AUTHENTIC LIFE SAFETY PRODUCTS **SINCE 1940**

DUAL LITE


# EMERGENCY LIGHTING

# EXIT SIGNS

# AC INVERTER POWER SYSTEMS

DUAL LITE

Emergency Lighting Units...
...Exit Signs
Inverter Power Systems...

# Life Safety Solutions


**Innovation doesn't happen by chance. Yes, it takes experience... dedication to quality... and a willingness to think "outside the box." But if you're going to continually set industry standards, that thinking had better reflect what your customers expect.**

**Which is why at Dual-Lite, innovation begins with listening carefully to our customers.**

### *About Our Products*

*All our latest products began with nationwide customer interviews to find out what you want and need...and what you think. We then took this product-shaping feedback, factored in our own high standards for quality, and developed products by which others are now measured. As you review our product offerings, you'll see that this strong tradition of excellence continues today with exit signs and emergency lighting that include the latest advances and the highest level of performance.*

### *About Our Quality*

*Quality is the key reason why Dual-Lite remains the industry's most asked-for brand. You'll see it in our construction, components, design and engineering, all of which combine to deliver the highest level of customer satisfaction, and the industry's best safety record.*

### *Number One Brand*

*It's our unique "listen-to-learn" business philosophy that's made Dual-Lite the industry's Number One brand ...and why our name still remains synonymous with life safety excellence after more than 65 years.*


Liteforms® Collection

# A Tradition Of Excellence

Sleek lines... low-profile silhouette... innovative design... Only one line of life safety equipment fits this description —the Liteforms® Collection by Dual-Lite.

Our unique styling is backed up by the substance of high-quality, high-performance components and sturdy construction features that helps ensure long-life, worry-free operation and lower maintenance expense. Plus, with our extensive product offering, you'll find a Liteforms exit sign or emergency lighting unit for nearly every commercial, industrial or institutional application. That's the LiteForms tradition of excellence

LiteForms, delivering the perfect solutions to all your life safety product needs.

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CLEARVIEW™ Collection

# Focused On Value

For many, value equates to cost-effective products that perform reliably.

For others, value means lowering transaction costs and minimizing returns.

For everyone, value is simply having your expectations met or exceeded every time.

Everything about Dual-Lite's Clearview Collection is focused on delivering the type of value and high output performance that our customers have come to expect. Additionally, Clearview Collection products share a "family" style that results in a unified designer look when they are installed together. With Clearview products, you can create life safety lighting systems with eye appeal.

Value... Performance... Style...
That's the Clearview difference.

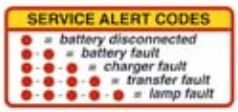
# SPECTRON®

# Self-testing/Self-Diagnostic Electronics System

*Technologically advanced self-testing, self-diagnostic electronics provide increased reliability and decreased maintenance.*

All Dual-Lite models ordered with the Spectron option provide:

- Visual indication of AC power status
- Visual Indication of all self-diagnostic test cycles
- Visual indication of unit malfunctions including:
  - *Battery fault*
  - *Charger fault*
  - *Transfer fault*
  - *Lamp fault*




## Features

- *Meets UL 924 standards for self-testing/self diagnostic models.*
- *Provides automatic self-diagnostic monitoring and testing of unit operation.*
- *Automatically performs routine maintenance and assures operational readiness at all times.*
- *Monitors charger and lamp operation.*
- *Routine discharge cycles insure optimum battery performance and maximum useful life.*
- *Automatic self-test every 28 days and extended operation self-test every 6 months.*
- *Automatic low voltage disconnect.*
- *Automatic unit transfer in brownout conditions.*
- *Automatic 15-minute retransfer delay (units).*
- *Automatic AC lockout circuit.*
- *Flashing LED indication of unit malfunction.*
- *All detected malfunctions retained in memory until corrected and retested.*
- *Test switch allows a system check at any time.*
- *Supports exit sign flashing options*

## Test Intervals

The Spectron self-testing/self-diagnostic system conducts tests to verify proper operation continuously and on monthly, and semiannual intervals. Manual tests may also be performed at any time. A malfunction during any self test will be indicated by the external status indicators .

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DUAL LITE

*www.dual-lite.com*

*The following guide provides a fast, easy method of selecting products for most applications. Refer to catalog pages for additional product and ordering information.*

# Quick Selector Guide

Liteforms® Collection

## Emergency Lighting Units

| Catalog Page Number(s) | Product Series | Model Number | Unit Voltage | Watts For 1½ Hrs. | Battery Type | Power Consumption (Max.)[1] | Warranty: Equipment | Warranty: Battery Full/Pro-Rata |
|---|---|---|---|---|---|---|---|---|
| 12, 13 | **LiteScape™ Series** *Commercial Units*  | LSC | 6 | 20 | Lead-Calcium | 2 Watts | 1 Years | 1/5 Years |
| | | LSCN | 6 | 20 | Nickel-Cadmium | 2 Watts | 1 Years | 1/9 Years |
| | | LSCI | 6 | 20 | Lead-Calcium | 2 Watts | 5 Years | 2/4 Years |
| | | LSCNI | 6 | 20 | Nickel-Cadmium | 2 Watts | 5 Years | 2/4 Years |
| | | GUARANTEED CODE-COMPLIANCE | | | | | | |
| 14 | **EZ-2™ Series** *Commercial Units*  | EZ-2 | 4 | 10.8 | Lead-Calcium | 15 Watts | 3 Years | 3/3 Years |
| | | EZ-2V | 4 | 10.8 | " | 15 Watts | 3 Years | 3/3 Years |
| | | EZ-2I | 6 | 14.4 | " | 15 Watts | 5 Years | 5/5 Years |
| | | Damp Location Model | | | | | | |
| | | EZ-2D | 4 | 10.8 | Lead-Calcium | 15 Watts | 3 Years | 3/3 Year |
| 15 | **LZ Series** *Low-Profile Halogen Lamp Units*  | LZ2, LZ2D | 6 | 10 | Lead-Calcium | 3.5 Watts | 1 Year | 1/5 Years |
| | | LZ15 | 6 | 15 | " | " | " | " |
| 16, 17 | **LZ Series** *High Capacity Halogen Lamp Units*  • *Choice of battery types* • *6- and 12-volt models* • *Capacities up to 65 watts*  | Standard Models | | | | | | |
| | | LZ30 | 6 | 30 | Lead-Calcium | 14 Watts | 1 Year | 1/5 Years |
| | | LZ35-12V | 12 | 35 | " | " | " | " |
| | | LZ65 | 6 | 65 | " | " | " | " |
| | | LZ65-12V | 12 | 65 | " | " | " | " |
| | | LZ20N | 6 | 20 | Nickel-Cadmium | 11.2 Watts | 3 Years | 1/9 |
| | | LZ25N-12V | 12 | 25 | " | " | " | " |
| | | Damp Location Models | | | | | | |
| | | LZ25D | 6 | 25 | Lead-Calcium | 14 Watts | 1 Year | 1/5 Years |
| | | LZ30D-12V | 12 | 30 | " | " | " | " |
| | | LZ55D | 6 | 55 | " | " | " | " |
| | | LZ55D-12V | 12 | 55 | " | " | " | " |
| | | LZ15ND | 6 | 15 | Nickel-Cadmium | 11.2 Watts | 3 Years | 1/9 |
| | | LZ20ND-12V | 12 | 20 | " | " | " | " |
| | | Remote Lighting Fixtures | | | | | | |
| | | Single Lamp Models | 6, 12 | — | — | — | 1 Year | — |
| | | Tandem Lamp Models | 6, 12 | — | — | — | 1 Year | — |
| 18, 19 | **LM Series** *Compact, Traditional Design Units*  • *Rugged metal housing* • *6- and 12-volt models* • *Capacities up to 130 watts* • *Lighting heads may be top or side mounted* | Standard Models | | | | | | |
| | | LM2 | 6 | 14.4 | Lead-Calcium | 15 Watts | 1 Year | 1/5 Years |
| | | LM16 | 6 | 16 | " | " | " | " |
| | | LM33 | 6 | 33 | " | " | " | " |
| | | LM40 | 6 | 40 | " | " | " | " |
| | | LM66 | 6 | 66 | " | " | " | " |
| | | LM80 | 6 | 80 | " | " | " | " |
| | | LM130 | 6 | 130 | " | " | " | " |
| | | LM40-12V | 12 | 40 | " | " | " | " |
| | | LM66-12V | 12 | 66 | " | " | " | " |
| | | LM80-12V | 12 | 80 | " | " | " | " |
| | | LM130-12V | 12 | 130 | " | " | " | " |
| | | Damp Location Models | | | | | | |
| | | LM28D | 6 | 28 | Lead-Calcium | 15 Watts | 1 Year | 1/5 Years |
| | | LM34D | 6 | 34 | " | " | " | " |
| | | LM56D | 6 | 56 | " | " | " | " |
| | | LM68D | 6 | 68 | " | " | " | " |
| | | LM112D | 6 | 112 | " | " | " | " |
| | | LM34D-12V | 12 | 34 | " | " | " | " |
| | | LM56D-12V | 12 | 56 | " | " | " | " |
| | | LM68D-12V | 12 | 68 | " | " | " | " |
| | | LM112D-12V | 12 | 112 | " | " | " | " |

*(1) Maximum power consumption specification shown for circuit-sizing purposes only. Normal operating power requirements are significantly lower. Consult factory for normal operating power consumption ratings on specific models.*

DUAL LITE

Litesforms® Collection

## Emergency Lighting Units

| Catalog Page Number(s) | Product Series | Model Number | Unit Voltage | Watts For 1½ Hrs. | Battery Type | Power Consumption (Max.)(1) | Warranty: Equipment | Warranty: Battery Full/Pro-Rata |
|---|---|---|---|---|---|---|---|---|
| 18, 19 | **LM Series**<br>*Special Application Models*<br>• Rugged metal housing<br>• 6- and 12-volt models<br>• Capacities up to 100 watts<br>• Lighting heads may be top or side mounted<br>• Chicago Models | **NiCad Battery Models** | | | | | | |
| | | LM15N | 6 | 14.4 | Nickel-Cadmium | 15 Watts | 3 Years | 1/9 Years |
| | | LM30N | 6 | 30 | " | " | " | " |
| | | LM50N | 6 | 50 | " | " | " | " |
| | | LM50N-12V | 12 | 50 | " | " | " | " |
| | | LM100N-12V | 12 | 100 | " | " | " | |
| | | **City of Chicago Models** | | | | | | |
| | | LM24CH | 6 | 24 | Lead-Calcium | 15 Watts | 1 Year | 1/5 Years |
| | | LM36CH | 6 | 36 | " | " | " | " |
| | | LM36CH-12V | 12 | 36 | " | " | " | " |
| 20 | **EZ-2R™ Series**<br>*Recessed Mounting Units*<br>• Ceiling or wall mount | EZ-2R | 6 | 10.8 | Lead-Calcium | 15 Watts | 3 Years | 3/3 Years |
| | | EZ-2RI | 6 | 14.4 | " | 15 Watts | 5 Years | 5/5 Years |
| 21 | **T-Grid™ Series**<br>*Recessed Troffer Units*<br>• Suspended ceiling mount | TG15 | 6 | 15 | Lead-Calcium | 15 Watts | 3 Years | 3/3 Years |
| | | TG30 | 6 | 30 | " | 75 Watts | " | " |
| | | TG50-12V | 12 | 50 | " | " | " | " |
| | | TG15N | 6 | 15 | Nickel-Cadmium | 15 Watts | 3 Years | 1/9 Years |
| | | TG30N | 6 | 30 | " | 75 Watts | " | " |
| | | TG50N-12V | 12 | 50 | " | " | " | " |
| 22 | **EXT™ Series**<br>*Recessed Gimbal Unit* | EXT-122-EM-K | 6 | 8 | Lead-Calcium | 15 Watts | 1 Year | 1/5 Years |
| 23 | **LITE²™ Series**<br>*Square Units*<br>• Surface, semi-recessed and fully-recessed models | EDS | 6 | 10 | Lead-Calcium | 12 Watts | 3 Years | 3/3 Years |
| | | EDS-2 | 6 | 14.4 | " | " | " | " |
| | | ERS | 6 | 20 | " | " | " | " |
| | | ERS-3 | 6 | 30 | " | " | " | " |
| | | ERS-2-2 | 6 | 30 | " | " | " | " |
| | | ESS-I | 6 | 10 | Lead-Calcium | 12 Watts | 5 Years | 5/5 Years |
| | | ESS-I-2 | 6 | 14.4 | " | " | " | " |
| | | ERS-I | 6 | 20 | " | " | " | " |
| | | ERS-3I | 6 | 30 | " | " | " | " |
| | | ERS-2I-2 | 6 | 30 | " | " | " | " |
| 24 | **DELITE® Series**<br>*Cylinder Units* | ESC-2-0 | 6 | 12 | Lead-Calcium | 15 Watts | 1 Years | 1/5 Years |
| 25 | **N4X Series**<br>*Sealed, Harsh Environment Unit*<br>• Dust-tight, moisture and corrosion resistant | N4X2 | 6 | 15.6 | Lead-Calcium | 75 Watts | 3 Years | 3/3 Years |
| | | N4X4 | 6 | 31.2 | " | " | " | " |
| | | N4X7 | 6 | 50.4 | " | " | " | " |
| | | N4X14 | 6 | 100 | " | " | " | " |
| | | N4X7-12V | 12 | 50.4 | " | " | " | " |
| | | N4X14-12V | 12 | 100 | " | " | " | " |

*(1) Maximum power consumption specification shown for circuit-sizing purposes only. Normal operating power requirements are significantly lower. Consult factory for normal operating power consumption ratings on specific models.*

# Quick Selector Guide

Liteforms® Collection

## Emergency Lighting Units

| Catalog Page Number(s) | Product Series | Model Number | Unit Voltage | Watts For 1½ Hrs. | Battery Type | Power Consumption (Max.)[1] | Warranty: Equipment | Warranty: Battery Full/Pro-Rata |
|---|---|---|---|---|---|---|---|---|
| 26, 27 | **AS Series** *Traditional Units* • *Maintenance-free batteries*  | AS-80 | 6 | 80 | Lead-Calcium | 75 Watts | 1 Year | 1/5 Years |
| | | AS-130 | 6 | 130 | " | " | " | " |
| | | AS-180-12V | 12 | 180 | " | " | " | " |
| | | AS-270--12V | 12 | 270 | " | " | " | " |
| | | AS-360-12V | 12 | 360 | " | " | " | " |
| | | AS-180-24V | 24 | 180 | " | " | " | " |
| | | AS-270-24V | 24 | 270 | " | " | " | " |
| | | AS-360-24V | 24 | 360 | " | " | " | " |
| 28, 29 | **IPS Series** *NEC Class I, Division 2 Units* • *Suitable for wet locations*  | C1D2-6V36 | 6 | 36 | Pure-Lead | 25 Watts | 3 | 3/3 |
| | | C1D2-6V72 | 6 | 72 | " | " | " | " |
| | | C1D2-12V36 | 12 | 36 | " | " | " | " |
| | | C1D2-12V72 | 12 | 72 | " | " | " | " |
| 30, 31 | **XPB Series** *Explosion-Proof Units* • *NEC Class I and II operation* • *Unit mounted and remote fixtures*   | XPB-75P | 6 | 75 | Pure-Lead | 75 Watts | 3 Years | 3/3 Years |
| | | 12XPB-75P | 12 | 75 | " | " | " | " |

*(1) Maximum power consumption specification shown for circuit-sizing purposes only. Normal operating power requirements are significantly lower. Consult factory for normal operating power consumption ratings on specific models.*

Liteforms® Collection

## Fluorescent Power Packs

| Catalog Page Number(s) | Product Series | Model Number | Operates Lamp Type | Rating In Lumens | Battery Type | Number Of Lamps Operated | Warranty: Equipment | Warranty: Battery Full/Pro-Rata |
|---|---|---|---|---|---|---|---|---|
| 32 | **LAMPAK® Series** *Fluorescent Packs* • *Models for standard fluorescent lamps*  | UFO-3AW | Std. Fluor. | 350-450 | Nickel-Cadmium | 1 | 1 Year | 1/0 Year |
| | | UFO-4W | Std. Fluor. | 500-600 | " | 1 | " | " |
| | | UFO-5W | Std. Fluor. | 600-700 | " | 1 | 2 Years | 2/0 Years |
| | | UFO-5AW | Std. Fluor. | 600-700 | " | 1 or 2 | 3 Years | 3/0 Years |
| | | UFO-6W | Std. Fluor. | 1100-1400 | " | 1 or 2 | 5 Years | 5/0 Years |
| | | UFO-6WI | Std. Fluor. | 1100-1400 | " | 1 or 2 | 5 Years | 5/0 Years |
| | | UFO-6W-CLD | Std. Fluor. | 600-750 | " | 1 or 2 | 5 Years | 5/0 Years |
| 33 | **LAMPAK® Series** *Fluorescent Packs* • *High lumen output models*  | UFO-7W | Std. Fluor. | 1450-3500 | Nickel-Cadmium | 1 or 2 | 5 Years | 5/0 Years |
| | | UFO-7WI | Std. Fluor. | 1800-3500 | " | 1 or 2 | " | " |
| | | UFO-6W-CLD | Std. Fluor. | 600-750 | " | 1 or 2 | " | " |
| 34 | **LAMPAK® Series** *Fluorescent Packs* • *For compact fluorescent lamps*  | UFO-12W | 13 to 42W Compact Fluor. Lamps | 300-750 | Nickel-Cadmium | 1 or 2 | 2 Years | 2/0 Years |
| 35 | **LAMPAK® Series** *Fluorescent Packs* • *For low-profile fluorescent fixtures*  | UFO-LP1 | T5 and T8 Fluor. Lamps | 390-700 | Nickel-Cadmium | 1 | 5 Years | 5/0 Years |
| | | UFO-LP2 | | 650-1325 | " | 1 | " | " |
| 36 | **LAMPAK® Series** *HID Back-up Ballast* • *For metal-halide HID lamps*  | UFO-MH175 | Metal-Halide HID Lamps | 20 to 30% Normal Output | Nickel-Cadmium | 1 | 5 Years | 5/0 Years |
| | | UFO-MH250 | | | " | 1 | " | " |
| | | UFO-MH400 | | | " | 1 | " | " |

| Catalog Page Number(s) | Product Series | AC Lamp Type | AC Lamp Wattage | DC Lamp Type | Battery Type | Power Consumption (Emerg. Max.)(1) | Warranty: Equipment | Warranty: Battery Full/Pro-Rata |
|---|---|---|---|---|---|---|---|---|
| 37 | **LX Series**<br>*Thermoplastic LED Exit Signs*<br>• *All models Damp Location Listed* | LED | Emergency<br>Red – 3.8W<br>Green – 3.5W<br>AC-Only<br>Red – 2.6W<br>Green – 2.1W | LED<br>LED | Nickel-Cadmium<br>Nickel-Cadmium | 3.8 Watts<br>2.6 Watts | 5 Years<br>5 Years | 1/9 Years<br>— |
| 38, 39 | **LT Series**<br>*Combination Emergency Unit/LED Exit Signs*<br>• *Damp Location and Remote Capacity models* | LED | Red – 2.6W<br>Green – 2.1W | Halogen and LED | Lead-Calcium | 5.0 Watts | 5 Years | 1/5 Years |
| 40 | **DK Series**<br>*Thermoplastic Incandescent Exit Signs* | Incandescent | Emergency<br>15W (2) | —<br>— | —<br>— | 30 Watts<br>30 Watts | AC: 3 Years<br>3 Years Excluding AC Lamps | 3/3<br>— |
| 41 | **NYXC Series**<br>*Combination Emergency Unit/LED Exit Signs*<br>• *Meets NY City requirements* | LED | Emergency<br>Red –3.5W<br>Green – 3.0W | LED | Lead-Calcium | 7.0 Watts | AC: 5 Years<br>5 Years | —<br>1/5 Years |
| 42, 43 | **Sempra® Series**<br>*Cast Aluminum LED Exit Signs*<br>• *Lifetime warranty on LED lamp strip* | LED | Red – 2.6W<br>Green – 2.1W | LED | Nickel-Cadmium | 3.8 Watts | 5 Years (Lifetime on LED strip) | 1/9 Years |
| 44, 45 | **Sempra® MR Series**<br>*Master/Remote Cast Aluminum LED Exit Signs*<br>• *Supplied as 2-sign sets*<br>• *Low-profile Remote exit*<br>• *Lifetime warranty on LED lamp strip* | LED | Red – 2.6W (2)<br>Green – 2.1W (2) | LED | Nickel-Cadmium | 3.8 Watts | 5 Years (Lifetime on LED strip) | 1/9 Years |
| 46, 47 | **Sempra® SC Series**<br>*Severe Conditions Cast Aluminum LED Exit Signs*<br>• *Lifetime warranty on LED lamp strip* | LED | Red – 2.6W<br>Green – 2.1W | LED | Nickel-Cadmium | 3.8 Watts | 5 Years (Lifetime on LED strip) | 1/9 Years |
| 48 | **Sempra® SCWL Series**<br>*Wet Location Cast Aluminum LED Exit Signs*<br>• *Completely sealed and gasketed*<br>• *Lifetime warranty on LED lamp strip* | LED | Red – 2.6W<br>Green – 2.1W | LED | Nickel-Cadmium | 3.8 Watts | 5 Years (Lifetime on LED strip) | 1/9 Years |

*(1) Maximum power consumption specification shown for circuit-sizing purposes only. Normal operating power requirements are significantly lower. Consult factory for normal operating power consumption ratings on specific models.*

# Quick Selector Guide

Lite*forms*® Collection

## Exit Signs

| Catalog Page Number(s) | Product Series | AC Lamp Type | AC Lamp Wattage | DC Lamp Type | Battery Type | Power Consumption (Emerg. Max.)(1) | Warranty | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Equipment | Battery Full/Pro-Rata |
| 49 | **Sempra® SERS Series**<br>*Recessed Cast Aluminum LED Exit Signs*<br>• *Lifetime warranty on LED lamp strip* | LED | Red – 2.6W<br>Green – 2.1W | LED | Nickel-Cadmium | 3.8 Watts | 5 Years (Lifetime on LED strip) | 1/9 Years |
| 50 | **HCX Series**<br>*Combination Emergency Unit/LED Exit Signs*<br>• *Low-profile side mounted lighting heads* | LED | Red – 2.6W<br>Green – 2.1W | LED | Nickel-Cadmium | 5.0 Watts | 5 Years | 1/5 Years |
| 51 | **NYDC Series**<br>*Cast Aluminum LED Exit Signs*<br>• *Meets NY City requirements* | LED | Red – 2.5W | LED | Nickel-Cadmium | 3.5 Watts | 5 Years | 1/9 Years |
| 52 | **LN4X Series**<br>*Wet Location LED Exit Signs*<br>• *Suitable for damp, wet and corrosive environments* | LED | Red – 2.6W<br>Green – 2.1W | LED | Nickel-Cadmium | 3.8 Watts | 5 Years | 1/9 Years |
| 53 | **Freedom® LED Series**<br>*Aluminum LED Exit Signs*<br>• *Up to 12 hours of emergency operation*<br>• *All models Damp Location Listed* | LED | Single Face<br>Red – 4.5W<br>Green – 4.7W<br>Double Face<br>Red – 6.8W<br>Green – 6.7W | LED | Lead-Acid | 7.7 Watts | 5 Years | 1/4 Years |
| 54 | **LEDS Series**<br>*Low-Profile Aluminum LED Exit Signs*<br>• *All models Damp Location Listed* | LED | Red – 3.2W<br>Green – 2.9W | LED | Nickel-Cadmium | 3.3 Watts | 5 Years | 1/9 Years |
| 55 | **NYX Series**<br>*New York City LED Exit Signs*<br>• *Meets NY City requirements* | LED | Red – 2.4W | LED | Nickel-Cadmium | 3.5 Watts | 5 Years | 1/9 Years |
| 56, 57 | **LE Series**<br>*Recessed Edge-Lit LED Exit Signs*<br>• *Universal recess rough-in kit*<br>• *Choice of six decorator finishes* | LED | Single Face<br>Red – 2.2W<br>Green – 2.5W<br>Double Face<br>Red – 3.4W<br>Green – 4.0W | LED | Nickel-Cadmium | 3.8 Watts | 5 Years | 1/9 Years |

*(1) Maximum power consumption specification shown for circuit-sizing purposes only. Normal operating power requirements are significantly lower. Consult factory for normal operating power consumption ratings on specific models.*

DUAL LITE

LiteForms® Collection

## Exit Signs

| Catalog Page Number(s) | Product Series | AC Lamp Type | AC Lamp Wattage | DC Lamp Type | Battery Type | Power Consumption (Emerg. Max.)(1) | Warranty: Equipment | Warranty: Battery Full/Pro-Rata |
|---|---|---|---|---|---|---|---|---|
| 58, 59 | **LES Series**<br>*Surface Mount Edge-Lit LED AC Exit Signs*<br>• *Wall-, ceiling- and end-mount models*<br>• *Choice of six decorator finishes* | LED | Single Face<br>Red – 2.2W<br>Green – 2.5W<br>Double Face<br>Red – 3.4W<br>Green – 4.0W | — | — | 4.0 Watts | 5 Years | — |
| 60 | **NYE Series**<br>*NYC Recessed Edge-Lit LED Exit Signs*<br>• *Ceiling or wall recess installation*<br>• *Meets NY City requirements* | LED | Red – 3.2W | LED | Nickel-Cadmium | 4.0 Watts | 5 Years | 1/9 Years |
| 61 | **NYES Series**<br>*NYC Surface Mount Edge-Lit LED Exit Signs*<br>• *Wall-, ceiling- and end-mount models*<br>• *Meets NY City requirements* | LED | Red – 3.2W | — | Nickel-Cadmium | 4.0 Watts | 5 Years | 1/9 Years |
| 62 | **CMX Series**<br>*Chicago Exit Signs*<br>• *City of Chicago approval No. **9823*** | Incandescent or Fluorescent | Incand.– 20W (2)<br>Fluor.– 9W (2) | 5W (2) | Lead-Calcium | Incand.– 50W<br>Fluor.– 28W | 5 Years | 1/9 Years |
| 63 | **DEX Series**<br>*Special Wording Incandescent Exit Signs* | Incandescent | 15W (2) | 3.7W (2)<br>Incandescent | Lead-Calcium | 35 Watts | 3 Years Excluding AC Lamps | 1/5 Years |

CLEARVIEW™

## Emergency Lighting Products

| Catalog Page Number(s) | Product Series | Model Number | Unit Voltage | Watts For 1½ Hrs. | Battery Type | Power Consumption (Max.)(1) | Warranty: Equipment | Warranty: Battery Full/Pro-Rata |
|---|---|---|---|---|---|---|---|---|
| 64 | **SlimLite® Series**<br>*Contemporary Unit* | SL1, SL1-V | 6 | 12 | Lead-Calcium | 3.5 Watts | 3 Years | 2/8 Years |
| 65 | **CV Series**<br>*Designer Units*<br>• *Standard and damp location models* | **Standard Models** | | | | | | |
| | | CV2 | 6 | 12 | Lead-Calcium | 4 Watts | 3 Years | 2/8 Years |
| | | CV3 | 6 | 18 | " | " | " | " |
| | | CV5 | 6 | 30 | " | 14 Watts | " | " |
| | | **Damp Location Models** | | | | | | |
| | | CV2D | 6 | 12 | Lead-Calcium | 4 Watts | 3 Years | 2/8 Years |
| | | CV3D | 6 | 18 | " | " | " | " |
| | | CV5D | 6 | 30 | " | 14 Watts | " | " |
| 66 | **CVEC Series**<br>*Commercial Units*<br>• *6- and 12-volt models*<br>• *Capacities up to 100 watts*<br>• *Lighting heads may be top or side mounted* | CVEC15 | 6 | 15 | Lead-Calcium | 9 Watts | 3 Years | 2/8 Years |
| | | CVEC30 | 6 | 30 | " | 9 Watts | " | " |
| | | CVEC50 | 6 | 50 | " | 20 Watts | " | " |
| | | CVEC50-12V | 6 | 50 | " | 14 Watts | " | " |
| | | CVEC100-12V | 6 | 100 | " | 39 Watts | " | " |

*(1) Maximum power consumption specification shown for circuit-sizing purposes only. Normal operating power requirements are significantly lower. Consult factory for normal operating power consumption ratings on specific models.*

# Quick Selector Guide

## Emergency Lighting Products

| Catalog Page Number(s) | Product Series | AC Lamp Type | AC Lamp Wattage | DC Lamp Type | Battery Type | Power Consumption (Emerg. Max.)(1) | Warranty: Equipment | Warranty: Battery Full/Pro-Rata |
|---|---|---|---|---|---|---|---|---|
| 67 | **CV3 Series** *Thermoplastic LED Exit Signs*  | LED | Red – 2.6W<br>Green – 2.1W | LED | Nickel-Cadmium | 3.8 Watts | 5 Years | 1/9 Years |
| 68 | **CVT Series** *Combination Emergency Unit/LED Exit Signs*  | LED | Red – 2.6W<br>Green – 2.1W | Halogen and LED | Lead-Calcium | 5.0 Watts | 5 Years Excluding AC Lamps | 2/8 Years |
| 69 | **CVD Series** *Cast Aluminum LED Exit Signs*  | LED | Red – 2.6W<br>Green – 2.1W | LED | Nickel-Cadmium | 3.8 Watts | 5 Years | 1/9 Years |
| 70 | **CVE Series** *Recessed and Surface Mount Edge-Lit LED Exit Signs*  | LED | Red –2.5W<br>Green – 3.0W | LED | Nickel-Cadmium | 5.2 Watts | 5 Years | 1/9 Years |

*(1) Maximum power consumption specification shown for circuit-sizing purposes only. Normal operating power requirements are significantly lower. Consult factory for normal operating power consumption ratings on specific models.*

## Inverter Power Systems

| Catalog Page Number(s) | Product Series | System Type | System Output Capacities |
|---|---|---|---|
| 80 to 83 | Synchron Series | Single Phase | 400 to 2100VA |
| 84 to 93 | Spectron® LSN | Single Phase | 1.0 to 17.5kVA |
| 95 to 96 | Trident® TRX Series | Three Phase | 10 to 30kVA |
| 97 to 98 | Trident® TRN Series | Three Phase | 30 to 130kVA |

# LiteScape®

## Commercial Emergency Light 20W

**GUARANTEED CODE-COMPLIANT ILLUMINATION**

## Features

- Factory guaranteed NFPA-101 code-compliant illumination
- Field adjustable 3 ft. x 40 ft. or 6 ft. x 30 ft. egress illumination patterns
- SurePath® technology delivers bright, continuous illumination
- Low-profile silhouette
- Fast, easy installation
- High-output, 6 volt, 10-watt halogen lamps
- Impact resistant, UV stable polycarbonate construction
- Unit housing is paintable
- Lead-acid or nickel-cadmium battery models
- Universal 120/277VAC operation
- AC lockout
- Available with **Spectron®** self-testing/self-diagnostic electronics with time-delay retransfer (TDR) standard
- Low-voltage battery disconnect
- Test switch and AC-On indicator
- Temperature range:
  Lead-acid models = 20°C to 30°C (68°F to 86°F)
  Nickel-Cadmium models = 0°C to 40°C (32°F to 104°F)
- UL 924 Listed (Emergency Lighting)
- UL Damp Location Listed (Nickel-Cadmium models only)

## Ordering Information

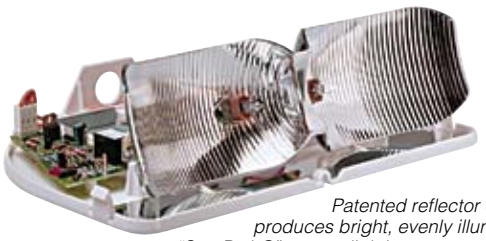
| Standard Model | Nickel-Cadmium Model | Spectron Self-Testing Model | Nickel-Cadmium Spectron Self-Testing Model |
|---|---|---|---|
| **LSC** | **LSCN** | **LSCI** | **LSCNI** |

## Options (Add suffix to model)

**-24K** 220/240VAC, 60Hz. operation

**-AA** Audible alarm (1)

*(1) For use with LSCI and LSCNI self-testing/self-diagnostic models only.*



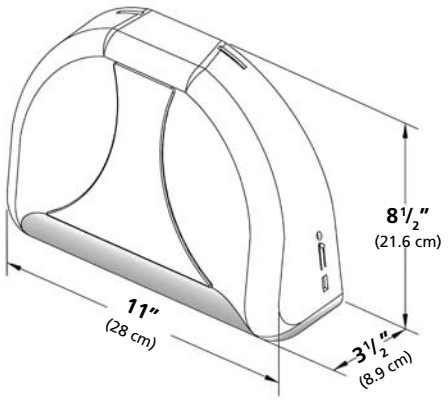
*Patented reflector design produces bright, evenly illuminated "SurePath®" egress lighting pattern*

## Factory Guaranteed NFPA 101 Code Compliance

LiteScape fixed optics with guaranteed code compliance remove all the aiming guesswork from the installation process and bring assurances your emergency lighting system meets or exceeds the National Fire Protection Association Life Safety Code 101 illumination requirements (not less than an **average** of 1 footcandle at any point and not less than .1 footcandle measured along the path of egress at floor level for 90 minutes). Important NFPA 101 Code Information is also printed in this guide for your information.

*Housing is field paintable to match wall decor.*

## Dimensions

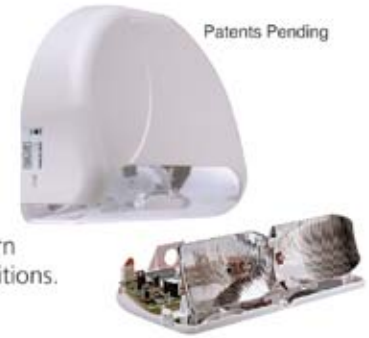





DUAL LITE

Lite forms® Collection

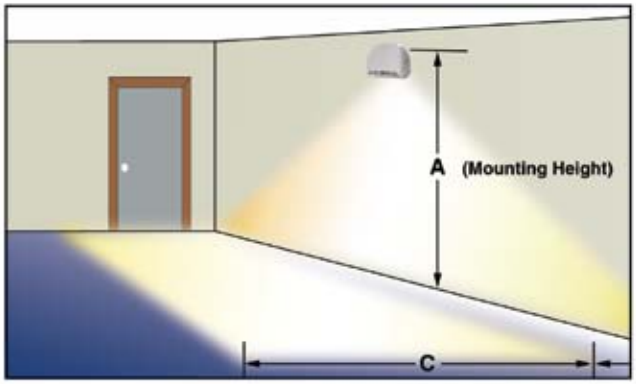
# Mounting Guide




## SurePath® Technology

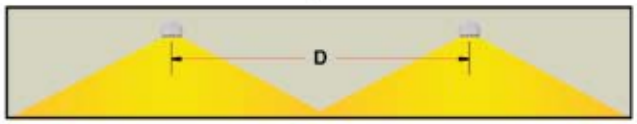
The heart of LiteScape's SurePath technology is the patented reflector design. This unique reflector design coupled with the unit's two high-output, 10-watt halogen lamps provide an incredibly bright and evenly distributed illumination pattern. Additionally, a user-selectable reflector adjustment allows a choice of the 3' or 6' wide SurePath illumination patterns. The long, broad and even nature of the SurePath illumination pattern makes it the optimum method of lighting interior paths of egress during emergency conditions.

**Figure 1.**
**SurePath Illumination Pattern Dimensions**




Refer to tables at right for SurePath Illumination Pattern dimensions at varying mounting heights.

**Figure 2.**
**Center-To-Center Mounting Distance**




Refer to tables at right for multiple unit center-to-center mounting distances at varying mounting heights.

### 3-Foot Standard Illumination Pattern Setting

| A(1) | B | C | D(2) |
|---|---|---|---|
| 6.0 ft. | 0.6 ft. | 3.0 ft. | 33.0 ft. |
| 6.5 ft. | 0.7 ft. | 3.0 ft. | 35.0 ft. |
| 7.0 ft. | 0.9 ft. | 3.0 ft. | 38.0 ft. |
| 7.5 ft. | 1.1 ft. | 3.0 ft. | 40.0 ft. |
| 8.0 ft. | 1.3 ft. | 3.0 ft. | 42.0 ft. |
| 8.5 ft. | 1.4 ft. | 3.0 ft. | 43.0 ft. |
| 9.0 ft. | 1.6 ft. | 3.0 ft. | 44.0 ft. |
| 9.5 ft. | 1.8 ft. | 3.0 ft. | 44.5 ft. |
| 10.0 ft. | 1.9 ft. | 3.0 ft. | 45.0 ft. |

### 6-Foot Optional Illumination Pattern Setting

| A(1) | B | C | D(2) |
|---|---|---|---|
| 6.0 ft. | 0.3 ft. | 6.0 ft. | 31.0 ft. |
| 6.5 ft. | 0.6 ft. | 6.0 ft. | 31.0 ft. |
| 7.0 ft. | 0.9 ft. | 6.0 ft. | 31.0 ft. |
| 7.5 ft. | 1.2 ft. | 6.0 ft. | 30.0 ft. |
| 8.0 ft. | 1.4 ft. | 6.0 ft. | 29.0 ft. |
| 8.5 ft. | 1.7 ft. | 6.0 ft. | 28.0 ft. |
| 9.0 ft. | 2.0 ft. | 6.0 ft. | 27.0 ft. |
| 9.5 ft. | 2.3 ft. | 6.0 ft. | 26.0 ft. |
| 10.0 ft. | 2.5 ft. | 6.0 ft. | 25.0 ft. |

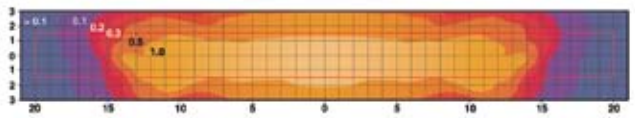
*Note: Pattern dimensions shown (C and D) provide an average of 1fc of illumination over the lighting pathway provided in compliance with NFPA 101 Life Safety Code requirements. Refer to Figures 1 and 2.*

*(1) Measured to center of electrical box.*

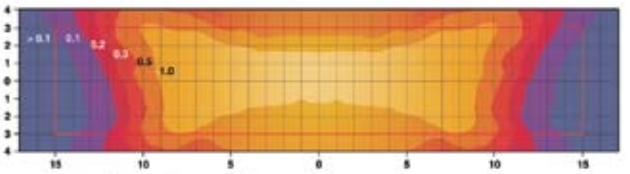
*(2) Center-to-center mounting distance for multiple unit installations. Refer to Figure 2.*

### Photometrics

### 3-Foot Standard Illumination Pattern Setting



### 6-Foot Optional Illumination Pattern Setting



*1) Photometric illustrations based on data provided by Independent Testing Laboratories (ITL), Boulder, Colorado.*
*2) Photometrics shown based on 7.5-foot mounting height and minimum 80-50-20 reflectance values.*
*3) The white rectangular area in photometric illustrations represents normal center to center SurePath egress illumination pattern provided.*

# Independent Verification

The photometric data shown above was generated and verified by Independent Testing Laboratories (ITL) of Boulder, Colorado. LiteScape IES photometric files can be downloaded from the LiteScape product page at *www.dual-lite.com*. LiteScape illumination data has also been incorporated into the Hubbell LitePro® lighting design application software.

