



# SU/HSU Series Emergency Square Unit

## Description

Emergency lighting square units for surface and semi-recessed mounting applications. Available in single and twin lamp models.

## Features

- Low profile design
- Thermoplastic construction with black base and white frame
- Acrylic prismatic lens provides bright, even illumination
- Fast, easy installation in suspended T-grid or drywall ceilings
- High output halogen lamp
- Choice of maintenance-free lead calcium or long life nickel cadmium battery models
- 90 Minutes of emergency illumination
- Universal 120/277VAC input
- Fully automatic, temperature compensating, variable rate float charger standard
- Automatic low voltage battery disconnect
- Automatic brownout protection
- AC lockout feature reduces installation time
- Momentary test switch and AC ready indicator
- Meets NFPA Life Safety Code 101, NEC, OSHA, State and local Codes
- UL924 listed



## Ordering Guide

Model No.	Volts	Watts For 1 1/2 Hrs.	Watts For 2 Hrs.	Watts For 3 Hrs.	Watts For 4 Hrs.	Standard Lamp	Weight (Lbs.)
<b>Lead Calcium Battery Models</b>							
SU-1	6	10	--	--	--	8W Hal.(-06)	7
HSU-1	6	20	15	11	8	8W Hal.(-06)	10
HSU-2 *	6	20	15	11	8	8W Hal.(-06)	10
12HSU-14	12	20	15	11	8	8W Hal.(-53)	11
<b>Nickel Cadmium Battery Models</b>							
SUN-1	6	10.8	8	--	--	8W Hal.(-06)	7
12HSUN-14	12	21.6	17	12	9	8W Hal.(-53)	11

\* Twin lamp model - supplied with two 8W halogen lamps (-06).

**NOTE:** All product specifications shown are subject to change without notice.

## Options <sup>(1)(2)</sup>

Add Suffix	Description
-V	Voltmeter
-SR	Semi-Recessed Mounting
-220	220VAC, 50Hz Input
-SX	Self-Diagnostic Circuit

(1) Other options available. Consult factory.

(2) Some options may impact product UL listing. Consult factory.

## Specifier Reference

Project: \_\_\_\_\_

Fixture Type: \_\_\_\_\_

Model No.: \_\_\_\_\_

Comments: \_\_\_\_\_

## Accessories

Order Model	Description
PG-5	Wire Guard
VERS	Vandal/Environmental Shield
VERS-4X	Vandal/Environmental Shield with Gasket
978-W-06	Matching 6 Volt Remote Square Fixture (6V, 8W)
978-W-53	Matching 12 Volt Remote Square Fixture (12V, 8W)

## Construction

**Housing:** Black base and white frame housings are constructed of impact resistant, UV stable, flame rated thermoplastic.

**Prismatic Lens:** Unit lens is constructed of water-clear acrylic.

## Installation

**Surface Mounting:** The housing base provides knockouts for mounting the unit to ceiling surfaces as well as standard 3 1/2" and 4" utility boxes.

**Semi Recessed Mounting:** The semi-recess (-SR) option recesses the unit's black base housing below the ceiling surface leaving only the white frame exposed. Models ordered with the semi-recessed option are supplied with a metal pancake utility box and mounting bars for attachment to ceiling joists or T-grid members.

**Wiring:** Knockouts in the housing base allow wiring to utility boxes or conduit.

## Illumination

A high output halogen lamp and prismatic lens provides glare-free light distribution.

**Lamp Type:** Halogen - Bi-pin

**Lamp Rating - 6V Models:** 6 volts, 8 watts

**Lamp Rating - 12V Models:** 12 volts, 8 watts

**Lamp Life:** 100 hours (expected average)

## Code Information

Unit is UL924 Listed and meets NFPA 101 Life Safety Code, NEC, OSHA, Local and State Codes

## Charger and Electronics

**Charger Type:** Fully automatic, temperature compensating, variable rate float charger

**Utility Input:** 120/277VAC, 60 Hz.

**Power Consumption:** 15 watts (maximum)

**Temperature Range:** 68°F to 86°F (20°C to 30°C)

**Recharge Duty Cycle:** 24 hours

**Load Transfer:** A solid state transfer circuit provides load connection.

**Controls:** Momentary test switch and LED AC-On indicator light

### Safety Circuitry:

**AC Lockout:** Prevents battery discharge prior to initial unit power-up saving installation time.

**Low Voltage Battery Disconnect:** Protects the battery from being severely damaged by deep discharge during prolonged power failures.

