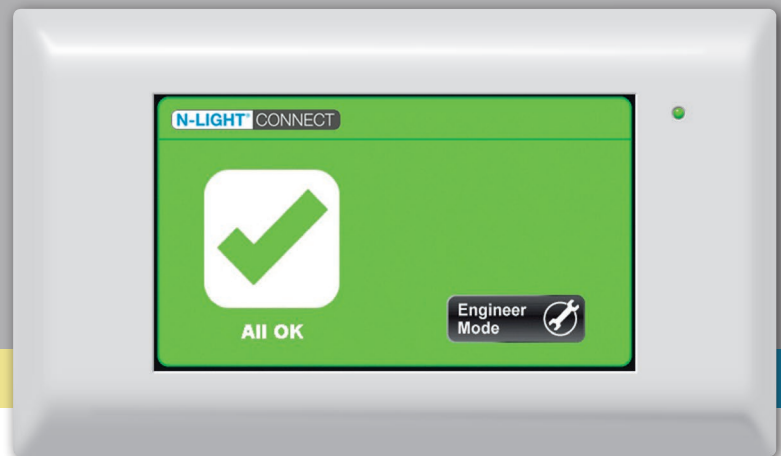


N-LIGHT[®] CONNECT

User Manual

A guide to operating the touch panel of
the N-light[®] CONNECT system



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User Manual

Introduction

The purpose of this guide is to help you operate the touch panel of the **N-light® CONNECT** system and to carry out basic fault finding.

N-light® CONNECT is an emergency lighting test and monitoring system that facilitates every requirement from basic monitoring of emergency lighting through to system management.

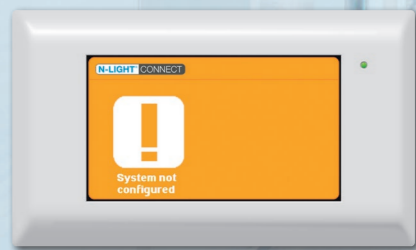
The system uses elements of the DALI (Digital Addressable Lighting Interface) protocol, which is a standard interface for lighting controls and enables sending and receiving commands to and from addressable devices.

N-LIGHT® CONNECT

Status screens

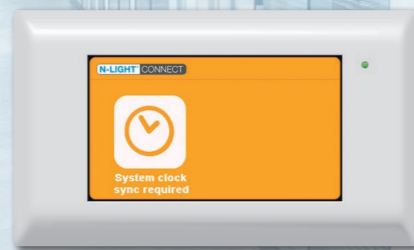
Before the system is configured, **N-light® CONNECT** will display the 'System Not Configured' screen, indicating it is still pre-set to factory settings. At this point there may be devices connected but they have not yet been initialised.

NOTE: Upon initial connection Mackwell devices will perform an automatic commission cycle (24 hour charge, full rated discharge test, 24 hour charge) regardless of the **N-light® CONNECT** status. Once this is complete the emergency lighting system is compliant even if a commissioning engineer has not configured the panel.



System Not Configured

NOTE: if a panel that has not been commissioned is showing a screen other than the two orange non-configured screens, please ensure the commissioning engineer completes a full factory reset to ensure no previous settings are kept.



System Clock Synchronisation Required

This screen will be displayed when EITHER:

1. The system clock needs to be synchronised when the system is first commissioned.
2. The clock battery back-up has failed and the battery needs to be replaced.

NOTE: if this screen is displayed during the first few weeks after commissioning the battery may not have been installed.

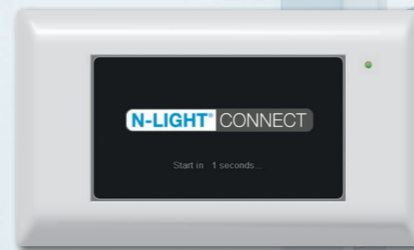
As test times must be accurate commissioning software is required to reset this fault.



All OK

The screen above will be displayed when all connected devices are in a healthy condition and have passed previous schedule function or duration tests.

