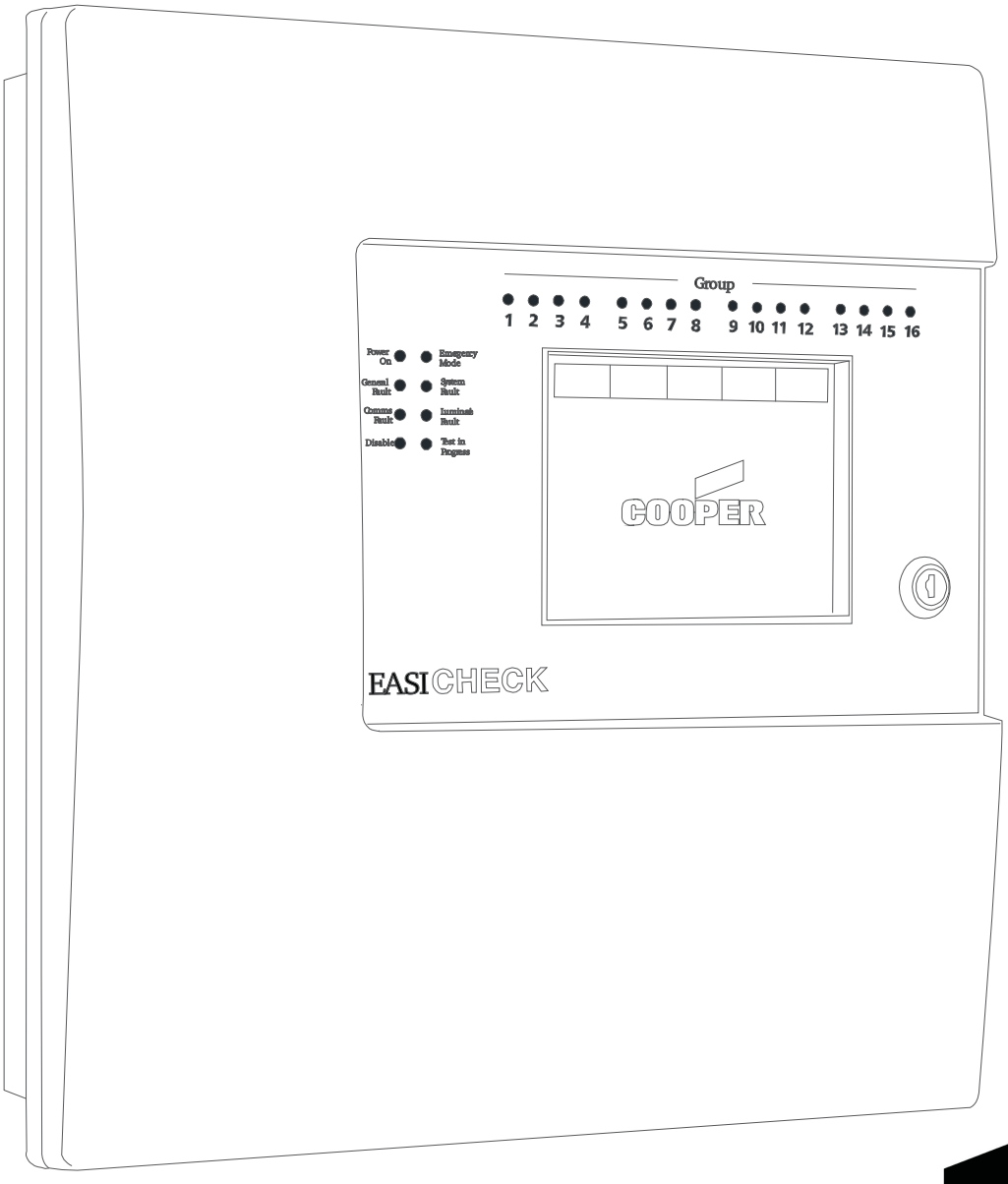
EC2001

INSTALLATION AND OPERATION MANUAL



COOPER

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Section 1

System Installation and Design

System Design Guidelines

Installation planning Guide

Systems must be designed in accordance with the current edition of the Easicheck installation planning guide, a copy of this guide should have been provided during the tender phase of the project, further copies are freely available on request.
You should not proceed with an Easicheck installation unless you are familiar with this document.

Loop length / configuration

The maximum permitted loop length is 2 km measured from the near to the far terminals on Panel Motherboard PCB. There is no minimum loop length limit . Any wiring spurs off the loop must be included within the 2 km limit and installed via a purpose designed spur isolator. On long loop runs, remember that the lengths of wiring rises and falls (between floors or down to wall mounted luminaires) must be included, especially when taking loop lengths from plan drawings.
Providing the recommended cable type and size is used, cable runs of less than 1KM should not cause problems with volt drop and capacitance.
If more than 1KM of cable is to be connected then volt drop and capacitance calculations will be required in line with the installation planning guide.
Data wiring must be in the form of a loop, starting and ending at the panel.
It is possible to add additional spurs from the main loop, any number of spurs can be included, however spurs can only be connected via purpose designed spur isolators.
Spur isolators provide protection to the remainder of the loop in the event of a short circuit on the spur, they also enable the automatic addressing process to function correctly when spur wiring is used.

Loop loading - total number of addresses

The total number of addresses per loop is 200 When designing systems its recommended that allowance is made for future expansion, and therefore an initial limit of 200 devices per loop is recommended.

Short circuit isolation

Short circuit isolators are incorporated into every Easicheck device, therefore, no further fault protection is required. In the event of a single fault, none of the devices connected to the loop will fail to operate as the fault will be isolated by the two adjacent devices.
Spur connected devices downstream of a cable fault will of course cease to function.

Equipment Compatibility

Additional instructions for electromagnetic compatibility

When used as intended this product complies with EMC Directive (89/336/EEC) and the UK EMC regulations 1992 (SI 2372/1992) by meeting the limits set by the standards BS 5406 (Pts 2&3) 1988, EN50130-4 immunity and EN 61000-6-3 emission requirements.

The following installation guidelines must be followed.

1. External cables must be connected using the cable entries or knockouts provided.
2. When routing external cables inside the product they must be
   a) Kept as short as possible
   b) Routed close to the housing
   c) Kept as far as possible from the electronics

Any modifications other than those stated in this manual, or any other use of this product may cause interference and it is the responsibility of the user to comply with the EMC and Low Voltage Directives.

System Overview

Spur tolerant soft addressing

The Panel utilises intelligent soft addressing technology to greatly simplify the installation and commissioning processes.
Once the system has been installed and the autolearn menu selected, the control panel will automatically scan the data loop and allocate each device with an address number corresponding with its position on the loop, this avoids the traditional need for manual addressing of the system devices which is time consuming and provides a potential for error.

A major innovation with the Panel is the ability to incorporate spurs of Easicheck devices which are fed from the loop by utilising a spur isolator.
Whenever the panel detects a spur, it breaks from allocating address numbers to the loop wired devices, allocates address numbers to each of the devices on the spur in sequence and then continues to address the devices on the main loop.

Every Easicheck device incorporates an integral short circuit isolator, ensuring maximum system integrity. A single short circuit will not disable communication with any loop-mounted devices, the isolators in the devices each side of the short circuit will operate and the control panel will drive communication from both ends of the loop.
The spur isolator also incorporates a short circuit isolator such that in the event of a short circuit on the spur, the integrity of the main loop will not be compromised.

Simple future expansion

The Panel is designed to ensure simplicity of future expansion.
If an additional device is added after the system has been programmed, the Panel will allocate the next available address, it will not alter any of the existing address numbers allocation thus enabling simple updating of as fitted drawings etc.
Similarly if a device is removed, the relevant address is saved as a spare address for future use, the addresses of the remaining devices are not altered.
Alternatively if preferred the system can carry out a full new autolearn sequence to re-establish a consecutive addressing sequence on the loop.

Simple user interface

The main element of the user interface with is a large (120mm x 90mm visible area) touch screen display, which provides comprehensive user information and also acts as a multifunctional keypad.

Context sensitive help information is provided at various points throughout the menus to guide an unfamiliar system user.

The use of the touch screen display enables a wide range of user and engineering facilities to be incorporated into the panel whilst still offering simple operation.

The Panel touch screen display automatically reconfigures to suit the selected function, for example, if the “change device text” menu option is selected, the touch screen is automatically

formatted as a full QWERTY keyboard to enable fast and simple text entry.

User configuration and maintenance facilities

The Panel has comprehensive facilities for on site system configuration, whereby the user can add or remove devices or change device text directly via the panel, without the need for a service engineer to visit site. For initial configuration or major system changes special PC configuration software is available enabling Cooper Lighting and Safety personnel to do this more efficiently than can be achieved using the system screen. Existing configurations can be uploaded to the PC so that changes can be made to the existing system rather than having to revert to the original data files.

Multiple test groups

The Panel has the ability to support up to 16 different test groups, each test group can be programmed to carry out testing at a different date and time, this is to ensure that after carrying out the mandatory annual full duration discharge test, the entire emergency lighting system is not left in a discharged state, which would compromise the safety of the building. By assigning adjacent fittings to different test groups it is simple to stagger the testing process, ensuring that only a small proportion of the emergency lights in an area are tested together.

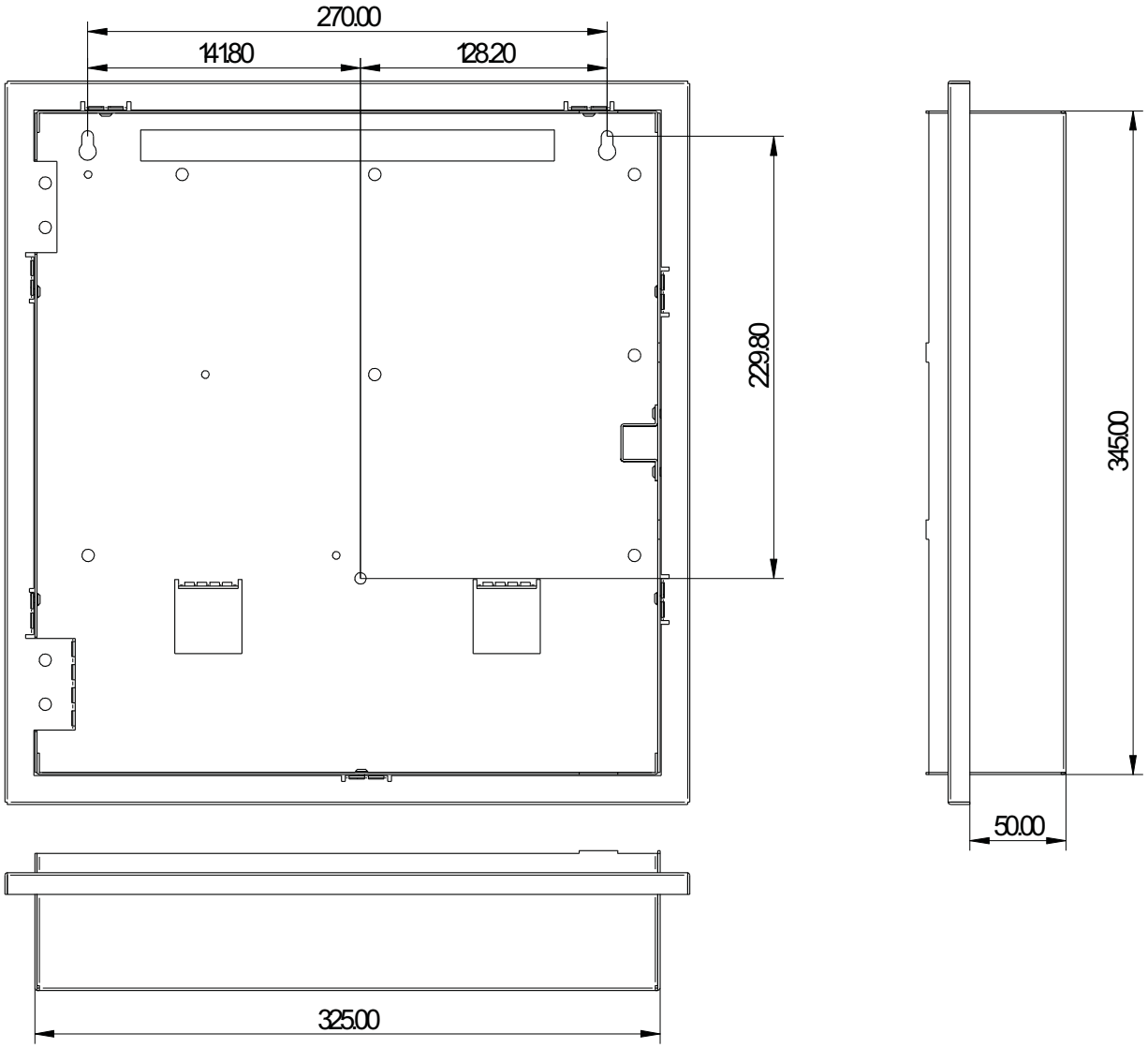
Fixing details

Read all the installation instructions before commencing with the installation. The installation of this panel must be carried out by a suitably qualified / trained person. The installation must comply with relevant wiring regulations

The electronic components within the panel are Static Sensitive. Do not touch the electronics directly.

Mounting the Backbox

The Panel can be surface mounted or recessed . To surface mount; drill three holes and fix the backbox to the wall using suitable screw fixings.



Installing Cabling

Once the backbox is mounted the next stage is to install the power and loop cables and fit the glands.

Installation

The panel should be installed in a clean, dry, reasonably well ventilated place, and not in direct sunlight. Temperatures in excess of +35°C and below -10°C may cause problems, if in doubt consult Technical Support. The panel should be located away from any potential hazard, in a position where it is readily accessible to authorised staff.
Mount the panel to the wall using the drill template provided. Do not drill through the panel to the wall as dust will contaminate the circuitry.

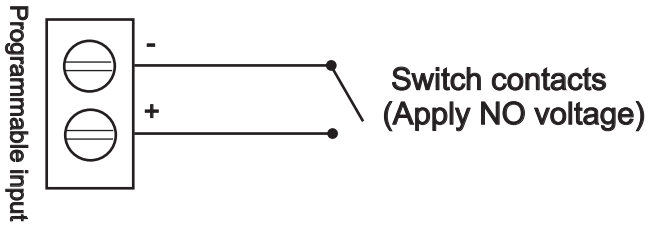
Installation Guide

- Never carry out insulation tests on cables connected to electronic equipment.
- DO NOT OVER TIGHTEN TERMINAL CONNECTOR SCREWS.
- Always use the correct type of cables as defined in the current Easicheck installation planning guide.
- Always adhere to volt drop limitation when sizing cables.
- Always observe polarity throughout. Non colour coded conductors should be permanently identified.
- The Panel utilises intelligent soft addressing technology to greatly simplify the installation and commissioning processes. Once the system has been installed and the autolearn menu selected, the control panel will automatically scan the data loop and allocate each device with an address number corresponding with its position on the loop, this avoids the traditional need for manual addressing of the system devices which is time consuming and provides a potential for error.
- It is of vital importance that accurate details are kept of the exact wiring route in order to determine which address has been allocated to each device.

Input/Outputs

Programmable input

A programmable input is provided, the programmable input operates by means of an external VOLT FREE SIGNAL. On no account should any voltage be applied to these terminals. Whenever these terminals are shorted together, the panel will instruct all luminaires to enter emergency mode. When the terminals are open circuit the panel will instruct all luminaires to return to normal mode.
This facility is useful to provide a simple interface between the emergency lighting and systems such as fire alarms.



Volt Free Contacts

A single set of volt free changeover contacts is provided, these enable a simple means of basic interfacing with external equipment by providing a volt free signal in the event of a particular event .

24V Auxiliary output

A 24V output is provided to drive suitable external equipment such as network booster devices, this output is rated at a maximum of 300mA.
The output is not monitored and is not battery backed so will cease to operate if the mains supply to the Easicheck panel is removed.

External Connections

Mains Supply

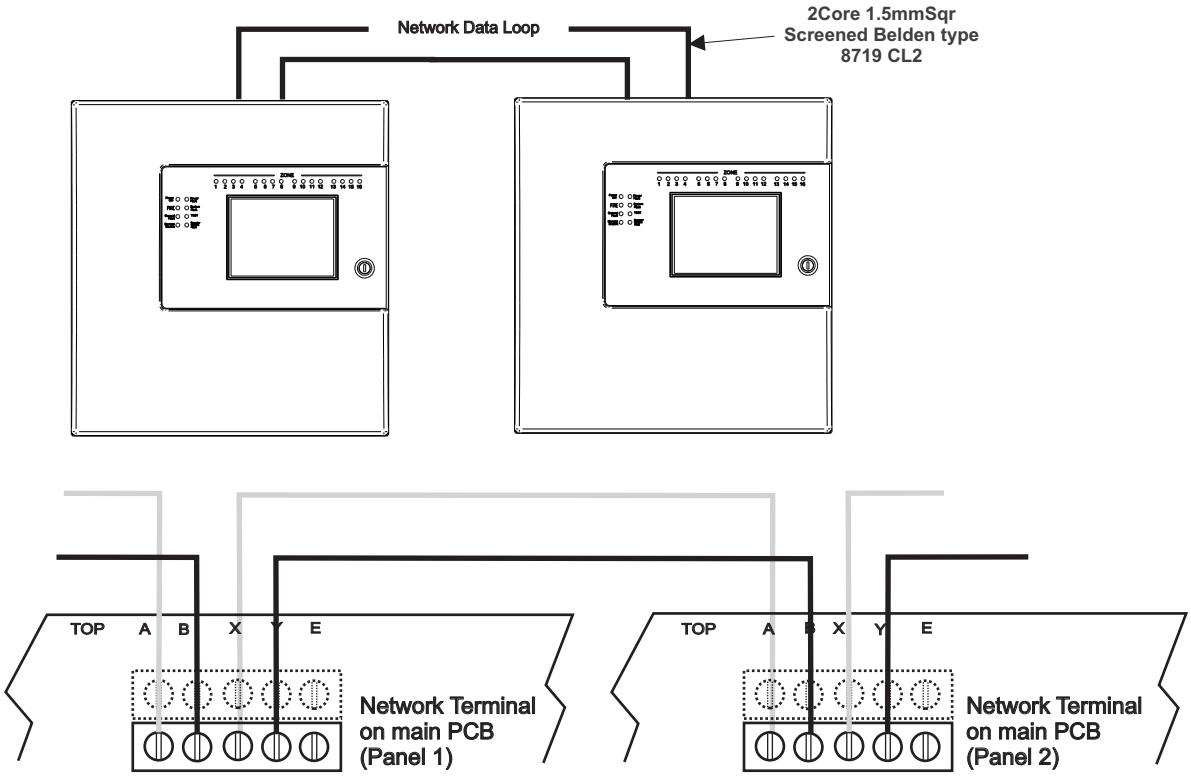
The mains supply should be installed in accordance with the current edition of the IEE wiring regulations. Connection to the mains supply must be via an isolating device (e.g. an isolating fuse) reserved solely for the Easicheck system.

