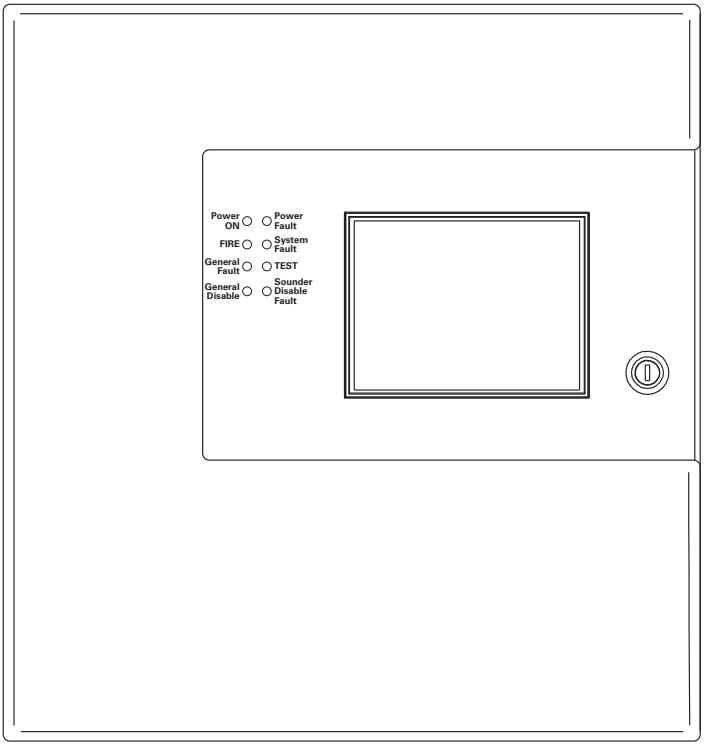
CF1100, CF1200

Installation and Operation Manual



Powering Business Worldwide

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EN54-4:1997 + A1:2002 + A2:2006

Contents

DOCUMENT UPDATE NOTES

S.No.	Release / Change Notes	Date
A	First release	January 2019
B	Second release	November 2020

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Important Safety Information

Personnel who install, maintain or repair this equipment must read the safety information below before starting work.

Definitions and Symbols

⚠ WARNING

Indicates a potentially hazardous situation which, if not avoided, can result in serious injury or death.

⚠ CAUTION

Indicates a potentially hazardous situation which, if not avoided, can result in minor to moderate injury, or serious damage to the product.

General Safety Precautions

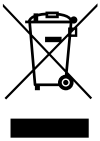
⚠ NOTICE

The operating system of the control panel may be revised as a result of enhancements to the system software or hardware. Revisions to this manual will be issued and supplied on request and should be logged in the table supplied on the contents page.

⚠ CAUTION

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF THE USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

This product must only be disposed of in accordance with the WEEE directive.



Section 1: System installation and design

Introduction

The Panel provides all of the sophisticated features required of a leading edge analogue addressable fire system along with the simple operation and neat installation demanded by installers and building users.

The panel can be flush or surface mounted and the generously sized metal back box allows ample facilities for rear or top cable entries.

The panels are available in either Single or Two Loop Configuration.

A loop connected and a network connected repeater panel is available (see equipment listing page 10).

A comprehensive range of ancillary devices is available to operate with the Panel, including Optical, photo-thermal and heat detectors, base mounted and stand alone sounders (including an IP67 version) a loop powered beacon and a wide range of input and output interfaces.

Each of the Panel system components has been specifically designed to operate as part of a Panel system, this provides an assurance that the panel, the detectors, the interfaces and the ancillaries are all fully compatible with each other and that the full range of system functionality is supported by each device.

Project planning

The following is a typical program and timetable for a Panel installation project, once the initial order has been received:

1. Project meeting

Installer and user to be present; system specifications, schematic diagram and proposed circuit drawing to be available. Panel Installation & Commissioning Guide to be provided.

2. Equipment fix

Typically 2 week's notice is required for equipment to be delivered. Cable to be installed and bases/back boxes to be fitted. Then fire detectors, call points, alarm sounders, isolator units and interface units to be installed.

3. Address schedule

Schedule of sensor locations to be completed by installer and returned to enable System programming.

4. Auto learn

Fire panel/repeater panels to be installed and terminated. System to be powered up by installer and auto learn mode activated (see Auto Learn section). System to be tested and verified by installer, prior to final commissioning.

5. Final commissioning

Minimum 2 weeks notice is required from receipt of Address Schedule and Commission request form. Eaton Lighting Service Engineer to attend site implement/ oversee the final commissioning procedures (see Commissioning section), in conjunction with the installer.

System design guidelines

Guidelines

Systems should to the relevant local standards and codes of practice, for the UK this is BS5839 part 1. The panel meets all the relevant requirements of BS5839 part 1: 2002. Installation planning is simplified by the fact that every addressable device contains an integral short circuit isolator. Care must be taken to ensure that local standards requirements regarding aspects such as loop coverage, area covered by a single spur and cable specification are observed.

There may be certain applications in which deviations from the code may be necessary and these must be listed on the commissioning certificate. (See commissioning section).

Loop lengths

The maximum permitted loop length is 2 km measured from the near to the far terminals on Panel Motherboard PCB. There is no minimum limit to loop length. Any wiring spurs off the loop must be included within the 2 km limit. On long loop runs, the lengths of wiring rises and falls (between floors, down to manual call points) must be included. Remember to include these especially when taking loop lengths from plan drawings.

Loop loading - total number of addresses

The total number of addresses per loop is 200. This includes sensors, call points and all other addressable items (e.g. interfaces, loop repeaters etc.) When designing systems its recommended that allowances are made for future expansion, Short circuit isolators are incorporated into every loop device, including Smoke sensors, heat sensors, sounders, callpoints and interfaces. 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 cease to function.

Loop connected repeater panels

Each repeater unit requires one address and consumes no more current from the loop than a smoke sensors. The repeater also requires a local mains supply and incorporates battery backup.

Loop loading system verification

Loop load calculations should be carried out prior to instillation.

Compatible equipment:

Order code	Description	Dimensions (mm)
CF1100	1 Loop Addressable Panel	375H x 357W x 50D
CF1100NC	1 Loop Addressable Panel c/w Network Card	375H x 357W x 50D
CF1200	2 Loop Addressable Panel	375H x 357W x 50D
CF1200NC	2 Loop Addressable Panel c/w Network Card	375H x 357W x 50D
400002FIRE-0002X	Addressable Optical Sensor (CAP320)	101 Dia x 33D
400003FIRE-0003X	Addressable Heat Sensor (CAH330)	101 Dia x 33D
400004FIRE-0004X	Addressable Photo Thermal Sensor (CAPT340)	101 Dia x 33D
MAB50R	Addressable Beam Detector (50m)	210H x 130W x 120D
MAB100R	Addressable Beam Detector (100m)	210H x 130W x 120D
CAB300	Addressable Sensor Base	104 Dia x 22D
CAS380	Addressable Sounder Base	120 Dia x 40D
CAS380AU	Addressable Australian Sounder Base	120 Dia x 40D
CASBB384	Addressable Sounder Beacon Base	115 Dia x 44D
CASBB384-B	Addressable Bell Tone Sounder Beacon Base	115 Dia x 44D
CASBB394	Addressable VAD Sounder Beacon Base (Open Class)	115 Dia x 44D
CIR301	Conventional Remote Indicator (Connects to Detector)	87H x 87W x 30D
CIR301WP	Conventional Weatherproof Remote Indicator (Connects to Detector)	87H x 87W x 30D
MRIAD	Addressable Remote Indicator	87H x 87W x 49D
CBG370S	Addressable Callpoint	87H x 87W x 57D
CBG370WP	Addressable Weatherproof Callpoint	87H x 87W x 59D
CAS381	Addressable Wall Sounder	105H x 105W x 95D
CAS381WP	Addressable Weatherproof Wall Sounder	108H x 109W x 103D
CAS381AU	Addressable Australian Wall Sounder	105H x 105W x 95D
CAS381AU-WP	Addressable Australian Weatherproof Wall Sounder	108H x 109W x 103D
CAB382	Addressable Beacon	95 Dia x 53D
CASB383	Addressable Wall Sounder Beacon	105H x 105W x 95D
CASB383-WP	Addressable Weatherproof Wall Sounder Beacon	108H x 108W x 103D
CASB393	Addressable Wall VAD Sounder Beacon	105H x 105W x 95D
CASB393WP	Addressable Weatherproof Wall VAD Sounder Beacon	108H x 108W x 103D
CGI420	Addressable 4-20mA Interface	130H x 180W x 60D
CGI420R	Addressable 4-20mA Interface with Relay	130H x 180W x 60D
CSC354CPR	Addressable 4-Way Sounder Controller	300H x 300W x 74D
CZMU352	Addressable Zone Monitor Unit	88H x 147W x 57D
CZMU352-IS	Addressable Zone Monitor Unit (Intrinsically Safe)	88H x 147W x 57D
MSU840	Addressable Shop Unit Monitor	88H x 147W x 57D
CSI350	Addressable Spur Isolator	88H x 147W x 57D
CMIO353	Addressable Mains Relay	130H x 180W x 60D

Order code	Description	Dimensions (mm)
CIOP4	Addressable 4 Way Mimic Relay Board (4 In, 4 Out)	180H x 254W x 90D
CIOP8	Addressable 8 Way Mimic Relay Board (4 In, 8 Out)	180H x 254W x 90D
CIOP-7273	Addressable Door Release Module	130H x 180W x 60D
CIO351	Addressable 3 Channel I/O Unit (Reset on Reset)	130H x 180W x 60D
CIO351S	Addressable 3 Channel I/O Unit (Reset on Silence)	130H x 180W x 60D
CIO351SST	Addressable 3 Channel I/O Unit (Triple Address)	130H x 180W x 60D
400008FIRE-0022X	Addressable Micro Input Module (MCIM)	65H x 35W x 18.5D
400010FIRE-0024X	Addressable Micro Output Module (MCOM)	65H x 35W x 18.5D
400011FIRE-0025X	Addressable Micro Output Module (MCOM-R, Reset Pulse)	65H x 35W x 18.5D
400012FIRE-0026X	Addressable Micro Output Module (MCOM-S, Sounder ID)	65H x 35W x 18.5D
MIU872	Addressable Micro Zone Monitor Unit	65H x 35W x 18.5D
MAR724	Heavy Duty Relay	88H x 147W x 57D
ZPCB2252-MML	Addressable Master LED MIMIC	190H x 350W x 75D
ZPCB2252-MSL	Addressable Slave LED MIMIC	190H x 350W x 75D

Equipment compatibility

Sensors

Loop wired sensors must be of the Eaton soft addressed analogue type. Eaton conventional detectors can be connected via a Zone Monitor Unit or Shop Unit interface. The connection of other detector types via a Zone Monitor Unit or Shop Unit interface is not recommended,

Call points

Loop wired call points must be the Eaton series soft addressed analogue type, Eaton series conventional callpoints can be connected via a Zone Monitor Unit or Shop Unit interface.

The connection of other callpoint types via a Zone Monitor Unit or Shop Unit interface is not recommended,

Sounders

Loop powered addressable sounders must be of the Eaton series soft addressed analogue type.

Conventional sounders can also be connected either to the conventional sounder circuits at the panel or to the loop via an addressable sounder controller interface providing they meet the following:

1. They are suitable for operation between 18V and 28V.
2. They are polarised and suppressed.
3. The total alarm load is less than the rating of the panel / Alarm Power Interface.

Note: It is possible to use devices outside these requirements if they are supplied with power from a separate source and switched via a suitable relay.

Relay circuits

There are Relay circuits built-in the standard Panel. Additional relays can be added to the system by using Eaton soft addressing, Single Channel or 3 Channel Input/ Output Units.

Relays/Auto-dialers and auxiliary equipment

A wide variety of relays and other equipment can be connected to the system, but you should note the following constraints:

1. The Panel provides monitored outputs to drive fire and fault relays mounted in external equipment. External relays should be suppressed. If a non-suppressed relay is used then a diode can be connected as shown in the wiring diagram in the appendix, to suppress any reverse EMF on the release of the relay which might cause the panel to malfunction.
2. A 24V DC output is provided at the panel to make it easy to connect ancillary equipment. Although the panel can supply a continuous quiescent load of up to 30mA, BS5839 precludes this practice and any ancillary equipment you connect should only consume power in the alarm or fault mode to meet the requirements of BS5839.

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

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.

Comprehensive context sensitive help information is provided throughout the menus to assist unfamiliar users with system 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.

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.

User configuration and maintenance facilities

The Panel has comprehensive facilities for on site system configuration, whereby the user can add or remove simple 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 Eaton Lighting and Security personnel to do this more efficiently than can be achieved using the system screen. Exiting configurations can be uploaded to the PC so that changes can be made to the existing system rather than having to revert to initial files.

Sophisticated sounder control facilities

The Panel has the ability to support highly complex ringing pattern requirements. Multistage cause and effect programming is possible whereby each addressable sounder or output interface can be programmed independently if required and can be set to respond to specific addresses, specific detection zones, specific panels on a networked system or standard global ringing.

The panel supports three separate sets of programming per sounder and each stage can be triggered differently For example, if a single detector is triggered the panel can be programmed such that the sounder nearest to the detector operates immediately and continuously, the remaining sounders in the affected zone operate in pulsed mode and the other sounders delay for a selectable period to allow the cause of the alarm to be investigated before global ringing commences.

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 detection 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 analogue 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 analogue device incorporates an integral short circuit isolator ensuring maximum system integrity. A single short circuit will not disable 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. Please refer to local standards e.g. BS5839 Pt1:2002 for details of the maximum allowable are to be covered by a single spur.

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.

Multiple languages

The Panel supports a large number of languages as standard.

Technical specification

Power specification

Mains Fuse : 1.6A Slow Blow

Nominal Voltage : 230 Vac + 10%, -15%

Nominal Current : 75mA

The Panel is protected by an internal thermal device, this requires no maintenance.

Batteries

Number of Batteries : 2

Manufacturer: : YSP12-7

Capacity : 7 Ah

Battery Fuse : 4A Quick Blow (F4)

Maximum battery current; : 3.5 Amps

Inputs

Addressable Loops

Max Number : 1 or 2 (Panel depending)

Max Loop Load per loop : 350 mA

Max Number of Addressable Devices per loop : 200

Class Change : Operated by external volt free contact

Outputs

Conventional sounder circuits

Number of sounder circuits : 2

Total sounder Load : 1.5 Amp

Sounder Circuit Fuses (F1/2) : 1.6 Amp (Quick Blow)

End of line device : 210Ω + Diode

AUX 1

Max Load : 1 Amp

Fused (PTC2) : 1.1A polyswitch

AUX 2

Max Load : 60 mA

Fused (PTC3) : 1.1A polyswitch

Fault routing equipment

Max Load : <10 mA

Fused (PTC1) : 100mA polyswitch

End of Line resistor : 2K

Auxiliary 24V supply

Nominal Voltage : 24 Volts ±10%

Fuse (PTC5) : 100 mA Polyswitch

Maximum current : 30 mA

This output is not to be used for Fire protecting equipment or Fire alarm routing Equipment.

Any power taken from the alarm system will effect the standby duration.

Mechanical specification

Weight including batteries : 9 Kg

Weight excluding batteries : 4 Kg

Dimensions (Standard batteries) : 395mm(L) x 270mm(H) x 115mm(D)

Type of Material (backbox) : Mild Steel (Power Coated)

Type of Material (Facia) : PC/ABS

Flammability Rating : UL 94 V0

Total Number of knockouts : 11

Diameter of Knock out : 20mm

TERMINAL BLOCKS : DO NOT USE EXCESSIVE FORCE WHEN TIGHTENING THE SCREWS ON THE TERMINAL BLOCK

Optional functions as per EN54 P2&4

The Panel is Designed to the requirements to EN54 Parts 2 & 4 including all the following options which can be selected as required.

Panel outputs

Panel Sounders: (OPTION 7.8 EN54 PT 2).

Two Sounder outputs are provided. ONLY polarised equipment should be used.

Ensure the polarity of the connections are observed at all times and end of line device are fitted for correct operation.

The total alarm load across all sounder outputs = 1.5 Amp.

All outputs are fused with 1.6 Amp Glass fuse Alarm devices should be spread equally across the 2 sounder circuits.

⚠ WARNING

Do not exceed the rated output current.

Output to fault warning routing equipment (Option 9.4.1C EN54 pt 2)

This output, which is fused and monitored using 2k0 end of line resistor, is used for the transmission of fault signals to fault warning routing equipment This output is monitored using 2k0 end of line resistor and it current limited to 30 mA. Under normal condition it operates by providing 12vdc which can be connected directly to a 12v auxiliary device(relay).It is current limited to 30 mA.

Under fault conditions or even if the Panel is powered down, this output will be switch to O volts. Ensure the polarity of the connections is observed at all times and end of line resistors (2K0 5%) are fitted for correct operation.

Delays to outputs (Option 7.11 of EN54 pt 2)

The Panel has the option to delay the operation of panel sounders, the fire routing equipment output and the fire protecting Equipment. This delay is selectable using the site installer download software. The delay is configurable in increments of 1 minute up to a maximum of 10 minutes. This delay can be enabled and disabled at access level 2.

The Panel has the facility for a specific call point to override this delay by programming this call point via an input interface to provide an evacuate signal using site Installer.

Coincidence detection (Option 7.12 of EN54 pt 2)

The Panel has the facility to inhibit the operation of the output sounders, Output to Fire routing equipment and the output of the fire protecting equipment until one more confirmatory signals are received from different zones. This feature is programmable using Site Installer Software.

Alarm counter (Option 7.13 of EN54 pt 2)

The Panel has provision to record the number of instances that the CIE enters the fire alarm condition.

The information is available at access level 2.

TEST (Option 16 of EN54)

The Panels equipped with the test option and can be implemented by either Zone or Address.

Alarm verification

The Panel has the facility for global alarm verification where the detector alarm decision is integrated over 30 seconds.

Cable & wiring

Only the cable types listed below are allowable for loop connections.

1. Enhanced Fire TUF™
2. Fire TUF™
3. FP200
4. MICC

When choosing your preferred cable type, you must take note of the following cable and wiring requirements.

1. The cable must be 2 core screened with an over sheath.
2. Maximum loop length with any of the above cables is 2KM.
3. Maximum volt drop must be limited to 7 volts.
4. The conductors should be 1.5mm minimum.
5. Multicore cable should not be used for detector wiring.
6. Different loops should NEVER be run within the same cable.
7. Loop feeds and returns should never be used within the same cable.

Cable resistance

Core diameter	Typical FP200 resistance
1.0mm²	18.1 Ohms/km/Core
1.5mm²	12.1 Ohms/km/Core
2.5mm²	7.41 Ohms/km/Core
4.0mm²	4.61 Ohms/km/Core

Installation

The panel should be installed in a clean, dry, reasonably well ventilated place, and not in direct sunlight. Temperatures in excess of +45°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, and the fire services, ideally on the perimeter of a building near a permanent entrance. 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

1. Never carry out insulation tests on cables connected to electronic equipment.
2. DO NOT OVER TIGHTEN TERMINAL CONNECTOR SCREWS
3. Always use the correct type of cables specifically designed for the operation of fire detection and alarm circuits.
4. Always adhere to volt drop limitation when sizing cables
5. Always observe polarity throughout. Non colour coded conductors should be permanently identified.
6. Screen continuity must be maintained throughout the entire loop circuit including at each junction point and at each device, terminals are provided on each device to facilitate this.
7. The screen should be earthed at the connection point provided at the Panel and not at any other point. Both the loop start and the loop end must be connected to the appropriate earthing points.

