CATALOG SUFFIX	VOLTAGE	WATTS	LUMEN RATING	LAMP #
580.0086	XX6	6	15	225	JC-6V15W
570.0071	XX12	12	25	378	–
570.0118	XX24	24	25	345	–
570.0136	AC	120	25	215	–
540.0180	XX120	120	5	–	Red LED

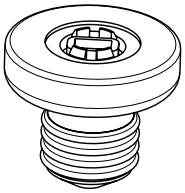
MSA Incandescent Lamp Adapter

For HIT, DCBB or Bi-Pin Halogen Lamps

DC lamp plus adapter for medium Edison screw base socket. This device converts any incandescent fixture into an emergency fixture.


MSA Bi-Pin


MSA Double Contact


MSA Wedge Base

120 Volt AC Exit Lamps

LAMP TYPE	CATALOG	WATTS	LAMP #	BASE
Incandescent	570.0013	15	15T6145	Candelabra Screw Base
Incandescent	570.0024	20	20T61/2	Intermediate Screw Base
Incandescent	570.0035	15	15T6	Intermediate Screw Base
Fluorescent	595.0010	7	PL7-T4	G23

How to Order (example)

PRODUCT CODE	LAMP SYMBOL
MSA	HB

Note:
Lumen figures based on information supplied by lamp manufacturers.
Lamp drawings shown are for shape comparison only, not actual size.

Wire Size Guard

Determining Wire Size

The following information is provided to assist in designing proper emergency lighting systems effectively and economically by using the smallest permissible wire size for load circuits. When remote lighting fixtures and/or exit signs are connected to emergency lighting units, circuit runs must be of sufficient size to maintain a proper operating voltage to all lamps. The National Electrical Code limits voltage to drop to a maximum of 5% of nominal. The table below gives the maximum length or wire run based on systems voltage, wire gauge and total wattage on the run. To determine the maximum length of a wire run not listed, divide the value of the load in watts into the constant listed at the bottom of each row. Example, the maximum wire run for #10 wire on a 12 volt system, with a 54 watt load, is 3397 ÷ 54 or, or 62 feet.

Conversely, to determine the maximum load on a run of known length, divide the length into the constant. Example, a 36 foot run of #12 wire on a 6 volt systems can be loaded to, 534 ÷ 36, or 14 watts; on #10 wire, 23 watts.

WIRING DISTANCE IN FEET (MAXIMUM VOLTAGE DROP 5%)													
Total watts on wire run	6 volt wire size				12 volt wire size					24 volt wire size			
	#12	#10	#8	#6	#12	#10	#8	#6	#4	#12	#10	#8	#6
6	89	141	225	357	356	566	900	1431	+	1425	+	+	+
8	66	106	168	268	267	424	675	1073	1707	1068	1698	+	+
9	59	94	150	238	237	377	600	954	1517	949	1509	+	+
10	53	84	135	214	213	339	540	859	1366	854	1358	+	+
12	44	70	112	178	178	283	450	715	1138	712	1132	1801	+
16	33	53	84	134	133	212	337	536	853	534	849	1350	+
18	29	47	75	119	118	188	300	477	758	474	754	1200	1909
24	22	35	56	89	89	141	225	357	569	356	566	900	1431
25	21	33	54	85	85	135	216	343	546	341	543	864	1374
27	19	31	50	79	79	125	200	318	505	316	503	800	1272
30	17	28	45	71	71	113	180	286	455	284	452	720	1145
36	14	23	37	59	59	94	150	238	379	237	377	600	954
42	12	20	32	51	50	80	128	204	325	203	323	514	818
45	11	18	30	47	47	75	120	190	303	189	301	480	763
48	11	17	28	44	44	70	112	178	284	178	283	450	715
50	10	16	27	42	42	67	108	171	273	170	271	432	687
75	7	11	18	28	28	45	72	114	182	113	181	288	458
100	5	8	13	21	21	33	54	85	136	85	135	216	343
150	—	5	9	14	14	22	36	57	91	56	90	144	229
200	—	—	6	10	10	16	27	42	68	42	67	108	171
250	—	—	5	8	8	13	21	34	54	34	54	86	137
300	—	—	—	7	7	11	18	28	45	28	45	72	114
400	—	—	—	5	5	8	13	21	34	21	33	54	85
500	—	—	—	—	—	6	10	17	27	17	27	43	68
Constant	**534**	**849**	**1350**	**2148**	**2137**	**3397**	**5403**	**8590**	**13660**	**8548**	**13588**	**21613**	**34363**

Longer Wire Runs

The wiring distances give the maximum length of a battery circuit, assuming that the entire load is concentrated at the end of the circuit. If loads are uniformly spaced along the circuit path (equal watts, equal distances), the lengths in the table may be increased, based on number of fixtures on a given circuit, by means of the chart and formula below.

NUMBER OF FIXTURES	2	3	4	5	6	N
Multiply by Feet	1.33	1.5	1.6	1.67	1.71	2N/ (n+1)

For example, a 36 foot long, 6 volt circuit has (3) 9 watt heads spaced 12 feet apart. According to the wire run table, # 8 wire must be used (at 50 feet for a 5% voltage drop.) but, by multiplying the
31 feet for #10 wire by 1.5, a 461/2 foot wire run is acceptable, so #10 wire may be used and still meet the 5% voltage drop limitation.

Note: According to the National Electrical Code, Article 720-Y, the smallest permissible wire size for systems under 50 volts is the
#12 wire gauge.

National Electrical Code

ARTICLE 700 – EMERGENCY SYSTEMS

I. General

700.1. Scope.
The provisions of this article apply to the electrical safety of the installation, operation, and maintenance of emergency systems consisting of circuits and equipment intended to supply, distribute, and control electricity for illumination or power, or both, to required facilities when the normal electrical supply or system is interrupted.

(FPN No. 1): For further information regarding wiring and installation of emergency systems in health care facilities, see Article 517.

(FPN No. 2): For further information regarding performance and maintenance of emergency systems in health care facilities, see Standard for Health Care Facilities, NFPA 99-1999.

(FPN No. 3): Emergency systems are generally installed in places of assembly where artificial illumination is required for safe exiting and for panic control in buildings subject to occupancy by large numbers of persons, such as hotels, theaters, sports arenas, health care facilities, and similar institutions. Emergency systems may also provide power for such functions as ventilation where essential to maintain life, fire detection and alarm systems, elevators, fire pumps, public safety communications systems, industrial processes where current interruption would produce serious life safety or health hazards, and similar functions.