# EZ-2

## Commercial Emergency Light 10.8W, 14.4W


## Features

- Easy to install
- Compact, low-profile design
- Flame-rated, UV-stable thermoplastic housing
- Textured, bright white finish
- Universal mounting plate
- Glare-free, adjustable lampheads
- Maintenance-free battery
- Universal 120/277VAC operation
- Low power consumption
- Fully-automatic charger
- AC lockout
- Low-voltage battery disconnect
- Transformer isolation protection
- Test switch and AC-On light
- Available with **Spectron®** self-testing/self-diagnostic electronics with time-delay retransfer (TDR) standard
- Damp location model available
- Temperature range: 20°C to 30°C (68°F to 86°F)
  Damp location EZ-2D: 0°C - 40°C (32°F to 104°F)
- UL 924 Listed

## Ordering Information

| Standard Model | Damp Location Model | Voltmeter Model | Spectron Self-Testing Model |
|---|---|---|---|
| **EZ-2** | **EZ-2-D** | **EZ-2-V** | **EZ-2I** |

## Options (Add suffix to model)

**-A21** Auxiliary 2-conductor AC line cord (120V only)

## Accessories (Order Separately)

**VRS** Vandal resistant shield
**WGEL** Wire guard

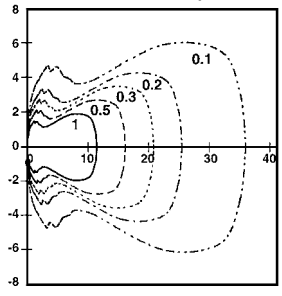
## Product Selector Guide

| Base Catalog Number | Electrical | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Output Volts | Output Watts 1.5 Hours | 2 Hours | 3 Hours | 4 Hours | AC Input Volts | Amps | Watts | Standard Lamp | Remote Capability |
| **EZ-2, EZ-2-D and EZ-2-V** | 6 | 10.8 | -- | -- | -- | 120 | .080 | 8.4 | 5.4W | No |
| | | | | | | 277 | .030 | 8.8 | | |
| **EZ-2I** | 6 | 14.4 | -- | -- | -- | 120 | .080 | 8.4 | 7.2W | No |
| | | | | | | 277 | .030 | 8.8 | | |

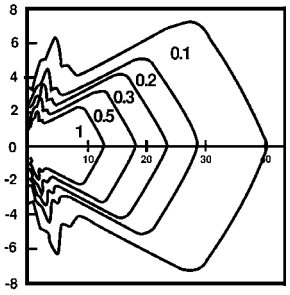
## Photometrics

Horizontal Isofootcandle Distribution

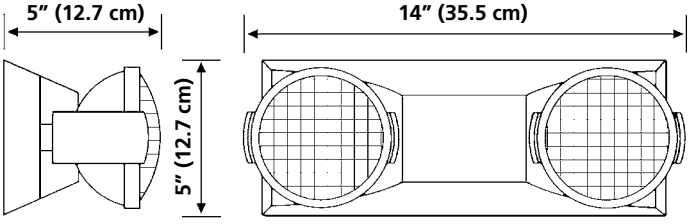
6 Volt, 5.4 Watt SBT Lamp




6 Volt, 7.2 Watt SBT Lamp




## Dimensions






DUAL LITE

Lite forms Collection

# Designer Emergency Lights 10W

## Features

- Easy to install
- Flame-rated, UV-stable thermoplastic housing
- White or black finishes
- Slim, low-profile snap-together design
- Standard and damp location models
- Low profile, adjustable lampheads
- High-output halogen lamps
- Clear glass protective lamp lens
- Matching remote fixtures
- 120/277VAC operation standard
- Fully-automatic charger
- Maintenance-free battery
- 90 minute operation
- Low-voltage battery disconnect
- Transformer isolation protection
- Test switch and AC-On light
- Available with **Spectron®** self-testing/self-diagnostic electronics with time-delay retransfer (TDR) standard
- Temperature range: 20°C to 30°C (68°F to 86°F)
  Damp location model: 10°C to 40°C (50°F to 104°F)
- UL 924 Listed

An ULTREX Severe Conditions Product Line

Damp

*(Damp Location Models)*

## Ordering Information

**See Product Selector Guide below for available models**

*Outdoor lighting head*

*Matching remote lighting head*

## Options (Add suffix to model)

| | |
|---|---|
| **I** | Spectron self-testing/self-diagnostic electronics (3) |
| **-B** | Black finish |
| **-V** | Voltmeter |
| **-24K** | 220-240VAC, 60 Hz. operation |
| **-A21** | Auxiliary 2-conductor line cord (120V only) (1) |
| **-A31** | Auxiliary 3-conductor line cord (120V only) (2) |

*(1) Not for use with LZ15 model.*
*(2) For use with LZ15 model only.*
*(3) Not available with LZ2 model.*

## Accessories (Order Separately)

| | |
|---|---|
| **VRS** | Vandal resistant shield |
| **WGLZ** | Wire guard |
| **PMLZTW** | 12½" Pendant mounting kit - white |
| **PMLZTB** | 12½" Pendant mounting kit - black |
| **LZRSW**0605 | Matching remote lighting head - white |
| **LZRSB**0605 | Matching remote lighting head - black |
| **OCRSW**0605 | Outdoor lighting head - 6 Volt, 5 Watt MR16 lamp - White finish |
| **OCRSB**0605 | Outdoor lighting head - 6 Volt, 5 Watt MR16 lamp - Black finish |
| **OMSSW**0605 | Outdoor lighting head - 6 Volt, 5 Watt sealed beam type lamp - White finish |
| **OMSSB**0605 | Outdoor lighting head - 6 Volt, 5 Watt sealed beam type lamp - Black finish |

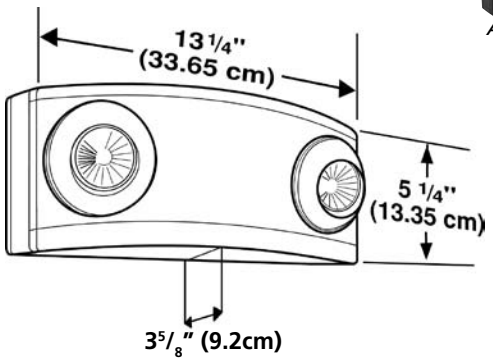
## Product Selector Guide

| Base Catalog Numbers | Electrical | | | | | | |
|---|---|---|---|---|---|---|---|
| | Output Volts | Output Watts 1.5 Hours | 2 Hours | 3 Hours | 4 Hours | Standard Lamp | Remote Capability |
| **LZ2** | 6 | 10 | -- | -- | -- | 5W Hal. | No |
| **LZ2D*** | 6 | 10 | -- | -- | -- | 5W Hal. | No |
| **LZ15** | 6 | 15 | 12 | -- | -- | 5W Hal. | Yes |

** Damp location model*

*Also available in black finish*

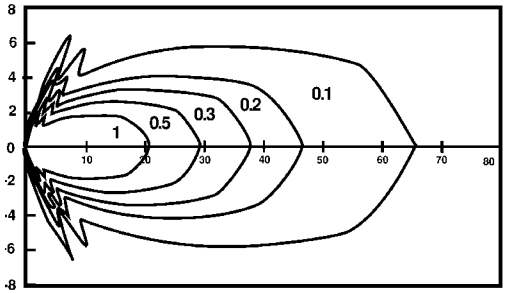
## Dimensions




## Photometrics

High-Output Halogen Lamp

Horizontal Isofootcandle Distribution



# Designer Emergency Lights 15W to 65W

An ULTREX Severe Conditions Product Line (Damp Location Models)

Damp

## Features

- Easy to install
- Capacities up to 65 watts
- 6- and 12-volt models
- Flame-rated, UV-stable thermoplastic housing
- White or black finishes
- Snap-together design
- Standard and damp location models
- Low profile lampheads
- High-output halogen lamps
- Clear glass protective lamp lens
- Matching remote fixtures
- 120/277VAC operation standard
- Fully automatic charger
- Choice of maintenance-free battery types
- Low-voltage battery disconnect
- Transformer isolation protection
- Test switch and AC-On light
- Available with **Spectron®** self-testing/self-diagnostic electronics with time-delay retransfer (TDR) standard
- Temperature range: 20°C to 30°C (68°F to 86°F)
  Damp location model: 0°C to 40°C (50°F to 104°F)
- UL 924 Listed

## Ordering Information

**See Product Selector Guide for available models**

## Options (Add suffix to model)

| | |
|---|---|
| **I** | Spectron self-testing/self-diagnostic electronics |
| **-B** | Black finish |
| **-V** | Voltmeter |
| **-10W** | 10-watt halogen lamps (1) |
| **-0** | Unit supplied without lampheads |
| **-24K** | 220-240VAC, 60 Hz. operation (2) |
| **-A31** | Auxiliary 3-conductor line cord (120V only) |

*(1) Available on units with capacities of 20 watts or more.*
*(2) Not available with Nickel-Cadmium battery models.*

*Also available in black finish*

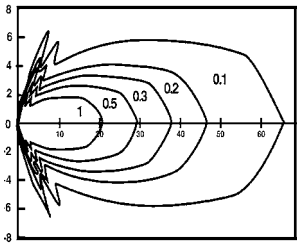
## Accessories (Order Separately)

| | |
|---|---|
| **VRS** | Vandal resistant shield |
| **WGEL** | Wire guard |
| **LZRSW**0605 | Matching remote lighting head - white |
| **LZRDSB**0605 | Matching remote lighting head - black |
| **OCRSW**0605 | Outdoor lighting head - 6 Volt, 5 Watt MR16 lamp - White finish |
| **OCRSB**0605 | Outdoor lighting head - 6 Volt, 5 Watt MR16 lamp - Black finish |
| **OMSSW**0605 | Outdoor lighting head - 6 Volt, 5 Watt sealed beam type lamp - White finish |
| **OMSSB**0605 | Outdoor lighting head - 6 Volt, 5 Watt sealed beam type lamp - Black finish |
| **OMSSW**1205 | Outdoor lighting head - 12 Volt, 5 Watt sealed beam type lamp - White finish |
| **OMSSB**1205 | Outdoor lighting head - 12 Volt, 5 Watt sealed beam type lamp - Black finish |

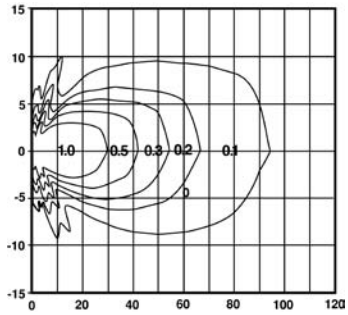

## Photometrics

High-Output Halogen Lamp
Horizontal Isofootcandle Distribution

Standard 5W MR-16 Lamp




Optional 10W MR-16 Lamp




## Matching Remote Fixtures

A complete line of 6- and 12-volt matching remote fixtures in single and tandem lamp configurations is available for use with LZ Series high-capacity units or any other 6- or 12-volt DC emergency lighting remote power sources.
All remote fixtures are offered in black and white textured finishes with a choice of 5- or 10-watt halogen lamps.

| White | | Black | | | |
|---|---|---|---|---|---|
| Single | Tandem | Single | Tandem | Volts | Watts |
| LZRSW0605 | LZRDW0605 | LZRSB0605 | LZRDB0605 | 6 | 5 |
| LZRSW0610 | LZRDW0610 | LZRSB0610 | LZRDB0610 | 6 | 10 |
| LZRSW1205 | LZRDW1205 | LZRSB1205 | LZRDB1205 | 12 | 5 |
| LZRSW1210 | LZRDW1210 | LZRSB1210 | LZRDB1210 | 12 | 10 |

# Product Selector Guide

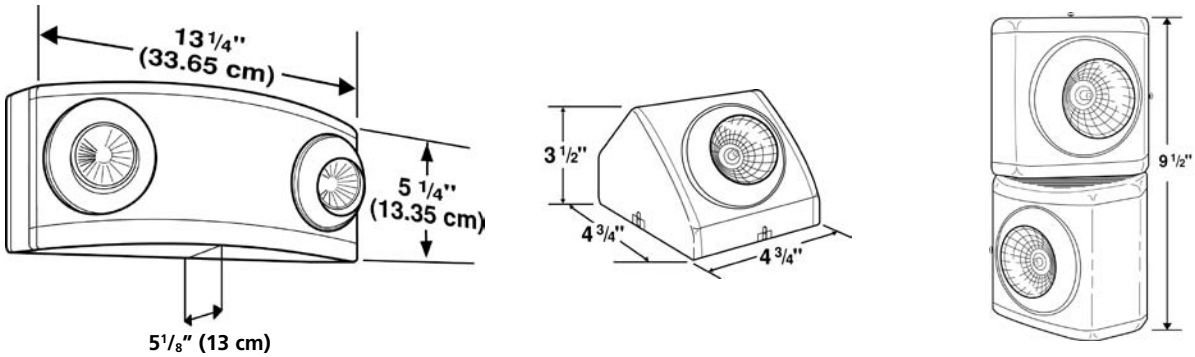
## Standard Models

| Base Catalog Numbers | Electrical | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Output Volts | Battery Type | Output Watts 1.5 Hours | 2 Hours | 3 Hours | 4 Hours | Standard Lamp | Remote Capability |
| LZ30 | 6 | Lead-Calcium | 30 | 24 | 15 | 12 | 5W Hal. | Yes |
| LZ35-12V | 12 | Lead-Calcium | 35 | 26 | 18 | 14 | 5W Hal. | Yes |
| LZ65 | 6 | Lead-Calcium | 65 | 49 | 33 | 26 | 5W Hal. | Yes |
| LZ65-12V | 12 | Lead-Calcium | 65 | 49 | 33 | 26 | 5W Hal. | Yes |
| LZ20N | 6 | Nickel-Cadmium | 20 | 15 | 10 | 8 | 5W Hal. | Yes |
| LZ25N-12V | 12 | Nickel-Cadmium | 25 | 19 | 13 | 10 | 5W Hal. | Yes |

## Damp Location Models

| Base Catalog Numbers | Electrical | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Output Volts | Battery Type | Output Watts 1.5 Hours | 2 Hours | 3 Hours | 4 Hours | Standard Lamp | Remote Capability |
| LZ25D | 6 | Lead-Calcium | 25 | 19 | 13 | 10 | 5W Hal. | Yes |
| LZ30D-12V | 12 | Lead-Calcium | 30 | 24 | 15 | 12 | 5W Hal. | Yes |
| LZ55D | 6 | Lead-Calcium | 55 | 42 | 28 | 22 | 5W Hal. | Yes |
| LZ55D-12V | 12 | Lead-Calcium | 55 | 42 | 28 | 22 | 5W Hal. | Yes |
| LZ15ND | 6 | Nickel-Cadmium | 15 | 11 | 8 | 6 | 5W Hal. | Yes |
| LZ20ND-12V | 12 | Nickel-Cadmium | 20 | 15 | 10 | 8 | 5W Hal. | Yes |

# Dimensions



# LM

## High Capacity Emergency Light 14W to 130W

An ULTREX Severe Conditions Product Line

Damp(1) Cold(2) Hot(2)

(1) Damp Location Models Only
(2) NiCad Models Only

## Features

- Easy to install
- Universal wall mounting pattern
- White, corrosion-resistant metal housing and front-loading cover
- Maintenance-free battery
- 6- & 12-volt models
- Damp location models available
- Glare-free lampheads
- Lampheads may be top or side mounted
- Available with 3 or 4 lampheads
- Available without lampheads
- Matching remote fixtures
- 120/277VAC operation standard (220-240VAC, 60 Hz. optional)
- Enclosure 1 is of 20 gauge steel; Enclosure 2 is of 18 gauge steel
- Fully automatic, solid-state charger
- Low-voltage battery disconnect
- Transformer isolation protection
- Test switch and AC-On light
- Available with **Spectron®** self-testing/self-diagnostic electronics with time-delay retransfer (TDR) standard
- 90 minute operation
- Temperature range: 20°C to 30°C (68°F to 86°F)
  NiCad models: 20°C - 30°C (68°F to 86°F)
  Damp location models: 10°C to 40°C (50°F to 104°F)
- UL 924 Listed

## Ordering Information

**See Product Selector Guide for available models**

## Options (Add suffix to model)

| | |
|---|---|
| **I** | Spectron self-testing/self-diagnostic electronics(1)(5) |
| **-V** | Voltmeter |
| **-3** | Unit supplied with three lampheads (1)(2) |
| **-4** | Unit supplied with four lampheads (1)(2)(6) |
| **-0** | Unit supplied without lampheads (1)(2)(3) |
| **-A31** | Auxiliary 3-conductor AC line cord (120V) |
| **-A32** | Auxiliary 3-conductor AC line cord (277V) |
| **-24K** | 220-240VAC, 60Hz. operation (4) |

*(1) Not available with LM2 model.*
*(2) Not available with LM15N, LM16 or LM24CH models.*
*(3) **NOTE:** Spectron models with over 80 watts of capacity require a minimum load of 35 watts for accurate lamp failure indications.*
*(4) Not available with LM15N, LM24CH, LM30N, LM36CH, LM50N, LM100N, LM112D, and LM130 models.*
*(5) Spectron not available with Nickel-Cadmium battery models.*
*(6) Not available with LM28D or LM36CH models.*

**Optional Lamps**
To order two nonstandard lamps on the fixture, suffix catalog number. See "Remote Heads and Fixtures" section for available lamps. Example: **LM33-SRHSW**0605.

## Accessories (Order Separately)

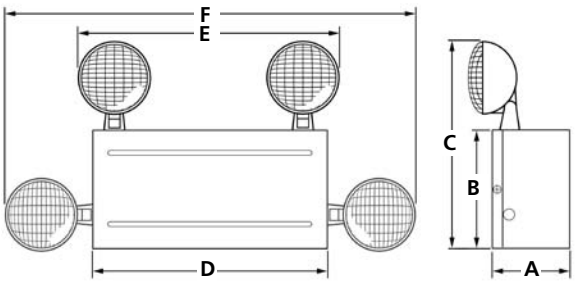
| | |
|---|---|
| **40G** | Wire guard (Top mounted heads only) |
| **OMSSW**0605 | Outdoor lighting head - 6 Volt, 5 Watt sealed beam type lamp - White finish |
| **OMSSW**1205 | Outdoor lighting head - 12 Volt, 5 Watt sealed beam type lamp - White finish |
| **SRHSW** | Single matching remote head - white * |
| **SRHDW** | Twin matching remote head - white * |

* *Supplied with round mounting plate. Specify voltage and wattage when ordering. Example: **SRHDW1212**. See "Remote Heads and Fixtures" section for available lamps.*

*OMS Series Matching Remote Lighting Heads*

*SRH Series Matching Remote Lighting Heads*

## Dimensions

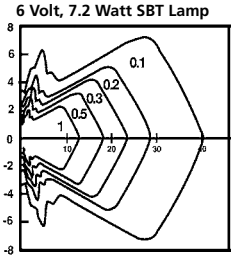



| Enclosure Style | A | B | C | D | E | F |
|---|---|---|---|---|---|---|
| 1 | 3 7/8" 9.8 cm | 5 3/4" 14.6 cm | 11 1/2" 29.3 cm | 13 1/2" 34.3 cm | 15 3/4" 40.0 cm | 25" 63.5 cm |
| 2 | 4 3/4" 12.1 cm | 7 3/4" 19.7 cm | 13 1/2" 34.3 cm | 15 3/4" 40.0 cm | 18" 45.7 cm | 27 1/4" 69.2 cm |

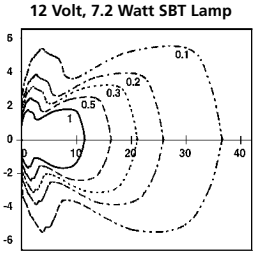
## Photometrics

Horizontal Isofootcandle Distribution

6 Volt, 7.2 Watt SBT Lamp




12 Volt, 7.2 Watt SBT Lamp






DUAL LITE

Lite forms Collection

# Product Selector Guide

## Standard Models *

| Catalog Numbers | Enclosure Style | Output Volts | Electrical | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Output Watts | | | | | |
| | | | 1.5 Hours | 2 Hours | 3 Hours | 4 Hours | Standard Lamp | Remote Capability |
| LM2 | 1 | 6 | 10.8 | — | — | — | 5.4W | No |
| LM16 | 1 | 6 | 16 | — | — | — | 7.2W | No |
| LM33 | 1 | 6 | 33 | 25 | 17 | 13 | 7.2W | Yes |
| LM40 | 1 | 6 | 40 | 31 | 21 | 16 | 7.2W | Yes |
| LM66 | 2 | 6 | 66 | 51 | 35 | 27 | 7.2W | Yes |
| LM80 | 2 | 6 | 80 | 62 | 43 | 33 | 7.2W | Yes |
| LM130 | 2 | 6 | 130 | 101 | 70 | 54 | 7.2W | Yes |
| LM40-12V | 1 | 12 | 40 | 31 | 21 | 16 | 7.2W | Yes |
| LM66-12V | 2 | 12 | 66 | 51 | 35 | 27 | 7.2W | Yes |
| LM80-12V | 2 | 12 | 80 | 62 | 43 | 33 | 7.2W | Yes |
| LM130-12V | 2 | 12 | 130 | 101 | 70 | 54 | 7.2W | Yes |

* *Meets New York City Requirements*

## Nickel-Cadmium Models

| Catalog Numbers | Enclosure Style | Output Volts | Electrical | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Output Watts | | | | | |
| | | | 1.5 Hours | 2 Hours | 3 Hours | 4 Hours | Standard Lamp | Remote Capability |
| LM15N | 1 | 6 | 14.4 | -- | -- | -- | 7.2W | No |
| LM30N | 1 | 6 | 30 | 25 | 17 | 13 | 7.2W | Yes |
| LM50N | 1 | 6 | 50 | 42 | 29 | 22 | 7.2W | Yes |
| LM50N-12V | 1 | 12 | 50 | 42 | 29 | 22 | 7.2W | Yes |
| LM100N-12V | 1 | 12 | 100 | 85 | 59 | 46 | 7.2W | Yes |

## Damp Location Models

| Catalog Numbers | Enclosure Style | Output Volts | Electrical | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Output Watts | | | | | |
| | | | 1.5 Hours | 2 Hours | 3 Hours | 4 Hours | Standard Lamp | Remote Capability |
| LM28D | 1 | 6 | 28 | 21 | 15 | 11 | 7.2W | Yes |
| LM34D | 1 | 6 | 34 | 26 | 18 | 14 | 7.2W | Yes |
| LM56D | 2 | 6 | 56 | 43 | 30 | 23 | 7.2W | Yes |
| LM68D | 2 | 6 | 68 | 53 | 36 | 28 | 7.2W | Yes |
| LM112D | 2 | 6 | 112 | 87 | 60 | 47 | 7.2W | Yes |
| LM34D-12V | 1 | 12 | 34 | 26 | 18 | 14 | 7.2W | Yes |
| LM56D-12V | 2 | 12 | 56 | 43 | 30 | 23 | 7.2W | Yes |
| LM68D-12V | 2 | 12 | 68 | 53 | 36 | 28 | 7.2W | Yes |
| LM112D-12V | 2 | 12 | 112 | 87 | 60 | 47 | 7.2W | Yes |

## All Metal City Of Chicago Models *

| Catalog Numbers | Enclosure Style | Output Volts | Electrical | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Output Watts | | | | | |
| | | | 1.5 Hours | 2 Hours | 3 Hours | 4 Hours | Standard Lamp | Remote Capability |
| LM24CH | 1 | 6 | 24 | -- | -- | -- | 12W | No |
| LM36CH | 1 | 6 | 36 | 26 | -- | -- | 12W | Yes |
| LM36CH-12V | 1 | 12 | 36 | 26 | -- | -- | 12W | Yes |

* *2000 Chicago Building Code compliant*

# EZ-2R

## Recessed Emergency Light 10.8W, 14.4W

## Features

- Easy installation in wall or ceiling
- Compact, low-profile design
- All metal recessed housing
- Flame-rated, white thermoplastic lamp housing and mounting plate
- Maintenance-free battery
- Glare-free lampheads
- 120/277VAC operation standard
- Fully automatic, solid-state charger
- Low-voltage battery disconnect
- Transformer isolation protection
- Test switch and AC-On light
- Available with **Spectron®** self-testing/self-diagnostic electronics with time-delay retransfer (TDR) standard
- 90 minute operation
- Temperature range: 20°C to 30°C (68°F to 86°F)
- UL 924 Listed

## Ordering Information

| Standard Model | Spectron Self-Testing Model |
|---|---|
| **EZ-2R** | **EZ-2RI** |

*Wall mounted EZ-2R unit*

*EZ-2R suspended ceiling installation using F-CBM accessory kit*

## Accessories (Order Separately)

| | |
|---|---|
| **F-CBM** | Troffer mounting kit (suspended ceilings) |
| **WGEL** | Wire guard |

## Product Selector Guide

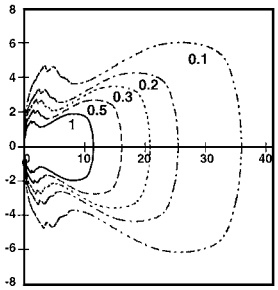
| Base Catalog Number | Electrical | | | | | | |
|---|---|---|---|---|---|---|---|
| | Output Volts | Output Watts 1.5 Hours | 2 Hours | 3 Hours | 4 Hours | Standard Lamp | Remote Capability |
| **EZ-2R** | 6 | 10.8 | — | — | — | 5.4W | No |
| **EZ-2RI*** | 6 | 14.4 | — | — | — | 7.2W | No |

* Includes Spectron® self-testing/self-diagnostic electronics with time-delay relay (TDR) standard

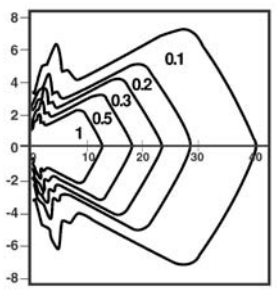
## Photometrics

Horizontal Isofootcandle Distribution

**6 Volt, 5.4 Watt SBT Lamp**

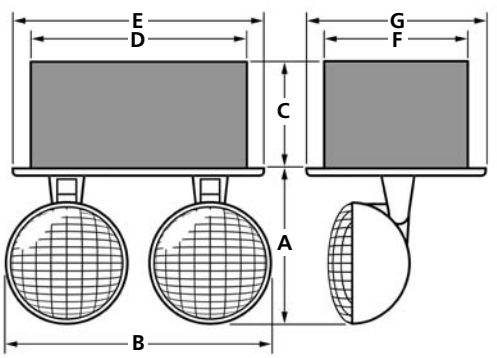



**6 Volt, 7.2 Watt SBT Lamp**




*Photometrics measured by independent testing laboratory*

## Dimensions




| | |
|---|---|
| A | 5 3/4" (14.6 cm) |
| B | 11" (27.9 cm) |
| C | 3 7/8" (9.8 cm) |
| D | 7 3/4" (19.7 cm) |
| E | 9 1/8" (23.2 cm) |
| F | 5" (12.7 cm) |
| G | 6 1/8" (15.6 cm) |



DUAL LITE

Lite forms Collection

# Recessed T-Grid Emergency Light 15W to 50W

## Features

- Easy to install T-Grid lay-in design
- Maintenance-free battery
- 6 and 12 volt models
- Heavy 20 gauge steel housing
- Standard white finish
- Standard with two glare-free lampheads
- Dual voltage – 120V/277VAC
- Fully automatic, solid-state charger
- Thermally compensated charger
- Regulated charge voltage
- Automatic low voltage disconnect
- Reverse polarity protection
- Filtered charger output
- Short circuit protection
- AC lockout
- Test switch and AC-On light
- Available with **Spectron**® self-testing/self-diagnostic electronics with time-delay retransfer (TDR) standard
- Temperature range: 20°C to 30°C (68°F to 86°F)
- UL 924 Listed

## Ordering Information

| | | | |
|---|---|---|---|
| **Standard Models** | **TG15** | **TG30** | **TG50-12V** |
| **NiCad Battery Models** | **TG15N** | **TG30N** | **TG50N-12V** |

## Options (Add suffix to model)

| | |
|---|---|
| **I** | Spectron self-testing electronics (1) |
| **-V** | Voltmeter |
| **-3** | Unit supplied with three lighting heads (2) |
| **-0** | Unit supplied with no lighting heads |

*(1) Spectron not available with NiCad battery models.*

*(2) Not available on TG15 and TG15N models.*

**Optional Lamps**

To order two nonstandard lamps on the fixture, suffix catalog number. See "Remote Heads and Fixtures" section for available lamps. Example: **TG30-SRHSW**0612.

## Accessories (Order Separately)

| | |
|---|---|
| **SRHSW** | Matching remote head - single * |
| **SRHDW** | Matching remote head - twin * |

* *Supplied with round mounting plate. Specify voltage and wattage when ordering. Example: SRHSW1212. See "Remote Heads and Fixtures" section for available lamps.*

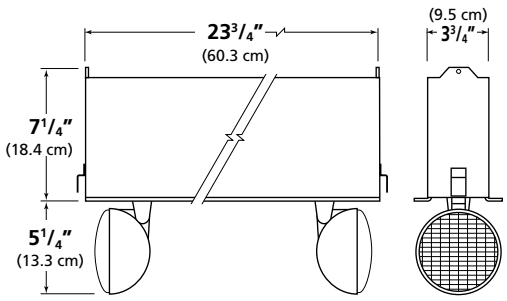
*SRH Series Matching Remote Lighting Heads*

## Product Selector Guide

| Standard Models | NiCad Battery Models | Electrical | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Output Volts | Output Watts 1.5 Hours | 2 Hours | 3 Hours | 4 Hours | AC Input* Volts | Amps | Watts | Standard Lamp | Remote Capability |
| TG15 | TG15N | 6 | 15 | 11 | 8 | 6 | 120 | .070 (.078) | 8.4 (9.36) | 7.2W | No |
| | | | | | | | 277 | .032 (.039) | 8.8 (10.8) | | |
| TG30 | TG30N | 6 | 30 | 22 | 15 | 12 | 120 | .070 (.114) | 8.4 (13.68) | 7.2W | Yes |
| | | | | | | | 277 | .032 (.051) | 8.8 (14.1) | | |
| TG50-12V | TG50N-12V | 12 | 50 | 38 | 25 | 20 | 120 | .112 (.250) | 13.4 (30.00) | 7.2W | Yes |
| | | | | | | | 277 | .052 (.108) | 14.4 (29.9) | | |

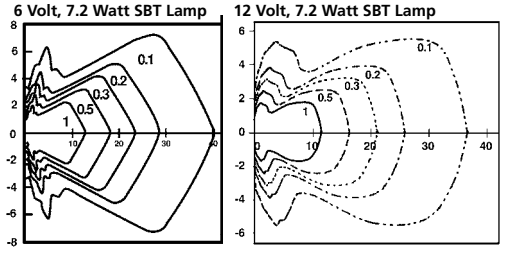
** AC Input figures in parenthesis are for NiCad battery models.*

## Dimensions




## Photometrics

Horizontal Isofootcandle Distribution



# EXT

## Recessed Gimbal Emergency Light 8W

## Features

- Easy recessed installation in suspended ceilings
- Built-in hanger bar
- Compact, low-profile design
- All metal housing and gimbal assembly
- Ceiling white trim ring
- Lamp adjusts in two planes to 26˚
- High-output, 8 watt halogen lamphead
- Maintenance-free battery
- 120/277VAC operation standard
- Fully automatic, solid-state charger
- Low-voltage battery disconnect
- Transformer isolation protection
- Test switch and AC-On light
- 90 minute operation
- Temperature range: 20°C to 30°C (68°F to 86°F)
- UL 924 Listed

## Ordering Information

**EXT-122-EM-K**

## Accessories (Order Separately)

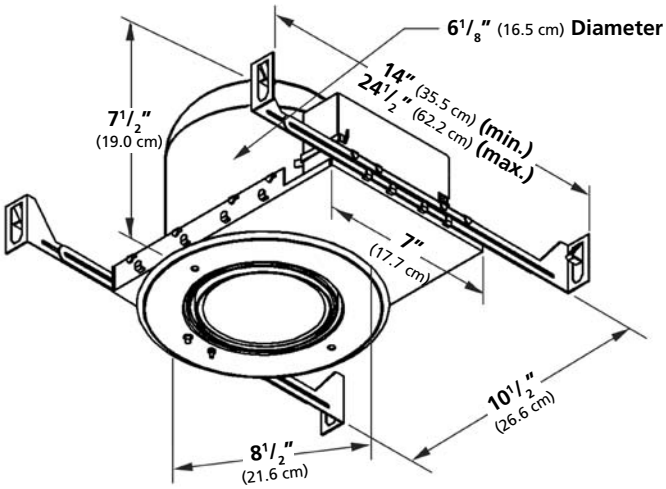
**WGLX** Wire guard

*The EXT-122-EM-K unit installs quickly and easily in suspended ceiling applications using built-in hanger bar feature.*

## Product Selector Guide

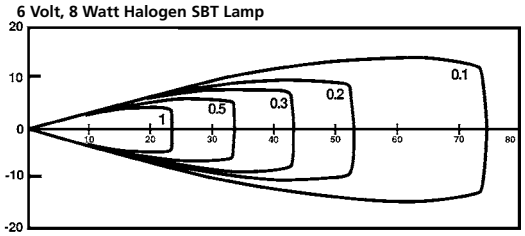
| Base Catalog Numbers | Electrical | | | | | | |
|---|---|---|---|---|---|---|---|
| | Output Volts | Output Watts 1.5 Hours | 2 Hours | 3 Hours | 4 Hours | Standard Lamp | Remote Capability |
| EXT-122-EM-K | 6 | 8 | — | — | — | 8W Hal. | No |

## Dimensions




## Photometrics

Horizontal Isofootcandle Distribution






DUAL LITE

Lite forms Collection

# Emergency Lighting Square Unit 10W to 30W

Lite²

## Features

- Easy to install
- Matte-white frame and satin-black housing
- Available in single and twin lamp models
- Maintenance-free battery
- Prismatic lens for uniform illumination
- Polished alzak reflector
- Remote capability (ERS models only)
- Matching remote fixtures
- 120/277VAC operation standard
- Fully automatic, solid-state charger
- Low-voltage battery disconnect
- Transformer isolation protection
- Test switch and AC-On light
- Available with **Spectron**® self-testing/ self-diagnostic electronics with time-delay retransfer (TDR) standard
- 90 minute operation
- Temperature range: 20°C to 30°C (68°F to 86°F)
- UL 924 Listed


## Ordering Information

| Standard Models | | | | Spectron Self-Testing Models | | | |
|---|---|---|---|---|---|---|---|
| **EDS** | Single lamp unit | **EDS-2** | Twin lamp unit | **ESS-I** | Single lamp unit | **ESS-I-2** | Twin lamp unit |
| **ERS** | Single lamp unit | **ERS-2-2** | Twin lamp unit | **ERS-I** | Single lamp unit | **ERS-2I-2** | Twin lamp unit |
| **ERS-3** | Single lamp unit | | | **ERS-3I** | Single lamp unit | | |

## Options (Add suffix to model)

| | |
|---|---|
| **-V** | Voltmeter * |
| **-FRM** | Fully recessed option |

** Not available with fully recessed models.*

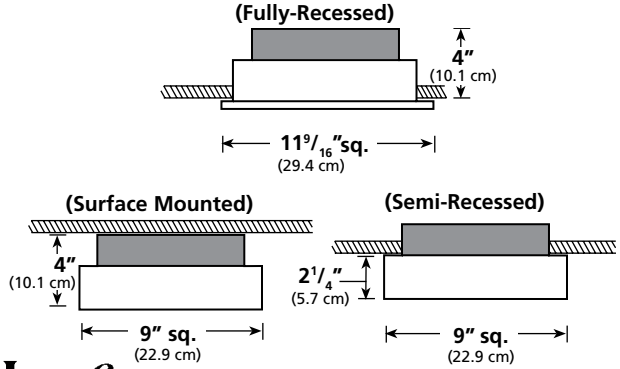
## Accessories (Order Separately)

| | |
|---|---|
| **F-SRM** | Semi-recessed mounting kit |
| **WG-MLT** | Wire guard |
| **RERS-1-0609** | Matching remote fixture - single lamp |
| **RERS-2-0607** | Matching remote fixture - twin lamps |

## Product Selector Guide

| Catalog Numbers | Electrical | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Output Volts | Output Watts 1.5 Hours | 2 Hours | 3 Hours | 4 Hours | No. Lamps | Standard Lamps | Remote Capability |
| **EDS, ESS-I** | 6 | 10 | — | — | — | 1 | 9W | No |
| **ERS, ERS-I** | 6 | 20 | 10 | — | — | 1 | 9W | Yes |
| **ERS-3, ERS-3I** | 6 | 30 | 22 | 15 | — | 1 | 9W | Yes |
| **EDS-2, ESS-I-2** | 6 | 14.4 | — | — | — | 2 | 7.2W | No |
| **ERS-2-2, ERS-2I-2** | 6 | 30 | 22 | 15 | — | 2 | 7.2W | Yes |

## Dimensions




*Semi-recessed model*

*Fully-recessed model*

# Delite

## Emergency Lighting Cylinder Unit 12W

## Features

- Easy to install
- Attractive matte-white cylinders on contrasting black swivel
- Brushed aluminum base plate
- Multidirectional swivel lighting heads
- Maintenance-free battery
- Matching remote fixture
- 120/277VAC operation standard
- Fully automatic solid-state charger
- Low-voltage battery disconnect
- Transformer isolation protection
- Test switch and AC-On light
- 90 minute operation
- Temperature range: 20°C to 30°C (68°F to 86°F)
- UL 924 Listed

## Ordering Information

**ESC2-0**

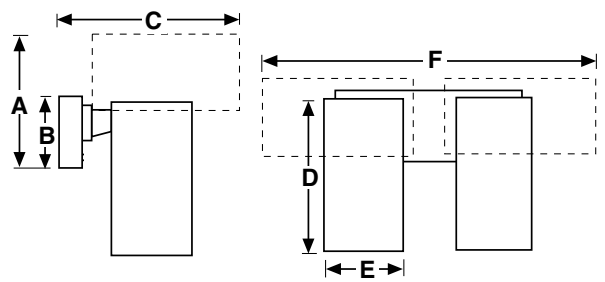
## Accessories (Order Separately)

| | |
|---|---|
| **F-TMK** | Ceiling recess mounting kit |
| **41G** | Wire guard |

## Product Selector Guide

| Base Catalog Numbers | Electrical | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Output Volts | Output Watts 1.5 Hours | 2 Hours | 3 Hours | 4 Hours | No. Cyls. | Standard Lamp(s) | Remote Capability |
| **ESC2-0** | 6 | 12 | — | — | — | 2 | 6W Halogen | No |

## Dimensions



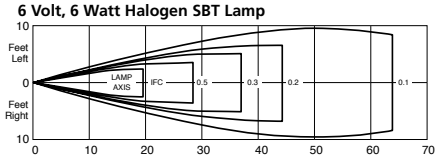

| Unit Model Number | Dimensions | | | | | |
|---|---|---|---|---|---|---|
| | A | B | C | D | E | F |
| **ESC2-0** | 10″ 25.4 cm | $4^{3}/_{4}$″ 12.0 cm | $10^{1}/_{2}$″ 26.7 cm | $8^{1}/_{2}$″ 21.6 cm | 5″ 12.7 cm | 22″ 55.9 cm |

*Dotted lines show heads in maximum horizontal position.*

## Photometrics

Horizontal Isofootcandle Distribution

**6 Volt, 6 Watt Halogen SBT Lamp**






DUAL LITE

Lite forms Collection

# Harsh Environment Emergency Light 15W to 100W

N4X

## Features

- Gasketed construction
- Corrosion resistant hardware
- Charcoal grey thermoplastic case
- Available in 6- or 12-volt versions
- Fully adjustable lampheads
- Maintenance-free battery
- Capacities up to 100W
- Matching remote fixture
- 120/277VAC operation standard
- Fully automatic, solid-state charger
- Low-voltage battery disconnect
- Transformer isolation protection
- Test switch and AC-On light
- Available with **Spectron®** self-testing/self-diagnostic electronics with time-delay retransfer (TDR) standard
- 90 minute operation
- Temperature range: 10°C to 40°C (50°F to 104°F)
- UL 924 Listed
- UL 924 Damp Location Listed

An ULTREX Severe Conditions Product Line

## Ordering Information

**N4X2** **N4X4** **N4X7** **N4X7-12V** **N4X14** **N4X14-12V**

Corrosive Damp(1)

## Options (Add suffix to model)

| | |
|---|---|
| **I** | Spectron self-testing/self-diagnostic electronics |
| **-0** | Unit supplied without lighting heads (1) |
| **-1** | Unit supplied with one lighting head (1) |
| **-L** | Shatter containment lamp option (2) |
| **-A31** | Auxiliary 3-conductor AC line cord (120V) |
| **-A32** | Auxiliary 3-conductor AC line cord (277V) |

*(1) Not available on N4X2 model.*

*(2) Protective lamp cover safely contains lamp fragments in the event of accidental breakage in sensitive areas such as food preparation or hospitals.*

## Accessories (Order Separately)

| | |
|---|---|
| **40G** | Wire guard |
| **GNXSB** | Matching remote head - single (a) |
| **GNXDB** | Matching remote head - twin (a) |

*(a) Supplied with mounting plate. Specify voltage and wattage when ordering. Example: **GNXSB**0618. See "Remote Heads and Fixtures" section for available lamps.*

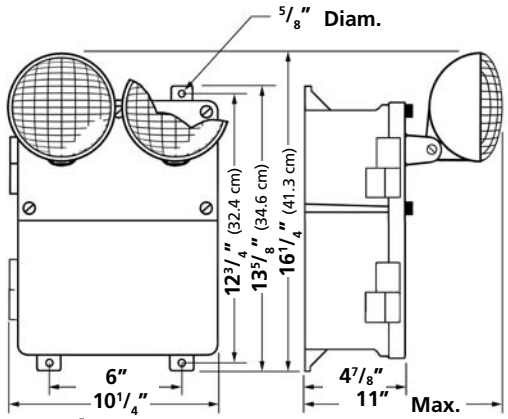
**Optional Lamps**

To order two nonstandard lamps on the fixture, suffix catalog number. See "Remote Heads and Fixtures" section for available lamps. Example: **N4X4-GNXSB**0612.

## Product Selector Guide

| Base Catalog Numbers | Electrical | | | | | | |
|---|---|---|---|---|---|---|---|
| | Output Volts | Output Watts 1.5 Hours | 2 Hours | 3 Hours | 4 Hours | Standard Lamps | Remote Capability |
| **N4X2** | 6 | 15 | — | — | — | 7.2W | No |
| **N4X4** | 6 | 31 | 22 | 15 | — | 7.2W | Yes |
| **N4X7** | 6 | 50 | 36 | 29 | 22 | 7.2W | Yes |
| **N4X7-12V** | 12 | 50 | 36 | 29 | 22 | 9W | Yes |
| **N4X14** | 6 | 100 | 79 | 61 | 44 | 7.2W | Yes |
| **N4X14-12V** | 12 | 100 | 79 | 61 | 44 | 9W | Yes |

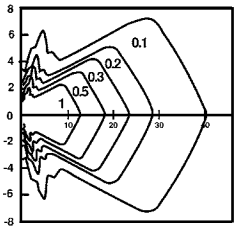
## Dimensions



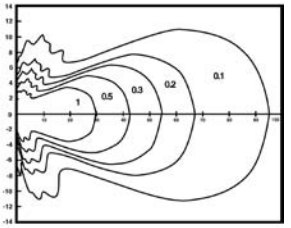

## Photometrics

Horizontal Isofootcandle Distribution

6 Volt, 7.2 Watt SBT Lamp




12 Volt, 9 Watt SBT Lamp



# AS

## Industrial Emergency Light 80W to 360W

## Features

- Easy to install
- NEMA 1 20 gauge steel cabinet with dark brown enamel finish
- 1/2" and 3/4" wiring KOs provided
- Maintenance-free battery models
- 6-, 12- and 24-volt models
- 12- and 24-volt models allow longer wiring runs
- Glare-free lampheads
- Available with third lamphead
- Available without lampheads
- Matching remote fixtures
- 120/277VAC operation standard
- Fully automatic, solid-state charger
- Low-voltage battery disconnect
- Transformer isolation protection
- Test switch and AC-On light
- Available with **Spectron®** self-testing/self-diagnostic electronics with time-delay retransfer (TDR) standard
- 90 minute operation
- Temperature range: 20°C to 30°C (68°F to 86°F)
- UL 924 Listed

## Ordering Information

**See Product Selector Guide for available models**

*OMS Series Matching Remote Lighting Head*

*SRH Series Matching Remote Lighting Head*

## Options (Add suffix to model)

| | |
|---|---|
| I | Spectron self-testing/self-diagnostic electronics (1) |
| **-V** | Voltmeter |
| **-C** | Ammeter (2) |
| **-0** | Unit supplied without lampheads |
| **-1** | Unit supplied with one lamphead |
| **-3** | Unit supplied with three lampheads |
| **-A31** | Auxiliary 3-conductor AC line cord (120V) |
| **-A32** | Auxiliary 3-conductor AC line cord (277V) |

*(1) Not available with 24V models.*
*(2) Not available with AS80.*

## Accessories (Order Separately)

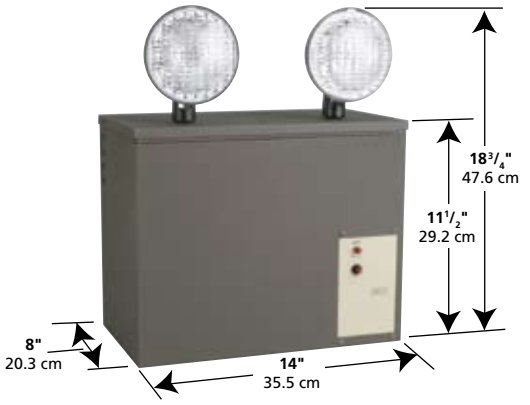
| | | |
|---|---|---|
| | **WB-6** | Wall mounting hanger bracket |
| | **6000** | Heavy-duty mounting shelf |
| | **L-6** | Mounting shelf |
| | **40G** | Wire guard |
| OUTDOOR | **OMSSB** | Matching remote lighting head - single (black) * |
| OUTDOOR | **OMSSW** | Matching remote lighting head - single (white) * |
| OUTDOOR | **OMSDB** | Matching remote lighting head - twin (black) * |
| OUTDOOR | **OMSDW** | Matching remote lighting head - twin (white) * |
| INDOOR | **SRHSB** | Matching remote lighting head - single (black) * |
| INDOOR | **SRHSW** | Matching remote lighting head - single (white) * |
| INDOOR | **SRHDB** | Matching remote lighting head - twin (black) * |
| INDOOR | **SRHDW** | Matching remote lighting head - twin (white) * |

* *Supplied with round mounting plate. Specify voltage and wattage when ordering. Example: **SRHSB**0612. See "Remote Heads and Fixtures" section for available lamps.*

**Optional Lamps**

To order two nonstandard lamps on the fixture, suffix catalog number. See "Remote Heads and Fixtures" section for available lamps. Example: **AS130-SRHSB**0612.

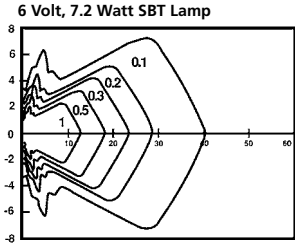
## Dimensions



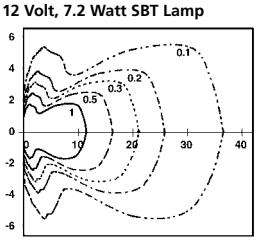

## Photometrics

Horizontal Isofootcandle Distribution

**6 Volt, 7.2 Watt SBT Lamp**




**12 Volt, 7.2 Watt SBT Lamp**






DUAL LITE

Lite forms® Collection

## Product Selector Guide

| Base Catalog Numbers | Output Volts | Electrical | | | | | |
|---|---|---|---|---|---|---|---|
| | | Output Watts | | | | | |
| | | 1.5 Hours | 2 Hours | 3 Hours | 4 Hours | Standard Lamp | Remote Capability |
| **AS80** | 6 | 80 | 62 | 43 | 33 | 7.2W | Yes |
| **AS130** | 6 | 130 | 101 | 70 | 54 | 7.2W | Yes |
| **AS180-12V** | 12 | 180 | 144 | 112 | 77 | 7.2W | Yes |
| **AS270-12V** | 12 | 270 | 227 | 168 | 116 | 7.2W | Yes |
| **AS360-12V** | 12 | 360 | 288 | 230 | 172 | 7.2W | Yes |
| **AS180-24V** | 24 | 180 | 144 | 112 | 77 | 9W | Yes |
| **AS270-24V** | 24 | 270 | 227 | 168 | 116 | 9W | Yes |
| **AS360-24V** | 24 | 360 | 288 | 230 | 172 | 9W | Yes |

## What is REMOTE CAPACITY?

Remote capacity models provide means for delivering excess DC power (wattage) to additional emergency signage and emergency lighting equipment during power outages. Any combination of remote lamp heads (refer to the remote head section of this catalog) and other equipment such as Dual-Lite Exit Signs with the '-DC' remote operation option (see ***LX***, ***Sempra***, ***LN4X*** or ***Freedom Series***) may be added to the system as long as the total sum of the remote equipment wattage does not exceed the rated wattage capacity of the source unit.

