USER GUIDE
Emergency Lighting Products

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LIGHT THE WAY

This user guide describes the operation and functionality of Mackwell emergency lighting luminaires and control gear.

NON-AUTOTEST Variants

Upon initial power-up, Non-AutoTest variants must be allowed to charge their battery un-interrupted for 24hrs before the rated emergency duration can be achieved. Following this initial charge period, variants designed for use with NiMH batteries will then enter SmartCharge™ mode.

Note(s):
- Avoid interrupting the permanent mains supply during the initial 24hr charge period to help prevent premature battery failure and, for variants used with NiMH batteries, to prevent the 24hr counter to restart.

LED Indicator

Non-AutoTest variants should be used with a green single colour indicator LED for showing their status, as follows:

Non-AutoTest Indicator LED	
Green	Normal standby mode or charging
Off	Power off, charging or battery fault *****

AUTOTEST (/A) & DALI-AUTOTEST (/D1) Variants

Mackwell AutoTest and DALI-Autotest variants automatically test their function and performance in accordance with BS 5266-1 and IEC/EN 62034 and on initial power-up begin an automatic commissioning process as outlined in the table below:

Commissioning Process			
Stage	**Period**	**Status**	**LED Indication**
1	24hrs	Initial battery charge	Slow flashing green
2	Dependent on rated emergency duration	Duration test	Slow flashing green
3	24hrs	Battery re-charge	Slow flashing green
4	-	Commission complete	Constant green with a pulse every 10s

Note(s):

- If the permanent mains supply is interrupted during the first 27hrs the above process will be restarted.

- During the commissioning phase the emergency function will be inhibited until this process completes.

Once the commission phase is complete the following test features are carried out automatically:

Function Test

At 30-day intervals the unit will automatically perform a function test by forcing the unit into emergency operation for 30 seconds.
This test can also be initiated manually at any time by switching the permanent mains supply OFF/ON twice, or by pressing the test switch, if fitted, twice within 5 seconds.

Duration Test

Once a year the unit will automatically carry out a full duration test by forcing the unit into emergency operation for its rated emergency duration.

Note(s):
- The start times of the tests are set automatically to ensure random testing of the units. As a consequence, tests may occur at any time and caution should be exercised in situations where this may be inconvenient, such as hotels and hospitals. This may be alleviated by using DALI-AutoTest variants to manually set the test start times via DALI commands.

LED Indicator

AutoTest and DALI-AutoTest variants operate a bi-colour indicator LED for displaying their status, as follows:

AutoTest and DALI-AutoTest Indicator LED		
Green	10 second 'pulse'	Normal standby mode
	Slow flash	Commission mode or Duration Test in progress
	Fast flash	Function Test in progress
Red	Slow flash	Charging or Battery fault *****
	Fast flash	Lamp fault

Note: Slow flash = 0.5Hz, Fast flash = 2.5Hz

Audible Alarm

If fitted, an audible alarm will sound if a fault is found during a test and will continue to give 3-pulse tones every 35 minutes until the fault is rectified and the unit is reset.

Note(s):
- For DALI-AutoTest variants that are connected to a DALI network, the sounder will be disabled when a valid DALI command has been received.

User Reset Facility

A recorded fault condition may be cleared by switching the permanent mains supply OFF/ON twice within 5 seconds or alternatively, if a test switch is fitted, pressing it twice within 5 seconds. A Function Test is then carried out automatically to verify correct system operation.

DALI Communications

DALI-AutoTest variants allow two wire communication between the units 'DA' terminals and a central monitoring/control system designed to meet the requirements of DALI standard IEC/EN 62386. For a full explanation see "Mackwell Emergency Modules with DALI Interface - Description and Operating Notes" (Pt. No. 39795).

Note(s):
- Mackwell DALI-AutoTest products default to standalone Autotest when not connected to a DALI network.

The emergency system should be checked regularly in accordance to local regulations.

* Batteries must be replaced when the unit no longer meets its rated emergency duration or if a battery fault occurs. Contact Mackwell for a suitable replacement.

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