Networking

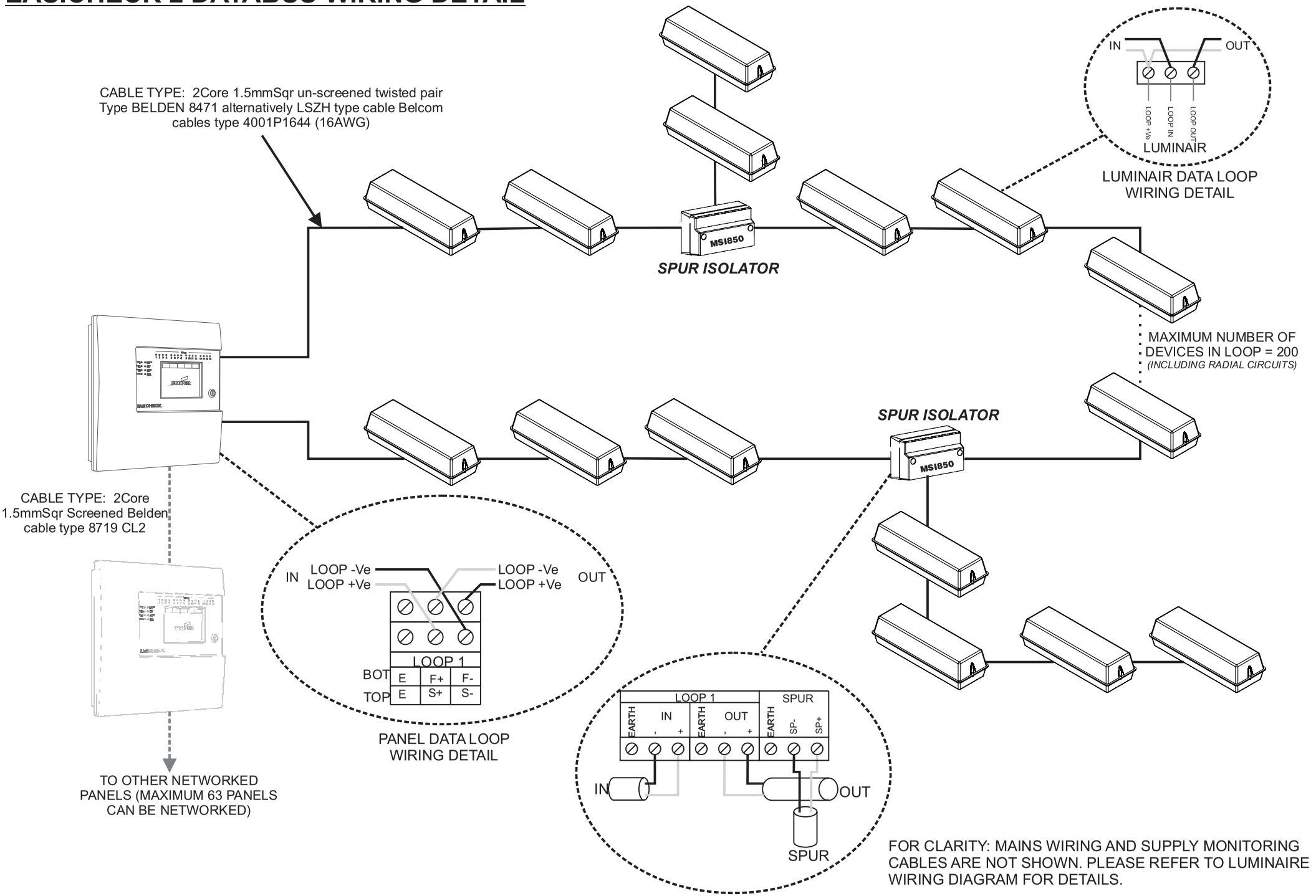
Up to Sixty three Panels can be networked together to operate as a single networked system. To achieve this each panel must be fitted with a network card (Optional Extra).
When operating as a networked system all status and fault event information is displayed at every panel, resetting of panels can also be carried out from any panel on a networked system if panels are suitably configured.

Networked panels are connected using a loop topology as illustrated.

The recommended network cable for the network connection is detailed in the current installation planning guide along with recommendations for maximum cable lengths etc.



EASICHECK 2 DATABUS WIRING DETAIL



Specification

Power Supply

Mains	: 230V AC +10% -15% 50Hz
Nominal Current	: 75mA
Maximum Current	: 750mA
Input Fuse R1	: NTC SG39 Imax 4Amp

Batteries

Number of Batteries	: 2
Manufacturer	: YUASA NP11-123
Capacity	: 11Ah
Battery Fuse	: 6.3A Anti Surge (F4)
Maximum Battery Current	: 3.5Amps
Maximum Battery Charge Current	: 1.0Amps
Charging characteristics	: Constant voltage (temperature compensated)
Deep Discharge protection	: 20.6 volts

Inputs

Device Loop	:1(pair)
Network Loop	:1(pair)
Volt free Input	:1(pair) Programmable input

Outputs

24V Auxiliary output	: 24V Output to drive auxiliary devices max 300mA

Mechanical Specification

Weight Including Batteries	: 18Kg
Weight Excluding Batteries	: 9Kg
Dimension's (standard Batteries)	: 495(L) x 395(H) x 180(D) mm's
Backbox material	: Mild Steel powder coated
Facia Material	: PC/ABS
Flamability rating	: UL94 V0
No. of Knockout	: 51
Knockout Diameter	: 20mm

PLEASE NOTE: DO NOT OVERTIGHTEN OR USE EXCESSIVE FORCE WHEN TIGHTENING SCREWS ON TERMINAL BLOCKS AS THIS WILL CAUSE IRREPARABLE DAMAGE TO COMPONENTS.

CAUTION

RISK OF EXPLOSIONS IF BATTERY IS REPLACED BY INCORRECT TYPE.
DISPOSE OF BATTERIES ACCORDING TO INSTRUCTIONS AND WITHIN LOCAL GOVERNMENTAL/ENVIRONMENTAL GUIDELINES AND REGULATIONS.

Maintenance

Easicheck carries out fully automatic testing of all connected luminaires in accordance with the programmed test schedule(s).
Any faults detected during automatic testing or any system operation abnormalities will be displayed on the panel (by a combination of the touch screen display and the system status LED's.

The panel should be regularly inspected and appropriate corrective actions taken as necessary.
It is important to note that emergency luminaires contain components with a finite life and that it is quite normal for the system to detect faulty luminaires from time to time.
Remedial work should be implemented as quickly as possible to ensure that the emergency lighting system is maintained in full working order.
The maintenance schedule should be in accordance with local legislation and also in accordance with the risk assessment for the premises, the following is suggested as a minimum.

Daily Inspection

Check that only the green "POWER ON" indicator shows. Inspect for any fault indication. Notify any faults to a system supervisor.

Monthly inspection (minimum)

Check the display and the system LED's to identify whether any maintenance work is required, action as appropriate.
Check for correct operation of all panel indicators (see lamp test menu on page 30).
Update the test record book, record details of date, any faults found and any remedial work taken.
Alert responsible person as to any outstanding remedial work in order that appropriate action may be taken.

Quarterly
Check all previous log book entries and verify that remedial action has been taken. Carry out the weekly test. Use the lamp test menu to verify correct panel indicator functionality.

Annual Test
As monthly test and quarterly Test above, the panel is normally programmed to automatically carry out a full rated discharge on an annual basis. It is simple to check when the tests are due by viewing the test schedule via the engineer menu.

Test Verification
Easicheck has a comprehensive log facility, all tests are recorded in this log, it is therefore simple to demonstrate that tests have taken place by viewing the log, or viewing the recent tests via the level 2 initial options (see page 31).

Section 2

Commissioning

Commissioning

Commissioning mode

Once all devices have been correctly installed and the main control panel powered up, the system is ready for commissioning.
Prior to the visit of the commissioning engineer, the autolearn function on the control panel should be used to allocate addresses to each connected Easicheck device and to ensure that the panel can correctly communicate with all connected devices.

Important Note
During autolearn, the panel will interrogate each connected device in turn and allocate it with an address corresponding with its position on the loop (e.g. The first device will be allocated address 1, the second device address 2, the third device allocated address 3 etc.)
In order to know which address has been given to each fitting, it is essential to know the order in which the fittings are wired, starting at loop start and finishing at loop finish.

Once the system has been successfully autolearned, the next process is to configure and program the panel.
This ensures that appropriate test schedules are set up, that correct test parameters are set up for each luminaire and that device text is allocated to each Easicheck device.

This can either be done by a Cooper Lighting service engineer using a laptop computer with specialist software, or it can be done manually via the touchscreen.
On large systems, a considerable time saving can be achieved by utilising the Cooper Lighting and Safety commissioning service, whereby a laptop computer running purpose designed software is used enabling data to be speedily entered and the system to be quickly configured as required. In any event a commissioning by a trained Cooper Lightnig and Safety engineer is always recommended.

In either case, whether the touch screen is used to configure the system, or the system is configured by a Cooper Lighting commissioning engineer using a laptop computer, it is vitally important to know which address has been assigned to each luminaire. In order to ensure that the correct data is assigned to each address.

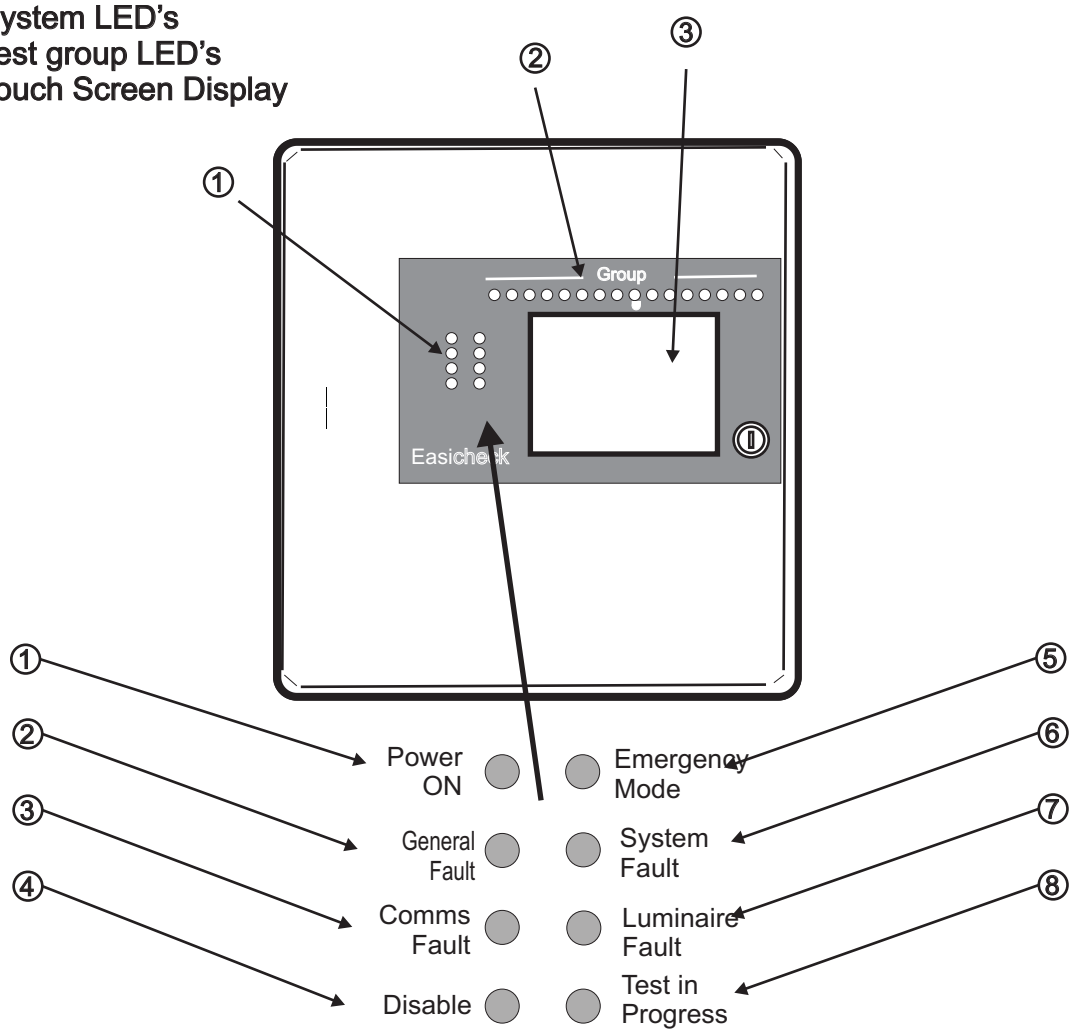
For details of activating autolearn mode, see page 38

Section 3

Panel Controls & Indicators

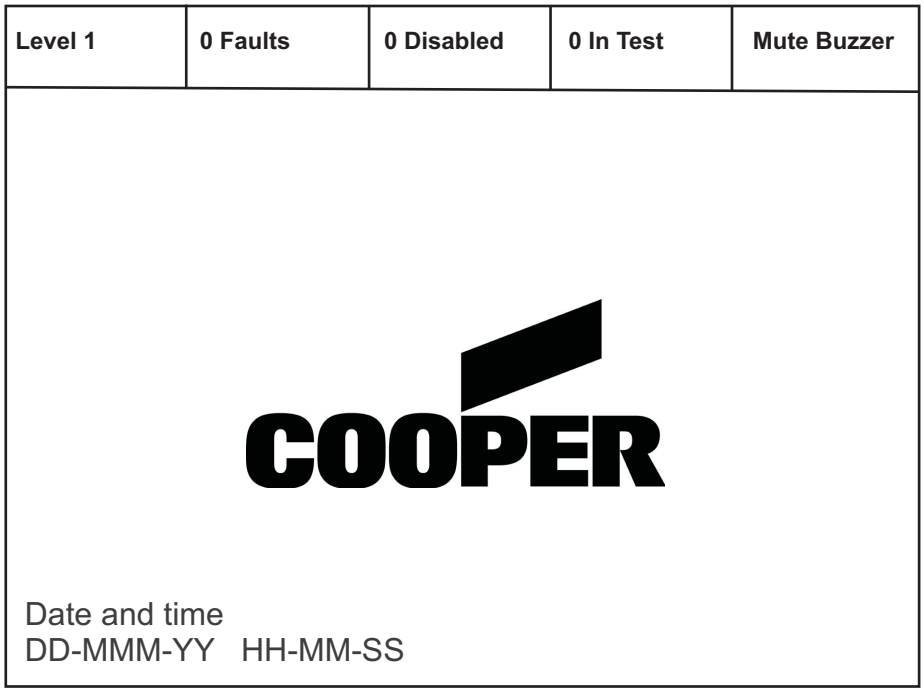
Panel Controls & Indicators

1. System LED's
2. Test group LED's
3. Touch Screen Display



LED			
1	Power On	Indicates mains supply healthy.	Check regularly ensure lit.
2	General fault	There is a fault somewhere on the system.	Review other indicators and LCD display for further details.
3	Comms Fault	One or more luminaires not communicating correctly with control panel.	Check display for more details, check external wiring, check for missing / damaged luminaires.
4	Disable	One or more luminaires manually removed from test schedule / status monitoring.	Ensure responsible person is aware.
5	Emergency Mode	Mains supply to external luminaire(s) has been lost.	Check display for more details, check external wiring and mains supplies.
6	System Fault	There is a system Malfunction.	Ensure responsible person is aware Contact maintenance provider.
7	Luminaire fault	The system has detected that luminaire(S) require some form of maintenance.	Contact Maintenance provider.
8	Test in Progress	Luminaires are being tested.	Information only, no action required.

Touch Screen Display



The Touch Screen is a multi-function display consisting 320x240 dots featuring high intensity backlighting. In normal operation, the display indicates as above with the backlighting off. According to the selected menu, the touch screen automatically reconfigures to show a number of different “buttons” select the required button by touching the screen at the relevant position. On multi page menus select the required page by touching the relevant tab.

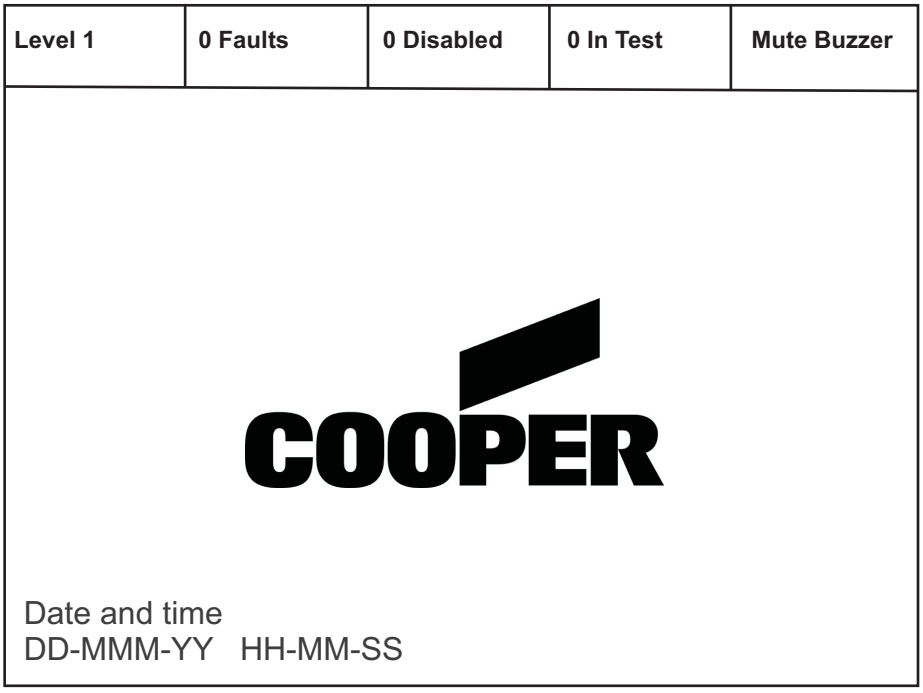
To prevent unauthorised actions, a series of passwords are used to control access to various menu levels, to go from level 1 (public access) to a higher level, touch the button in the left hand corner (labelled level 1) and enter the relevant passcode.

Section 4

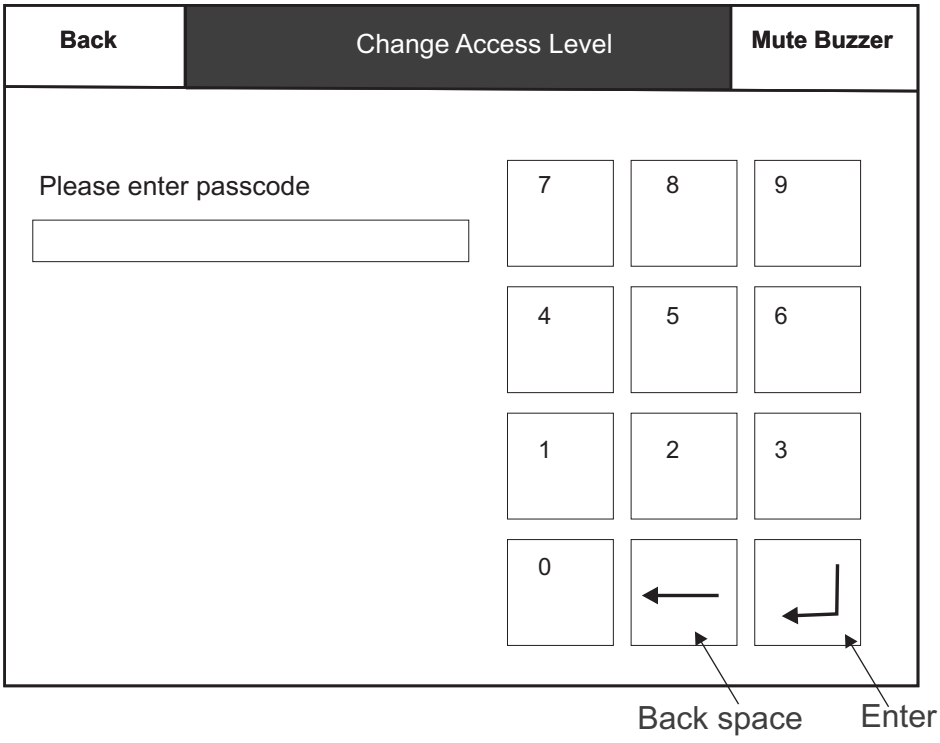
Panel Operation

Panel Operation

The Panel is operated via a backlit touch screen. The default screen is shown below, from this screen all the panels functions can be accessed. Touching the screen causes the backlight to illuminate after a delay, the display extinguishes automatically if a period of inactivity is detected.