(FPN No. 4): For specification of locations where emergency lighting is considered essential to life safety, see Life Safety Code, NFPA 101-2000.

(FPN No. 5): For further information regarding performance of emergency and standby power systems, see Standard for Emergency and Standby Power Systems, NFPA 110-1999.

700.2. Definitions
Emergency Systems. Those systems legally required and classed as emergency by municipal, state, federal or other codes, or by any governmental agency having jurisdiction. These systems are intended to automatically supply illumination, power or both, to designated areas and equipment in the event of failure of the normal supply or in the event of accident to elements of a system intended to supply, distribute, and control power and illumination essential for safety to human life.

Informational Note: Emergency systems are generally installed in places of assembly where artificial illumination is required for safe exiting and for panic control in buildings subject to occupancy by large numbers of persons, such as hotels, theatres, sports, arenas, health care facilities, and similar institutions. Emergency systems may also provide power for such functions as ventilation where essential to maintain life, fire detection and alarm systems, elevators, fire pumps, public safety communications systems, industrial processes where current interruption would produce serious life safety or health hazards, and similar functions.

Relay automatic Load Control. A device used to energize switched or normally-off lighting equipment from an emergency supply in the vent of loss of the normal supply, and to de-energize or return the equipment to normal status when the normal supply is restored.

Informational Note: For requirements covering automatic load control relays, see ANSI/UL 924, Emergency Lighting and Power Equipment

700.3.Tests and Maintenance.
(A) Conduct or Witness Test. The authority having jurisdiction shall conduct or witness a test of the complete system upon installation and periodically afterward.

(B) Tested Periodically. Systems shall be tested periodically on a schedule acceptable to the authority having jurisdiction to ensure the systems are maintained in proper operating condition.

(C) Battery Systems Maintenance. Where battery systems or unit equipment are involved, including batteries used for starting, control, or ignition in auxiliary engines, the authority having jurisdiction shall require periodic maintenance.

(D) Written Record. A written record shall be kept of such tests and maintenance.

(E) Testing Under Load. Means for testing all emergency lighting and power systems during maximum anticipated load conditions shall be provided.

Informational Note: For requirements covering automatic load control relays, see ANSI/UL 024, Emergency Lighting and Power Equipment.

700.4. Capacity.
(A) Capacity and Rating. An emergency system shall have adequate capacity and rating for all loads to be operated simultaneously. The emergency system equipment shall be suitable for the maximum available fault current at its terminals.

(B) Selective Load Pickup, Load Shedding, and Peak Load Shaving. The alternate power source shall be permitted to supply emergency, legally required standby, and optional standby system loads where the source has adequate capacity or where automatic selective load pickup and load shedding is provided as needed to ensure adequate power to (1) the emergency circuits; (2) the legally required standby circuits; and (3) the optional standby circuits, in that order of priority. The alternate power source shall be permitted to be used for peak load shaving, provided the above conditions are met.

Peak load shaving operation shall be permitted for satisfying the test requirement of Section 700.3(B), provided all other conditions of Section 700.3 are met. A portable or temporary alternate source shall be available whenever the emergency generator is out of service for major maintenance or repair.

700.5. Transfer Equipment.
(A) General. Transfer equipment, including automatic transfer switches, shall be automatic and identified for emergency use and approved by the authority having jurisdiction. Transfer equipment shall be designed and installed to prevent the inadvertent interconnection of normal and emergency sources of supply in any operation of the transfer equipment. Transfer equipment and electric power production systems installed to permit operation in parallel with the normal source shall meet the requirements of article 705.

(B) Bypass Isolation Switches. Means shall be permitted to bypass and isolate the transfer equipment. Where bypass isolation switches are used, inadvertent parallel operation shall be avoided.

(C) Automatic transfer switches shall be electrically operated and mechanically held.

(D) Use. Transfer equipment shall supply only emergency loads.

700-6. Signals. Audible and visual signal devices shall be provided, where practicable, for the following purposes described in 700.6(A) through (D).

(A) Derangement. To indicate derangement of the emergency source.

(B) Carrying Load. To indicate that the battery is carrying load.

(C) Not Functioning. To indicate that the battery charger is not functioning.

(D) Ground Fault. To indicate a ground fault in solidly grounded wye emergency systems of more than 150 volts to ground and circuit protective devices rated 1000 amperes or more. The sensor for the ground-fault signal devices shall be located at, or ahead of, the main system disconnecting means for the emergency source, and the maximum setting of the signal devices shall be for a ground-fault current of 1200 amperes. Instructions on the course of action to be taken in event of indicated ground fault shall be located at or near the sensor location.

Informational Note: For signals for generator sets, see NFPA 110-2010, Standard for Emergency and Standby Power Systems

700.7. Signs.
(A) Emergency Sources. A sign shall be placed at the service entrance equipment indicating type and location of on-site emergency power sources.

Exception: A sign shall not be required for individual unit equipment as specified in Section 700-12(F).

(B) Grounding. Where removal of a grounding or bonding connection in the normal power source equipement interrupts the grounding electrode conductor connection to the alternate power source(s) grounded conductor, a warning sign shall be installed at the normal power source equipment stating:

WARNING
SHOCK HAZARD EXISTS IF GROUNDING ELECTRODE CONDUCTOR OR BONDING JUMPER CONNECTION IN THIS EQUIPMENT IS REMOVED WHILE ALTERNATE SOURCE(S) IS ENERGIZED.

II. Circuit Wiring

700-10. Wiring, Emergency System.
(A) Identification. All boxes and enclosures (including transfer switches, generators, and power panels) for emergency circuits shall be permanently marked so they will be readily identified as a component of an emergency circuit or system.

(B) Wiring. Wiring of two or more emergency circuits supplied from the same source shall be permitted in the same raceway, cable, box, or cabinet. Wiring from an emergency source distribution overcurrent protection to emergency loads shall be kept entirely independent of all other wiring and equipment, unless otherwise permitted in (1) through (5):

(1) Wiring from the normal power source located in transfer equipment enclosures.

(2) Wiring supplied from two sources in exit or emergency luminaires

(3) Wiring from two sources in a listed load control relay supplying exit or emergency luminaires, or in a common junction box, attached to exit or emergency luminaires

(4) Wiring within a common junction box attached to unit equipment, containing only the branch circuit supplying the unit equipment and the emergency circuit supplied by the unit equipment.

(5) Wiring from an emergency source to supply any combination of emergency, legally required, or optional loads in accordance with (a), (b), (c) and (d):

a. From separate vertical switchboard sections, with or without a common bus, or from individual disconnects mounted in separate enclosures.

