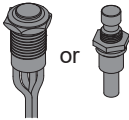
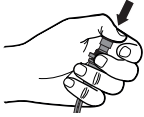
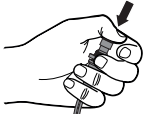


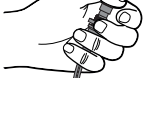


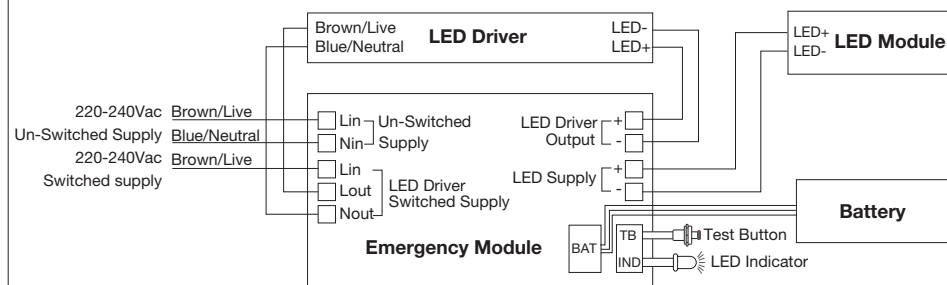
## Functionality of the test button (manually mode)

Button appearance	Operation	Function
	 <p>1-2s Press 1-2s</p>	Manual functional test
	 <p>5-10s Press 5-10s</p>	Manual duration test
	 <p>&lt; 1s Press &lt;1s</p>	Confirm the current duration test interval
	 <p>&lt; 1s Double press &lt;1s</p>	Set the duration test interval
	 <p>&lt; 1s Double press &lt;1s during emergency mode</p>	Rest mode activated

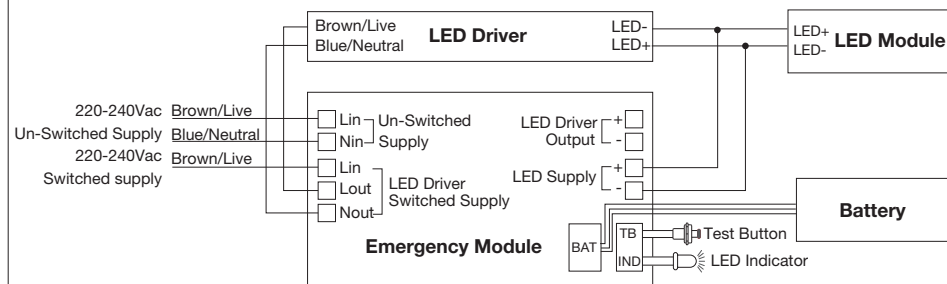
## Emergency Battery User Guide

### Wiring diagram

Driver output current  $\leq 0.8A$  (non-SELV)



Driver output current  $> 0.8A$  (SELV)



## Automatic / Manual Testing

### 1. Commissioning

- Commissioning takes place by connecting the battery and then the un-switched supply. The battery must be connected first.
- The green LED will immediately flash 1 x second to indicate that there is a pending duration test.
- A functional test will occur at 5 minutes after commissioning to allow 5 minutes for battery charging to ensure there is some charge in the battery.
- A duration test will occur at a random point between 24 hours and 48 hours after commissioning to allow 24 hours for battery charging.
- Any faults found in the functional and duration testing will be reported via the LED indicator, as detailed below.
- Disconnecting the un-switched supply and then the battery resets the emergency module, clears all fault reports and forces a re-commission when the battery and then the un-switched supply are reconnected.
- **If the un-switched supply of an emergency lighting circuit is switched OFF/ON twice within 5 seconds, the schedule for all the emergency units in the emergency lighting circuit is reset (to the current time).**

### 2. Duration Testing (3 hours)

- An automatic duration test will occur at a random point between 24 hours and 48 hours after commissioning to allow for battery charging.
- An automatic duration test will occur semi-annually or annually at a random point in the 26nd or 52nd week of each year.
- A duration test will occur once the battery is fully charged after pressing the manual test button for 5-10 seconds.
- A duration test may be delayed by other events, such as a power cut that interrupts the test or a lack of charging time, in which case the green LED will flash 1 x second to indicate there is a pending duration test that the emergency module has rescheduled.
- Any faults found in the duration testing will be reported via the LED indicator, as detailed below.
- A functional test will not override any faults reported by a duration test. A full duration test or re-commissioning is required to clear any faults.

### 3. Functional Testing (<2 minutes)

- A 5 seconds automatic functional test will occur at 5 minutes after commissioning.
- A 108 seconds automatic functional test will occur every 7 days.
- A manual 108 seconds functional test will start immediately after pressing the manual test button for 1-2 seconds.
- Any faults found in the functional testing will be reported via the LED indicator, as detailed below.
- A functional test will not override any faults reported by a duration test. A full duration test or re-commissioning is required to clear any faults.

### 4. Manual Testing

- Manual functional test: Press the manual test button for 1-2 seconds. A manual functional test lasting <2 minutes will start immediately.
- Manual duration test: Press the manual test button for 5-10 seconds. A manual duration test will occur once the battery is fully charged after pressing the manual test button for 5-10 seconds.

### 5. Pending Duration Testing

- A duration test may be delayed by other events, such as a power cut that interrupts the test or charging period, in which case the green LED will flash to indicate there is a pending duration test that the emergency module has rescheduled until charging is complete.

### 6. Lamp or Luminaire Fault

- Turn off the supply and replace or correct the fault with the lamp or luminaire, and then reconnect the supply.
- Press the manual test button for 5-10 seconds. A manual duration test will occur once the battery is fully charged.
- If the battery and power have been disconnected the EM will re-commission and automatically test the replacement.
- A successful functional test will not override any faults reported by a duration test. A full duration test or re-commissioning is required to clear fault reports.

### 7. Battery Fault




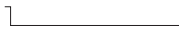
















- Turn off the un-switched supply to the EM and replace the battery, and then reconnect the supply.
- If the fault was because the battery was not connected, the un-switched supply must still be turned off when connecting the battery to clear the battery fault.
- The EM will re-commission and so automatically test the replacement at a random point between 24 and 48 hours after commissioning to allow for battery charging.

## Rest Mode

- Emergency operation is automatically started when the mains supply is switched off. Rest mode can be activated during emergency mode by doubling press the manual test button. The discharging of the battery will be minimized by switching off the LED output. The rest mode will be exited automatically after reconnect the supply.

## LED Indicator

System status is locally indicated by a bi-coloured LED indicator.

	Color		LED indication	Status
	Green		Permanently On	System Healthy
	Green		Permanently OFF	Emergency Mode: Mains failure or mains disconnected
	Green		Slow Flash (0.5s on-0.5s off)	Duration Test Pending
	Green		Medium Flash (0.25s on-0.25s off)	Duration Test Running
	Green		Fast Flash (0.125s on-0.125s off)	Functional Test Running
	Red		Permanently On	Battery Charging Fault
	Red		Medium Flash (0.25s on-0.25s off)	Battery Duration Fault
	Red		Fast Flash (0.125s on-0.125s off)	Lamp or Luminaire Fault
	Red		OFF 1s then Stay On 5s	26 Weeks Duration Test Interval
	Red		OFF 1s then Fast Flash 5s (0.125s on-0.125s off)	52 Weeks Duration Test Interval