Some basic functions can be accessed without entering a password, others require higher level access which is achieved by entering the relevant password.
To access the menus touch “level 1" and enter the password for the relevant access level.
Press enter when number has been entered, use back space to correct entry errors.
Passwords are printed at the rear of this manual (see page 56) it is strongly recommended to remove these passwords and store them in a safe location to prevent unauthorised access to system critical functions and parameters.

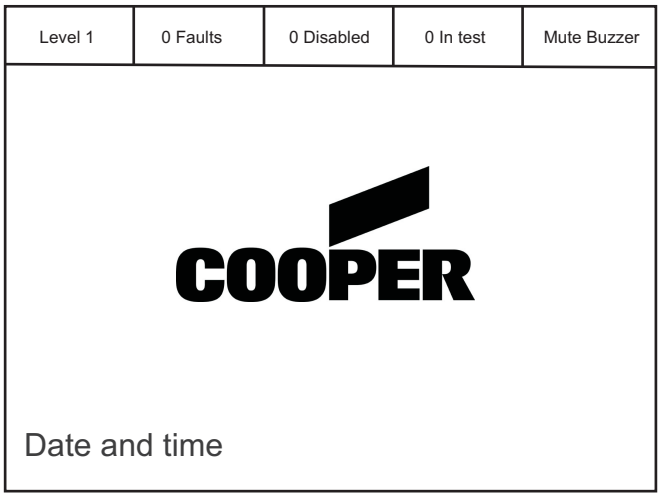


Section 5

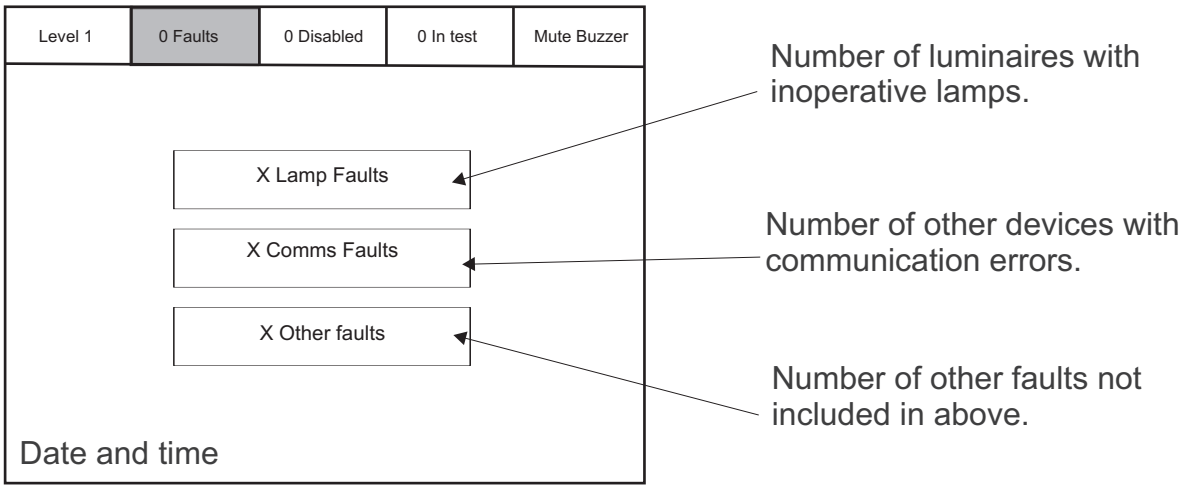
Public access (level 1)

Public Access Level 1 (Faults)

Public access level does not require an access code and allows anybody to review the functions outlined below.

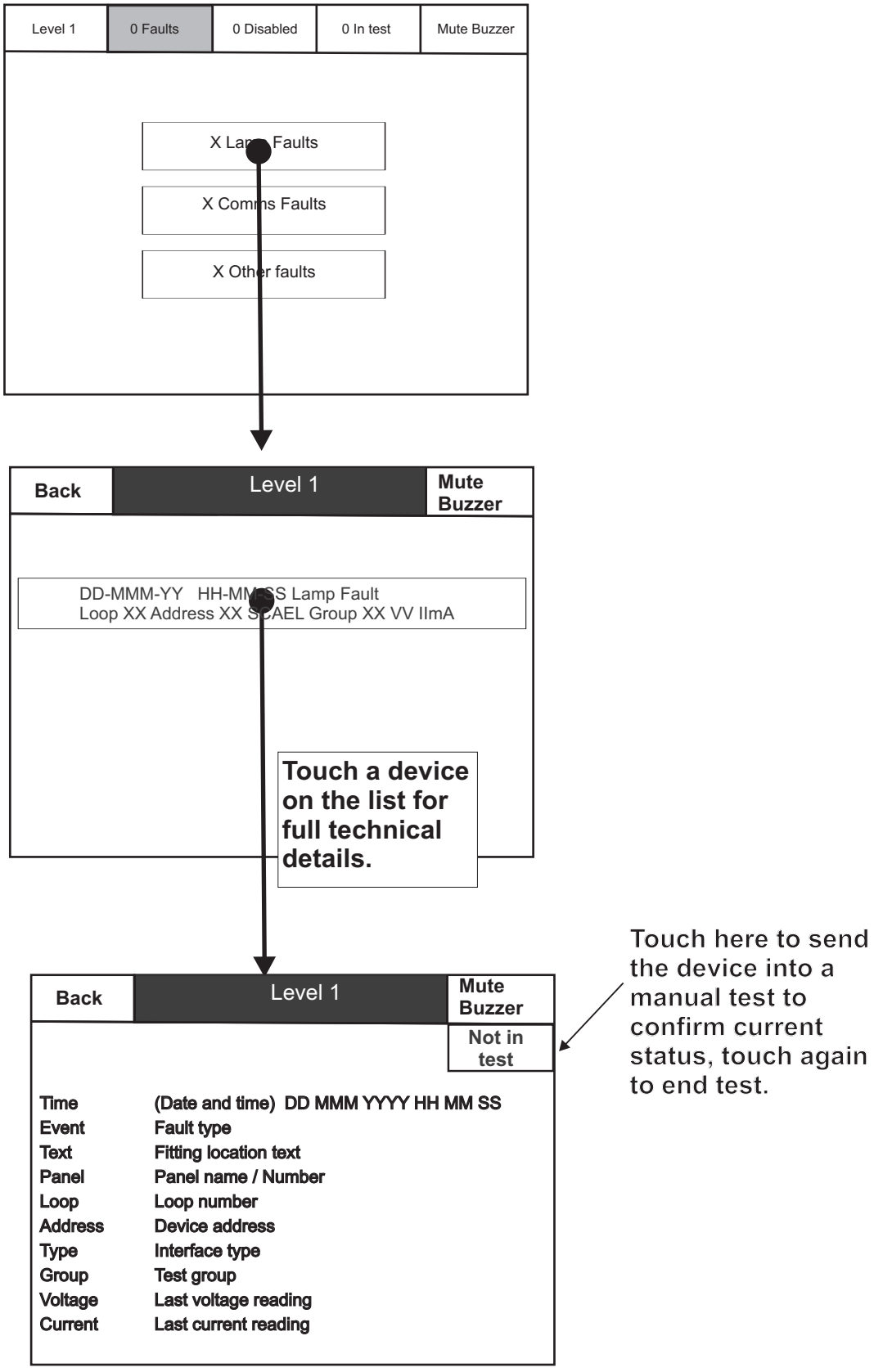


If faults are present, display automatically goes to display fault mode.



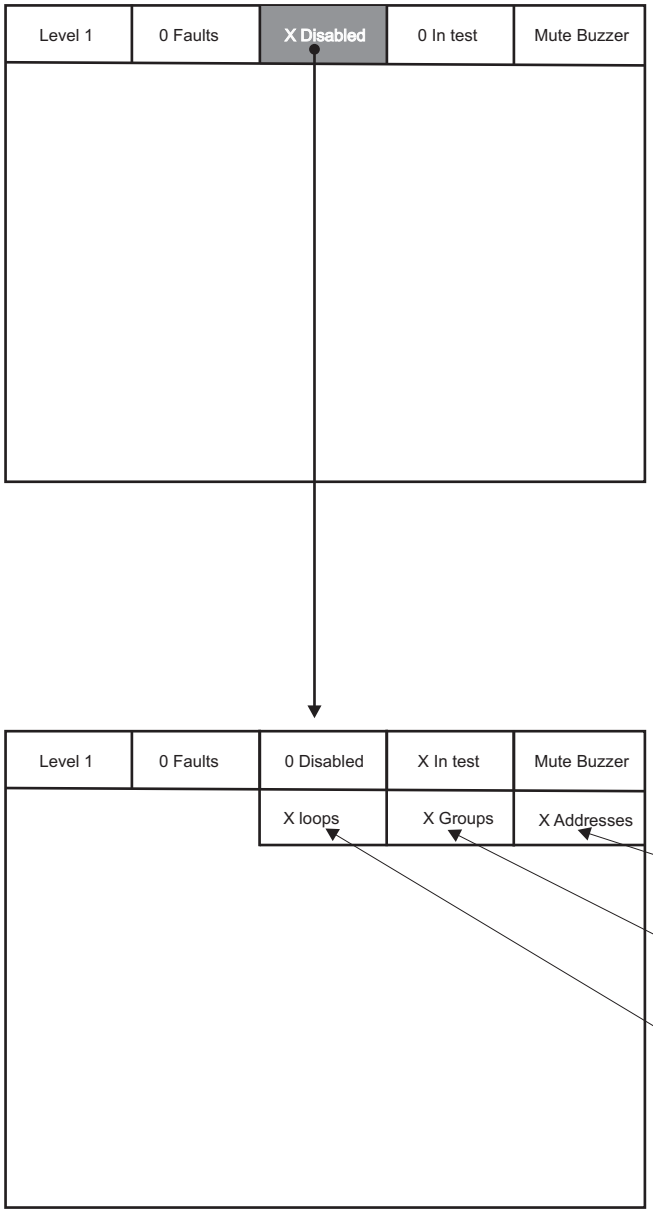
Public Access Level 1 (Faults)

Touch any of the category buttons for further details of affected devices.



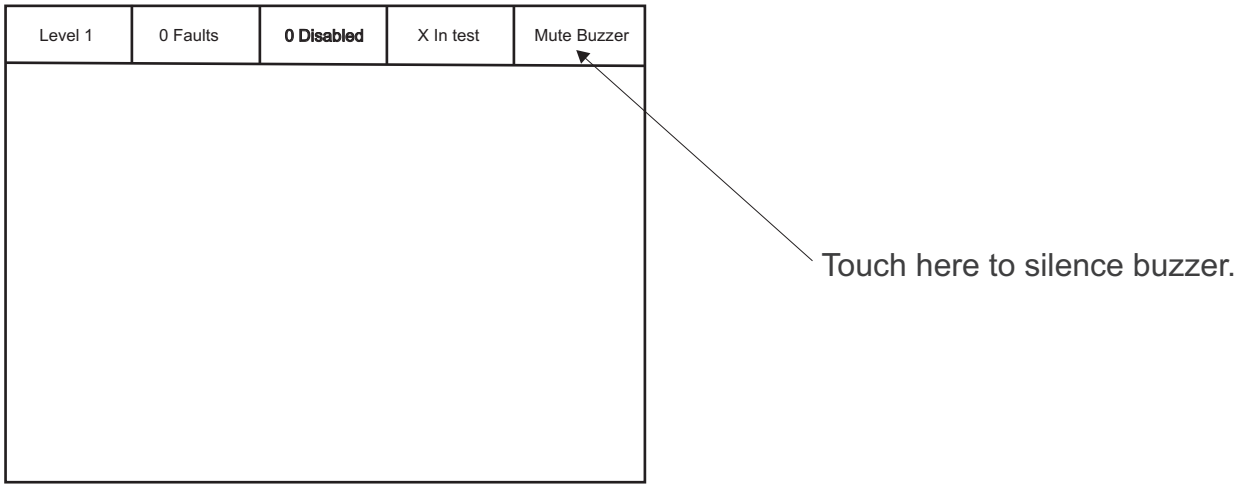
Public Access Level 1 (Disabled)

Disabling a device causes all communication between the panel and the device to be suspended whilst ever the device is disabled.
This results in the fitting no longer being tested by the panel in accordance with any pre-programmed test sequences, similarly any fault or error messages sent from the disabled devices to the panel will be ignored.
Device disable is convenient method for avoiding unwanted error messages from devices with known long term faults, (such as devices removed from service.)
It is however important that devices are not unintentionally left disabled for longer than necessary, therefore indication is provided at the display of any disabled devices.
An LED indicator on the main display also illuminates whenever any devices are disabled.



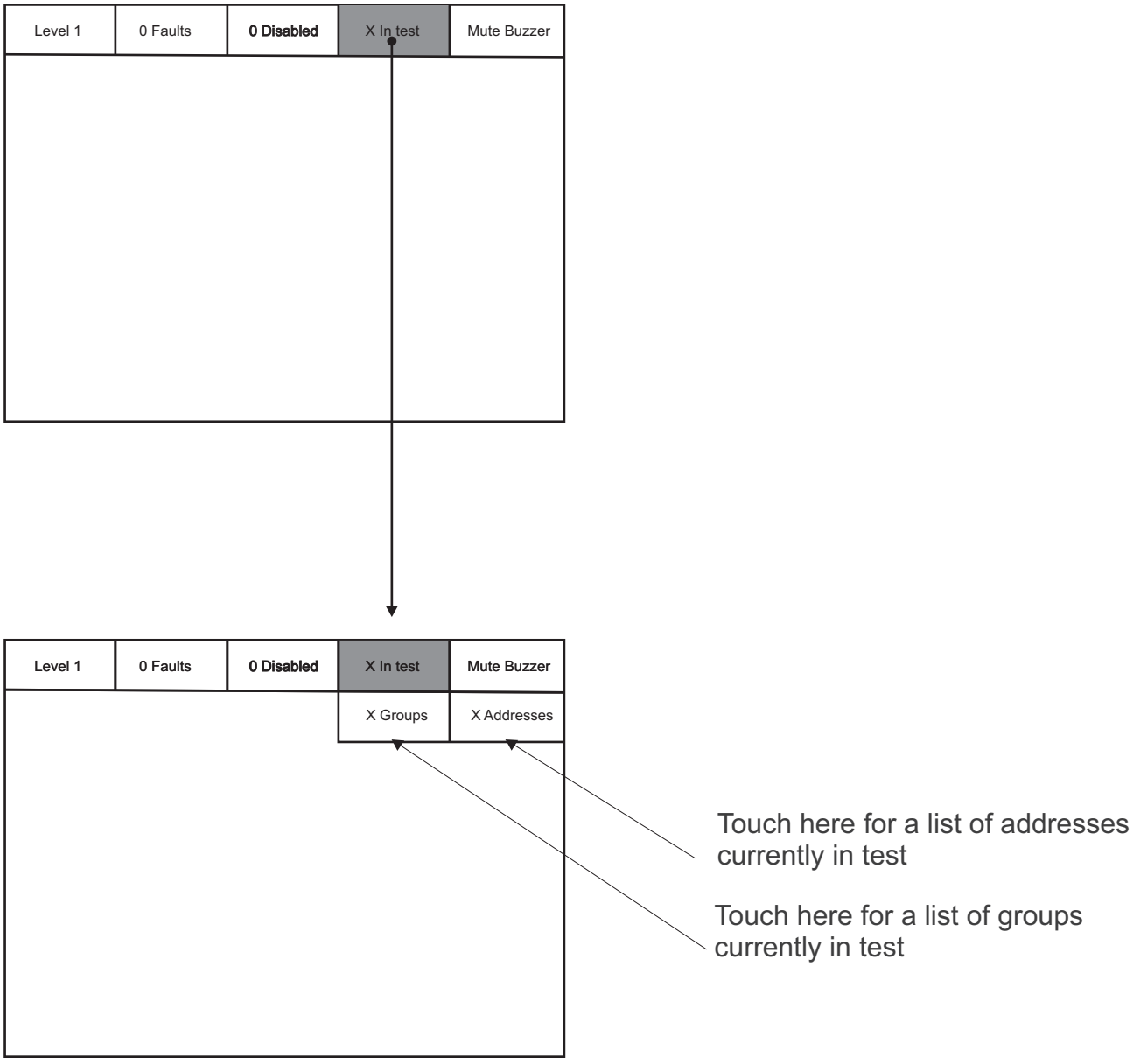
Public Access Level 1 (Mute Buzzer)

A buzzer is provided within the control panel to attract attention to events and faults, to silence the buzzer touch the mute buzzer button.
Note for applications where the audible alarm is inappropriate it is possible to disable the buzzer completely (can be reactivated later if required) see page 43



Public Access Level 1 (On test)

Tests can either be instigated manually (useful to confirm correct operation after maintenance work) or automatically in response to a pre programmed test regime.
To ensure that an area is not left without cover during the period immediately after a full rated duration test, multiple test groups are provided.
By setting test groups to operate at different times, testing can be staggered ensuring that only a small proportion of the emergency lights in a given area are tested at the same time.
Whenever fittings are undergoing either manual or automatic tests, an LED indicator is illuminated on the mains display, and the LCD display gives details fo which fittings are in test.