National Electrical Code

b. The common bus or separate sections of the switchboard or the individual enclosures shall be permitted to be supplied by single or multiple feeders without overcurrent protection at the source Exception to (5)(b): Overcurrent protection shall be permitted at the source or for the equipment, provided the overcurrent protection complies with the requirements of 700.27

c. Legally required and optional standby circuits shall not originate from the same vertical switchboard section, panel board enclosure, or individual disconnect enclosure as emergency circuits.

d. It shall be permissible to utilize single or multiple feeders to supply distribution equipment between an emergency source and the point where the combination of emergency, legally required, or optional loads are separated.

(C) Wiring Design and Location. Emergency wiring circuits shall be designed and located to minimize the hazards that might cause failure due to flooding, fire, icing, vandalism, and other adverse conditions.

(D) Fire Protection. Emergency systems shall meet the following additional requirements (D)(1) through (D)(3) in assembly occupancies for not less than 1000 persons or in buildings above 23 m (75 ft) in height with any of the following occupancy classes: assembly, educational, residential, detention and correctional, business, and mercantile.

Informational Note: For the definition of Occupancy Classification, see Section 6.1 of NFPA 101-2009, Life Safety Code

(1) Feeder-circuit wiring shall meet one of the following conditions:

(1) Be installed in spaces or areas that are fully protected by an approved automatic fire suppression system.

(2) Be listed electrical circuit protective system with a minimum 2-hour fire rating. Informational note: UL guide information for electrical circuit protective systems (FHIT) contains information on proper installation requirements to maintain the fire rating

(3) Be protected by a listed thermal barrier system for electrical system components with a minimum 2-hour fire rating.

(4) Be protected by a listed fire-rated assembly that has a minimum fire rating of 2 hours and contains only emergency wiring circuits

(5) Be encased in a minimum of 50 mm (2 in) of concrete

(2) Feeder-Circuit Equipment. Equipment for feeder circuits (transfer switches, transformers, panel boards) shall be either located in spaces fully protected by approved automatic fire suppression systems (including sprinklers and carbon dioxide systems) or in spaces with a 2-hour fire resistance rating.

(3) Generator Control Wiring. Control conductors installed between the transfer equipment and the emergency generator shall be kept entirely independent of all other wiring and shall meet the conditions of 700.10(D)(1)

III. Sources of Power

700.12. General Requirements. Current supply shall be such that, in the event of failure of the normal supply to, or within, the building or group of buildings concerned, emergency lighting, emergency power, or both will be available within the time required for the application but not to exceed 10 seconds. The supply system for emergency purposes, in addition to the normal services to the building and meeting the general requirements of this section, shall be one or more of the types of systems described in 700.12(A) through (D) below. Unit equipment in accordance with Section 700.12(E) shall satisfy the applicable requirements of this article.

In selecting an emergency source of power, consideration shall be given to the occupancy and the type of service to be rendered, whether of minimum duration, as for evacuation of a theater, or longer duration, as for supplying emergency power and lighting due to an indefinite period of current failure from trouble either inside or outside the building.

Equipment shall be designed and located to minimize the hazards that might cause complete failure due to flooding, fires, icing, and vandalism.

Equipment for sources of power as described in Sections 700.12(A) through (E) where located within assembly occupancies for greater than 1000 persons or in buildings above 23 m (75 ft) in height with any of the following occupancy classes: assembly, educational, residential, detention and correctional, business, and mercantile, shall be installed either in spaces fully protected by approved automatic fire suppression systems (sprinklers, carbon dioxide systems, and so forth), or in spaces with a 1-hour fire rating.

Informational note No. 1: For definition of Occupancy Classification, see Section 6.1of NFPA 101-2009, Life Safety Code.

Informational note No. 2: Assignment of degree of reliability of the recognized emergency supply system depends on the careful evaluation of the variables at each particular installation. For further information, see ANSI/IEEE 493-2007, Recommended Practice for the Design of Reliable Industrial and Commercial Power Systems.

(A) Storage Battery.

Storage batteries used as source of power for emergency systems shall be of suitable rating and capacity to supply and maintain the total load for a period of 1 1/2 hours minimum, without the voltage applied to the load falling below 87 1/2 percent of normal.

Batteries, whether of the acid or alkali type, shall be designed and constructed to meet the requirements of emergency service and shall be compatible with the charger for that particular installation.

For a sealed battery, the container shall not be required to be transparent. However, for the lead acid battery that requires water additions, transparent or translucent jars shall be furnished.

Automotive-type batteries shall not be used.

An automatic battery charging means shall be provided.

(B) Generator Set.

(1) Prime Mover-Driven. For a generator set driven by a prime mover acceptable to the authority having jurisdiction and sized in accordance with Section 700-5. Means shall be provided for automatically starting the prime mover on failure of the normal service and for automatic transfer and operation of all required electrical circuits. A time-delay feature permitting a 15-minute setting shall be provided to avoid retransfer in case of short-time reestablishment of the normal source.

(2) Internal Combustion Engines as Prime Movers. Where internal combustion engines are used as the prime mover an on-site fuel supply shall be provided with an on-premise fuel supply sufficient for not less than 2 hours full-demand operation of the system. Where power is needed for the operation of the fuel transfer pumps to deliver fuel to a generator set dry tank, this pump shall be connected to the emergency power system.

(3) Dual Supplies. Prime movers shall not be solely dependent upon a public utility gas system for their fuel supply or municipal water supply for their cooling systems. Means shall be provided for automatically transferring from one fuel supply to another where dual fuel supplies are used.

Exception: Where acceptable to the authority having jurisdiction, the use of other than on-site fuels shall be permitted where there is a low probability of a simultaneous failure of both the off-site fuel delivery system and power from the outside electrical utility company.

(4) Where a storage battery is used for control or signal power, or as the means of starting the prime mover, it shall be suitable for the purpose and shall be equipped with an automatic charging means independent of the generator set. Where the battery charger is required for the operation of the generator set, it shall be connected to the emergency system. Where power is required for the operation of dampers used to ventilate the generator set, the dampers shall be connected to the emergency system.

(5) Auxiliary Power Supply. Generator sets that require more than 10 seconds to develop power shall be permitted is an auxiliary power supply energizes the emergency system until the generator can pick up the load.

(6) Outdoor Generator Sets. Where an outdoor housed generator set is equipped with a readily accessible disconnecting means located within sight of the building or structure supplied, an additional disconnecting means shall not be required where ungrounded conductors serve or pass through the building or structure. The disconnecting means shall meet the requirements of 225.36.

