

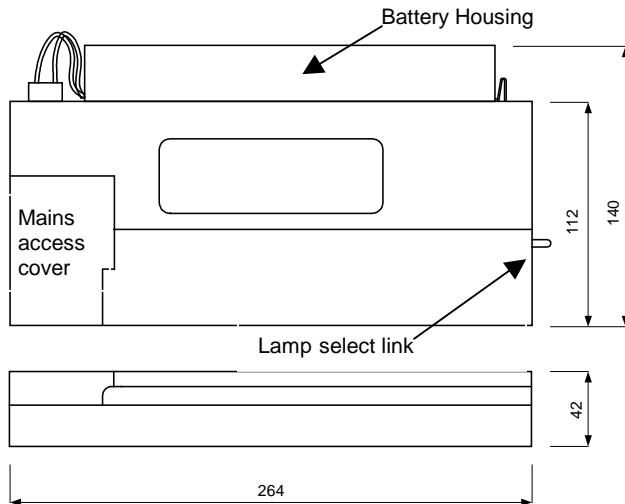


INSTALLATION INSTRUCTIONS – MultiBox

Refer to website www.mackwell.com for specific data

Description

A self contained, remote mounting, plastic housing for emergency lamp gear complete with detachable battery box for use with downlighters.



Specification

The box has been designed to house emergency gear from the following Mackwell ranges:-

- Primian emergency modules for compact lamps
- Relion emergency modules for amalgam lamps
- UniStart integrated units for single compact lamps
- TwinStart integrated units for twin compact lamps

The mains supply should be brought in as a 4-wire spur or loop in/loop out, 11mm maximum diameter. Both switched and unswitched supplies are fused 2A.

Provision has been made for up to 4 control signals with a maximum combined diameter of 11mm.

The box comes pre-wired with a 500mm sleeved harness ready for connection to the lamphead.

Batteries

The NiMH batteries (up to 6 cells) are housed in a separate demountable housing for simple removal and replacement.

Charge indicator LED (Non AutoTest® modules)

A diffused green indicator LED is supplied with the MultiBox kit.

Material

The complete housing is moulded from V0 rated material to comply with the requirements of EN 60598.

Relevant Standards

EN 61347-2-7	Lamp Control Gear
EN 60598-2-22	Luminaire
ICEL 1004	Conversion to Emergency
BS5266-1:2005/IEC62034	Automatic testing

Important Conversion Notes.

Each type of luminaire conversion must be backed up with a technical file showing that EMC, harmonics and temperature requirements are met.

Make all of the necessary connections to the lamphead and plug the battery into the socket on the rear of the remote box.

To test the conversion, connect the switched and unswitched supplies to the remote gearbox and check the LED charge indicator is on with the unswitched supply present. Ensure the luminaire operates in mains mode.

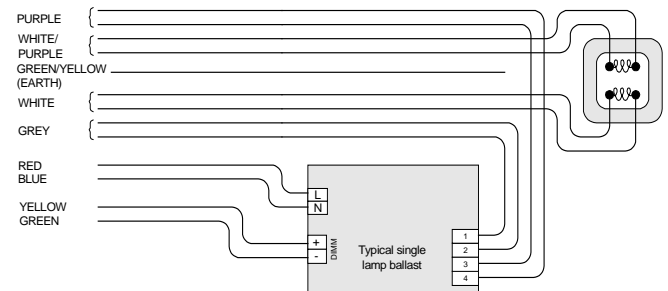
After a few minutes, remove the unswitched supply and ensure the lamp operates in emergency mode. If the luminaire is to be installed at a later date, disconnect the battery. **Do not reconnect until ready for commissioning, otherwise serious damage to the battery could occur.**

The luminaire must be identified with the company responsible for the conversion.