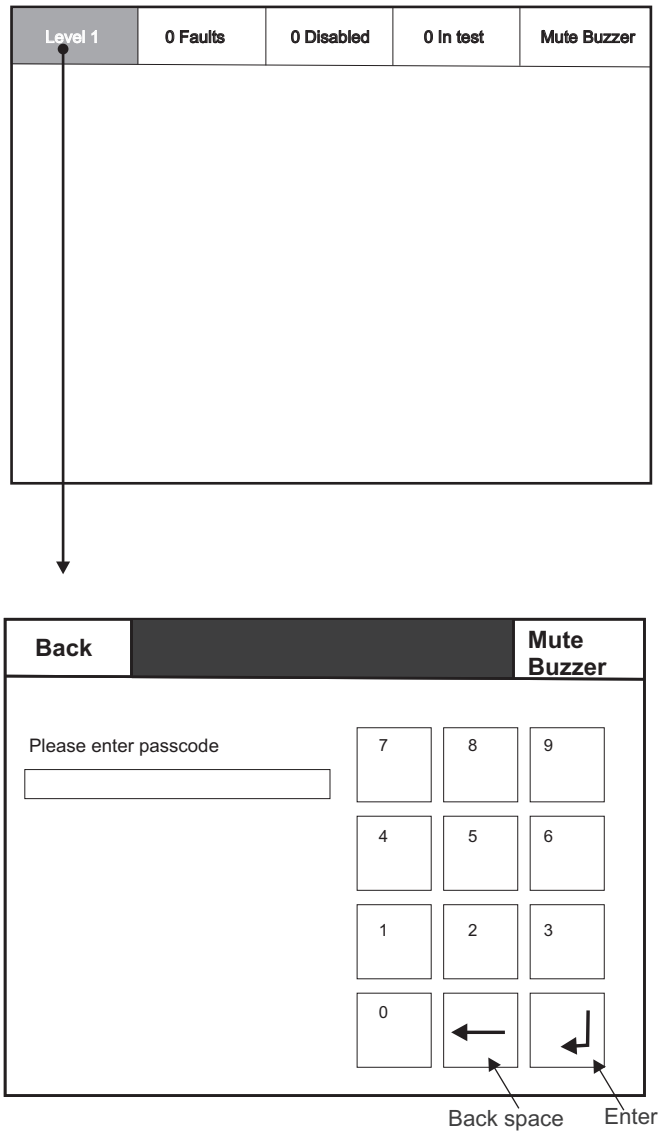


Section 6

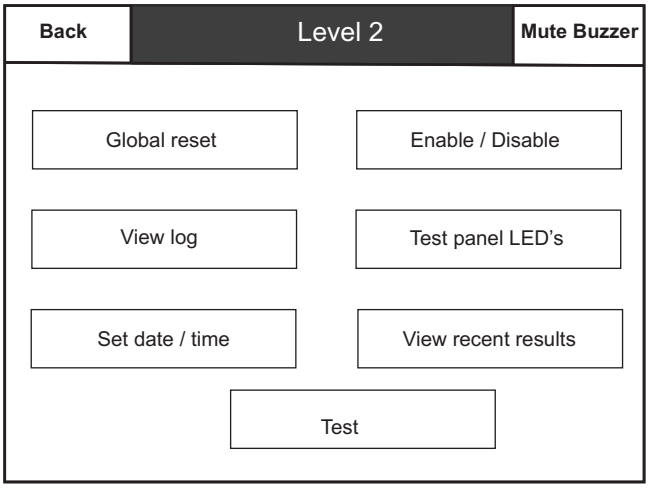
Restricted access (level 2)

Level 2 (Maintenance level)

The level 2 menu allows access to the system functions typically used as part of a normal maintenance regime, it is protected by a password.
The button in the top left hand corner indicates the current access level (normally level 1.)
To gain access level 2, touch the access level button in the top left hand corner of the screen and enter the Level 2 password when prompted.
NOTE: MENUS AT ACCESS LEVEL 2 ARE ABLE TO IMPACT ON THE OPERATION OF THE TEST SYSTEM, ACCESS TO LEVEL 2 SHOULD BE AVAILABLE ONLY TO SUITABLY TRAINED AND COMPETENT PERSONEL.



Level 2 (Initial menu)



Global reset
Touch this to reset all network connected panels, resetting panels clears all existing faults and messages, however if the faults themselves have not been rectified they will reappear when the panel next reads the device status or conducts a device test. (test failures will only re-apear after the next failed test, it is suggested to log all faults before resetting the panel.)
Touch button to initiate sequence then choose either yes to confirm or choose back to cancel.

View Log
Displays the event log.
The event log contains details of all recent panel and system events, such as date and time of tests see next page for further details.

Set date and time
Use the various buttons to set the current date and time, press “OK” when finished to save current settings or press “back” to cancel.

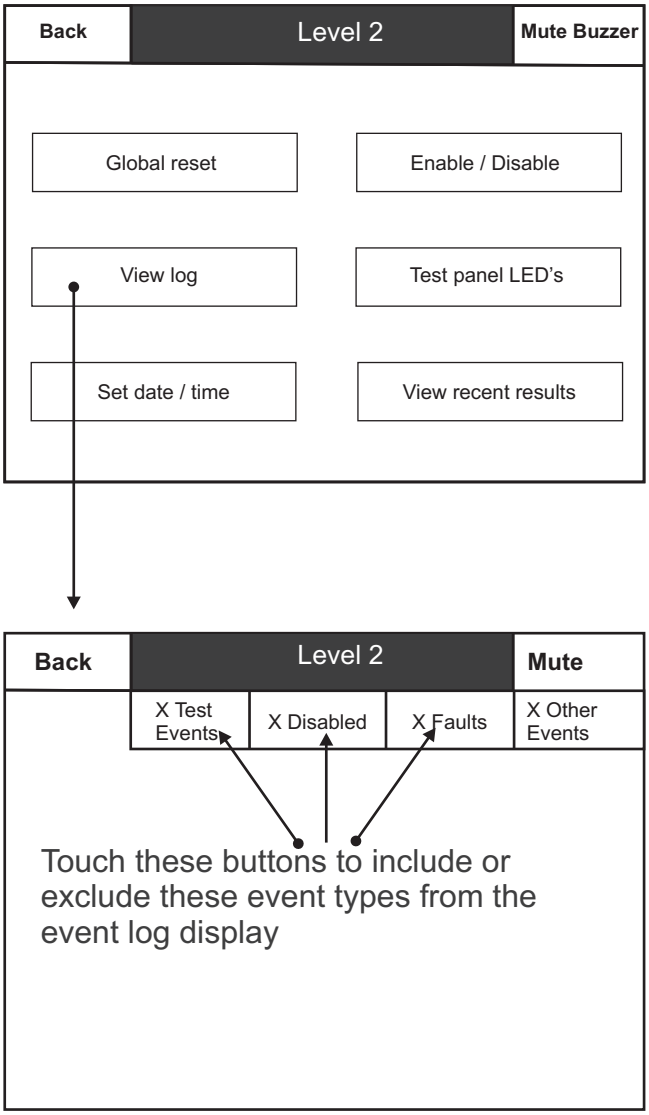
Enable Disable
Used to disable devices (exclude them from any communication with the panel) this means that fittings will not be tested, and their status will not be reported at the panel.
See page XX for further details.

Test panel LED’s
Touching this button will cause all panel indicators to light and then extinguish in sequence, use regularly to confirm that all indicator lamps are functional.

View recent test results
Shows the date and time of all recent test start and endings.

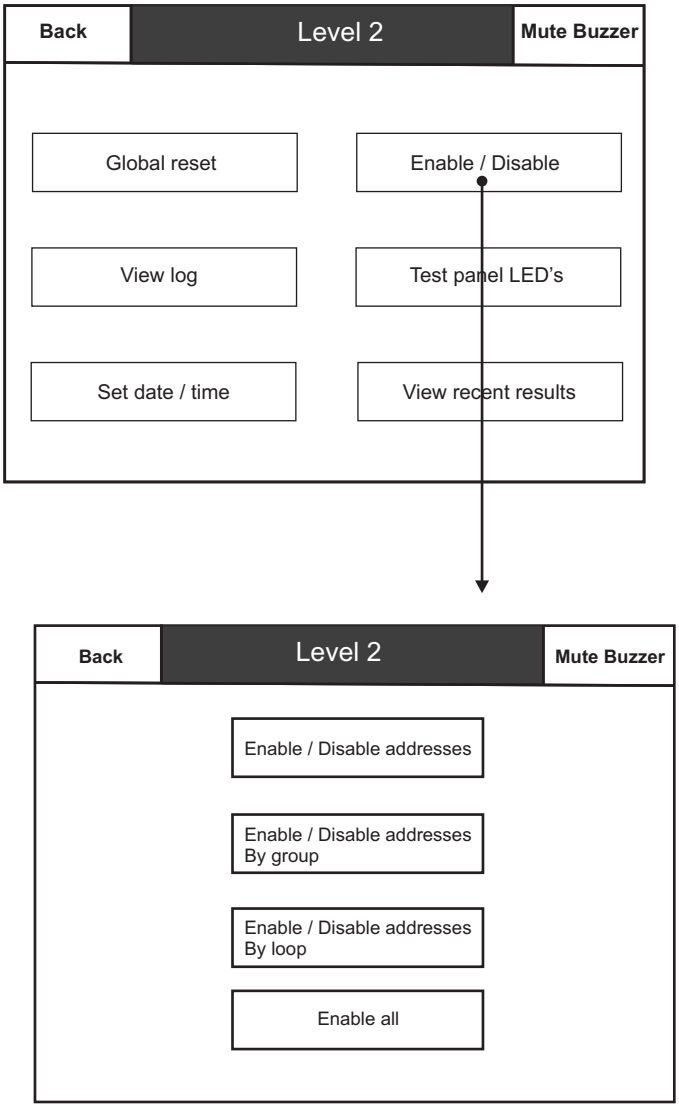
Test
Provides access to the manual test menu used to verify luminaire operation after repairs etc.
See page XX for further details.

Level 2 (View log)



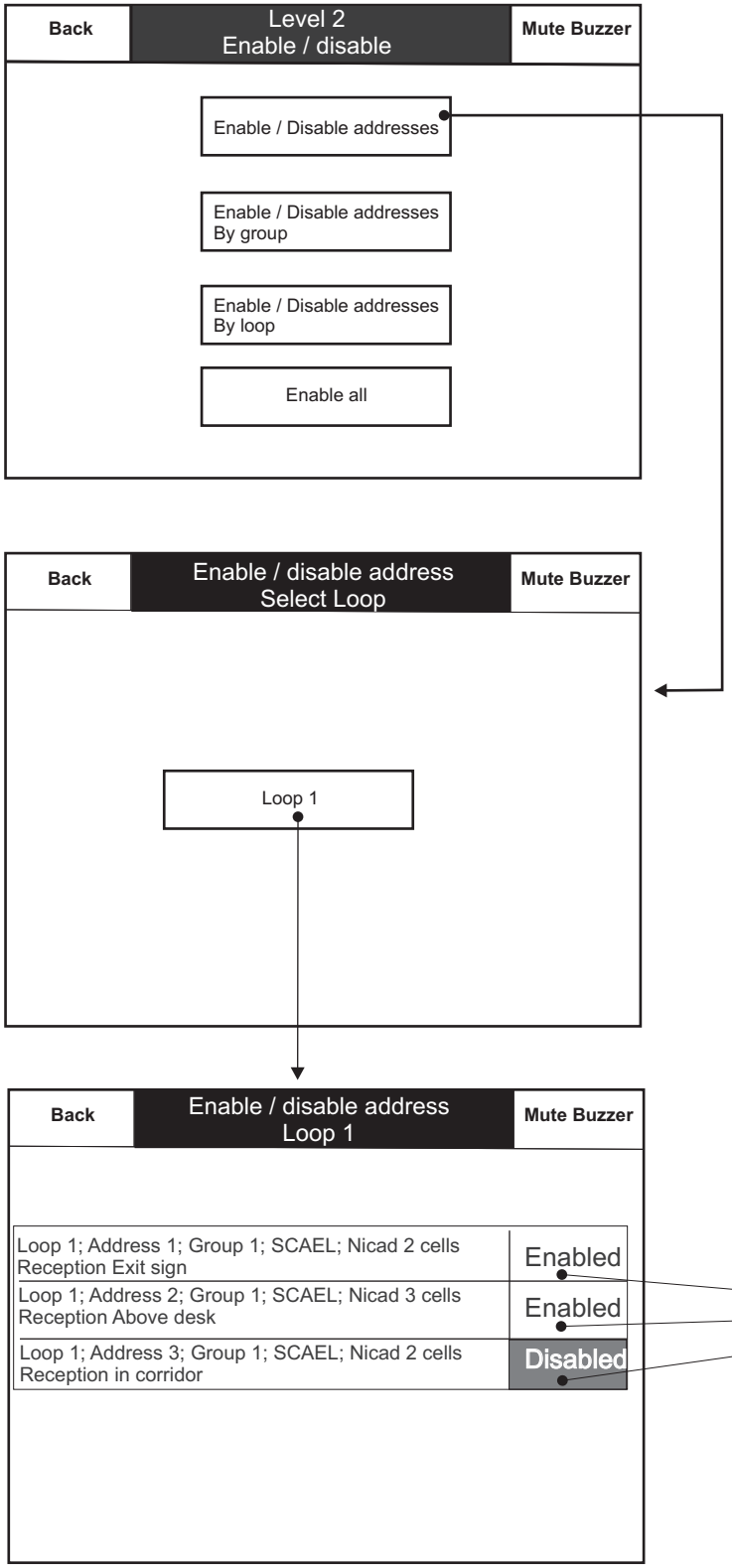
In total the event log holds details of the last 1000 events.
Once the event log memory is full each new entry into the log will automatically replace the oldest event already in the log.
The event log can only be reset by Cooper Lighting and safety personel.

Level 2 (Enable / Disable)



It is possible to enable / disable individual addresses, entire test groups or an entire loop of devices connected to a panel.
An enable all button is also provided to re-enable all disabled devices by a single touch of a button.

Level 2 (Enable / Disable)



It is possible to enable / disable individual addresses, entire test groups or an entire loop of devices connected to a panel.
An enable all button is also provided to re-enable all disabled devices by a single touch of a button.
To disable by test group follow a similar procedure but select “enable / disable by group instead.
To disable all devices connected to a loop, select enable / disable by loop.

Touch here to enable or disable devices, touch once to disable, touch again to re-enable.

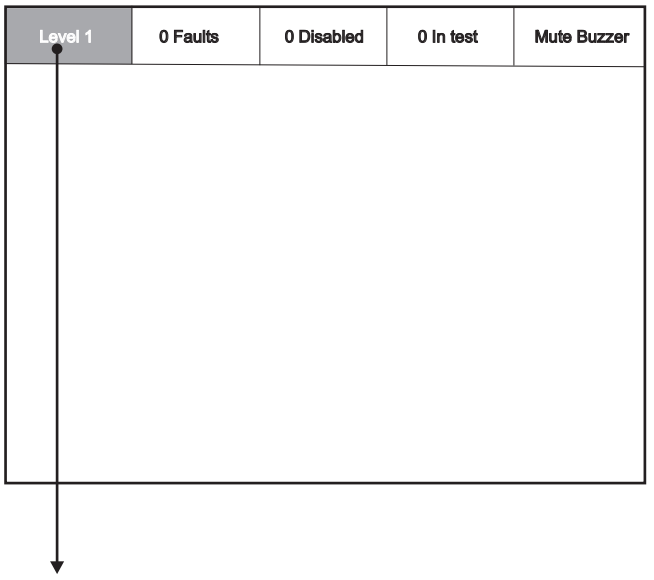
Section 7

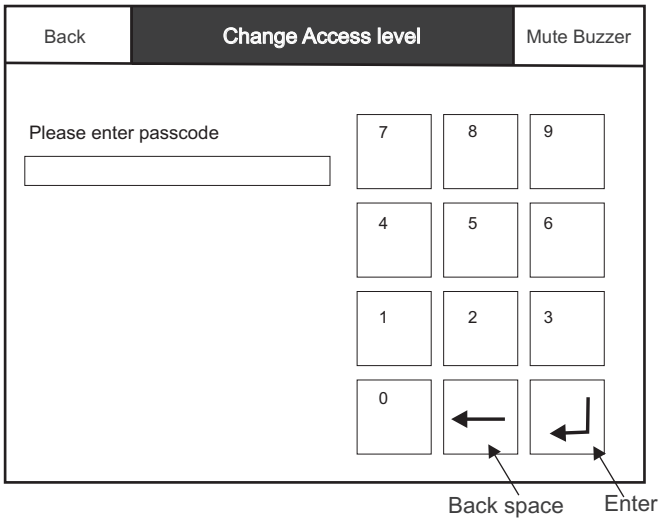
Restricted access (level 3)

Skilled engineer functions

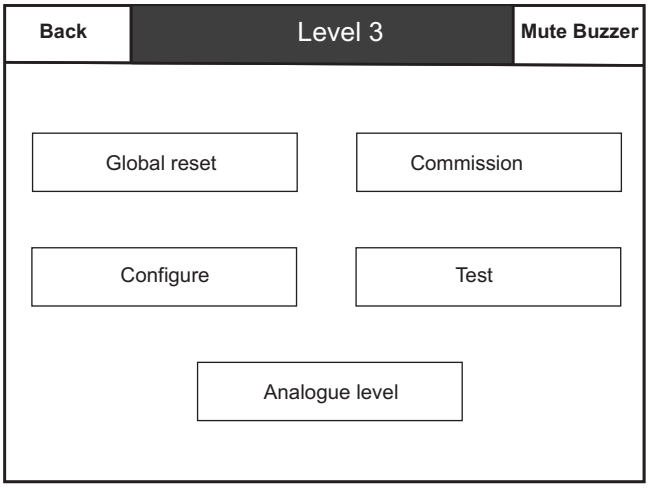
Level 3 (Skilled engineer level)

The level 3 menu allows access to the system functions typically used during initial commissioning and system configuration.
The button in the top left hand corner indicates the current access level (normally level 1.)
To gain access level 3, touch the access level button in the top left hand corner of the screen and enter the Level 3 password when prompted.
NOTE: MENUS AT ACCESS LEVEL 3 ARE ABLE TO IMPACT ON THE OPERATION OF THE TEST SYSTEM, ERASE THE ENTIRE SYSTEM CONFIGURATION SETTINGS AND ERASE ALL PROGRAMMED SITE DATA.
ACCESS TO LEVEL 3 MUST BE AVAILABLE ONLY TO SUITABLY TRAINED, COMPETENT AND EXPERIENCED PERSONNEL.
All activities carried out at the panel are recorded in the system log and cannot be erased, do not activate level 3 functions unless you have been fully trained to do so.





Level 3 (Initial menu)



Global reset
Touch this to reset all network connected panels, resetting panels clears all existing faults and messages, however if the faults themselves have not been rectified they will re-appear when the panel next reads the device status or conducts a device test.
Touch button to initiate sequence then choose either yes to confirm or choose back to cancel.