Care must be taken to avoid connecting the screen to the earthed body of any metal devices, enclosures or cable containment. The screen or drain wire of the loop cables should not be considered as safety earth and therefore should not be connected to terminals marked with the earth symbol, except at the panel, and should not be insulated with green and yellow sleeving.

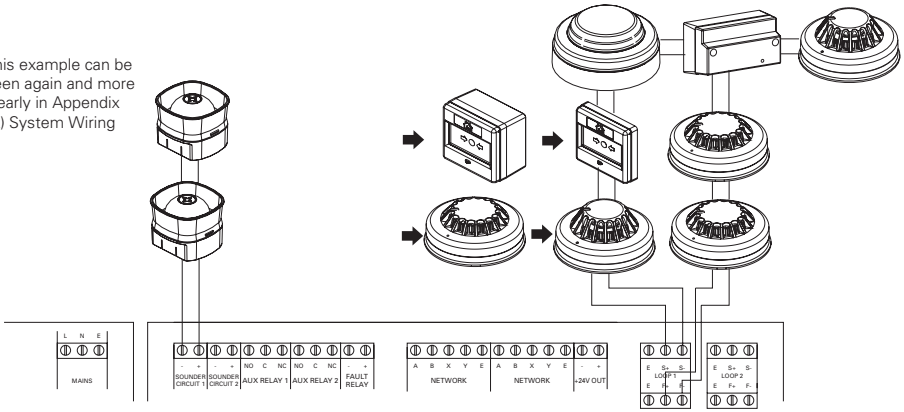
8. The Panel utilises intelligent soft addressing technology to greatly simplify the installation and commissioning processes. Once the system has been installed and the autolearn menu selected, the control panel will automatically scan the detection loops and allocate each device with an address number 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.

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 IEE wiring regulations and with BS5839 part 1 2002.

The electronic components within the fire panel are Static Sensitive.

This example can be seen again and more clearly in Appendix (A) System Wiring



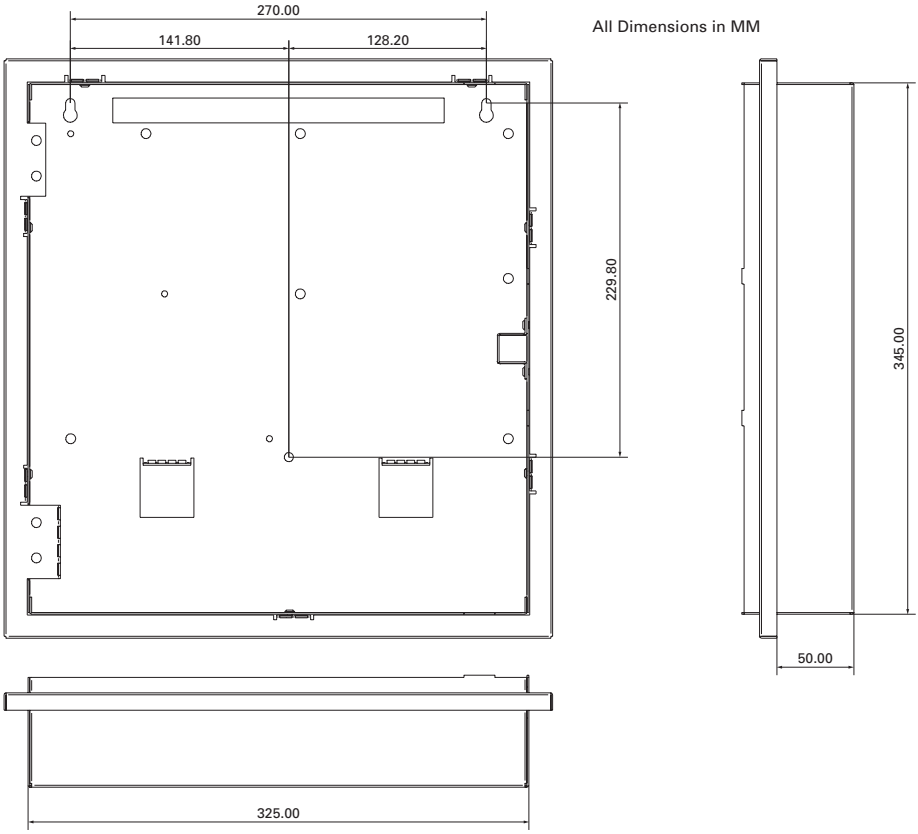
Do not touch the electronics directly.

Mounting the Backbox

The Panel can be surface mounted and 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.



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 fire alarm system. The cover should be coloured red and labelled "FIRE ALARM - DO NOT SWITCH OFF". The isolating protective device should be secure from unauthorised operation and ideally installed in a securely closed box with a breakable cover.

An additional warning label should be provided, depending on whether:-

a. The isolating protective device is fed from the live side of the main isolating device in which case the label on the isolating protective device, should read in addition

⚠ WARNING

"This supply remains alive when the main switch is turned off".

A further label should be placed on the main isolating device reading

⚠ WARNING

"The fire alarm supply remains live when this switch is turned off".

Or

b. If the isolating protective device is fed from the dead side of the main isolating device, a label should be fixed to the main isolating device reading.

⚠ WARNING

"This switch also controls the supply to the fire alarm system".

Distributed power supplies

The above also applies to any distributed power supply (i.e. mains connections for Repeater Panels, Sounders Controller Units, etc.).

Cable segregation

All cables for the fire alarm system should be segregated from any other cables/ wiring/services.

Wiring configurations

Spurs can be taken off the loop in the following ways:

1. The Zone Monitor Interface - Allows up to 20 conventional smoke detectors and unlimited Eaton call points.
2. The Spur Isolator Unit - Allows a zone of analogue Sensors and call points to be directly spurred off the loop.

Networking

Up to One Hundred & Twenty Six Panels or repeaters 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 fire and fault event information is displayed at every panel, silencing and resetting of alarms can also be carried out from any panel on a networked system if panels are suitably configured.

Networked Can be connected as loops or radial.

Networked panels can be used as active repeaters, alternatively a low cost passive repeater is available.

This can either be connected a loop of an individual panel or it can be connected to the network.

The recommended network cable for the network connection between panels is an enhanced Firetuf cable Manufactured by Draka cables (part number 910234.) Screen continuity must be maintained throughout the entire network circuit including at each junction point. The screen should only be earthed at the connection point provided at the first panel and not at any other point. The screen or drain wire of the network cable should not be considered as a safety earth and therefore should not be connected to terminals marked with the earth symbol, except at the panel, and should not be insulated with green and yellow sleeving.

Where the network cable passes between buildings, screen continuity should not be maintained from building to building. A booster device must however be used irrespective of cable length and should be fitted at a suitable point in the link between buildings. The cable screen should be connected to the earth of one panel in each building. 102 ohm terminator should be fitted at the beginning and the end of the network. If the distance in the network exceeds 1KM the booster should be used. The booster requires 24V local supply, which can be connected to nearest Addressable Panel.

Input/outputs

Panel outputs

Panel Sounders: (OPTION 7.8 EN54 PT 2)

Two pairs of outputs are provided. ONLY polarised equipment should be used.

Ensure the polarity of the connections are observed at all times and end of line resistors & Diodes) are fitted for correct operation.

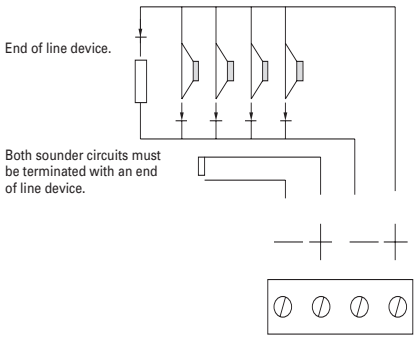
The total alarm load across all sounder outputs = 1.5 Amp

All outputs are fused with 1.6 Amp Glass fuse Alarm devices should be spread equally across the 2 sounder circuits.

⚠ WARNING

Do not exceed the rated output current.

All sounders must be polarised



OUTPUT TO FAULT WARNING ROUTING EQUIPMENT (OPTION 9.4.1C EN54 PT 2)

This output, which is fused and monitored using 2k end of line resistor is used for the transmission of fault signals to fault warning routing equipment. This output is monitored using 2k0 end of line resistor and it current limited to 30 mA.

Under normal conditions it operates by providing 12vdc which can be connected directly to a 24v auxiliary device
(relay).It is current limited to 30 mA.

Under fault conditions or even if the Panel is switched off, this output will switch to 0 volts. Ensure the polarity of the connections is observed at all times and end of line resistors (2k0 5%) are fitted for correct operation.

Auxiliary Relay (OPTION NOT REQUIRED BY EN54)

This output is a volt free contact, which is protected by a polyswitch. It is rated at 24 Volts 1Amp. If operated under a fire alarm condition , this output will remain energised until the fire alarm is reset.

AUXILIARY DC OUTPUT (OPTION NOT DEFINED BY EN54)

A 24 Vdc output is provided. This output is protected by a polyswitch. This output can be used to power fire or fault auxiliary equipment. Please ensure that all equipments connected to this output will only draw current when a fire condition exists.

⚠ WARNING

Do not exceed the rated output current.

Maintainance

Functions: See User Manual for full details.

Daily inspection

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

Weekly test

Check indicators.

Press Supervisor mode on the top left of the touch screen. Enter passcode. Select "others" tab. Press the button labeled weekly test, confirm you wish to perform the test and the amber "System Test" LED will light. The panel will stay in the weekly test mode for 5mins before resetting. During the weekly test, trigger a smoke detector or call point and check the fire panel registers the device and illuminates the correct zonal indicator. Trigger a different device every time a weekly test is performed ensuring devices are tested in rotation until all have been checked. It is advisable to develop a detailed a building plan highlighting devices and locations to aid testing. The panel will reset automatically once the 5mins have elapsed. If no devices are triggered during the weekly test the panel will abort the test and reset after 5mins. Record weekly test in the table provided in this log book.

Quarterly

Check all previous log book entries and verify that remedial action has been taken. Carry out the weekly test. Visually examine the batteries and their connections, by loosening the screws behind printer door and opening the hinged front from the right hand side.

Disconnect the mains supply and check that the battery is capable of supplying the alarm sounders, by operating a call point.

Annual test

As Weekly Test and Quarterly Test above. Additionally test all sensors and call points and check operation.

Every 2-3 years

Replace or return the smoke detectors for cleaning to ensure correct operation and freedom from false alarms. Special equipment is required for cleaning smoke detectors.

Every 5 years

Replace sealed lead acid battery.

Cleaning: When cleaning the panel, use a moist cloth. Do not use solvents or harsh abrasives.

Section 2: Commissioning

Commissioning mode

Walk test mode allows a single engineer to test the various detectors and call points on a system without always having to return to the panel either to reset the system or silence the alarms. When in COMMISSIONING MODE, the system operates as normal except that when a detector or call point goes into alarm, the alarms only operate for a few seconds and then will silence. After a full test has been carried out the engineer can check the order in which the detectors/call points were operated using the DISPLAY LOG mode. This information can also be printed on the optional printer.

For details of how to access commissioning mode, please refer to page 36

When the panel is in "Walk Test Mode" the control panel inserts a different code into the log and also onto the print-out. This is to distinguish between when a device has been tested in "Walk Test Mode" and when a device has been triggered while in normal operation.

The following differences will occur:

a. When in the LOG mode, "One man walk test" will appear on the display followed by the address text and device type.
b. On the printout a "One man walk test" message will appear will appear followed by the address text and device type.
c. During a real fire "FIRE !" Will appear on the display followed by the address text and device type.

Configuration

Db level check

Panel includes the facility to test and set the system sounders with the minimum amount of disturbance. In sounder test mode, the sounders will sound for 30 seconds on then 30 seconds off. This facility can be accessed via the engineering menu.

Detector LED flashing

The Panel Sensor flashing function is used to allow a visual inspection and confirmation that the fire panel is in communication with the installed system devices. This facility can be accessed via the engineering menu and can be switched on or off at any time as required.

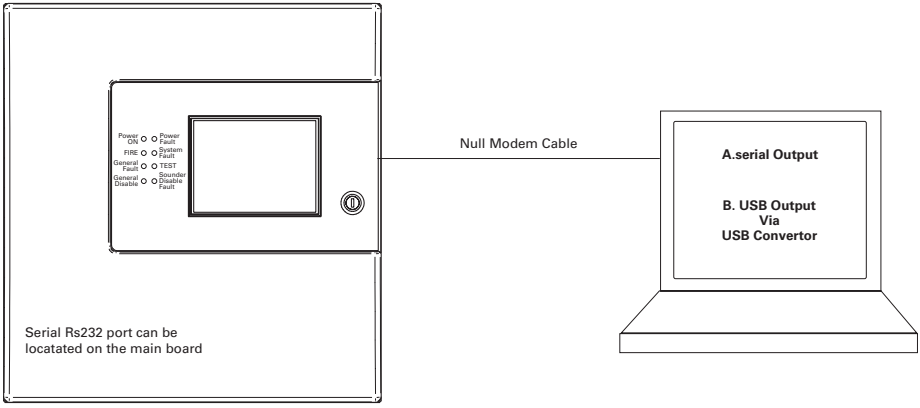
Up/downloading using PC software

The PC Software enables the address, location text, device type and any comments to be downloaded to the panels.

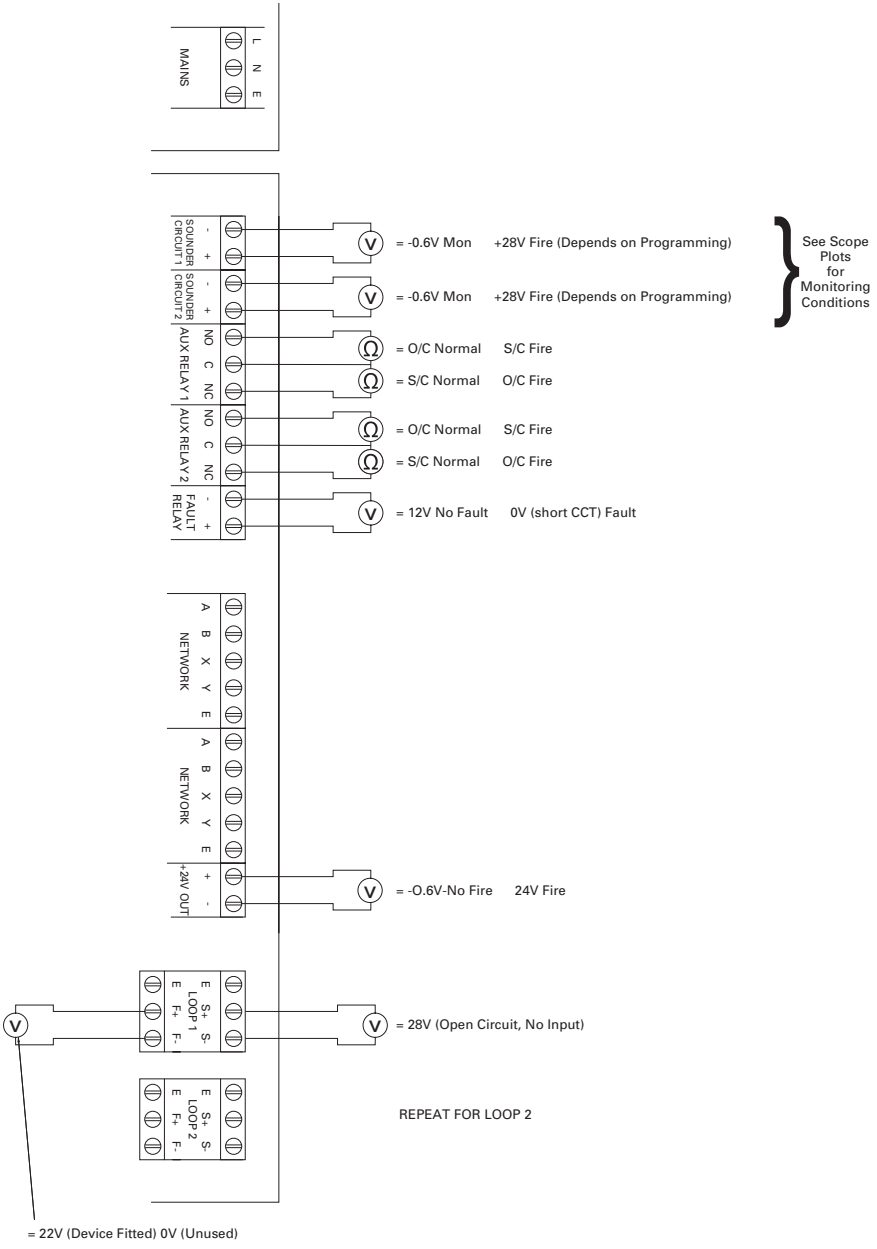
The software can download to all 126 networkable Panels.

The PC is connected to each Panel on the network in turn.
All data for the Panel is downloaded.

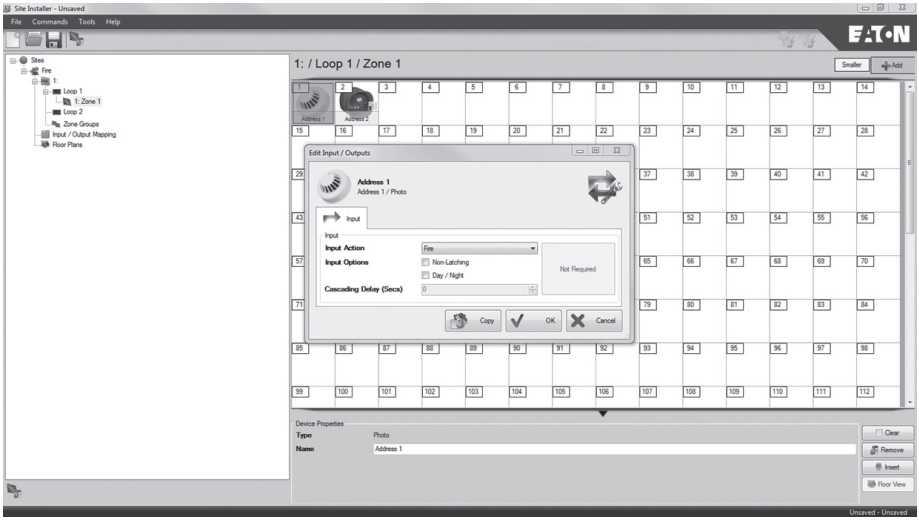
For networked systems, panels are identified by panel number, P1, P2 etc.



Panel fault finding



PC comissioning software



Device input programming

Fire	Panel reports fire from device.
Fault	Panel reports fault from device.
Reset	Panel resets.
Silence	Silence all currently active sounders.
Pre-alarm	Panel reports pre-alarm from device.
Evacuate	Panel will send all alarm
Fire/extinguisher activate	Fire/extinguisher output will operate
Fre activate	Fre operates
None fire	Event will be logged but not displayed (cause and effect will operate)
Test mode	System in test
Isolate zones	Isolate programmes zones
Isolate addresses	Isolate programme addresses

Non-Latching-> device won't latch in alarm condition, used in conjunction with isolates.