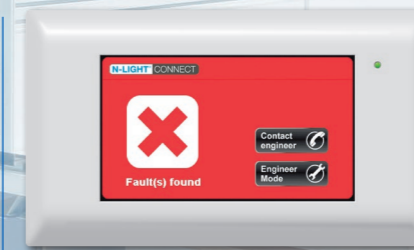
A password is required to access the system. Touching the 'Engineer mode' button will prompt you to enter your password.



Screen Saver

After 60 seconds of the 'All OK' screen being displayed the screen saver will be activated, as shown above.

After a further 60 seconds the back light will go off to save power and extend the life of the back light, with just a green indicator displayed in the top right-hand corner of the screen. Touching any part of the screen will re-activate the 'All OK' screen.



Faults Found

If any device on the system is faulty the screen saver will not show. Instead, the screen above will be displayed.

The screen indicates a fault with one or more emergency devices. When it is displayed the owner of the system must appoint someone to rectify the fault(s) as soon as possible.

The screen offers two options:

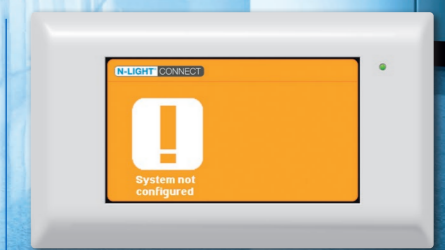
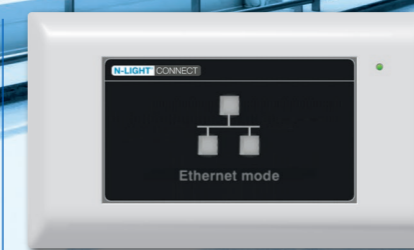
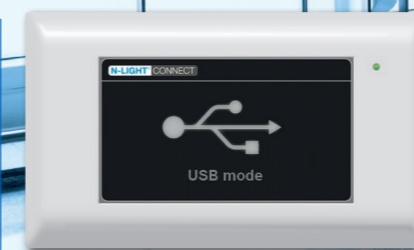
Contact engineer:

Displays contact information for an engineer.

Engineer mode:

Provides password controlled access to an array of diagnostic functions that can be used by the engineer or other

NOTE: The four digit engineer passcode is set by the commissioning engineer and can be reset using the commissioning software.



Connection Modes

N-Light® CONNECT software can be used to access a panel in two ways - via a USB cable to the front of the panel, or via an Ethernet connection to the rear of the panel.

USB mode

When a USB connection is made the screen above will be displayed. In USB mode the touchscreen is disabled; system priorities are handled via the control panel and cannot be modified.

Ethernet Mode

The screen above is displayed when control software is successfully connected.

Ethernet mode is activated when the Configurator software begins functions that require the touch panel to be locked, such as searching for devices. Again, system priorities are handled by the control panel and cannot be modified.

Memory Full

When the control panel's flash memory has exceeded 80% of its capacity, or the memory data is corrupted, the screen above will be displayed.

To free up memory, the Configurator software can be used to move reports to a local drive so that they can be deleted from the control panel's memory.

In a worst-case scenario, with a highly unlikely situation of 64 faulty devices on each loop and five reports per day, the memory will reach 80% within five years.

NOTE: We recommend that either the reporter or the Configurator software is used regularly to download reports as downloading many reports at one time can be very time-consuming. An explanation of how to download reports using the Configurator software is provided in the software help file and Reporter software operating instructions.

Touch Panel Functionality



Engineer Mode

A passcode is required to access the Engineer mode. This can be set using the configuration software.

Once the correct password has been entered the Engineer home screen will load, giving access to a set of frequently used controls for performing further tests and monitoring individual devices.

Engineer mode has a time-out function that will return to the Home/Status screen after one minute of inactivity. Touching 'Log out' will also exit Engineer mode and return the control panel to the Home/Status screen.

NOTE: There are also more advanced functions, such as grouping and test scheduling, that can only be performed using N-light® CONNECT Configurator software on an external PC.



Function Test

A function test simulates loss of the permanent mains supply and checks that the emergency lamp operates correctly from the battery supply.

The test will last for 30 seconds, during which time the LED indicators on devices will fast-flash green. The control panel can be used to perform function tests on all devices or any individual device.