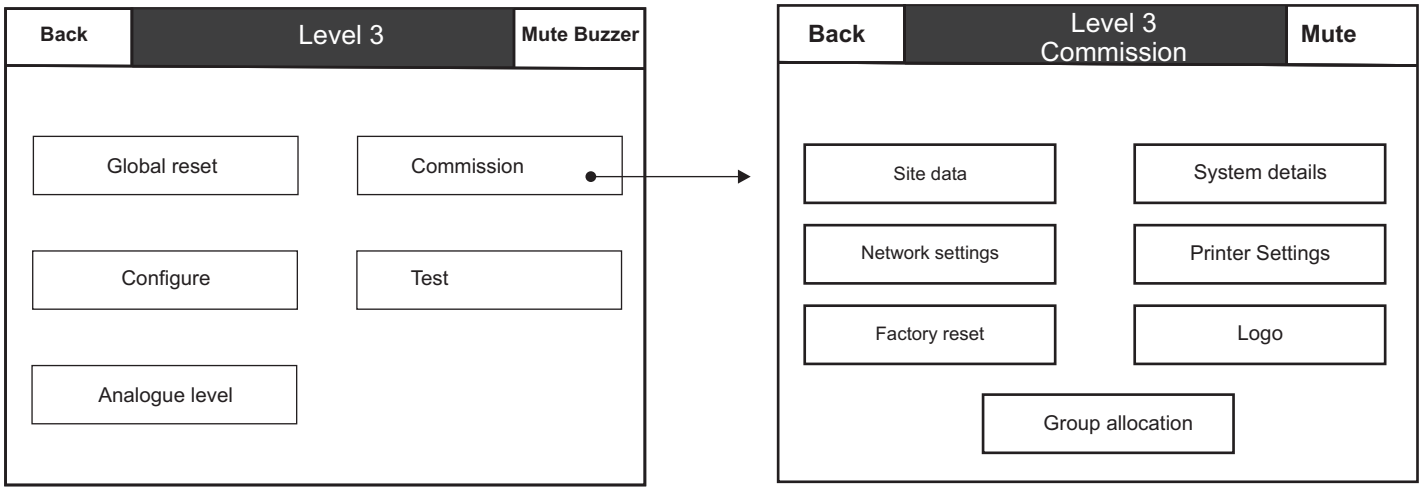
Commission
Used to autolearn the panel, download data from a PC to the panel, upload data from the panel to a PC for editing and to add new devices. (see page XX.)

Configure
Used to set up panel and device settings such as address text , luminaire test thresholds, panel text, test scheduling etc, see page XX for further details.

Test
Used to manually start and stop group tests, and also to test individual fittings, see page XX for further details.

Analogue level
Displays read time information about the current voltage and current data for the selected luminaire see page XX for further details.

Level 3 (Commission)



Level 3 commissioning functions

Site data
Contains menus to carry out a full autolearn or maintenance autolearn.
Allows site configuration data to be downloaded from a PC or uploaded to a PC for editing and subsequent downloading back to the panel.
Note; PC software is only available to Cooper Personnel, (it is not available for purchase.) See page XX for further details.

System details
Shows full system details including number of panels on the network, software version, number of devices per loop etc.

Network settings
Used to set up the network, program the number of panels on the network, configure the addresses of networked panels and establish network compatibility settings, see page xx for further details.

Printer Settings
Allows the configuration of a supported external printer.

Factory reset
Resets all settings to their original factory default settings, select factory reset, then choose either yes to continue or press back to cancel.
Caution! This will erase all settings and site data, use with extreme care.
After a factory reset, a series of squares will appear on the touch screen, touch these as they appear, this is used to calibrate the screen.

Logo
Allows the selection of alternative logo's to be displayed on the panel during normal quiescent operation.
In addition to the default Cooper logo, additional bitmap logo's can be downloaded during commissioning by Cooper Lighting service engineers.

Group Allocation
Allows individual fittings to be assigned to test groups as required, test groups enable the staggering to prevent complete loss of protection immediately after a full discharge test.
See page XX for further details.

Level 3 (Commission - Site data)

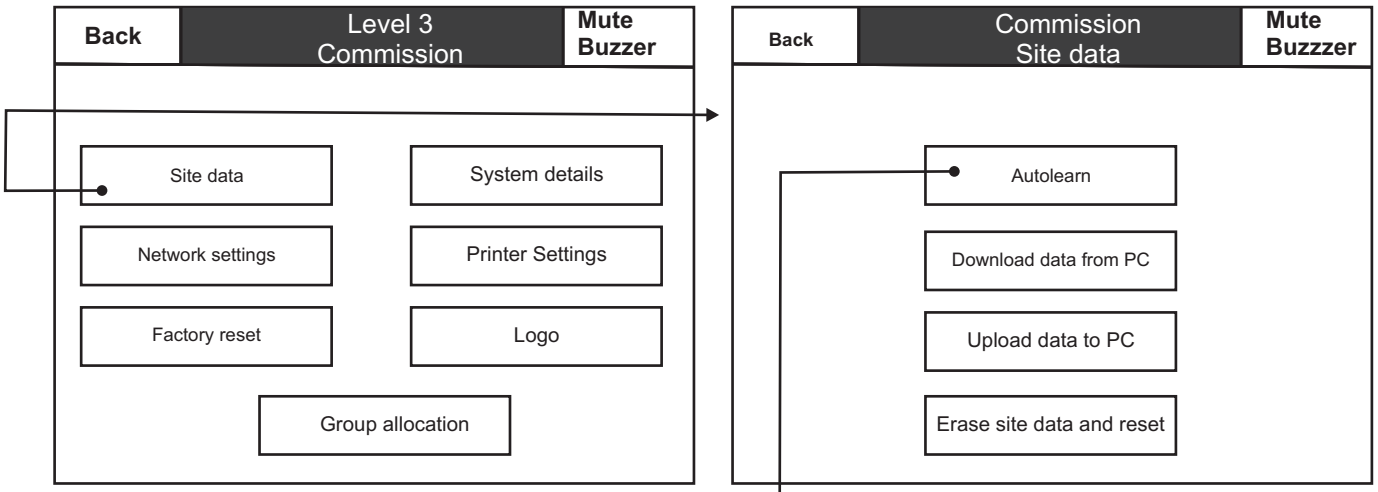
Download site data from PC
When commissioning and configurating a new Easicheck installation, all neccessary data (e.g. Luminaire location text, required test group allocation, battery type and quantity) can be inputted via the touch screen display.
However to save time, when commissioned by Cooper Lighting and Safety personnel, a laptop PC with special Cooper software can be used to considerably speed up the task.
The download data menu allows the data to be downloaded from the PC to the panel.
Specific instructions on uploading and downloading are provided with the upload / download software.
Note; PC software is only available to suitably trained Cooper Personnel, (it is not available for purchase.)

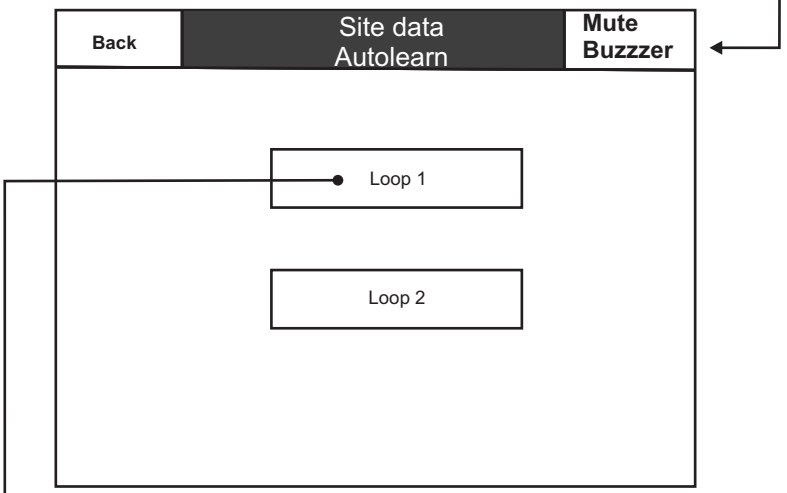
Upload site data to PC / Download data from PC
This menu allows the configuration data to be uploaded from the panel to a computer where it can be edited before being downloaded again back to the panel.
It also allows pre-programmed data to be downloaded from a computer to a panel.

Erase site data and reset.
This menu erases all existing site data and resets the panel, this would normally only be used after major on site system reconfiguration.
To erase all site data, touch this button then touch either yes to confirm or back to abort.

NOTE: touching yes will permanently erase all site data, requiring a subsequent full re-commissioning of the system.
This action will be stored in the log which cannot be erased.

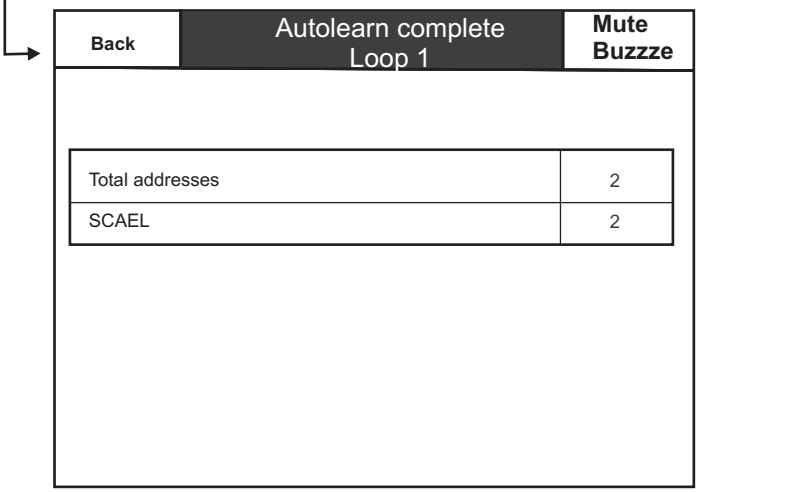
Level 3 (Commission - Site data)





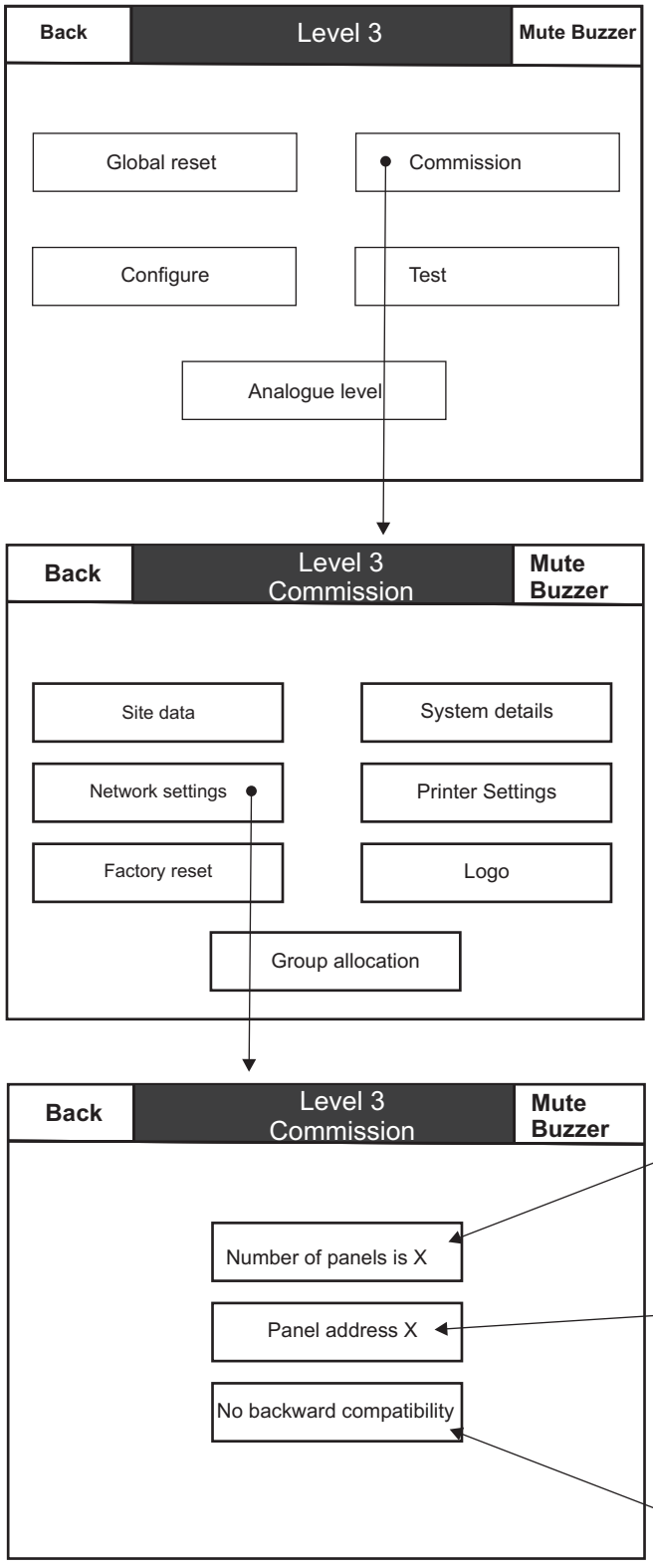
Touching either button will instigate auto learning of the selected loop, once started autolearn cannot be stopped until complete, this may take a few minutes on a fully loaded system
The panel will scan the loop starting from the start of the loop and allocate a sequential address number to each found device. The address number will begin with address 1 for the first found device on the loop, address 2 for the second found device etc.

caution this will erase all existing data, device text etc.



When autolearn is complete the result screen will appear, this shows the total number of devices found and also a breakdown of the different types of devices found.
All devices now need to be configured with location text, battery type, test group allocation etc.

Level 3 (Commission - Network settings)



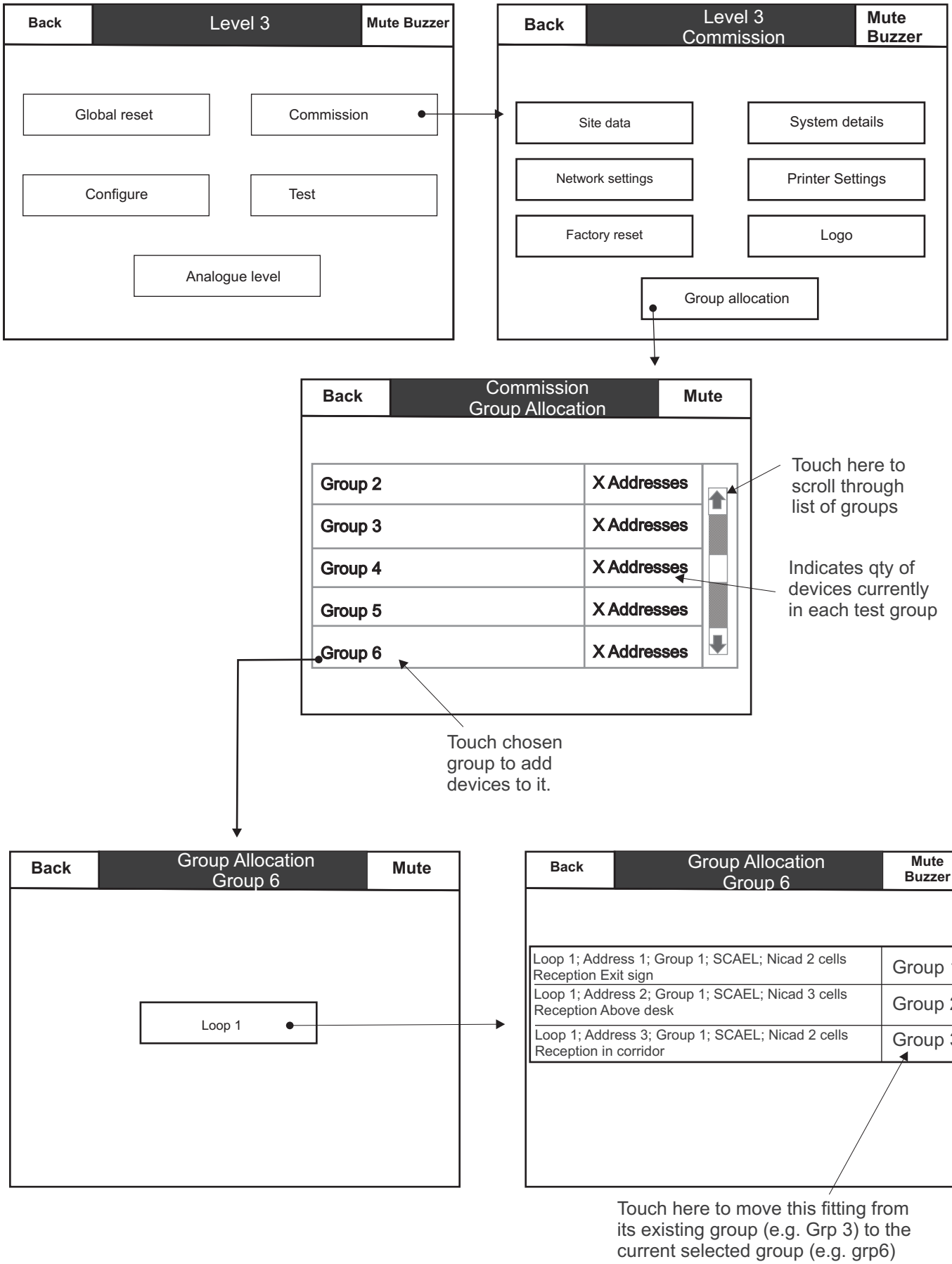
Touch here to specify the number of panels on the network, use the up and down buttons to select the correct number then press ok to save

Touch here to specify the address number of the current panel, use the up and down buttons to select the correct number then press ok to save

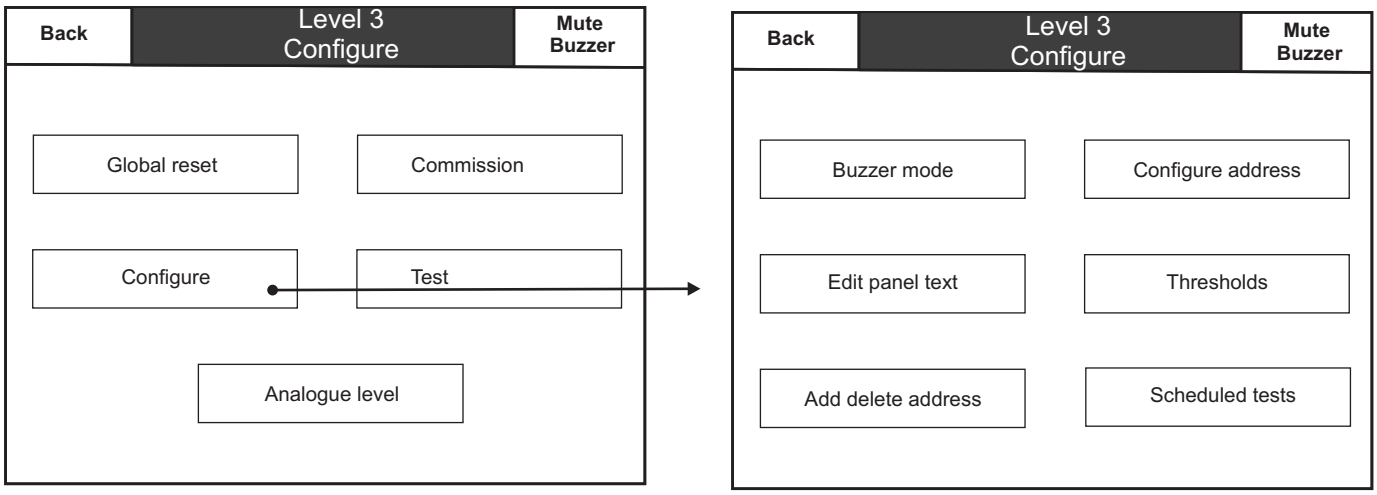
Touch here to specify which other Cooper products (if any) are likely to share the same network.

Note: the correct setting of these parameters is vital to ensure reliable network communication.

Level 3 (Commission - Group Allocation)



Level 3 (Configure)



Level 3 configure

Buzzer mode
Used to set the buzzer operation preferences see page XX for further details.

Configure address
Used to configure the location text for each device and to set the battery parameters for each luminaire, see page xx for further details.

Edit Panel text
Used to set the location text for the panel itself, useful on networked systems to distinguish between information relating to different panels, see page xx for further details.