Day / night

Devices affected :

Optical-Heat -> mode changes between heat or optoheat mode

Heat -> mode changes between Heat A1R and Heat CS

Isolate zone/address

User can define between zones or addresses to be isolated on activation of the device. The isolate list button enables the user to enter upto 8 unique zones or addresses. If non-latching has been enabled, Isolated devices can be un-isolated as the triggered device returns to normal operation. (a call point keyswitch is an example for this application).

Device outputs

Delay configuration

The output of a device when triggered can be delayed - based on a user defined value in minutes.

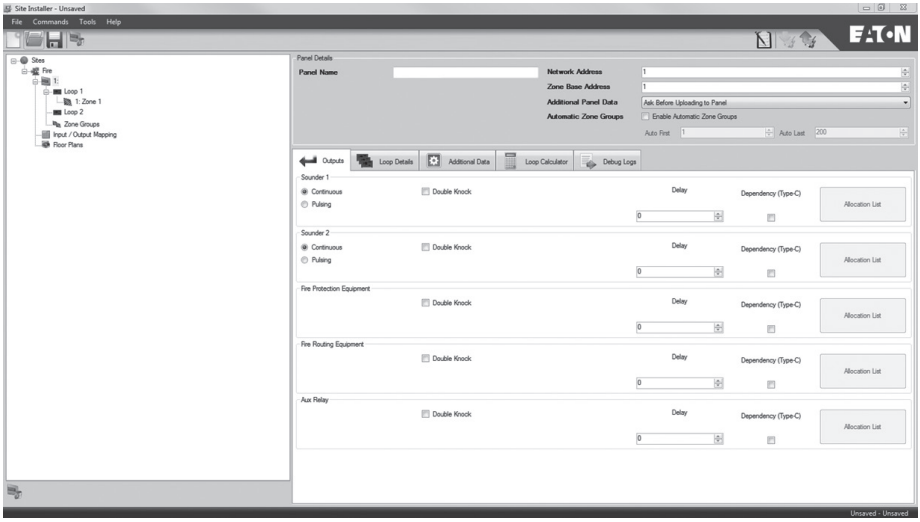
This programming option is enabled when a value other than zero is entered inside the 'Delay' window.

MCP Override

This option is a manual intervention override, when enabled (check in box) the delay can be overridden from any call point on the loop when triggered.

Daynight

See coincidence detection below.

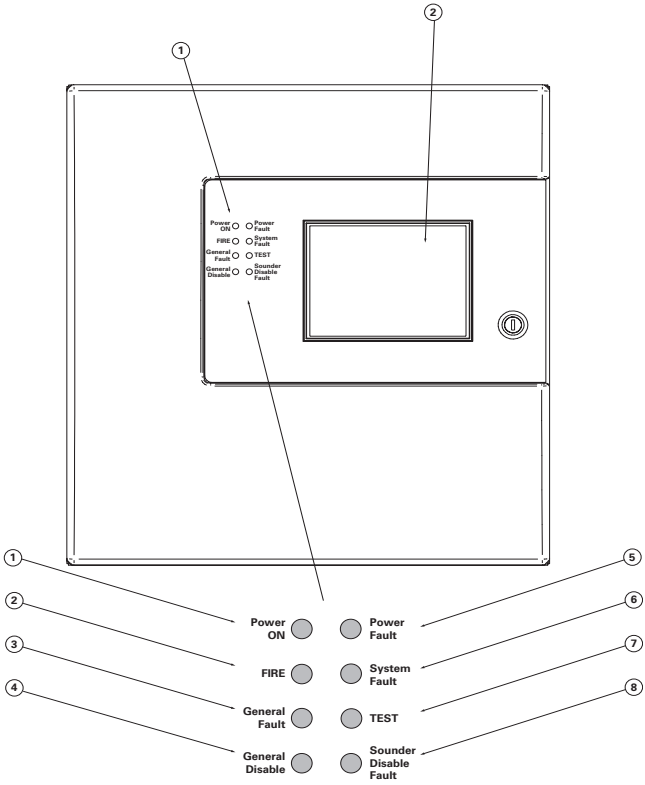


Panel outputs

Coincidence detection

Each panel output can be assigned a unique list of zones derived from the zones available on the loop, to activate this output, two unique zones from this list have to be be in fire or alternatively any zone outside this list will trigger the output also. When the 'coincidence' box is checked - the 'Allocate device' button allows the user to populate this list.

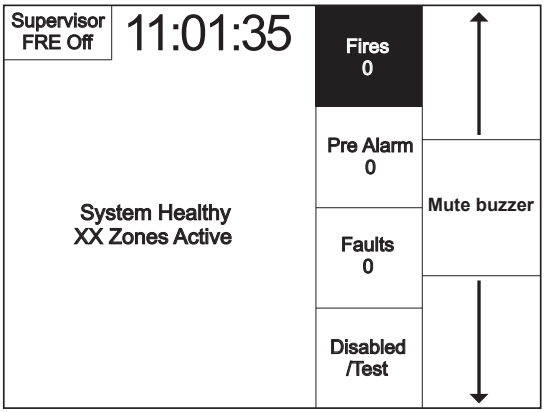
Section 3: Panel controls & indicators



1. System LED's
2. Touch Screen Display

LED	Name	Function	Action
1	Power on	Shows panel is on	Check indicator is illuminated
2	Fire	Indicators panel has detected a fire	Impliment fire action procedure
3	General fault	Monitors devices for faults e.g. Smoke detectors/sounders	Report to system supervisor
4	General disable	Monitors fire panel for faults	Report fault to service dept
5	Power fault	Monitor internal battery charger	Report fault to service dept
6	System fault	Monitors fire panel for faults	Report fault to service dept
7	Test	Supervisor/engineer is testing the systems	Report to system supervisor
8	Sounder	Indicates the sounder status	Check with system supervisor

Touch screen display



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.

During an event on the system the display shows the FIRST EVENT and LAST EVENT plus other events as space allows.

The last 2 lines are normally used to display the total number of events, but they are also used for scrolling fire conditions, faults, pre alarms or disabled devices independently or for displaying a reduced menu when in fire condition.

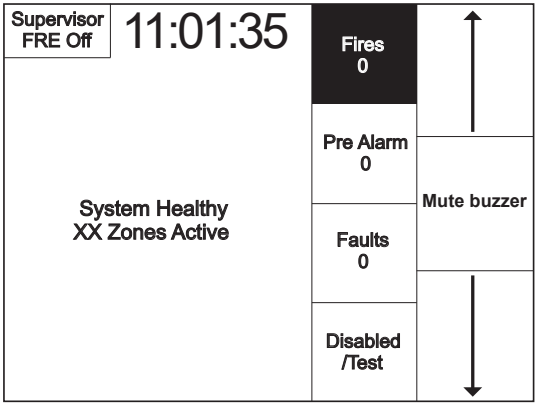
When an event occurs the Touch Screen backlighting comes on unless there is a mains power supply fault.

Use the Touch Screen to scroll through all active events on the system by using the SCROLL UP and SCROLL DOWN buttons (available at access level 1). You can display the contents of the log and also view details of any fires, faults, pre-alarms,faults or disablements. When displaying the system menu on the Touch Screen, the last 5 lines of the display are shown in reverse text.

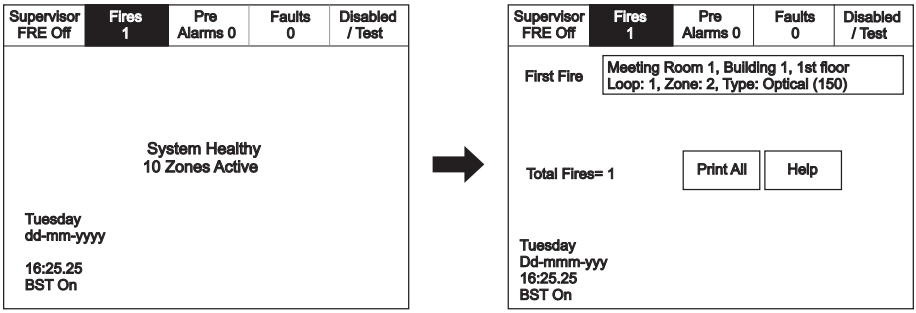
Panel operation

The Panel is operated via a backlit touch screen. The default fire screen is shown below. From this screen all the panels functions can be operated. The first time you touch the screen the backlight will illuminate the panel.

Pressing a field will highlight it and forward to the next screen as shown below.



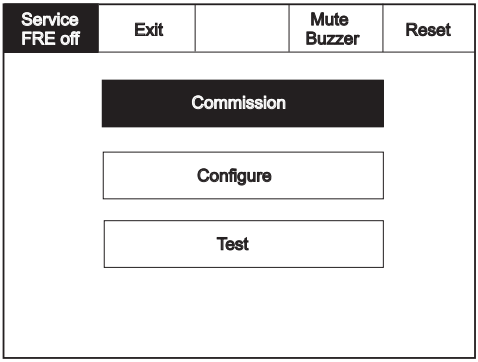
Touch the screen here to view details

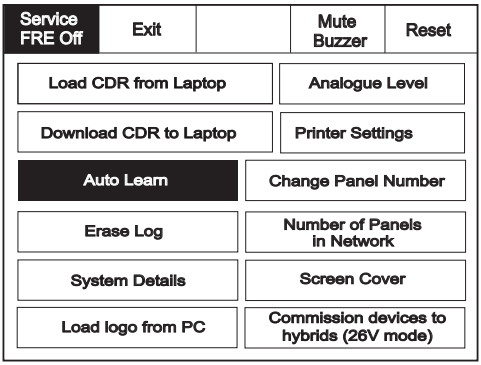


Commission: Auto learn

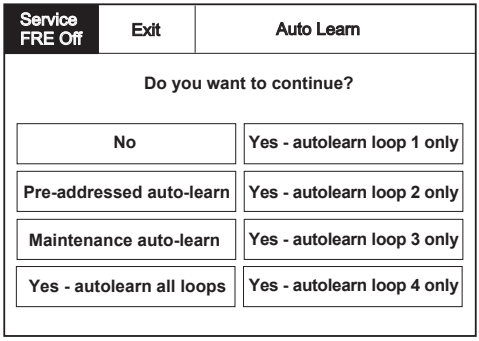
To activate the touch screen, touch the top left corner of the screen until the screen illuminates. To enter the supervisor mode touch the supervisor button and enter the service passcode.

Enter the Service Mode and Select Commission.





Select "Auto Run" from the configure menu screen.

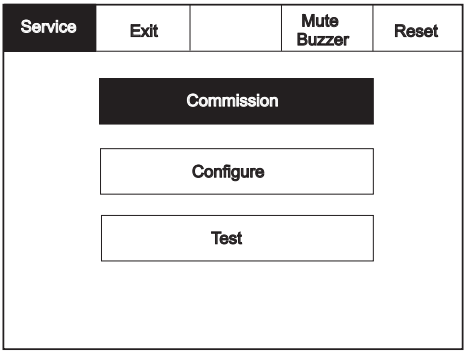


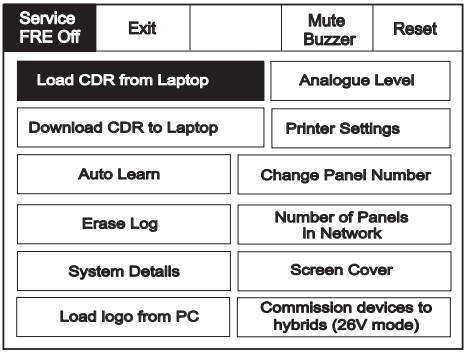
IMPORTANT:
Activating autolearn will erase all existing programming, text and configuration data.

Commission: Load CDR from laptop

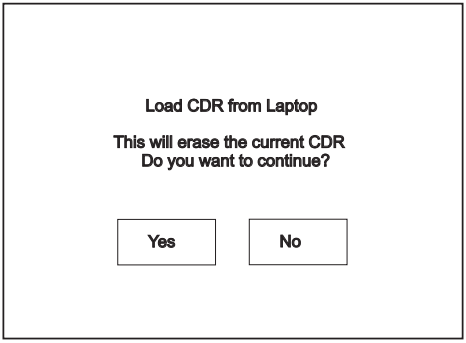
To activate the touch screen, touch the top left corner of the screen until the screen illuminates. To enter the supervisor mode touch the supervisor button and enter the service passcode.

Enter the Service Mode and Select Commission.
Select "Load CDR from Laptop" from the Commission Menu"





Select "Load CDR from Laptop" from the Commission Menu"



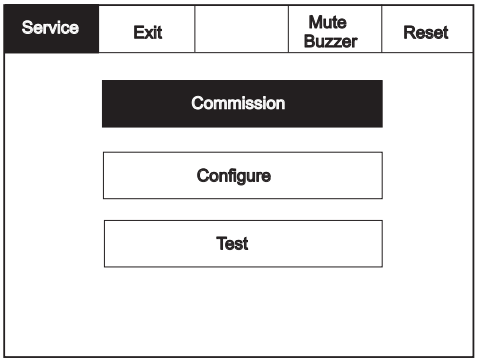
After pressing "Yes" click commission on the PC download software.

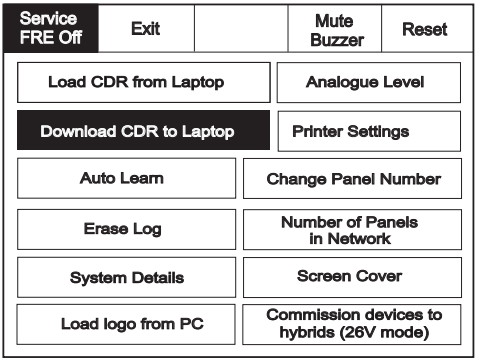
IMPORTANT:
Do not click commission before pressing "Yes" on the "Load CDR" screen.

Commission: Download CDR to laptop

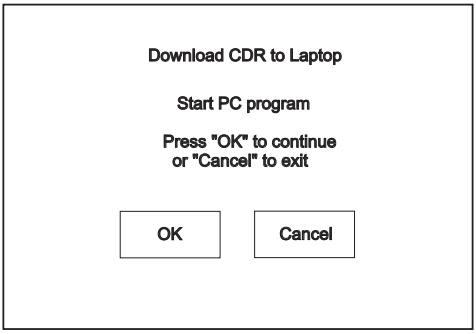
To activate the touch screen, touch the top left corner of the screen until the screen illuminates. To enter the supervisor mode touch the supervisor button and enter the service passcode.

Enter the Service Mode and Select Commission.



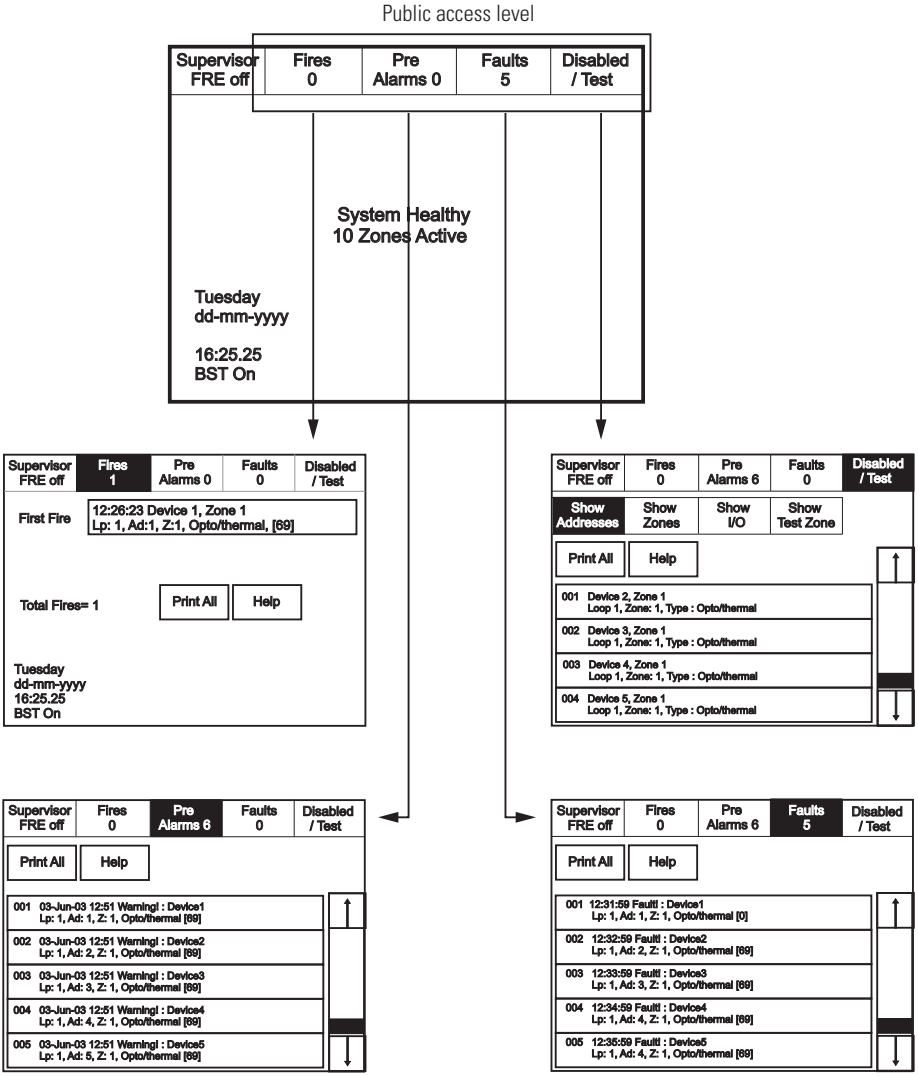


Select "Download CDR to Laptop" from the commission menu screen.



Public access level 1

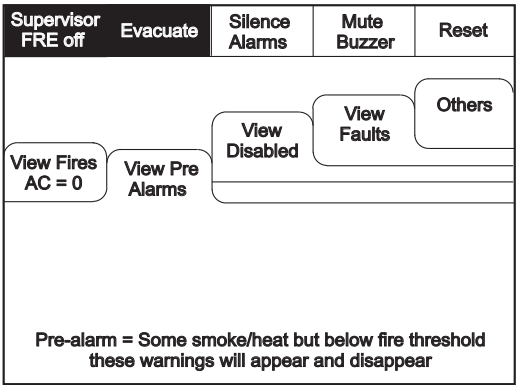
Public access level does not require an access code and allows anybody to review the functions outlined below.



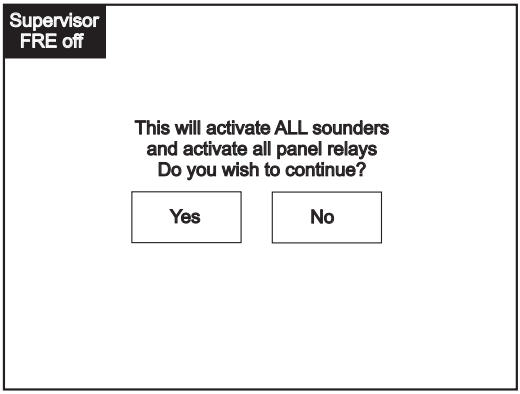
Evacuate (access level 2)

To activate the touch screen, touch the top left corner of the screen until the screen illuminates. To enter the supervisor mode touch the supervisor button and enter the passcode.