Exception: For installations under single management where conditions of maintenance and supervision ensure that only qualified persons will monitor and service the installation and where documented safe switching procedures are established and maintained for disconnection, the generator set disconnecting means shall not be required to be located within sight of the building of structure served.

(C) Uninterruptible Power Supplies. Uninterruptible power supplies used to provide power for emergency systems shall comply with the applicable provisions of Sections 700-12(A) and (B).

(D) Separate Service. Where acceptable to the authority having jurisdiction as suitable for use as an emergency source of power, an additional service shall be permitted. This service shall be in accordance with the applicable provisions of Article 230 and following additional requirements.

(1) Separate service drop or service lateral

(2) Service conductors sufficiently remote electrically and physically from any other service conductors to minimize the possibility of simultaneous interruption of supply

(E) Fuel Cell System. Fuel Cell Systems used as a source of power for emergency systems shall be of suitable rating and capacity to supply and maintain the total load for not less than 2 hours of full demand operation.

Installation of a fuel cell system shall meet the requirements of Parts II through VIII of Article 692. Where a single fuel cell system serves as the normal supply for the building or group of buildings concerned, it shall not serve as the sole source of power for the emergency standby system.

(F) Unit Equipment. Individual unit equipment for emergency illumination shall consist of the following:

(1) A rechargeable battery

(2) A battery charging means

(3) Provisions for one or more lamps mounted on the equipment, or shall be permitted to have terminals for remote lamps, or both and

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(4) A relaying device arranged to energize the lamps automatically upon failure of the supply to the unit equipment.

The batteries shall be of suitable rating and capacity to supply and maintain at not less than 87 1/2 percent of the nominal battery voltage for the total lamp load associated with the unit for a period of at least 1 1/2 hours, or the unit equipment shall supply and maintain not less than 60 percent of the initial emergency illumination for a period of at least 1 1/2 hours. Storage batteries, whether of the acid or alkali type, shall be designed and constructed to meet the requirements of emergency service.

Unit equipment shall be permanently fixed in place (i.e., not portable) and shall have all wiring to each unit installed in accordance with the requirements of any of the wiring methods in Chapter 3.

Flexible cord and plug connection shall be permitted, provided that the cord does not exceed 3 ft (900 mm) in length. The branch circuit feeding the unit equipment shall be the same branch circuit as that serving the normal lighting in the area and connected ahead of any local switches. The branch circuit that feeds unit equipment shall be clearly identified at the distribution panel. Emergency luminaire's (illumination fixtures) that obtain power from a unit equipment and are not part of the unit equipment shall be wired to the unit equipment as required by Section 700-10 and by one of the wiring methods of Chapter 3.

Exception No. 1: In a separate and uninterrupted area supplied by a minimum of three normal lighting circuits, a separate branch circuit for unit equipment shall be permitted if it originates from the same panelboard as that of the normal lighting circuits and is provided with a lock-on feature.

Exception No. 2: Remote heads providing lighting for the exterior of an exit door shall be permitted to be supplied by the unit equipment serving the area immediately inside the exit door.

IV. Emergency System Circuits for Lighting and Power

700.15. Loads on Emergency Branch Circuits. No appliances and no lamps, other than those specified as required for emergency use, shall be supplied by emergency lighting circuits.

700.16. Emergency illumination. Emergency illumination shall include all required means of egress lighting, illuminated exit signs, and all other lights specified as necessary to provide required illumination.

Emergency lighting systems shall be designed and installed so that the failure of any individual lighting element, such as the burning out of a light bulb, cannot leave in total darkness any space that requires emergency illumination.

Where high-intensity discharge lighting such as high- and low-pressure sodium mercury vapor, and metal halide is used as the sole source of normal illumination, the emergency lighting system shall be required to operate until normal illumination has been restored.

Exception: Where alterative means that ensure the emergency lighting illumination level is maintained shall be permitted.

700.17. Branch Circuits for Emergency Lighting. Branch circuits that supply emergency lighting shall be installed to provide service from a source complying with Section 700-12 when the normal supply for lighting is interrupted. Such installations shall provide either one of the following:

(1) An emergency lighting supply, independent of the normal lighting supply, with provisions for automatically transferring the emergency lights upon the event of failure of the normal lighting branch circuit

(2) Two or more branch circuits supplied from separate and complete systems with independent power sources. One of the two power sources and systems shall be part of the emergency system and the other shall be permitted to be part of the normal power source and system. Each system shall provide sufficient power for emergency lighting purposes.

Unless both systems are used for regular lighting purposes and are both kept lighted, means shall be provided for automatically energizing either system upon failure of the other. Either or both systems shall be permitted to be a part of the general lighting of the protected occupancy if circuits supplying lights for emergency illumination arc installed in accordance with other sections of this article.

700.18. Circuits for Emergency Power. For branch circuits that supply equipment classed as emergency, there shall be an emergency supply source to which the load will be transferred automatically upon the failure of the normal supply.

V. Control—Emergency Lighting Circuits

700.20. Switch Requirements. The switch or switches installed in emergency lighting circuits shall be arranged so that only authorized persons will have control of emergency lighting.

Exception No. 1: Where two or more single-throw switches are connected in parallel to control a single circuit, at least one of these switches shall be accessible only to authorized persons.

Exception No. 2: Additional switches that act only to put emergency lights into operation but not disconnect them shall be permissible.

Switches connected in series or 3- and 4-way switches shall not be used.

700.21. Switch Location. All manual switches for controlling emergency circuits shall be in locations convenient to authorized persons responsible for their actuation. In facilities covered by Articles 518 and 520, a switch for controlling emergency lighting systems shall be located in the lobby or at a place conveniently accessible thereto. In no case shall a control switch for emergency lighting be placed in a motion-picture projection booth or on a stage or platform.

Exception: Where multiple switches are provided, one such switch shall be permitted in such locations where arranged so that it can energize the circuit only, but cannot deenergize the circuit.

700.22. Exterior Lights. Those lights on the exterior of a building that are not required for illumination when there is sufficient daylight shall be permitted to be controlled by an automatic light-actuated device.

700.23 Dimmer Systems. A dimmer system containing more than one dimmer and listed for use in emergency systems shall be permitted to be used as a control device for energizing emergency lighting circuits. Upon failure of normal power, the dimmer system shall be permitted to selectively energize only those branch circuits required to provide minimum emergency illumination. All branch circuits supplied by the dimmer system cabinet shall comply with the wiring methods of Article 700.