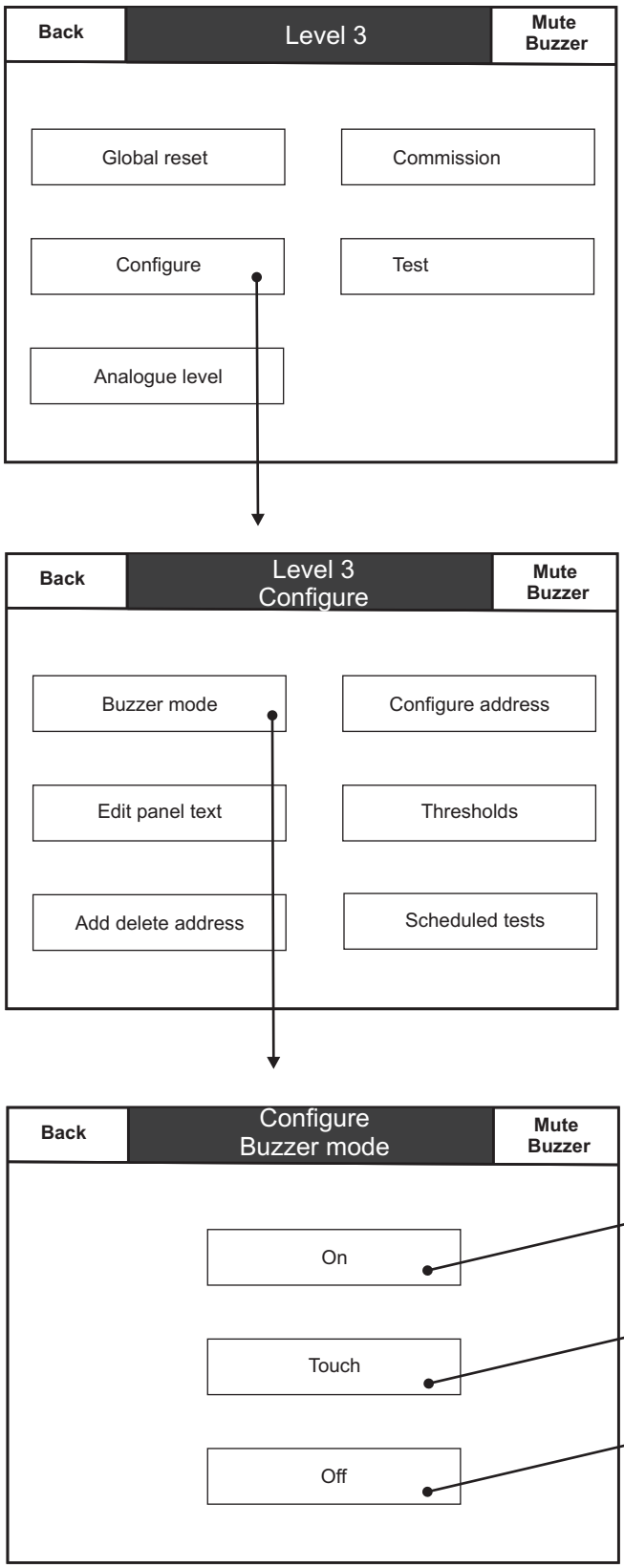
Thresholds
Used to define the acceptable parameters for voltage and current for each different interface type.

NOTE; THESE SETTINGS MUST NOT BE ALTERED OTHER THAN BY SUITABLY TRAINED PERSONNEL, INCORRECT THRESHOLD SETTINGS WILL CAUSE THE SYSTEM TO MALFUNCTION.

Add delete address
Used to add new devices to the system or to delete redundant devices from the system e.g after building alterations, see page xx for further details.

Scheduled tests
Used to set up test schedules for short functional tests and full rated duration tests, see page xx for further details.

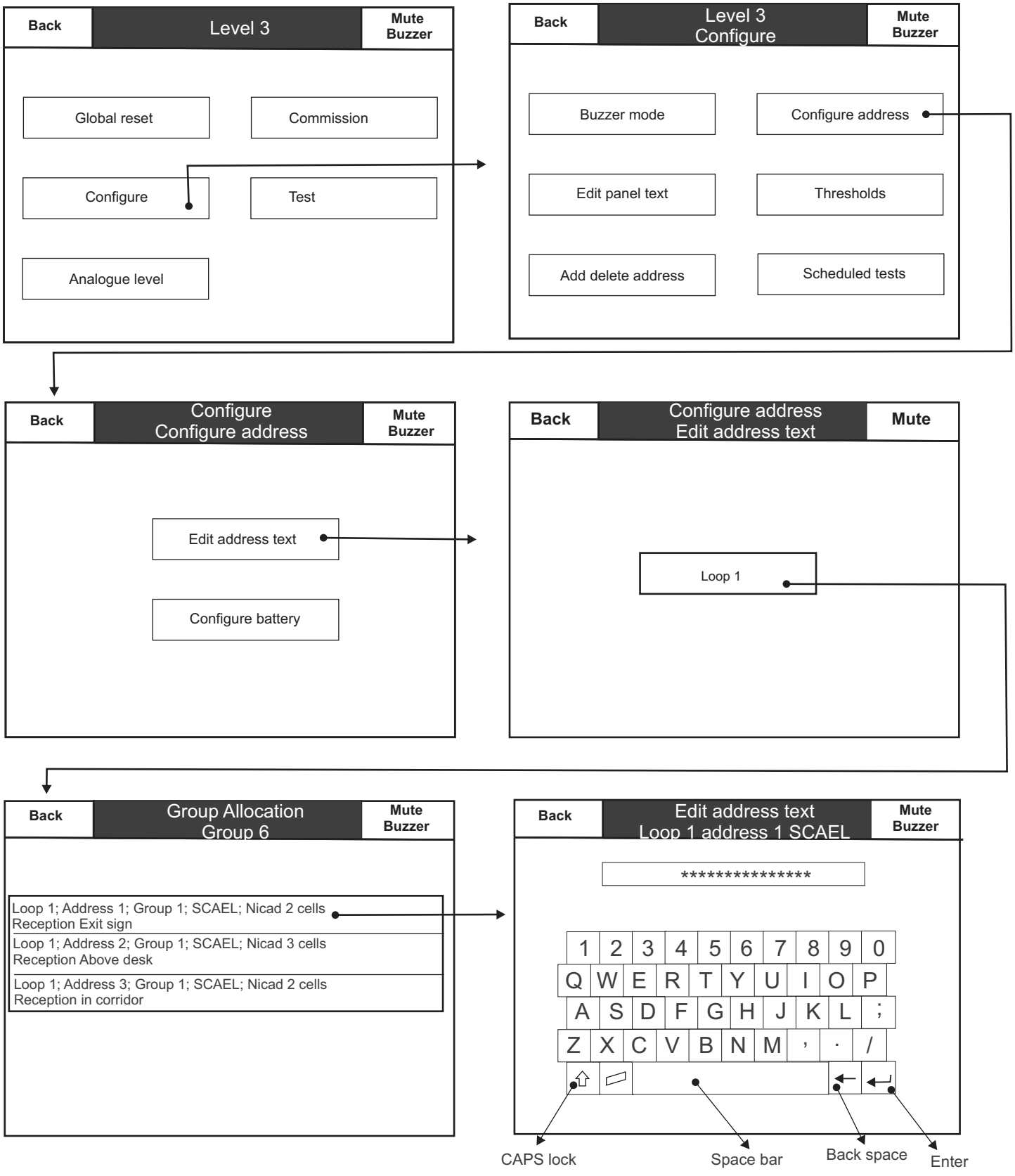
Level 3 (Configure - Buzzer mode)



Level 3 (Configure - configure address text)

When Easicheck detects a fault, it will display details of the fault along with the address text of the faulty device. Use “edit address text” to assign the required address text to each device.

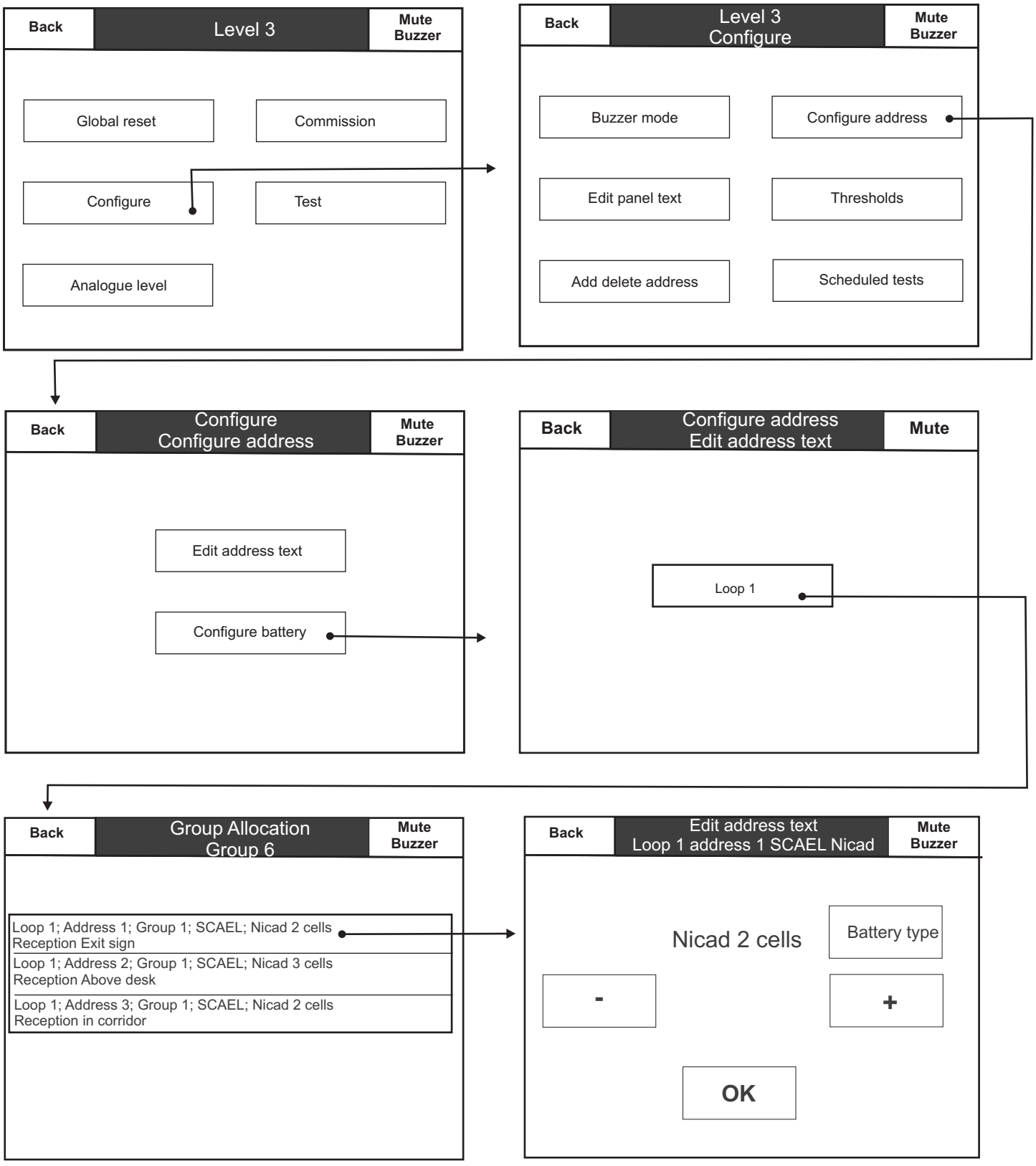
NOTE: when commissioned by Cooper Lighting, a PC will be used to automatically download the address text to each device.



Level 3 (Configure - configure address - battery type)

For Easicheck to function correctly, Easicheck must be programmed wit the correct battery configuration for each fitting, press the battery type button until the correct type is displayed, then touch + / - to select the correct number of cells.

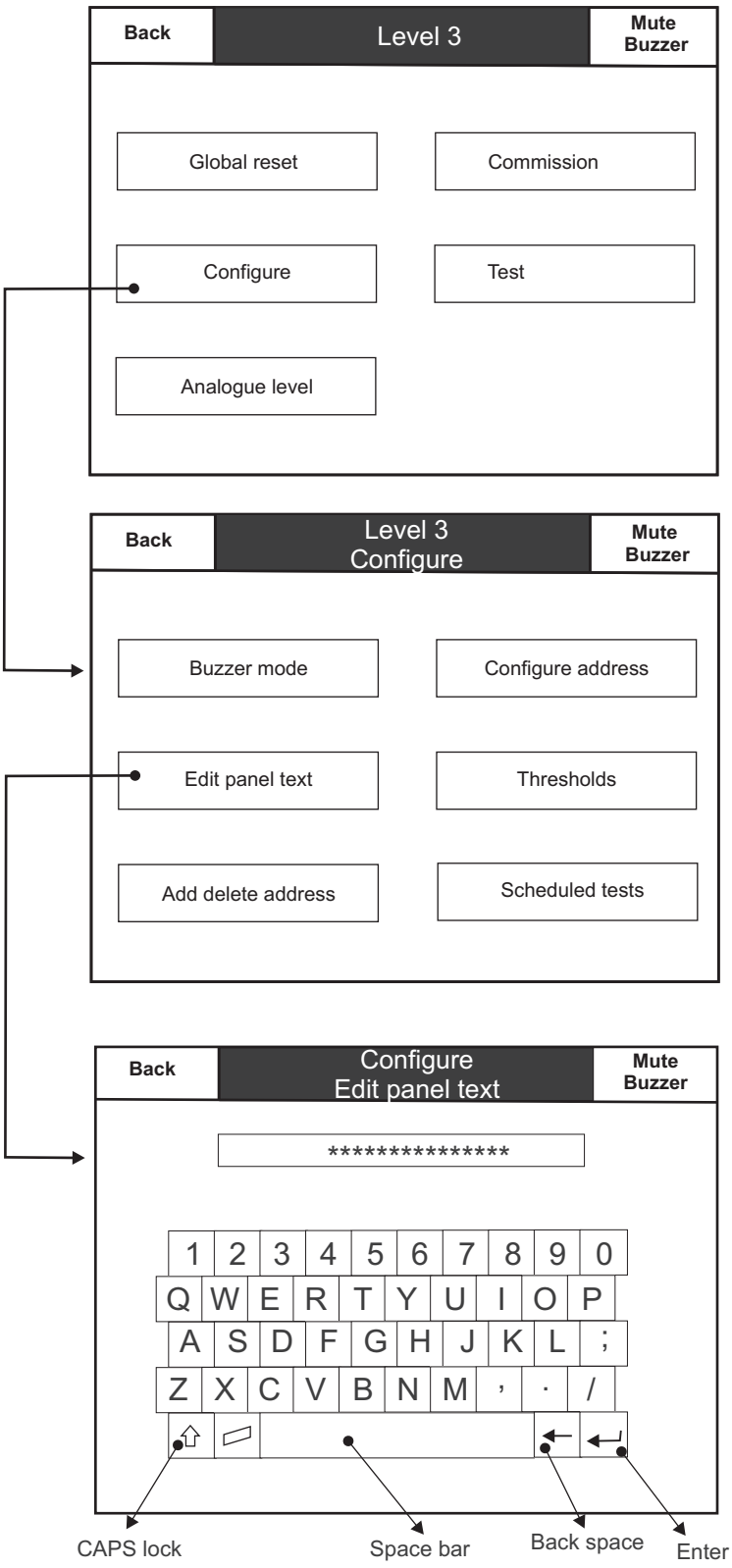
NOTE: when commissioned by Cooper Lighting, a PC will be used to automatically download the appropriate battery data for each device.



Level 3 (Configure - Edit panel text)

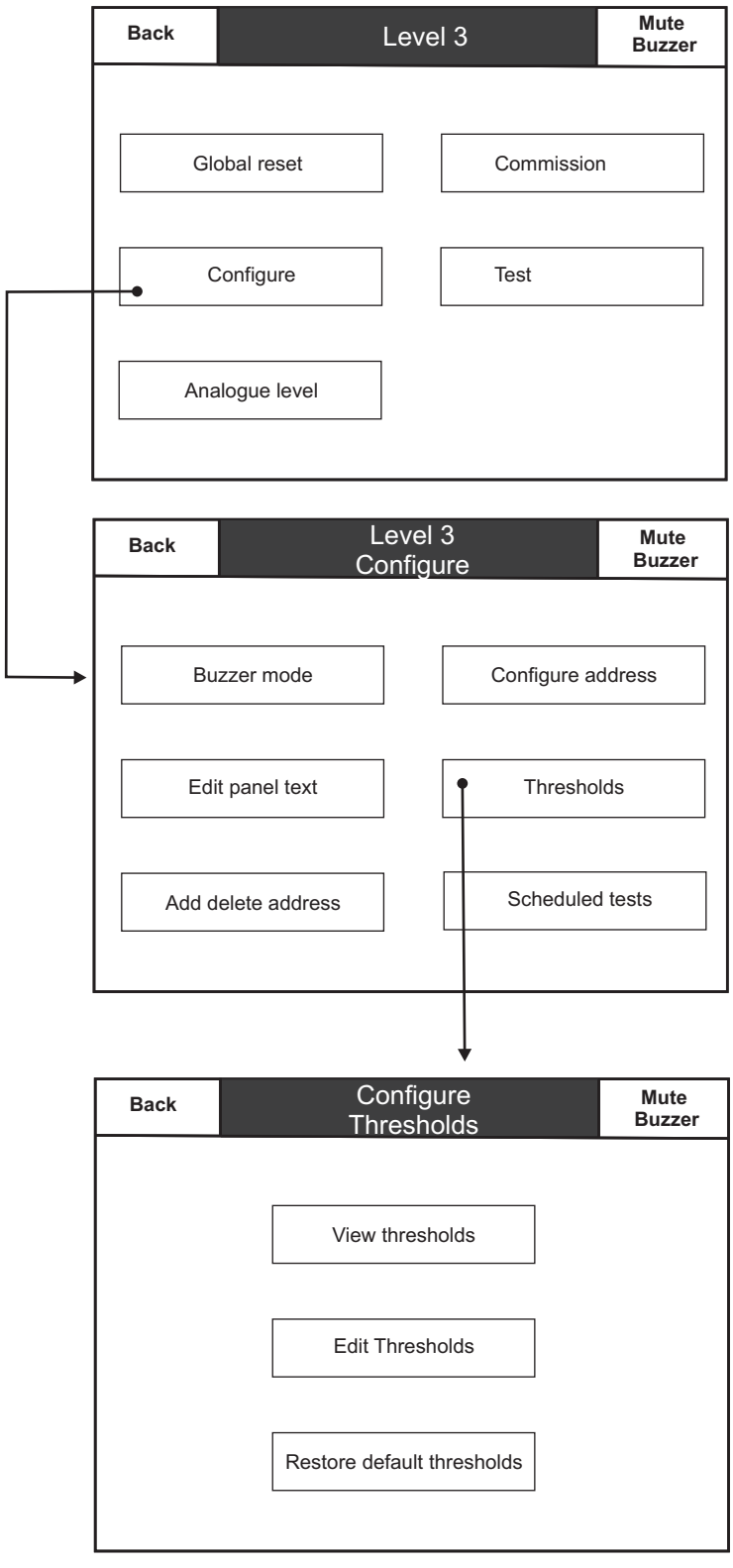
Location text can also be assigned to each panel, this is useful when several panels are networked together, since by giving each panel a different name / location the source of network messages can easily be identified.