Enter the Supervisor Mode Passcode and select "Evacuate" on the menu at the top of the screen.



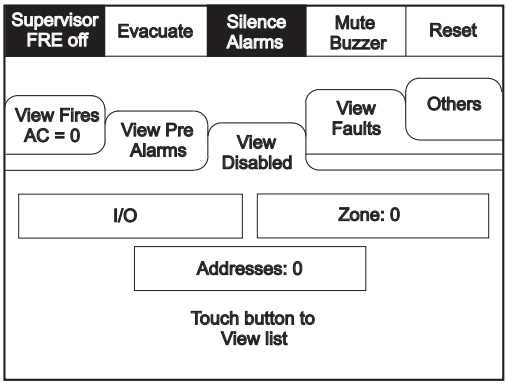
Select "Yes" to evacuate the building.



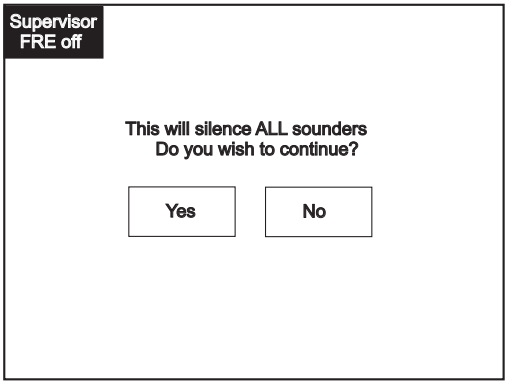
Silence alarms

To activate the touch screen, touch the top left corner of the screen until the screen illuminates. To enter the supervisor mode touch the supervisor button and enter the passcode.

Enter the Supervisor Mode Passcode and select "Silence Alarms" button as the top of the screen.



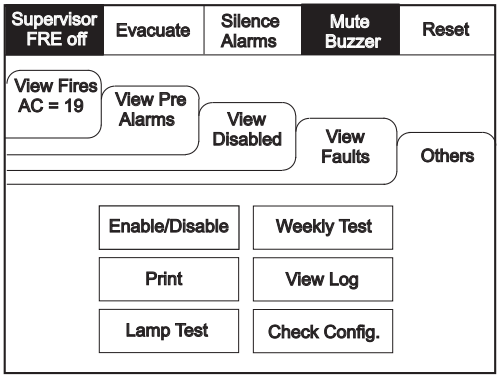
Select "yes" to silence Alarm.



Mute buzzer

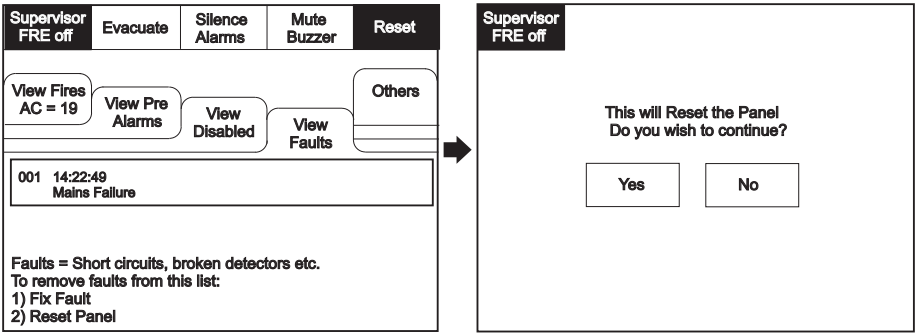
To activate the touch screen, touch the top left corner of the screen until the screen illuminates. To enter the supervisor mode touch the supervisor button and enter the passcode.

Enter the Supervisor Mode and Select "Mute Buzzer" from the Top Menu.



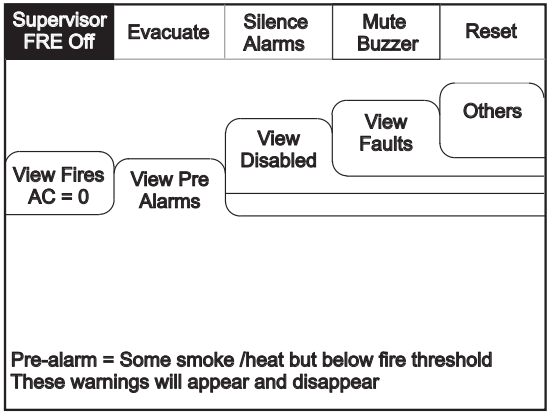
Reset

Enter the Supervisor Mode and Select "Reset" from the top Menu. Select "Yes" to reset the panel.



Pre-Alarms

Enter the Supervisor Mode and Select "Pre-Alarms" tab.

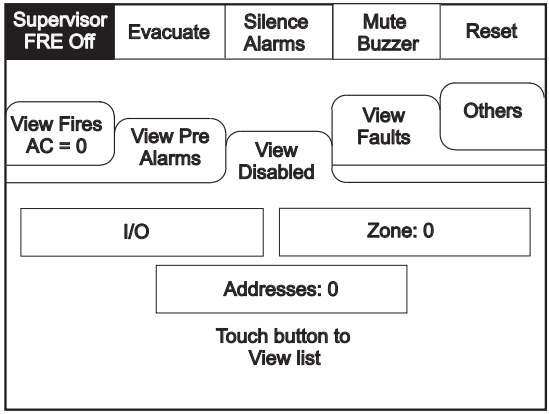


A pre-alarm is shown when a detector appears to register heat or smoke but in a quantity that is insufficient to warrant an alarm.

Pre-alarm may indicate a build up of dirt in a smoke detector which can be interpreted by the detector as smoke presence.

Disabled devices

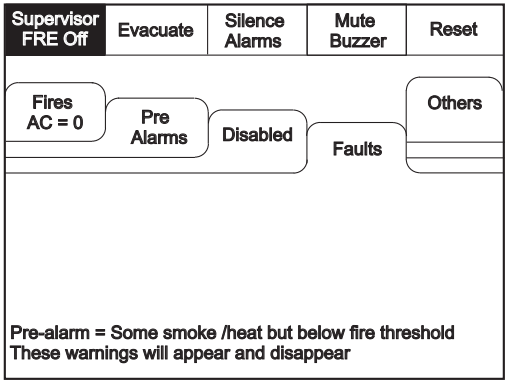
Enter the Supervisor mode and Select the "Disabled" tab.



The individual buttons show which devices and the number of devices which have been disabled. Press one of the buttons to display detailed information for a particular category.

Faults

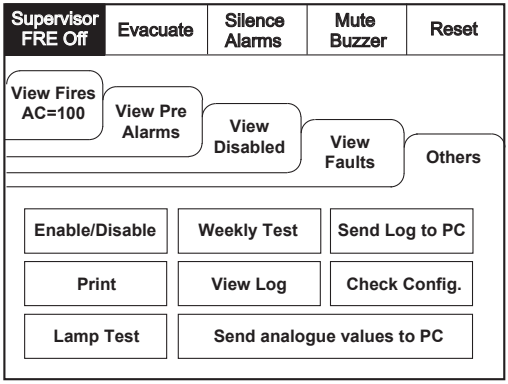
Enter Supervisor Mode Passcode and select "Faults" tab.



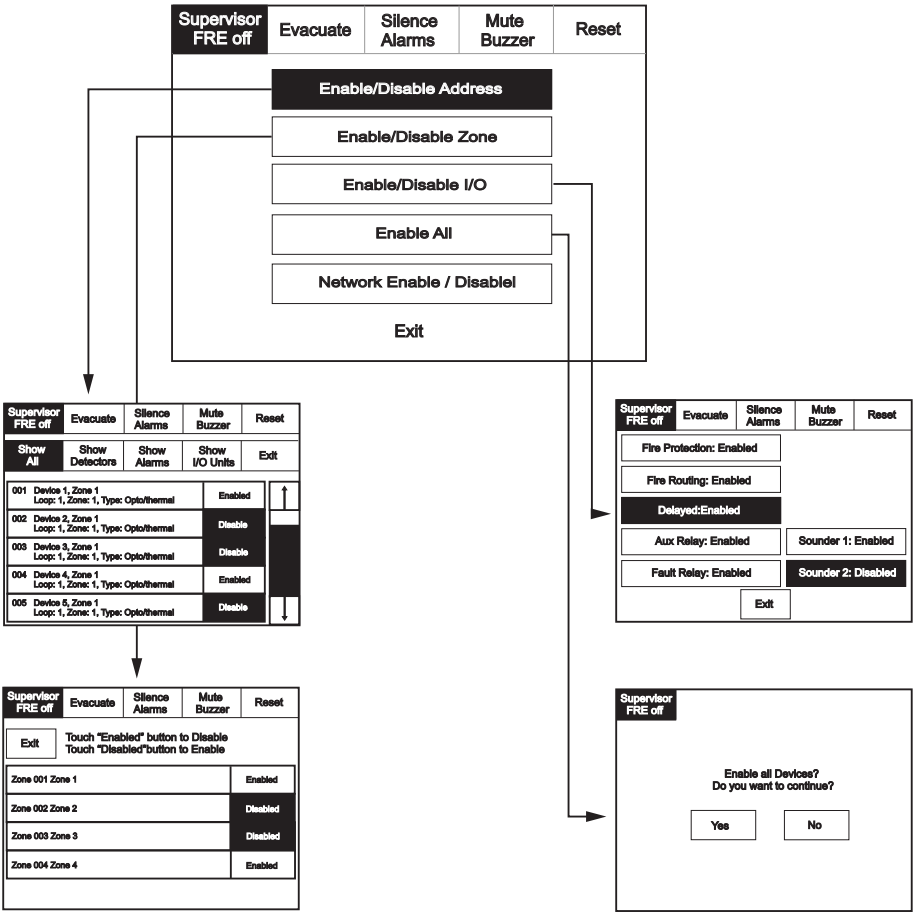
Enable/disable (others menu)

To activate the touch screen, touch the top left corner of the screen until the screen illuminates. To enter the supervisor mode touch the supervisor button and enter the passcode.

Enter the Supervisor Mode passcode and select the "Others" tab.



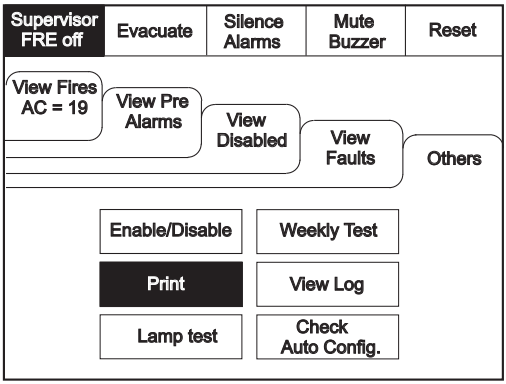
Enable/disable



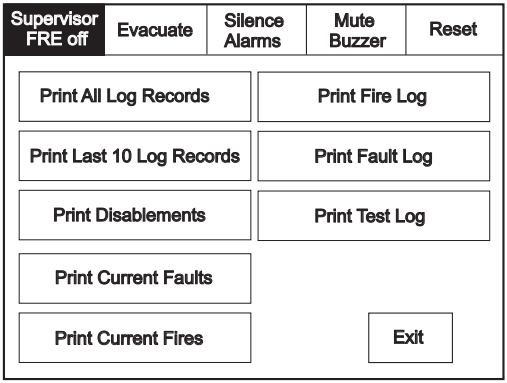
Print (function not availible)

To activate the touch screen, touch the top left corner of the screen until the screen illuminates. To enter the supervisor mode touch the supervisor button and enter the passcode.

Enter the Supervisor Mode and Select the "Others" Tab. Press "Print".

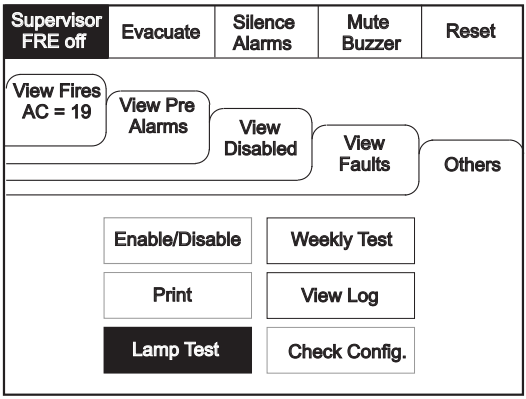


Select the Information You wish to Print from the Buttons Listed.

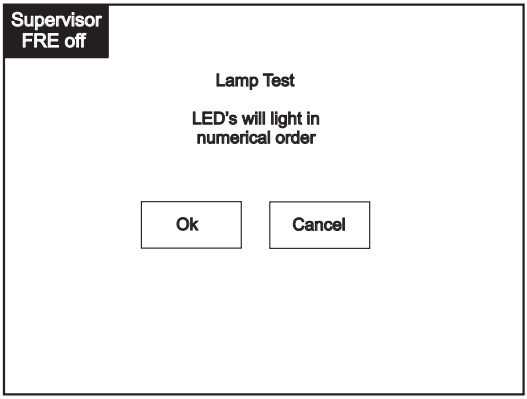


Lamp test

To activate the touch screen, touch the top left corner of the screen until the screen illuminates. To enter the supervisor mode touch the supervisor button and enter the passcode.

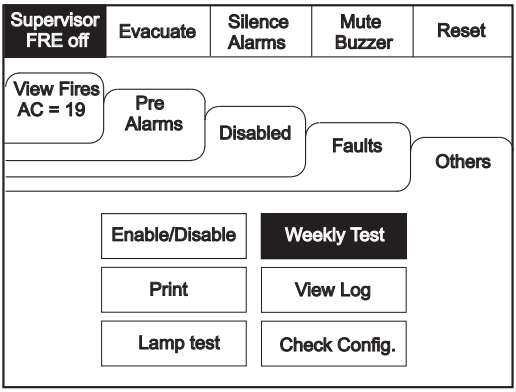


Enter the Supervisor Mode and Select the "Others" Tab. Press "Lamp Test".

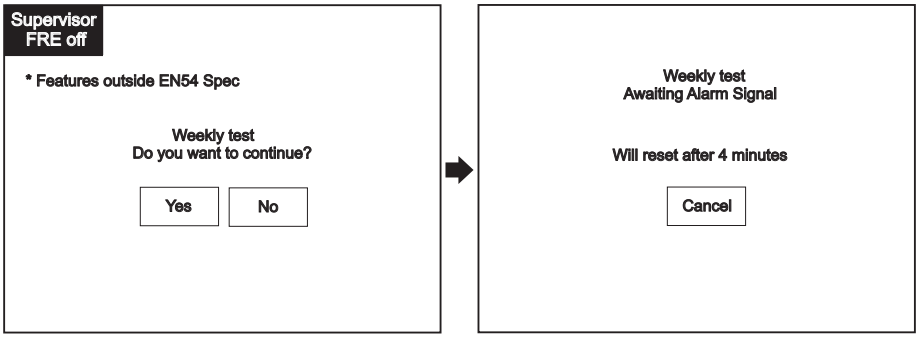


Weekly test

To activate the touch screen, touch the top left corner of the screen until the screen illuminates. To enter the supervisor mode touch the supervisor button and enter the passcode. Select the others tab as shown below. Press Weekly test.



Weekly test is now in progress.

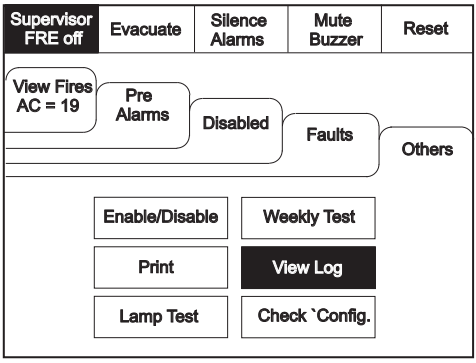


The panel will automatically return to the system healthy screen once the weekly test has been completed.

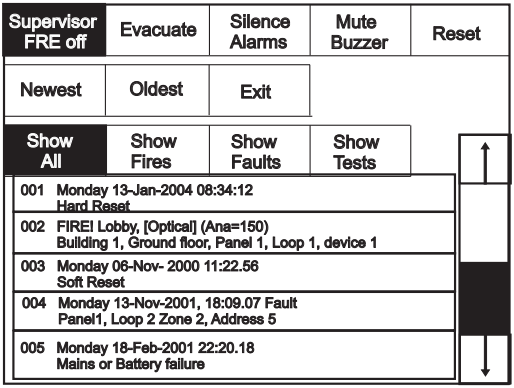
Viewing events

To activate the touch screen, touch the top left corner of the screen until the screen illuminates. To enter the supervisor mode touch the supervisor button and enter the passcode.

Enter the Supervisor Mode Passcode. Select the "Others" tab and press View Log.



Use the scroll bar to view the list of upto 1000 events.

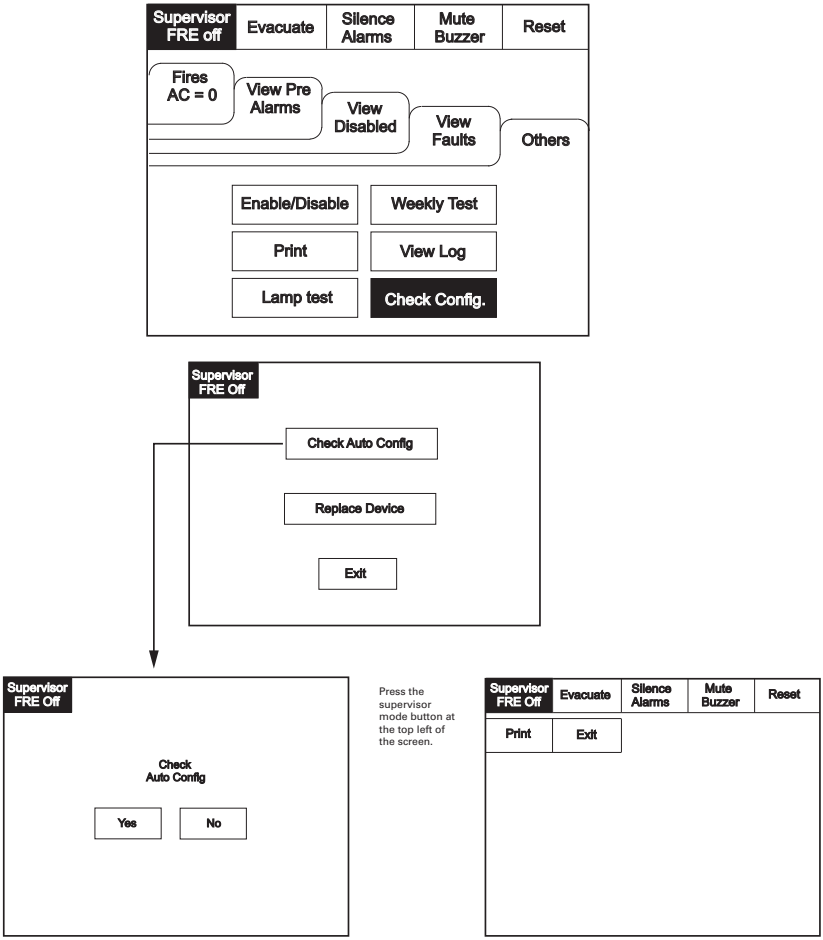


The Panel event log stores up to 1000 events including, fires, faults, resets and address changes. Once the maximum 1000 events has been reached Panel will automatically overwrite the oldest event every time a new event is stored.
The event log can only be reset by an approved service engineer.