Function test on all devices.

To perform function tests on all devices simply touch the 'Start test' button.

Function testing individual devices.

Proceed to the Device Status view and select the device to be tested using the left and right arrows. With the chosen device selected, touch the 'Function test' button. Function tests will be delayed on devices where battery capacity is registered as below 20%. Touching 'Back' returns to the Engineer Mode home screen.



Duration Test

A duration test also simulates loss of the main supply but in this case checks that the lighting will operate correctly from the battery supply for the full rated duration. During this test the LED indicators and devices will slow-flash green.

A duration test requires that batteries are fully charged. If a battery is not charged the duration test will be delayed until system conditions are right.

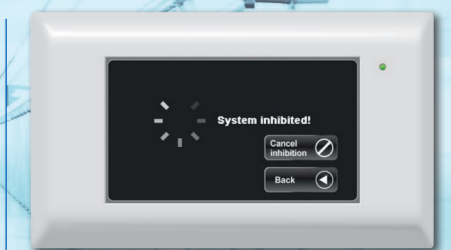
Duration test on all connected devices.

Simply touch 'Start test'.

Duration tests on individual devices.

To perform duration tests on individual devices, proceed to the Device Status view. Select the device to test using the left and right arrows. With the chosen device selected, touch the 'Duration test' button.

NOTE: Duration testing of large numbers of devices on a single control panel may result in a hazardous condition of the system immediately after tests are complete. It is therefore recommended that duration testing of large numbers of devices only takes place during periods of low risk.



Inhibit Devices

Inhibit mode causes Mackwell DALI devices to enter inhibit mode automatically on loss of mains supply.

To prevent inadvertent disabling of emergency operation, inhibit mode can be cancelled at any moment by pressing 'Cancel inhibition'. By pressing 'Back', the device will commence an operation to disable inhibit mode that will take 15 minutes to complete. The device and connected emergency devices will then operate as normal.

View All Devices

To target specific devices for testing, select 'View all devices', or select 'View faulty devices' from the features available in Engineer mode. This will display the device status view (see below). From here it is possible to identify devices, do a Function test or a Duration test.

Device Status View

The diagram provides an overview of the Device Status View.

- 1 Select Device** – This will display the number and subset size of selected devices.
- 2 Loop Indicator** – This will show which DALI loop the selected device is a part of - 1 or 2.
- 3 Device Short Address** – This is Auto assigned. Touch or to navigate to other devices.
- 4 Device Name** – This displays a user-defined device name, for example 'Kitchen' or 'Disabled Toilet'. Devices can only be defined using the Configurator software.

5 Device Status Indicator

The faults detectable by N-Light® CONNECT are listed below. There may be a combination of fault indicators to provide more detail about the type of fault that has occurred. If a device is physically removed from a DALI loop without being removed from the N-light® CONNECT system, this will display 'Device Lost' in red.

- ▣ **Circuit:** A circuit fault is indicated if the device detects an internal circuit failure that prevents normal operation. The indicated fault condition will be automatically cleared once the fault is rectified.
- ▣ **Emergency Lamp:** An emergency lamp fault is indicated if a device detects a missing or damaged lamp. This can only be detected during a function or duration test.
- ▣ **Battery:** A battery fault could be indicated for a number of reasons, including:

 - **Battery not charging:** This will be cleared automatically when charging is restored.
 - **Battery is unable to supply the emergency lamp during a function test:** This indicates a Function test status fault.
- ▣ **Function Test Timing:** This fault will be indicated if a device is unable to complete a pending function test within its pre-defined test period.
- ▣ **Function Test Status:** A Function test status fault will be indicated if a device fails to pass a function test. This could either be due to a problem with the battery, in which case Battery fault will also be displayed; or a problem with a lamp, in which case Emergency Lamp fault will also be indicated.

- ▣ **Battery Duration:** A battery duration fault will be indicated if a duration test fails due to insufficient battery capacity. This will also indicate a Duration test status fault.
- ▣ **Duration test timing:** This fault will be indicated if a device is unable to complete a pending duration test within its pre-defined test period.
- ▣ **Duration test status:** A Duration test status fault will be indicated if a device fails to pass a duration test. This could be due to any of the above.