NOTE: when commissioned by Cooper Lighting, a PC will be used to automatically download the panel name / location text.



Level 3 (Configure - Thresholds)

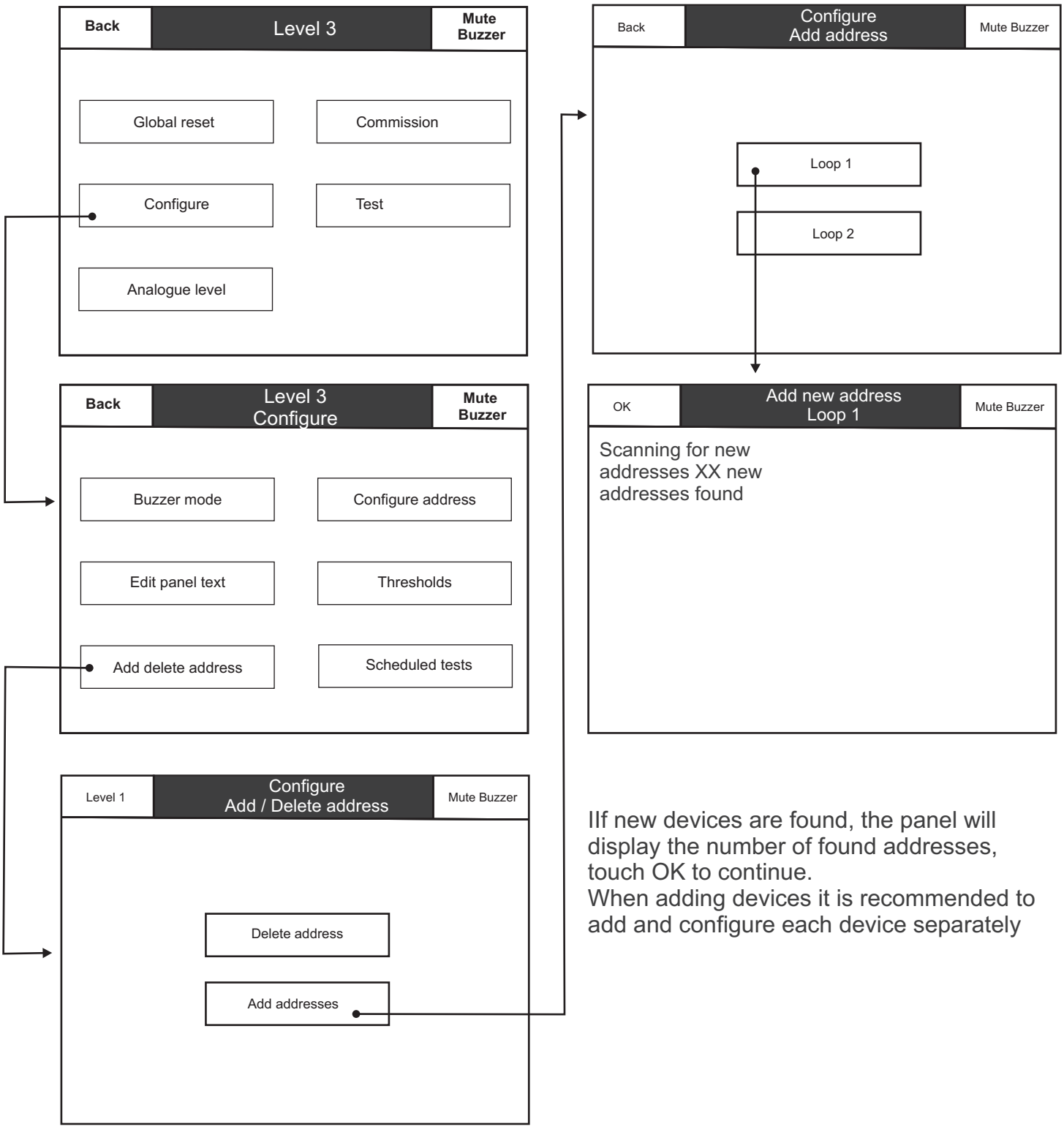
During luminaire interrogation, Easicheck verifies the performance of the luminaires by comparing the battery voltage, battery charge current and battery discharge current to stored values representing acceptable variations.
For LED luminaires, Easicheck also measures the light output of the device.
The thresholds menu allows the engineer to view and alter the threshold settings, these settings should only be altered by skilled, suitably trained engineers, incorrect threshold setting can result in system malfunctions.



Level 3 (Configure - Add / Delete Address)

If a device is to be temporarily taken out of use, use the disable function, see page XX).
To permanently remove a device from the system use delete device, to add a new device use add device.

NOTE when new devices are added they need to be configured with test group, location text, battery type and battery quantity etc.

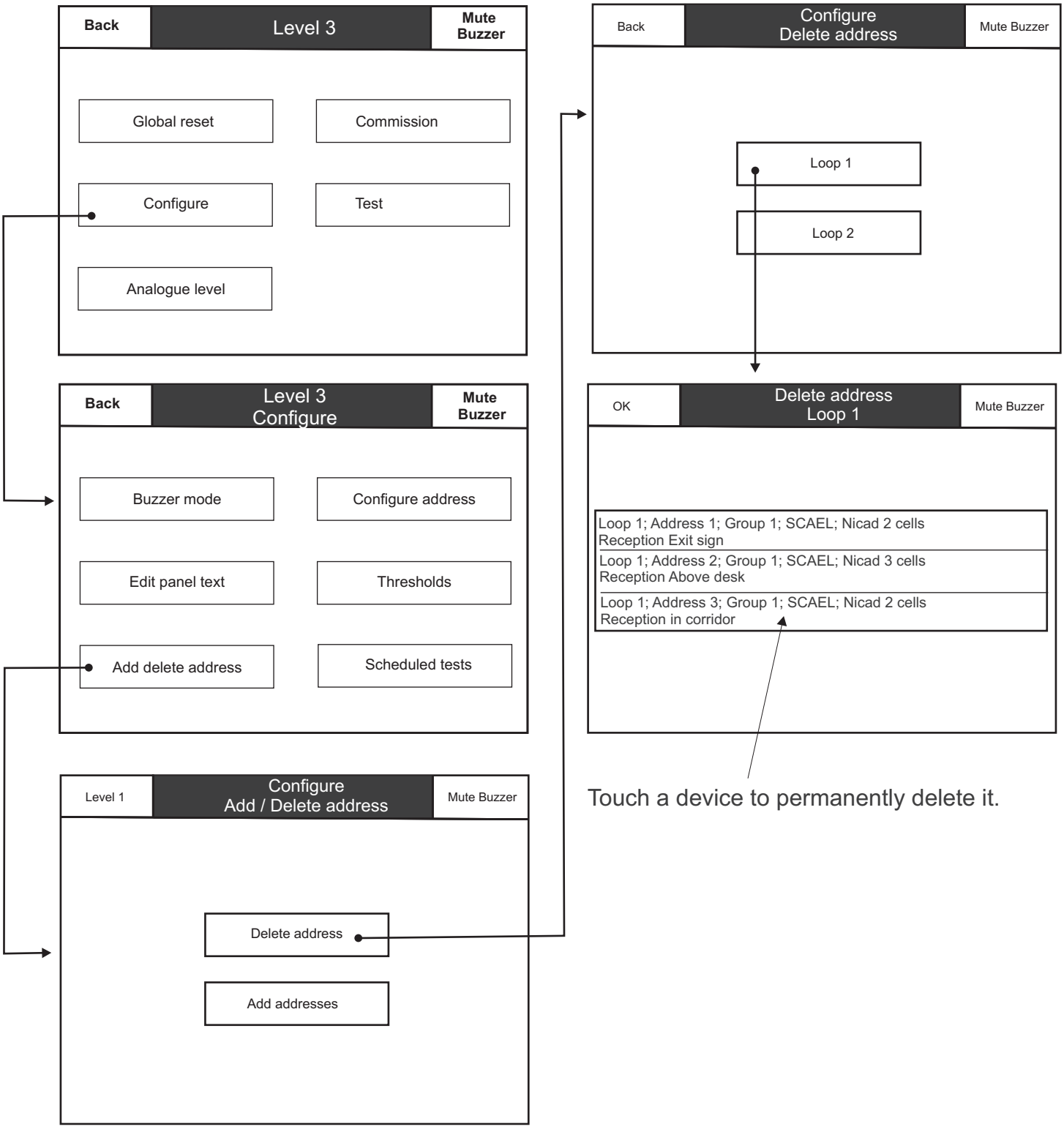


IIf new devices are found, the panel will display the number of found addresses, touch OK to continue.
When adding devices it is recommended to add and configure each device separately

Level 3 (Configure - Add / Delete Address)

If a device is to be temporarily taken out of use, use the disable function, see page XX).
To permanently remove a device from the system use delete device, to add a new device use add device.

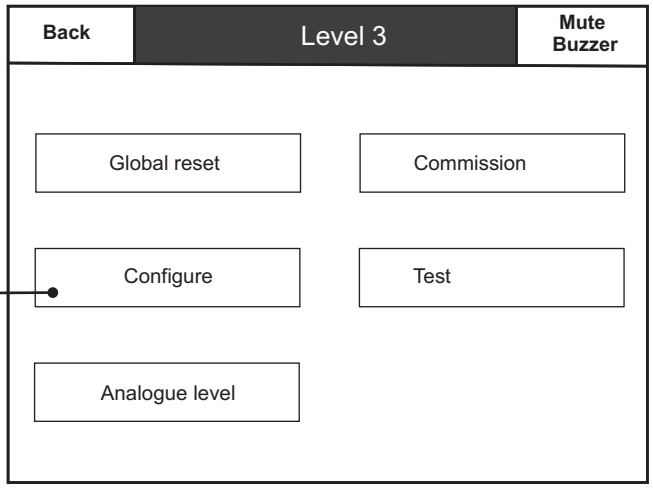
NOTE when new devices are added they need to be configured with test group, location text, battery type and battery quantity etc.

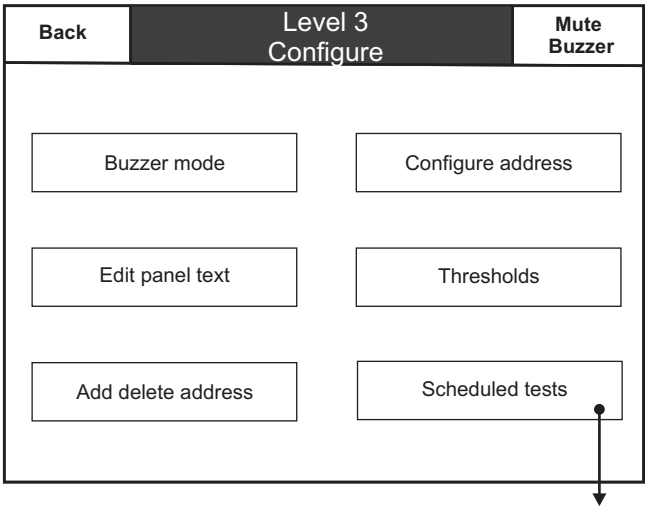


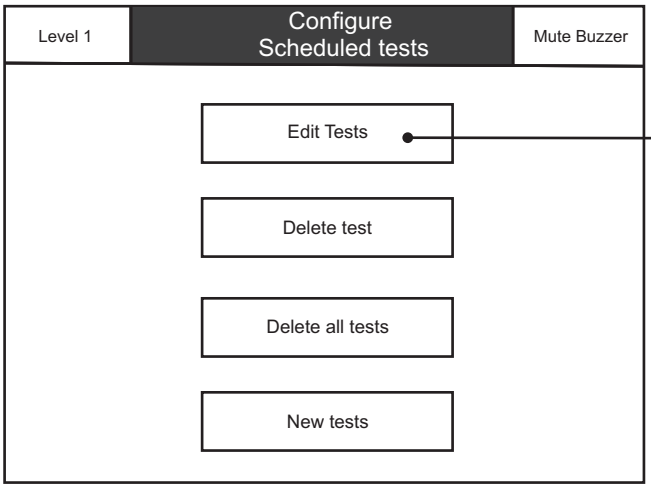
Touch a device to permanently delete it.

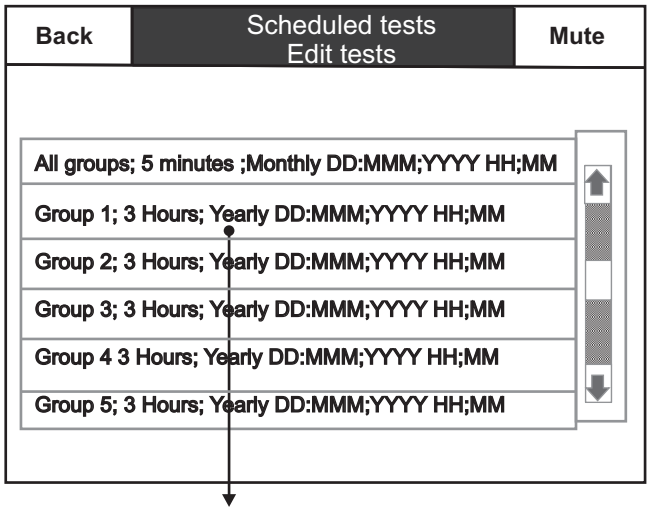
Level 3 (Configure - Scheduled tests - Edit)

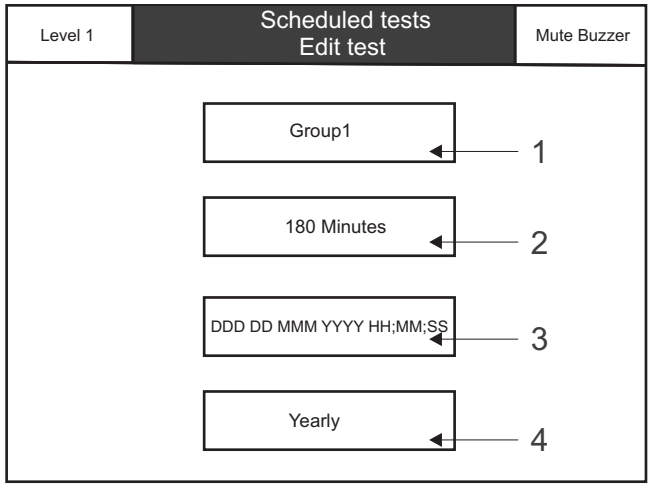
Easicheck allows extremely flexible configuration of test regimes to suit different requirements and preferences, use edit test to edit an existing test, use new test to add an additional test to the test regime.











1. Group allocation
Touch here to allocate which group(s) are included in the test, you can select global (tests all groups) or a specific group press back when finished to save and exit.

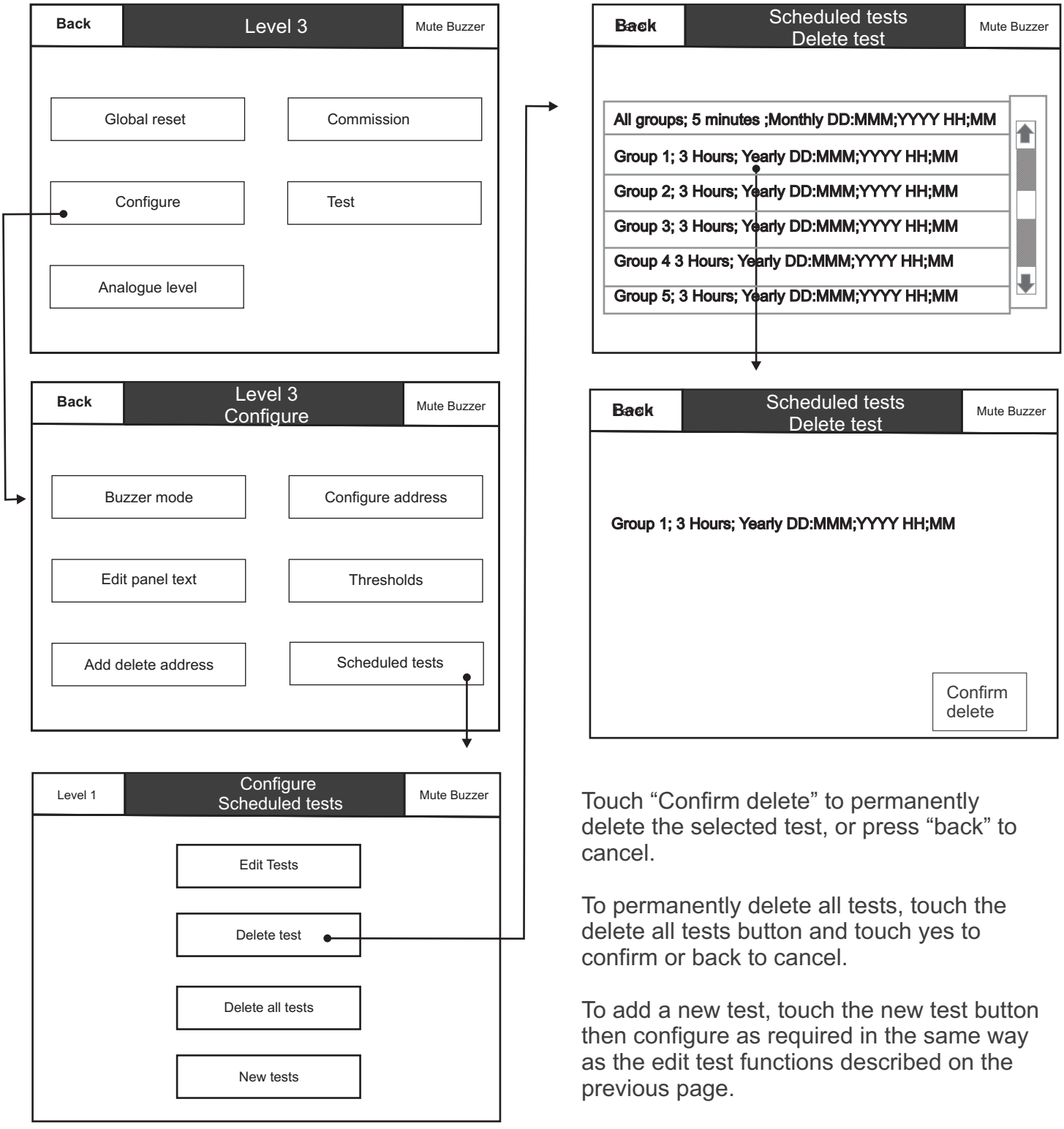
2. Duration
Touch to select the duration of the test, use the + / - buttons to increment / decrement by multiples of 1 hour or 5 minutes, touch“back” when finished to save and exit.

3. Start date
Touch here to select the date and time of the first instance of this test. press OK when finished to save and exit.

4. Interval
Touch here to specify the interval between successive instances of this particular test.
Touch units of time to select the desired time unit (one off, daily, weekly, monthly or yearly) then use the + / - buttons to select the number of intervals e.g. To conduct a weekly test, select days as the units of measure, then use the “+” button until the display reads “every 7 days” press OK to save and exit.