**Example:** the AS80 has 65.6 watts of available remote capacity (80 watts minus 14.4 watts (two standard 7.2w integral lamp heads)). Any combination of remote lamp heads and exit signs (with the -DC option) may be added up to the 65.6 watts of extra capacity.

*Other Dual-Lite unit equipment with remote capability:*
***LZ, LM, T-Grid, ERS, N4X, C1D2,*** *and* ***XPB***
*See specific catalog pages for ordering information*


SEMPRA Exit Sign,
Catalog # SESRW-DC
Total Wattage Draw: 3 Watts

AS80
Remote Capacity
Availability: 65 Watts

Remote Head, 6V 25W,
Catalog # SRHDB0625
Total Wattage Draw: 50 Watts

Remote Head, 6V 5W
Catalog # OMSSW0605
Total Wattage Draw: 5 Watts

| | Wattage Capacity (90 Minute Operation) |
|---|---|
| AS80 Lighting Unit | 80.00 |
| Less two each 7.2 Watts lamp integral to AS80 unit | (14.40) |
| Less SRHDB0625 Twin Remote Head | (50.00) |
| Less OMSSW0605 Single Remote Head | (5.00) |
| Less Exit Sign SESRW-DC | (3.00) |
| **TOTAL WATTAGE CAPACITY REMAINING*** | **7.60** |

** The National Electric Code limits voltage drop to 5% of nominal. Actual results may vary. Circuit runs must be of sufficient capacity to maintain operating voltage when remote fixtures and/or exit signs are connected to the emergency lighting unit. Refer to the voltage drop tables for sizing and distance of wire run.*

IPS

An ULTREX Severe Conditions Product Line

UL 844 Hazardous | Damp | Wet | Corrosive

# Wet Location Emergency Light 36W, 72W

## Features

- Suitable for wet or damp applications
- Designed for Class I, Div II locations
- Compact, factory assembled system
- Sealed and gasketed NEMA 3R construction
- Corrosion resistant hardware
- Black thermoplastic case with battery vent
- Available in 6- or 12-volt versions
- Fully adjustable 8 watt halogen sealed beam lampheads
- Maintenance-free battery
- Matching remote fixtures
- 120/220/240/277VAC operation standard
- Fully automatic, solid-state charger
- Automatic 15-minute retransfer delay
- Low-voltage battery disconnect
- Transformer isolation protection
- Test switch and AC-On light
- T-5 100°C (212°F) lamphead rating
- 120 minute operation
- Temperature range: 0°C to 40°C (32°F to 104°F)
- UL Listed to Standard 924 and Standard 844 (Hazardous Locations)

**NEMA 3R Enclosures (NEMA Standard 250)**
*Enclosures are intended for outdoor use primarily to provide a degree of protection against falling rain and sleet, undamaged by the formation of ice on the enclosure.*

## Ordering Information

**C1D2-6V36 C1D2-6V72 C1D2-12V36 C1D2-12V72**

## Options (Add suffix to model)

**-0** Unit supplied without lampheads
**-1** Unit supplied with one lamphead
**-12W** Unit supplied with 12 watt halogen lamps

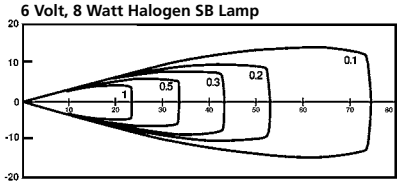
## Product Selector Guide

| Base Catalog Numbers | Electrical | | | | | |
|---|---|---|---|---|---|---|
| | Output Volts | Output Watts 2 Hours | 3 Hours | 4 Hours | Standard Lamps | Remote Capability |
| C1D2-6V36 | 6 | 36 | 24 | 19 | 8W Hal. | Yes |
| C1D2-6V72 | 6 | 72 | 50 | 39 | 8W Hal. | Yes |
| C1D2-12V36 | 12 | 36 | 24 | 19 | 8W Hal. | Yes |
| C1D2-12V72 | 12 | 72 | 50 | 39 | 8W Hal. | Yes |

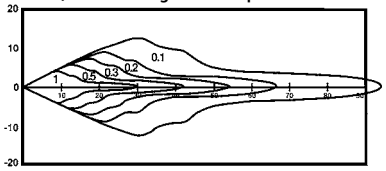
## Photometrics

Horizontal Isofootcandle Dist.

6 Volt, 8 Watt Halogen SB Lamp




12 Volt, 8 Watt Halogen SB Lamp



## Accessories (Order Separately)

*Matching single and twin head remote lighting fixtures*

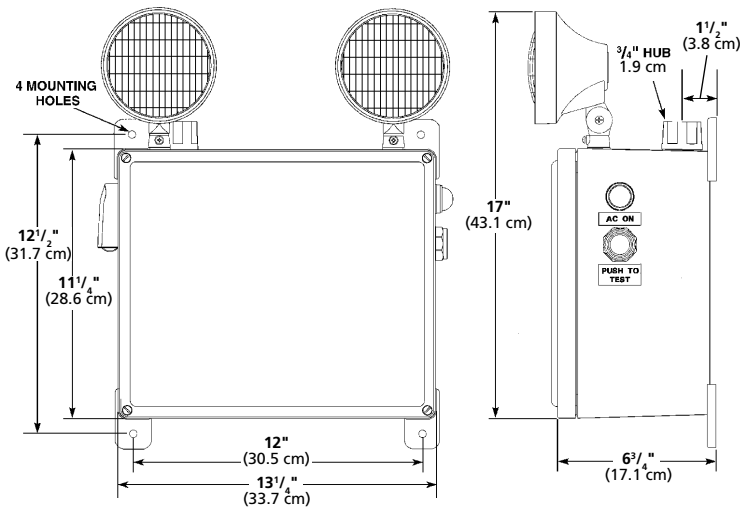
**Remote Lighting Heads***

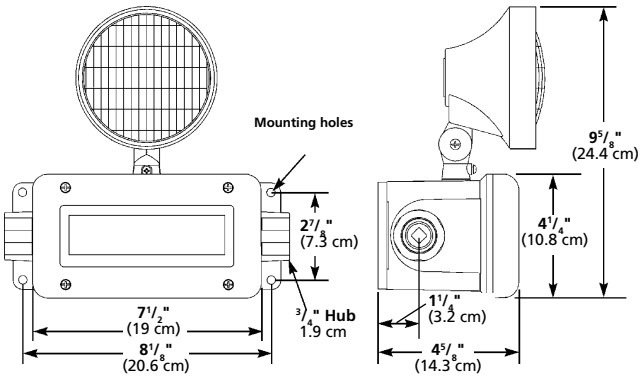
| Lamp | | Single-Head Model Numbers | | |
|---|---|---|---|---|
| Volts | Watts | Hub Left Side | Hub Right Side | Hub Both Sides |
| 6 | 8 | C1D2R-6V8W | C1D2R-6V8WR | C1D2R-6V8WF |
| 6 | 12 | C1D2R-6V12W | C1D2R-6V12WR | C1D2R-6V12WF |
| 12 | 8 | C1D2R-12V8W | C1D2R-12V8WR | C1D2R-12V8WF |
| 12 | 12 | C1D2R-12V12W | C1D2R-12V12WR | C1D2R-12V12WF |

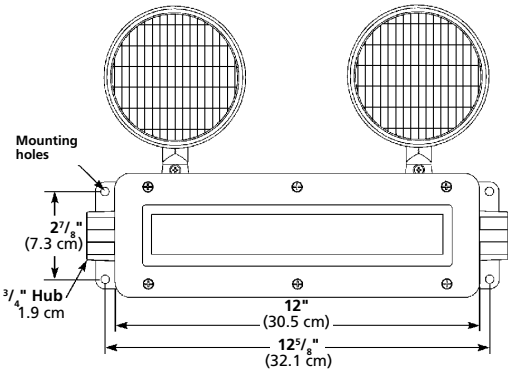
| Lamps | | Twin-Head Model Numbers | | |
|---|---|---|---|---|
| Volts | Watts | Hub Left Side | Hub Right Side | Hub Both Sides |
| 6 | 8 | C1D2TR-6V8W | C1D2TR-6V8WR | C1D2TR-6V8WF |
| 6 | 12 | C1D2TR-6V12W | C1D2TR-6V12WR | C1D2TR-6V12WF |
| 12 | 8 | C1D2TR-12V8W | C1D2TR-12V8WR | C1D2TR-12V8WF |
| 12 | 12 | C1D2TR-12V12W | C1D2TR-12V12WR | C1D2TR-12V12WF |

* *PAR 36 Halogen sealed beam lamps.*

## Dimensions



# XPB

## Explosion-Proof Emergency Light 75W

An ULTREX Severe Conditions Product Line
(Class I, Divisions I & II, Groups C through G)

Explosion-Proof

Corrosive

## Features

- Suitable for Class I, Div. I & II applications
- High-strength, copper-free aluminum housing
- Quick access thread-on cover
- Test switch included
- AC-On indicator light
- Maintenance-free battery
- 6- and 12-volt models
- Capacity for remote fixtures
- 120/277VAC operation standard
- Fully automatic, solid-state charger
- Low-voltage battery disconnect
- Transformer isolation protection
- Optional fixtures available for a wide range of hazardous environments
- 90 minute operation
- Temperature range: 20°C to 30°C (68°F to 86°F)
- UL Listed to Standard 924 and Standard 844 (Hazardous Locations)

## Ordering Information

**XPB-75P** **12XPB-75P**

## Options (Add suffix to model)

**-TDR** 15-minute retransfer delay (*120VAC only*)

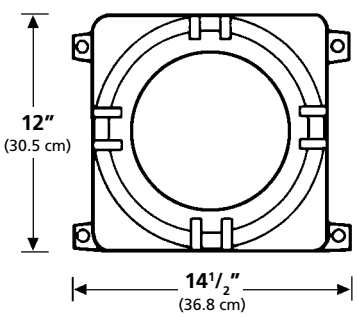

## Product Selector Guide

| Base Catalog Numbers | Electrical | | | | | | |
|---|---|---|---|---|---|---|---|
| | Output Volts | Output Watts 1.5 Hours | 2 Hours | 3 Hours | 4 Hours | Standard Lamp | Remote Capability |
| **XPB-75P** | 6 | 75 | 57 | 42 | 28 | (*) | Yes |
| **12XPB-75P** | 12 | 75 | 57 | 42 | 28 | (*) | Yes |

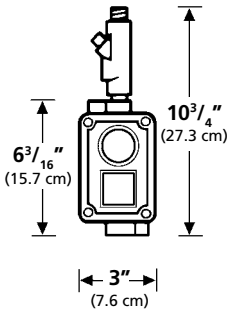
*(*) Unit is supplied without lighting fixtures. Unit must operate at least one lighting fixture (unit mounted or remote) to meet UL Standard 924 requirements. See following page for explosion-proof lighting fixtures and accessories.*

*XPB-75P shown with EX-1CD unit-mounted lighting fixtures*

## Dimensions




**Depth = 8"** (20.3 cm)

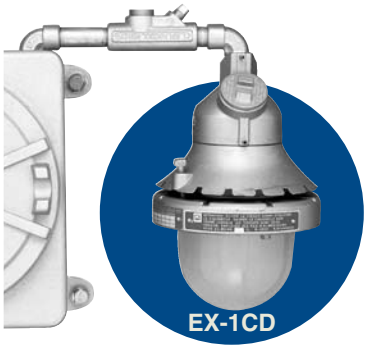



**Depth = 5 9/16"** (14.1 cm)



Liteforms® Collection

# Explosion-Proof Fixtures (1)




## Fixtures for direct mounting to XPB Series Unit

### EX-1CD

All fittings required for unit mounting supplied standard. Up to three fixtures may be connected.

| Catalog Number | Lamp Voltage | Lamp Wattage |
|---|---|---|
| EX-1CD618 | 6 | 18 |
| EX-1CD628 | 6 | 28 |

| Catalog Number | Lamp Voltage | Lamp Wattage |
|---|---|---|
| EX-1CD1218 | 12 | 18 |
| EX-1CD1228 | 12 | 28 |

## Fixtures for remote mounting


### REX1CDP*

Fixture for pendant mounting; one 1/2" hub, rigid or flexible mounting.

| Catalog Number | Lamp Voltage | Lamp Wattage |
|---|---|---|
| REX1CDP618 | 6 | 18 |
| REX1CDP628 | 6 | 28 |

| Catalog Number | Lamp Voltage | Lamp Wattage |
|---|---|---|
| REX1CDP1218 | 12 | 18 |
| REX1CDP1228 | 12 | 28 |


### REX1CDC*

Fixture for ceiling mounting; four 1/2" hubs, three close-up plugs.

| Catalog Number | Lamp Voltage | Lamp Wattage |
|---|---|---|
| REX1CDC618 | 6 | 18 |
| REX1CDC628 | 6 | 28 |

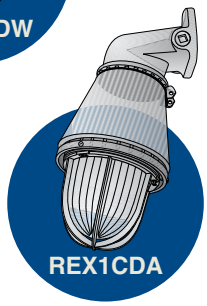
| Catalog Number | Lamp Voltage | Lamp Wattage |
|---|---|---|
| REX1CDC1218 | 12 | 18 |
| REX1CDC1228 | 12 | 28 |


### REX1CDW*

Fixture for wall mounting; four 1/2" hubs, three close-up plugs.

| Catalog Number | Lamp Voltage | Lamp Wattage |
|---|---|---|
| REX1CDW618 | 6 | 18 |
| REX1CDW628 | 6 | 28 |

| Catalog Number | Lamp Voltage | Lamp Wattage |
|---|---|---|
| REX1CDW1218 | 12 | 18 |
| REX1CDW1228 | 12 | 28 |




### REX1CDA*

Fixture for angled (15°) wall mounting; two 1/2" hubs, one close-up plug.

| Catalog Number | Lamp Voltage | Lamp Wattage |
|---|---|---|
| REX1CDA618 | 6 | 18 |
| REX1CDA628 | 6 | 28 |

| Catalog Number | Lamp Voltage | Lamp Wattage |
|---|---|---|
| REX1CDA1218 | 12 | 18 |
| REX1CDA1228 | 12 | 28 |

** Fixtures shown with optional "XWG" globe guards.*

*(1) When connected to XPB emergency units, lighting fixtures will operate in the "normally-off" mode.*

## Fixture Accessories





**XWG** Aluminum (copper-free) globe guard. Protects fixture lens from accidental impact damage. Two-coat, baked epoxy, medium-gray enamel finish.

**EX100CD** Auxiliary housing with "EXIT" legend for "normally off" operation only. Housing constructed of 18-gauge sheet metal; medium-gray enamel finish. Glass face with 6" high, 3/4" stroke red letters on white background. (Lighting fixture not included).

**REX-SDR** Standard dome reflector. Steel, with white porcelain enamel finish.

**REX-AR** Angled (30°) reflector. Steel, with white porcelain enamel finish.

# Lampak®

## UFO-3, 4, 5, 6

An ULTREX Severe Conditions Product Line

Damp

## Fluorescent Power Packs

## Features

- Compatible with electronic, standard magnetic, energy saving, and dimming AC ballasts
- Compatible with most standard T8, T10 or T12, energy-saving or rapid start, (4-pin) long compact fluorescent lamp
- Easy installation with versatile mounting capability inside of ballast channel, on top of or remote from fixture
- Operates one or two lamps in emergency mode
- Can be used with switched or unswitched lighting fixtures
- Battery case made of heavy 22-gauge steel
- Reliable, high-frequency inverter
- Sealed nickel-cadmium battery
- Universal 120/277VAC operation
- Test switch and LED charge indicator light supplied standard
- Provides 90 minutes of emergency lighting
- Low power consumption
- Temperature range: 0°C to 50°C (32°F to 122°F)
- UL 924 Listed (Emergency Lighting)
- UL 924 Damp Location Listed

## Ordering Information

**Standard Models**
**UFO-3AW, UFO-4W, UFO-5W, UFO-5AW, UFO-6W**

**Self-Testing Spectron Model**
**UFO-6WI**

**Extended Temperature Model***
**UFO-6W-CLD**

** Extends temperature range to -20°C to 55°C (-4°F to 131°F)*

## Accessories (Order Separately)

**F-WC** Wire bundle cover (1)
**SPRTS** Remote test switch/charge indicator module (2)

*(1) Encloses exposed wiring harness when power pack is externally mounted on the lighting fixture. One required per fixture.*

*(2) Fits single-gang box.*

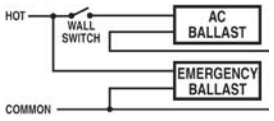
## Product Selector Guide

| Base Catalog Number | Electrical | | | | |
|---|---|---|---|---|---|
| | Output Wattage | Initial Lumens | Number of Lamps Operated | Lamp Sizes | Input Wattage |
| UFO-3AW | 9.6 | 350-450 | 1 | 2′-4′ | 3.5 |
| UFO-4W | 14.4 | 500-600 | 1 | 2′-4′ | 3.5 |
| UFO-5W | 14.4 | 600-700 | 1 | 2′-8′ | 3.5 |
| UFO-5AW | 14.4 | 600-700 | 1 or 2 | 2′-8′ | 3.5 |
| UFO-6W, UFO-6WI | 24.0 | 1100-1400 | 1 or 2 | 2′-8′ | 4.0 |
| UFO-6W-CLD | 24.0 | Up to 1200 | 1 or 2 | 2′-8′ | 4.0 |

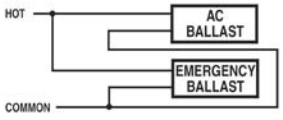
## Installation

Lampak UFO 3, 4, 5 and 6 emergency power packs do not affect normal fixture operation and may be used with either switched or unswitched fixtures. UFO-3, 4, 5 and 6 packs may be installed inside, on top of, or remote from the fixture. The fluorescent pack may be remotely installed up to half the distance from the lamp the AC ballast manufacturer recommends, or up to 50 feet, whichever is less. UFO-3, 4, 5 and 6 packs are not suitable for installation in heated air outlet fixtures and wet or hazardous location fixtures. Installation is not recommended with fixtures where the ambient temperature may fall below 0°C (32°F ).

Switched

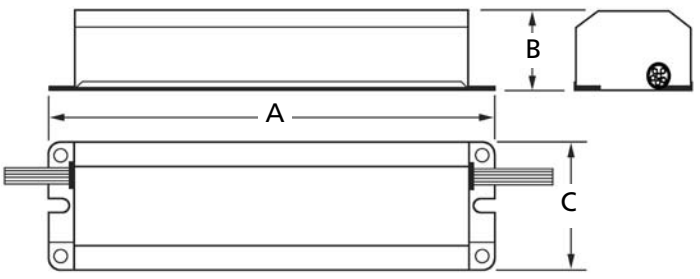



Unswitched




*Primary circuit only. Lamp leads not shown.*

## Dimensions




| Model | A | B | C |
|---|---|---|---|
| UFO-3AW, 4W, 5W, 5AW | 9 3/8″ (23.8 cm) | 1 1/2″ (3.8 cm) | 2 3/8″ (6.0 cm) |
| UFO-6W, -6WI & -6-CLD | 13 3/8″ (33.9 cm) | 1 1/2″ (3.8 cm) | 2 3/8″ (6.0 cm) |



DUAL LITE

Lite forms Collection

# High Lumen Fluorescent Power Packs

Lampak®

UFO-7

## Features

- Standard and Spectron self-testing/ self-diagnostic models offered.
- Compatible with electronic, standard magnetic, energy saving, and dimming AC ballasts
- Compatible with most standard 2 - 8 foot, T8, T9, T10 or T12 and rapid-start (4-pin) long compact fluorescent lamps
- Easy installation on top of or remote from fixture
- Operates one or two lamps depending on fixture
- Can be used with switched or unswitched lighting fixtures
- Battery case made of 22-gauge steel
- Reliable, high-frequency inverter
- Premium sealed nickel-cadmium battery
- Universal 120/277VAC operation
- Test switch and LED charge indicator light supplied standard
- 90 minutes emergency operation
- Low power consumption
- Temperature range: 0°C to 40°C (32°F to 104°F)
- UL 924 Listed (Emergency Lighting)
- UFO-7WI Model UL 924 Damp Location Listed

An ULTREX Severe Conditions Product Line

Damp

* UFO-7W*I* Model Only

## Ordering Information

**UFO-7W** (Standard Model)
**UFO-7WI** (Self-Testing Model)

## Accessories (Order Separately)

| | |
|---|---|
| **F-WC** | Wire bundle cover (1) |
| **SPRTS** | Remote test switch/charge indicator module (2) |

*(1) Encloses exposed wiring harness when power pack is externally mounted on the lighting fixture. One required per fixture.*

*(2) Fits single-gang box.*

## Product Selector Guide

| Base Catalog Number | Electrical | | | | |
|---|---|---|---|---|---|
| | Output Wattage | Initial Lumens | Number of Lamps Operated | Lamp Sizes | Input Wattage |
| **UFO-7W** | 57.6 | 1450-3500 | 1 or 2 | 2'-8' | 8.0 |
| **UFO-7WI** | 57.6 | 1800-3500 | 1 or 2 | 2'-8' | 8.0 |

**Table 1 (Models UFO-7W, UFO-7WI)***

| Lamp Diameter | Base Type | Power (Length) | No. of Lamps Operated (Emerg.) |
|---|---|---|---|
| (1", 1 1/8", 1 1/4", 1 1/2") T8, T9, T10, T12 | Single or Bipin | 17 - 40W (2' to 4') | 1 or 2 |
| | | 40 - 215W (5' to 8') | 1 |
| Long Compact | 4-Pin (2G11) | 18 - 39W | 1 or 2 |
| | | 40 - 55W | 1 |
| Compact | 4-Pin (G24q, GX24q) | 18 - 42W | 1 or 2 |

** Partial listing of lamps operated*

**Table 2***

| Lamp Type | Lumens | |
|---|---|---|
| | 1 Lamp | 2 Lamps |
| FO25, FBO24 T8 | 2250 | 2600 |
| FO32, FBO31 T8 | 3000 | 3000 |
| FO40 T8 | 2400 | -- |
| FO96 T8 | 3000 | -- |
| F40 T12, F40/U | 3000 | 3000 |
| F40 T12ES (34W) | 2700 | 2700 |
| F48 T12/HO | 3000 | -- |
| F96 T12 | 2800 | -- |
| F96 T12/HO | 2900 | -- |
| F96 T12/VHO | 3300 | -- |

**Table 2* (Continued)**

| Lamp Type | Lumens | |
|---|---|---|
| | 1 Lamp | 2 Lamps |
| PL-L 24W, F27/24BX Dulux L 27W | 1800 | 2300 |
| PL-L 36W, F39/36BX Dulux L 39W | 2900 | 3500 |
| PL-T 42W/4P | 3200 | 3500 |
| PL-L 40W, F40/30BX F50BX, Dulux L 55W | 1800 | -- |
| F28 2D/4P | 2050 | 2800 |
| F38 2D/4P | 1450 | 2800 |

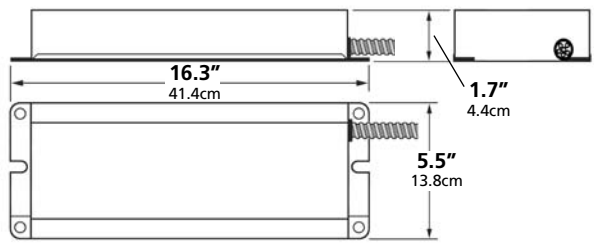
** Partial listing of lamps operated.*
Initial lumen output measured at 25°C ambient temperature.

## Installation

LAMPAK UFO-7W Series emergency power packs do not affect normal fixture operation and may be used with either switched or unswitched fixtures. UFO-7W Series models may be installed on top of, or remote from the fixture. The emergency ballast may be remotely installed up to half the distance from the lamp the AC ballast manufacturer recommends, or up to 50 feet, whichever is less.

UFO-7W Series emergency power packs are not suitable for installation in heated air outlet fixtures and wet or hazardous location fixtures. Installation is not recommended with fixtures where the ambient temperature may fall below 0°C (32°F ).

## Dimensions



# Lampak®

## UFO-12

An ULTREX Severe Conditions Product Line

Damp

## Compact Fluorescent Power Packs

## Features

- Compatible with electronic, standard magnetic, energy saving, and dimming AC ballasts
- Compatible with most 13W to 42W rapid start, 4-pin compact twin, quad or triple twin tube fluorescent lamps
- Easy installation on top of or remote from fixture
- Operates one or two lamps in emergency mode
- Can be used with switched or unswitched lighting fixtures
- Battery case made of heavy 22-gauge steel
- Reliable, high-frequency inverter
- Premium sealed nickel-cadmium battery
- Universal 120/277VAC operation
- Test switch and LED charge indicator light supplied standard
- 90 minute operation
- Low power consumption
- Temperature range: 0°C to 50°C (32°F to 122°F)
- UL 924 Listed (Emergency Lighting)
- UL 924 Damp Location Listed

## Ordering Information

**UFO-12W**
**UFO-12W-CLD (Extended Temperature)***

** Extends temperature range to -20°C to 55°C (-4°F to 131°F)*

## Accessories (Order Separately)

**F-WC** Wire bundle cover (1)
**SPRTS** Remote test switch/charge indicator module (2)

*(1) Encloses exposed wiring harness when power pack is externally mounted on the lighting fixture. One required per fixture.*

*(2) Fits single-gang box.*

## Product Selector Guide

| Base Catalog Number | Electrical | | | | | |
|---|---|---|---|---|---|---|
| | Ballast Compat. | Initial Lumens | Number of Lamps Operated | Lamp Type | Base Types | Input Wattage |
| **UFO-12W** | Magnetic, Electronic, Energy Saving & Dimming | See Table 1 | See Table 1 | 13W through 42W quad and triple tube lamps without integral starters (4-pin lamps) | G24q-2, G24q-3 GX24q-3, GX24q-2 | 3.5 |
| **UFO-12W-CLD** | Magnetic, Electronic, Energy Saving & Dimming | See Table 1 | See Table 1 | 13W to 42W or 18W to 39W 4-pin twin, quad or triple twin tube compact fluorescent lamps | G24q-2, G24q-3 GX24q-3, GX24q-2 | 3.5 |

**Table 1***

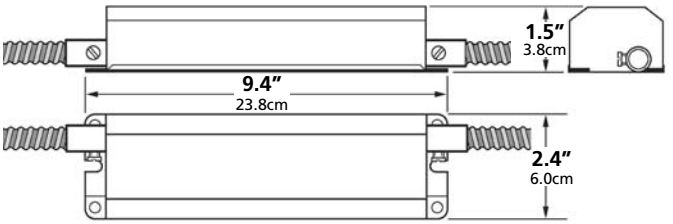
| Lamp | Lumens | | |
|---|---|---|---|
| | UFO-12W | | UFO-12W-CLD |
| Type (4-Pin) | 1 Lamp | 2 Lamps | 1 Lamp |
| PL-T 42W/4P, Dulux T/E 42W | 750 | -- | 1250 |
| PL-T 32W/4P, Dulux T/E 32W | 575 | 750 | 1250 |
| PL-T 26W/4P, Dulux T/E 26W, F26TBX/4P | 450 | 725 | 700 |
| PL-T 18W/4P, Dulux T/E 18W, F18TBX/4P | 300 | 525 | 900 |
| PL-C 26W/4P, Dulux D/E 26W, F26DBX/4P | 600 | 700 | 700 |
| PL-C 18W/4P, Dulux D/E 18W, F18DBX/4P | 475 | 575 | 900 |
| PL-C 13W/4P, Dulux D/E 13W, F13DBX/4P | 350 | 425 | -- |
| PL-L 40W, Dulux L 40W, F40/30 BX/4P | 650 | -- | -- |
| PL-L 36W, Dulux L 39W, F39/36 BX/4P | 575 | 750 | 1250 |
| PL-L 24W, Dulux L 27W, F27/24 BX/4P | 475 | 550 | 800 |
| PL-L 18W, Dulux L 18W, F18 BX | 300 | 400 | 775 |
| F3 82D/4P | 525 | 650 | -- |
| FO25, FBO24 T8 | 525 | 700 | -- |
| FQL 28 | 600 | 700 | -- |
| FO17, FBO16 T8 | 425 | 500 | -- |

** Partial listing of lamps operated*
Initial lumen output measured at 25°C ambient temperature.

## Application

The Lampak Series UFO-12W emergency ballasts works in conjunction with a fluorescent fixture's normal AC ballast to convert new or existing fluorescent fixtures for emergency lighting operation. The emergency ballast consists of a high-temperature nickel-cadmium battery, charger and electronic circuitry in a compact metal case. The UFO-12W can be used with one or two 13W to 28W tubular fluorescent lamp without integral starters, or one 13W to 42W or two 13W to 32W 4-pin twin, quad or triple twin tube compact fluorescent lamps. It is also compatible with most 1, 2, 3, and 4-lamp electronic, standard magnetic, energy saving, and dimming AC ballasts. The UFO-12W-CLD can be used with one 13W to 42W quad or triple twin tube compact fluorescent lamps. If these ballasts are used in an emergency-only fixture, no AC ballast is necessary. For information about specific lamps and ballast compatibility, please contact the factory.

## Dimensions



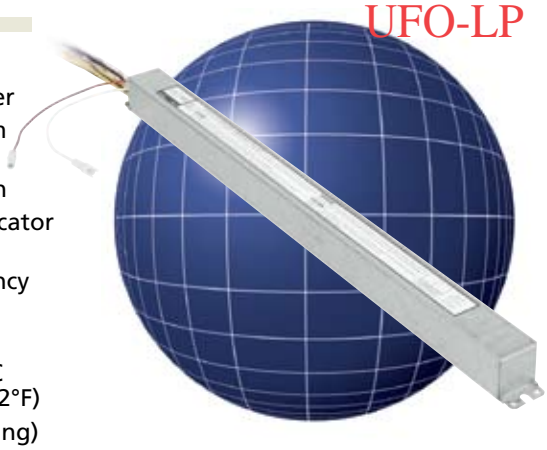
# Low-Profile Fluorescent Power Packs

# Lampak®

UFO-LP

## Features

- Low profile design
- Compatible with electronic (including those containing end-of-life shutdown circuits), standard magnetic, energy saving, and dimming AC ballasts
- Compatible with most standard and HO T5 miniature bipin, T8 bipin and rapid-start (4-pin) long compact lamps
- Easy ballast channel installation
- Operates one lamp
- Can be used with switched or unswitched lighting fixtures
- Compact battery case
- Reliable, high-frequency inverter
- Premium sealed nickel-cadmium battery
- Universal 120/277VAC operation
- Test switch and LED charge indicator light supplied standard
- Provides 90 minutes of emergency lighting
- Low power consumption
- Temperature range: 0°C to 50°C (32°F to 122°F)
- UL 924 Listed (Emergency Lighting)



## Ordering Information

**UFO-LP1** (Standard Output Model)
**UFO-LP2** (High Output Model)

## Accessories (Order Separately)

**SPRTS** Remote test switch/charge indicator module (1)

*(1) Fits single-gang box.*

## Product Selector Guide

| Base Catalog Number | Electrical | | | |
|---|---|---|---|---|
| | Lumen Output | Number of Lamps Operated | Lamp Types | Input Wattage |
| **UFO-LP1** | See Table 1 | 1 | T5 HO, T5, T8 HO, T8, 4-pin Compact | 3.2 |
| **UFO-LP2** | See table 2 | 1 | T5 HO, T5, T8 HO, T8, 4-pin Compact | 3.0 |

**Table 1** (UFO-LP1)*

| Lamp Type | Lumens |
|---|---|
| FP54, F54 T5/HO | 700 |
| FP39, F39 T5/HO | 620 |
| FP24, F24 T5/HO | 390 |
| FP28, F28 T5 | 700 |
| FP21, F21 T5 | 620 |
| FP14, F14 T5 | 430 |
| F32 T8 (4') | 635 |
| F40 T8 (5') | 570 |
| F48 T8/HO (4') (44W) | 470 |
| PL-L 50W, F50BX/RS, Dulux L 55W | 510 |
| PL-L 40W, F40/30BX, Dulux L 55W | 625 |
| PL-L 36W, F39/36BX, Dulux L 55W | 610 |

** Partial listing of lamps operated.*
Initial lumen output measured at 25°C ambient temperature.

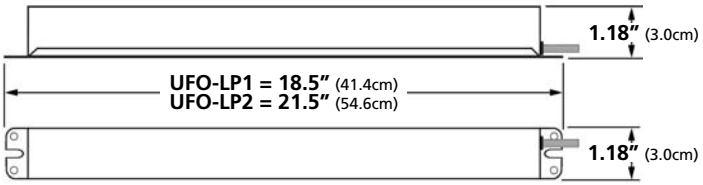
**Table 2** (UFO-LP2)*

| Lamp Type | Lumens |
|---|---|
| FP54, F54 T5/HO | 1250 |
| FP39, F39 T5/HO | 1125 |
| FP24, F24 T5/HO | 725 |
| FP28, F28 T5 | 1325 |
| FP21, F21 T5 | 1025 |
| FP14, F14 T5 | 750 |
| F17 T8 | 650 |
| F25 T8 | 750 |
| F32 T8 (4') | 1100 |
| F40 T8 (5') | 1325 |
| F48 T8/HO (4') (44W) | 1100 |
| F60 T8/HO (5') (55W) | 1275 |
| PL-L 50W, F50BX/RS, FT55DL | 1050 |
| PL-L 40W/RS, F40/30BX, FT40DL/RS | 925 |
| PL-L 36W, F39/36BX, FT36DL | 900 |

## Application

Dual-Lite Lampak UFO-LP Series low-profile fluorescent emergency ballasts work in conjunction with a low-profile or standard-size electronic AC ballast containing an end-of-life shut down circuit to convert new or existing standard or high output T5 fluorescent fixtures into unobtrusive emergency lighting. Model UFO-LP1 can be used with one 14 - 28W standard or 24 - 54W high output T5; one 32W (4'), 40W (5') and 44W H0 (4') T8 fluorescent lamp; or one 36 - 55W (4-pin) long compact fluorescent lamp (see Table 1). Model UFO-LP2 can be used with one 14 - 54W (2' - 4') standard or high output T5, 17 -55W (2' - 5') standard or high output T8, 36 - 55W (4-pin) long compact fluorescent lamp (see Table 2). UFO-LP Series models are also compatible with most 1, 2, 3, and 4-lamp electronic (including those containing end-of-life shutdown circuits), standard, energy saving, and dimming AC ballasts. If used in an emergency-only fixture, no AC ballast is necessary. UFO-LP Series models are suitable for use in indoor-dry locations except air handling heated air outlet fixtures, and wet, damp, or hazardous location fixtures. For information about specific lamp and ballast compatibility, please contact the factory.

## Dimensions



# Lampak®

## UFO-MH

An ULTREX Severe Conditions Product Line

Damp

## HID Backup Ballast

### Features

- Catches and maintains the arc of metal halide HID lamps
- Provides two minutes of continuous arc maintenance
- Maintains lamp at 20-30% normal operating power
- Multiple catches from one recharging
- Works with standard constant wattage autotransformer (CWA) magnetic ballasts
- Compatible with most standard 150 to 400 watt probe-start metal halide M57, M58 and M59 HID lamps
- Easy remote installation
- Battery case made of heavy 22-gauge steel
- Reliable, high-frequency inverter
- Premium sealed nickel-cadmium battery
- Universal 120/277VAC operation
- LED charge indicator light
- Low power consumption
- Temperature range: 0°C to 55°C (32°F to 131°F)
- UL 924 Listed (Auxiliary Lighting)
- UL Damp Location Listed

### Ordering Information

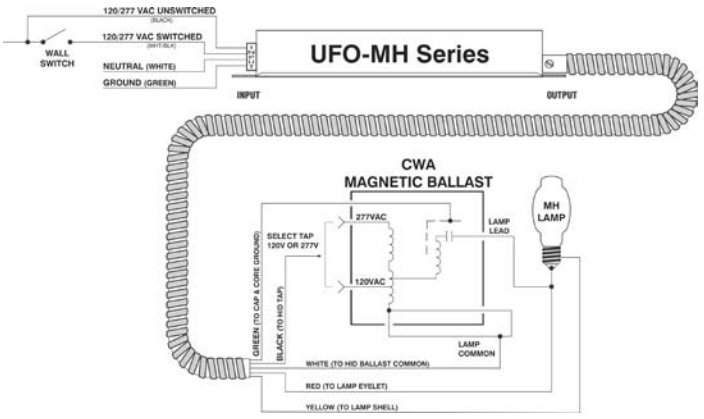
**UFO-MH175**
**UFO-MH250**
**UFO-MH400**

### Product Selector Guide

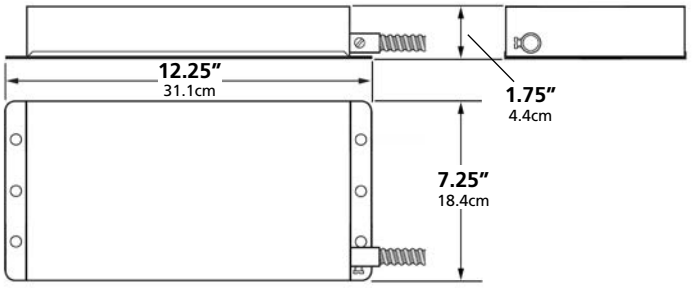
| Base Catalog Number | Electrical | | | |
|---|---|---|---|---|
| | Maximum Distance From Lamp | Arc Maintenance Period | Lamp Types Operated | Input Wattage |
| **UFO-MH175** | 30 Feet | 2 Minutes | 175W or 150W energy saving MH (M57) | 6W @ 120VAC<br>10W @ 277VAC |
| **UFO-MH250** | 50 Feet | 2 Minutes | 250W or 225W energy saving MH (M58) | |
| **UFO-MH400** | 80 Feet | 2 Minutes | 400W or 360W energy saving MH (M59) | |

### Application

The Dual-Lite Lampak UFO-MH Series devices are battery-operated backup ballasts that catch and maintain the arc of one metal halide HID lamp during AC power sags, interruptions or failures. The UFO-MH Series device works in conjunction with standard constant wattage autotransformer (CWA) magnetic ballasts. The UFO-MH device detects AC power line disturbances and operates the HID lamp with sufficient power to keep the lamp arc from extinguishing during power line disturbances. The lamp arc, in a typical HID lamp, will extinguish if an AC power failure persists for more than four milliseconds. The UFO-MH unit detects AC power line disturbances, then supplies supplemental power to the lamp within approximately two milliseconds, thereby maintaining the lamp arc. The UFO-MH Series is suitable for damp location use. It is also for use with listed indoor fixtures EXCEPT air handling heated air outlets and wet or hazardous location fixtures. The UFO-MH Series may be used with an auxiliary generator or inverter power system and the unit's two-minute time limit allows more than ample time for an auxiliary generator to pick up and support the metal halide lamp for emergency lighting purposes.




