NAV Series

VANDAL RESISTANT, WET LOCATION LED EXIT

Model Number: Accessories: Job: Type:	Approvals:

FEATURES

- IP66 rated for wet and hose down locations - NEMA 4X
- Heavy Duty 0.42” think, cast aluminum housing
- Impact-resistant, polycarbonate shield offers extreme protection
- Guardian Self-Test/Self-Diagnostics (G2) standard
- Tamper-resistant hardware standard
- CSA recognized NiCad battery
- Extended 120 minute run time battery available
- Optional internal battery heater for cold locations (down to -20°C)
- Universal Mounting - Ceiling, back or end mount
- Constant, uniform illumination by long-life, high intensity, red or green LEDs
- Fully-illuminated 6” characters with 3/4” stroke
- Chevron-style, universal arrow knockouts
- 120/277/347V, 60Hz input
- Standard finishes: Black and white
- Fixture series may be built to comply with the American Recovery and Reinvestment Act of 2009 (ARRA) requirements and Buy American provisions - call factory for details

WARRANTY

Any component that fails due to manufacturers defect is guaranteed for 5 years with a separate 5 year pro-rated warranty on the battery. The warranty does not cover physical damage, abuse or acts of God. Manufacturer reserves the right to charge for such repairs if deemed necessary.

The NAV series vandal resistant exit sign is designed to stand up to high abuse areas such as correctional facilities, schools, apartment complexes, and public areas that may be subject to vandalism. The NAV features an IEC IP66 rating standard, and is suitable for wet or hose down applications.

5/5 WARRANTY

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

ORDERING INFORMATION **Example:** NAV-NC-R-1-WH-IH1

Series	Power Source	Color	No. of Faces	Finish	**Options** (Factory Installed)	**Accessories**[2] (Field Installed)
NAV	LB = AC Only	R = Red	1 = Single Face	WH = White	FL = Flasher	ER1-KIT = 1’ Pendant Mount Kit
	NC = NiCad Battery	G = Green	2 = Double Face	BL = Black	BZ = Buzzer	ER2-KIT = 2’ Pendant Mount Kit
					IH1 = 120VAC Battery Heater	
					IH2 = 277VAC Battery Heater	
					2CI1[1] = 2 Circuit Input 120VAC	
					2CI7[1] = 2 Circuit Input 277VAC	
					TF = Extended Run Time (120 min)	
					USA = Meets Buy American Requirements	

[1] LB only, for use with inverter or generator applications only
[2] Order as separate line item

CONSTRUCTION
The NAV series is constructed from .420" thick, heavy duty die-cast aluminum. The face plates are protected by high abuse clear polycarbonate, which is recessed into the housing. Tamper resistant screws are standard. NAV exits are available in single or double face configurations. The self-powered version comes standard with an external LED status indicator and infrared test switch.

Stencil letters are 6" high with 3/4" stroke, with minimum of 100 ft viewing distance rating as required by UL924 standard.

Vandal Lens
Providing a vandal lens to exit fixtures offers additional protection to the unit against intentional or unintentional abuse.

ILLUMINATION
Illumination of the NAV series is achieved with high output, long lasting red or green LEDs exceeding UL 924 requirements for brightness and uniformity. An exclusive color-matched diffuser eliminates hot spots and striations, providing optimal light output. Illumination of the NAV series is accomplished utilizing high-intensity, long-life LEDs and consumes only 5 watts nominal power. LEDs provide excellent illumination while maximizing energy efficiency. LEDs are a maintenance-free solution, providing up to 100,000 hours of use without failure.

ELECTRICAL Dual-voltage input 120 or 277VAC @ 60Hz.
Sealed Nickel Cadmium Battery - NiCad (With Battery Only)
Sealed nickel cadmium batteries are maintenance-free with a life expectancy of 15 years. Nickel cadmium batteries offer high discharge rates and continue to perform in a vast temperature range from 0-40 degrees C. NiCad technology provides long lasting, safe and reliable performance by utilizing the jelly-roll design and allows a Ni-Cad cell to deliver a much higher maximum current than an equivalent size alternative battery. As a relatively larger area of the electrode is in contact with the active material in each cell, the internal resistance for an equivalent sized NiCad cell is lower which increases the maximum current that can be delivered.