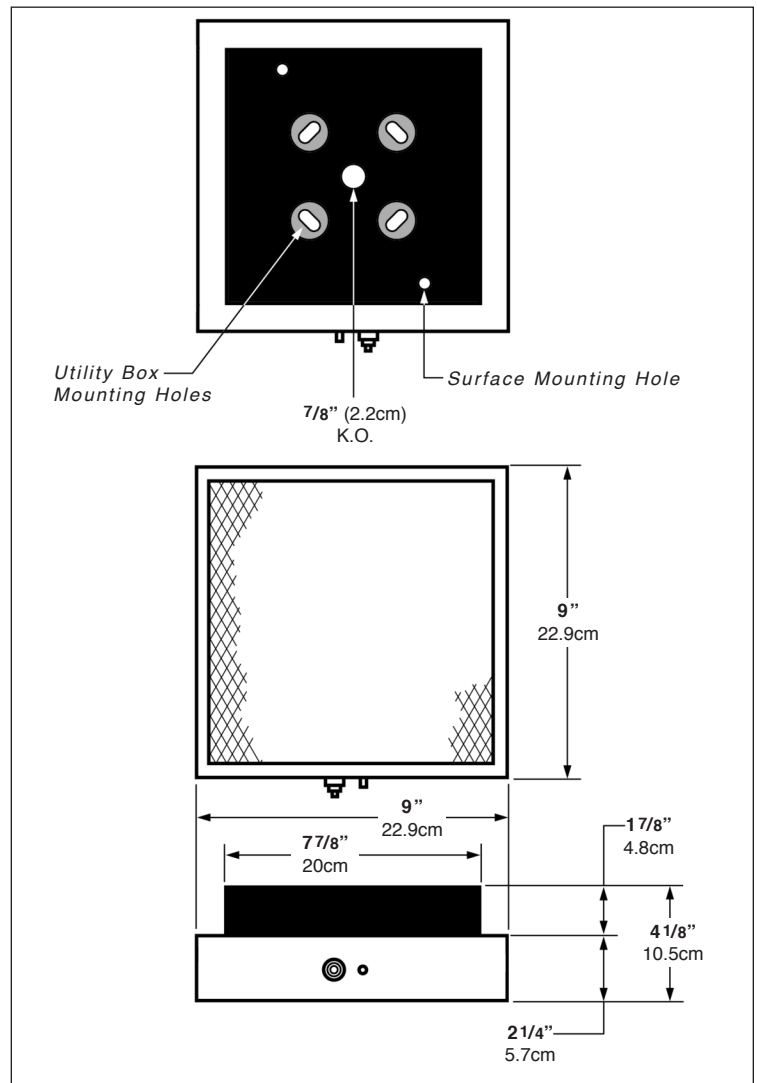
**DC Overload and Short Circuit Protection:** Provided by a disconnect circuit that automatically resets itself when the fault condition is corrected.

**Brownout Protection:** Automatically switches the unit to emergency mode when utility voltage is reduced to the point at which most fluorescent light fixtures would extinguish.

## Emergency Operation

Upon failure of the normal utility power, a solid-state transfer switch automatically connects the unit's battery to the emergency lamp. Emergency illumination will be supplied for a minimum of 90 minutes. During emergency operation, the unit battery is protected from severe discharge damage by an automatic low voltage disconnect circuit that discontinues unit operation when battery voltage reaches 87.5% of nominal. When normal utility power is restored, the battery is automatically disconnected from the load and a recharging cycle begins that will return the battery to full capacity within 24 hours.

## Dimensions



## Optional Self-Diagnostic Circuit

The optional SX self-diagnostics circuit automatically cycles the emergency lighting unit every 25-30 days. The SX circuit checks for battery charging and over charging, battery capacity and reports any system malfunction. By design the SX does not activate the lighting heads, thus avoiding substantial lamp life reduction.

## Battery

Models are offered which provide either standard duty **lead calcium** or longest life **nickel cadmium** batteries. Both battery types are fully maintenance free and designed to provide many years of dependable service.

## Warranty

**Unit:** (excluding lamps) 3-years full coverage against defects in materials and workmanship from date of shipment

**Battery:** 3 years full warranty plus an additional 7 years of pro-rata coverage