### Dimensions






DUAL LITE

Liteforms® Collection

# Designer LED Exit Sign

LX

## Features

**All Models**

- UV-stable thermoplastic housing
- Compact, low-profile design
- Easy to install
- Long-life LED lamps
- Bright, even illumination
- Red and green letters
- Universal single/double face
- White and black models offered
- Push-in wiring connectors
- Universal end/ceiling/wall mount
- Universal snap-in, chevron arrows
- Damp location listed
- 120/277VAC, 60 Hz operation

**Emergency Models**

- Solid-state charger with low voltage disconnect
- Maintenance-free NiCad battery
- 2 hour emergency operation
- Test switch and AC-On light
- Available with **Spectron**® self-testing/self-diagnostic electronics
- Temperature range: 10°C to 40°C (50°F to 104°F)
- UL 924 Listed


An ULTREX *Severe Conditions Product Line*

Damp

## Ordering Information

**LX U R W E -FAP**

- **Series**
- **Faces**
  - **U** - Universal Single/Double Face
- **Letter Color**
  - **R** - Red
  - **G** - Green
- **Housing Finish**
  - **W** - White
  - **B** - Black
- **Operation**
  - **Blank** - AC Only
  - **E** - Emergency
- **Options**


*Also available in black finish*

## Options (Add suffix to model)

| | |
|---|---|
| **I** | Spectron self-testing/self-diagnostic electronics (1) |
| **-2C** | 2-circuit operation (2)(5) |
| **-FAP** | Fire alarm panel interface (3)(5)(6) |
| **-FM** | Flasher module (1)(6) |
| **-AF** | Audible/Flasher module (1)(6) |
| **-DC** | Remote DC operation (2)(4)(5) |
| **-24K** | 220-240VAC, 60 Hz. operation |
| **-SA** | "SALIDA" stencil face |

*(1) For use with emergency models only.*
*(2) For use with AC models only.*
*(3) Operates with 24-volt AC or DC fire alarm panels.*
*(4) For emergency illumination of sign from remote 6-24 VDC power sources.*
*(5) -DC option may not be specified with -2C or -FAP options.*
*(6) -AF, -FM and -FAP options may not be specified together.*

## Accessories (Order Separately)

| | |
|---|---|
| **FX2-E** | Emergency operation conversion module (red) |
| **FX-E** | Emergency operation conversion module (green) |
| **PMLXW** | 12 1/2" Pendant mounting kit (white) |
| **PMLXB** | 12 1/2" Pendant mounting kit (black) |
| **WGLX** | Wire guard (Wall mount) |
| **WG-MLT** | Wire guard (Wall mount) |
| **WGLXC** | Wire guard (Ceiling mount) |
| **WGLXE** | Wire guard (End mount) |
| **VRS3** | Vandal resistant shield |

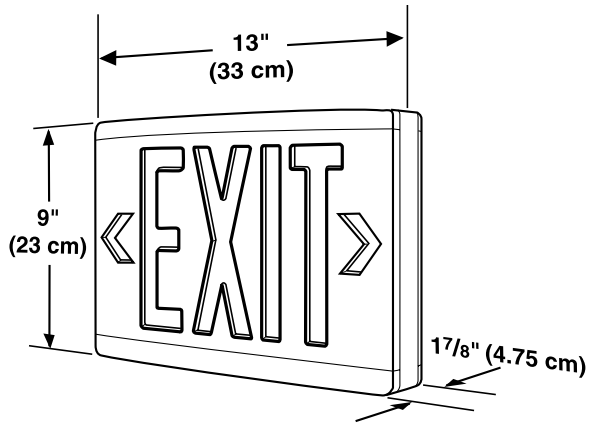
## Power Consumption*

| | 120VAC | 277VAC |
|---|---|---|
| Red AC Only Models | 2.6 watts | 2.6 watts |
| Green AC Only Models | 2.1 watts | 2.1 watts |
| Red Emergency Models | 3.8 watts | 3.8 watts |
| Green Emergency Models | 3.5 watts | 3.5 watts |

*Power factor, average: .8 (lagging)*

** Wattage figures include LED lamps, transformer and electronics power requirements.*

## Dimensions



# LT

## Thermoplastic Tandem Unit


An ULTREX Severe Conditions Product Line

Damp

## Features

- Factory assembled emergency unit/LED exit sign
- UV-stable thermoplastic housing
- Eyeball style lighting heads
- High-output halogen lamps
- White or black finishes offered
- Remote capacity and damp location listed models available
- 120/277VAC, 60 Hz operation
- Solid-state charger
- Maintenance-free battery
- Low-voltage disconnect
- Test switch and AC-On light
- Available with **Spectron**® self-testing/self-diagnostic electronics with time-delay retransfer (TDR) standard
- Long-life LED lamps
- Bright, even illumination
- Universal single/double face
- Red and green letter models
- Snap-in, chevron arrows
- Ceiling or wall mount models standard. Optional side mounting requires accessory kit
- Temperature range: 20°C to 30°C (68°F to 86°F) (Damp location models: 10°C to 40°C (50°F to 104°F)
- UL 924 Listed

## Ordering Information

**LT U R B D -AF**

**Series**

**Faces**
**U** - Universal Single/Double Face

**Letter Color**
**R** - Red
**G** - Green

**Housing Finish**
**W** - White
**B** - Black

**Application**
**Blank** - Standard model
**3** - Remote capacity model
**D** - Damp location model

**Options***


*Also available in black finish*

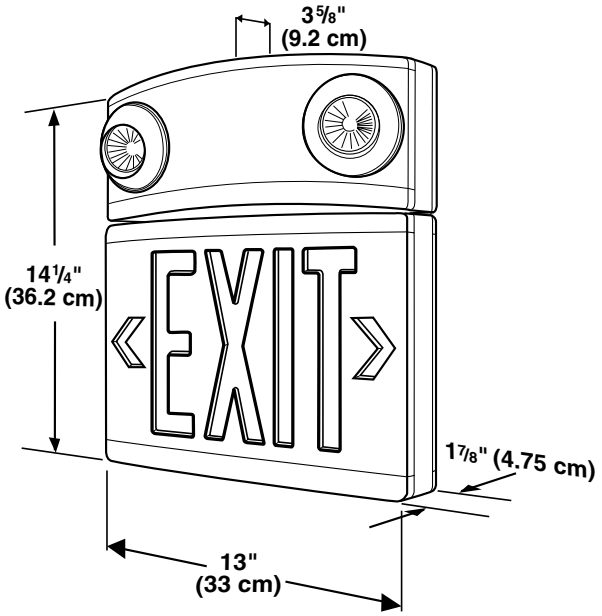
## Power Consumption*

| | 120VAC | 277VAC |
|---|---|---|
| **Red Emergency Models** | 5.0 watts | 5.0 watts |
| **Green Emergency Models** | 5.0 watts | 5.0 watts |

*Power factor, average: .8 (lagging)*

** Wattage figures include LED lamps, transformer and electronics power requirements.*

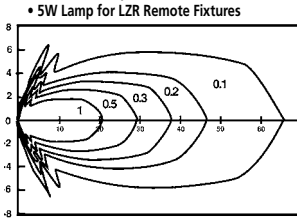
## Dimensions



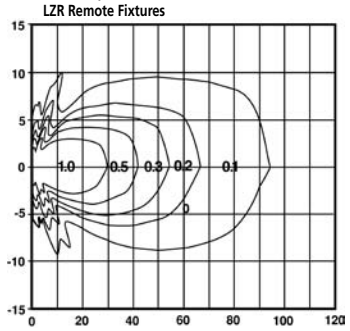

## Photometrics

High-Output Halogen Lamp
Horizontal Isofootcandle Distribution

5W MR-16 Lamp
• Standard Lamp for LT unit
• 5W Lamp for LZR Remote Fixtures




10W MR-16 Lamp
• 10W Lamp for LZR Remote Fixtures






DUAL LITE

Lite forms Collection

## Product Selector Guide

| Standard Models | Remote Capacity Models[1] | Damp Location Models | Colors | | | Description |
|---|---|---|---|---|---|---|
| | | | Exit Letters | Housing | Stencil Face(s) | |
| LTURW | LTURW3 | LTURWD | Red | White | White | Single/double face tandem unit |
| LTURB | LTURB3 | LTURBD | Red | Black | Black | Single/double face tandem unit |
| LTUGW | LTUGW3 | LTUGWD | Green | White | White | Single/double face tandem unit |
| LTUGB | LTUGB3 | LTUGBD | Green | Black | Black | Single/double face tandem unit |

*(1) Operates the integral unit heads plus one additional 5 watt lighting fixture or exit sign.*

## Options (Add suffix to model)

| | |
|---|---|
| **I** | Spectron self-testing/self-diagnostic electronics [4] |
| **-0** | Unit supplied without lighting heads [3] |
| **-FAP** | Fire alarm panel interface [1][2] |
| **-FM** | Flasher module [2] |
| **-AF** | Audible/Flasher module [2] |
| **-24K** | 220-240VAC, 60 Hz operation |
| **-SA** | "SALIDA" stencil face |

*(1) Operates with 24-volt AC or DC fire alarm panels.*
*(2) -FAP, -FM, or -AF options may not be specified together.*
*(3) Available with remote capacity (LTXXX3) models only.*
*(4) Only available with remote capacity and damp location models.*

## Accessories (Order Separately)

| | |
|---|---|
| **FTSMKW** | Side mount field kit (white) [a] |
| **FTSMKB** | Side mount field kit (black) [a] |
| **PMLZTW** | 12½" Pendant mounting kit (white) |
| **PMLZTB** | 12½" Pendant mounting kit (black) |
| **WGTW** | Wire guard (Wall mount) |
| **WGTCE** | Wire guard (Ceiling or end mount) |
| **OCRSW**0605 | Outdoor remote lighting head - 6 Volt, 5 Watt MR16 lamp - White |
| **OCRSB**0605 | Outdoor remote lighting head - 6 Volt, 5 Watt MR16 lamp - Black |
| **OMSSW**0605 | Outdoor remote lighting head - 6 Volt, 5 Watt sealed-beam type lamp - White |
| **OMSSB**0605 | Outdoor remote lighting head - 6 Volt, 5 Watt sealed-beam type lamp - Black |

*(a) FTSMKW and FTSMKB field kits are required for side mounting on all models. Accommodates left side mounting only.*

*OCR Series outdoor lighting heads*

*OMS Series outdoor lighting heads*

### Matching Remote Fixtures

A complete line of 6- and 12-volt matching remote fixtures in single and tandem lamp configurations is available for use with LZ Series high-capacity units or any other 6- or 12-volt DC emergency lighting remote power sources.
All remote fixtures are offered in black and white textured finishes with a choice of 5- or 10-watt halogen lamps.

| White Single | Black Single | Volts | Watts |
|---|---|---|---|
| LZRSW0605 | LZRSB0605 | 6 | 5 |
| LZRSW0610 | LZRSB0610 | 6 | 10 |
| LZRSW1205 | LZRSB1205 | 12 | 5 |
| LZRSW1210 | LZRSB1210 | 12 | 10 |

# DK

## Incandescent Exit Sign


## Features

- High impact thermoplastic housing with steel faceplate
- Universal directional chevron arrow knockouts
- Tamper resistant screws supplied
- AC illumination provided by two 145V, 15T6 incandescent lamps
- May be wall, ceiling or end mounted
- Universal single/double face
- White finish
- Red letter models
- 120V standard
- Suitable for damp locations
- Temperature range: 20°C to 30°C (68°F to 86°F)
- UL 924 Listed

## Ordering Information

**DK U R W E**

**Series**

**Faces**
**U** - Universal Single/Double Face

**Letter Color**
**R** - Red

**Housing Finish**
**W** - White

**Operation**
**Blank** - AC
**E** - Emergency


*Emergency model with power pack*

## Power Consumption*

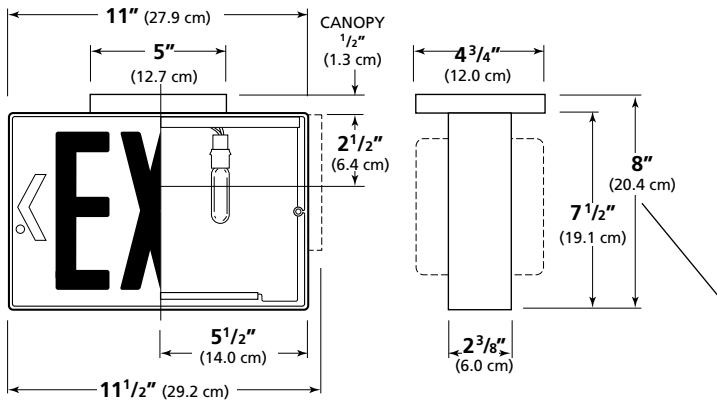
| | 120VAC | 277VAC |
|---|---|---|
| All Models | 24 watts | 24 watts |

** Wattage figures include incandescent lamps, transformer and electronics power requirements.*

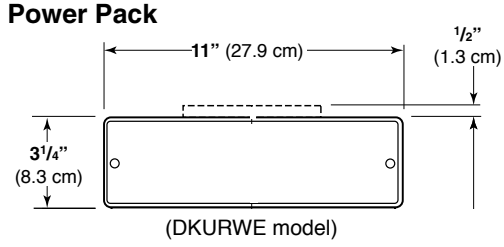
## Accessories (Order Separately)

| | |
|---|---|
| **PMEXW** | 12" pendant stem and canopy kit – white |
| **WG-MLT** | Wire guard (wall mount) |
| **WGLXC** | Wire guard (ceiling or end mount) |
| **VRS3** | Vandal resistant shield |

## Dimensions




**Power Pack**



# New York City Tandem Unit

NYXC

## Features

- Designed to meet New York City specifications
- Heavy 20 gauge metal enclosure with white or black finish
- Exit plaques secured by channels
- Single face eight inch high letters
- Knockout directional chevron arrows
- Available with two or three fully adjustable and lockable 7.2 watt thermoplastic lighting heads
- High output LED lamps
- Universal 120/277VAC operation
- Wall mounting
- Completely self-contained
- 90-Minute emergency operation
- Environmentally coated, fully automatic solid state charger
- Automatic low voltage battery disconnect
- Charge rate indicator and test switch
- Maintenance free battery
- Temperature range: 0°C to 40°C (32°F to 104°F)
- Listed to UL 924


## Ordering Information

**NYXC S R B E 2 -TR**

- **NYXC** — Series
- **S** — Faces: **S** - Single, **D** - Double
- **R** — Letter Color: **R** - Red
- **B** — Housing Finish: **W** - White, **B** - Black
- **E** — Operation: **E** - Emergency
- **2** — Number of Lighting Heads: **2** - Two, **3** - Three
- **-TR** — Options


## Options (Add suffix to model)

**-0612** 12 watt lamps (1)

**-TR** Tamper resistant option (2)

*(1) 12 watt high-output lamps available on two-headed models only.*
*(2) Provides two stainless steel tamper resistant locking screws.*

## Accessories (Order Separately)

**40G** Wire guard (wall mount)

## Power Consumption*

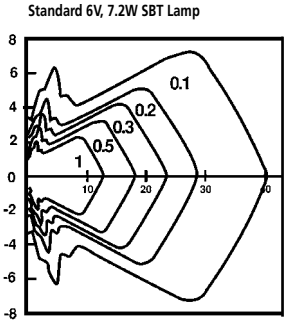
| | 120VAC | 277VAC |
|---|---|---|
| **All Models** | 7.0W | 7.2W |

* *Wattage figures include LED lamps, transformers and electronics power requirements.*

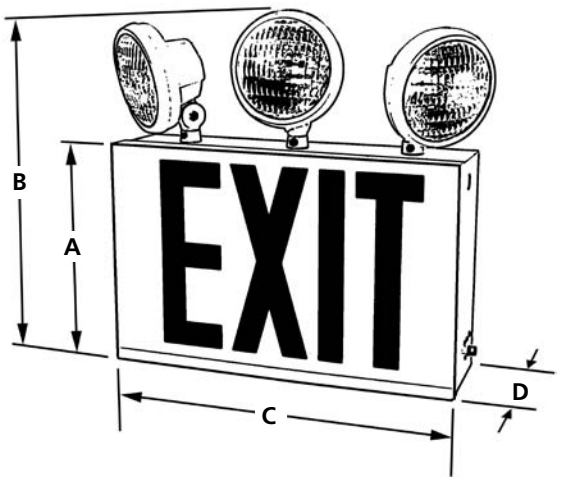
## Photometrics

Horizontal Isofootcandle Distribution

Standard 6V, 7.2W SBT Lamp




## Dimensions




| A | B | C | D |
|---|---|---|---|
| 9 5/8" | 15 1/2" | 15" | 4 1/4" |
| *24.4 cm* | *39.4 cm* | *38.1 cm* | *10.8 cm* |

# Sempra®

## DIECAST LED EXIT SIGN


LIFETIME WARRANTY ON ALL SPECTRON MODELS

## FEATURES

**All Models**

- High-strength cast aluminum
- Low-profile architectural styling
- 5-minute installation
- Long-life LED lamps
- Bright, even illumination
- Red and green letters
- Single and double face models
- White, black and black or white with brushed face finishes
- Push-in wiring connectors
- Universal end/ceiling/wall mount
- Break-out, chevron arrows and mounting KOs
- 120/277VAC, 60 Hz operation

**Emergency Models**

- Solid-state charger with low voltage disconnect
- Maintenance-free NiCad battery
- 2-hour emergency operation
- Test switch and AC-On indicator
- Available with **Spectron®** self-testing/self-diagnostic electronics
- Lifetime warranty on LED strip, electronics and battery with **Spectron®** self-testing/self-diagnostic models
- Temperature range: 20°C to 30°C (68°F to 86°F)
- UL 924 Listed

## SPECIAL WORDING DIFFUSERS



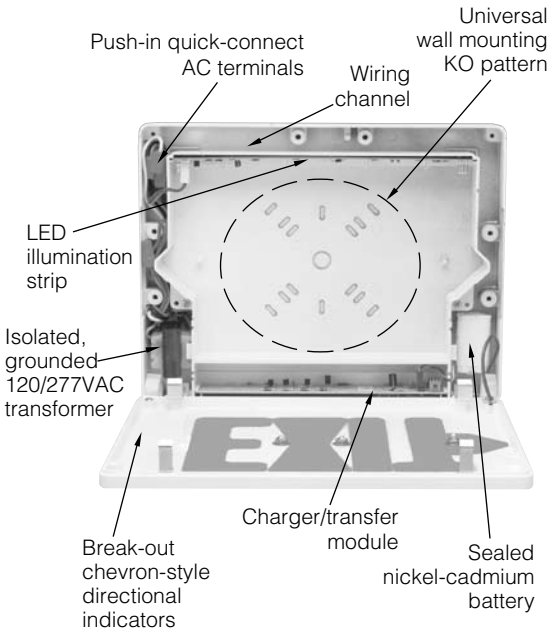
**Special Wording Open Face Diffuser Table***

| Option No. | Description | Option No. | Description |
|---|---|---|---|
| -SW1 | TO EXIT | -SW12 | AREA OF RESCUE ASSISTANCE |
| -SW2 | NOT AN EXIT | -SW13 | AREA OF RESCUE ASSISTANCE (w/wheelchair symbol) |
| -SW3 | IN USE | | |
| -SW4 | XRAY IN USE | -SW14 | ELEVATOR |
| -SW5 | DARKROOM IN USE | -SW15 | RESTROOMS |
| -SW6 | CAUTION | -SW16 | MEN |
| -SW7 | DO NOT ENTER | -SW17 | MEN (w/symbol) |
| -SW8 | TEST IN PROGRESS | -SW18 | WOMEN |
| -SW9 | ON AIR | -SW19 | WOMEN (w/symbol) |
| -SW10 | AREA OF REFUGE | *Other special wording diffusers available, consult factory.* | |
| -SW11 | AREA OF REFUGE (w/wheelchair symbol) | | |

* *To order special wording diffusers, add Option Number suffix to model number. Ex: SEDRWE-SW(10)*

## Lifetime Warranty

Sempra cast-aluminum emergency exit signs with the Spectron self-testing/self-diagnostic electronics system are guaranteed by Dual-Lite under normal and proper use, against defects in material and workmanship for the life of the product. The warranty covers all electronics, LED light strip and unit battery.




## POWER CONSUMPTION*

| | 120VAC | 277VAC |
|---|---|---|
| **Red AC Only Models:** | 2.6 watts | 2.6 watts |
| **Green AC Only Models:** | 2.1 watts | 2.1 watts |
| **Red Emergency Models:** | 3.8 watts | 3.8 watts |
| **Green Emergency Models:** | 3.5 watts | 3.5 watts |

**Wattage figures include LED lamps, transformer and electronics power requirements. LED lamp assemblies (red or green) consume less than 1 watt. Power factor, average: .8 (lagging)*

## Ordering Information

**SE** — **Series**

**S** — **Faces**
- **S** - Single
- **D** - Double

**R** — **Letter Color**
- **R** - Red
- **G** - Green

**W** — **Housing Finish**
- **W** - White
- **B** - Black
- **BN** - Black with Brushed Face
- **WN** - White with Brushed Face

**E** — **Operation**
- **Blank** - AC Only
- **E** - Emergency

**-FAP** — **Options**
See "Options" section

## Options (Add suffix to model)

| | |
|---|---|
| **I** | Spectron self-testing/self-diagnostic electronics (1) |
| **-2C** | 2-circuit operation (2)(5) |
| **-FAP** | Fire alarm panel interface (3)(5)(6) |
| **-FM** | Flasher module (1)(6) |
| **-AF** | Audible/Flasher module (1)(6) |
| **-DC** | Remote DC operation (2)(4)(5) |
| **-24K** | 220-240VAC, 60 Hz. operation |

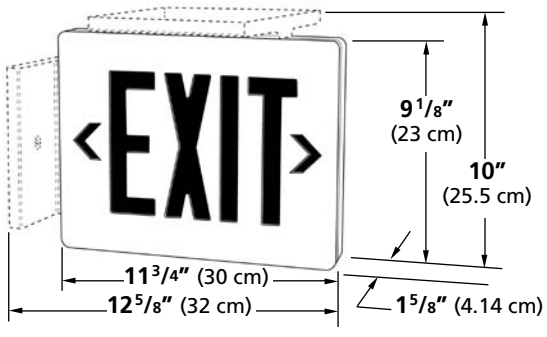
*(1) For use with emergency models only.*
*(2) For use with AC models only.*
*(3) Operates with 24-volt AC or DC fire alarm panels.*
*(4) For emergency illumination of sign from remote 6-24 VDC power sources.*
*(5) -DC option may not be specified with -2C or -FAP options.*
*(6) -AF, -FM and -FAP options may not be specified together.*

## Accessories (Order Separately)

| | |
|---|---|
| **SER-E** | Emergency operation module (red models) * |
| **SEG-E** | Emergency operation module (green models) * |
| **PMCW** | 12½" Pendant mounting kit (white) |
| **PMCB** | 12½" Pendant mounting kit (black) |
| **WGLX** | Wire guard (Wall mount) |
| **WG-MLT** | Wire guard (Wall mount) |
| **WGLXC** | Wire guard (Ceiling mount) |
| **WGLXE** | Wire guard (End mount) |

* *For factory-equipped emergency models, see Product Selectors above.*

## Dimensions




# Sempra® MR

## Master/Remote Cast Aluminum LED Exit Sign


LIFETIME WARRANTY ON ALL SPECTRON MODELS

## Features

**All Models**

- High-strength, low-profile cast aluminum housing
- Supplied as 2-sign, Master/Remote sets
- 5-minute installation
- Long-life LED lamps
- Bright, even illumination
- Red or green letters
- Single and double face models
- White, black and black or white with brushed face finishes
- Push-in wiring connectors
- Universal end/ceiling/wall mount
- Break-out, chevron arrows
- 120/277VAC, 60 Hz operation

**Master Signs**

- Solid-state charger with low voltage disconnect
- Maintenance-free NiCad battery
- 90 minute emergency operation
- Test switch and AC-On indicator
- Available with **Spectron®** self-testing/self-diagnostic electronics
- Lifetime warranty on LED strip, electronics and battery with **Spectron®** self-testing/self-diagnostic models
- Temperature range: 20°C to 30°C (68°F to 86°F)
- UL 924 Listed

**Remote Signs**

- Surface mounts to standard electrical boxes
- Connects to Master sign using conventional wiring methods

## Ordering Information

**SEMR S R W E -FAP**

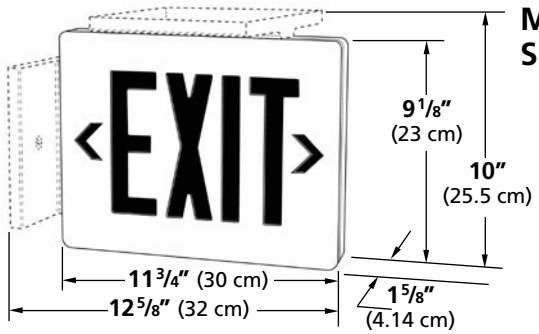
- **Series**
- **Faces**
  - **S** - Single
  - **D** - Double
- **Letter Color**
  - **R** - Red
  - **G** - Green
- **Housing Finish**
  - **W** - White
  - **B** - Black
  - **WN** - White with brushed face
  - **BN** - Black with brushed face
- **Operation**
  - **Blank** - AC Only
  - **E** - Emergency
- **Options***

## Lifetime Warranty

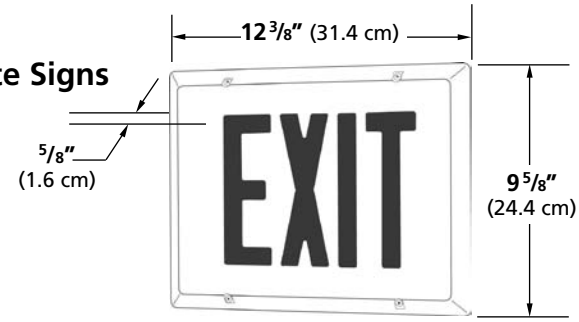
Sempra cast-aluminum emergency exit signs with the Spectron self-testing/self-diagnostic electronics system are guaranteed by Dual-Lite under normal and proper use, against defects in material and workmanship for the life of the product. The warranty covers all electronics, LED light strip and unit battery.


## Dimensions

**Master Signs**




**Remote Signs**






DUAL LITE

Lite forms® Collection

## Product Selector Guide

| AC Model Numbers | Emergency Model Numbers | Number of Faces | Colors | | |
|---|---|---|---|---|---|
| | | | Exit Letters | Housing | Stencil Face(s) |
| **SEMRSRW** | **SEMRSRWE** | Single | Red | White | White |
| **SEMRSGW** | **SEMRSGWE** | Single | Green | White | White |
| **SEMRSRWN** | **SEMRSRWNE** | Single | Red | White | Brushed |
| **SEMRSGWN** | **SEMRSGWNE** | Single | Green | White | Brushed |
| **SEMRSRB** | **SEMRSRBE** | Single | Red | Black | Black |
| **SEMRSGB** | **SEMRSGBE** | Single | Green | Black | Black |
| **SEMRSRBN** | **SEMRSRBNE** | Single | Red | Black | Brushed |
| **SEMRSGBN** | **SEMRSGBNE** | Single | Green | Black | Brushed |
| **SEMRDRW** | **SEMRDRWE** | Double | Red | White | White |
| **SEMRDGW** | **SEMRDGWE** | Double | Green | White | White |
| **SEMRDRWN** | **SEMRDRWNE** | Double | Red | White | Brushed |
| **SEMRDGWN** | **SEMRDGWNE** | Double | Green | White | Brushed |
| **SEMRDRB** | **SEMRDRBE** | Double | Red | Black | Black |
| **SEMRDGB** | **SEMRDGBE** | Double | Green | Black | Black |
| **SEMRDRBN** | **SEMRDRBNE** | Double | Red | Black | Brushed |
| **SEMRDGBN** | **SEMRDGBNE** | Double | Green | Black | Brushed |

## Options (Add suffix to model)

| | |
|---|---|
| **I** | Spectron self-testing/self-diagnostic electronics (1) |
| **-2C** | 2-circuit operation (2)(5) |
| **-FAP** | Fire alarm panel interface (3)(5)(6) |
| **-FM** | Flasher module (1)(6) |
| **-AF** | Audible/Flasher module (1)(6) |
| **-DC** | Remote DC operation (2)(4)(5) |
| **-24K** | 220-240VAC, 60 Hz. operation |
| **-VTR** | Vandal/tamper resistant option (7) |

*(1) For use with emergency models only.*
*(2) For use with AC models only.*
*(3) Operates with 24-volt AC or DC fire alarm panels.*
*(4) For emergency illumination of sign from remote 6-24 VDC power sources.*
*(5) -DC option may not be specified with -2C or -FAP options.*
*(6) -AF, -FM and -FAP options may not be specified together.*
*(7) Provides polycarbonate face shield and tamper-proof screws. Meets UL listing requirements for floor proximity use.*


*Sempra MR signs equipped with -VTR vandal/tamper resistant option shield and hardware.*

## Accessories (Order Separately)

| | |
|---|---|
| **PMCW** | Pendant mounting kit (white) (a) |
| **PMCB** | Pendant mounting kit (black) (a) |
| **WGLX** | Wire guard (Wall mount) (a) |
| **WG-MLT** | Wire guard (Wall mount) (a) |
| **WGLXC** | Wire guard (Ceiling mount) (a) |
| **WGLXE** | Wire guard (End mount) (a) |

*(a) For use with Master exit signs only.*


*Beveled, low-profile design on Remote signs meet ADA requirements and UL Listing requirements for floor proximity use with -VTR option*

## Power Consumption*

| | 120VAC | 277VAC |
|---|---|---|
| **Red AC Only Models:** | 2.6 watts | 2.6 watts |
| **Green AC Only Models:** | 2.1 watts | 2.1 watts |
| **Red Emergency Models:** | 3.8 watts | 3.8 watts |
| **Green Emergency Models:** | 3.5 watts | 3.5 watts |

**Wattage figures include LED lamps, transformer and electronics power requirements. LED lamp assemblies (red or green) consume less than 1 watt. Power factor, average: .8 (lagging)*

# Sempra® SC

## Cast Aluminum LED Exit Sign


An ULTREX Severe Conditions Product Line

Damp | Cold | Hot | Vandal-Tampering

**LIFETIME WARRANTY ON ALL SPECTRON MODELS**

## Features

**All Models**

- High-strength cast aluminum
- Low-profile architectural styling
- 5-minute installation
- Polycarbonate face shield provides additional protection against vandalism
- Tamper-resistent screws prevent entry by unauthorized personnel
- Long-life LED lamps
- Bright, even illumination
- Red and green letters
- Single and double face models
- White, black and black or white with brushed face finishes
- Push-in wiring connectors
- Universal end/ceiling/wall mount
- Break-out, chevron arrows and mounting KOs
- UL Damp Location listed
- 120/277VAC, 60 Hz operation

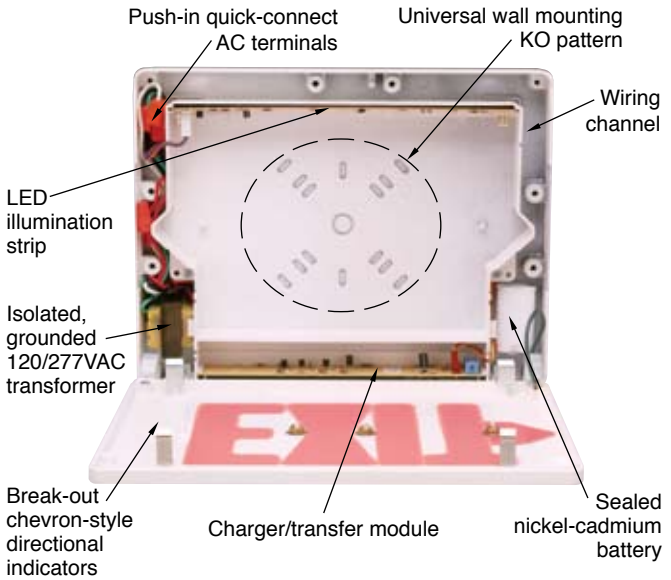
**Emergency Models**

- Solid-state charger with low voltage disconnect
- Maintenance-free NiCad battery
- 90 minute emergency operation
- Test switch and AC-On indicator
- Available with **Spectron®** self-testing/self-diagnostic electronics
- Lifetime warranty on LED strip, electronics and battery with **Spectron®** self-testing/self-diagnostic models
- Temperature ranges:
  AC models: -20°C to 50°C (-4°F to 122°F)
  Emergency models: 0°C to 40°C (32°F to 104°F)
  Emergency models with -XTR option: -20°C to 50°C (-4°F to 122°F)
- UL 924 Listed


*Polycarbonate face shield provided standard on all Sempra SC models*

## Lifetime Warranty

Sempra SC cast-aluminum emergency exit signs with the Spectron self-testing/self-diagnostic electronics system are guaranteed by Dual-Lite under normal and proper use, against defects in material and workmanship for the life of the product. The warranty covers all electronics, LED light strip and unit battery.




## Power Consumption*

| | 120VAC | 277VAC |
|---|---|---|
| **Red AC Only Models:** | 2.6 watts | 2.6 watts |
| **Green AC Only Models:** | 2.1 watts | 2.1 watts |
| **Red Emergency Models:** | 3.8 watts | 3.8 watts |
| **Green Emergency Models:** | 3.5 watts | 3.5 watts |

**Wattage figures include LED lamps, transformer and electronics power requirements. LED lamp assemblies (red or green) consume less than 1 watt. Power factor, average: .8 (lagging)*

## Product Selector Guide

**SC** — Series

**S** — Faces
- **S** - Single
- **D** - Double

**R** — Letter Color
- **R** - Red
- **G** - Green

**W** — Housing Finish
- **W** - White
- **B** - Black
- **BN** - Black with Brushed Face
- **WN** - White with Brushed Face

**E** — Operation
- **Blank** - AC Only
- **E** - Emergency

**-FAP** — Options
See "Options" section

## Options (Add suffix to model)

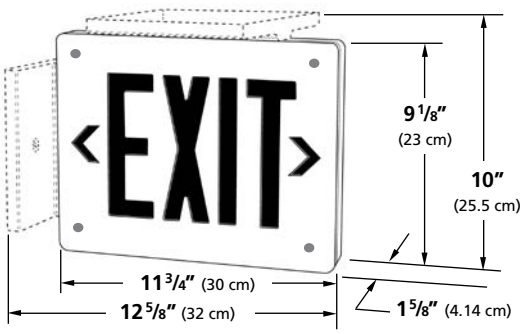
| | |
|---|---|
| **I** | Spectron self-testing/self-diagnostic electronics (1) |
| **-2C** | 2-circuit operation (2)(5) |
| **-FAP** | Fire alarm panel interface (3)(5)(6) |
| **-FM** | Flasher module (1)(6)(8) |
| **-AF** | Audible/Flasher module (1)(6)(8) |
| **-DC** | Remote DC operation (2)(4)(5) |
| **-24K** | 220-240VAC, 60 Hz. operation |
| **-XTR** | Extreme temperature operation (7)(8) |

*(1) For use with emergency models only.*
*(2) For use with AC models only.*
*(3) Operates with 24-volt AC or DC fire alarm panels.*
*(4) For emergency illumination of sign from remote 6-24 VDC power sources.*
*(5) -DC option may not be specified with -2C or -FAP options.*
*(6) -AF, -FM and -FAP options may not be specified together.*
*(7) For use with Sempra SC emergency models only (Spectron models excluded).*
*(8) -XTR, -FM, and -AF options may not be specified together.*

## Accessories (Order Separately)

| | |
|---|---|
| **PMCW** | 12½" Pendant mounting kit (white) |
| **PMCB** | 12½" Pendant mounting kit (black) |
| **WGLX** | Wire guard (Wall mount) |
| **WG-MLT** | Wire guard (Wall mount) |
| **WGLXC** | Wire guard (Ceiling mount) |
| **WGLXE** | Wire guard (End mount) |

## Dimensions




# Sempra® SCWL

## Wet Location


An ULTREX Severe Conditions Product Line


*With Heater Option

## Features

**All Models**

- Designed for use in wet locations and high abuse applications
- Full neoprene gasket
- Durable cast aluminum housing in black finish
- Polycarbonate face shields secured with tamper-resistant screws
- Canopy provides ceiling or end mount
- 120/277VAC operation standard
- Bright, even illumination
- Red and green letter models
- Snap-out chevron arrows
- High output, long-life LED lamps
- Temperature range: 5°C to 45°C (40°F to 114°F)

**Emergency Models**

- Completely self-contained
- Fully automatic, environmentally coated charger
- Maintenance-free NiCad battery
- Low voltage disconnect
- Test switch and AC-On indicator
- 90 minute operation
- Temperature range: 5°C to 45°C (40°F to 114°F)
- Operating temperature range with heater option: -20°C to 45°C (-4°F to 114°F)

## Ordering Information

**SCWL** **S** **R** **B** **E** **-HTR**

- **Series**
- **Faces**
  - **S** - Single
  - **D** - Double
- **Letter Color**
  - **R** - Red
  - **G** - Green
- **Exit Housing Color**
  - **B** - Black
  - **W** - White
- **Operation**
  - **Blank** - AC Only
  - **E** - Emergency
- **Options**

## Options (Add suffix to model)

**-HTR** Internal heater (1)

*(1) For use with emergency models only.*

## Dimensions


* Add 1" (2.5 cm) for mounting canopy on ceiling or end mounted models

| A | B | C |
|---|---|---|
| 9" | 14" | 4" |
| *22.9 cm* | *35.6 cm* | *10.1 cm* |

# Recessed Cast Aluminum LED Exit Sign

# Sempra® SERS

## Features

**All Models**

- High-strength cast aluminum
- Compact, low-profile style
- Fast, easy installation
- Long-life LED lamps
- Bright, even illumination
- Red and green letters
- Rigid, high impact acrylic letter panel
- White, black and black or white with brushed face finishes
- Plug-together wiring connectors
- Break-out, chevron arrows and mounting KOs
- 120/277VAC, 60 Hz operation

**Emergency Models**

- Solid-state charger with low voltage disconnect
- Maintenance-free NiCad battery
- 2-hour emergency operation
- Test switch and AC-On indicator
- Available with **Spectron®** self-testing/self-diagnostic electronics
- Lifetime warranty on LED strip, electronics and battery with **Spectron®** self-testing/self-diagnostic models
- Temperature range: 20°C to 30°C (68°F to 86°F)
- UL 924 Listed


**LIFETIME WARRANTY ON ALL SPECTRON MODELS**

## Ordering Information

**SERS R WN E -AF**

- **Series**
- **Letter Color**
  - **R** - Red
  - **G** - Green
- **Housing Finish**
  - **W** - White
  - **B** - Black
  - **WN** - White with brushed face
  - **BN** - Black with brushed face
- **Operation**
  - **Blank** - AC Only
  - **E** - Emergency
- **Options**


## Lifetime Warranty

Sempra cast-aluminum emergency exit signs with the Spectron self-testing/self-diagnostic electronics system are guaranteed by Dual-Lite under normal and proper use, against defects in material and workmanship for the life of the product. The warranty covers all electronics, LED light strip and unit battery.

## Options (Add suffix to model)

| | |
|---|---|
| **I** | Spectron self-testing/self-diagnostic electronics (1) |
| **-2C** | 2-circuit operation (2)(5) |
| **-FAP** | Fire alarm panel interface (3)(5)(6) |
| **-FM** | Flasher module (1)(6) |
| **-AF** | Audible/Flasher module (1)(6) |
| **-DC** | Remote DC operation (2)(4)(5) |
| **-VTR** | Vandal/tamper resistant option (7) |
| **-LRBB** | Sign assembly less rough-in back box (8) |

*(1) For use with emergency models only.*
*(2) For use with AC models only.*
*(3) Operates with 24-volt AC or DC fire alarm panels.*
*(4) For emergency illumination of sign from remote 6-24 VDC power sources.*
*(5) -DC option may not be specified with -2C or -FAP options.*
*(6) -AF, -FM and -FAP options may not be specified together.*
*(7) Provides polycarbonate face shield and tamper-resistant screws. Meets UL listing requirements for floor proximity use.*
*(8) Allows ordering of rough-in back box separately for installation prior to sign shipment. Add "-LRBB" suffix to exit model number if RBB accessory kit is to be ordered separately.*

## Accessories (Order Separately)

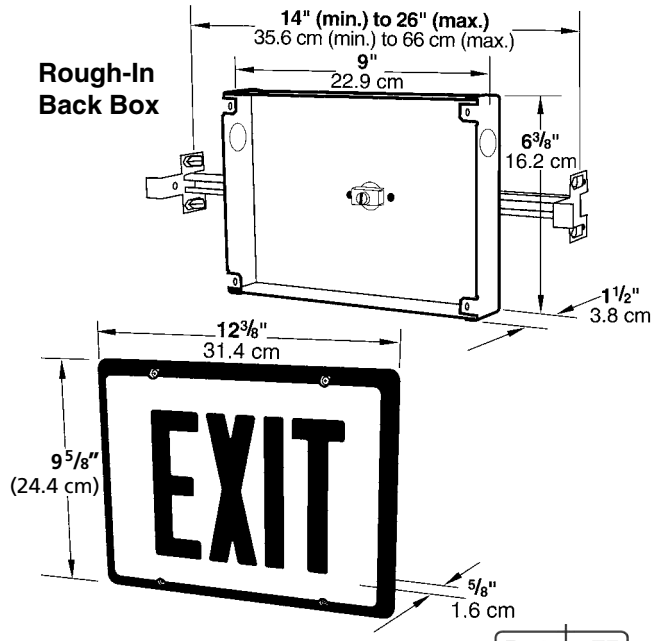
| | |
|---|---|
| **RBB** | Rough-in back box kit |
| **WGLX** | Wire guard (Wall mount) |
| **WG-MLT** | Wire guard (Wall mount) |

## Power Consumption*

| | 120VAC | 277VAC |
|---|---|---|
| **Red AC Only Models:** | 2.6 watts | 2.6 watts |
| **Green AC Only Models:** | 2.1 watts | 2.1 watts |
| **Red Emergency Models:** | 3.8 watts | 3.8 watts |
| **Green Emergency Models:** | 3.5 watts | 3.5 watts |

**Wattage figures include LED lamps, transformer and electronics power requirements. LED lamp assemblies (red or green) consume less than 1 watt. Power factor, average: .8 (lagging)*

## Dimensions



# HCX

## Combination LED Exit/Emergency Light


## Features

- Combines emergency light with energy saving LED exit
- UV stable thermoplastic housing
- Standard model provides 11w output
- Additional 12 watts of power available with remote capacity models
- MR16 halogen lampheads
- 33% improved illumination over standard incandescent
- White and black finishes
- 120/277VAC 60 Hz operation
- Solid state charger
- Maintenance free battery
- Low voltage disconnect
- Test switch and AC-On light
- Bright even illumination
- Universal single/double face
- Red and green letter models
- Snap-in chevron arrows
- Ceiling, wall or end (universal) mount models standard
- Temperature range: 20°C to 30°C (68°F to 86°F)
- UL 924 Listed (Emergency Lighting)
- Optional matching indoor and outdoor remote heads

## Ordering Information

**HCX U R W - RC12**

**Series**

**Faces**
**U** - Universal Single/Double Face

**Letter Color**
**R** - Red
**G** - Green

**Housing Finish**
**W** - White
**B** - Black

**Options**
**-0** Unit Supplied Without Lamp Heads
**-RC12** - 12W Remote Capacity

## Options (Add Suffix to Catalog Number)

**-0** Unit supplied without lamp heads. Available in white only.(1)

**-RC12** 12W remote capacity

*(1) For use with RC12 option only.*

## Accessories (Order Separately)

**41G** Wire guard (wall or ceiling mount)

Matching 5W indoor remote heads
**CPRSW0605** - Single, White
**CPRDW0605** - Double, White
**CPRSB0605** - Single, Black
**CPRDB0605** - Double, Black

Matching 5W outdoor remote heads
**OCRSW0605** - Single, White
**OCRDW0605** - Double, White
**OCRSB0605** - Single, Black
**OCRDB0605** - Double, Black
**OCRSZ0605** - Single, Dark Bronze
**OCRDZ0605** - Double, Dark Bronze

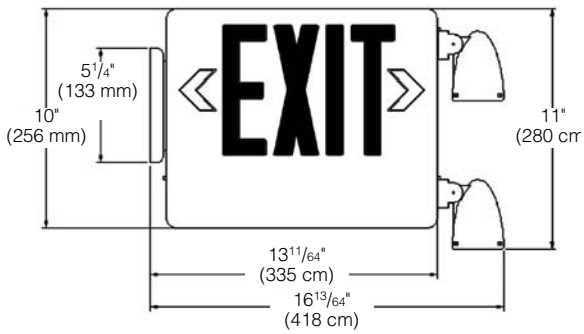
## Power Consumption*

| | 120VAC | 277VAC |
|---|---|---|
| Red, Green Models | 4.5 watts | 4.5 watts |

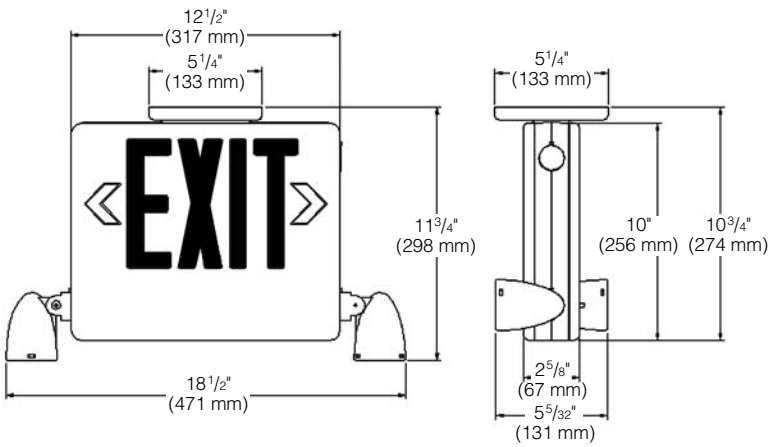
** Wattage figures include LED lamps, transformer and electronics power requirements.*

## Dimensions

### End Mount




### Ceiling or Back Mount



# New York City Cast Aluminum LED Exit

NYDC

## Features

**AC Models**

- Designed to meet New York City specifications
- All diecast aluminum construction
- White, black and black with brushed face finishes
- Break-out directional chevrons
- Single and double face models with eight inch letters
- Wall/ceiling/end mounting
- Dual voltage – 120/277VAC
- Bright and even illumination
- Long-life LED lamps

**Emergency Models**

- Long life NiCad battery
- 90 minute emergency operation
- Test switch and AC-On indicator
- Environmentally coated, fully automatic charger
- Temperature range: 0°C to 45°C (32°F to 113°F)
- Listed to UL924


## Ordering Information

**NYDC S R B A -FM**

- **Series**
- **Faces**
  - **S** - Single
  - **D** - Double
- **Letter Color**
  - **R** - Red
- **Housing Finish**
  - **W** - White
  - **B** - Black
  - **BN** - Black with brushed face
- **Operation**
  - **A** - AC Only
  - **E** - Emergency
- **Options**


*Available in white, black and black with brushed face finishes*

## Options (Add suffix to model)

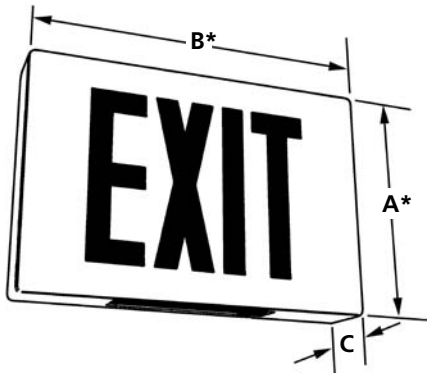
| | |
|---|---|
| **-FM** | Flasher module (1)(2) |
| **-AA** | Audible alarm module (1)(2) |

*(1) For use with emergency models only.*
*(2) -FM and -AA options may not be specified together.*

## Accessories (Order Separately)

| | |
|---|---|
| **PMNYW** | Pendant mounting kit (white) |
| **PMNYB** | Pendant mounting kit (black) |
| **WGTW** | Wire guard (Wall mount) |
| **WGTCE** | Wire guard (Ceiling mount) |

## Dimensions




* Add 1" (2.5 cm) for mounting canopy on ceiling or end mounted models

| A | B | C |
|---|---|---|
| 11" | 16 1/4" | 2 5/8" |
| *27.9 cm* | *41.3 cm* | *6.7 cm* |

## Power Consumption*

| | 120VAC | 277VAC |
|---|---|---|
| **AC Only Models** | 2.4W | 2.4W |
| **Emergency Models** | 3.4W | 3.5W |

* *Wattage figures include LED lamps, transformers and electronics power requirements.*

# LN4X

## Wet Location LED Exit Sign


An ULTREX Severe Conditions Product Line

## Features

**AC Models**

- UL type 4X enclosure for indoor/outdoor use
- Easily installed to wall surfaces
- Suitable for use in damp, wet, hose-down and corrosive locations
- Polycarbonate housing
- 120/277VAC operation standard
- Bright, even illumination
- Red and green letter models
- Snap-in chevron arrows
- Long-life LED lamps
- Temperature range: 10°C to 40°C (32°F to 104°F)

**Emergency Models**

- Suitable for use in damp, wet and corrosive locations
- Completely self-contained
- Fully automatic, solid-state charger
- Maintenance-free NiCad battery
- Low voltage disconnect
- Test switch and AC-On light
- Available with **Spectron®** self-testing/self-diagnostic electronics
- 120 minute operation
- Temperature range: 10°C to 40°C (50°F to 104°F)
- UL 924 Listed