Level 3 (Configure - Scheduled tests - Add / Delete)

The Easicheck test regime can be reconfigured at any time by deleting unwanted tests and adding new tests as required, deleting of a test permanently removes it from the test regime.



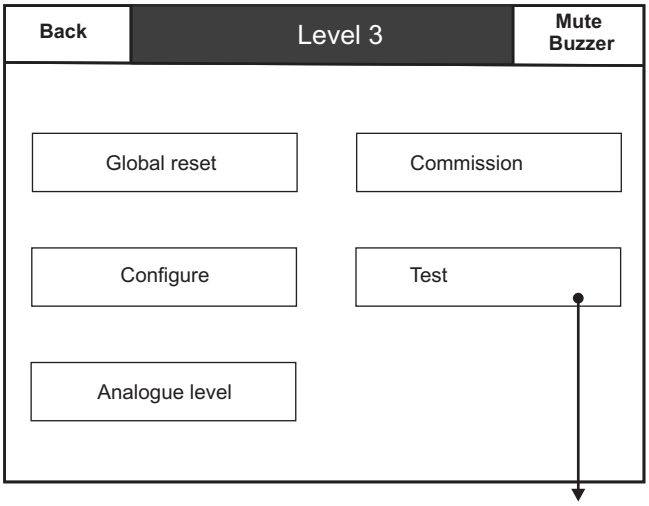
Touch “Confirm delete” to permanently delete the selected test, or press “back” to cancel.

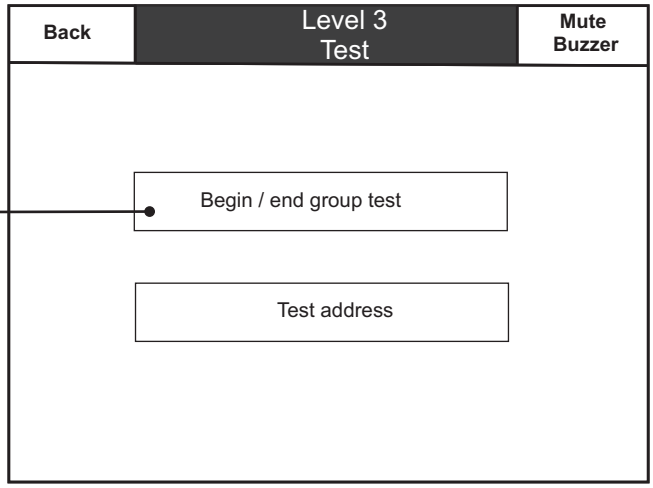
To permanently delete all tests, touch the delete all tests button and touch yes to confirm or back to cancel.

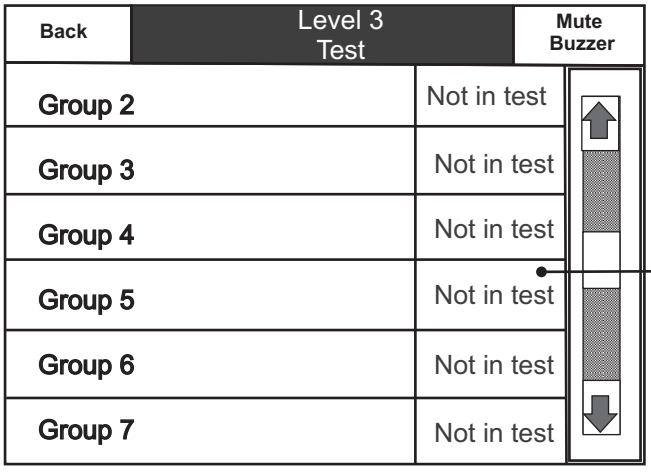
To add a new test, touch the new test button then configure as required in the same way as the edit test functions described on the previous page.

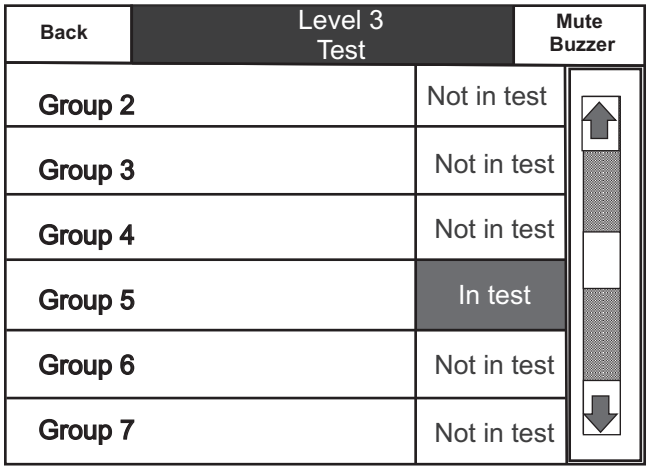
Level 3 (test - Group test)

In addition to the user defined automatic test cycles, it is also possible to manually instigate a test at any time.
This is useful after routine maintenance to confirm correct operation or to demonstrate correct operation of emergency luminaires if ever required.



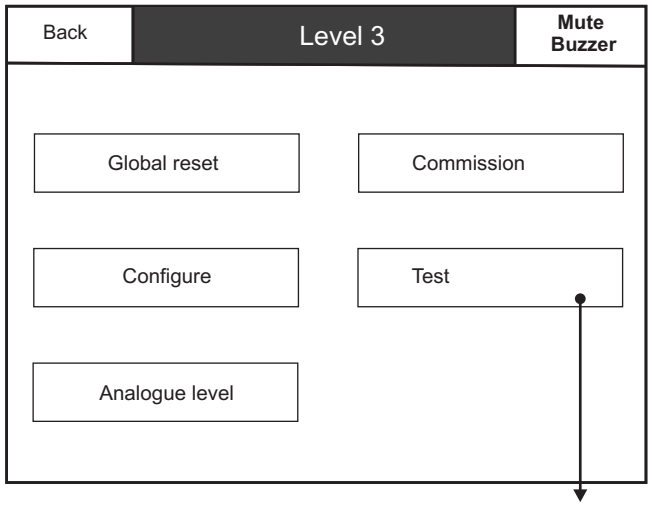


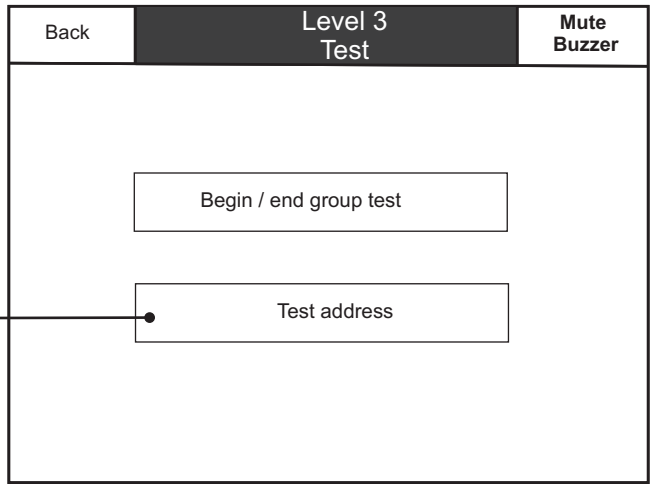


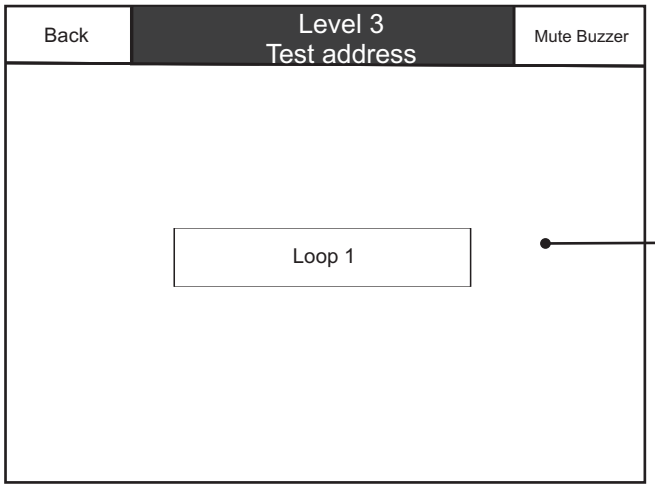


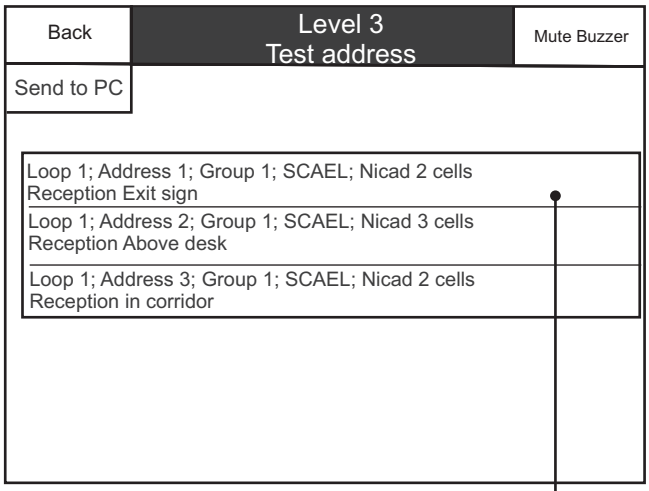
Touch the “not in test” button adjacent to a group to put this group into a manual test, touch again to terminate the manual test. Multiple groups can be put in test at the same time, simply select groups one at at time to start or end a test.

Level 3 (Test - test address)

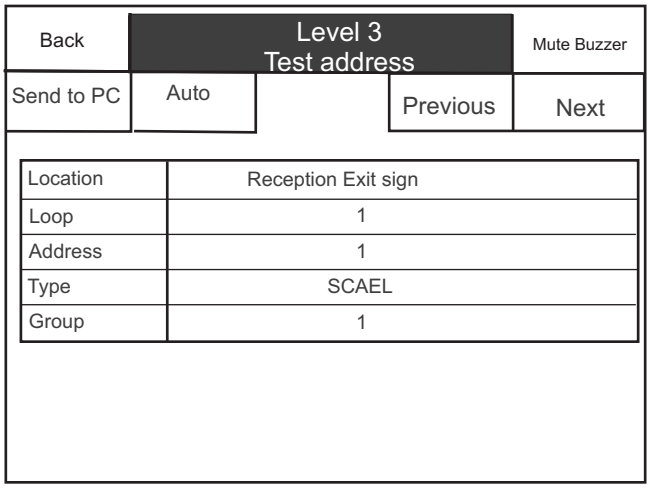








Touch any fitting to initiate a manual test.



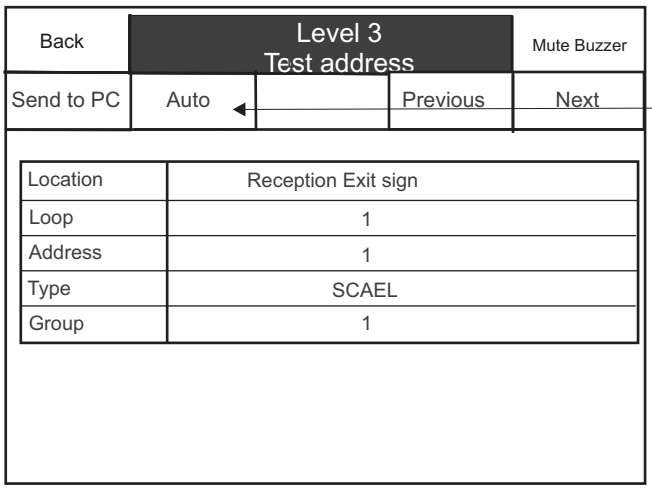
Use the Previous / next buttons to bring the current fitting out of test, and place the next / previous fitting into test.
Press back to take the current fitting out of test when finished. Instead of testing a single fitting or a group of fittings at the same time. It is possible to use the auto scroll function to sequentially scroll through a list of fittings (see overleaf).

Level 3 (Test)

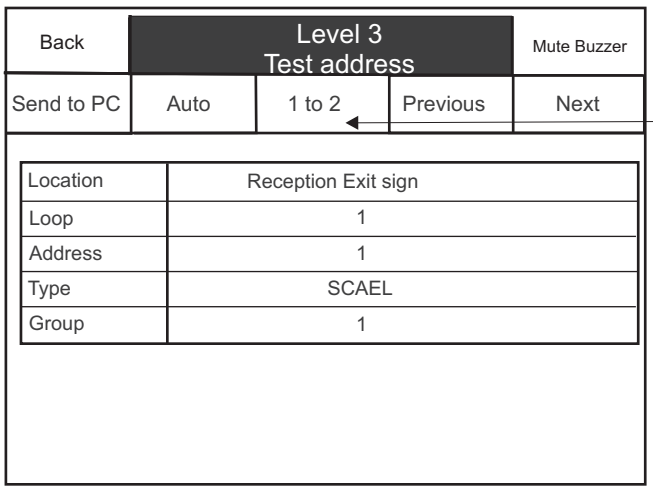
The Auto scroll function allows multiple consecutive fittings to be sequentially tested. This function is extremely useful to verify that the correct text and programming information has been allocated to specific addresses.
To activate autoscroll function:
1) Place the first fitting into test using the instructions on the previous page, then press the auto button.
Pressing the auto button will select the current fitting as the first fitting in the scroll loop.
2) The box at the side of the auto button indicate the fittings included in the current autoscroll loop. Each time you press the button labelled with the addresses in the current autoscroll loop, the next address will be added to the auto scroll sequence.

3) Press back to cancel the autoscroll sequence.

IMPORTANT NOTE
Frequent short term cycling of lamps can have a detrimental impact on lamp life and can cause premature ageing.
Do not use auto scroll for extended periods or repeatedly on the same group of fittings.

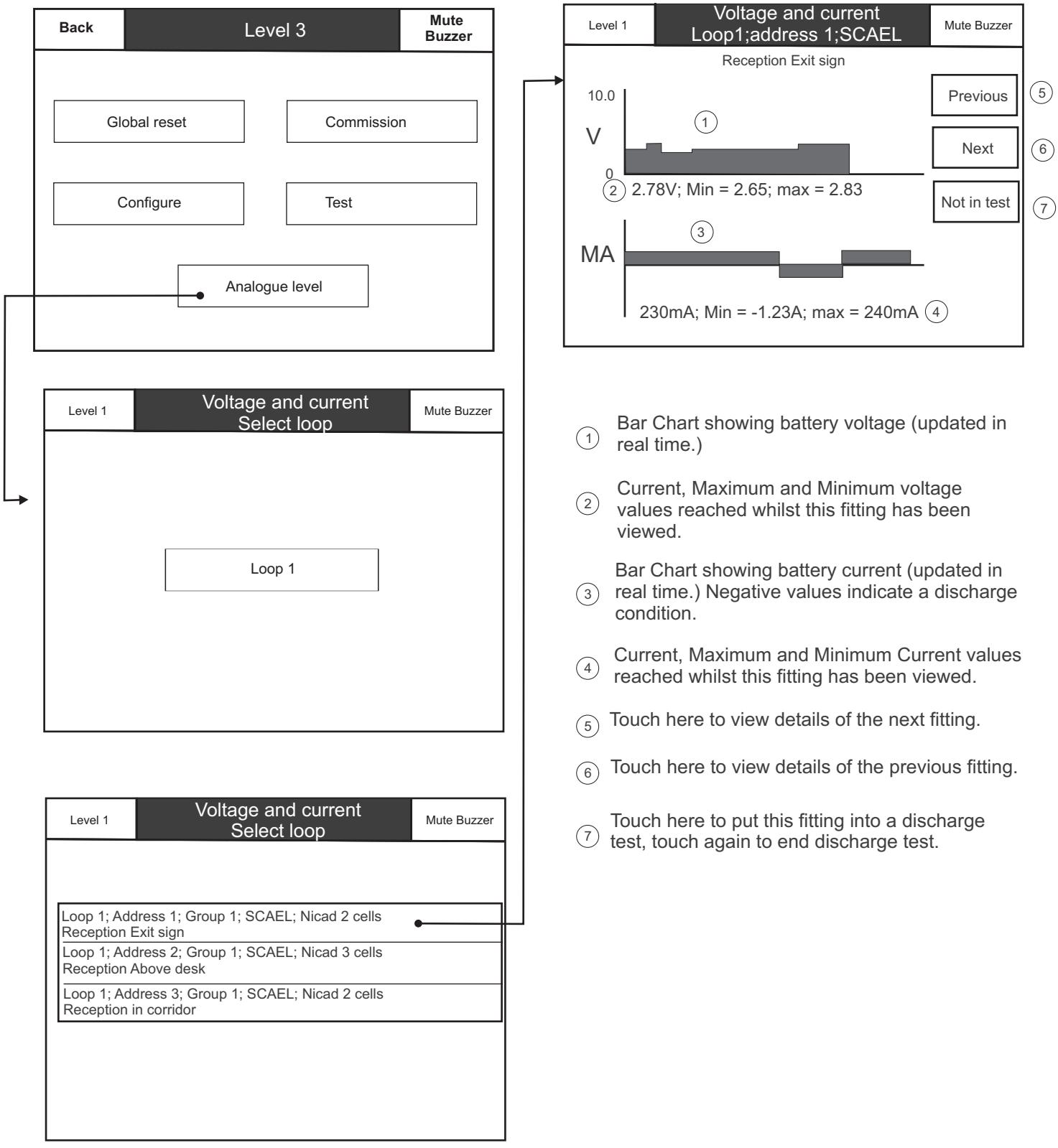


Press here to select the current fitting as the start fitting in the autoscroll sequence.



Press here to add the next addressed fitting to the auto scroll list

Level 3 (Analogue values)



1. Bar Chart showing battery voltage (updated in real time.)
2. Current, Maximum and Minimum voltage values reached whilst this fitting has been viewed.
3. Bar Chart showing battery current (updated in real time.) Negative values indicate a discharge condition.
4. Current, Maximum and Minimum Current values reached whilst this fitting has been viewed.
5. Touch here to view details of the next fitting.
6. Touch here to view details of the previous fitting.
7. Touch here to put this fitting into a discharge test, touch again to end discharge test.

Section 8

Appendix

Access control passwords

Access to various menus is controlled by passwords, this is to prevent unauthorised access to menus which could result in system malfunction or the deletion / corruption of site configuration data.
Access to levels 2 and 3 should only be available to suitably trained and competent personnel, it is strongly recommended that this password information stored in a secure location all activity carried out at the panel is stored in the event log which can only be reset by Cooper Lighting and safety personnel.

Level 2 password
The password to access level 2 is 2214.

Level 3 password
The password to access level 3 is 143243.

KEY POINTS

- Never carry out insulation tests on cables connected to electronic equipment.
- DO NOT OVER TIGHTEN TERMINAL CONNECTOR SCREWS.
- Always use the correct type of cables as defined in the current Easicheck installation planning guide.
- Always adhere to volt drop limitation when sizing cables.
- Always observe polarity throughout. Non colour coded conductors should be permanently identified.
- The Panel utilises intelligent soft addressing technology to greatly simplify the installation and commissioning processes. Once the system has been installed and the autolearn menu selected, the control panel will automatically scan the data loop and allocate each device with an address number corresponding with its position on the loop, this avoids the traditional need for manual addressing of the system devices which is time consuming and provides a potential for error.
- It is of vital importance that accurate details are kept of the exact wiring route in order to determine which address has been allocated to each device.