700.24 Automatic Load Control Relay. If an emergency lighting load is automatically energized upon loss of the normal supply, a listed automatic load control relay shall be permitted to energize the load. The load control relay shall not be used to transfer equipment.

VI. Overcurrent Protection

700-25. Accessibility. The branch-circuit overcurrent devices in emergency circuits shall be accessible to authorized persons only.

(FPN): Fuses and circuit breakers for emergency circuit overcurrent protection where coordinated to ensure selective clearing of fault currents, increase overall reliability of the system.

700-26. Ground-Fault Protection of Equipment. The alternate source for emergency systems shall not be required to have ground-fault protection of equipment with automatic disconnecting means. ground-fault indication of the emergency source shall be provided in accordance with Section 700.6(D).

700-27. Coordination. Emergency system(s) overcurrent devices shall be selectively coordinated with all supply side overcurrent protective devices.

Exception: Selective coordination shall not be required between two overcurrent devices located in series if no loads are connected in parallel with the downstream device.

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7.8 Illumination of Means of Egress.

7.8.1 General.

7.8.1.1* Illumination of means of egress shall be provided in accordance with Section 7.8 for every building and structure where required in Chapters 11 through 43. For the purposes of this requirement, exit access shall include only designated stairs, aisles, corridors, ramps, escalators, and passageways leading to an exit. For the purposes of this requirement, exit discharge shall include only designated stairs, aisles, corridors, ramps, escalators, walkways, and exit passageways leading to a public way.

7.8.1.2 Illumination of means of egress shall be continuous during the time that the conditions of occupancy require that the means of egress be available for use, unless otherwise provided in 7.8.1.2.2.

7.8.1.2.1 Artificial lighting shall be employed at such locations and for such periods of time as are necessary to maintain the illumination to the minimum criteria values herein specified.

7.8.1.2.2 Unless prohibited by Chapters 11 through 43, automatic, motion sensor–type lighting switches shall be permitted within the means of egress, provided that the switch controllers comply with all of the following:

(1) The switch controllers are listed.
(2) The switch controllers are equipped for fail-safe operation, the and evaluated for this purpose.
(3) The illumination timers are set for a minimum 15-minute duration, and the duration.
(4) The motion sensor is activated by any occupant movement in the area served by the lighting units.
(5) The switch controller is activated by activation of the building fire alarm system, if provided.

7.8.1.2.3* Energy-saving sensors, switches, timers, or controllers shall be approved and shall not compromise the continuity of illumination of the means of egress required by 7.8.1.2.

7.8.1.3* The floors and other walking surfaces within an exit and within the portions of the exit access and exit discharge designated in 7.8.1.1 shall be illuminated as follows:

(1) During conditions of stair use, the minimum illumination for new stairs shall be at least 10 ft-candle (108 lux), measured at the walking surfaces.
(2) The minimum illumination for floors and walking surfaces, other than new stairs during conditions of stair use, shall be to values of at least 1 ft-candle (10.8 lux), measured at the floor.
(3) In assembly occupancies, the illumination of the walking surfaces of exit access shall be at least 0.2 ft-candle (2.2 lux) during periods of performances or projections involving directed light.
(4)*The minimum illumination requirements shall not apply where operations or processes require low lighting levels.

7.8.1.4* Required illumination shall be arranged so that the failure of any single lighting unit does not result in an illumination level of less than 0.2 ft-candle (2.2 lux) in any designated area.

7.8.1.5 The equipment or units installed to meet the requirements of Section 7.10 also shall be permitted to serve the function of illumination of means of egress, provided that all requirements of Section 7.8 for such illumination are met.

7.8.2 Sources of Illumination.

7.8.2.1* Illumination of means of egress shall be from a source considered reliable by the authority having jurisdiction.

7.8.2.2 Battery-operated electric lights and other types of portable lamps or lanterns shall not be used for primary illumination of means of egress. Battery-operated electric lights shall be permitted to be used as an emergency source to the extent permitted under Section 7.9.

7.9 Emergency Lighting.

7.9.1 General.

7.9.1.1* Emergency lighting facilities for means of egress shall be provided in accordance with Section 7.9 for the following:

(1) Buildings or structures where required in Chapters 11 through 43
(2) Underground and limited access structures as addressed in Section 11.7
(3) High-rise buildings as required by other sections of this Code
(4) Doors equipped with delayed-egress locks
(5) Stair shafts and vestibules of smoke proof enclosures, for which the following also apply:
(a) The stair shaft and vestibule shall be permitted to include a standby generator that is installed for the smoke proof enclosure mechanical ventilation equipment.
(b) The standby generator shall be permitted to be used for the stair shaft and vestibule emergency lighting power supply.
(6) New access-controlled egress doors in accordance with 7.2.1.6.2.

7.9.1.2 For the purposes of 7.9.1.1, exit access shall include only designated stairs, aisles, corridors, ramps, escalators, and passageways leading to an exit. For the purposes of 7.9.1.1, exit discharge shall include only designated stairs, ramps, aisles, walkways, and escalators leading to a public way.

7.9.1.3 Where maintenance of illumination depends on changing from one energy source to another, a delay of not more than 10 seconds shall be permitted.

7.9.2 Performance of System.

7.9.2.1* Emergency illumination shall be provided for a minimum of 1½ hours in the event of failure of normal lighting. Emergency lighting facilities shall be arranged to provide initial illumination that is not less than an average of 1 ft-candle (10.8 lux) and, at any point, not less than 0.1 ft-candle (1.1 lux), measured along the path of egress at floor level. Illumination levels shall be permitted to decline to not less than an average of 0.6 ft-candle (6.5 lux) and, at any point, not less than 0.06 ft-candle (0.65 lux) at the end of 1½ hours. A maximum-to-minimum illumination uniformity ratio of 40 to 1 shall not be exceeded.

7.9.2.2 New emergency power systems for emergency lighting shall be at least Type 10, Class 1.5, Level 1, in accordance with NFPA110, Standard for Emergency and Standby Power Systems.

7.9.2.3* The emergency lighting system shall be arranged to provide the required illumination automatically in the event of any interruption of normal lighting due to any of the following:

(1) Failure of a public utility or other outside electrical power supply
(2) Opening of a circuit breaker or fuse
(3) Manual act(s), including accidental opening of a switch controlling normal lighting facilities

7.9.2.4 Emergency generators providing power to emergency lighting systems shall be installed, tested, and maintained in accordance with NFPA 110, Standard for Emergency and Standby Power Systems. Stored electrical energy systems, where required in this Code, other than battery systems for emergency luminaires
in accordance with 7.9.2.5, shall be installed and tested in accordance with NFPA 111, Standard on Stored Electrical Energy Emergency and Standby Power Systems.