## Ordering Information

**LN4X R W E -FAP**

- **LN4X** — Series
- **R** — Letter Color: **R** - Red; **G** - Green
- **W** — Exit Face Color: **W** - White
- **E** — Operation: **Blank** - AC Only; **E** - Emergency
- **-FAP** — Options

## Options (Add suffix to model)

| | |
|---|---|
| **I** | Spectron self-testing/self-diagnostic electronics (1) |
| **-2C** | 2-circuit operation (2)(5) |
| **-FAP** | Fire alarm panel interface (3)(5)(6) |
| **-FM** | Flasher module (1)(6) |
| **-DC** | Remote DC operation (2)(4)(5) |
| **-XTR** | Extreme temperature operation (7)(8)(9) |
| **-TR** | Tamper-proof cover screws (includes tool) |

*(1) For use with emergency models only.*
*(2) For use with AC models only.*
*(3) Operates with 24-volt AC or DC fire alarm panels.*
*(4) For emergency illumination of sign from remote 6-24 VDC power sources.*
*(5) -DC option may not be specified with -2C or -FAP options.*
*(6) -FM and -FAP options may not be specified together.*
*(7) Provides an operating temperature range of -20°C to 50°C (-4°F to 122°F).*
*(8) For use with emergency models only (Spectron models excluded).*
*(9) -XTR and -FM options may not be specified together.*

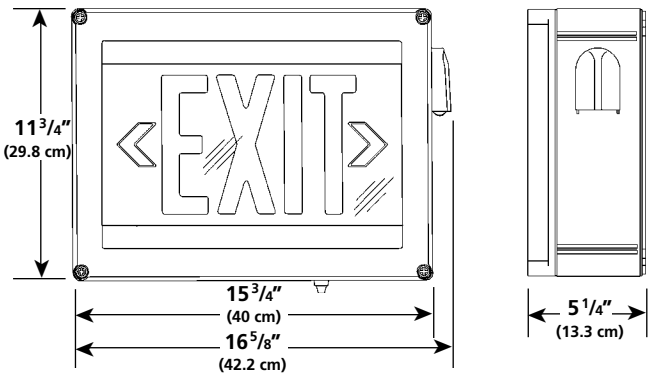
## Power Consumption*

| | 120VAC | 277VAC |
|---|---|---|
| **Red AC Only Models** | 2.6 watts | 2.6 watts |
| **Green AC Only Models** | 2.1 watts | 2.1 watts |
| **Red Emergency Models** | 3.8 watts | 3.8 watts |
| **Green Emergency Models** | 3.5 watts | 3.0 watts |

*Power factor, average: .8 (lagging)*

** Wattage figures include LED lamps, transformer and electronics power requirements.*

## Dimensions






Lite forms® Collection

# Aluminum LED Exit Sign

# Freedom LED

## Features

**All Models**

- Vinyl-clad aluminum housing
- Polycarbonate face shield standard
- Easy to install
- Long-life LED lamps
- Red and green letters
- Single and double face models
- Six decorator finishes offered
- End, ceiling or wall mount
- Snap-out, chevron arrows
- Damp location listed
- 120/277VAC, 60 Hz operation

**Emergency Models**

- Solid-state charger with low voltage disconnect
- 6-volt, maintenance-free battery
- User-selectable constant on or flashing emergency illumination
- Up to 12 hour operation
- Test switch, AC-On and charge indicator lights
- Temperature range: 10°C to 40°C (50°F to 104°F)
- Damp location listed
- UL 924 Listed


An ULTREX *Severe Conditions Product Line*

Damp

## Ordering Information

**LED 2 EM R WW -TR**

**Series**

**Faces**
**1** - Single Face
**2** - Double Face

**Operation**
**AC** - AC Only
**EM** - Emergency

**Letter Color**
**R** - Red
**G** - Green

**Housing Finish**
**WW** - White
**WA** - White with Brushed Aluminum Face
**BB** - Black
**BA** - Black with Brushed Aluminum Face
**TT** - Brass
**ZZ** - Antique Brass

**Options**

### Discharge Times

| | Single Face | Double Face |
|---|---|---|
| **Flashing Mode** | 12 Hours | 8 Hours |
| **Constant On Mode** | 6 Hours | 4 Hours |

## Options (Add suffix to model)

**-2C** 2-circuit operation (2)(5)
**-FAP** Fire alarm panel interface (3)(5)(6)
**-DC** Remote DC operation (2)(4)(5)
**-TR** Tamper resistant screws
**-BPR** Beeper module (1)(6)

*(1) For use with emergency models only.*
*(2) For use with AC models only.*
*(3) Operates with 24-volt AC or DC fire alarm panels.*
*(4) For emergency illumination of sign from remote 12-48 VDC power sources.*
*(5) -DC option may not be specified with -2C or -FAP options.*
*(6) -BPR and -FAP options may not be specified together.*

## Accessories (Order Separately)

**VRS3** Vandal resistant shield
**WGTCE** Wire guard (Ceiling/End mount)
**WGTW** Wire guard (Wall mount)

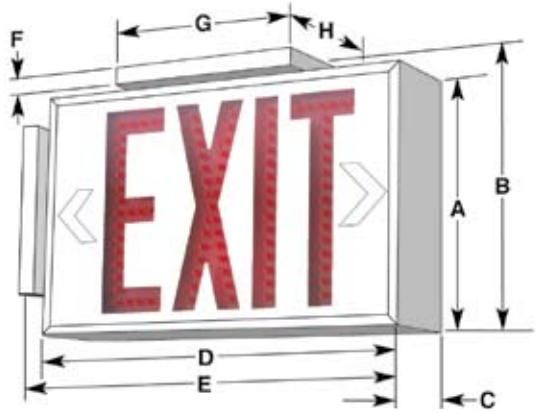
## Power Consumption*

| | Single Face Models | | Double Face Models | |
|---|---|---|---|---|
| | 120VAC | 277VAC | 120VAC | 277VAC |
| **Red AC Only Models** | 4.47 watts | 4.47 watts | 6.80 watts | 6.80 watts |
| **Green AC Only Models** | 4.68 watts | 4.64 watts | 6.70 watts | 6.70 watts |
| **Red Emergency Models** | 4.99 watts | 4.99 watts | 7.27 watts | 7.22 watts |
| **Green Emergency Models** | 4.96 watts | 4.93 watts | 7.65 watts | 7.67 watts |

*Power factor, average: .8 (lagging)*

** Wattage figures include LED lamps, transformer and electronics power requirements.*

## Dimensions




| A | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|
| 7 1/2" | 8.0" | 3 1/8" | 12 1/8" | 12 5/8" | 1/2" | 6.0" | 4 1/4" |
| *19 cm* | *20 cm* | *7.9 cm* | *30.8 cm* | *32.1 cm* | *1.3 cm* | *15.2 cm* | *10.8 cm* |

# LEDS

## Low-Profile Aluminum LED Exit Sign


An ULTREX Severe Conditions Product Line

Damp

## Features

**All Models**

- Vinyl-clad aluminum housing
- Compact, low-profile style
- Easy to install
- Long-life LED lamps
- Red and green letters
- Single, double and universal single/double face models
- Six decorator finishes offered
- End, ceiling or wall mount
- Snap-out, chevron arrows
- Damp location listed
- 120/277VAC, 60 Hz operation

**Emergency Models**

- Solid-state charger with low voltage disconnect
- Maintenance-free Ni-Cad battery
- 90-minute emergency operation
- Test switch and AC-On indicator light
- Temperature range: 10°C to 40°C (50°F to 104°F)
- Damp location listed
- UL 924 Listed

## Ordering Information

**LEDS U AC R BA -TR**

**Series**

**Faces**
**1** - Single Face
**2** - Double Face
**U** - Universal Single/Double Face

**Operation**
**AC** - AC Only
**EM** - Emergency

**Letter Color**
**R** - Red
**G** - Green

**Housing Finish**
**WW** - White
**WA** - White with Brushed Aluminum Face
**BB** - Black
**BA** - Black with Brushed Aluminum Face
**TT** - Brass
**ZZ** - Antique Brass

**Options**

## Options (Add suffix to model)

| | |
|---|---|
| **-TR** | Tamper resistent screws |

## Power Consumption*

| | 120VAC | 277VAC |
|---|---|---|
| **Red AC Only Models** | 3.0 watts | 3.2 watts |
| **Green AC Only Models** | 2.8 watts | 2.9 watts |
| **Red Emergency Models** | 3.2 watts | 3.3 watts |
| **Green Emergency Models** | 3.1 watts | 3.0 watts |

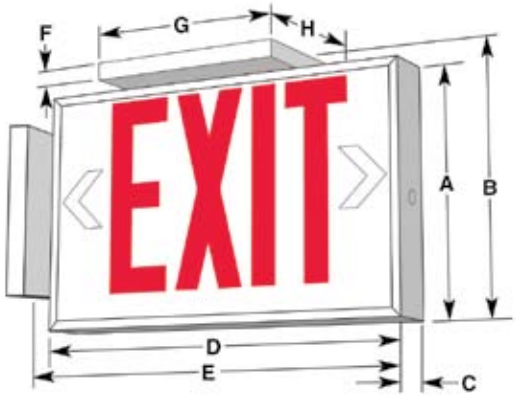
*Power factor, average: .8 (lagging)*

** Wattage figures include LED lamps, transformer and electronics power requirements.*

## Accessories (Order Separately)

| | |
|---|---|
| **VRS3** | Vandal resistant shield |
| **WGLX** | Wire guard (Wall mount) |
| **WGLXC** | Wire guard (Ceiling mount) |
| **WGLXE** | Wire guard (End mount) |

## Dimensions




| A | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|
| 7 1/2" | 8.0" | 1 5/8" | 12 1/8" | 12 5/8" | 1/2" | 6.0" | 4 1/4" |
| *19 cm* | *20 cm* | *4.1 cm* | *30.8 cm* | *32.1 cm* | *1.3 cm* | *15.2 cm* | *10.8 cm* |

# New York City LED Exit Sign

# NYX

## Features

**AC Models**

- Designed to meet New York City specifications
- 20 gauge metal enclosure
- White or black finish
- Break-out directional chevrons
- Universal single/double face models with eight inch letters
- Wall/ceiling/end mounting
- Dual voltage – 120/277VAC
- Bright and even illumination
- Long-life LED lamps

**Emergency Models**

- Long life NiCad battery
- 90 minute emergency operation
- Test switch and AC-On indicator
- Environmentally coated, fully automatic charger
- Temperature range: 0°C to 45°C (32°F to 113°F)
- UL924 Listed


## Ordering Information

**NYX U R W E -FM**

- **Series**
- **Faces**
  - **U** - Universal single/double face
- **Letter Color**
  - **R** - Red
- **Housing Finish**
  - **W** - White
  - **B** - Black
- **Operation**
  - **A** - AC Only
  - **E** - Emergency
- **Options**

## Options (Add suffix to model)

| | |
|---|---|
| **-FM** | Flasher module (1)(2) |
| **-AA** | Audible alarm module (1)(2) |
| **-TR** | Tamper resistant option (3) |

*(1) For use with emergency models only.*
*(2) -FM and -AA options may not be specified together.*
*(3) Provides two tamper-resistant locking screws.*

## Accessories (Order Separately)

| | |
|---|---|
| **PMNYW** | Pendant mounting kit (white) |
| **PMNYB** | Pendant mounting kit (black) |
| **WGTW** | Wire guard (Wall mount) |

## Power Consumption*

| | 120VAC | 277VAC |
|---|---|---|
| **AC Only Models** | 2.4W | 2.4W |
| **Emergency Models** | 3.4W | 3.5W |

* *Wattage figures include LED lamps, transformers and electronics power requirements.*

## Dimensions


* Add 1" (2.5 cm) for mounting canopy on ceiling or end mounted models

| A | B | C |
|---|---|---|
| 10 1/2" | 14 1/2" | 2 3/8" |
| *26.7 cm* | *36.8 cm* | *6.0 cm* |

# LE

## Recessed Mounting Edge-Lit LED Exit Sign


## Features

**AC Models**

- Ceiling, wall or end mounted models for recessed installations
- Extruded aluminum construction
- Available in six color finishes
- Molded acrylic plaque
- Red and green letter models
- Clear, white or mirror background
- Silkscreened chevron arrows
- Long life LED lamps
- Bright, even letter illumination
- Energy-saving operation
- Universal rough-in box
- Easy to install
- 120/277VAC, 60 Hz operation

**Emergency Models**

- Solid-state charger
- Maintenance-free NiCad battery
- Low voltage disconnect
- Test switch and AC-On light
- Available with **Spectron®** self-testing/self-diagnostic electronics
- Temperature range: 20°C to 30°C (68°F to 86°F)
- UL 924 Listed

## Ordering Information

**LE C D R C N E -FM**

**Series**
LE - Recessed mount

**Mounting**
C - Ceiling mount
W - Wall mount
E - End mount

**Faces**
S - Single
D - Double*
* *Not for use with wall mounted models*

**Letter Color**
R - Red
G - Green

**Directional Arrows**
X - No arrows **EXIT**
R - Right arrow* **EXIT>**
L - Left arrow* **<EXIT**
D - Double arrows **<EXIT>**
C - L/R arrows** **<EXIT/EXIT>**
* *Not for use with double face models. Use "C" L/R arrow designator*
** *Double face models only. Provides reversible right or left arrow indicator*

**Operation**
A - AC only
E - Emergency

**Trim/Housing Finish**
N - Satin Aluminum
W - White
C - Chrome
B - Black
S - Satin brass
Z - Dark Bronze

**Options**
See "Options" section

**Standard Plaque Backgrounds**
Single face models = clear
Double face models = mirror
See "Options" section on page 57 for alternate backgrounds.


*End mount model*

## Power Consumption*

| | Single Face | Double Face |
|---|---|---|
| **Red AC Only Models** | 2.2W | 3.7W |
| **Green AC Only Models** | 2.5W | 4.4W |
| **Red Emergency Models** | 3.3W | 4.7W |
| **Green Emergency Models** | 3.6W | 5.2W |

* *Wattage figures include LED lamps, transformers and electronics power requirements.*

## OPTIONS (ADD SUFFIX TO MODEL)

| | |
|---|---|
| **I** | Spectron self-testing/self-diagnostic electronics (1) |
| **-2C** | 2-circuit operation (2)(5) |
| **-FAP** | Fire alarm panel interface (3)(5)(6) |
| **-FM** | Flasher module (1)(6) |
| **-AF** | Audible/Flasher module (1)(6) |
| **-24K** | 220-240VAC, 60 Hz. operation (9) |
| **-XK** | Recessed mount exit sign less rough-in kit (7)(9) |
| **-W** | White plaque background |
| **-M** | Mirror plaque background (8) |
| **-8L** | 8 inch letter plaque (red letters only) (10)(11) |

*(1) For use with emergency models only.*
*(2) For use with AC models only.*
*(3) Operates with 24-volt AC or DC fire alarm panels.*
*(4) For emergency illumination of sign from remote 6-24 VDC power sources.*
*(5) -DC option may not be specified with -2C or -FAP options.*
*(6) -AF, -FM and -FAP options may not be specified together.*
*(7) Allows ordering of rough-in kit separately for recessed mount (LE) models. See "Accessories".*
*(8) For use with single face models only. Standard on double face models.*
*(9) Rough-in kit may not be ordered separately on models specified with -24K option.*
*(10) LE exit models with 8" plaques registered under NYC-BEC Calendar Number 42135 for use in New York City.*
*(11) Single face LE exit signs specified with the -8L option are supplied without backgrounds. Double face models specified with the -8L option are supplied with mirror backgrounds.*

## ACCESSORIES (ORDER SEPARATELY)

**URK** Universal rough-in kit
**URK2C** Universal 2-circuit rough-in kit (a)(b)(c)

*(a) For use with AC models only.*
*(b) Rough-in kit may not be ordered separately on models specified with -24K option.*
*(c) Must be ordered in conjunction with -2C option on exit sign.*

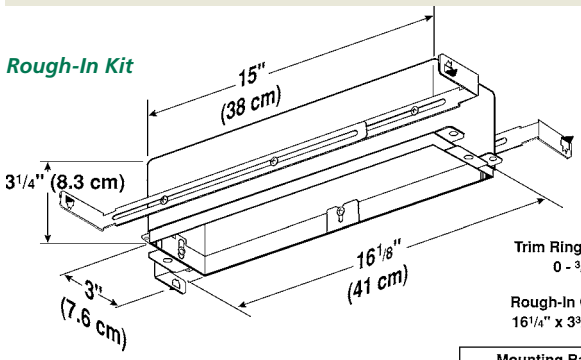
**To Order Rough-In Kit Separately**

*To order rough-in kit only for early installation, add "-XK" option suffix to exit model number and order "URK" or "URK2C" kit separately.*


*Wall mount model*

## DIMENSIONS

### Rough-In Kit

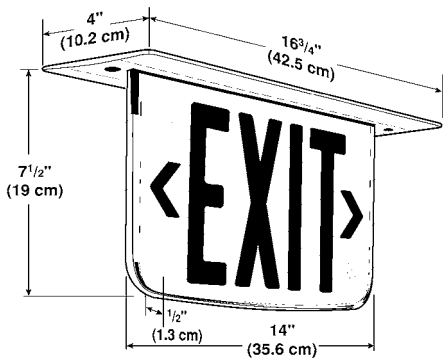



Trim Ring Adjustment Range
0 - 3/4" (0 - 1.9 cm)

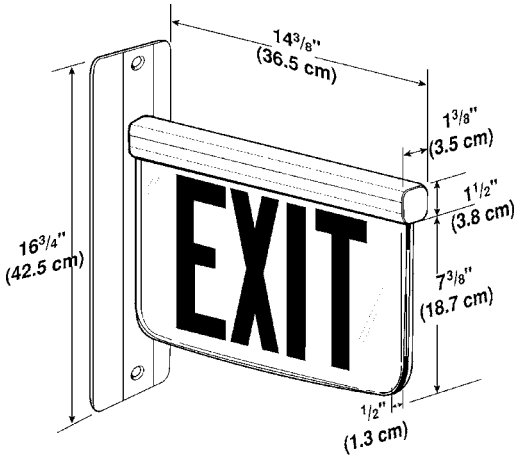
Rough-In Opening Dimensions
16 1/4" x 3 3/8" (41 cm) x (8.6 cm)

| Mounting Bar Adjustment Range | |
|---|---|
| Side Mounted | End Mounted |
| Min: 16 1/4" (41 cm) | Min: 13" (33 cm) |
| Max: 25 1/4" (64 cm) | Max: 22 3/4" (57.8 cm) |

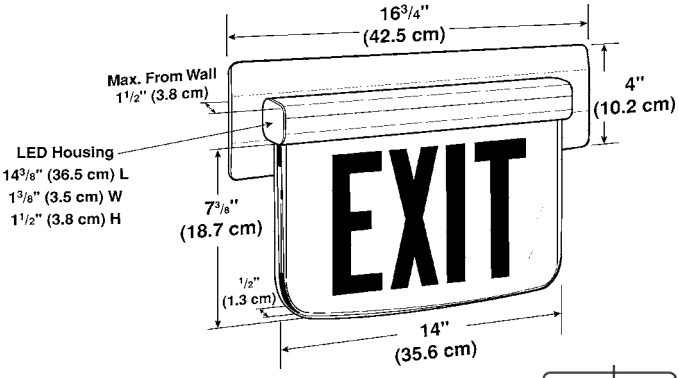
### Ceiling Mount Application




### End Mount Application




### Wall Mount Application



# LES

## Surface Mounting AC Edge-Lit LED Exit Sign


## Features

**AC Models**

- Ceiling, wall or end mounted models for surface installations
- Extruded aluminum construction
- Available in six color finishes
- Molded acrylic plaque
- Red and green letter models
- Clear, white or mirror background
- Silkscreened chevron arrows
- Long life LED lamps
- Bright, even letter illumination
- Energy-saving operation
- Easy to install
- 120/277VAC, 60 Hz operation
- Temperature range: 20°C to 30°C (68°F to 86°F)
- UL Listed

## Ordering Information

**LES C S R C N A -M**

**Series**
LES - Surface mount

**Mounting**
C - Ceiling mount
W - Wall mount
E - End mount

**Faces**
S - Single
D - Double*
* *Not for use with wall mounted models*

**Letter Color**
R - Red
G - Green

**Directional Arrows**
X - No arrows **EXIT**
R - Right arrow* **EXIT>**
L - Left arrow* **<EXIT**
D - Double arrows **<EXIT>**
C - L/R arrows** **<EXIT/EXIT>**
* *Not for use with double face models. Use "C" L/R arrow designator*
** *Double face models only. Provides reversible right or left arrow indicator*

**Trim/Housing Finish**
N - Satin aluminum
W - White
C - Chrome
B - Black
S - Satin Brass
Z - Dark bronze

**Operation**
A - AC only

**Options**
See "Options" section

**Standard Plaque Backgrounds**
Single face models = clear
Double face models = mirror
See "Options" section on page 59 for alternate backgrounds.

## Power Consumption (120/277V)*

| | Single Face | Double Face |
|---|---|---|
| Red AC Only Models | 2.2W | 3.4W |
| Green AC Only Models | 2.5W | 4.0W |

* *Wattage figures include LED lamps, transformers and electronics power requirements.*


*End mount model*

## OPTIONS (ADD SUFFIX TO MODEL)

**-W** White plaque background
**-M** Mirror plaque background (1)
**-8L** 8 inch letter plaque (red letters only) (2)(3)

*(1) For use with single face models only. Standard on double face models.*

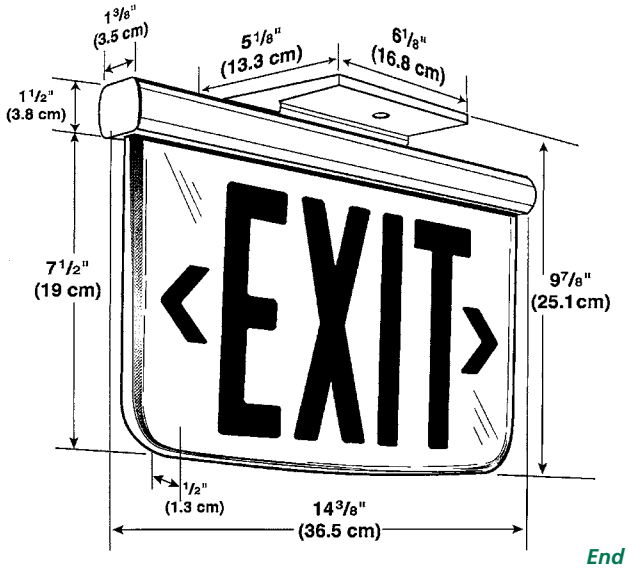
*(2) LES exit models with 8" plaques registered under NYC-BEC Calendar Number 42135 for use in New York City.*

*(3) Single face LES exit signs specified with the -8L option are supplied without backgrounds. Double face models specified with the -8L option are supplied with mirror backgrounds.*

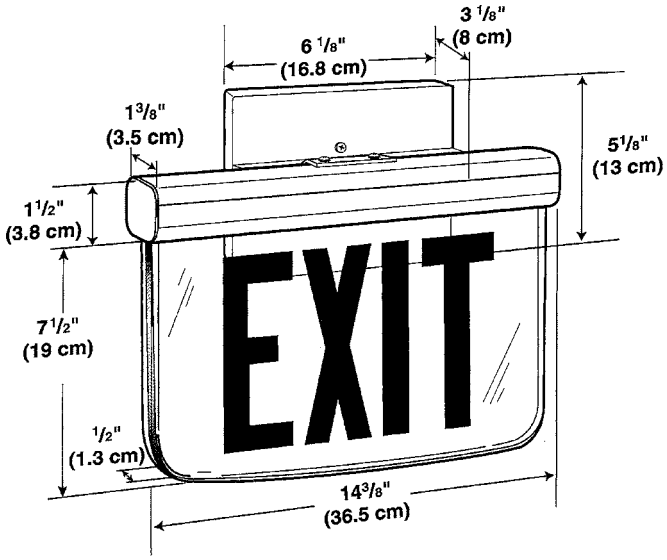

*Ceiling mount model*

## DIMENSIONS

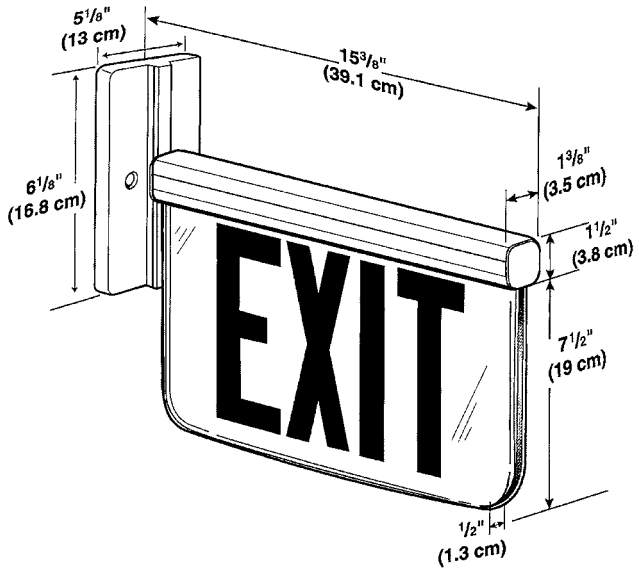
*Ceiling Mount Application*




*Wall Mount Application*




*End Mount Application*



# NYE

## New York City Recessed Edge-Lit Exit


## Features

**AC Models**

- Designed to meet New York City specifications
- Recessed ceiling or wall mount models
- Extruded aluminum construction
- Available in two color finishes
- Acrylic plaque
- Red letter models
- Clear, white or mirror background
- Applique chevron arrows
- Long life LED lamps
- Bright, even letter illumination
- Energy-saving operation
- Easy to install
- 120/277VAC, 60 Hz operation

**Emergency Models**

- Environmentally coated, fully automatic charger
- Maintenance-free NiCad battery
- Low voltage disconnect
- Test switch and AC-On indicator
- Temperature range: 0°C to 45°C (32°F to 113°F)
- Listed to UL924

## Ordering Information

**NYE C D R N E -W**

**Series**
NYE - Recessed mount

**Mounting**
C - Ceiling
W - Wall

**Faces**
S - Single
D - Double*
* *Not for use with wall mounted models*

**Letter Color**
R - Red

**Operation**
A - AC only
E - Emergency

**Trim/Housing Finish**
N - Satin aluminum
W - White

**Options**
See "Options" section

## Options (Add suffix to model)

**-LRBB** Recessed mount exit sign less rough-in backbox (1)
**-W** White exit face background (2)
**-M** Mirrored exit face background (2)

*(1) Allows ordering of rough-in backbox separately. See "Accessories".*
*(2) Double face versions are supplied standard with a white background. Single face versions are supplied standard with a clear background.*

## Accessories (Order Separately)

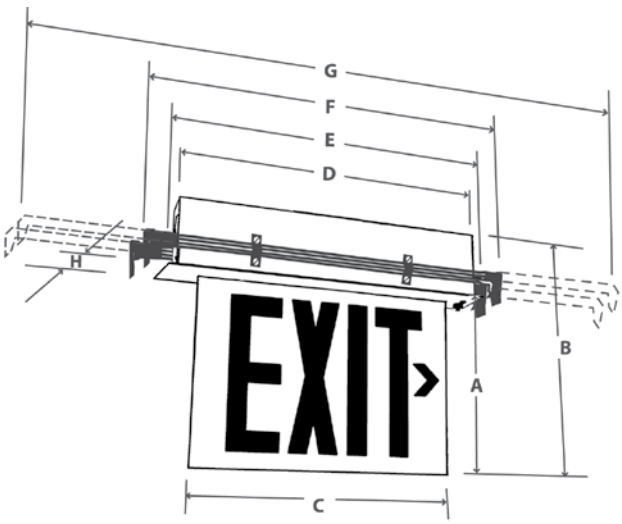
**NYC-RBB** Rough-in backbox

## Power Consumption *

| | 120VAC | 277VAC |
|---|---|---|
| AC Only Models | 3.2W | 3.2W |
| Emergency Models | 4.0W | 3.9W |

* *Wattage figures include LED lamps, transformers and electronics power requirements.*

## Dimensions




| A | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|
| 9 3/4" | 13 1/2" | 14" | 16 5/8" | 17 3/8" | 19 3/16" | 30 5/8" | 2 3/4" |
| *24.8 cm* | *34.2 cm* | *35.6 cm* | *42.2 cm* | *44.1 cm* | *48.8 cm* | *77.8 cm* | *7.0 cm* |

# New York City Surface Edge-Lit Exit

NYES

## Features

**AC Models**

- Designed to meet New York City specifications
- Surface mount design
- Wall, ceiling or end mounted models
- Extruded aluminum construction
- Available in two color finishes
- Acrylic plaque
- Red letter models
- Clear, white or mirror background
- Applique chevron arrows
- Long life LED lamps

- Bright, even letter illumination
- Energy-saving operation
- Easy to install
- 120/277VAC, 60 Hz operation

**Emergency Models**

- Environmentally coated, fully automatic charger
- Maintenance-free NiCad battery
- Low voltage disconnect
- Test switch and AC-On indicator
- Temperature range: 0°C to 45°C (32°F to 113°F)
- Listed to UL924


## Ordering Information

**NYES C D R N E -W**

**Series**
NYES - Surface mount

**Mounting**
C - Ceiling
W - Wall
E - End

**Faces**
S - Single
D - Double*
* *Not for use with wall mounted models*

**Letter Color**
R - Red

**Trim/Housing Finish**
N - Satin aluminum
W - White

**Operation**
A - AC only
E - Emergency

**Options**
See "Options" section

## Options (Add suffix to model)

**-W** White exit face background (1)
**-M** Mirrored exit face background (1)

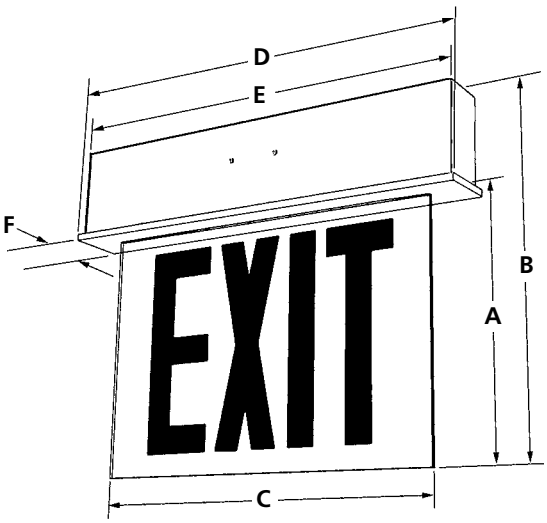
*(1) Double face versions are supplied standard with a white background. Single face versions are supplied standard with a clear background.*

## Power Consumption*

| | 120VAC | 277VAC |
|---|---|---|
| **AC Only Models** | 3.2W | 3.2W |
| **Emergency Models** | 4.0W | 3.9W |

* *Wattage figures include LED lamps, transformers and electronics power requirements.*

## Dimensions




| A | B | C | D | E | F |
|---|---|---|---|---|---|
| 10" | 13 1/2" | 14" | 17" | 16 5/8" | 2 1/4" |
| *25.4 cm* | *34.3 cm* | *35.6 cm* | *43.2 cm* | *42.2 cm* | *5.7 cm* |

# CMX

## Chicago Low Profile Exit Sign


City of Chicago Approval No. 9823

## Features

**All Models**

- City of Chicago approved
- 22-gauge metal enclosure with white or black finish
- Translucent glass diffuser
- Six-inch letters
- Full length, silkscreened directional arrows
- Standard, incandescent AC lamps (Fluorescent lamps optional)
- Standard 120 VAC (277 VAC optional on AC models)
- Wall, end or ceiling mounting
- Downlighting aperture

**Emergency Models**

- Completely self-contained emergency power pack
- 120-minute operation
- Fully automatic, solid-state charger
- Automatic, low-voltage battery disconnect
- AC-On indicator and test switch
- Maintenance-free long-life lead-acid battery
- Universal 120/277VAC operation
- UL Listed

## Ordering Information

**CMX S E 6 -AF**

**Series**

**Faces**
**S** - Single Face
**D** - Double Face

**Operation**
**Blank** - AC Only
**E** - Emergency

**Options**

**Exit Legend**

**Single face models**
**3** - "EXIT" (no arrows)
**6** - "EXIT" (right arrow)
**9** - "EXIT" (left arrow)
**12** - "EXIT" (double arrow)
**2** - "STAIRS" (no arrows)
**5** - "STAIRS" (right arrow)
**8** - "STAIRS" (left arrow)
**11** - "STAIRS" (double arrow)

**Double face models**
**18** - "EXIT" (no arrows)
**21** - "EXIT" (right/left arrow)
**24** - "EXIT" (double arrow)
**17** - "STAIRS" (no arrows)
**20** - "STAIRS" (right/left arrow)
**23** - "STAIRS" (double arrow)


## Options (Add suffix to model)

| | |
|---|---|
| **-277V** | 277 VAC operation (1) |
| **-DC6** | 6 VDC emergency socket and lamp (1) |
| **-DC12** | 12 VDC emergency socket and lamp (1) |
| **-B** | Black finish |
| **-FL** | 7 watt fluorescent AC lamps |
| **-FAP** | Fire alarm panel interface (2)(3)(4) |
| **-AF** | Audible flasher alarm (3)(4)(5) |
| **-PH** | Phosphorescent glass diffuser panel |

*(1) For use with AC models only.*
*(2) Operates with 24-volt AC or DC fire alarm panels.*
*(3) -FAP and -AF options may not be specified together.*
*(4) -FAP and -AF options not available with fluorescent lamp models.*
*(5) -AF option for use with emergency models only.*

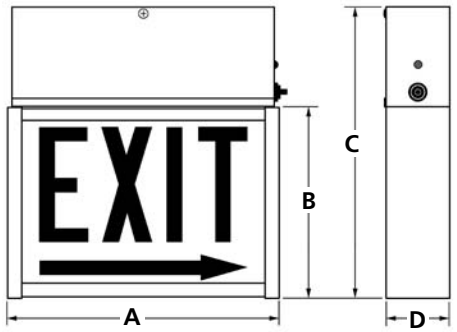
## Accessories (Order Separately)

| | |
|---|---|
| **CKW** | Canopy mounting kit (white) |
| **CKB** | Canopy mounting kit (black) |
| **PMKW** | Pendant mounting kit (white) |
| **PMKB** | Pendant mounting kit (black) |
| **WG-MLT** | Wire guard (wall mount - AC models) |
| **WGTW** | Wire guard (wall mount - emergency models) |
| **WGTCE** | Wire guard (ceiling/end mount - AC and emergency models) |

## Power Consumption

| | Incandescent Models | Fluorescent Models |
|---|---|---|
| | 120/277VAC | 120/277VAC |
| AC Only Exits | 40 watts | 18 watts |
| Emergency Exits | 50 watts | 28 watts |

## Dimensions




| A | B | C | D |
|---|---|---|---|
| 12 3/4" | 9 1/2" | 14 1/2" | 2 1/2" |
| *32.4 cm* | *24.1 cm* | *36.8 cm* | *6.4 cm* |



Lite forms Collection

# Special Wording Incandescent Sign

DEX

## Features

**AC Models**

- Thermoplastic housing
- Steel faceplate
- Polyester fiberglass special wording open face diffuser
- Acrylic downlight lens
- Canopy for ceiling or end mount
- Universal directional chevron arrow knockouts
- Tamper resistant screws supplied
- 120V standard
- AC illumination provided by two 145V, 15T6 incandescent lamps
- Suitable for damp locations (AC models only)

**Emergency Models**

- Maintenance-free battery
- High impact housing
- Dual voltage – 120V/277VAC
- Two 6V, 3.7W DC lamps for emergency operation
- Temperature range: 20°C to 30°C (68°F to 86°F)


## Ordering Information

**DEX 1 EMFA R W -SW3**

**Series**

**Faces**
**1** - Single
**2** - Double

**Operation**
**Blank** – AC-Only 120VAC
**EMFA** – Emergency 120/277VAC

**Letter Color**
**R** – Red
**G** – Green
**W** – White
**B** – Blue

**Background Color**
**R** – Red
**G** – Green
**W** – White

**Special Wording Option No.**
See table at right

**Special Wording Table**

| Option No.* | Description |
|---|---|
| -SW1 | TO EXIT |
| -SW2 | NOT AN EXIT |
| -SW3 | IN USE |
| -SW4 | XRAY IN USE |
| -SW5 | DARKROOM IN USE |
| -SW6 | CAUTION |
| -SW7 | DO NOT ENTER |
| -SW8 | TEST IN PROGRESS |
| -SW9 | ON AIR |
| -SW10 | AREA OF REFUGE |
| -SW11 | AREA OF REFUGE (w/wheelchair symbol) |
| -SW12 | AREA OF RESCUE ASSISTANCE |
| -SW13 | AREA OF RESCUE ASSISTANCE (w/wheelchair symbol) |
| -SW14 | ELEVATOR |
| -SW15 | RESTROOMS |
| -SW16 | MEN |
| -SW17 | MEN (w/symbol) |
| -SW18 | WOMEN |
| -SW19 | WOMEN (w/symbol) |


Other Special Wording models available. Consult Factory.
* *To order special wording diffusers, add Option Number suffix to model number. Ex: DEX1EMFARW-SW10*

## Accessories (Order Separately)

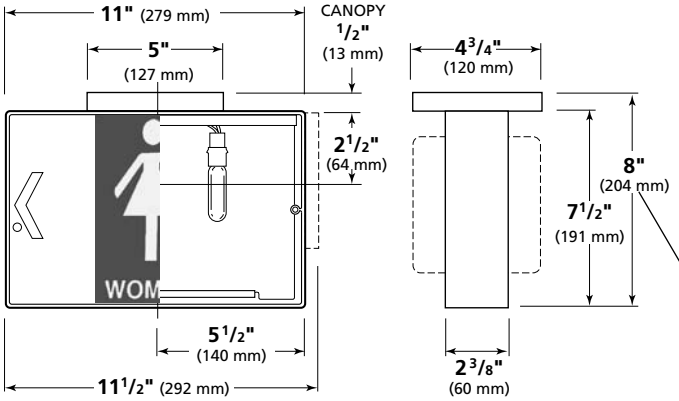
| | |
|---|---|
| **WG-MLT** | Wire guard (wall mount - all models) |
| **WGLXC** | Wire guard (ceiling mount - AC models only) |
| **WGTCE** | Wire guard (end mount - all models) |
| **PMEXW** | 12" pendant stem and canopy kit – white |
| **VRS3** | Vandal resistant shield |

## Power Consumption*

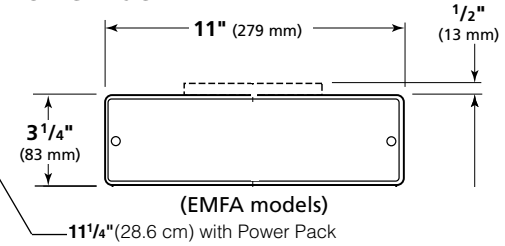
| | 120VAC | 277VAC |
|---|---|---|
| **AC Only Models** | 24W | -- |
| **Emergency Models** | 28W | 28W |

* *Wattage figures include incandescent lamps, transformers and electronics power requirements.*

## Dimensions




**Power Pack**



# SlimLite®

## Contemporary Emergency Light 12W

## Features

- Easy to install
- Sleek, low profile design
- Flame rated, UV stable thermoplastic housing
- Bright white finish
- 6 volt, T-5 incandescent lamps
- Acrylic fresnel lens provides a focused beam pattern
- Adjustable lamp socket
- Maintenance-free battery
- Universal 120/277VAC operation
- Fully-automatic, temperature-compensated, solid-state charger
- Reverse polarity and short circuit protection
- AC lockout
- Low-voltage battery disconnect
- Test switch and AC-On light
- Temperature range: 20°C to 30°C (68°F to 86°F)
- Meets ADA specifications
- UL 924 Listed

*Also available in black finish*

## Ordering Information

| Standard Model | Voltmeter Model |
|---|---|
| **SL1** | **SL1-V** |

## Options (Add suffix to model)

| | |
|---|---|
| **-B** | Black housing |
| **-6H** | 6 watt halogen lamps |

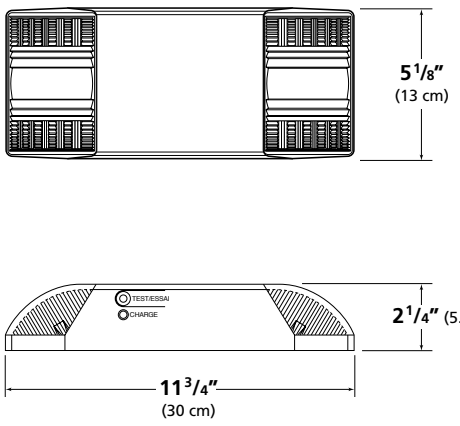
## Accessories (Order Separately)

| | |
|---|---|
| **VRS** | Vandal resistant shield |
| **WGLZ** | Wire guard |

## Product Selector Guide

| Base Catalog Number | Electrical | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Output Volts | Output Watts 1.5 Hours | 2 Hours | 3 Hours | 4 Hours | AC Input Volts | Amps | Watts | Standard Lamp | Remote Capability |
| **SL1, SL1-V** | 6 | 12.0 | -- | -- | -- | 120 | .050 | 6.0 | 5.4W | No |
| | | | | | | 277 | .020 | 6.0 | | |

## Dimensions



# Designer Emergency Light 11W to 30W

CV

## Features

- Fast, easy installation
- Snap-together design
- Compact, low-profile style
- Injection molded high impact, UV stabilized thermoplastic
- White or black finishes
- Standard and damp location models
- Remote capacity models
- High output incandescent lamps
- Maintenance-free battery
- Dual voltage – 120/277VAC
- Fully automatic charger
- Automatic low-voltage battery disconnect and transformer isolation protection
- Available with **Spectron®** self-testing/self-diagnostic electronics with time-delay retransfer (TDR) standard
- Universal mounting plate
- Test switch and LED AC-On light
- Temperature range: 20°C to 30°C (68°F to 86°F)
  Damp location models: 10°C to 40°C (50°F to 104°F)
- UL 924 Listed

## Ordering Information

| | | | |
|---|---|---|---|
| **Standard Models:** | **CV2** (6V, 12W) | **CV3** (6V, 18W) | **CV5** (6V, 30W) |
| **Damp Location Models:** | **CV2D** (6V, 11W) | **CV3D** (6V, 17W) | **CV5D** (6V, 27W) |
| **NiCad Models:** | **CV2N** (6V, 15W) | **CV5N** (6V, 30W) | |

## Options (Add suffix to model)

| | |
|---|---|
| **I** | Spectron self-testing/self-diagnostic electronics (1) |
| **-B** | Black housing |
| **-V** | Voltmeter |
| **-24K** | 220-240VAC, 60Hz operation (1) |
| **-A21** | Auxiliary 2-conductor AC line cord (120V only) (2) |
| **-A31** | Auxiliary 3-conductor AC line cord (120V only) (3) |

*(1) Not available with NiCad (CV2N, CV5N) models.*
*(2) For use with CV2, CV2D and CV2N models.*
*(3) For use with CV3, CV3D, CV5, CV5D and CV5N models.*

**Optional Lamps**
To order two nonstandard lamps on the fixture, suffix the catalog number. See the "Remote Heads and Fixtures" catalog section for available lamps.
Example: **CV5-SRHSW**0612.

