

## BATTERY CARE

New batteries are required to be fully charged and fully discharged twice to ensure they reach full capacity. (minimum 24hrs charge)

Discharging the batteries too often will shorten their life. Please keep to the testing requirements.

Batteries have a typical life expectancy of 4 years then require replacing. Old batteries must be handled and disposed of by specialist disposal experts. Under no circumstance should they be pierced or incinerated.

NOTE: Battery temperatures in excess of 55°C will significantly reduce battery life.

## EMERGENCY LAMP CARE

Do not run new lamps in emergency mode until they have been run in normal operation mode for at least 100 hours.

Do not run the emergency luminaire in emergency mode too often. Keep to the testing regime. NOTE: over-testing kills lamps and batteries.

Do not put the luminaire into emergency mode until the batteries are fully charged or premature lamp failure may occur (minimum of 24hrs).

Lamps in emergency luminaires will fail before those run only in standard mode as emergency inverter circuits are more 'harsh' on the lamps.

## COMBINATION BALLASTS

Many of our products use a single housing for the high frequency ballast and emergency inverter circuitry. These are known as 'combo' units.

## SELF TESTING EMERGENCY UNITS

Some emergency testing systems employ a light sensor for the emergency lamp. Please ensure that the sensor is located a minimum of 50mm from either lamp end.



*Lighting for Life*

# EMERGENCY LUMINAIRE

# MAINTENANCE & FAULT FINDING GUIDE

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## GENERAL INFORMATION

1. Connection to mains wiring should be carried out by a qualified electrician in accordance with IEE wiring regulations.
2. All luminaires must be EARTHED.
3. Ensure that the rated luminaire voltage and frequency requirements are compatible with the available mains supply.
4. Do not use high voltage insulation testing equipment. Such testing can cause irreparable damage to the electronic components.

## EMERGENCY LIGHTING GROUPS

Emergency luminaires fall into three basic groups:

1. MAINTAINED EMERGENCY LIGHTING – A lighting system in which all emergency lighting lamps are in full operation at all material times.
2. NON-MAINTAINED EMERGENCY LIGHTING – A lighting system in which all emergency lamps are in operation only when the normal light fails.
3. SUSTAINED LUMINAIRE – An emergency lighting luminaire containing two or more lamps, one of which is energised by the normal lighting supply and the other by an emergency lighting supply. Such a luminaire is intended to sustain light at all material times.

## EMERGENCY SUPPLIES

Power to energise emergency lamps can come from integral batteries within the luminaire or from a remote Central Cattery system or Static Inverter. This power supply is intended to energise the emergency lamp within any emergency luminaire upon failure of the normal supply.

Integral battery emergency luminaires indicate 'batteries are charging' generally by use of an LED mounted in a visible location on the luminaire. When the LED is illuminated the batteries are charging. If the LED is mounted on a lamp clip – please ensure the clip is no less than 50mm from either end of the lamp

Emergency luminaires generally have internal supply connections: Permanent Live (orange), Switched Live (brown), Neutral (blue) and Earth (green/yellow).

## TESTING STANDARDS

Emergency lighting must work around the clock, any problems have to be routinely identified and rectified. Testing and maintenance is therefore a fundamental discipline, and you should understand your obligations to European Standard EN 50172: testing requirements for central and self contained systems.

Frequency	European Draft EN 50172
Dailey	Check healthy mains and batteries charging
Monthly	Operational check
Annually	Full duration check (usually 3hrs)

You should note that monthly and annual test records must be made available for on site inspection.

## FAULT FINDING

Inspection / fault finding work must be carried out by a suitably electrically qualified person.

**Initial checks must include conductivity of fuses and integrity of internal / external wiring.**

Please read BATTERY CARE and EMERGENCY LAMP CARE notes on the back page of this leaflet before continuing.

**CAUTION:** even if the power supply to the emergency luminaire may be disconnected, there may still be high voltages inside the fitting. Disconnect batteries when maintaining internal wiring.

- A. LED indicator non-operational and does not work in Emergency mode.
  1. Check that the permanent 240v supply is present in the luminaire.
  2. Check the batteries are properly connected.
  3. Replace the batteries with known working units.
  4. Replace the inverter / combo ensuring you change it 'wire for wire'.
  5. If the luminaire still does not function please call Whitecroft Technical.
- B. Luminaire functions in Emergency mode but will not function in Standard mode.
  1. Check that the Switched Live is present.
  2. Check that the Switched and Permanent Supplies are connected the right way around.
  3. Replace the lamps for new. Note: we recommend that all lamps are changed in the luminaire.
  4. Check that there is 240v at the 'Live Out' terminal of the emergency inverter (not available on combo units).
  5. If the luminaire still does not function please call Whitecroft Technical.
- C. LED illuminated but luminaire does not work in Emergency mode.
  1. Change lamps for new ones. Note: we recommend that all lamps are changed in the luminaire.
  2. Replace the batteries with known working units.
  3. Replace the inverter / combo ensuring you change it 'wire for wire'.
  4. If the luminaire still does not function please call Whitecroft Technical.
- D. LED not illuminated but luminaire functions in all other respects.
  1. Check the cable to the LED; make sure it is properly terminated and has not been trapped or cut.
  2. Replace the LED with a known working one.
  3. Replace the inverter / combo ensuring you change it 'wire for wire'.
  4. If the luminaire still does not function please call Whitecroft Technical.
- E. Luminaire will not last 3 hour duration test.
  1. Check that the batteries have been allowed at least 24 hours to charge.
  2. Change lamps for new ones. Note: we recommend that all lamps are changed in the luminaire.
  3. Check that the Switched and Permanent Supplies are connected the right way around.
  4. Replace the batteries with known working units.
  5. Replace the inverter / combo ensuring you change it 'wire for wire'.