# **SELF-DIAGNOSTIC TESTING**

## 1) Introduction

Once the unit is properly installed according to the Installation instruction sheet and AC power is supplied, the EXIT will come ON. The dual color LED indicator will also come ON, automatically initiating the self diagnostic test function. The LED indicator points out the current unit status. A STEADY GREEN on the LED indicator indicates a normal service; BLINKING GREEN indicates that the unit is in testing mode; GREEN/RED FLASHING indicates that the battery is charging; RED (STEADY and BLINKING) would indicate a fault or a service alert. Refer to section 3 – Fault Indication for more details. The LED indicator would be OFF when the unit is in Emergency mode.

### 2) Self–Diagnostic Service

The self diagnostic function is factory preset without any field adjustment. The automatic self diagnostic feature serves the following tests-

a. On-line real time monitoring of battery, lamps and LED(s): Identifies battery charging, disconnection and failure along with LED failures.

b. Self testing and a 30 second discharge once every 30 days (conforming to NFPA code requirements), after AC power has been supplied for a minimum of 24 hours.

- c. Self testing and a 30 minute discharge once every 180 days, after AC power has been supplied for a minimum of 24 hours.
- d. Self testing and a 90 minute discharge once every 365 days, after AC power has been supplied for a minimum of 24 hours.

#### 3) Fault Indication

Function	LED Indication
Unit is in normal mode	STEADY Green
Battery Disconnected	STEADY Red
Battery Recharge	Red and Green (flashing alternatively)
Battery Recharge Failure*	FLASHING Red
Battery Failure**	Red BLINKING '2' times
LED Failure	Red BLINKING '3' times

\*A battery recharge failure will come up if the battery is NOT able to recharge within the 24 hrs charging time \*\*A battery failure will come up if the battery is NOT able to operate the LED strip for the period of a discharge test

#### 4) Manual Testing

This unit also provides for manual testing by pushing the test switch in a specific pattern. The different patterns and the resulting tests are listed in the table below.

Action	Reaction & LED Indication
Push test button once (within 2 seconds)	30-second test; FLASHING Green
Push test button'2' times (within 2 seconds)	30-minute test; Green BLINKING '2' times
Push test button'3' times (within 2 seconds)	90-minute test; Green BLINKING '3' times
Push & Hold test button (3-5 seconds)	System Interruption
Push & Hold test button (more than 6 seconds)	System Reset

#### 4) **Operation**

During an electrical power failure, the LED sign will transfer into Emergency mode and stay LIT for a minimum of 90 minutes. To test this unit, the battery needs to be charged initially for 24 hours before depressing the test switch (to do manual test). On pressing the test switch, the sign will transfer into a SIMULATED Emergency mode with the LED indicator FLASHING/BLINKING Green. Sign will switch back into AC ON mode after 30 seconds/30 minutes/90 minutes respectively.

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