## Accessories (Order Separately)

| | |
|---|---|
| **SRHSW** | Matching remote head - single (white) (a)(b) |
| **SRHDW** | Matching remote head - twin (white) (a)(b) |
| **OMSSB** | Single outdoor lighting head (black) (a)(b) |
| **OMSDB** | Twin outdoor lighting head (black) (a)(b) |
| **PMLZTW** | Pendant mounting kit (white) (c) |
| **PMLZTB** | Pendant mounting kit (black) (c) |
| **WGEL** | Wire guard |

*(a) Supplied with mounting plate. Specify voltage and wattage when ordering. Example: **SRHDW**0607.*
*(b) Replace "W" with "B" for black finish. Example: **OMSDB**0607.*
*(c) Not available for use with CV5, CV5D and CV5N models.*

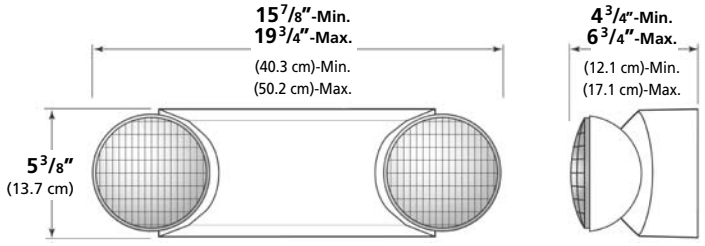
*Matching remote head*

*Outdoor lighting head*

## Product Selector Guide

| Base Catalog Number | Electrical | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Output Volts | Output Watts | | | | Input Amps | | Input Watts | Standard Lamp | Remote Capability |
| | | 1.5 Hrs. | 2 Hrs. | 3 Hrs. | 4 Hrs. | 120V | 277V | 120/277V | | |
| CV2 | 6 | 12 | -- | -- | -- | .040 | .020 | 4.0 | 5.4W | No |
| CV3 | 6 | 18 | 13 | -- | -- | .040 | .020 | 4.0 | 5.4W | Yes |
| CV5 | 6 | 30 | 22 | 15 | 12 | .130 | .060 | 14.0 | 5.4W | Yes |
| CV2D | 6 | 11 | -- | -- | -- | .040 | .020 | 4.0 | 5.4W | No |
| CV3D | 6 | 17 | 12 | -- | -- | .040 | .020 | 4.0 | 5.4W | Yes |
| CV5D | 6 | 27 | 20 | 13 | -- | .130 | .060 | 14.0 | 5.4W | Yes |
| CV2N | 6 | 15 | 11 | -- | -- | .070 | .030 | 9.0 | 5.4W | No |
| CV5N | 6 | 30 | 22 | 15 | 12 | .120 | .050 | 14.0 | 5.4W | Yes |

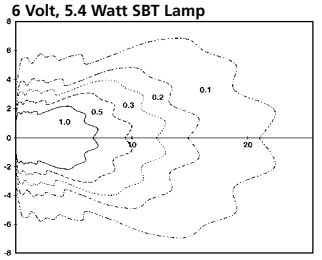
## Dimensions




## Photometrics

**Horizontal Isofootcandle Distribution**

**6 Volt, 5.4 Watt SBT Lamp**



# CVEC

## Commercial Emergency Light 15W to 100W

## Features

- Injection molded high impact, UV stabilized thermoplastic
- Standard white housing
- T-5 incandescent lamps
- Lampheads may be top or side mounted
- Most models capable of powering remote lampheads
- Maintenance-free battery
- Dual voltage – 120/277VAC
- Automatic low voltage disconnect
- Thermally compensated charger
- Regulated charge voltage
- Automatic low voltage disconnect
- Available with **Spectron®** self-testing/self-diagnostic electronics with time-delay retransfer (TDR) standard
- Reverse polarity protection
- Filtered charger output
- Universal wall mounting plate
- Short circuit protection
- AC lockout
- Test switch and AC-On light
- Temperature range: 20°C to 30°C (68°F to 86°F)
- UL 924 Listed

## Ordering Information

| | | | | | |
|---|---|---|---|---|---|
| **Standard Models:** | **CVEC15** | **CVEC30** | **CVEC50** | **CVEC50-12V** | **CVEC100-12V** |
| **NiCad Models:** | **CVEC15N** | **CVEC30N** | **CVEC50N** | **CVEC50N-12V** | **CVEC100N-12V** |

## Options (Add suffix to model)

| | |
|---|---|
| **I** | Spectron self-testing/self-diagnostic electronics (1) |
| **-B** | Black housing |
| **-V** | Voltmeter |
| **-A21** | Auxiliary 2-conductor AC line cord (120V only) (2) |
| **-A31** | Auxiliary 3-conductor AC line cord (120V only) (3) |
| **-0** | Unit supplied with no lighting heads (3) |
| **-24K** | 220-240VAC, 60Hz operation (1) |

*(1) Not available with NiCad models.*
*(2) Available on CVEC15 and CVEC15N models only.*
*(3) Available on all models except CVEC15 and CVEC15N.*

**Optional Lamps**
To order two nonstandard lamps on the fixture, suffix the catalog number. See the "Remote Heads and Fixtures" catalog section for available lamps. Example: CVEC50-**SRHSW0618**.

## Accessories (Order Separately)

| | |
|---|---|
| **40G** | Wire guard (a) |
| **41G** | Wire guard (b) |
| **OMSSW** | Matching 6-volt remote head - single (c)(d) |
| **OMSDW** | Matching 6-volt remote head - twin (c)(d) |
| **OMSSW** | Matching 12-volt remote head - single (c)(d) |
| **OMSDW** | Matching 12-volt remote head - twin (c)(d |
| **SRHSW** | Matching 6-volt remote head - single (c)(d) |
| **SRHDW** | Matching 6-volt remote head - twin (c)(d) |
| **SRHSW** | Matching 12-volt remote head - single (c)(d) |
| **SRHDW** | Matching 12-volt remote head - twin (c)(d) |

*(a) For top mounted heads on CVEC 15 and 30 watt models.*
*(b) For top mounted heads on CVEC 50 and 100 watt models and side mounted heads on CVEC 15 and 30 watt models.*
*(c) Supplied with mounting plate. Specify voltage and wattage when ordering. Example: **SRHDW**0607.*
*(d) Replace "W" with "B" for black finish. Example: **OMSDB**0607.*

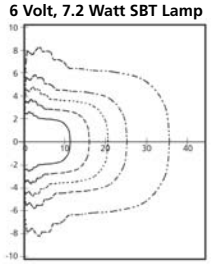
## Product Selector Guide

| Standard Models | Electrical | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Output Volts | Output Watts | | | | Input Amps | | Input Watts | | Standard Lamp | Remote Capability |
| | | 1.5 Hrs. | 2 Hrs. | 3 Hrs. | 4 Hrs. | 120V | 277V | 120 | 277V | | |
| **CVEC15** | 6 | 15 | -- | -- | -- | .07 | .03 | 8.4 | 8.8 | 7.2W | No |
| **CVEC30** | 6 | 30 | 22 | 15 | 12 | .07 | .03 | 8.4 | 8.8 | 7.2W | Yes |
| **CVEC50** | 6 | 50 | 38 | 25 | 20 | .17 | .08 | 20 | 20 | 7.2W | Yes |
| **CVEC50-12V** | 12 | 50 | 38 | 25 | 20 | .11 | .05 | 13 | 14 | 7.2W | Yes |
| **CVEC100-12V** | 12 | 100 | 76 | 54 | 44 | .32 | .14 | 39 | 28 | 7.2W | Yes |

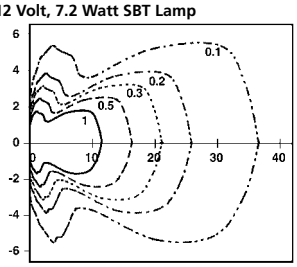
## Photometrics

Horizontal Isofootcandle Distribution

**6 Volt, 7.2 Watt SBT Lamp**

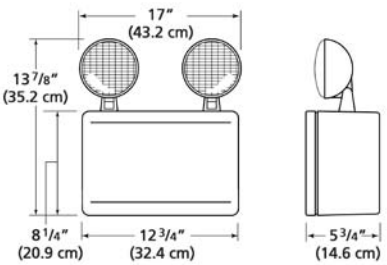


**12 Volt, 7.2 Watt SBT Lamp**

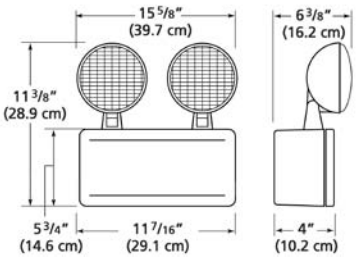



## Dimensions

**50 and 100W Models**




**15 and 30W Models**



# Thermoplastic LED Exit Sign

# CV3

## Features

**All Models**

- UV-stable thermoplastic housing
- Compact, low-profile design
- Easy to install
- Long-life LED lamps
- Bright, even illumination
- Red and green letters
- Universal single/double face
- White finish
- Push-in wiring connectors
- Universal end/ceiling/wall mount
- Universal snap-in, chevron arrows
- Damp location listed
- 120/277VAC, 60 Hz operation

**Emergency Models**

- Solid-state charger with low voltage disconnect
- Maintenance-free NiCad battery
- 90 minute emergency operation
- Test switch and AC-On light
- Temperature range: 10°C to 40°C (50°F to 104°F)
- UL 924 Listed
- Available with **Spectron®** self-testing/self-diagnostic electronics


## Ordering Information

**CV3 R E W -2C**

- **CV3** — Series
- **R** — Letter Color: **R** - Red; **G** - Green
- **E** — Operation: **A** - AC Only; **E** - Emergency
- **W** — Housing Finish: **W** - White; **B** - Black
- **-2C** — Options

## Options (Add suffix to model)

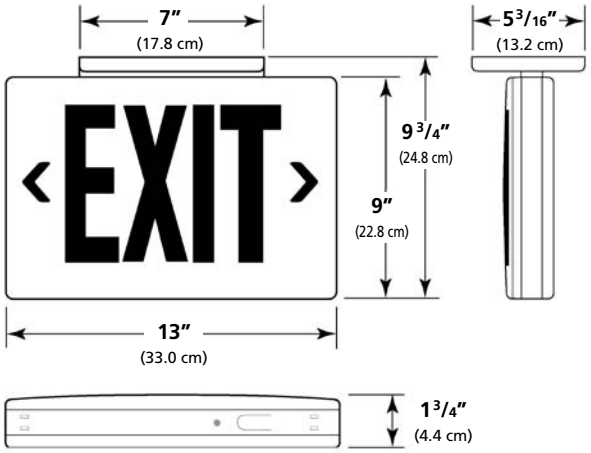
| | |
|---|---|
| **I** | Spectron self-testing/self-diagnostic electronics (1) |
| **-2C** | 2-circuit operation (2)(5) |
| **-FAP** | Fire alarm panel interface (3)(5)(6) |
| **-FM** | Flasher module (1)(6) |
| **-AF** | Audible/Flasher module (1)(6) |
| **-DC** | Remote DC operation (2)(4)(5) |
| **-24K** | 220-240VAC, 60 Hz. operation |

*(1) For use with emergency models only.*
*(2) For use with AC models only.*
*(3) Operates with 24-volt AC or DC fire alarm panels.*
*(4) For emergency illumination of sign from remote 6-24 VDC power sources.*
*(5) -DC option may not be specified with -2C or -FAP options.*
*(6) -AF, -FM and -FAP options may not be specified together.*

## Accessories (Order Separately)

| | |
|---|---|
| **PMLXB** | Pendant mounting kit (black) |
| **PMLXW** | Pendant mounting kit (white) |
| **WGLX** | Wire guard (Wall mount) |
| **WG-MLT** | Wire guard (Wall mount) |
| **WGLXC** | Wire guard (Ceiling mount) |
| **WGLXE** | Wire guard (End mount) |
| **VRS3** | Vandal resistant shield |

## Dimensions




## Power Consumption*

| | 120VAC | 277VAC |
|---|---|---|
| Red AC Only Models | 2.7 watts | 2.7 watts |
| Green AC Only Models | 2.3 watts | 2.3 watts |
| Red Emergency Models | 3.8 watts | 3.8 watts |
| Green Emergency Models | 3.5 watts | 3.5 watts |

*Power factor, average: .8 (lagging)*

** Wattage figures include LED lamps, transformer and electronics power requirements.*

# CVT

## Thermoplastic Tandem Unit


## Features

- Factory assembled emergency unit/LED exit sign
- UV-stable thermoplastic housing
- High-output lighting heads
- White or black finishes available
- Damp location listed models available
- 120/277VAC, 60 Hz operation
- Solid-state charger with low-voltage disconnect
- Maintenance-free battery
- Test switch and LED AC-On light
- Long-life LED lamps
- Bright, even illumination
- Universal single/double face
- Red and green letter models
- Snap-in, chevron arrows
- Ceiling or wall mounting
- Temperature range: 20°C to 30°C (68°F to 86°F)
  Damp location models: 10°C to 40°C (50°F to 104°F)
- UL 924 Listed
- Available with **Spectron®** self-testing/self-diagnostic electronics with time-delay retransfer (TDR) standard

## Ordering Information

**CVT3 R W 5 D -24K**

**Series**

**Letter Color**
R - Red
G - Green

**Housing Finish**
W - White
B - Black

**Remote Heads**
Blank - No remote capability
3 - Operates 1 additional 5.4W remote head
5 - Operates up to 3 additional 5.4W remote heads

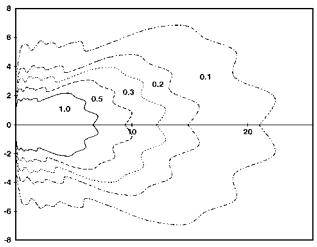
**Application**
Blank - Standard model
D - Damp location model*
** Only available on 3-head or 5-head models*

**Options**
I Spectron self-testing/self-diagnostic electronics
-FAP Fire alarm panel interface (1)(2)
-FM Flasher module (2)
-AF Audible/Flasher module (2)
-24K 220/240VAC, 60Hz operation
*(1) Operates with 24-volt AC or DC fire alarm panels.*
*(2) -FAP, -FM, and -AF options may not be specified together.*

## Photometrics

**Horizontal Isofootcandle Distribution**

6 Volt. 5.4 Watt SBT Lamp

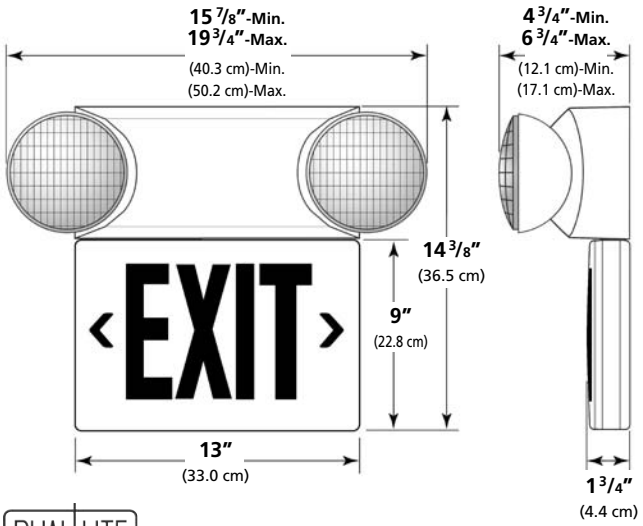



## Product Selector Guide

| Base Catalog Number | Electrical | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Output Volts | Output Watts | | | | Input Amps | | Input Watts | | Standard Lamp | Remote Capability |
| | | 1.5 Hrs. | 2 Hrs. | 3 Hrs. | 4 Hrs. | 120V | 277V | 120V | 277V | | |
| CVT3xx | 6 | 10.8 | -- | -- | -- | .050 | .020 | 5.0 | 5.0 | 5.4W | No |
| CVT3xx3 | 6 | 18 | 13 | -- | -- | .050 | .020 | 5.0 | 5.0 | 5.4W | 1 - 5.4W Remote |
| CVT3xx5 | 6 | 30 | 22 | 15 | 12 | .140 | .070 | 15.0 | 15.0 | 5.4W | 3 - 5.4W Remotes |
| CVT3xx3D | 6 | 16.2 | 11 | -- | -- | .050 | .020 | 5.0 | 5.0 | 5.4W | 1 - 5.4W Remote |
| CVT3xx5D | 6 | 27 | 20 | 13 | -- | .140 | .070 | 15.0 | 15.0 | 5.4W | 3 - 5.4W Remotes |

Damp location only available on 3-head and 5-head models.

## Dimensions




## Accessories (Order Separately)

| | |
|---|---|
| **SRHSW** | Matching remote head - single (white) (a)(b) |
| **SRHDW** | Matching remote head - twin (white) (a)(b) |
| **OMSSB** | Single outdoor lighting head (black) (a)(b) |
| **OMSDB** | Twin outdoor lighting head (black) (a)(b) |
| **PMLZTB** | Pendant mounting kit (black) (c) |
| **PMLZTW** | Pendant mounting kit (white) (c) |
| **WGTW** | Wire guard (Wall mount) |
| **WGTCE** | Wire guard (Ceiling mount) |

*(a) Supplied with mounting plate. Specify voltage and wattage when ordering. Example: **SRHDW**0607.*

*(b) Replace "W" with "B" for black finish. Example: **OMSDB**0607.*

*(c) Not available for use with 5-head models.*



DUAL LITE

CLEARVIEW™

# Cast Aluminum LED Exit Sign

CVD

## Features

**AC Models**

- All diecast aluminum construction
- Soft edges and corners
- White and black with brushed face finishes
- Break-out directional chevrons
- Universal mounting KO pattern
- Back/ceiling/end mounting
- Dual voltage – 120/277VAC
- Bright and even illumination
- Long-life LED lamps

**Emergency Models**

- Long life NiCad battery
- 90 minute emergency operation
- Test switch and AC-On indicator
- Reverse polarity, short circuit and brownout protection
- Thermally compensated charger
- AC lockout
- Temperature range: 20°C to 30°C (68°F to 86°F)
- UL 924 Listed


## Ordering Information

**CVD 1 R A BN -2C**

**Series**

**Faces**
1 - Single
2 - Double

**Letter Color**
R - Red
G - Green

**Operation**
A - AC Only
E - Emergency

**Housing Finish**
W - White
BN - Black with brushed face

**Options**

## Options (Add suffix to model)

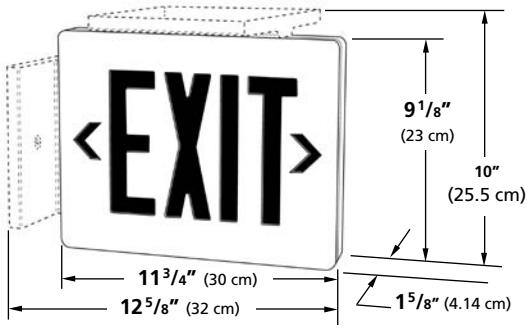
| | |
|---|---|
| **-DC** | Remote DC operation (1) |
| **-2C** | 2-circuit operation (1) |

*(1) For use with AC models only. May not be specified together.*

## Accessories (Order Separately)

| | |
|---|---|
| **GCR-E** | Emergency Power Kit (red letters) |
| **GCG-E** | Emergency Power Kit (green letters) |
| **PMCW** | 12½" Pendant mounting kit (white) |
| **PMCB** | 12½" Pendant mounting kit (black) |
| **WGLX** | Wire guard (Wall mount) |
| **WG-MLT** | Wire guard (Wall mount) |
| **WGLXC** | Wire guard (Ceiling mount) |
| **WGLXE** | Wire guard (End mount) |

## Dimensions




## Power Consumption*

| | 120VAC | 277VAC |
|---|---|---|
| **Red AC Only Models:** | 2.6 watts | 2.6 watts |
| **Green AC Only Models:** | 2.1 watts | 2.1 watts |
| **Red Emergency Models:** | 3.8 watts | 3.8 watts |
| **Green Emergency Models:** | 3.5 watts | 3.5 watts |

**Wattage figures include LED lamps, transformer and electronics power requirements. LED lamp assemblies (red or green) consume less than 1 watt. Power factor, average: .8 (lagging)*

# CVER/CVES Edge-Lit LED Exit Sign


## Features

- Recess mounting models for ceiling installation
- Surface mounting models (ceiling, end, walls) with canopy
- Metal construction
- Acrylic plaque
- Red or green letter models
- Field-installed applique chevron directional arrows
- Long-life LED lamps
- Bright, even letter illumination
- Energy-saving operation
- Easy to install
- 120/277VAC, 60 Hz operation
- Fully automatic, solid state charger
- Maintenance-free NiCad battery
- Low voltage disconnect
- Test switch and AC-On light
- Temperature range: 20°C to 30°C (68°F to 86°F)
- 90 minute emergency operation
- UL Listed to Standard 924 (Emergency Lighting)

## Ordering Information

**CVER 1 R N E**

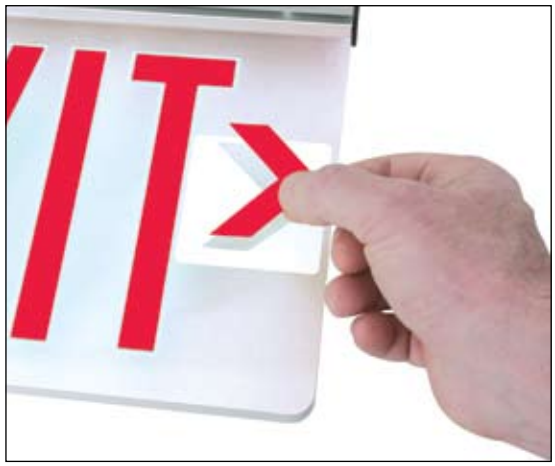
**Series**
CVER - Recessed mount
CVES - Surface mount

**Faces**
1 - Single
2 - Double*
* *Provided standard with mirror background.*

**Letter Color**
R - Red
G - Green

**Operation**
E - Emergency

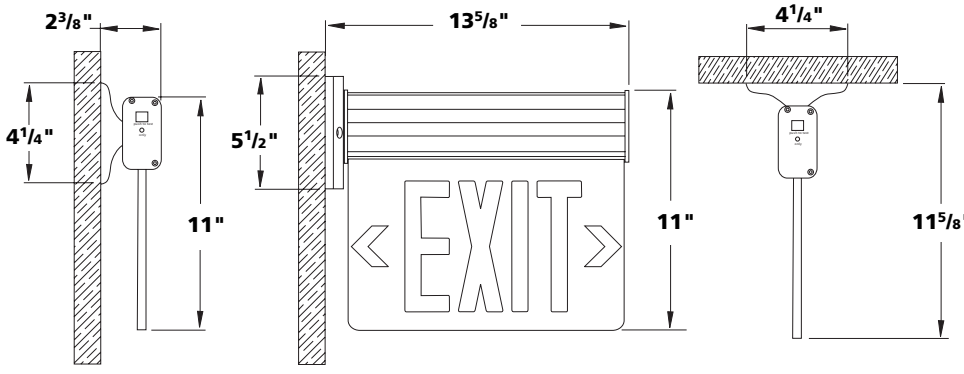
**Trim/Housing Finish**
N - Satin aluminum



*Field installable chevrons provide for all possible directional arrow requirements.*

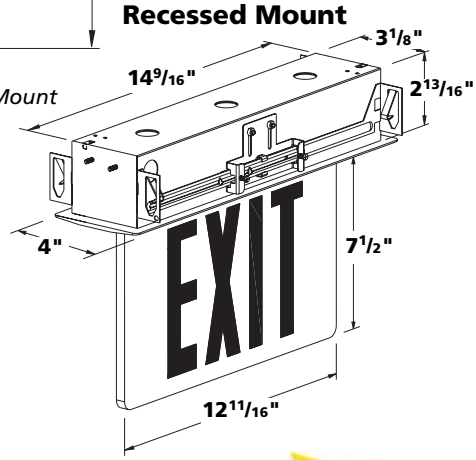
## Dimensions

### Surface Mount




*Wall Mount* *End Mount* *Ceiling Mount*

### Recessed Mount




## Power Consumption*

| | 120VAC | 277VAC |
|---|---|---|
| Red Emergency Models | 4.0W | 4.0W |
| Green Emergency Models | 4.5W | 4.4W |

* *Wattage figures include LED lamps, transformers and electronics power requirements.*

# Remote Heads and Fixtures

## Standard Remote Lighting Heads

### SRH Series

Injection molded thermoplastic lamphead/round mounting plate assemblies. Mounts to 3½" octagonal or single gang boxes. For use with most commercial or industrial emergency fixtures. Standard finish is available in white or black. Single and twin lamp fixtures with a choice of incandescent or halogen PAR 36 lamps.

*Lamp photometrics and IES files available on the web at www.dual-lite.com*

| | White | | Black | | | | |
|---|---|---|---|---|---|---|---|
| | Single Head With Mounting Plate | Twin Head With Mounting Plate | Single Head With Mounting Plate | Twin Head With Mounting Plate | Lamp Voltage | Lamp Wattage | Lamp Part No. |
| Incandescent PAR 36 Sealed Beam | SRHSW0605 | SRHDW0605 | SRHSB0605 | SRHDB0605 | 6 | 5.4 | 0110258* |
| | SRHSW0607 | SRHDW0607 | SRHSB0607 | SRHDB0607 | 6 | 7.2 | 0110213* |
| | SRHSW0618 | SRHDW0618 | SRHSB0618 | SRHDB0618 | 6 | 18 | 0110127 |
| | SRHSW0625 | SRHDW0625 | SRHSB0625 | SRHDB0625 | 6 | 25 | 0110041 |
| | SRHSW1207 | SRHDW1207 | SRHSB1207 | SRHDB1207 | 12 | 7.2 | 0110289* |
| | SRHSW1218 | SRHDW1218 | SRHSB1218 | SRHDB1218 | 12 | 18 | 0110128 |
| | SRHSW1225 | SRHDW1225 | SRHSB1225 | SRHDB1225 | 12 | 25 | 0110132 |
| | SRHSW1235 | SRHDW1235 | SRHSB1235 | SRHDB1235 | 12 | 35 | 0110233 |
| | SRHSW2409 | SRHDW2409 | SRHSB2409 | SRHDB2409 | 24 | 9 | 0110230* |
| Halogen PAR 36 Sealed Beam | SRHSW0608 | SRHDW0608 | SRHSB0608 | SRHDB0608 | 6 | 8 | 0110162 |
| | SRHSW0612 | SRHDW0612 | SRHSB0612 | SRHDB0612 | 6 | 12 | 0110159 |
| | SRHSW0620 | SRHDW0620 | SRHSB0620 | SRHDB0620 | 6 | 20 | 0110157 |
| | SRHSW1208 | SRHDW1208 | SRHSB1208 | SRHDB1208 | 12 | 8 | 0110189 |
| | SRHSW1212 | SRHDW1212 | SRHSB1212 | SRHDB1212 | 12 | 12 | 0110190 |

** Sealed Beam type lamp*

## Outdoor Remote Lighting Heads

### OMS Series

Outdoor aluminum spot with sealed lamp and swivel assembly. Furnished with round gasketed aluminum mounting plate. Mounts to 3½" octagonal boxes.

*Lamp photometrics and IES files available on the web at www.dual-lite.com*

| | White | | Black | | | | |
|---|---|---|---|---|---|---|---|
| | Single Head With Mounting Plate | Twin Head With Mounting Plate | Single Head With Mounting Plate | Twin Head With Mounting Plate | Lamp Voltage | Lamp Wattage | Lamp Part No. |
| Incandescent PAR 36 Sealed Beam | OMSSW0605 | OMSDW0605 | OMSSB0605 | OMSDB0605 | 6 | 5.4 | 0110258* |
| | OMSSW0607 | OMSDW0607 | OMSSB0607 | OMSDB0607 | 6 | 7.2 | 0110213* |
| | OMSSW0618 | OMSDW0618 | OMSSB0618 | OMSDB0618 | 6 | 18 | 0110127 |
| | OMSSW0625 | OMSDW0625 | OMSSB0625 | OMSDB0625 | 6 | 25 | 0110041 |
| | OMSSW1207 | OMSDW1207 | OMSSB1207 | OMSDB1207 | 12 | 7.2 | 0110289* |
| | OMSSW1218 | OMSDW1218 | OMSSB1218 | OMSDB1218 | 12 | 18 | 0110128 |
| | OMSSW1225 | OMSDW1225 | OMSSB1225 | OMSDB1225 | 12 | 25 | 0110132 |
| | OMSSW1235 | OMSDW1235 | OMSSB1235 | OMSDB1235 | 12 | 35 | 0110233 |
| Halogen PAR 36 Sealed Beam | OMSSW0608 | OMSDW0608 | OMSSB0608 | OMSDB0608 | 6 | 8 | 0110162 |
| | OMSSW0612 | OMSDW0612 | OMSSB0612 | OMSDB0612 | 6 | 12 | 0110159 |
| | OMSSW0620 | OMSDW0620 | OMSSB0620 | OMSDB0620 | 6 | 20 | 0110157 |
| | OMSSW1208 | OMSDW1208 | OMSSB1208 | OMSDB1208 | 12 | 8 | 0110189 |
| | OMSSW1212 | OMSDW1212 | OMSSB1212 | OMSDB1212 | 12 | 12 | 0110190 |

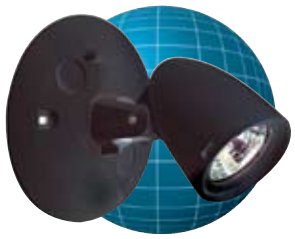
** Sealed Beam type lamp*

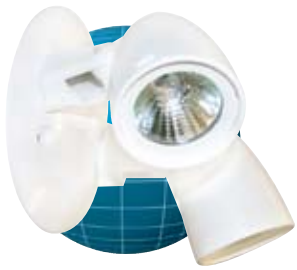
# Remote Heads and Fixtures

## Remote Lighting Heads

### CPR Series

Injection molded thermoplastic decorative lamphead and mounting plate assembly. Mounts to 3-1/2" octagonal or single gang boxes. Single and twin lamp fixtures with MR16 lamp included. Standard finish is available in white or black.





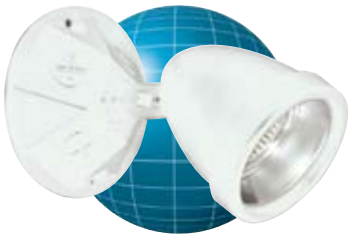
*IES files available on the web at www.dual-lite.com*

| White | | Black | | | | |
|---|---|---|---|---|---|---|
| Single Head With Mounting Plate | Twin Head With Mounting Plate | Single Head With Mounting Plate | Twin Head With Mounting Plate | Lamp Voltage | Lamp Wattage | Lamp Part No. |
| CPRSW0605 | CPRDW0605 | CPRSB0605 | CPRDB0605 | 6 | 5 | 0110256 |
| CPRSW1205 | CPRDW1205 | CPRSB1205 | CPRDB1205 | 12 | 5 | 0110263 |

## Decorative Outdoor Remote Lighting Heads

### OCR Series

Outdoor UL Wet Location Listed die cast aluminum lamp head and mounting plate assembly complete with MR 16 lamp. Single or twin lamp fixtures available in dark bronze, black or white polyester powder coat finish. Mounts to 3-1/2" octagonal or single gang boxes. Available with 5 and 10 watt lamps. Housing rated up to 50 watts. Lamps higher than 10 watts supplied by others.



*IES files available on the web at www.dual-lite.com*

| Single Head with Mounting Plate | Twin Head with Mounting Plate | Color | Lamp Voltage | Lamp Wattage | Lamp Part No. |
|---|---|---|---|---|---|
| OCRSW0605 | OCRDW0605 | White | 6 | 5 | 0110256 |
| OCRSB0605 | OCRDB0605 | Black | 6 | 5 | 0110256 |
| OCRSZ0605 | OCRDZ0605 | Dark Bronze | 6 | 5 | 0110256 |

***For non-standard lamp ordering, refer to lamp availability table and ordering instructions below:***

| Lamp Part Number | Lamp Description | Lamp Type | Lamp Voltage | Lamp Wattage |
|---|---|---|---|---|
| 0110261 | MR16 6V10W | Halogen | 6 | 10 |
| 0110263 | MR16 12V5W | Halogen | 12 | 5 |
| 0110264 | MR16 12V10W | Halogen | 12 | 10 |

**Example:** to order a **12V 5W twin head**, order:
**1 ea. OCRD*0605 Twin Head assembly**
**2 ea. 0110263 MR16 12V5W Lamp**

***** = Insert **W** (white), **B** (black) or **Z** (dark bronze) for finish

# Remote Heads and Fixtures

## All Metal Remote Lighting Heads

### AHD

Stamped aluminum housing with metal swivel. Standard finish available in white or black. Choice of incandescent or halogen PAR 36 lamps.

*Lamp photometrics and IES files available on the web at www.dual-lite.com*

| | White | | Black | | | | |
|---|---|---|---|---|---|---|---|
| | Single Head With Mounting Plate | Twin Head With Mounting Plate | Single Head With Mounting Plate | Twin Head With Mounting Plate | Lamp Voltage | Lamp Wattage | Lamp Part No. |
| Incandescent PAR 36 Sealed Beam | AHDSW0605 | AHDDW0605 | AHDSB0605 | AHDDB0605 | 6 | 5.4 | 0110258* |
| | AHDSW0607 | AHDDW0607 | AHDSB0607 | AHDDB0607 | 6 | 7.2 | 0110213* |
| | AHDSW0618 | AHDDW0618 | AHDSB0618 | AHDDB0618 | 6 | 18 | 0110127 |
| | AHDSW0625 | AHDDW0625 | AHDSB0625 | AHDDB0625 | 6 | 25 | 0110041 |
| | AHDSW1207 | AHDDW1207 | AHDSB1207 | AHDDB1207 | 12 | 7.2 | 0110289* |
| | AHDSW1218 | AHDDW1218 | AHDSB1218 | AHDDB1218 | 12 | 18 | 0110128 |
| | AHDSW1225 | AHDDW1225 | AHDSB1225 | AHDDB1225 | 12 | 25 | 0110132 |
| | AHDSW1235 | AHDDW1235 | AHDSB1235 | AHDDB1235 | 12 | 35 | 0110233 |
| | AHDSW2407 | AHDDW2407 | AHDSB2407 | AHDDB2407 | 24 | 7.2 | 0110212* |
| | AHDSW2413 | AHDDW2413 | AHDSB2413 | AHDDB2413 | 24 | 13 | 0110009* |
| | AHDSW2418 | AHDDW2418 | AHDSB2418 | AHDDB2418 | 24 | 18 | 0110010* |
| | AHDSW2428 | AHDDW2428 | AHDSB2428 | AHDDB2428 | 24 | 28 | 0110011* |
| Halogen PAR 36 Sealed Beam | AHDSW0608 | AHDDW0608 | AHDSB0608 | AHDDB0608 | 6 | 8 | 0110162 |
| | AHDSW0612 (1) | AHDDW0612 (1) | AHDSB0612 | AHDDB0612 | 6 | 12 | 0110159 |
| | AHDSW0620 | AHDDW0620 | AHDSB0620 | AHDDB0620 | 6 | 20 | 0110157 |
| | AHDSW1208 | AHDDW1208 | AHDSB1208 | AHDDB1208 | 12 | 8 | 0110189 |
| | AHDSW1212 (1) | AHDDW1212 (1) | AHDSB1212 | AHDDB1212 | 12 | 12 | 0110190 |

** Sealed Beam type lamp*
*(1) Matches LM City of Chicago models.*

## Environmental Lighting Head

### GNX Series

Moisture resistant thermo-plastic head in black finish with coated lamp terminals and sealed swivel assembly. Furnished with mounting plate. Available with a choice of incandescent or halogen PAR 36 lamps. Matches N4X series units.

*Available with shatter containment option. Add "-L" to model number for Sealed Beam Lamps PAR36 only. Example:* ***GNXSB0625-L***

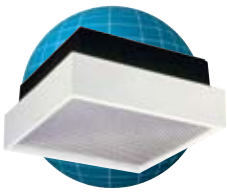
*Lamp photometrics and IES files available on the web at www.dual-lite.com*

| | N4X Remote Head Models | | Lamp Volts | Lamp Watts | Lamp Part No. |
|---|---|---|---|---|---|
| | Single | Twin | | | |
| Incandescent PAR 36 Sealed Beam | GNXSB0605 | GNXDB0605 | 6 | 5.4 | 0110258* |
| | GNXSB0607 | GNXDB0607 | 6 | 7.2 | 0110213* |
| | GNXSB0618 | GNXDB0618 | 6 | 18 | 0110127 |
| | GNXSB0625 | GNXDB0625 | 6 | 25 | 0110041 |
| | GNXSB1209 | GNXDB1209 | 12 | 9 | 0110202* |
| | GNXSB1218 | GNXDB1218 | 12 | 18 | 0110128 |
| | GNXSB1225 | GNXDB1225 | 12 | 25 | 0110132 |
| | GNXSB1235 | GNXDB1235 | 12 | 35 | 0110233 |
| Halogen PAR 36 Sealed Beam | GNXSB0608 | GNXDB0608 | 6 | 8 | 0110162 |
| | GNXSB0612 | GNXDB0612 | 6 | 12 | 0110159 |
| | GNXSB0620 | GNXDB0620 | 6 | 20 | 0110157 |
| | GNXSB1208 | GNXDB1208 | 12 | 8 | 0110189 |
| | GNXSB1212 | GNXDB1212 | 12 | 12 | 0110190 |

** Sealed Beam Type lamp*

# Remote Heads and Fixtures

## Square



### RERS

Injection molded housing. Surface mounted. Semi-recessed or recessed mounting available with kit. Black box, white trim. Single (RERS-1) and twin (RERS-2) lamp models. Dimensions and mounting kits same as **Lite²**.

| Catalog No. | Lamp Part No. |
|---|---|
| **RERS-1**-0609 | 0110163 |
| **RERS-2**-0607 | 0110213 |

**F-SRM** Semi-recessed mounting kit

**-FRM** Fully-recessed option

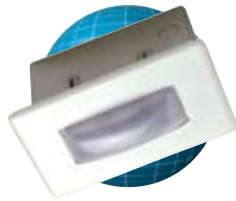
## Recessed Eyeball

### 133

Adjustable to 42° and rotated through 358°. White standard, other finishes upon request. Dimensions: Trim ring: 4⅞" dia. Back box: 4³⁄₁₆" deep x 4" dia.

| Catalog No. | Lamp Part No. |
|---|---|
| **133**-0618 | 0110002 |
| **133**-1218 | 0110006 |

## Recessed Rectangle



### 124R

Recessed mounted fixture with frosted lens. White trim. Dimensions: 8³⁄₁₆" x 4½" x 4".

| Catalog No. | Lamp Part No. |
|---|---|
| **124R**-0628 | 0110003 |
| **124R**-1228 | 0110007 |

## Gimbal

### 122

Adjustable (60° max.) recessed mounted fixture. Matte white trim. Dimensions: 8½" dia. x 4½".

**Incandescent PAR 36 Lamp Models**

| Catalog No. | Lamp Part No. |
|---|---|
| **122SB**-0625 | 0110041 |
| **122SB**-1225 | 0110132 |

**Halogen PAR 36 Lamp Models**

| Catalog No. | Lamp Part No. |
|---|---|
| **122SB**-0608 | 0110162 |
| **122SB**-0612 | 0110159 |
| **122SB**-0620 | 0110157 |
| **122SB**-1208 | 0110189 |
| 122SB-1212 | 0110190 |

**Bayonet Base Lamp Models**

| Catalog No. | Lamp Part No. |
|---|---|
| **122**-2407 | 0110212 |
| **122**-2413 | 0110009 |
| **122**-2418 | 0110010 |
| **122**-2428 | 0110011 |

## LZ Series Matching Remote Lighting Heads

### LZR

Architectural/commercial design. High performance MR-16 halogen lamps standard. Mounts to standard electrical boxes using universal mounting plate provided. Fixture housing mounts to back plate in a choice of four mounting positions. Housings secured using locking screws provided.

| Single Remote Head -White | Single Remote Head - Black | Lamp Volts | Lamp Watts | Lamp Part No. |
|---|---|---|---|---|
| LZRSW0605 | LZRSB0605 | 6 | 5 | 0110256 |
| LZRSW0610 | LZRSB0610 | 6 | 10 | 0110261 |
| LZRSW1205 | LZRSB1205 | 12 | 5 | 0110263 |
| LZRSW1210 | LZRSB1210 | 12 | 10 | 0110264 |

| Twin Remote Head -White | Twin Remote Head - Black | Lamp Volts | Lamp Watts | Lamp Part No. |
|---|---|---|---|---|
| LZRDW0605 | LZRDB0605 | 6 | 5 | 0110256 |
| LZRDW0610 | LZRDB0610 | 6 | 10 | 0110261 |
| LZRDW1205 | LZRDB1205 | 12 | 5 | 0110263 |
| LZRDW1210 | LZRDB1210 | 12 | 10 | 0110264 |

*Lamp photometrics and IES files available on the web at www.dual-lite.com*

### C1D2R/C1D2TR

Suitable for wet and damp location applications. Rated for NEC Class *I*, Division 2, Groups B, C and D as well as Class *I*, Zone 2, Group *II*B + $H_2$ environments. Black housing and head assemblies. Single (C1D2R) and twin (C1D2TR) head models.

3R Listed

| Lamps * | | Model Numbers | |
|---|---|---|---|
| | | Single Head | Twin Head |
| Volts | Watts | Hub Left Side(1)(2) | Hub Left Side(1)(2) |
| 6 | 8 | C1D2R-6V8W | C1D2TR-6V8W |
| 6 | 12 | C1D2R-6V12W | C1D2TR-6V12W |
| 12 | 8 | C1D2R-12V8W | C1D2TR-12V8W |
| 12 | 12 | C1D2R-12V12W | C1D2TR-12V12W |

** PAR 36 Halogen sealed beam lamps.*

*(1) Hub Right Side - add "R" to end of model number. Example C1D2R-6V8WR.*

*(2) Hubs Both Sides - add "F" to end of model number. Example C1D2R-6V8WF.*

*Consult factory for additional voltage and wattage configurations for remote fixtures.*

# Voltage Drop Tables

The National Electrical Code limits voltage drop to a maximum of 5% of nominal. Circuit runs must be of sufficient capacity to maintain operating voltage when remote fixtures and/or exit signs are connected to the emergency lighting

**TABLE A - Important Electrical Installation Information**

| Total Watts on Wire Run | 12 Volt System Wire Gauge #12 | #10 | #8 | #6 | Total Watts on Wire Run | 6 Volt System Wire Gauge #12 | #10 | #8 | #6 |
|---|---|---|---|---|---|---|---|---|---|
| | Max. Length of Wire Run (Feet) | | | | | Max. Length of Wire Run (Feet) | | | |
| 6 | 378 | 600 | 955 | 1518 | 6 | 94 | 150 | 238 | 379 |
| 7 | 324 | 515 | 818 | 1301 | 7 | 81 | 129 | 204 | 325 |
| 8 | 283 | 450 | 716 | 1138 | 8 | 70 | 112 | 179 | 284 |
| 10 | 226 | 360 | 570 | 910 | 10 | 56 | 90 | 143 | 227 |
| 12 | 178 | 283 | 450 | 715 | 12 | 44 | 70 | 112 | 178 |
| 14 | 162 | 257 | 409 | 650 | 14 | 40 | 64 | 102 | 162 |
| 16 | 133 | 212 | 338 | 538 | 16 | 33 | 53 | 84 | 134 |
| 18 | 119 | 189 | 300 | 477 | 18 | 30 | 47 | 75 | 119 |
| 20 | 113 | 180 | 286 | 455 | 20 | 28 | 45 | 71 | 114 |
| 21 | 108 | 171 | 273 | 434 | 21 | 27 | 43 | 68 | 108 |
| 24 | 89 | 141 | 225 | 357 | 24 | 24 | 38 | 60 | 95 |
| 25 | 86 | 136 | 216 | 344 | 25 | 21 | 34 | 54 | 86 |
| 30 | 75 | 120 | 190 | 303 | 30 | 19 | 30 | 48 | 76 |
| 35 | 65 | 103 | 164 | 260 | 35 | 15 | 25 | 39 | 63 |
| 40 | 53 | 85 | 135 | 214 | 40 | 13 | 21 | 33 | 53 |
| 48 | 44 | 70 | 112 | 178 | 48 | 11 | 17 | 28 | 44 |
| 50 | 43 | 68 | 108 | 172 | 50 | 11 | 17 | 27 | 43 |
| 75 | 28 | 45 | 72 | 115 | 75 | 7 | 11 | 18 | 29 |
| 100 | 21 | 34 | 54 | 86 | 100 | 5 | 8 | 14 | 21 |
| 125 | 17 | 27 | 43 | 69 | 125 | 4 | 7 | 11 | 17 |
| 150 | 14 | 23 | 36 | 57 | 150 | 3 | 5 | 9 | 14 |
| 175 | 12 | 19 | 31 | 49 | 175 | 3 | 5 | 8 | 12 |
| 200 | 10 | 16 | 27 | 42 | 200 | 2 | 4 | 6 | 10 |
| 225 | 10 | 16 | 25 | 40 | 225 | 2 | 4 | 6 | 10 |
| 250 | 9 | 14 | 22 | 36 | 250 | 2 | 3 | 5 | 9 |

Values not shown in Table A may be calculated using the following formulas:

**I. Maximum Length (Feet) =** $\frac{\text{Table B Constant Value}}{\text{Maximum Load (Watts)}}$

**Example:** Find the maximum circuit length for #8 wire on a 24 volt system with an 80 watt load.
Maximum Length (Feet) = 21613 ÷ 80 = **270** feet.