7.9.2.5 Unit equipment and battery systems for emergency luminaires shall be listed to ANSI/UL 924, Standard for Emergency Lighting and Power Equipment.

7.9.2.6* Existing battery-operated emergency lights shall use only reliable types of rechargeable batteries provided with suitable facilities for maintaining them in properly charged condition. Batteries used in such lights or units shall be approved for their intended use and shall comply with NFPA 70, National Electrical Code.

7.9.2.7 The emergency lighting system shall be either continuously in operation or shall be capable of repeated automatic operation without manual intervention.

7.9.3 Periodic Testing of Emergency Lighting Equipment.

7.9.3.1 Required emergency lighting systems shall be tested in accordance with one of the three options offered by 7.9.3.1.1, 7.9.3.1.2, or 7.9.3.1.3.

7.9.3.1.1 Testing of required emergency lighting systems shall be permitted to be conducted as follows:

(1) Functional testing shall be conducted monthly, with a minimum of 3 weeks and a maximum of 5 weeks between tests, for not less than 30 seconds, except as otherwise permitted by 7.9.3.1.1(2).
(2)* The test interval shall be permitted to be extended beyond 30 days with the approval of the authority having jurisdiction.
(3) Functional testing shall be conducted annually for a minimum of 1½ hours if the emergency lighting system is battery powered.
(4) The emergency lighting equipment shall be fully operational for the duration of the tests required by 7.9.3.1.1(1) and (3).
(5) Written records of visual inspections and tests shall be kept by the owner for inspection by the authority having jurisdiction.

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7.9.3.1.2 Testing of required emergency lighting systems shall be permitted to be conducted as follows:

(1) Self-testing/self-diagnostic battery-operated emergency lighting equipment shall be provided.

(2) Not less than once every 30 days, self-testing/self-diagnostic battery-operated emergency lighting equipment shall automatically perform a test with a duration of a minimum of 30 seconds and a diagnostic routine.

(3) Self-testing/self-diagnostic battery-operated emergency lighting equipment shall indicate failures by a status indicator.

(4) A visual inspection shall be performed at intervals not exceeding 30 days.

(5) Functional testing shall be conducted annually for a minimum of 1-1/2 hours.

(6) Self-testing/self-diagnostic battery-operated emergency lighting equipment shall be fully operational for the duration of the 1½-hour test.

(7) Written records of visual inspections and tests shall be kept by the owner for inspection by the authority having jurisdiction.

7.9.3.1.3 Testing of required emergency lighting systems shall be permitted to be conducted as follows:

(1) Computer-based, self-testing/self-diagnostic battery-operated emergency lighting equipment shall be provided.

(2) Not less than once every 30 days, emergency lighting equipment shall automatically perform a test with a duration of a minimum of 30 seconds and a diagnostic routine.

(3) The emergency lighting equipment shall automatically perform annually a test for a minimum of 1½ hours.

(4) The emergency lighting equipment shall be fully operational for the duration of the tests required by 7.9.3.1.3(2) and (3).

(5) The computer-based system shall be capable of providing a report of the history of tests and failures at all times.

7.10 Marking of Means of Egress.

7.10.1 General.

7.10.1.1 Where Required. Means of egress shall be marked in accordance with Section 7.10 where required in Chapters 11 through 43.

7.10.1.2 Exits.

7.10.1.2.1* Exits, other than main exterior exit doors that obviously and clearly are identifiable as exits, shall be marked by an approved sign that is readily visible from any direction of exit access.

7.10.1.2.2*

Horizontal components of the egress path within an exit enclosure shall be marked by approved exit or directional exit signs where the continuation of the egress path is not obvious.

7.10.1.3 Exit Door Tactile Signage. Tactile signage shall be provided to meet all of the following criteria, unless otherwise provided in 7.10.1.4:

(1) Tactile signage shall be located at each exit door requiring an exit sign.

(2) Tactile signage shall read as follows: EXIT.

(3) Tactile signage shall comply with ICC/ANSI A117.1, American National Standard for Accessible and Usable Buildings and Facilities.

7.10.1.4 Existing Exemption. The requirements of 7.10.1.3 shall not apply to existing buildings, provided that the occupancy classification does not change.

7.10.1.5 Exit Access.

7.10.1.5.1 Access to exits shall be marked by approved, readily visible signs in all cases where the exit or way to reach

the exit is not readily apparent to the occupants.

7.10.1.5.2* New sign placement shall be such that no point in an exit access corridor is in excess of the rated viewing distance or 100 ft (30 m), whichever is less, from the nearest sign.

7.10.1.6* Floor Proximity Exit Signs. Where floor proximity exit signs are required in Chapters 11 through 43, such signs shall comply with 7.10.3, 7.10.4, 7.10.5, and 7.10.6 for externally illuminated signs and 7.10.7 for internally illuminated signs. Such signs shall be located near the floor level in addition to those signs required for doors or corridors. The bottom of the sign shall be not less than 6 in. (150 mm), but not more than 18 in.(455 mm), above the floor. For exit doors, the sign shall be mounted on the door or adjacent to the door, with the nearest edge of the sign within 4 in. (100 mm) of the door frame.

7.10.1.7* Floor Proximity Egress Path Marking. Where floor proximity egress path marking is required in Chapters 11

through 43, an approved floor proximity egress path marking system that is internally illuminated shall be installed within 18 in. (455 mm) of the floor. Floor proximity egress path marking systems shall be listed in accordance with ANSI/UL 1994, Standard for Luminous Egress Path Marking Systems. The system shall provide a visible delineation of the path of travel along the designated exit access and shall be essentially continuous, except as interrupted by doorways, hallways, corridors, or other such architectural features. The system shall operate continuously or at any time the building fire alarm system is activated. The activation, duration, and continuity of operation of the system shall be in accordance with 7.9.2. The system shall be maintained in accordance with the product manufacturing listing.

7.10.1.8* Visibility. Every sign required in Section 7.10 shall be located and of such size, distinctive color, and design that it is readily visible and shall provide contrast with decorations, interior finish, or other signs. No decorations, furnishings, or equipment that impairs visibility of a sign shall be permitted. No brightly illuminated sign (for other than exit purposes), display, or object in or near the line of vision of the required exit sign that could detract attention from the exit sign shall be permitted.