- 6 Device Operating Mode** – This will display the current operating mode of the emergency device and will indicate one of the following messages:

- Rest mode
- Normal mode
- Normal mode (inhibited)
- Emergency mode
- Function testing
- Duration testing

Further information detailing any pending tests for the device may be listed below:

- Function test request pending
- Duration test request pending
- Function and duration test pending

- 7 Identify Device** – If you are unsure if you have selected the correct device, the 'identify mode' can be activated by touching 'Identify device'. Identify mode will persist for 15 seconds after the stop button is pressed.

- 8 Function Test** – This performs a 30 second function test on the selected device. The Function test button will temporarily change to 'Stop test' whilst the test is in

progress. After progressing through a confirmation dialogue box, this will cancel a test in progress.

⚠ When a function test is stopped, ALL pending tests for those devices will be cancelled!

- 9 Duration Test** – This performs a rated duration test on the selected device to ensure the emergency lighting devices are working for the full rated duration. The Duration test button will temporarily change to 'Stop test' whilst the test is in progress. After progressing through a confirmation dialogue box, this will cancel a test in progress.

⚠ When a duration test is stopped, ALL pending tests for those devices will be cancelled!

- 10 Back** – The back button can be used at any time to view the previous screen.

View Faulty Devices

The 'view faulty devices' function allows you to navigate through a list of faulty devices on the control panel and instantly see which fault conditions have occurred on the device.

Once faulty devices have been identified, you can perform extra function or duration tests. This function displays information in the same way as View all devices, but only provides a subset of devices with faults identified.

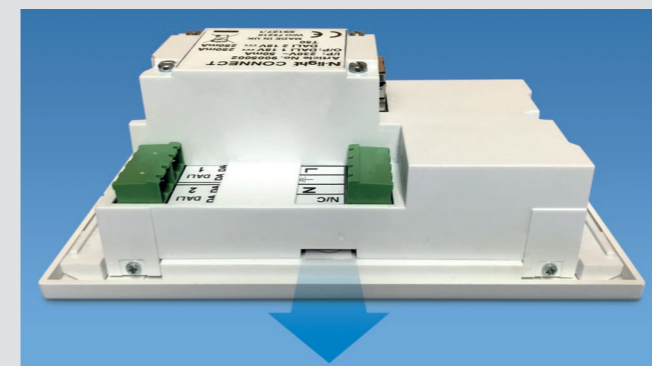
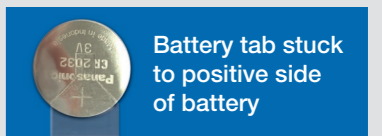
Re-test Groups

The 're-test groups' allows you to immediately restart any scheduled tests that have been interrupted or not started due to mains failure to the control panel, or a communication error with devices.

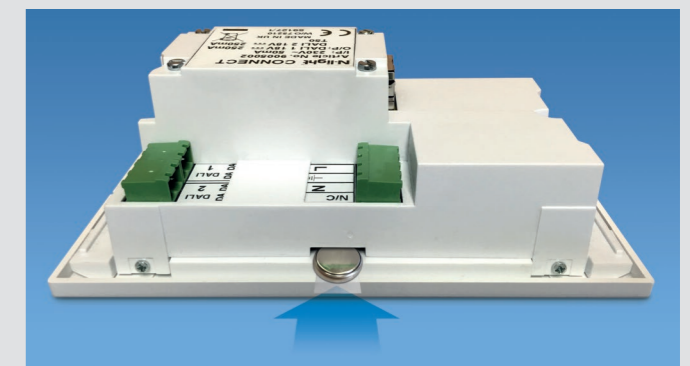
FAQs

Changing Batteries – N-light® CONNECT comes with an integrated long-life CR2032 battery.

Should the battery need replacing, then follow the instructions below.



Removal: Pull battery tab with fingers or small pliers in the direction shown



Insertion: carefully push battery and tab in the direction shown



N-LIGHT[®] CONNECT

For further help
and support,
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