**II. Maximum Load (Watts) =** $\frac{\text{Table B Constant Value}}{\text{Maximum Length (Feet)}}$

**Example:** Find the maximum circuit load for 540 feet of #12 wire on a 32 volt system.
Maximum Load (Watts) = 15197 ÷ 540 = **28** watts.

## Table B

**Constant Values per Voltage System Wire Size (Maximum Voltage Drop 5%)**

| System | 6 Volt | | | | 12 Volt | | | | | 24 Volt | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Wire Size | #12 | #10 | #8 | #6 | #12 | #10 | #8 | #6 | #4 | #12 | #10 | #8 | #6 | #4 |
| Constant | 534 | 849 | 350 | 2148 | 2137 | 3397 | 5403 | 8590 | 13660 | 8548 | 13588 | 21613 | 34363 | 54641 |

| System | 32 Volt | | | | | 48 Volt | | | | | 110 Volt | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Wire Size | #12 | #10 | #8 | #6 | #4 | #12 | #10 | #8 | #6 | #4 | #12 | #10 | #8 | #6 | #4 | #2 |
| Constant | 15197 | 24157 | 38423 | 61090 | 97140 | 34193 | 54353 | 86452 | 137454 | 218565 | 179575 | 285450 | 454025 | 721875 | 1147850 | 1824900 |

**Uniform Loads**
**The maximum circuit length data in Table A (and derived from Table B) assumes that 100% of the load is concentrated at the end of the run. If equally sized loads can be equally spaced along the run, maximum circuit length can be increased by the multipliers shown in Table C.**

## Table C

**Multipliers for Equally Sized, Equally Spaced Loads (Maximum Voltage Drop 5%)**

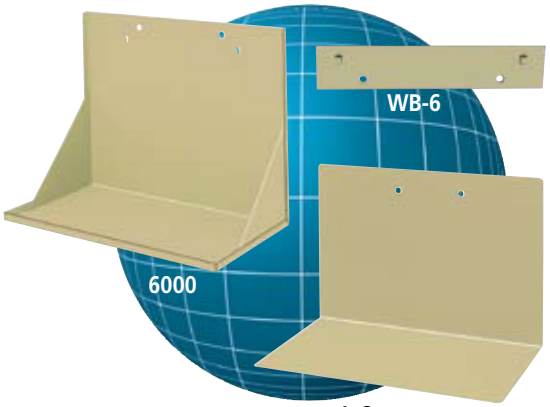
| Number of Fixtures | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | n |
|---|---|---|---|---|---|---|---|---|---|---|
| Multiply Distance By | 1.333 | 1.500 | 1.600 | 1.670 | 1.714 | 1.750 | 1.777 | 1.800 | 1.818 | 2n/(n+1) |

**Information republished is for reference only. Local codes and the local authority having jurisdiction are the most reliable sources to ensure code compliance.**

# Unit Accessories

## Mounting Brackets and Shelves

For mounting of AS Series industrial emergency lighting units.




| Mounting Brackets and Shelves | | |
|---|---|---|
| Cat. No. | Type | Dimensions |
| WB-6 | Bracket | -- |
| 6000 | Shelf | 11" H x 14" L x 8⅛" D |
| L-6 | Shelf | 11" H x 14" L x 8⅛" D |

## Vandal Resistant Shields

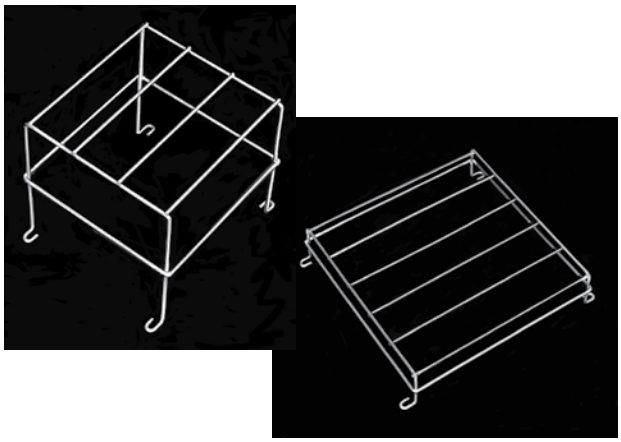
For protection against vandalism or accidental damage. Prevents tampering with mountings and lamps.


| Vandal Shields | | |
|---|---|---|
| Cat. No. | For Use With | Dimensions (Outside) |
| VRS<br>VRS-4X* | EZ-2, LZ, LZ High Capacity, EXT-122-EM-K, EZ-2R Series | 20" L x 10½" H x 7¾" D |
| VRS3 | LX, DK, Sempra and CV3 Series exits | 15½" L x 11½" H x 4½" D |

* *VRS-4X supplied with a neoprene wall gasket*

## Wire Guards

Offered for most Dual-Lite emergency lights and exits. Constructed of heavy gauge steel, all wire guards are standard with chrome plating. Order as separate line item.



| Wire Guards | | |
|---|---|---|
| Cat. No. | For Use With | Dimensions (Inside) |
| WGLZ | LZ Series (except High-Capacity models) | 6¼" H x 14" L x 4¼" D |
| S6WG | Single remote heads | 8" H x 8" L x 8" D |
| WGEL | EZ-2, EZ-2R and LZ High-Capacity Series, Twin remote heads, CV Series | 8" H x 20" L x 8" D |
| 40G | LM Series with top mounted heads, AS Series, N4X Series, CVEC Series (15 and 30 watt models) and NYXC tandem units | 18½" H x 20" L x 12" D |
| 41G | Delite Cylinder Series, HCX exits and CVEC Series (50 and 100 watt models) | 21" H x 23" L x 15" D |
| WGLX | EXT-122-EM-K, Wall mount LX, LED and Sempra Series exits, Wall Mount CV3 Series | 10" H x 14" L x 2¼" D |
| WGLXC | Ceiling mount LX, LED, Sempra and CV3 Series exits | 10¼" H x 13¾" L x 3½" D |
| WGLXE | End mount LX, LED and Sempra, CV3 and CVD Series exits | 10½" H x 14½" L x 3½" D |
| WGTW | Wall mount LT, Freedom LED, CVT NYDC and NYX Series exits | 16" H x 20" L x 7⅞" D |
| WGTCE | Ceiling or end mount LT, CVD, CVT and Freedom LED Series exits. Ceiling mount NYDC and NYX Series exits | 20" H x 16⅞" L x 8" D |
| WG-MLT | Lite² Series, Wall mount LX, DK, Sempra DEX, CV3 and CVD Series exits | 11⅝" H x 13⅝" L x 7" D |

# Limited Warranty: Unit Equipment, Exit Signs

| Product | Unit Warranty (Years) | Battery Warranty | |
|---|---|---|---|
| | | Full (Years) | Pro-Rata (Years) |
| ***Liteforms Emergency Lighting Units*** | | | |
| **LiteScape Series** | 1 | 1 | 5 |
| with Spectron option | 5 | 2 | 4 |
| nicad battery models | 1 | 1 | 9 |
| nicad with Spectron option | 5 | 2 | 4 |
| **EZ-2 Series** | 3 | 3 | 3 |
| with Spectron option | 5 | 5 | 5 |
| **LZ Series** | 1 | 1 | 5 |
| with Spectron option | 5 | 5 | 5 |
| **LZ High Capacity Series** | 1 | 1 | 5 |
| with Spectron option | 5 | 2 | 4 |
| nicad battery models | 3 | 1 | 9 |
| nicad with Spectron option | 5 | 2 | 8 |
| **LM Series** | | | |
| lead-calcium battery models | 1 | 1 | 5 |
| lead-calc. with Spectron option | 5 | 2 | 4 |
| nicad battery models | 3 | 1 | 9 |
| nicad with Spectron option | 5 | 2 | 8 |
| **EZ-2R Series** | 3 | 3 | 3 |
| with Spectron option | 5 | 5 | 5 |
| **T-Grid Series** | 3 | 3 | 3 |
| with Spectron option | 5 | 5 | 5 |
| **EXT-122-EM Series** | 1 | 1 | 5 |
| **Lite² Series** | 3 | 3 | 3 |
| with Spectron option | 5 | 5 | 5 |
| **Delite Series** | 1 | 1 | 5 |
| **N4X Series** | 3 | 3 | 3 |
| with Spectron option | 5 | 5 | 5 |
| **AS Series** | 1 | 1 | 5 |
| with Spectron option | 5 | 2 | 4 |
| **IPS Series** | 3 | 3 | 3 |
| **XPB Series** | 3 | 3 | 3 |
| **UFO-3AW, UFO-4W models** | 1 | 1 | – |
| **UFO-5W, UFO-12W and** | | | |
| **UFO-12W-CLD models** | 2 | 2 | – |
| **UFO-5AW models** | 3 | 3 | – |
| **UFO-6W, UFO-6WI,** | 5 | 5 | – |
| **UFO-6W-CLD, UFO-7W,** | " | " | – |
| **UFO-7WI, UFO-LP** | " | " | – |
| **and UFO-MH models** | " | " | – |
| ***Liteforms Exit Signs*** | | | |
| **LX LED exit** | | | |
| AC-Only models | 5 | – | – |
| Emergency models | 5 | 1 | 9 |
| Emergency Spectron models | 5 | 2 | 8 |
| **DK incandescent AC exit** | | | |
| AC-Only models | 3 | – | – |
| **LT combo exit** | 5 | 1 | 5 |
| Spectron models | 5 | 2 | 4 |
| **NYXC combo exit** | 5 | 1 | 5 |
| **HCX combo exit** | 5 | 1 | 5 |
| **Sempra cast LED exit*** | | | |
| AC-Only models | 5 | – | – |
| Emergency models | 5 | 1 | 9 |
| Emergency Spectron models | 5 | Lifetime | |
| **NYDC cast LED exit** | | | |
| AC-Only models | 5 | – | – |
| Emergency models | 5 | 1 | 9 |
| **LN4X wet location LED exit** | | | |
| AC-Only models | 5 | – | – |
| Emergency models | 5 | 1 | 9 |
| Emergency Spectron models | 5 | 2 | 8 |
| **Freedom LED aluminum exit** | | | |
| AC-Only models | 5 | – | – |
| Emergency models | 5 | 1 | 4 |
| **LEDS aluminum LED exit** | | | |
| AC-Only models | 5 | – | – |
| Emergency models | 5 | 1 | 9 |

** Includes Sempra, Sempra SC, Sempra SC-WL, Sempra MR and Sempra SERS Series exit signs.*

| Product | Unit Warranty (Years) | Battery Warranty | |
|---|---|---|---|
| | | Full (Years) | Pro-Rata (Years) |
| ***Liteforms Exit Signs*** | | | |
| **NYX LED exit** | | | |
| AC-Only models | 5 | – | – |
| Emergency models | 5 | 1 | 9 |
| **CMX exit** | | | |
| AC-Only models | 5 | – | – |
| Emergency models | 5 | 1 | 9 |
| **LE edge-lit LED exit** | | | |
| AC-Only models | 5 | – | – |
| Emergency models | 5 | 1 | 9 |
| Emergency Spectron models | 5 | 2 | 8 |
| **LES edge-lit LED exit** | | | |
| AC-Only models | 5 | – | – |
| **NYE edge-lit LED exit** | | | |
| AC-Only models | 5 | – | – |
| Emergency models | 5 | 1 | 9 |
| **NYES edge-lit LED exit** | | | |
| AC-Only models | 5 | – | – |
| Emergency models | 5 | 1 | 9 |
| **DEX special wording exit** | | | |
| AC-Only models | 3 | – | – |
| Emergency models | 3 | 1 | 5 |
| ***Clearview Life Safety Products*** | | | |
| **SlimLite Series** | 3 | 2 | 8 |
| **CV Series** | | | |
| Standard models | 3 | 2 | 8 |
| NiCad models | 3 | 3 | 7 |
| Spectron models | 5 | 3 | 7 |
| **CVEC Series** | | | |
| Standard models | 3 | 2 | 8 |
| NiCad models | 3 | 3 | 7 |
| Spectron models | 5 | 5 | 5 |
| **CV3 LED exit** | | | |
| Standard models | 3 | 2 | 8 |
| Spectron models | 5 | 3 | 7 |
| **CVT Tandem LED exit** | | | |
| Standard models | 3 | 2 | 8 |
| Spectron models | 5 | 3 | 7 |
| **CVD cast LED exit** | 3 | 2 | 8 |
| **CVER/CVES edge-lit LED exit** | 5 | 1 | 9 |

## Emergency Lighting Units and Batteries

*Dual-Lite warrants to the purchaser that its products have been carefully manufactured and inspected, and are warranted to be free from defect of workmanship and materials when used as intended. See chart at left for duration of warranties for units and batteries (fuses and lamps are excluded from all warranties).*

*Batteries must be placed in service or recharged within nine (9) months from invoice date or ninety (90) days from recommended recharge date stamped on carton, whichever is longer (NiCad batteries excluded).*

*The warranties are subject to proper installation and maintenance in accordance with the instructions supplied. Any abuse or misuse contrary to normal operation shall void this warranty.*

*This warranty does not cover damages caused by installation in areas with other than normal temperatures and environmental conditions per application specifications. Dual-Lite assumes no responsibility for any damage to people, property, apparatus or otherwise resulting from improper installation or maintenance of its emergency lighting units.*

*Warranty coverage shall not apply to any equipment of another manufacturer used in conjunction with Dual-Lite systems.*

*Warranty does not cover damages caused by abuse, fire or acts of God.*

*To obtain prior written approval to return defective items, please contact your local manufacturer's representative. After prior written notification has been given and approval obtained for the return, merchandise may be returned, freight prepaid, to Dual-Lite.*

*Customer is responsible for secure packaging of returned materials to provide best possible assurance against breakage in shipment.*

*If, upon inspection, the merchandise is found to be defective replacement or repair shall be made. Dual-Lite's sole obligation under this limited warranty is to repair or replace the defective parts or products, at its discretion, providing such defective parts or products are brought to its attention within the specified warranty time period, and does not include any other costs such as removal of defective parts or product, installation, labor or consequential damages of any kind, the exclusive remedy being to require such new parts or products to be furnished. All other warranties, expressed or implied, including warranties of merchantability or warranties of fitness for any particular purpose we hereby disclaim.*

*Dual-Lite Distributors and Representatives have no authority to change this warranty without written permission from Dual-Lite.*

*Dual-Lite reserves the right to determine the best method of correcting warranty problems.*

*All specifications subject to change without notice.*

*Some states do not allow the exclusion of limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.*

# Life Safety Code Excerpt (NFPA 101) - 2006

**Information republished is for reference only. Local codes and the local authority having jurisdiction are the most reliable sources to ensure code compliance.**

## Section 3.3.193 Definition of Public Way

**3.3.193** A street, alley, or other similar parcel of land essentially open to the outside air deeded, dedicated, or otherwise permanently appropriated to the public for public use and having a clear width and height of not less than 10 ft. (3050mm).

## 4.6 General Requirements

### 4.6.12 Maintenance, Inspection and Testing.

**4.6.12.1** Whenever or wherever any device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or any other feature is required for compliance with the provisions of this *Code,* such device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or other feature shall thereafter be continuously maintained in accordance with applicable NFPA requirements or requirements developed as part of a performance-based design, or as directed by the authority having jurisdiction.

**4.6.12.2** No existing life safety feature shall be removed or reduced where such feature is a requirement for new construction.

**4.6.12.3*** Existing life safety features obvious to the public, if not required by the *Code,* shall either be maintained or removed.

**4.6.12.4** Any device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or any other feature requiring periodic testing, inspection, or operation to ensure its maintenance shall be tested, inspected, or operated as specified elsewhere in this *Code* or as directed by the authority having jurisdiction.

**4.6.12.5** Maintenance, inspection, and testing shall be performed under the supervision of a responsible person who shall ensure that testing, inspection, and maintenance are made at specified intervals in accordance with applicable NFPA standards or as directed by the authority having jurisdiction.

## 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 Chapter 11 through Chapter 42. 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 passage ways 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** Automatic, motion sensor-type lighting switches shall be permitted within the means of egress, provided that the switch controllers are equipped for fail-safe operation, the illumination timers are set for a minimum 15-minute duration, and the motion sensor is activated by any occupant movement in the area served by the lighting units.

**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 floors 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 Chapter 11 through Chapter 42
(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 shaft and vestibule of smokeproof 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 smokeproof 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 not less than 1 1/2 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 (.65 lux) at the end of the 1 1/2 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 NFPA 110, *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,* 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 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 at 30-day intervals for not less than 30 seconds.
(2) Functional testing shall be conducted annually for not less than 1 1/2 hours if the emergency lighting system is battery powered.
(3) The emergency lighting equipment shall be fully operational for the duration of the tests required by 7.9.3.1.1 (1) and 7.9.3.1.1 (2).
(4) Written records of visual inspections and tests shall be kept by the owner for inspection by the authority having jurisdiction.

**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) Self-testing/self-diagnostic battery-operated emergency lighting equipment shall automatically perform not less than once every 30 days a test for not less than 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 not less than 1 1/2 hours.
(6) Self-testing/self-diagnostic battery-operated emergency lighting equipment shall be fully operational for the duration of the 1 1/2 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) The emergency lighting equipment shall automatically perform not less than once every 30 days a test for not less than 30 seconds and a diagnostic routine.
(3) The emergency lighting equipment shall automatically perform annually a test for not less than 11/2 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 7.9.3.1.3(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 Chapter 11 through Chapter 42.

**7.10.1.2* Exits.** 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.

**7.10.1.3 Exit Stair Door Tactile Signage.** Tactile signage shall be provided to meet 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 Chapter 11 through Chapter 42, such signs shall be located near the floor level in addition to those signs required for doors or corridors. The signs shall be illuminated in accordance with 7.10.5. Externally illuminated signs shall be sized in accordance with 7.10.6.1. 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 Chapter 11 through Chapter 42, a listed and approved floor proximity egress path marking system that is internally illuminated shall be installed within 18 in. (455 mm) of the floor. 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 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.** 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.

### 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 shall be permitted.

**7.10.4* Power Source.** Where emergency lighting facilities are required by the applicable provisions of Chapter 11 through Chapter 42 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 7.10.6.1.1(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 7.10.1.6.

**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 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 (12m).
(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.

**FIGURE 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 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. (100mm) 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 Chapter 12 through Chapter 42, 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 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

### 7.10.9 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.

# Single Phase Systems

DUAL LITE

SYNCHRON®
AC INVERTER POWER SYSTEM

Uninterruptible Power

Unstoppable Design

Exceptional Economy



# New Non-Stop Safety, Reliability and Value

Dual-Lite's new Synchron AC Inverter System provides interruption-free power to all critical life safety loads and other secondary support systems. "No break" switching between utility and inverter power means that all connected equipment will continue to operate normally under emergency conditions. In addition to maximizing safety for occupants, the Synchron saves time, money and space.

## Egress Lighting to the "Public Way"

The Synchron lends itself to solving the new requirements to provide lighting to the "Public Way" ...whether that means 10 feet from the building...or 100 feet. The Synchron will operate any Wall Pack or Bollard...at full light output...for the full 90 minutes...lighting the path to safety.

## So Sophisticated, It's Simple

With the Synchron, no additional lighting fixtures for emergency illumination are needed, no secondary backup power or lighting equipment is required, and there's no need for special wiring; it connects into your existing electrical panel. Unlike unsightly traditional emergency lighting, this system supplies power to your existing interior and exterior lighting fixtures.

## Reduced Maintenance and Service Costs

Having a single inverter unit in a centralized location greatly simplifies maintenance, testing and service. There is only ONE unit to test and service, saving hundreds of dollars per year. The AC-in to AC-out operating efficiency is 98%—well above other central inverter system equipment; this translates to lower energy bills!

- A cost effective alternative to "traditional" emergency lighting
- Reduced maintenance costs
- Improved building aesthetics
- "No break" power
- Off line design for high efficiency — up to 98%
- Pulse width modulated technology
- 100% load compatible with any lighting source, including HID
- AC input breaker
- DC switch
- Multipurpose LED indicators
- Overload protection
- Compact, easy to install wall mounted design
- Meets or exceeds all UL 924 requirements
- Sealed maintenance free batteries
- Two year Warranty
- AC-output breaker standard on 400 and 525VA models
- Push button test switch
- DC fuse

*Efficient PWM design*

# Single Phase Systems

| Synchron Sizing Chart | | | | | | |
|---|---|---|---|---|---|---|
| VA/Watts | 400 | 525 | 750 | 1000 | 1500 | 2100 |
| Power Factor Range | .8 lead to .75 Lag | | | | | |
| Input/Output Voltage | 120/120 or 277/277 | | | | | |
| AC Input Circuit Breaker Rating - 120/277V | 10/15 Amps | | | 15/15A | 20/15A | 25/15A |
| Charger Size | 2 Amps | | | | | |
| System DC Voltage | 36 | 36 | 72 | 72 | 72 | 96 |
| Cabinet Size | 22"W x 23"H x 10"D (55.9cm W x 58.4cm H x 25.4cm D) | | 32"W x 36.5"H x 12"D (81.3cm W x 92.7cm H x 30.5cm D) | | | |
| BTU/Hour - Line/Inverter | 70/260 | 92/341 | 131/382 | 175/510 | 263/765 | 368/886 |
| Weight [lbs. (kg) - including batteries] | 143 (65.1) | 173 (78.8) | 281 (128) | 346 (157.6) | 400 (182.2) | 480 (218.7) |

## System Status At A Glance...

The Synchron system's three multipurpose LED indicators provide a simple, intuitive interface to notify the user of operating status as well as visual service alerts to operational malfunctions should they occur. Depending on their state of operation, the LED indicators are capable of notifying the user to the following operational conditions:


- *Normal Standby Operation*
- *Inverter On*
- *AC Input Interruption*
- *No Load Connected*
- *Circuit Breaker Tripped*
- *Battery Charger Malfunction*
- *Overload Shutdown*
- *High Temperature Shutdown*
- *Temperature Probe Malfunction*

## Electrical Specifications

***Input***

**Input voltage:** 120, 277, ±10%
**Input frequency:** 60Hz ±3%
**Synchronizing slew rate:** 1 Hz per second nominal
**Electronics operating temperature:** 0°C to 40°C (32°F to 104°F)

***Output***

**Output voltage:** 120, 277
**Output regulation:** (static) +10/-5% based on a 5% — 100% resistive load
**Output distortion:** Less than 5% THD linear load
**Load power factor range:** .75 lag to .8 lead
**Output frequency:** Normally, synchronized to utility, +.05 Hz during emergency
**Overload:** 115% momentary
**Transfer time:** No break

***Battery***

**Battery charger:** Automatic, temperature compensated with internal diagnostic indicators
**Recharge time:** Meets UL 924 requirements
**Battery protection:** Automatic low-battery voltage disconnect. Automatic restart upon utility return
**Standard battery:** S-Sealed lead-calcium 10-year life
**Battery voltage:** 36, 72 or 96VDC (system dependent)
**Runtimes:** 90 minutes standard.
**Relative humidity:** 95% non-condensing

***Note:*** *100% battery capacity rated at 25°C (77°F). Optimum system performance between 20°C (68°F) and 29°C (85°F); temperatures outside of this range will affect battery performance and life.*

# Single Phase Systems

## SYNCHRON

## ORDERING GUIDE

**Example:**

| DLS - | 400 - | 120 - | NA1503U | -FS |
|---|---|---|---|---|
| SERIES | VA/WATTS | INPUT/OUTPUT VOLTAGE | CIRCUIT BREAKER DESIGNATOR | FACTORY STARTUP |

| DLS | 400 | 120 | Type | Voltage Rating | Ampere Rating | Quantity | Alarmed | FS |
|---|---|---|---|---|---|---|---|---|
| | 525 | 277 | BLANK = Normally-On[1] | A = 120VAC | 15 | 01 to 10 | BLANK = Monitored | |
| | 750 | | | | 20 | | | |
| | 1000 | | N = Normally-Off[2][3][4] | B = 277VAC | 30 | | U = Unmonitored | |
| | 1500 | | | | | | | |
| | 2100 | | | | | | | |

[1] A maximum of 6 monitored or 10 unmonitored normally-on circuit breakers may be specified.
[2] A maximum of 4 normally-off circuit breakers may be specified.
[3] Maximum rating of normally-off circuit breakers is 20 amperes.
[4] Normally-off output circuit breakers include a built-in 15-minute retransfer delay for HID lighting loads.

## ACCESSORIES

| *Available Preventive Maintenance Plans* | | |
|---|---|---|
| **PMP-A1:** Additional 1-year warranty and 1-year service coverage, weekdays, Mon-Fri, 8AM to 5PM EST. | **PMP-A2:** Additional 2-year warranty and 2-year service coverage, weekdays, Mon-Fri, 8AM to 5PM EST. | **PMP-A3:** Additional 3-year warranty and 3-year service coverage, weekdays, Mon-Fri, 8AM to 5PM EST. |
| **PMP-B1:** Additional 1-year warranty and 1-year service coverage, 24 hours/day, 7 days/week, no holidays. | **PMP-B2:** Additional 2-year warranty and 2-year service coverage, 24 hours/day, 7 days/week, no holidays. | **PMP-B3:** Additional 3-year warranty and 3-year service coverage, 24 hours/day, 7 days/week, no holidays. |
| **PMP-C1:** Additional 1-year warranty and 1-year service coverage, 24 hours/day, 7 days/week including holildays. | **PMP-C2:** Additional 2-year warranty and 2-year service coverage, 24 hours/day, 7 days/week including holildays. | **PMP-C3:** Additional 3-year warranty and 3-year service coverage, 24 hours/day, 7 days/week including holildays. |

**Output Circuit Breakers**

400 and 525VA models are supplied with one 15 amp normally-on output circuit breaker. Output circuit breakers are optional on all 750 to 2100VA models. Output circuit breakers are available in single-pole configurations for normally-on or normally-off operation. A maximum of six monitored or ten unmonitored normally-on breakers may be specified. Normally-off configurations are limited to a maximum of four circuit breakers (normally-off 20 amp maximum) and include a built-in 15-minute re-transfer delay to accommodate HID lighting restrike cycles.

**NOTE:** Input and output voltages must match. 400 and 525 Watt units can be wall mounted.

**IMPORTANT:** Features and specifications are subject to change without notice. Contact factory for most recent product information.

**WARRANTY:** The system is guaranteed, under normal and proper use, against defects in workmanship and materials for a period of two years from the date of shipment. Batteries supplied as part of the system are covered under a separate pro-rata warranty as described below:
**Lead-Calcium Batteries -** 1 year plus full 9 year pro-rata period

**IMPORTANT: Batteries are shipped separately. Failure to connect system batteries to an energized charging circuit within 90 days from the date of shipment will void the warranty.**

# Single Phase Systems

# Single Phase Systems

## SPECTRON™ LSN Life Safety Network

### The Life Safety Network

The Spectron LSN Life Safety Network is designed to provide:

- A simplified system approach to emergency lighting and power
- "No break" power
- Pulse width modulated technology
- 100% load compatibility
- Maximized reliability
- Reduced maintenance expense
- Enhanced security
- Improved building aesthetics
- Minimized space requirements
- Communications capability

**Most importantly, it delivers optimum safety for building occupants.**

### Advanced Design

The basic elements of an inverter system are batteries, an inverter, a charger and a transformer. Spectron LSN, however, is unlike traditional IPS, FT or UPS systems because of its innovative design.

This pulse width modulated (PWM) high-frequency inverter utilizes the latest IGBT (Insulated Gate Bipolar Transistor) technology. The AC-in to AC-out operating efficiency is 98%, well above other central inverter system equipment. This outstanding efficiency translates to lower operating costs.

### Communications

All Spectron LSN inverter systems are equipped with an RS232 communication interface designed to give the user greater flexibility in monitoring and controlling the system.

### Big Performance...Small Footprint

Spectron LSN inverter system's feature-rich design is provided in an incredibly compact package. Spectron LSN system capacities under 5KVA require less than four square feet of floor space; all other systems up to 17.5KVA require less than eight square feet — the smallest footprints in the industry!

### The Spectron LSN Advantage...

- Compatibility
- Simplicity
- Safety
- Security

*It all adds up to confidence.*

### Plus...

#### Compatibility

Spectron LSN systems provide 100% compatibility with all connected loads. "No break" sinusoidal output assures that even voltage-sensitive or frequency-sensitive loads will operate normally during emergency operation.

#### Simplicity

- Single, centrally located power source
- Intelligent, easy-to-use interface panel
- Automatic, programmable self-diagnostic operation
- Utilizes existing lighting fixtures for emergency illumination
- No secondary backup power or lighting equipment required
- Connects into existing electrical panel — no special wiring required

#### Safety

- Audio-visual service alarms
- Meets or exceeds all UL 924 and UL 1778 requirements
- Digitally generated sine wave output
- 42,000 RMS symmetrical ampere short-circuit rating
- Built-in backfeed relay to protect personnel from potential shock hazard

#### Security

- Spectron LSN systems are normally installed in utility areas away from normal public access
- Locking cabinetry prevents tampering
- Password-protected user interface prevents operation by unauthorized personnel

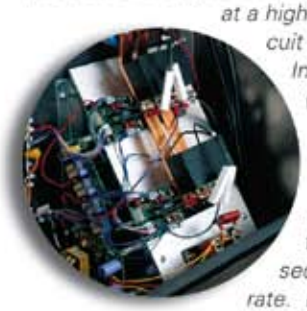

New York City BEC Calendar No. 43323

# Single Phase Systems

## Spectron LSN - A Major Advance In Life Safety

### PWM Technology

Pulse width modulated (PWM) inverter control is designed to produce the output wave form by switching battery current at a high-frequency rate. The primary circuit of the inverter is made up of four Insulated Gate Bipolar Transistors (IGBT). IGBTs provide the multiple benefits of compactness, high efficiency, low maintenance and long equipment life, as well as maximum adaptability and control. The four IGBTs are sequenced on and off at a 16,000 Hz rate. Because of the inverter's high-frequency switching response time, many compatibility problems with loads such as power factor-corrected ballasts, HID lighting and microprocessor-controlled equipment are eliminated.



### PWM design results in:

- Higher efficiency, lower operating cost
- Smaller, lighter, more compact design
- Quieter operation
- Improved load compatibility

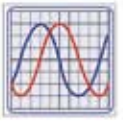
### Interruption-Free Power

Spectron LSN provides continuous power to all critical life safety loads and other secondary support systems. This "no break" switching between utility and inverter power means that all connected equipment will continue to operate normally under emergency conditions.

### Voltage Regulation

Spectron LSN's Boost Tap Regulation protects your loads from "brownouts" and recurrent low-voltage transients by sensing any drop in voltage and "boosting" the voltage back up to nominal without drawing from the batteries and shortening their lives.

### Mixed Loads



Spectron LSN's "no break" design provides continuous operation to mixed loads. Capacitive, inductive or resistive loads will operate normally, as will voltage-sensitive or frequency-sensitive equipment.

## Self-Testing/Self-Diagnostic Operation

### Auto-Testing And Reporting

Self-testing/self-diagnostic electronics perform continuous testing of subsystems, insuring performance to prescribed operating parameters. User-programmable discharge tests are automatically performed on a weekly, monthly and annual basis. Date, time and duration of these tests can be programmed to meet state, local authority and individual requirements. All testing events are automatically logged in memory and can be displayed on the user interface panel.

### Reduced Maintenance

With the Spectron LSN system, a single inverter unit in a centralized location greatly simplifies maintenance, testing and service. With its standard self-testing/self-diagnostic feature, most routine testing is accomplished automatically without the need for manual intervention. In the event of system operation outside designed parameters, alarm functions automatically indicate and identify the component requiring service.

### Greater Reliability

Tested to stringent NFPA 101 and NEC 700 requirements, Spectron LSN is listed to UL 924 and UL 1778 standards. Spectron LSN design technology meets "real world" performance demands and self-diagnostic operation means years of trouble-free, reliable operation.

### Alarms And Meters

Spectron LSN features audible and visual alarms with automatic logging in memory of the 25 most recent alarm events. The conditions monitored include (but are not limited to):

- Charger failures
- Output overload warning
- High/low AC output voltage
- High/low output frequency
- High, low or near low battery voltage
- Ambient temperature
- Battery cabinet temperature
- Heatsink temperature
- Transformer temperature
- Temperature probe failure
- Internal communication failure
- System test failure

Digital metering of system parameters and operating readings provide assurance of system readiness.

- Input AC volts
- Nominal AC frequency
- Output AC volts
- Output AC frequency
- Output AC amps
- Output watts
- Output volts-amps
- Load percentage
- Power factor
- Ambient temperature
- Battery cabinet temperature
- Heatsink temperature
- Transformer temperature
- Battery volts
- Battery amps
- Approximate runtime remaining
- Time/date
- System hours
- Inverter minutes

# Single Phase Systems

SPECTRON® LSN LIFE SAFETY NETWORK

## Design Excellence


### Plus...

#### Cost Efficiency

When all factors are considered, including equipment, installation, operating and maintenance costs, Spectron LSN becomes the clear choice to minimize a facility's total expense for providing life safety power and lighting.

#### Aesthetics

Traditional solutions for life safety egress lighting include unit equipment on walls or ceilings. This approach detracts from interior design aesthetics. Spectron LSN supplies power to existing lighting fixtures, eliminating the need for special emergency lighting fixtures.

#### Security

Centrally located in a utility area, Spectron LSN is secure and safe. Locked cabinetry and a password-protected control panel prevent tampering or system operation by unauthorized personnel.

# Single Phase Systems

## Control Panel

### Display Functions


### LED Status Indicators

***AC-On*** - *AC power is present at output terminals*

***Ready*** - *Unit is ready for emergency operation*

***Emergency Power*** - *Unit is operating on battery power*

***Charging*** - *Unit battery is being charged*

***Alarm*** - *Operation outside of pre-programmed operating parameters detected*

### Display Readout

- *Large, easy-to-read characters*
- *2-line x 40-character LCD display*
- *Provides continuous scrolling of 20 metered functions*

### Control Keys

***Enter Key (ENT)***
*Allows users to enter commands to the system*

***Clear Key (CLR)***
*Clears the last entered character and cancels or resumes scrolling display feature*

***Program Key (PRG)***
*Allows authorized users to change system programming with the use of "Hot Keys"*

***Previous Key (PRV)***
*Returns the display to the previous menu screen*

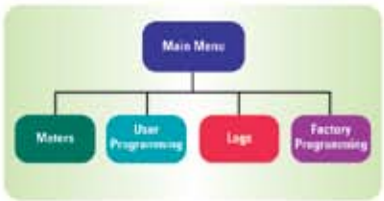
***Display Key (DSP)***
*Allows users to use "Hot Keys" to display system parameters*

***Main Menu Key (MAN)***
*Returns the display to the main menu*

### Intuitive, User-Friendly Design

*Located on the inverter cabinet's front door, the user interface panel allows the user to monitor and control the Spectron LSN system. The microprocessor-controlled display includes an array of LED indicator lights, a 2-line x 40-character digital display and a coded keypad to display over 250 system parameters, operating modes, alarms and stored logs.*

### Menu-Driven Display




*The Spectron LSN user interface provides a menu-driven display that allows access to all system information through the following four primary sub-menus:*

- ***Meters***
- ***User Programming***
- ***Logs***
- ***Factory Programming***

*The menu-driven display provides users with a structured, intuitive method of accessing system information. The display is a user-friendly interface that eliminates the need for confusing manuals while allowing easy access to all system programming, operating parameters, meters and logs. The interface design also allows the selection of "Hot Keys" as an alternate means of accessing frequently requested information.*

### Password Protection

*To ensure that only authorized personnel operate the unit, every Spectron LSN system is password protected. No control functions can be accessed or operating parameter changes made without password authentication.*

### Stored Test Results

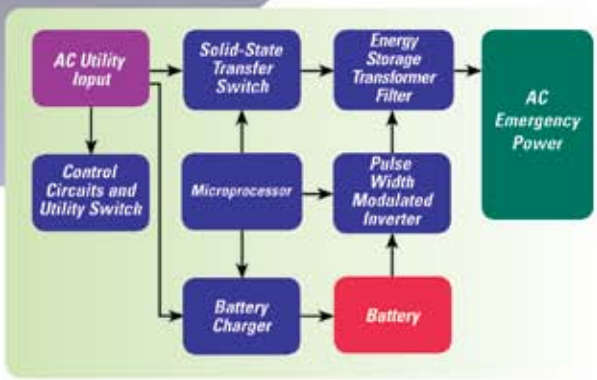
*The following system logs and reports are held in system memory and can be viewed at any time:*

1. ***Service Log***
   *Logs password levels entered and FAX status*
2. ***Test Log***
   *Logs start times and pass/fail status of all system tests*
3. ***Alarm Log***
   *Logs last 40 system alarms, their time of activation and duration*
4. ***Inverter Log***
   *Logs last 20 inverter events, including turn on/turn off times and run duration*
5. ***Battery Voltage Log***
   *Logs battery system voltage hourly*
6. ***Battery Discharge Voltage Log***
   *Logs battery voltage and system output VA every five minutes while in inverter mode*
7. ***Power Log***
   *Continuously logs system power levels*
8. ***Peak Value Report***
   *Maintains peak system parameter readings for input voltage, output voltage, output current, battery voltage and output VA*
9. ***Diagnostic Status Report***
   *Continuously monitors and logs internal microprocessor communication status*

# Single Phase Systems

SPECTRON LSN Life Safety Network

## System Features And Design




### System Operations

- A solid-state charger transforms the incoming utility voltage into a regulated DC supply voltage to charge the batteries.
- A maintenance-free battery is provided on standard models to maintain power to the inverter. The batteries are fitted with a suitably rated DC switch and fuse to provide overload and short-circuit protection and also allow isolation from the system for maintenance purposes.
- A high-frequency, pulse width modulated inverter transforms the battery energy into low-distortion, no break, sine wave AC voltage to supply the emergency load.
- 90% boost tap for line regulation protects against brownouts and conserves batteries for emergencies.

### System Features

- True "no break" power to loads
- Pulse width modulated sine wave output
- Low input current distortion
- Unique "Off-Line" design increases efficiency to 98% and reduces heat output
- Up to 150% momentary overload capacity
- Surge and transient protection circuitry
- 42,000 RMS symmetrical ampere short-circuit rating
- Inverter load versatility — lighting (including fluorescent, incandescent, HID, electronic or power-factor corrected ballasts), fire, security, communication systems and other critical loads
- Provides computer and network backup
- Microprocessor control allows completely automatic self-diagnostic operation to warn of potential problems
- Password protected to prevent unauthorized tampering
- Automatic self-testing and test logging as required by NFPA 101
- Automatic logging of alarm and inverter events
- 2-line x 40-character digital display
- Inverter communication — intelligent, two-way communication capability provided through the system's RS232 terminal
- Built-in backfeed relay to protect personnel from potential shock hazard
- Standard 90-minute battery runtime (optional runtimes available)
- Load flexibility and reliability — use of a building's existing lighting elements for emergency reduces the likelihood of unknown lamp failure
- No additional backup systems to maintain or test
- Intelligent, easy-to-use system
- Display panel monitors and controls all parameters
- Two-year, on-site electronics warranty covers parts and labor
- Batteries carry pro-rata warranty
- Only front access required for service

### Electrical Specifications

#### Input

- **Input voltage:** 120, 208, 240, 277, or 347 VAC +10-15%. Other voltages available on request
- **Input frequency:** 60Hz ±3%
- **Synchronizing slew rate:** 1 Hz per second nominal
- **Operating temperature:** 0°C to 40°C (32°F to 104°F)
- **Input lightning protection:** Meets ANSI 62.41, UL 924 and UL 1778 requirements

#### Output

- **Output voltage:** 120, 240, 277, 120/240, 120/277, or 347 VAC. Other voltages available upon request
- **Output regulation:** (static) ±5% based on a 5% - 100% resistive load
- **Output distortion:** Less than 5% THD linear load
- **Load power factor:** .75 lag to .8 lead
- **Output frequency:** Normally, synchronized to utility, +.05 Hz during emergency
- **Overload:** 150% momentary. 120% for five minutes
- **Time to transfer to inverter after utility power failure:** No break

#### Battery

- **Battery charger:** Automatic with internal diagnostic indicators
- **Recharge time:** Meets UL 924 requirements
- **Battery protection:** Automatic low-battery voltage disconnect. Automatic restart upon utility return
- **Battery switch:** Also used as battery isolator
- **Standard battery:** S - Sealed lead-calcium 10-year life
- **Optional batteries:**
  G - Sealed lead-calcium 20-year life
  N - Wet nickel-cadmium 25-year life
- **Battery voltage:** 96VDC or 144VDC (system dependent)
- **Runtimes:** 90 minutes standard. Other runtimes available on request
- **Relative humidity:** 95% non-condensing

**Note:** 100% battery capacity rated at 25°C (77°F). Optimum system performance between 20°C (68°F) and 29°C (85°F); temperatures outside of this range will affect battery performance and life.

**IMPORTANT:** Features and specifications are subject to change without notice. Contact factory for most recent product information.

# Single Phase Systems

## Unit Specifications

| KVA/KW Rating | 1.0K | 2.0K | 2.7K | 3.7K | 4.8K | 5.5K | 6.6K | 8.3K | 10.0K | 12.5K | 15.0K | 17.5K |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Power Factor Rating | .8 lead to .75 lag | .8 lead to .75 lag | .8 lead to .75 lag | .8 lead to .75 lag | .8 lead to .75 lag | .8 lead to .75 lag | .8 lead to .75 lag | .8 lead to .75 lag | .8 lead to .75 lag | .8 lead to .75 lag | .8 lead to .75 lag | .8 lead to .75 lag |
| Input/Output Voltage Combinations Available — Single Phase | Input VAC: 120, 208, 240, 277, 347<br>Output VAC: 120, 240, 277, 347, 120/240(1), 120/277<br>Other voltages available; consult factory (2) | | | | | | | Input VAC: 208, 240, 277, 347 (3)<br>Output VAC: 120, 240, 277, 347, 120/240(1), 120/277<br>Other voltages available; consult factory (2) | | | | |
| AC Input Voltage/ Input Circuit Breaker Rating | 120/20A<br>208/15A<br>240/15A<br>277/15A<br>347/15A | 120/30A<br>208/20A<br>240/15A<br>277/15A<br>347/15A | 120/40A<br>208/25A<br>240/20A<br>277/20A<br>347/20A | 120/50A<br>208/30A<br>240/25A<br>277/25A<br>347/20A | 120/70A<br>208/40A<br>240/35A<br>277/30A<br>347/25A | 120/70A<br>208/40A<br>240/35A<br>277/30A<br>347/25A | 120/80A<br>208/50A<br>240/45A<br>277/40A<br>347/30A | —<br>208/70A<br>240/60A<br>277/50A<br>347/50A | —<br>208/80A<br>240/70A<br>277/60A<br>347/50A | —<br>208/100A<br>240/80A<br>277/70A<br>347/60A | —<br>208/125A<br>240/100A<br>277/90A<br>347/80A | —<br>—<br>277/100A<br>347/80A |
| Output Voltage and Maximum Output Current In Amperes | 120/8.3<br>240/4.2<br>277/3.6<br>347/2.9 | 120/16.6<br>240/8.3<br>277/7.2<br>347/5.8 | 120/22.5<br>240/11.3<br>277/9.7<br>347/7.8 | 120/30.8<br>240/15.4<br>277/13.4<br>347/10.7 | 120/40.0<br>240/20.0<br>277/17.3<br>347/13.4 | 120/45.8<br>240/22.9<br>277/19.9<br>347/15.9 | 120/55.0<br>240/27.5<br>277/23.8<br>347/19.0 | 120/69.1<br>240/34.6<br>277/29.9<br>347/23.9 | 120/83.3<br>240/41.7<br>277/36.1<br>347/28.8 | 120/104.1<br>240/52.1<br>277/45.1<br>347/36.0 | 120/125<br>240/62.5<br>277/54.2<br>347/43.2 | 120/146<br>240/72.9<br>277/63.2<br>347/50.4 |
| Standard Charger Size (amps) | 5 | 5 | 5 | 5 | 5 | 10 | 10 | 10 | 10 | 15 | 15 | 15 |
| System DC Voltage | 96 | 96 | 96 | 96 | 96 | 96 | 96 | 144 | 144 | 144 | 144 | 144 |
| Heat Output (BTU/Hr.) | 175 | 350 | 473 | 648 | 840 | 963 | 1,155 | 1,453 | 1,750 | 2,188 | 2,625 | 3,063 |

(1) On systems with 120/240VAC output, loading may not exceed 50% of the system's total KVA rating on any 120V leg. Loading beyond 50% on any 120V leg will cause an unsafe condition and transformer failure will occur. Call our Service Line at 800-848-6439 for alternate load connection configurations.