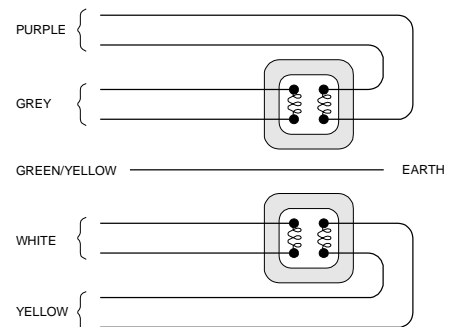
Unclip the battery housing and mark the label with the date of commissioning.

Typical Lamphead Connections

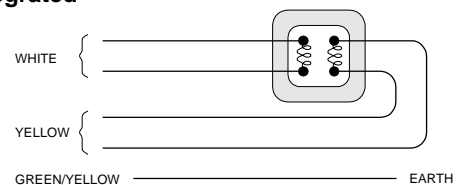
Ballast mounted in lamphead

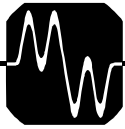


Twin integrated



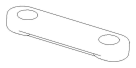



Single integrated





Mains input area configurations

Parts to be used	Outer Diameter of cable (mm)		
	upto 6.0	10.0-11.0	upto 6.0x2 (loop in/loop out)
	✓		
			✓
		✓	✓
	✓		

Note: For loop in/loop out the mains access cover will require the mains cable area to be removed along the v-scored edge.

Warranty

All our electronic products are guaranteed for three years to cover faulty workmanship and materials. This "Return to Base" warranty requires that the product is used within the terms and conditions stated above and in our literature, and in particular, with the correct battery. Products returned to us under warranty must be carriage paid. Mackwell Electronics Ltd. accept no liability for costs incurred.

IMPORTANT

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

AutoTest®

If the product is fitted with AutoTest® then the following applies.

Operation

The module is capable of testing the performance of the emergency luminaire in accordance with BS5266-1:2005 and IEC62034.

Automatic Operation - Commissioning Test

Connection of the mains supply will initiate commissioning where the battery will remain on charge for an uninterrupted 24 hours. An interruption of the mains supply will reset the counter to zero. After 24 hours the luminaire will be put into a duration test for the rated period, immediately followed by another 24 hour charge period.

If the mains supply is to be interrupted for more than 7 days, then the battery MUST be disconnected.

Functional Test

A 30 second functional test is carried out at 30 day intervals. This test can also be initiated manually by switching the permanent supply OFF/ON twice within 5 seconds.

Duration Test

A full rated duration test is carried out automatically at yearly intervals.

Note that start times of the tests are set automatically to ensure random testing of the units.

LED Indicator (AutoTest® Modules)

A bi-colour LED indicates the status of the module as follows:

Green	10 second 'blink'	Normal standby mode
	Slow flash	Commissioning mode or Duration Test in progress
	Fast flash	Functional Test in progress
Red	Slow flash	Charging or battery fault
	Fast flash	Lamp fault

Slow flash = 0.5Hz, fast flash = 2.5Hz

Audible alarm

An audible alarm will sound if a fault is found during test and will continue to give 3 beeps every 35 minutes until the fault is rectified and the unit is reset.

User Reset Facility

A recorded fault condition may be cleared by switching either the permanent or switched supply OFF/ON twice within 5 seconds. A Functional Test is then carried out automatically to verify correct system operation.

Potential-Free Contact Option (/P suffix)

NC (normally closed) terminals are provided for connection to a remote monitoring system (contacts open in the event of an alarm).

Contact Rating 24V ac or dc, 20mA
Max ON resistance 3 ohms

DALI Communication Option (/D suffix)

This allows two wire communication between the module and a central control or monitoring system designed to meet the requirements of draft DALI standard IEC 62386. For a full explanation see "Mackwell Emergency Modules with DALI Interface – Description and Operating Notes", part number 39795.

Important Note

The NC terminals are not SELV rated and must not be connected to SELV circuits. Wiring to the NC terminals must be in accordance with mains wiring and isolation requirements.