Brownout Circuit
The brownout circuit monitors the flow of AC current to the unit and triggers the emergency lighting system once a set reduction of AC power occurs. This dip in the voltage will cause many fixtures to extinguish causing loss of normal lighting even though a total power failure has not occurred.

Low Voltage Disconnect
When the battery's terminal voltage falls below predetermined levels, the low-voltage circuit disconnects the emergency lighting load. The disconnect remains in effect until normal power is restored, preventing deep battery discharge and improving the life of the battery. The disconnect will also automatically reconnect the load circuit once the battery voltage returns to a normal value after charging.

Solid-State Transfer
The unit features a solid-state switching transistor which eliminates damaged contacts or mechanical failures associated with relays. The switching circuit is designed to detect a loss of AC power and automatically energizes the lamps. Upon restoration of the AC voltage, the emergency lamps will switch off and the charger will automatically recharge the battery.

Overload and Short-Circuit Protection
The solid-state overload monitoring system in the DC circuit disconnects the lamp load from the battery should excessive wattage demands be made and automatically resets when the overload or short-circuit is removed. This overload current protective characteristic eliminates the need for fuses or circuit breakers for the DC load.

Test Button
Our easily located test button allows for manual verification of proper operation of the transfer circuit and emergency lamps.

INSTALLATION
The NAV Series is supplied with a universal mounting system and is suitable for surface ceiling, wall, and end mount applications. Suitable for indoor, outdoor, damp, or wet location applications.

NEMA 4X Rated (Standard)
NEMA 4X rated fixtures are designed for outdoor applications. NEMA 4X rating ensures that the fixtures will withstand contact with falling dirt, moderate or jet driven water, ice and corrosion. NEMA 4X fixtures are designed to perform in hose down applications.

IP66 Rated (Standard)
IP66 rating ensures that the product can be installed in outdoor applications where significant water or dust may come in contact with the fixture. IP66 rated fixtures are fixtures designed to perform in hose down applications.

Guardian Self-Test/Self-Diagnostics (Standard)
The Guardian circuit continuously monitors the operating condition of the AC power, battery supply voltage, emergency lamp continuity and charging circuit.

The purpose of this option is to provide visual signaling in response to a fault at the EXIT sign battery and/or battery charger. If a failure is detected, visual status will occur immediately via the CHARGER LED and/or the BATTERY FAULT LED. The LEDs will stay illuminated until the fault is corrected.

The Guardian circuit also monitors the transfer circuit as well as performing automatic code compliant testing. The Guardian circuit will perform a 30 second discharge and self-test every 28-30 days. A 90 minute discharge and self-test is performed every 6 months.

Flasher - (Option: FL)
When normal power is lost and the emergency unit goes into back up power mode, this unit will flash on and off - providing a highly visual signal as to emergency status.

Audible Alarm - (Option: BZ)
When normal power is lost and the emergency unit goes into back up power mode, this unit will buzz - providing a highly audible signal as to emergency status.

Two-Circuit Operation - (Option: 2CI1 or 2CI7)
Two circuit operation features for emergency lighting allows the dual input of power sources for units less battery (AC only).

The purpose of this feature is to provide the compatibility of our emergency units in applications where inverters or alternate back up power sources are utilized.

Internal Heater - (Option: IH1 or IH2)
The internal heater on this emergency fixture is designed to extend the operating temperature range of this unit down to -20 degrees C (-4 degrees F).

Tamper Resistant Hardware (Option: TRH)
Tamper resistant hardware adds an additional layer of protection to the unit, preventing unwanted access to the interior of the unit or removal of the face plates.

Made in the USA - (Option: USA)
Many of our products can be produced or transformed to comply with the American Recovery and Reinvestment Act of 2009 (ARRA) requirements and Buy American provisions. These fixtures meet LEVEL 2 or 3 compliance when option is requested - please call factory for details with questions.

CONFORMANCE TO CODES & STANDARDS
The NAV Series is CSA listed and meets or exceeds the following: UL 924, NEC requirements and NFPA 101.

DIMENSIONS