Check auto config

To activate the touch screen, touch the top left corner of the screen until the screen illuminates. To enter the supervisor mode touch the supervisor button and enter the passcode.

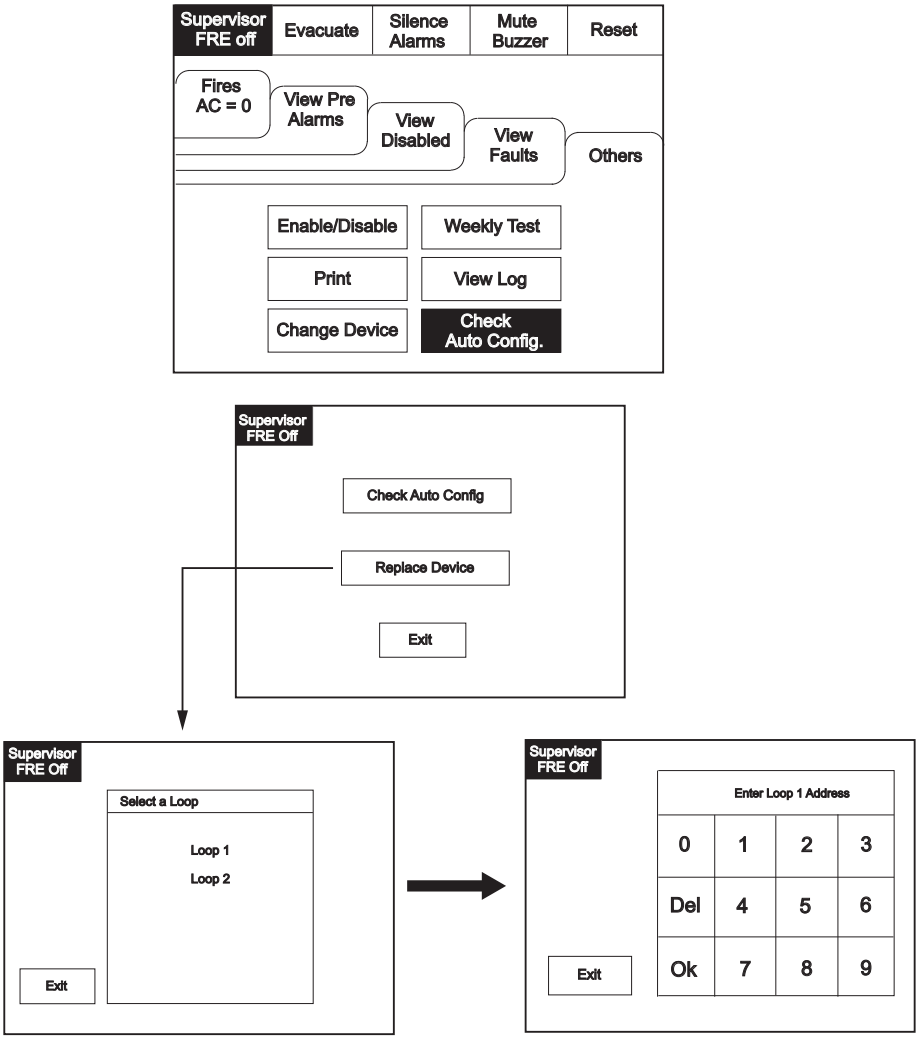
Enter the Supervisor Mode and Select the "Others" Tab. Press Check Auto Config. This feature will scan the loop and pinpoint the exact location of any break in the loop wiring and will also identify any changes in the loop configuration (e.g. New devices added or changed device types).



Replace device

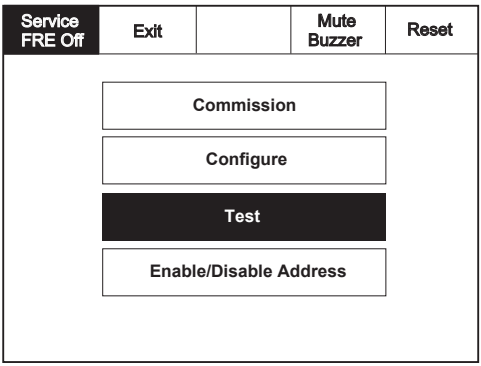
Replace device enables an existing device to be replaced with a new device without losing the existing text and sounder programming.

Replace a single device then use the replace device menu to allocate an existing address to the new device.

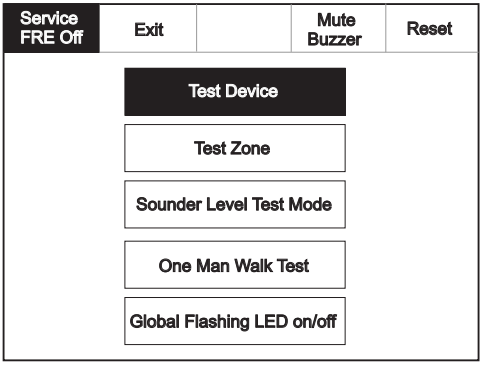


Test device (access level 3)

To activate the touch screen, touch the top left corner of the screen until the screen illuminates. To enter the service mode touch the supervisor button and enter supervisor passcode.

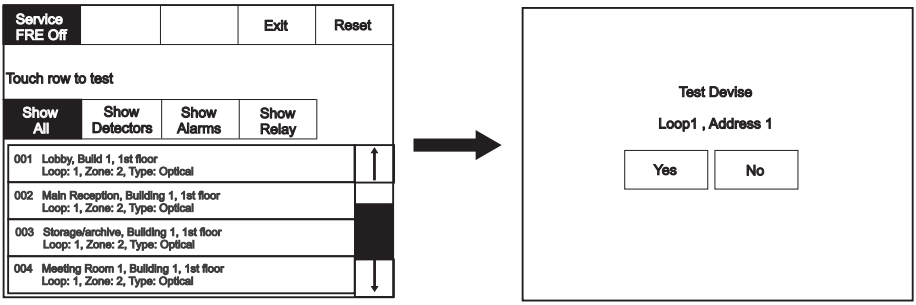


Enter the service mode. Select "Test".



Select the "Test device" button.

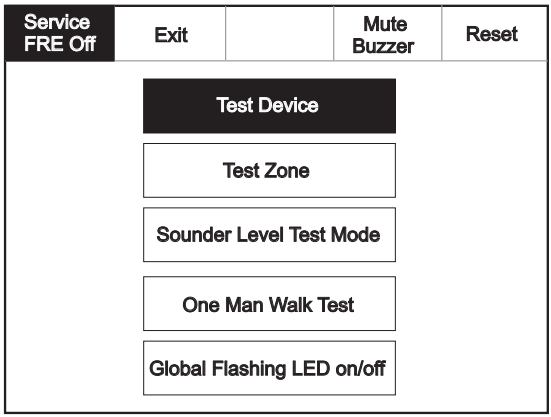
Touch row to select device to test.

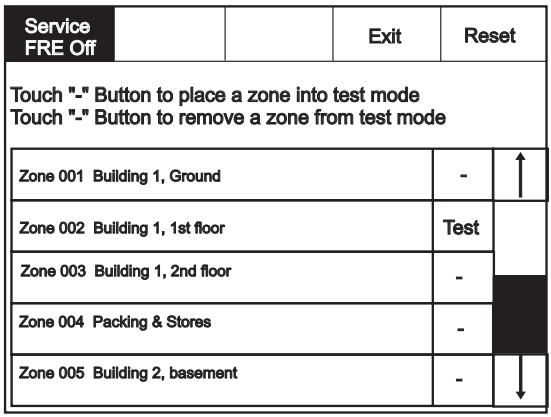


Test zone

To activate the touch screen, touch the top left corner of the screen until the screen illuminates. To enter the supervisor mode touch the supervisor button and enter the service passcode.

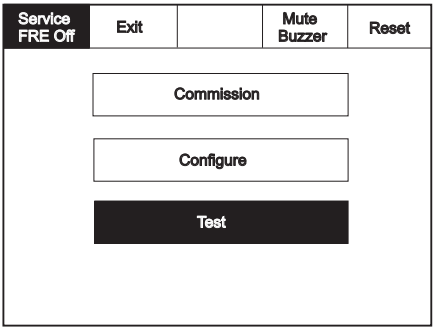
Enter the Service Mode, Select “Test” and on the Screen Shown Below
Press “Test Zone”

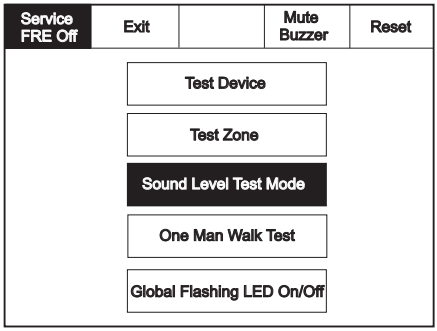


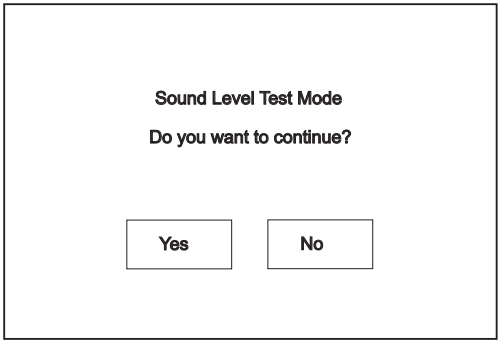


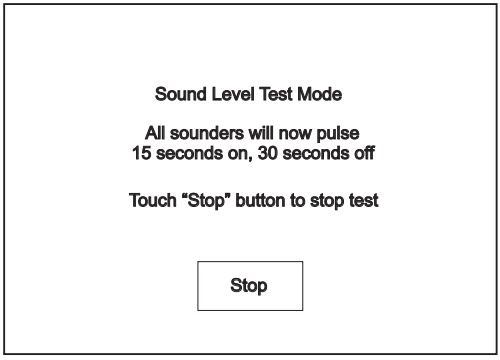
Sounder level test mode

Enter the Service Mode and Select Test. From the Test Menu Select "Sounder Level Test Mode".





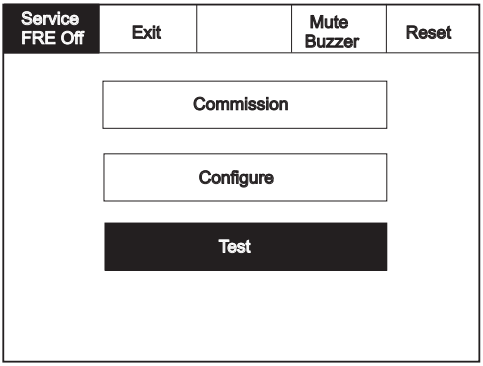




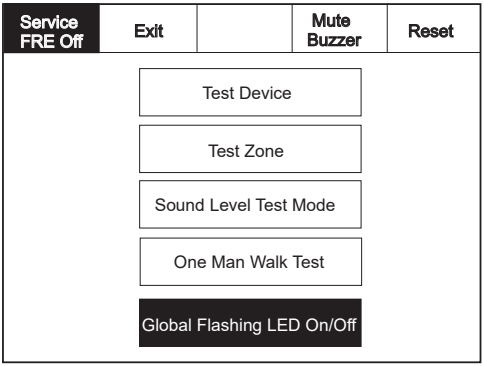
Global flashing LED on/off

To activate the touch screen, touch the top left corner of the screen until the screen illuminates. To enter the supervisor mode touch the supervisor button and enter the service passcode.

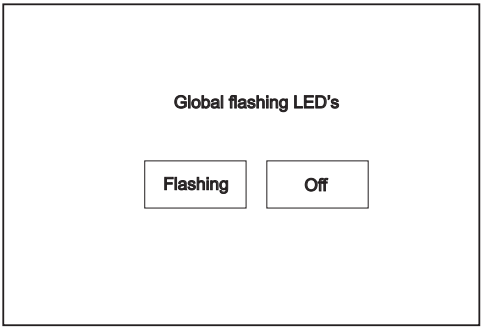
Enter the Service Mode and Select Test.



If global LED flashing is set to on, all device LED's will pulse intermittently to confirm correct communication.



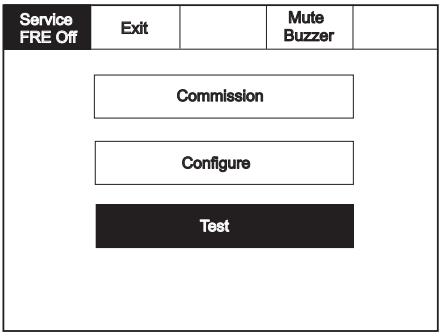
Select "Global Flashing LED On/ Off" from the Test Menu Screen.

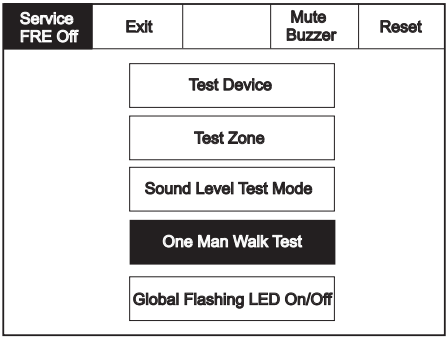


One man walk test

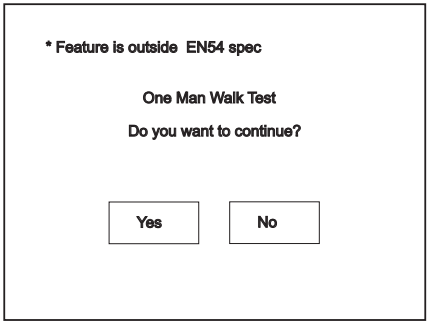
To activate the touch screen, touch the top left corner of the screen until the screen illuminates. To enter the supervisor mode touch the supervisor button and enter the service passcode.

Enter the Service Mode and Select Test.





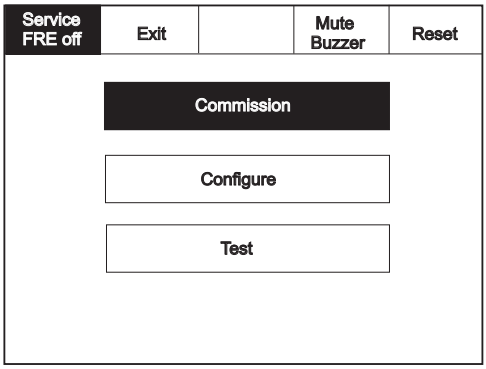
Select "One Man Walk Test" from the test menu screen

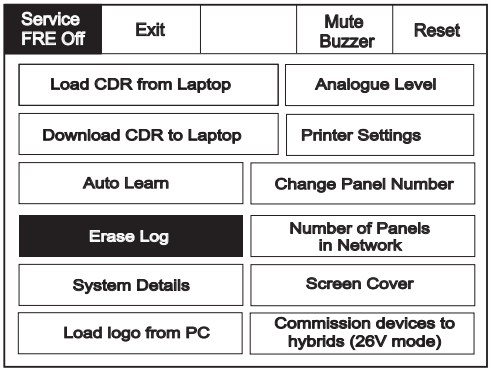


Erase log

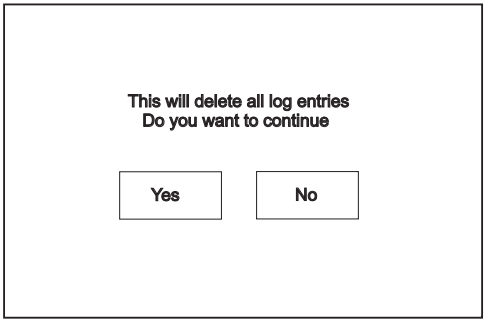
To activate the touch screen, touch the top left corner of the screen until the screen illuminates. To enter the supervisor mode touch the supervisor button and enter the service passcode.

Enter the Service Mode and Select Commission.





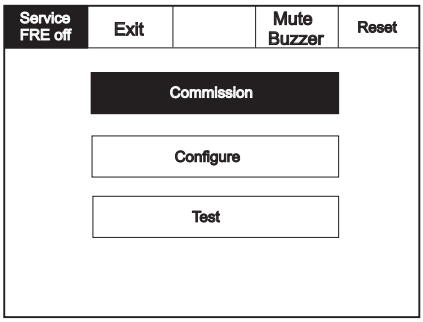
Select "Erase Log" from the configure menu screen.

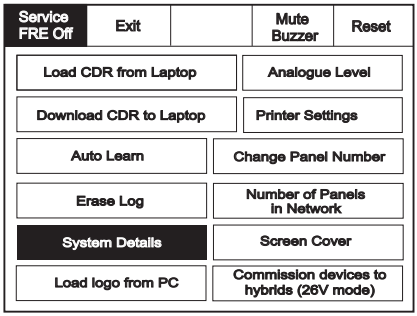


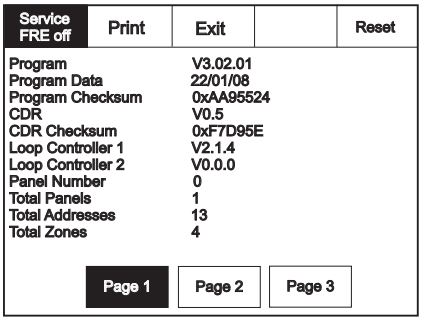
System details

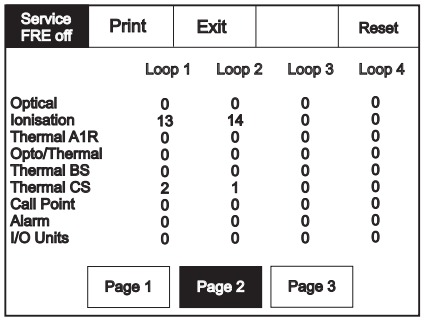
To activate the touch screen, touch the top left corner of the screen until the screen illuminates. To enter the supervisor mode touch the supervisor button and enter the service passcode.

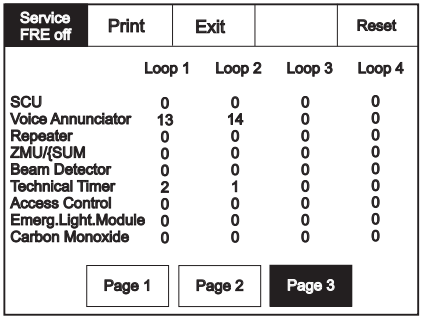
Enter the Service Mode and Select Commission, then Press "System Details".







