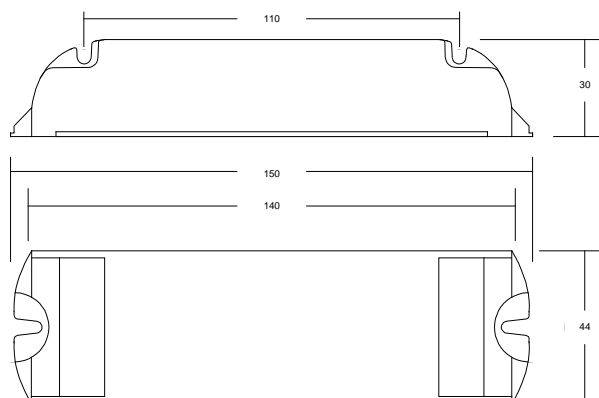


INSTALLATION INSTRUCTIONS ST4C, ST4C/110, ST6C & ST6C/110

General Description

A conversion module only for use in emergency lighting applications consisting of a battery charger with short circuit protection, change-over circuit, dc/ac inverter and ballast hold-off circuit. Modules have basic insulation between the supply and battery, and also have deep discharge battery protection circuitry.

Dimensions (mm)



Specification

Supply Voltage:
ST4C, ST6C 230Vac \pm 10% 50/60 Hz
ST4C/110, ST6C/110 110-127Vac 50/60Hz

Supply Current:
ST4C, ST6C 80mA max
ST4C/110, ST6C/110 90mA max

Battery charge current Selectable 90mA / 210mA nominal
Ambient temperature 0°C to +50°C
Case temperature @ 'Tc' 70°C max
Conductor size 0.5 – 1.5mm²
Mounting screws M4

Batteries

	M3 Battery Link IN	M1 Battery Link OUT
ST4C & ST4C/110	4.5Ah NiCd	1.5Ah NiCd
ST6C & ST6C/110	4Ah NiCd or NiMH	1.5Ah NiCd or 1.6Ah NiMH

Batteries must be replaced when the module no longer meets its specified duration and must be charged for a minimum of 24 hours before commissioning.

Charge Indicator LED

A range of red or green indicator LED's are available in diffused or clear high intensity, fitted with or without a rubber bezel or plastic clip and in various lead lengths.

Lamp Selection Link

	14W HE	28W HE	24W HO	39W HO	40W T5C	49W HO	54W HO	80W HO
ST4C	IN	OUT						
ST6C			IN	IN	OUT	OUT	OUT	OUT

Failure to remove the link wire when required will result in reduced emergency duration and could cause permanent damage to the module.

IMPORTANT

Please ensure that the information contained in this leaflet is passed on to the user/maintenance engineer.

Important Conversion Notes

Each conversion type must be backed up with a technical file showing that it meets EMC, harmonics and thermal requirements. It should also include the layout of the conversion and wire routing.

Ensure that the original luminaire components, and the completed luminaire conversion (including module and batteries) operate within their temperature ratings, and clearly identify the switched and unswitched mains terminations within the luminaire.

Take care to observe correct battery polarity, as permanent damage to the module will occur if they are reversed.

Before applying power to the luminaire, an insulation test must be carried out between the L & N connected together and Earth.

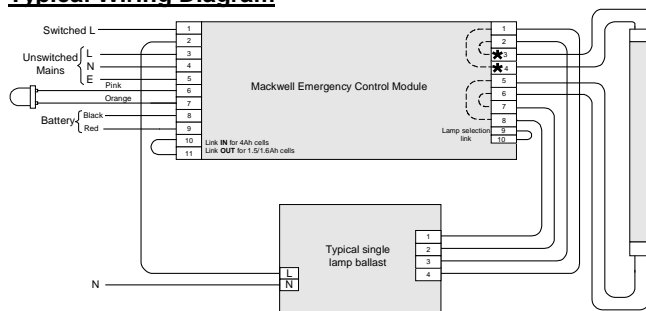
The module connection marked Earth should be disconnected for this test.

Check the charge indicator LED is on when the unswitched supply is present. After a few minutes, remove the unswitched supply and ensure the lamp operates in emergency mode. If the luminaire is to be installed at a later date, disconnect the positive battery lead.

Reconnecting the battery before the luminaire is ready for commissioning can cause serious damage to the battery.

The battery must be marked with the date of commissioning, and the luminaire identified with the company responsible for the conversion.

Typical Wiring Diagram



It is highly recommended that lamp wires in terminals marked ★ do not exceed 500mm as this may affect lamp operation.

Other wiring diagrams for alternative mains gear can be suggested. Please visit our website or contact the Mackwell Technical Department for more information.

In all circumstances it is the responsibility of the Conversion Authority to ensure correct operation of the luminaire following a conversion for emergency use.

Relevant Standards

EN 61347-2-7	Lamp control gear
EN 60598-2-22	Luminaire
ICEL 1004	Conversion to Emergency

Warranty

This product is guaranteed for three years and covers faulty workmanship and materials. This "Return to Base" warranty requires that the product is used within the terms and conditions stated in this document, in our literature, and on our website. Products returned to us must be carriage paid. Mackwell Electronics Ltd. accept no responsibility for costs incurred.