(2) An external transformer may be required with certain input/output voltage configurations. Consult factory for details.

(3) Input voltage on 17.5KVA model limited to 277 and 347VAC only.

### Standard Battery Systems For 90-Minute Runtime

**Type S Battery – Maintenance-Free Sealed Lead-Calcium – 10-Year Design Life Expectancy**

| System Capacity | 1.0K | 2.0K | 2.7K | 3.7K | 4.8K | 5.5K | 6.6K | 8.3K | 10.0K | 12.5K | 15.0K | 17.5K |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| System Configuration | A | A | A | A | A | B | B | B | B | B | C | C |
| Total Weight (lbs.) * | 838 | 1,116 | 1,122 | 1,222 | 1,492 | 1,926 | 2,130 | 2,475 | 2,829 | 2,861 | 4,121 | 4,393 |

**Type G Battery – Maintenance-Free Sealed Lead-Calcium – 20-Year Design Life Expectancy**

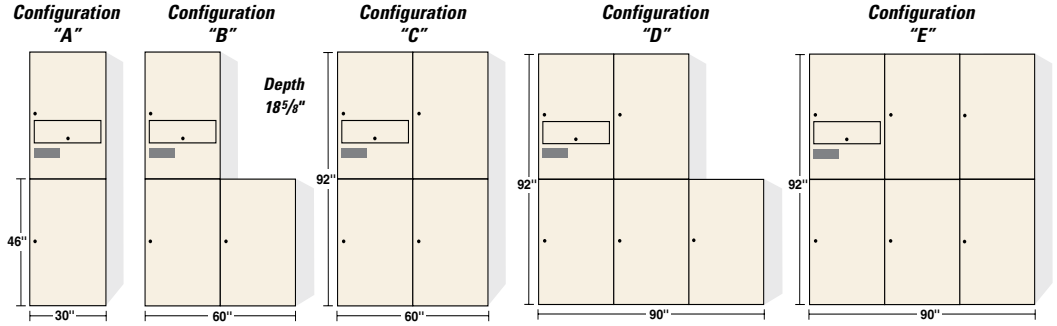
| System Capacity | 1.0K | 2.0K | 2.7K | 3.7K | 4.8K | 5.5K | 6.6K | 8.3K | 10.0K | 12.5K | 15.0K | 17.5K |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| System Configuration | A | A | A | A | B | B | B | B | B | C | D | D |
| Total Weight (lbs.) * | 1,365 | 1,384 | 1,390 | 1,472 | 1,684 | 2,062 | 2,630 | 2,679 | 3,589 | 3,657 | 4,885 | 5,491 |

**Type N Battery – Wet-Cell Nickel-Cadmium – 25-Year Design Life Expectancy**

| Systems Capacity | 1.0K | 2.0K | 2.7K | 3.7K | 4.8K | 5.5K | 6.6K | 8.3K | 10.0K | 12.5K | 15.0K | 17.5K |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| System Configuration | B | B | B | B | B | C | C | D | D | E | E | Consult |
| Total Weight (lbs.) * | 1,075 | 1,486 | 1,644 | 1,894 | 2,232 | 2,532 | 2,812 | 3,481 | 3,940 | 4,720 | 5,505 | Factory |

* Approximate system weights

## Cabinet Configurations (90-Minute Runtime)




**Consult factory for alternate runtimes and battery cabinet configurations.**

# Single Phase Systems



## Options

### Batteries

Spectron LSN's batteries provide sufficient power to maintain the output voltage of the inverter for a minimum of 90 minutes. All batteries are enclosed in lockable cabinets. Adequate space is provided to ensure easy routine maintenance.

### Standard Batteries

**Sealed Lead-Calcium — Type S**

Spectron LSN's standard lead-calcium battery is completely sealed and requires no addition of water over its life expectancy. It is constructed with a polypropylene case and cover, which include UL-recognized, low-pressure safety release vents. No gassing will occur in normal use. The elements utilize calcium grid alloy, and the electrolyte is trapped in absorbent glass mat (AGM) separators. Designed life expectancy is 10 years at 77°F/25°C.

### Long Life

**Sealed Lead-Calcium — Type G**

This optional battery is completely sealed and requires no addition of water over its life expectancy. It is constructed with a polypropylene case and cover. The battery case incorporates fold-down handles for safe, easy handling and installation. These batteries utilize a special, long-life Pb/Ca/Sn grid alloy. The plates are separated by a highly porous fiberglass mat, which functions as the electrolyte retainer and provides the highest possible oxygen recombination efficiency. Type G batteries have a life expectancy of 20 years at 80°F/27°C.

### Longest Life, Wet-Cell

**Nickel-Cadmium — Type N**

This optional battery is maintainable and requires the addition of distilled water over its life expectancy. The nickel-cadmium battery provides operation over the widest range of temperatures, from 0°C/32°F to 60°C/140°F. Translucent polypropylene containers are standard. Each cell is provided with a flip-top, flame-arresting, UL-recognized vent cap. Interior cell construction consists of pocket plate nickel-cadmium elements in an alkaline electrolyte. Covers are supplied to provide dead-top isolation. Type N batteries have a 25-year life expectancy at 77°F/25°C.

**Note:** Batteries for all Spectron LSN inverter systems are shipped separately. Batteries must be installed and energized within 90 days of shipment or warranty is void.

# Single Phase Systems

*All **Spectron® LSN** single-phase systems are provided **standard** with factory start-up service (-FS) and a two-year warranty. After completing the system start-up, the technician will be available at that time to train owner/user personnel. If this cannot be scheduled at that time, an Extended Training (ATV) option is available. See "Options" below.*

## Options

### Communication Options

#### Fax Modem Option (FAX)

A device that automatically notifies the user of system test results and alarm conditions. The Fax Modem sends a detailed fax to up to six preprogrammed phone numbers. Fax Modem can establish communication via RS232 to perform any system function.

Factory-installed option:

- Requires customer supplied dedicated analog phone line
- Fax machine phone numbers can be programmed locally using the unit keypad or computer terminal or remotely via modem. Numbers can also be programmed at time of installation

#### Remote Status Panel (RSP)

Provides remote annunciation for the Spectron LSN to indicate inverter and alarm status. The Remote Status Panel is supplied in a 4-inch x 5 3/4-inch electrical box.

Owner-installed option:

- Must be installed within 1,000 feet of the Spectron LSN
- Seven-conductor-minimum, 22AWG wire for connection from options board to Remote Status Panel must be supplied by installer

#### System Monitoring Terminals (SMT)

The SMT option provides three connection points for:

- Inverter and Alarm relays. Low power contacts change status with either inverter or alarm events.
- A Remote Status Panel. Allows the addition of an RSP at any time.
- An Emergency Power Off (EPO) switch. Allows for safe remote shut-down of system regardless of operating mode.

#### Alternate Runtime (AR)

Runtimes other than the standard 90 minutes may be specified. When ordering alternate runtimes, specify discharge time required in minutes. Example: AR30

#### Short Battery Cabinet (SBC)

For applications where headroom is limited. Reduces the overall installation height by 15 inches. Available on systems with ratings from 1.0, 2.0, 2.7, 3.7, 5.5 and 6.6kVA Series with S batteries only. Dimensions: 31" H x 30" W x 18 5/8" D.

#### Charger Upgrades

For enhanced battery recharge time.

- C10 - 10 Amp charger upgrade. Available on 1.0kVA - 4.8kVA Series.
- C20 - 20 Amp charger upgrade. Available on 5.5kVA - 17.5kVA Series.
  - Not available with 120V input on 6.6kVA and above.
  - Not available with 208V input on 12.5kVA and above.
  - Not available with 240V input on 15kVA and above.

#### Cat 60: Cabinet Locks

sal cabinet locks for all electronic and battery cabinets.

### Circuit Breaker Options

#### With Alarm (Monitored)

Monitored output circuit breakers (normally-on or normally-off) will sound an alarm when tripped.

#### Normally-On Output Circuit Breakers

Specified when connected loads are to be energized at all times. A maximum of fourteen monitored positions or twenty unmonitored positions may be specified. Single-pole 120VAC and 277VAC circuit breakers occupy one position each; double-pole 208VAC and 240VAC circuit breakers occupy two positions each. Ratings up to 60 amperes may be specified.

#### Normally-Off Output Circuit Breakers

Specified when connected loads are only energized during emergency operation. A user-programmable retransfer delay (up to 999 seconds) to normal utility power is provided. A maximum of eight positions (monitored or unmonitored) may be specified. Single-pole 120VAC and 277VAC breakers occupy one position each; double-pole 208VAC and 240VAC circuit breakers occupy two positions each. Maximum rating of 20 amperes per circuit breaker may be specified.

#### Internal Maintenance Bypass Switch (IBS)

A three-position "make before break" service switch mounted inside the cabinet. Compatible with all input/output combinations. Works with any combination or quantity of output circuit breakers.

#### Extended Training (ATV)

If user personnel are not available for training during the factory start-up procedure, a Dual-Lite technician can be scheduled for a later visit at additional cost.

## Accessories

#### Multiplexer (MX)

An external device that enables a single phone line to communicate with up to 16 Spectron LSN units, Systems can be installed up to 100 feet away from the Master. The Multiplexer reduces the number of phone lines needed for remote communications.

#### Short Haul Modem (SHM)

A device that boosts signal levels when RS232 communications are installed more than 100 feet away from the system. One device is installed on the system and the other is installed on the multiplexer.

#### External Maintenance Bypass Switch (MBB or BBM)

A device that enables power to be removed from the inverter system and remain connected to the load. This allows the inverter system to be completely removed, replaced or repaired without interruption to the load.

The switch is supplied in a wall mounted, NEMA 1 type enclosure. Cannot be used in systems with more than one single-pole output circuit breaker; on systems with different input and output voltages, or on systems with mixed output voltages.

Description:

MBB = Make-before-break
BBM = Break-before-make

## Ordering Guide

### How To Develop A Spectron LSN System Control Number

The Spectron LSN system control number provides a description of the emergency lighting power system through a meaningful shorthand. Follow the seven simple steps outlined below to specify a Dual-Lite Spectron LSN System.

**Seven Steps To Developing A Dual-Lite Spectron LSN System Control Number**

| D | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Dual-Lite | Input Voltage | Capacity Rating (KVA) | Battery Type | Output Voltage(s) | Optional Output Circuit Breakers | Other Options/ Accessories | Factory Startup |

**D120-01S120/240-NB2002U-RSP-FS**

| Dual-Lite | Input Voltage (VAC) | Capacity Rating | Battery Type | Output Voltage (1)(2) (VAC) | Optional Output Circuit Breakers |
|---|---|---|---|---|---|
| D | 120 | 01 = 1.0 KVA | S = 10-year Sealed Lead-Calcium | 120 | |
| | 208 | 02 = 2.0 KVA | G = 20-year Sealed Lead-Calcium | 120/240(3) | |
| | 240 | 27 = 2.7 KVA | N = 25-year Nickel-Cadmium | 277 | |
| | 277 | 37 = 3.7 KVA | | 347 | |
| | 347 | 48 = 4.8 KVA | | 120/277 | |
| | | 55 = 5.5 KVA | | | |
| | | 66 = 6.6 KVA | | | |
| | | 83 = 8.3 KVA | | | |
| | | 10 = 10.0 KVA | | | |
| | | 12 = 12.5 KVA | | | |
| | | 15 = 15.0 KVA | | | |
| | | 17 = 17.5 KVA* | | | |

* 277 and 347VAC input only

(1) Other voltages available. Consult factory.
(2) External transformer may be required.
(3) Loading may not exceed 50% of the system's total KVA rating on any 120V leg.

| Type | Voltage Rating | Ampere Rating(2) | Quantity (1) | Supervision |
|---|---|---|---|---|
| Blank = Normally "On" | A = 120 VAC | 15 | 01 to 20 | Blank = Monitored |
| N = Normally "Off" | B = 240 VAC | 20 | | U = Unmonitored |
| | C = 277 VAC | 25 | | |
| | D = 208 VAC | 30 | | |
| | | 40 | | |
| | | 50 | | |
| | | 60 | | |

(1) Normally-On circuit breakers: A maximum of 14 monitored positions or 20 unmonitored positions may be specified. Normally-Off circuit breakers: a maximum of 8 positions (monitored or unmonitored) may be specified.
(2) Normally-Off circuit breaker maximum rating is 20 amperes.

**Other Options/ Accessories**

**Options**

| | |
|---|---|
| FAX | = Fax Modem(a) |
| RSP | = Remote Status Panel |
| SMT | = System Monitoring Terminal |
| AR | = Alternate Runtime(b) |
| SBC | = Short Battery Cabinet(c) |
| IBS | = Internal Maintenance Bypass Switch (Make Before Break) |
| C10 | = 10 Amp Charger Upgrade(d) |
| C20 | = 20 Amp Charger Upgrade(e) |
| CAT60 | = Cabinet Locks |

**Accessories**

| | |
|---|---|
| SHM | = Short Haul Modem |
| MX | = Multiplexer |
| MBB | = External Maintenance Bypass Switch(f) (Make Before Break) |
| BBM | = External Maintenance Bypass Switch(f) (Break Before Make) |

**Service Options**

ATV = Extended Training

*If user personnel are not available for training during the factory startup procedure, a Dual-Lite technician can be scheduled for a later visit at additional cost.*

PMP-_ = Preventive Maintenance Plan

*Provides additional system warranty coverage beyond the standard two-year factory warranty. See table at left for available plans. PMP warranty service excludes batteries, which are covered under a separate warranty plan.*

*If the standard factory warranty expires before an extended PMP plan is selected, Dual-Lite will schedule a site evaluation, at additional cost, to determine what is needed to restore the system to factory specifications. Parts and labor required will be charged at additional cost.*

(a) Fax Modem required for Preventive Maintenance Plan coverage.
(b) Specify runtime in minutes when ordering. *Example: AR120*
(c) Available with 1.0, 2.0, 2.7, 3.7, 5.5 and 6.6kVA Series with S batteries only.
(d) Available on 1.0kVA - 4.8kVA Series.
(e) Available on 5.5kVA - 17.5kVA Series.
Not available with 120V input on 6.6kVA and above.
Not available with 208V input on 12.5kVA and above.
Not available with 240V input on 15kVA and above.
(f) Supplied in a wall mounted, NEMA 1 type enclosure. Cannot be used in systems with more than one single-pole output circuit breaker; on systems with different input and output voltages, or on systems with mixed output voltages.

**Available Preventive Maintenance Plans (Fax Modem Required)**

| | | |
|---|---|---|
| **PMP-A1** Additional 1-year warranty, and 1-year service coverage, weekdays, Mon-Fri, 8AM to 5PM EST. | **PMP-A2** Additional 2-year warranty, and 2-year service coverage, weekdays, Mon-Fri, 8AM to 5PM EST. | **PMP-A3** Additional 3-year warranty, and 3-year service coverage, weekdays, Mon-Fri, 8AM to 5PM EST. |
| **PMP-B1** Additional 1-year warranty, and 1-year service coverage, 24 hours/day, 7 days/week (no holidays). | **PMP-B2** Additional 2-year warranty, and 2-year service coverage, 24 hours/day, 7 days/week (no holidays). | **PMP-B3** Additional 3-year warranty, and 3-year service coverage, 24 hours/day, 7 days/week (no holidays). |
| **PMP-C1** Additional 1-year warranty, and 1-year service coverage, 24 hours/day, 7 days/week including holidays. | **PMP-C2** Additional 2-year warranty, and 2-year service coverage, 24 hours/day, 7 days/week including holidays. | **PMP-C3** Additional 3-year warranty, and 3-year service coverage, 24 hours/day, 7 days/week including holidays. |

# Preventive Maintenance Program

## Outstanding Quality And Features From A Leading Supplier of Life Safety Products...

Dual-Lite— the most widely recognized emergency lighting brand — now offers a Preventive Maintenance Program for every need and budget. When you rely on Dual-Lite for your preventative maintenance, you entrust it to a company that:

- Since 1940 has supplied quality life safety products
- Added central lighting inverters to its product line in 1957
- Manufactures all single-phase central lighting inverters in the United States
- Provides central lighting inverters with the highest efficiency ratings
- Supplies central lighting inverters with full system watts capacity
- Offers three different and distinct battery choices
- Includes a factory start-up with all central lighting inverters
- Has a standard two-year factory warranty against defects in material and workmanship


## Preventive Maintenance: The Key To Emergency Preparedness

In addition to emergency service, our Dual-Lite factory trained technicians will visit the central lighting inverter site once a year and perform the following services:

- Inspect all battery connections (battery to battery, and battery to terminal block) for the presence of corrosion. Clean and retighten all connections to factory specifications
- Check and recalibrate the charger output voltage and current settings
- Check the input and output parameters
- Check the cooling fans
- Exercise all circuit breakers
- Run a system performance check by simulating an input power outage and discharging the batteries to 87.5% of nominal voltage
- During the system performance check, take periodic battery readings to determine battery array capability for stated system run time
- Verify the operation of all installed options and remote panels
- Clean the inside and outside of all system cabinets
- Provide a list of any and all items that could possibly prevent the unit from performing its intended function during a power outage

**Keep your Central Lighting Inverter in "Emergency Ready" Condition**

# TRX Three Phase Systems

trident®

3-Phase
*Inverter Power Systems*

## TRX Series

### 10 to 30 kVA, 3-Phase UPS

**Flexibility In Application**
The Dual-Lite Trident TRX Series' quiet operation, small footprint and lightweight design is perfect for installation in computer rooms, yet the Trident TRX Series is rugged enough for factory floors or maintenance rooms. Precisely controlled system output is suitable for any lighting or critical life safety loads up to the full rated output capacity.

**Outstanding Features**

- *Unmatched reliability*
- *Smallest system footprint*
- *Excellent efficiency with nonlinear and partial loads*
- *Outstanding dynamic response*
- *All-digital ActiveStar controls and graphical user interface*
- *Power factor corrected*
- *Harmonic current cancellation*
- *100% compatible with voltage-sensitive loads such as HID lighting*
- *True double conversion design protects against 100% of power disturbances*
- *Exceptional reliability - field proven one million hours critical bus mean time between failures*
- *Smallest complete system footprint in the industry*
- *Discharge times available from 10 minutes to two hours (and beyond)*
- *Top and bottom cable entry along with cabinet caster feet makes the system easy to handle and install*
- *Backlit LCD graphic display enables easy navigation between the graphic mimic screen and the menu screens*

## GENERAL SPECIFICATIONS

### INPUT

**Voltage:**
120/208VAC, 60Hz 3-phase, 4-wire plus ground

**Voltage Range:** +10%, -20%

**Frequency Range:** 47-63Hz.

**Current Distortion:**
4% maximum reflected THD at full load

**Current Limit:**
125% of full load input current

**Walk-In:** 20 seconds to full load

**Power Factor:**
0.99 lagging minimum at full load

**Surge Protection:**
Sustains input surges without damage, per criteria listed in IEC 1000-4-5

### ENVIRONMENTAL

**Operating Temperature:**
UPS: 32°F to 104°F (0°C to 40°C)
Battery: 68°F to 86°F (20°C to 30°C)

**Relative Humidity:**
0-95% non-condensing

**Operating Altitude:**
Up to 3,300 ft. (1,000m) without derating

**Acoustical Noise:**
Less than 54 dBA typical, measured 3.3 ft. (1 m) from the unit

**User Interface Panel**

### OUTPUT

**Voltage:**
120/208VAC, 60Hz., 3-phase, 4-wire plus ground

**Voltage Adjustment Range:** ±5%

**Voltage Regulation:**
1% for balanced load
2% for 100% unbalanced load

**Dynamic Regulation:**
±4% deviation for 100% load step
±1% for loss or return of AC input

**Transient Response Time:**
Recover to ±1% of steady state within 1 cycle

**Voltage Distortion:**
For linear loads, 1% THD. Less than 4% THD for 100% nonlinear loads without kVA/kW derating

**Phasing Balance:**
120° ±0.5° for balanced load
120° ±1° for 100% unbalanced load

**Frequency Regulation:** ±0.1%

**Load Power Factor Range:**
0.70 lagging to 0.95 leading without derating

**Overload:**
125% of full load for 10 minutes
150% for one minute, with true sinusoidal waveform

**Outstanding Support**
Assistance is available from the largest Customer Service and Support network in the country.

**Standards**
Complies with UL 1778 (UPS) and UL 924 (Emergency) standards, and is CSA certified.

**Greater flexibility, higher reliability, outstanding efficiency, user-friendly design, smaller footprint - that's the Dual-Lite Trident advantage.**

DUAL LITE

# TRX Three Phase Systems

## Product Selector

| Size kVA/kW | UPS Cabinet No. | Battery Cabinet No. (1) |
|---|---|---|
| 10/8 | TRXSAA10114 | TRXBATAR141BNR |
| 15/12 | TRXSAB10114 | TRXBATBR271BNR |
| 20/16 | TRXSAC10114 | TRXBATCR371BNR |
| 30/24 | TRXSAD10114 | TRXBATDR311BNR(2) |

*(1) 90 minute run time. Contact factory for other run times.*
*(2) Two battery cabinets required on 30 kVA models*

## Options

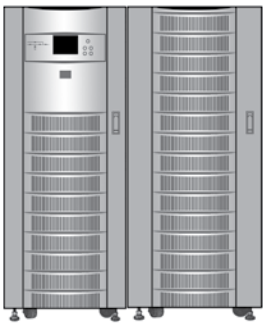
480 VAC Operation (Contact factory for proper configuration)
Intellislot Relay Board
Seismic Floor Kit

## Site Planning Data — Trident UPS - 90 Minute Operation — 10-30 kVA, 3-Phase, 60 Hz.

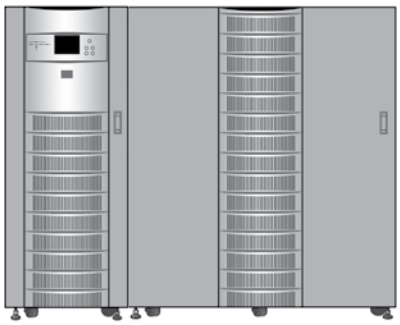
| System Rating | | AC Voltage (1) | | AC Input Current | | | Battery | | | AC Output | | Mechanical Data | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| kVA | kW | Input | Output | Nom. | Max. | OCPD | Nom. VDC | Battery kW | Max. Discharge | Current Nom. | OCPD | No. Of Cabinets | Dimensions - WxDxH inches (mm) | Weight lbs. (kg) | Heat Dis BTU/hr (kWH) |
| 10 | 8 | 208 | 208 | 28 | 35 | 50 | 288 | 9 | 37A | 28 | 50 | 2 | 51x32.5x63 (1,295x826x1,600) | 2,800 (1,275) | 2,800 (0.82) |
| 15 | 12 | 208 | 208 | 42 | 53 | 60 | 288 | 13 | 55A | 42 | 60 | 2 | 51x32.5x63 (1,295x826x1,600) | 3,350 (1,526) | 4,200 (1.23) |
| 20 | 16 | 208 | 208 | 56 | 70 | 80 | 288 | 18 | 73A | 56 | 80 | 2 | 83x32.5x63 (2,057x826x1,600) | 4,150 (1,890) | 5,500 (1.61) |
| 30 | 24 | 208 | 208 | 83 | 104 | 125 | 288 | 26 | 110A | 83 | 125 | 3 | 142x32.5x63 (1,981x826x1,600) | 6,650 (3,028) | 8,300 (2.43) |
| See Notes For Table (Below): | | | | -- | 1,3,7 | -- | -- | -- | 1,3,7 | 1,3,7 | 6 | -- | -- | -- | -- |

*(1) Contact factory for 480 VAC applications.*

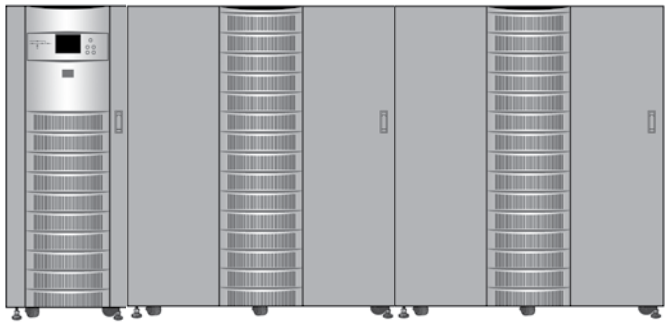
## Cabinet Configurations



**10 and 15 kVA Models**



**20 kVA Models**



**30 kVA Models**

**NOTES FOR TABLE:**

1. UPS input and bypass cables must be run in separate conduit from output cables.
2. Minimum-sized grounding conductors to be per NEC 250-122. Parity-sized ground conductors are recommended. Neutral conductors to be sized for full capacity per NEC 310-15 (b)(4). References are per NEC 1999.
3. Wiring requirements:
   AC Input: 3-phase, 4-wire, plus ground
   AC Output: 3-phase, 3- or 4-wire, plus ground
4. All wiring is to be in accordance with national and local electric codes.
5. Minimum access clearance is 3 ft. (0.9m) front and 18 in. (457mm) above the UPS.
6. Top or bottom cable entry through removable access plates. Punch plate to suit conduit size, then replace.
7. Control wiring and power wiring must be run in separate conduit.

**ADDITIONAL NOTES:**

- *If site configuration includes a backup emergency generator, it is recommended that the engine generator set be properly sized and equipped for a UPS application. Generator options would typically include an isochronous governor (generator frequency regulation) and a UPS-compatible regulator (generator voltage regulation). Consult generator manufacturer for required generator options and sizing.*
- *If site configuration includes an automatic transfer switch, refer to Power Line titled "Criteria for Application of Automatic Transfer Switches (ATS) With Uninterruptible Power Supply (UPS) Systems," publication 91K-PLT-48-02. It is also recommended that the transfer switch be equipped with auxiliary contacts for UPS "on generator" current limit. Consult transfer switch manufacturer for required transfer switch options and sizing.*
- *If site configuration requires an external isolated maintenance bypass circuit, it should be noted that utility AC input might not be in phase with the UPS AC output. Consult a Dual-Lite sales representative or applications engineer.*

# TRN Three Phase Systems

trident®

3-Phase
*Inverter Power Systems*

## TRN Series

### 30 to 130 kVA, 3-Phase UPS

- ***Unmatched heritage of reliability and availability***
- ***Smallest system footprint***
- ***Excellent efficiency with nonlinear loads and partial loads***
- ***Outstanding dynamic response***
- ***All-digital controls and graphical user interface***

Dual-Lite has reinvented the dual-conversion UPS. The Trident Series is the result of an international design collaboration and more than a decade of advanced research.

Every aspect of the Trident Series shows careful design and attention to detail. The rugged power train and advanced DSP controls were subjected to computer simulations and thermal analysis to ensure reliable performance in every environment.

Even the physical packaging is uniquely efficient, to make fully configured systems more compact than our competitors.

Best of all, it's a Dual-Lite product - designed to deliver an impressive million-hour critical bus MTBF.

**GENERAL SPECIFICATIONS**

**INPUT**

**Voltage:** 208 or 480 VAC, 60 Hz (3-phase, 3-or 4-wire plus ground)
**Voltage Range:** +10, -15% (no battery discharge at -20%)
**Frequency Range:** 60 Hz, ± 5
**Current Distortion:** 10% maximum reflected THD at full load with optional input filter. 30% THD without filter
**Current Limit:** 115% of full load input current
**Current Walk-in:** 20 seconds to full load
**Power Factor:** 0.80 lagging minimum at full load. Up to 0.96 lagging at full load with optional input filter
**Surge Protection:** Sustains input surges without damage, per criteria listed in ANSI C62.41-1980 (IEEE 587)

**ENVIRONMENTAL**

**Operating Temperature:** 0° to 40°C (UPS), 20° to 30°C (battery)
**Non-Operating Temperature:** -20°C to 70°C
**Relative Humidity:** 0-95% non-condensing
**Operating Altitude:** Up to 6,600 feet (2000 meters) without derating
**Acoustical Noise:** Less than 65 dBA 1 meter from unit (typical)

**OUTPUT**

**Voltage:** 208 or 480 VAC (3-phase, 4-wire plus ground)
**Voltage Adjustment Range:** ±5%
**Voltage Regulation:**
±0.5% for balanced load
±1.0% for 100% unbalanced load
**Dynamic Regulation:**
±2.5% deviation for 100% load step.
±1% for loss or return of AC input
**Transient Response:** Recover to ±1% of steady state within 1 cycle

**Voltage Distortion:** For linear loads, 1% THD. Less than 2.5% THD for 100% nonlinear loads without kVA/kW derating
**Phasing Balance:** 120° ±0.5° for balanced load. 120° ±1° for 100% unbalanced load
**Frequency Regulation:** ±0.1%
**Load Power Factor Range:** 1.0 to 0.7 lagging without derating
**Overload:** 125% of full load for ten minutes. 150% for one minute, with true sinusoidal waveform

**STANDARDS**

Complies with UL 1778 (UPS) and UL 924 (Emergency) standards, and is CSA certified.

**Slim-Line Distribution Cabinet**

| kVA | Dimensions (In.) (WxDxH) | Weight (lb) |
|---|---|---|
| All | 10 x 32.5 x 71 | 250 |

**Maintenance Bypass Cabinets**

| Model | Dimensions (In.) (WxDxH) | Weight (lb) 15-50 kVA | Weight (lb) 65-80 kVA | Weight (lb) 100-130 kVA |
|---|---|---|---|---|
| L | 25 x 32.5 x 71 | 660 | 750 | 800 |
| N | 25 x 32.5 x 71 | 660 | 750 | 800 |
| P | 31.7 x 32.5 x 71 | 1,210 | 1,320 | 1,540 |
| Q | 31.7 x 32.5 x 71 | 1,210 | 1,320 | 1,540 |

# TRN Three Phase Systems

## Product Selector

| Size kVA/kW | UPS Cabinet No. (480/480) | UPS Cabinet No. (208/208) | Battery Pack No.* |
|---|---|---|---|
| 30/24 | TRNSAD2026B | TRNSAD1016B | TRNBATDX471BNL |
| 40/32 | TRNSAE2026B | TRNSAE1016B | TRNBATEX312BNL |
| 50/40 | TRNSAF2026B | TRNSAF1016B | TRNBATFX372BNL |
| 65/52 | TRNSAG2026B | TRNSAG1016B | TRNBATGX472BNL |
| 80/64 | TRNSAH2026B | TRNSAH1016B | TRNBATHX274BNL |
| 100/80 | TRNSAI2026B | TRNSAI1016B | TRNBATIX473BNL |
| 130/104 | TRNSAJ2026B | TRNSAJ1016B | TRNBATJX474BNL |

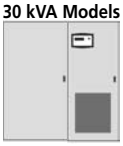
** 90 minute run time. Contact factory for other run times.*

## Options

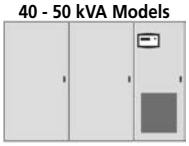
Programmable Relay Board
Internal Modem
Network Interface Card
AS/400 Signal Cable
Remote Alarm Status Panel

## Cabinet Configurations

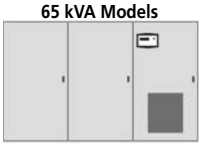
30 kVA Models



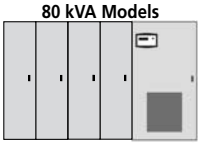
40 - 50 kVA Models



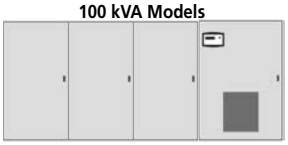
65 kVA Models



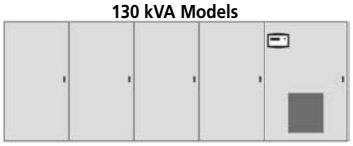
80 kVA Models



100 kVA Models



130 kVA Models



## Site Planning Data — Trident UPS - 90 Minute Operation — 30-130 kVA, 3-Phase, 60 Hz.

| System Rating | | AC Voltage | | AC Input Current | | | Battery | | | AC Output Current | | Mechanical Data | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| kVA | kW | Input | Output | Nom. | Max. | OCPD | Nom. VDC | Battery kW | Max. Discharge | Nom. | OCPD | No. Of Cabinets | Dimensions - WxDxH inches (mm) | Weight lbs. (kg) | Heat Dis BTU/hr (kWH) |
| 30 | 24 | 208 | 208 | 80 | 92 | 150 | 480 | 26 | 66A | 83 | 125 | 2 | 80.7x32.5x71 (2,050x826x1,803) | 7,250 (3,303) | 8,500 (2.49) |
| 30 | 24 | 480 | 208 | 33 | 38 | 60 | 480 | 26 | 66A | 83 | 125 | 2 | 80.7x32.5x71 (2,050x826x1,803) | 7,150 (3,257) | 7,500 (2.19) |
| 30 | 24 | 480 | 480 | 33 | 38 | 60 | 480 | 26 | 66A | 36 | 50 | 2 | 80.7x32.5x71 (2,050x826x1,803) | 6,950 (3,166) | 11,000 (3.22) |
| 40 | 32 | 208 | 208 | 106 | 122 | 175 | 480 | 34 | 88A | 111 | 150 | 3 | 130x32.5x71 (3,294x826x1,803) | 9,600 (4,373) | 11,000 (3.22) |
| 40 | 32 | 480 | 208 | 44 | 51 | 80 | 480 | 34 | 88A | 111 | 150 | 3 | 130x32.5x71 (3,294x826x1,803) | 9,500 (4,328) | 10,000 (2.93) |
| 40 | 32 | 480 | 480 | 44 | 51 | 80 | 480 | 34 | 88A | 48 | 60 | 3 | 130x32.5x71 (3,294x826x1,803) | 9,300 (4,237) | 10,000 (2.93) |
| 50 | 40 | 208 | 208 | 133 | 153 | 225 | 480 | 43 | 109A | 139 | 175 | 3 | 130x32.5x71 (3,294x826x1,803) | 10,200 (4647) | 14,000 (4.10) |
| 50 | 40 | 480 | 208 | 55 | 63 | 90 | 480 | 43 | 109A | 139 | 175 | 3 | 130x32.5x71 (3,294x826x1,803) | 10,100 (4601) | 12,000 (3.51) |
| 50 | 40 | 480 | 480 | 55 | 63 | 90 | 480 | 43 | 109A | 60 | 80 | 3 | 130x32.5x71 (3,294x826x1,803) | 9,900 (4510) | 12,000 (3.51) |
| 65 | 52 | 208 | 208 | 171 | 196 | 300 | 480 | 55 | 141A | 180 | 25 | 3 | 137.4x32.5x71 (3,490x826x1,803) | 12,800 (5831) | 18,000 (5.27) |
| 65 | 52 | 480 | 208 | 70 | 81 | 125 | 480 | 55 | 141A | 180 | 225 | 3 | 137.4x32.5x71 (3,490x826x1,803) | 12,600 (5740) | 15,000 (4.39) |
| 65 | 52 | 480 | 480 | 70 | 81 | 125 | 480 | 55 | 141A | 78 | 100 | 3 | 137.4x32.5x71 (3,490x826x1,803) | 12,400 (5649) | 15,000 (4.39) |
| 80 | 64 | 208 | 208 | 210 | 241 | 350 | 480 | 68 | 174A | 222 | 300 | 5 | 139.4x32.5x71 (3,541x826x1,803) | 14,700 (6697) | 22,000 (6.44) |
| 80 | 64 | 480 | 208 | 87 | 100 | 150 | 480 | 68 | 174A | 222 | 300 | 5 | 139.4x32.5x71 (3,541x826x1,803) | 14,500 (6606) | 18,000 (5.27) |
| 80 | 64 | 480 | 480 | 87 | 100 | 150 | 480 | 68 | 174A | 96 | 125 | 5 | 139.4x32.5x71 (3,541x826x1,803) | 14,300 (6515) | 18,000 (5.27) |
| 100 | 80 | 208 | 208 | 261 | 300 | 500 | 480 | 85 | 218A | 278 | 350 | 4 | 196.2x32.5x71 (3,713x826x1,803) | 18,950 (8633) | 26,000 (7.61) |
| 100 | 80 | 480 | 208 | 108 | 124 | 200 | 480 | 85 | 218A | 278 | 350 | 4 | 196.2x32.5x71 (3,713x826x1,803) | 18,750 (8542) | 21,000 (6.14) |
| 100 | 80 | 480 | 480 | 108 | 124 | 200 | 480 | 85 | 218A | 120 | 150 | 4 | 196.2x32.5x71 (3,713x826x1,803) | 18,550 (8451) | 21,000 (6.14) |
| 130 | 104 | 208 | 208 | 339 | 390 | 600 | 480 | 111 | 283A | 361 | 450 | 5 | 245.2x32.5x71 (6,228x826x1,803) | 24,000 (10934) | 33,000 (9.66) |
| 130 | 104 | 480 | 208 | 140 | 161 | 250 | 480 | 111 | 283A | 361 | 450 | 5 | 245.2x32.5x71 (6,228x826x1,803) | 23,800 (10843) | 27,000 (7.90) |
| 130 | 104 | 480 | 480 | 140 | 161 | 250 | 480 | 111 | 283A | 156 | 200 | 5 | 245.2x32.5x71 (6,228x826x1,803) | 23,600 (10751) | 27,000 (7.90) |
| See Notes For Table (Below): | | | | -- | 1,3,7 | -- | -- | -- | 1,3,7 | 1,3,7 | -- | -- | 8 | 8 | -- |

**NOTES FOR TABLE:**

1. The unit's input and bypass cables must be run in separate conduit from output cables.
2. Minimum-sized grounding conductors to be per NEC 250-122. Parity-sized ground conductors are recommended. Neutral conductors to be sized for full capacity per NEC 310-15(b)(4). References are per NEC 1999.
3. Wiring requirements:
   AC Input: 3-phase, 3-wire plus ground or 3-phase, 4-wire plus ground
   AC Output: 3-phase, 4-wire plus ground
   DC Input: 2-wire (positive and negative), plus ground
4. All wiring is to be in accordance with national and local electrical codes.
5. Minimum access clearance is 3 feet front and 1 foot above the unit.
6. Top or bottom cable entry through removable access plates. Cut plate to suit conduit size then replace.
7. Control wiring and power wiring must be run in separate conduit.
8. Weights and dimensions shown include battery cabinets.
9. OCPD-Overcurrent Protection Device.

**ADDITIONAL NOTES:**

- If site configuration includes a back-up emergency generator, it is recommended that the engine generator set be properly sized and equipped for the unit's application. Generator options would typically include an isochronous governor (generator frequency regulation) and a UPS-compatible regulator (generator voltage regulation). Consult generator manufacturer for required generator options and sizing.
- If site configuration includes an automatic transfer switch, refer to the Power Line titled "Criteria for Application of Automatic Transfer Switches (ATS) with Uninterruptible Power Supply (UPS) Systems" publication 91K-PLT-48-02. It is also recommended that the transfer switch be equipped with auxiliary contacts for the unit's "on generator" current limit. Consult transfer switch manufacturer for required transfer switch options and sizing.
- If site configuration requires an external isolated maintenance bypass circuit, it should be noted that utility AC input may not be in phase with the unit's AC output. Consult local sales representative or applications engineer.



DUAL LITE

# Auxiliary Transfer Switching Device

# ATSD

## Features

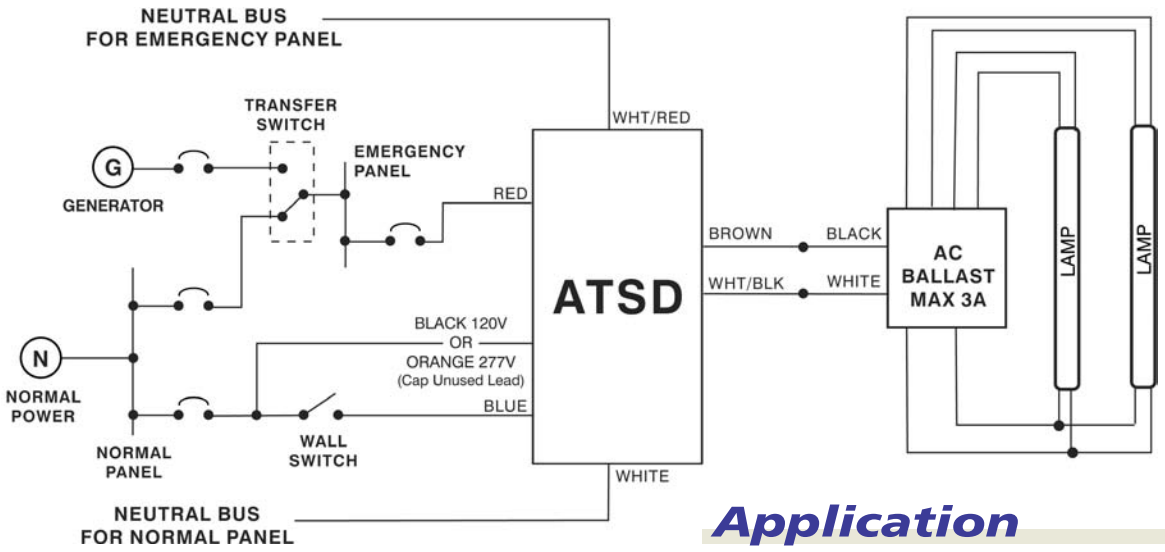
- Device allows generator or inverter supplied egress lighting fixtures to be switched
- For factory or field installation
- Compatible with all fluorescent fixtures
- Easy installation inside of ballast channel
- For use with switched fluorescent lighting fixtures
- Battery case made of galvanized steel
- Universal 120/277VAC operation
- Low power consumption
- Temperature range: 0°C to 50°C (32°F to 122°F)
- UL Listed

## Ordering Information

**ATSD**

## Installation

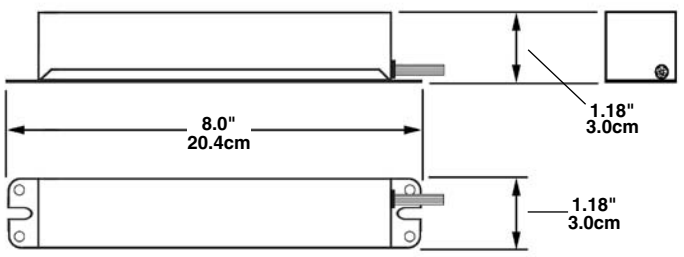
The ATSD auxiliary transfer device does not affect normal fixture operation and comes fully assembled to mount in the fixture ballast channel. In addition to available wiring, the device requires a direct, unswitched connection to a generator- or inverter-supplied emergency panel and an unswitched source on the same branch circuit as the switched supply (see diagram below).




## Application

The ATSD auxiliary transfer switching device works in conjunction with an auxiliary generator or inverter power system to power existing fluorescent fixtures for egress lighting ***regardless of fixture wall switch position.*** The device consists of relay switching circuitry and fusing in one compact galvanized steel case. One auxiliary transfer switch device per fixture can be used to bypass fixture wall switch allowing the building's generator to bring on switchable fixtures and not just those on "night-light" circuits. The auxiliary transfer switch device is suitable for use in indoor-dry or damp location fixtures. Recommended applications include: auditoriums, classrooms, or any other location with generator- or inverter-supplied emergency lighting.

## Dimensions



# Notes

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# THE DUAL-LITE TOTAL SOLUTIONS APPROACH

Dual-Lite offers a full line of life safety products that meet your application's demands with a systematic, total solutions approach. Backed by the 100-year heritage of Hubbell Lighting, Inc., we will continue to provide quality lighting products incorporating the latest in product design, photometric performance and energy efficient technologies. Our goal is to empower you with a comprehensive product selection to fulfill the lighting requirements of even the most demanding application. Contact your Dual-Lite sales agent to learn more about Dual-Lite, other Hubbell Lighting brands or to place an order today.

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