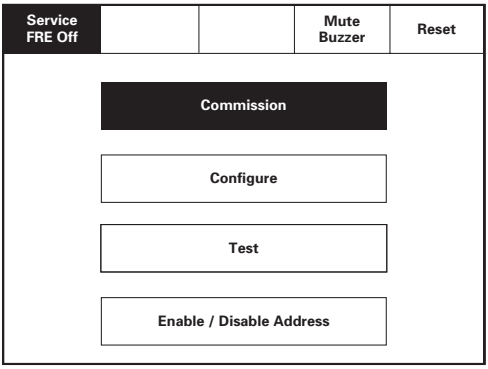


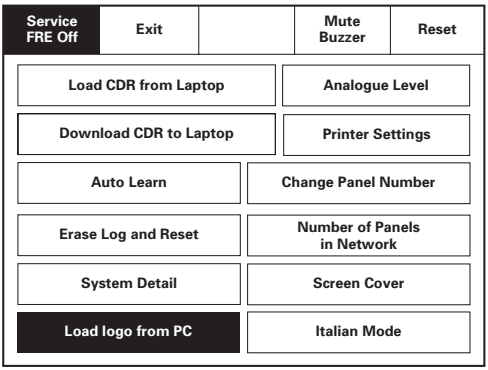


Load logo from PC

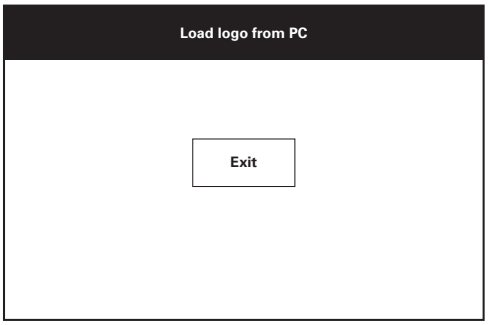
To activate the touch screen, touch the top left corner of the screen until the screen illuminates. To enter the supervisor mode touch the supervisor button and enter the service passcode.

Enter the Service Mode and Select Commission.





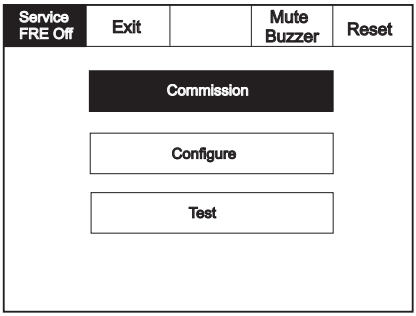
Select "Load logo from PC" from the Configure Menu Screen.

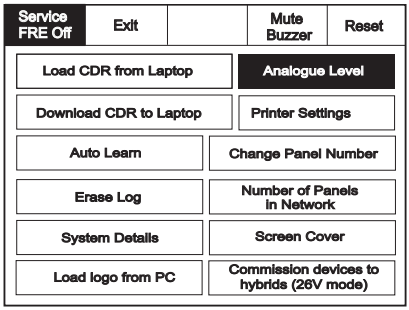


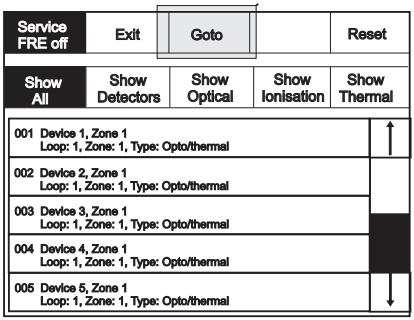
Analogue level

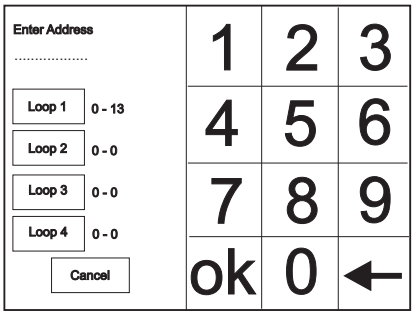
To activate the touch screen, touch the top left corner of the screen until the screen illuminates. To enter the supervisor mode touch the supervisor button and enter the service passcode.

Enter the Service Mode and Select Commission then press "Analogue Levels".

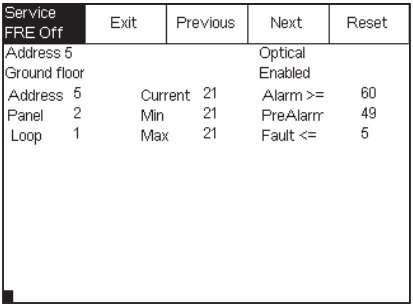


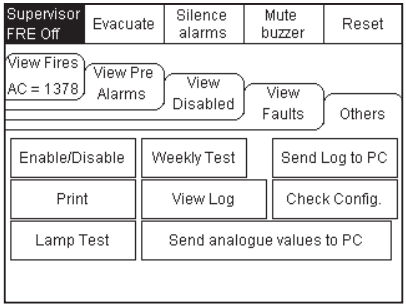






Note: go to command can be used to jump to a specific address



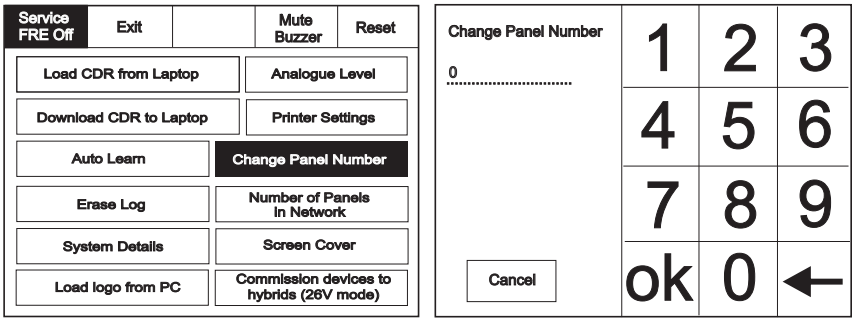


Change panel number

Before Changing Panel Number ensure the the correct number of panels has been set in the "Number of Panels in Network" menu.

To activate the touch screen, touch the top left corner of the screen until the screen illuminates. To enter the supervisor mode touch the supervisor button and enter the service passcode.

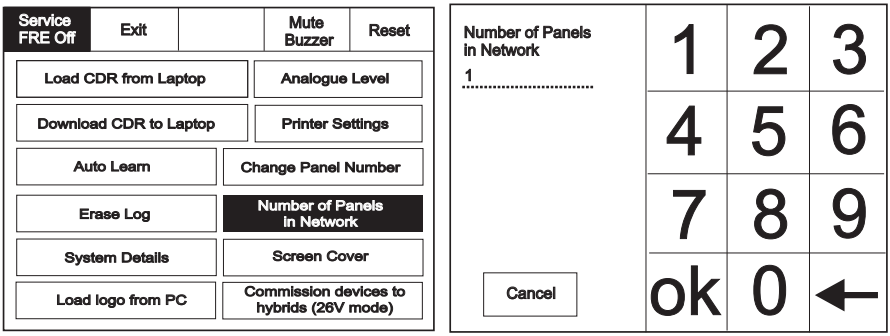
Enter the Service Mode and Select Commission then press "Change Panel Number".



Number of panels in network

To activate the touch screen, touch the top left corner of the screen until the screen illuminates. To enter the supervisor mode touch the supervisor button and enter the service passcode.

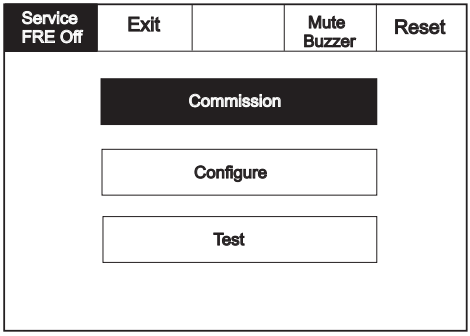
Enter the Service Mode and Select Commission then press "Number of Panels in Network".

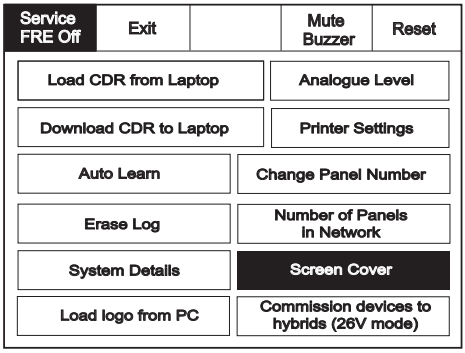


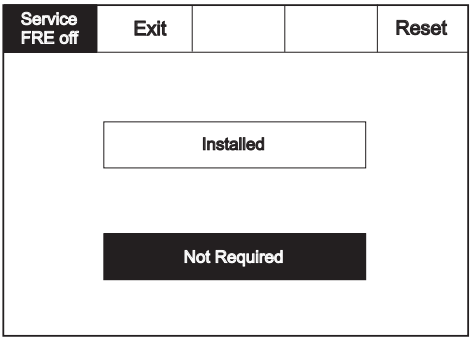
Screen cover

To activate the touch screen, touch the top left corner of the screen until the screen illuminates. To enter the supervisor mode touch the supervisor button and enter the service passcode.

Enter the Service Mode and Select Commission then press "Screen Cover".



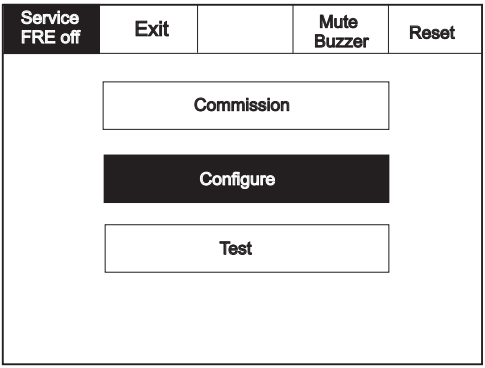


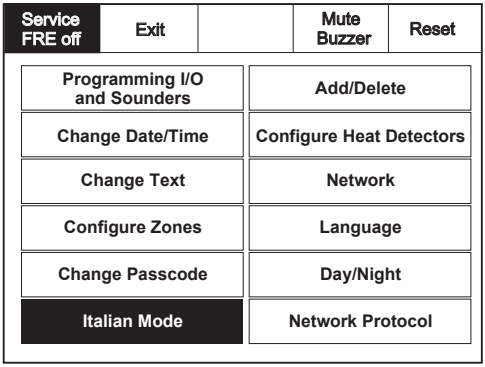


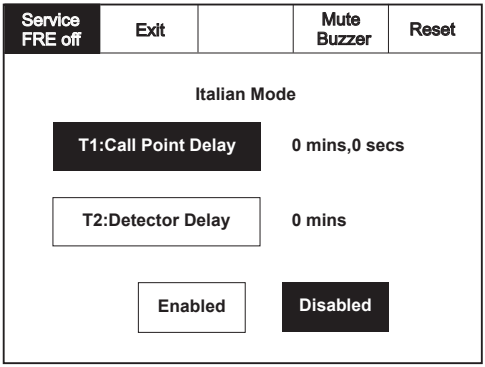
Italian mode

To activate the touch screen, touch the top left corner of the screen until the screen illuminates. To enter the supervisor mode touch the supervisor button and enter the service passcode.

Enter the Service Mode and Select Configure then press "Italian Mode".



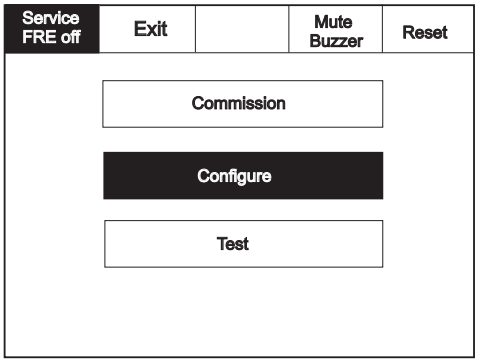


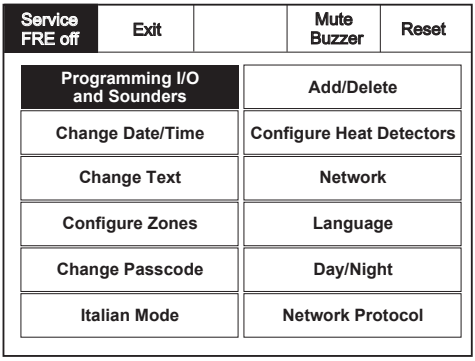


Programming I/O and sounders T1/T2

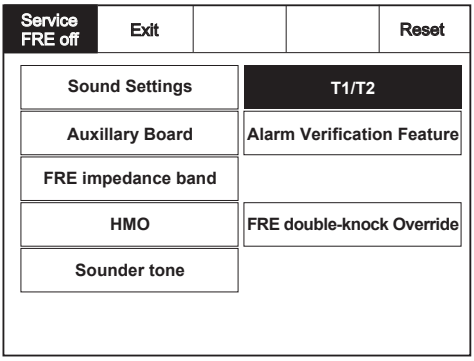
To activate the touch screen, touch the top left corner of the screen until the screen illuminates. To enter the supervisor mode touch the supervisor button and enter the service passcode.

Enter the Service Mode and Select Configure.





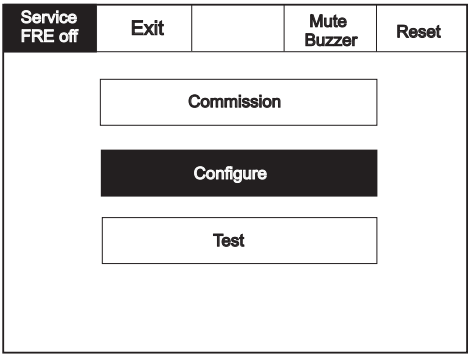
Select "Programming I/O and Sounders" from the Configure Menu Screen. Then press T1/T2

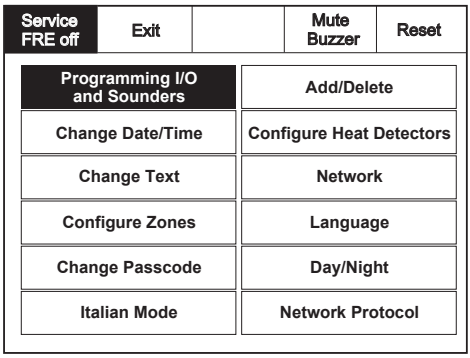


Programming I/O and sounders. Panel outputs

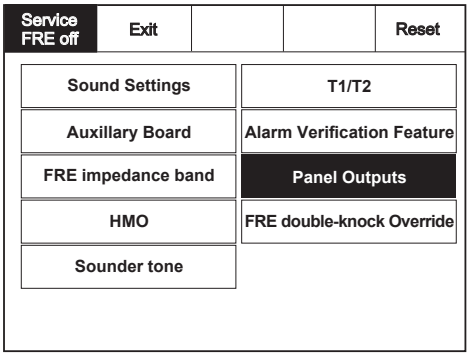
To activate the touch screen, touch the top left corner of the screen until the screen illuminates. To enter the supervisor mode touch the supervisor button and enter the service passcode.

Enter the Service Mode and Select Configure.





Select "Programming I/O and Sounders" from the Configure Menu Screen.

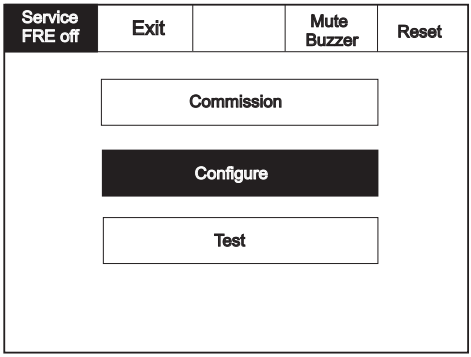


Press panel outputs - NOTE Interface Inputs/ Interface Outputs are only used in certain export markets.

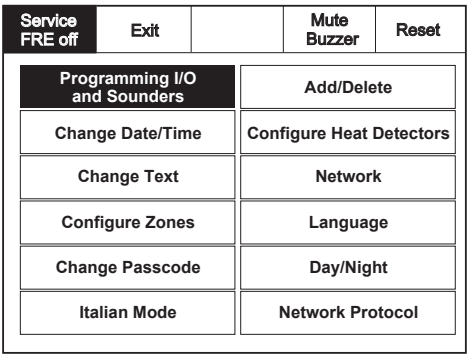
Programming I/O and sounders. Auxiliary board

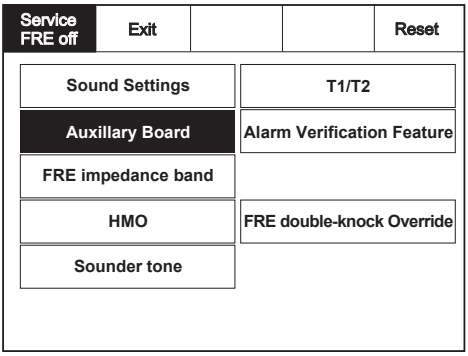
To activate the touch screen, touch the top left corner of the screen until the screen illuminates. To enter the supervisor mode touch the supervisor button and enter the service passcode.

Enter the Service Mode and Select Configure.



Select "Programming I/O and Sounders" from the Configure Menu Screen. Then press Auxiliary Board

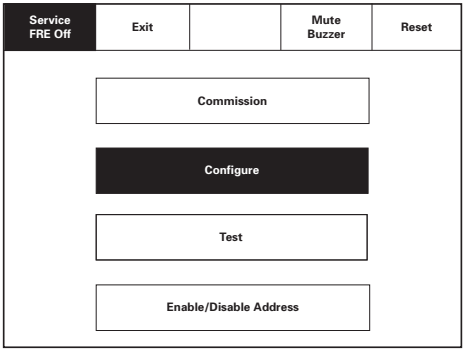




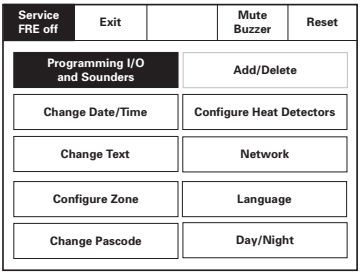
Programming I/O and sounders alarm verification

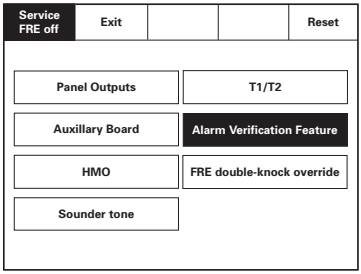
To activate the touch screen, touch the top left corner of the screen until the screen illuminates. To enter the supervisor mode touch the supervisor button and enter the service passcode.

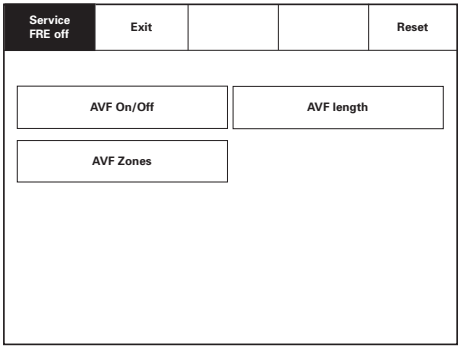
Enter the Service Mode and Select Configure.



