

**ONCE A YEAR** - Each unit should be energised from its battery for the full rated duration. Inspect the LED's and if any of them have failed the whole unit will need to be replaced. The LED's will probably continue to operate for approximately 10 years but batteries will require replacement every five years.

**NB:** Failure to achieve rated duration after the corresponding recharge period indicates that the batteries have reached the end of their useful life and they should be replaced immediately. Batteries have a typical life expectancy of four to five years. Old batteries should be handled by specialist waste disposal experts, and under no circumstances should they be pierced or incinerated.

#### **DALI/SELF-TEST LUMINAIRES ONLY**

The luminaire will adopt a self-test (automatic test) mode if it is not connected to a DALI bus, or the DALI communication is missing. On completion of the self-commissioning check, the self-test program starts with the first function and duration tests. These tests will be carried out after randomly generated delay times. The initial function test randomly generated between 0 and 7 days, and the initial duration test randomly generated between 4 and 52 weeks. Subsequent function and duration tests then randomly occur at intervals of 7 days and 52 weeks respectively.

DALI/Self-test luminaires will respond to DALI commands from a suitable control unit. These commands can be used to initiate function and duration tests at prescribed times. The status flags for the luminaire are set after a test, for reporting and logging of the results.

#### **DALI /Self-test luminaire local bi-colour LED indicator status**

<b>Green LED</b>	<b>Permanently on</b>	<b>System OK/mains operation mode</b>
	<b>Slow flash</b>	<b>Duration test/commissioning</b>
	<b>Fast flash</b>	<b>Function test</b>
<b>Red LED</b>	<b>Permanently on</b>	<b>LED luminaire fault</b>
	<b>Slow flash</b>	<b>Battery/test failure</b>
	<b>Fast flash</b>	<b>Battery charging failure</b>

**Slow flash** – a flash every 2 seconds. **Fast flash** – a flash every 0.5 second

## **SYLSAFE IP65 LED BULKHEAD RANGE**

**AX/M3 MAINTAINED  
EMERGENCY LIGHTING  
(& AX/P MAINS ONLY)**

### **LUMINAIRE INSTRUCTIONS AND TEST PROCEDURES**

**230V ~ 50Hz; Class II; IP65**

Please retain these instructions for future reference

## INTRODUCTION

SylSafe IP65 LED bulkhead emergency luminaires are designed to be surface mounted and are for use both indoors and outdoors. They are available in mains only or 3 hour maintained emergency operation, with the maintained version having Self-test and DALI options.

## SPECIFICATION

Supply Voltage: 220 - 240V A.C, 50Hz

Supply Current: <22mA

Nominal Power: 3W

Ambient temperature range: 0°C to 25°C

Environmental protection: IP65

Battery: 3.6V 1.5Ah NiCD

Sylsafe luminaires use long life white LED's as a non-user replaceable light source, so the light source contained in this luminaire shall only be replaced by the manufacturer or his service agent or a similar qualified person.

## INSTALLATION

The SylSafe luminaire must be installed in accordance with current building and wiring regulations by a qualified person, and suitable tests on the completed luminaire must be carried out to ensure compliance to relevant standards.

1. Remove the diffuser from the body using the two crosshead screws.
2. Release gear tray by undoing the two screws and hinging the gear tray down.
3. Fix base to wall or ceiling either direct or via conduit box having cleared an access hole in the body for the cable.
4. Wire up the luminaire in accordance with wiring regulations. An unswitched 240V A.C. supply must be connected to the Live (L), Earth (E) and Neutral (N) terminals on the PCB. On Maintained variants normal switched lighting can be provided by connecting a switched live to terminal 'Ls'.
5. Plug battery lead into connector on PCB for emergency versions.
6. Hinge the gear tray back into the base and secure with two screws.
7. Refit diffuser and tighten screws carefully to ensure a good seal.
8. Check operation – restore A.C. supply. On emergency versions check the indicator LED is 'on'. Leave for 30 minutes, remove power and the LED's should illuminate for a few seconds.
9. Restore the A.C. supply and check LED's operate on mains and maintained versions.

**NB: At end of life, product must be recycled. Any batteries and light sources should be removed and returned to the producer. Light sources should be removed and sent to a RECOLITE centre. The luminaire enclosure should be sent to a LUMICOM centre. Do not incinerate or send to land fill.**

## OPERATION

The SylSafe luminaire should be connected to the mains supply for a minimum of 24 hours before operating in emergency as the batteries need to be fully charged before they will provide their full rated duration. (NB DALI/Self-test luminaires have a self-commissioning mode which charges the battery, does a full duration test and then re-charges the battery).

## EMERGENCY OPERATION

**NON-MAINTAINED** - LEDs normally off and battery charging (LED indicator 'on') when the A.C. supply is healthy. Solid state circuitry automatically switches the LEDs on when the A.C. supply is interrupted.

**MAINTAINED** - The LEDs are normally on (may be switched using switched supply). The battery is charging (LED indicator 'on'). LEDs will switch on or remain on if A.C. supply is interrupted.

**MONITORING** - Green LED indicator normally continuously 'on'. Indicator goes out if A.C. supply or charger fails.

## FAULT FINDING AND CORRECTIVE ACTION:

**MONITORING LED NOT ILLUMINATED** - A.C. supply is unhealthy. Battery not connected. Charger failed.

**UNIT NOT MEETING REQUIRED EMERGENCY PERIOD** - May need cycling: discharge then recharge for full 24 hours. Retest luminaire. Battery pack may need replacing if emergency duration still not met.

**LEDs NOT FULLY ILLUMINATED** - If the light output is of abnormally low level, either the battery pack or (less likely) the printed circuit board needs replacing.

## TESTING

### RECOMMENDED ROUTINE TEST PROCEDURE:

The following test is designed to ensure the continued protection of your premises and occupants. Because of the possibility of a failure of the normal lighting supply occurring shortly after a period of testing, all tests should whenever possible, be undertaken at times of least risk, e.g. during daylight hours.

**ONCE A DAY** - Visual inspection of battery charge LED.

**ONCE A MONTH** - Each unit should be energised from its battery for about 15 minutes by simulation of a failure of the normal lighting supply to ensure the light source operates in the emergency condition.