7.10.1.9 Mounting Location. The bottom of new egress markings shall be located at a vertical distance of not more than 6 ft 8 in. (2030 mm) above the top edge of the egress opening intended for designation by that marking. Egress markings shall be located at a horizontal distance of not more than the required width of the egress opening, as measured from the edge of the egress opening intended for designation by that marking to the nearest edge of the marking.

7.10.2 Directional Signs.

7.10.2.1* A sign complying with 7.10.3, with a directional indicator showing the direction of travel, shall be placed in every location where the direction of travel to reach the nearest exit is not apparent.

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7.10.2.2 Directional exit signs shall be provided within horizontal components of the egress path within exit enclosures as required by 7.10.1.2.2.

7.10.3* Sign Legend.

7.10.3.1 Signs required by 7.10.1 and 7.10.2 shall read as follows in plainly legible letters, or other appropriate wording shall be used:

EXIT

7.10.3.2* Where approved by the authority having jurisdiction, pictograms in compliance with NFPA 170, Standard for

Fire Safety and Emergency Symbols, shall be permitted.

7.10.4* Power Source. Where emergency lighting facilities are required by the applicable provisions of Chapters 11 through 43 for individual occupancies, the signs, other than approved self-luminous signs and listed photoluminescent signs in accordance with 7.10.7.2, shall be illuminated by the emergency

lighting facilities. The level of illumination of the signs shall be in accordance with 7.10.6.3 or 7.10.7 for the required emergency lighting duration as specified in 7.9.2.1. However, the level of illumination shall be permitted to decline to 60 percent at the end of the emergency lighting duration.

7.10.5 Illumination of Signs.

7.10.5.1* General. Every sign required by 7.10.1.2, 7.10.1.5, or 7.10.8.1, other than where operations or processes require low lighting levels, shall be suitably illuminated by a reliable light source. Externally and internally illuminated signs shall be legible in both the normal and emergency lighting mode.

7.10.5.2* Continuous Illumination.

7.10.5.2.1 Every sign required to be illuminated by 7.10.6.3, 7.10.7, and 7.10.8.1 shall be continuously illuminated as required under the provisions of Section 7.8, unless otherwise provided in 7.10.5.2.2.

7.10.5.2.2* Illumination for signs shall be permitted to flash on and off upon activation of the fire alarm system.

7.10.6 Externally Illuminated Signs.

7.10.6.1* Size of Signs.

7.10.6.1.1 Externally illuminated signs required by 7.10.1 and 7.10.2, other than approved existing signs, unless otherwise provided in 7.10.6.1.2, shall read EXIT or shall use other appropriate wording in plainly legible letters sized as follows:

(1) For new signs, the letters shall be not less than 6 in. (150 mm) high, with the principal strokes of letters not less than 3⁄4 in. (19 mm) wide.

(2) For existing signs, the required wording shall be permitted to be in plainly legible letters not less than 4 in. (100 mm) high.

(3) The word EXIT shall be in letters of a width not less than 2 in. (51 mm), except the letter I, and the minimum spacing between letters shall be not less than 3⁄8 in. (9.5 mm).

(4) Sign legend elements larger than the minimum established in 7.10.6.1.1(1) through (3) shall use letter widths, strokes, and spacing in proportion to their height.

7.10.6.1.2 The requirements of 7.10.6.1.1 shall not apply to marking required by 7.10.1.3 and 7.10.1.7.

7.10.6.2* Size and Location of Directional Indicator.

7.10.6.2.1 Directional indicators, unless otherwise provided in 7.10.6.2.2, shall comply with all of the following:

(1) The directional indicator shall be located outside of the EXIT legend, not less than 3⁄8 in. (9.5 mm) from any letter.

(2) The directional indicator shall be of a chevron type, as shown in Figure 7.10.6.2.1.

(3) The directional indicator shall be identifiable as a directional indicator at a distance of 40 ft (12 m).

(4) A directional indicator larger than the minimum established for compliance with 7.10.6.2.1(3) shall be proportionately increased in height, width, and stroke.

(5) The directional indicator shall be located at the end of the sign for the direction indicated.

7.10.6.2.1 Chevron Type Indicator.

7.10.6.2.2 The requirements of 7.10.6.2.1 shall not apply to approved existing signs.

7.10.6.3* Level of Illumination. Externally illuminated signs shall be illuminated by not less than 5 ft-candles (54 lux) at the illuminated surface and shall have a contrast ratio of not less than 0.5.

7.10.7 Internally Illuminated Signs.

7.10.7.1 Listing. Internally illuminated signs shall be listed in accordance with ANSI/UL 924, Standard for Emergency Lighting and Power Equipment, unless they meet one of the following criteria:

(1) They are approved existing signs.

(2) They are existing signs having the required wording in legible letters not less than 4 in. (100 mm) high.

(3) They are signs that are in accordance with 7.10.1.3 and 7.10.1.6.

7.10.7.2* Photoluminescent Signs. The face of a photoluminescent sign shall be continually illuminated while the building is occupied. The illumination levels on the face of the photoluminescent sign shall be in accordance with its listing. The charging illumination shall be a reliable light source, as determined by the authority having jurisdiction. The charging light source, shall be of a type specified in the product markings.

7.10.8 Special Signs.

7.10.8.1 Sign Illumination.

7.10.8.1.1 Where required by other provisions of this Code, special signs shall be illuminated in accordance with 7.10.5, 7.10.6.3, and 7.10.7.

7.10.8.1.2 Where emergency lighting facilities are required by the applicable provisions of Chapters 11 through 43, the required illumination of special signs shall additionally be provided under emergency lighting conditions.

7.10.8.2 Characters. Special signs, where required by other provisions of this Code, shall comply with the visual character requirements of ICC/ANSI A117.1, American National Standard for Accessible and Usable Buildings and Facilities.

7.10.8.3* No Exit.

7.10.8.3.1 Any door, passage, or stairway that is neither an exit nor a way of exit access and that is located or arranged so that it is likely to be mistaken for an exit shall be identified by a sign that reads as follows:

NO EXIT

7.10.8.3.2 The NO EXIT sign shall have the word NO in letters 2 in. (51 mm) high, with a stroke width of 3⁄8 in. (9.5 mm), and the word EXIT in letters 1 in. (25 mm) high, with the word EXIT below the word NO, unless such sign is an approved existing sign.

7.10.8.4 Elevator Signs. Elevators that are a part of a means of egress (see 7.2.13.1) shall have both of the following signs with a minimum letter height of 5⁄8 in. (16 mm) posted in every elevator lobby:

(1) *Signs that indicate that the elevator can be used for egress, including any restrictions on use

(2) *Signs that indicate the operational status of elevators

7.10.8.5* Evacuation Diagram. Where a posted floor evacuation diagram is required in Chapters 11 through 43, floor

evacuation diagrams reflecting the actual floor arrangement and exit locations shall be posted and oriented in a location and manner acceptable to the authority having jurisdiction.