Select "Programming I/O and Sounders" from the Configure Menu Screen. Then press Alarm Verification

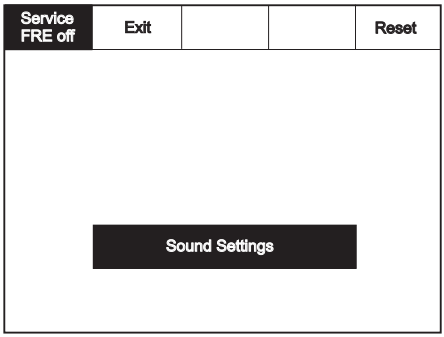




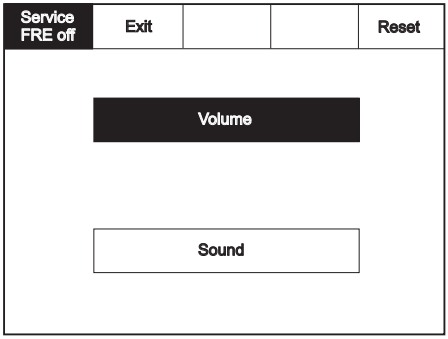


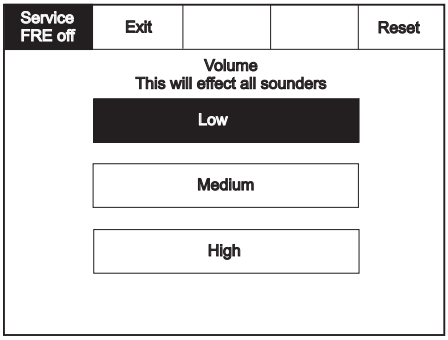
Sound settings

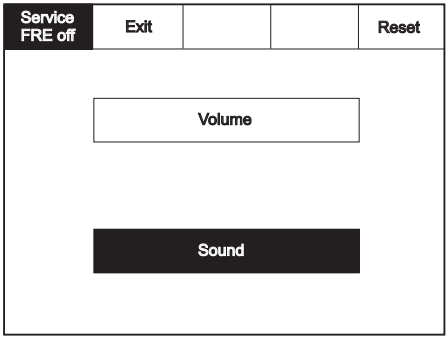
Touch "Sound settings".

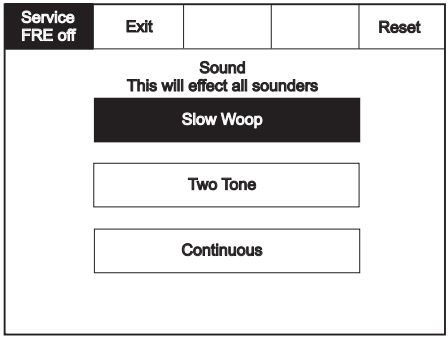


Selections from the screens below will become the global settings for all loop sounders.



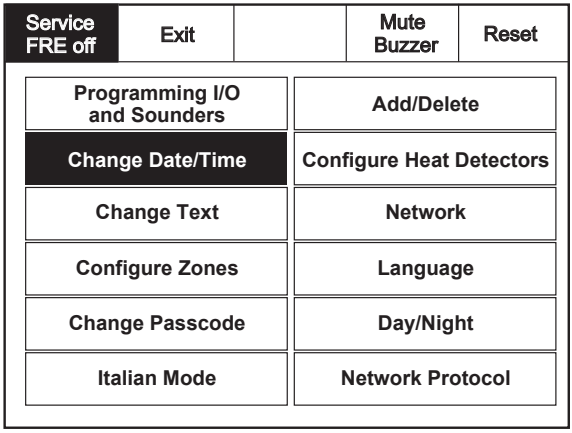




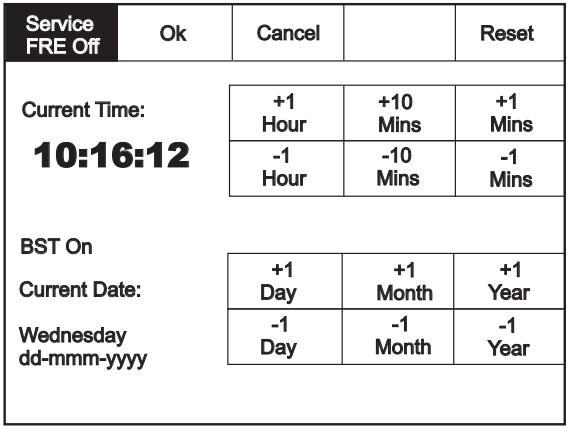


Change date/time

Enter the Service Mode and Select Configure. Select Change Date/Time.

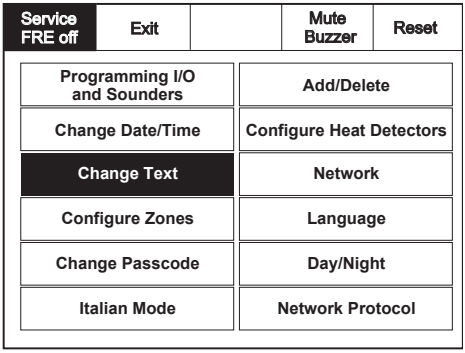


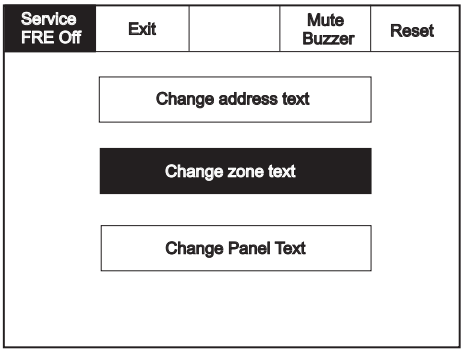
Set the Time Using the Buttons Shown Below.



Change zone text

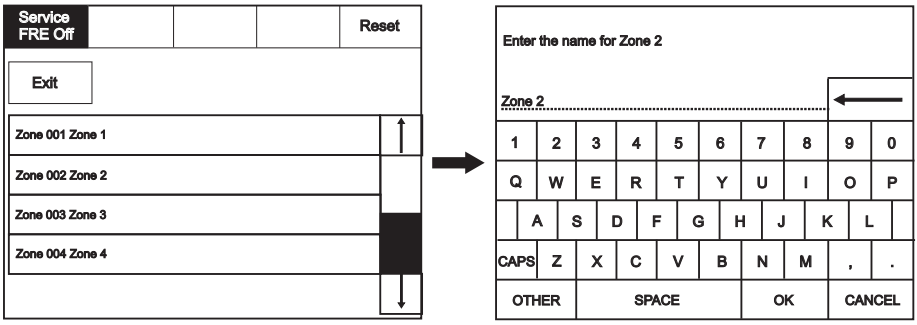
Enter the Service Mode and Select Configure. Select "Change Text".





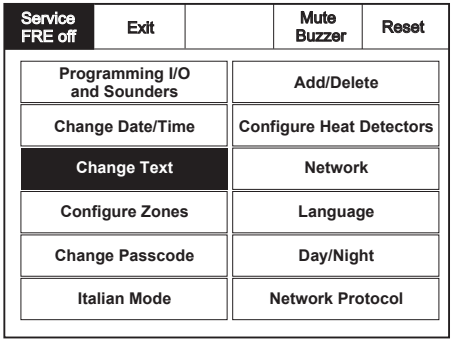
Press "Change Zone Text"

Select the zone you wish to Change and Edit Using the Keyboard.

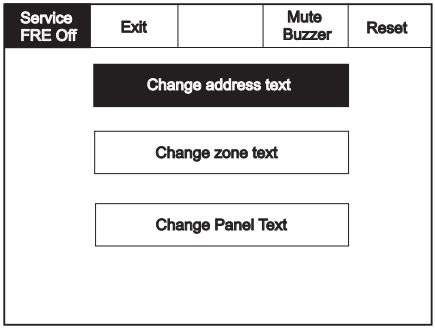


Change text

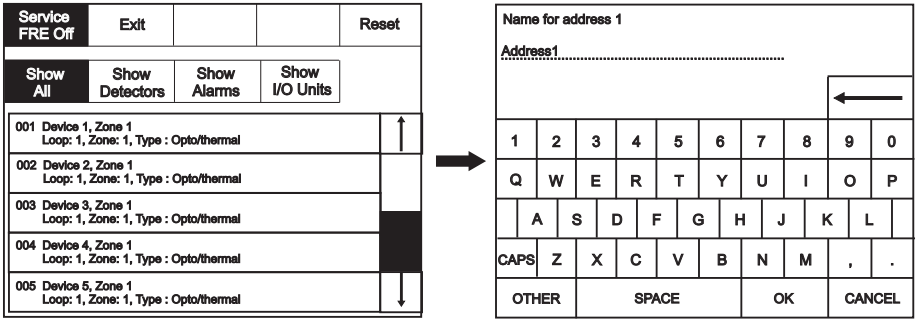
Enter the Service Mode and Select Configure. Select "Change Text".



Press "Change Address Text".

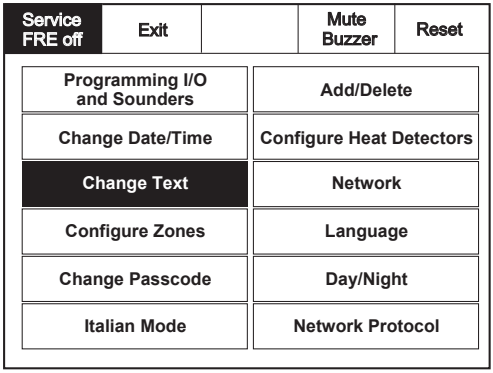


Select the Address you wish to change and edit using the keyboard.

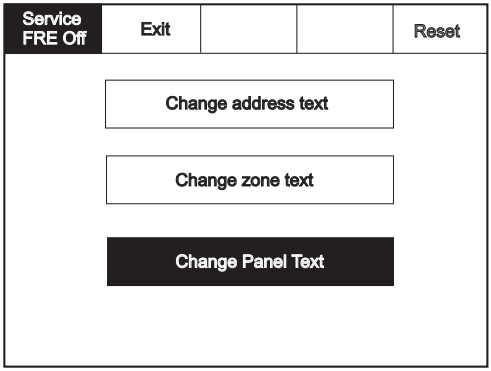


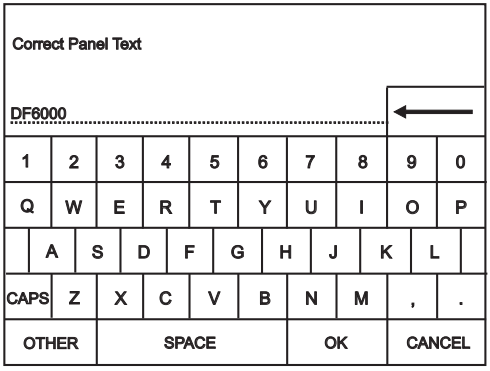
Change panel text

Enter the Service Mode and Select Configure. Select "Change Text".



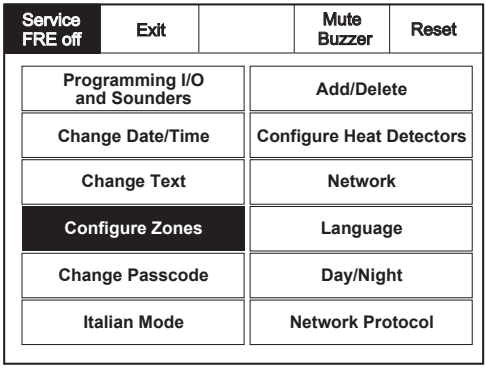
Press "Change Panel Text".



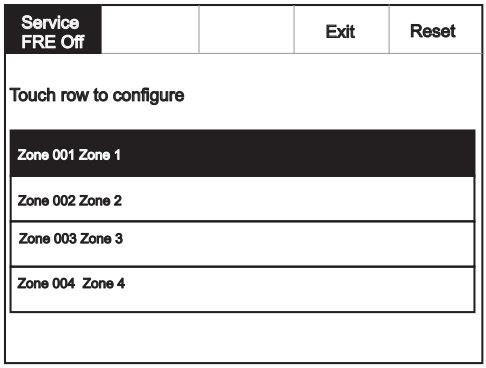


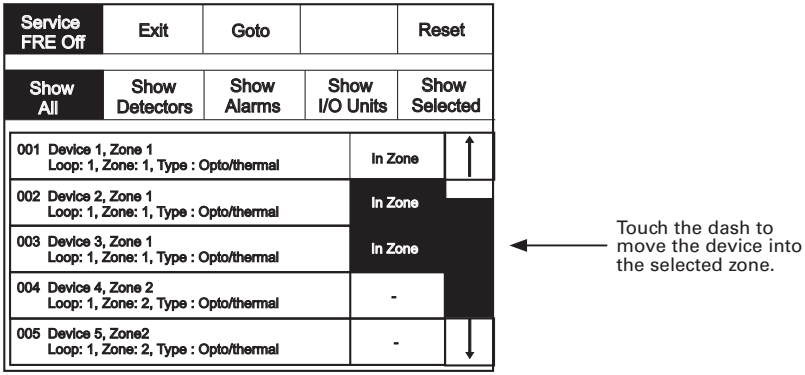
Configure zones

Enter the Service Mode and Select Configure. Select "Configure Zones".



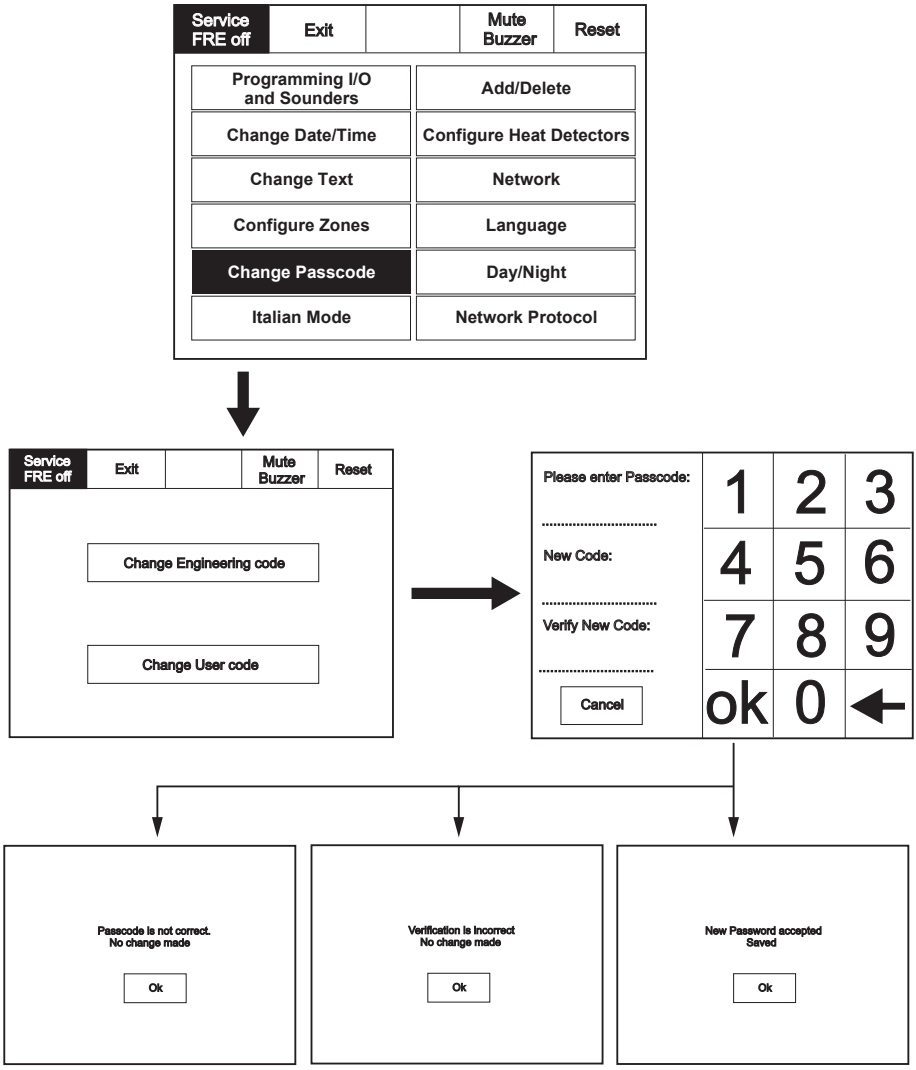
Select Zone into which device will be added.





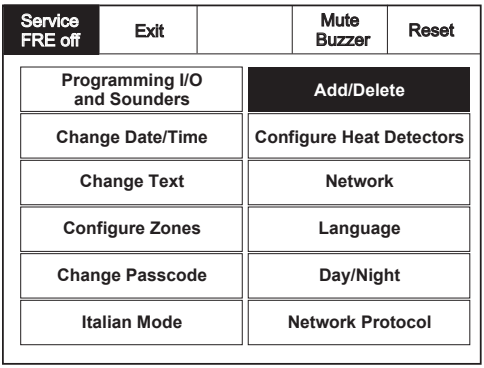
Change passcode

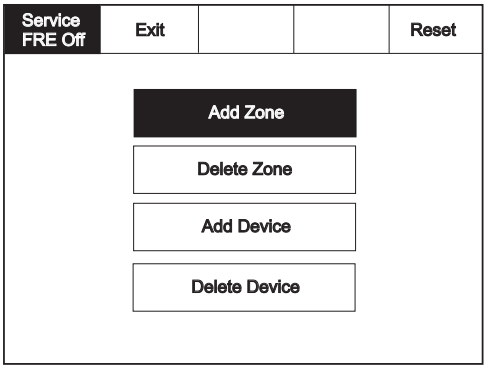
Enter the Service Mode and Select Configure. Select "Change User Code".

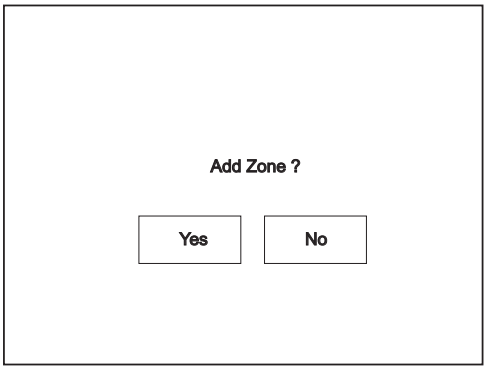


Add zone

Enter the Service Mode and Select Configure. Select "Add Zone".

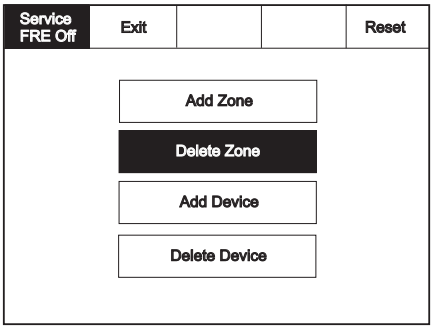




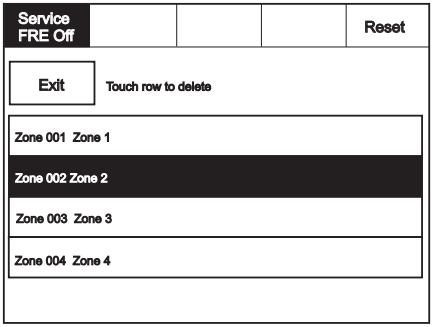


Delete zone

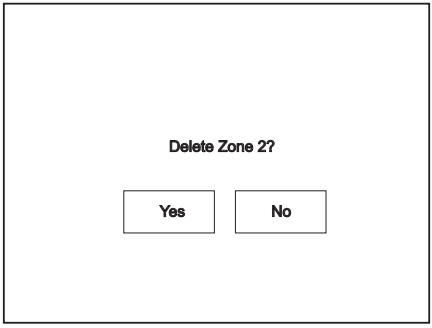
Enter the Service Mode and Select Configure, select "Add/Delete" then "Delete Zone".