7.10.9 Testing and Maintenance.

7.10.9.1 Inspection. Exit signs shall be visually inspected for operation of the illumination sources at intervals not to exceed 30 days or shall be periodically monitored in accordance with 7.9.3.1.3.

7.10.9.2 Testing. Exit signs connected to, or provided with, a battery-operated emergency illumination source, where required in 7.10.4, shall be tested and maintained in accordance with 7.9.3.

Limited Warranty

1.0 **EMERGI-LITE®** 6, 12 and 24 volt Emergency Lighting Unit Equipment (excluding lamps and fuses) are fully warranted to be free of defects in material and workmanship under normal use for a period of three years from date of installation (see Paragraph 2.0).

1.1 **EMERGI-LITE®** 6, 12 and 24 volt Unit Equipment Batteries are warranted as follows (Warrant below includes the 3-year full warranty on entire unit as called out in Paragraph 1.0).

1.2 **EMERGI-LITE®** volt Emergency Lighting Unit Equipment (excluding lamps, and fuses) is fully warranted to be free of defects in material and workmanship under normal use for a period of one year from date of installation (see Paragraph 2.0).

BATTERY TYPE	LIFE EXPECTANCY	SHELF LIFE*	FULL WARRANTY	PRO RATA WARRANTY
Sealed Lead-Calcium	8 years	6 months	3 years	3 years
Sealed Lead-Calcium (Immobilized Electrolyte)	12 years	6 months	5 years	5 years
Sealed Long Life Lead	12 years	6 months	5 years	5 years
Sealed Nickel-Cadmium	15 years	1 year	5 years	7 years
Refillable Lead-Calcium	15 years	6 months	3 years	8 years
Refillable Nickel-Cadmium	15 years	2 years	5 years	7 years

***Maximum Storage life. Must Be Recharged If Not Placed in Service Or Battery Warranty Void**

2.0 The full warranty period begins on the date of installation or 90 days from date of shipment, whichever date is earlier.

2.1 Should a defect appear in the equipment or batteries listed in Paragraphs 1.0, 1.1 or 1.2 above within the specified full warranty period, Emergi-Lite® will repair or replace equipment without charge (see Paragraph 3.3). Such repair or replacement shall be the purchaser's exclusive remedy.

2.2 The Pro Rata Warranty Period for batteries begins on the date the full warranty period ends.

2.3 A battery determined to be defective during the Pro Rata Warranty Period shall be repaired or replaced at a cost equal to the net price in effect at the time, reduced by the percentage obtained in multiplying 10% by the number of full years remaining in the total warranty period. Such repair or replacement at this adjusted price shall be the purchaser's exclusive remedy.

3.0 All warranties are subject to proper installation and maintenance in accordance with the instructions supplied.

3.1 Any material deemed defective must be returned, freight prepaid, to the factory for evaluation (see Paragraph 5.0-5.3). Any changes in circuitry or components by other than authorized Emergi-Lite® personnel or its service companies will void the warranty.

3.2 All warranties are limited to the repair and/or replacement or parts or equipment, which, upon examination at our plant, are determined to be defective and in our judgement are subject to repair or replacement under warranty. Replacement of lamps and fuses is not included in the warranty.

3.3 If new replacement parts are shipped before defective goods are received for evaluation, the replacement parts will be invoiced at the net price in effect at that time. These charges will be credited if, upon receipt and evaluation of goods, a defect is determined. Only replacement parts will be shipped under these circumstances, if field replacement is possible. **EMERGI-LITE® FACTORY ONLY RESERVES THE RIGHT TO SHIP NEW UNIT EQUIPMENT FOR REPLACEMENT PURPOSES.** Units returned after installation cannot be restored to 100% saleable condition.

4.0 In no event shall Emergi-Lite® be liable for backcharges of any kind, including, without limitation, labor charges for field repair or late penalties.

4.1 This warranty does not cover damages caused by improper maintenance of installation or damage due to installation in areas with other than normal temperatures and environmental conditions per application specifications. Emergi-Lite® assumes no responsibility for any damage to people, property, apparatus or otherwise resulting from improper installation or maintenance of its Emergency Lighting Unit Equipment.

4.2 This warranty does not cover damages caused by abuse, fire or Act of God.

4.3 In no event shall Emergi-Lite® be liable for incidental or consequential damages.

4.4 The foregoing warranty is in lieu of all other warranties, expressed or implied, or merchantability, fitness for a particular purpose or any other thing. Except as stated in this warranty, Emergi-Lite® shall not be liable for any defects in, or breach of any contract relating to, the quality of performance of Emergi-Lite® Equipment under any theory of law including, without limitation, contract, negligence, strict liability or misrepresentation.

4.5 Emergi-Lite® warranty coverage shall not apply to any equipment of another manufacturer used in conjunction with Emergi-Lite® Equipment.

4.6 Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This written warranty gives you specific legal rights and you may also have other rights which vary from state to state.

5.0 No returned defective materials will be accepted without a Returned Goods Authorization issued in writing by an authorized Emergi-Lite® employee.

5.1 Purchaser is responsible for secure packing of returned materials to provide best possible assurance against damage in shipment.

5.2 Defective batteries of any kind must not be returned to Emergi-Lite's® factory without strict adherence to special instructions for handling and shipping. WARNING Never ship a refillable wet battery in any type of emergency lighting equipment. Failure to adhere to this policy will void warranty.

5.3 Defective goods returned to the factory must be shipped prepaid. COLLECT RETURNED SHIPMENT WILL BE REFUSED. Freight charges to return repaired equipment or ship replacement equipment to the purchaser to be paid by Emergi-Lite®. Factory will return repaired goods via same shipping method as received.

FAILURE TO COMPLY WITH ANY OF THE STIPULATIONS SET FORTH WILL VOID THE WARRANTY. ANY EXCEPTIONS TO THE FOREGOING WARRANTY MUST BE REQUESTED AND ACCEPTED IN WRITING PRIOR TO SHIPMENT. Emergi-lite® EQUIPMENT NOT LISTED IN PARAGRAPHS 1.0, 1.1 OR 1.2 IS WARRANTED AS DESCRIBED ON ITS INDIVIDUAL DATA SHEET WITH THE STIPULATIONS AS STATED IN PARAGRAPHS 2.0-5.3.

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