Select Zone to be Deleted

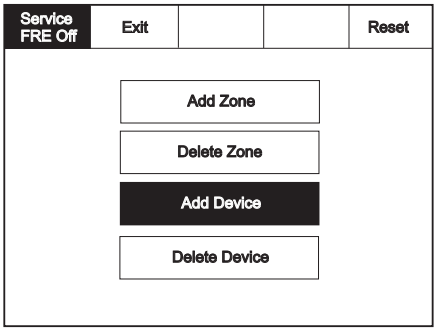


Confirm or Cancel Deletion

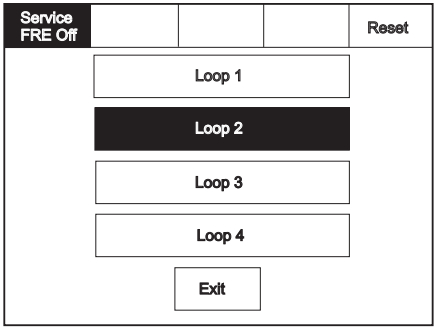


Add device

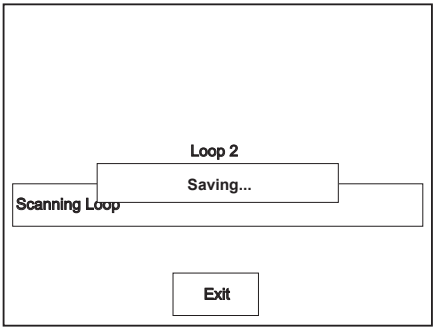
Enter the Service Mode and Select Configure, select "Add/Delete" then "Add Device".

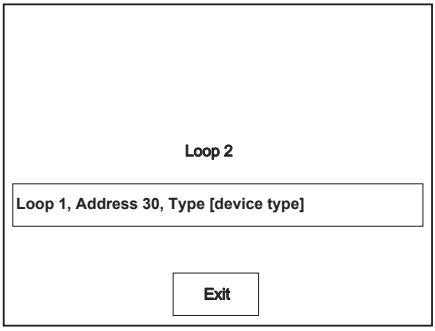


Select a Loop to Add a New Device



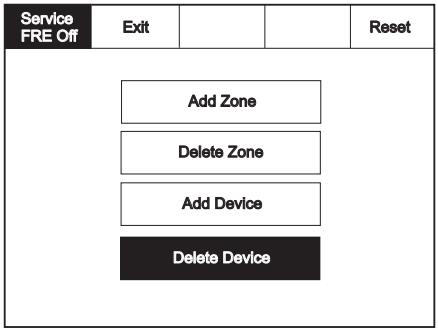
Confirm New Device and Loop



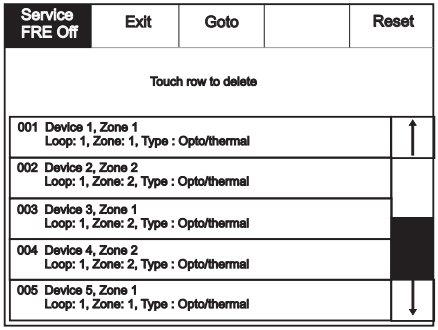


Delete device

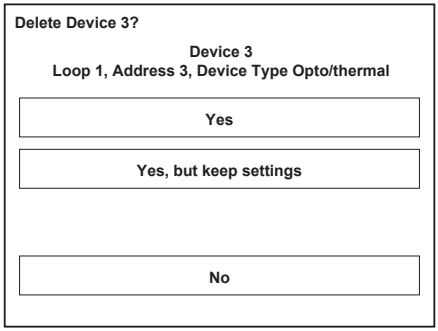
Enter the Service Mode and Select Configure, select "Add/Delete" then "Delete Device"



Select a Device to Delete

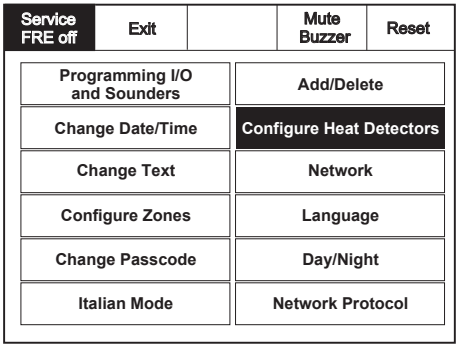


Confirm or Cancel Deletion

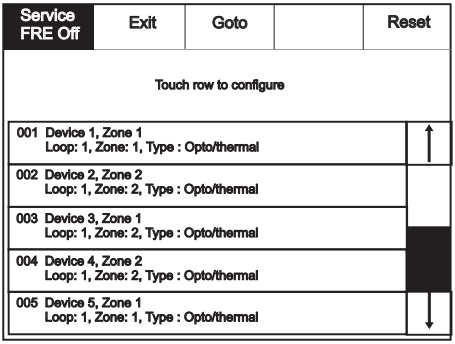


Configure heat detectors

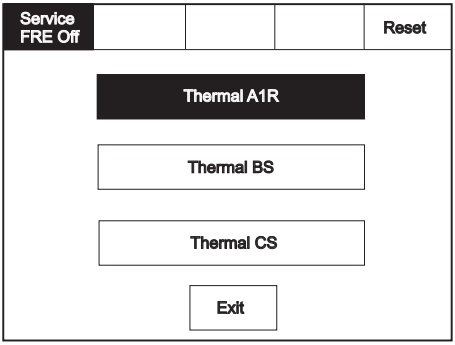
Enter the Service Mode and Select Configure.
Select "Configure Heat Detectors".



Select a Device to Configure.

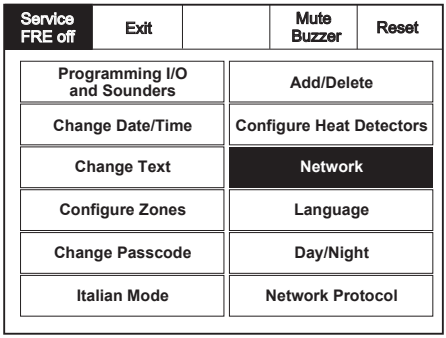


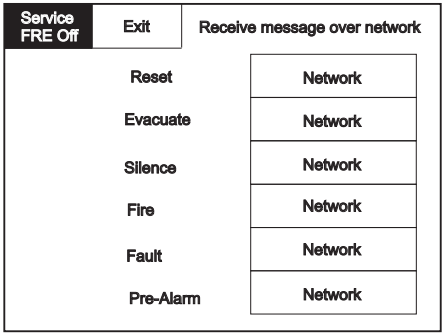
Select appropriate detector class.

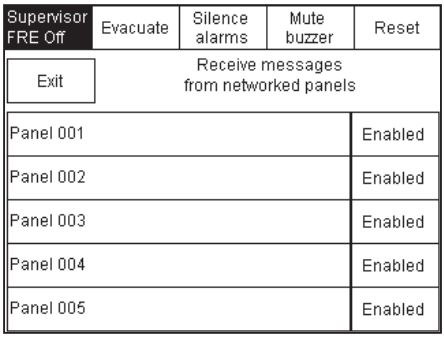


Network filter

Enter the Service Mode and Select Configure. Select "Network", This menu defines whether messages are broadcast across the network or remain local.





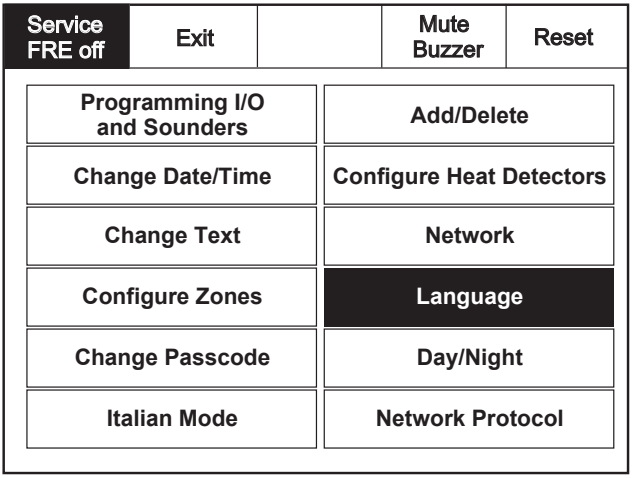


Language

To activate the touch screen, touch the top left corner of the screen until the screen illuminates. To enter the supervisor mode touch the supervisor button and enter the service passcode.

Enter the Service Mode and Select Configure.

Select "Programming I/O and Sounders" from the Configure Menu Screen.
Then press Language.



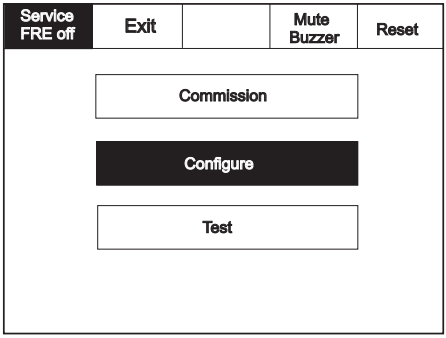
Select required Language

English
Nederlands
Nederlands (BE)
Slovensky
Hrvatski
Russian
Eesti
Türkçe
Latviešu
Français
Italiano
Cesky
Magyar
Lietuva
Greek
Afrikaans
Arabic
Deutsch
Português
Dansk
Slovenski
Svenska
Việt
Suomi
Polski

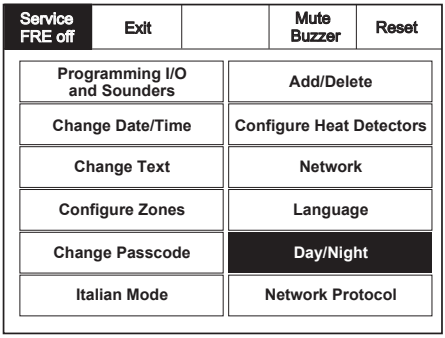
Day/night

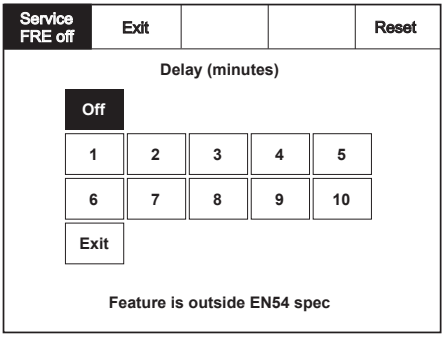
To activate the touch screen, touch the top left corner of the screen until the screen illuminates. To enter the supervisor mode touch the supervisor button and enter the service passcode.

Enter the Service Mode and Select Configure.

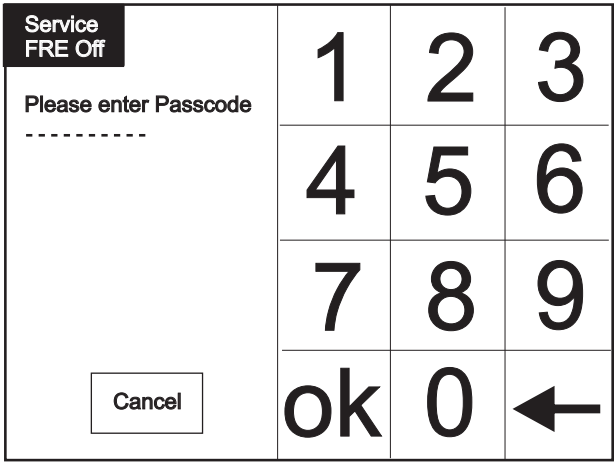


Select "Day/Night" from the Configure Menu Screen.





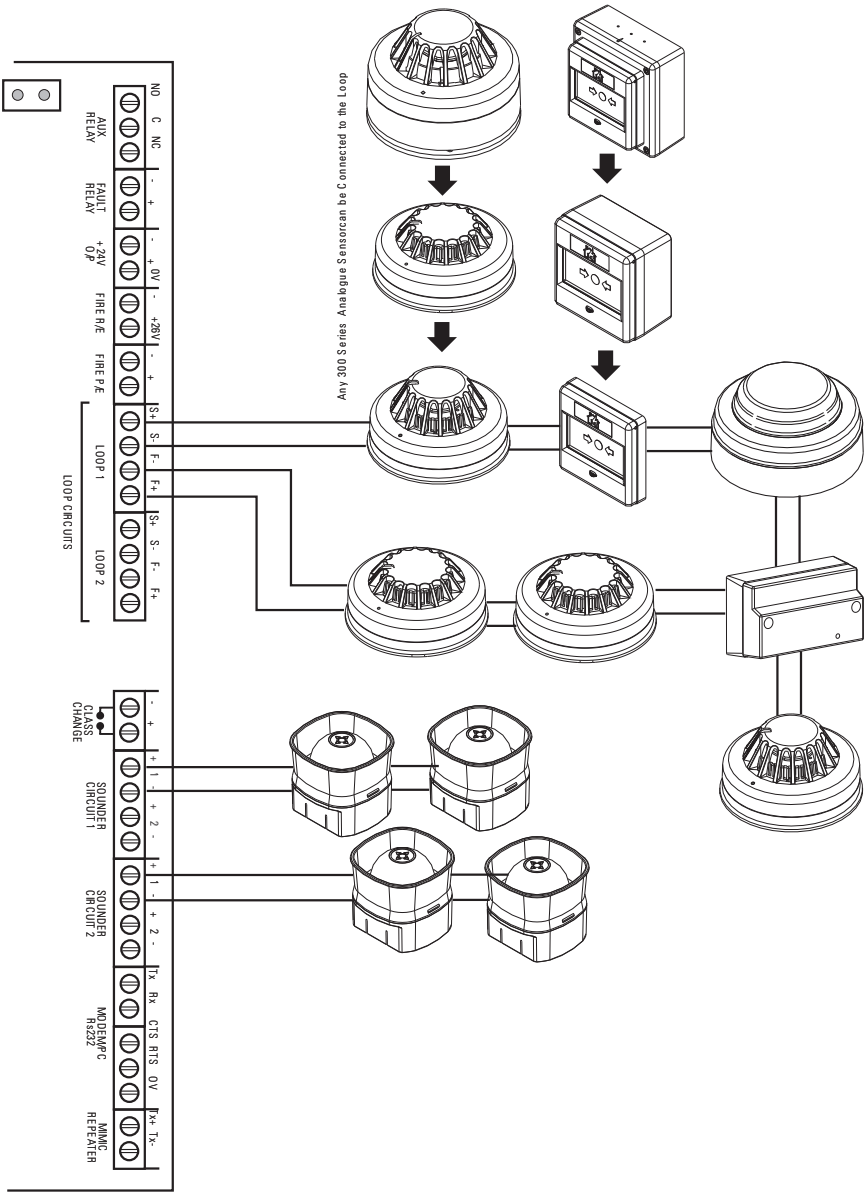
Password protection



The system has password protection which restricts access to the DISABLE Menu and to TEST/COMMISSIONING MODE. The password is a four digit code and the default number is 2214. The password entry screen is accessed via the supervisor mode button. Press supervisor mode and the password entry screen will be displayed, type in the passcode and press Ok. If the wrong password is entered three times further access to the system is denied.

Section 4: Appendix

System wiring



Detector base wiring (CAB300)

Supply voltage	18 - 30 V DC
Cable size	1.0 - 1.5mm²
Recommended cable types	FIRETUF, FP200 or MICC
Mounting hole centres	50 - 80mm

Wiring hints

- Each terminal is suitable for clamping up to 2 wires
- Clamping of 2 wires of very different diameters under one screw is not recommended
- Suitable for mounting to mounting boxes with 50-80mm fixing centres

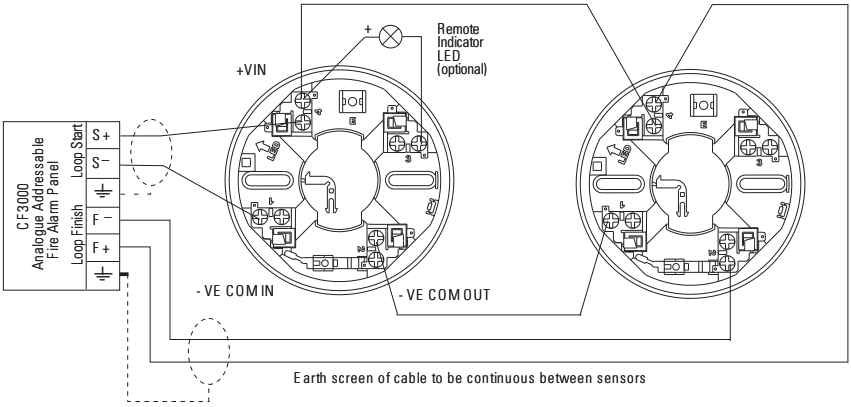
General

If difficulty is experienced when mounting the sensor, this may be due to the following:

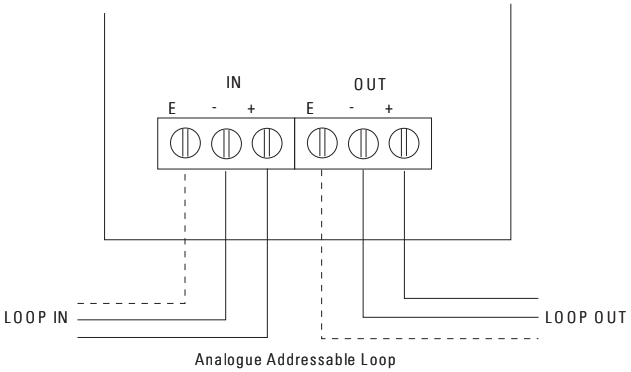
- Wiring causing an obstruction - move or shorten wires
- Although the base is tolerant to uneven mounting surfaces, a very uneven surface may cause the base to deform when the mounting screws are tightened down - loosen screws to reduce this or slide base to a flat position

⚠ WARNING

DO NOT USE HIGH VOLTAGE TESTERS WHEN SENSORS OR CONTROL PANEL ARE CONNECTED TO THE SYSTEM.

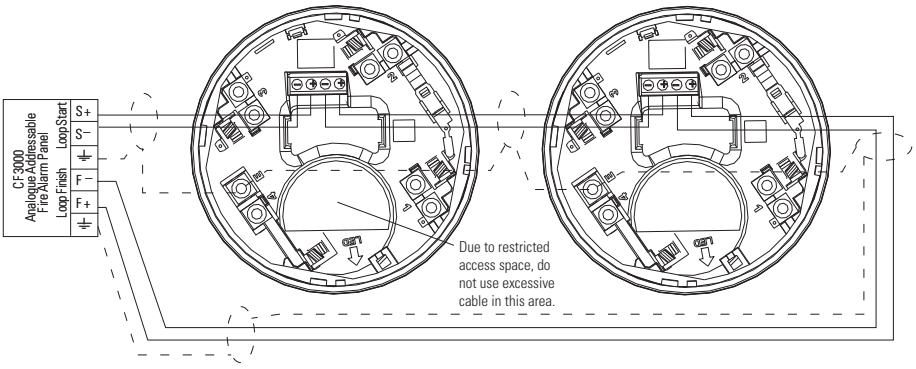


Call point wiring (CBG370S/CBG370WP)



Base sounder wiring (CAS380, CASBB384)

Supply voltage	17 ~ 32 Vdc
Cable size / type	1.0 ~ 1.5mm^2/ FIRETUF, FP200 or MICC
Standby current	< 320 uA
Operating temperature	-10 to +55 degrees C (95%RH)
Sound output @ +/-3dB (set by panel)	Low volume : 84dB @ <4mA
	Medium volume : 92dB @ <8mA
	High volume : 95dB @ <12mA
Tones (set by panel)	Continuous 910Hz
	Pulsed 910Hz / 0Hz pulse 1Hz
	Two tone 610 / 910Hz @ 1Hz cycle
	Slow whoop 500-1200Hz in 3.5 seconds / 0.5secs gap



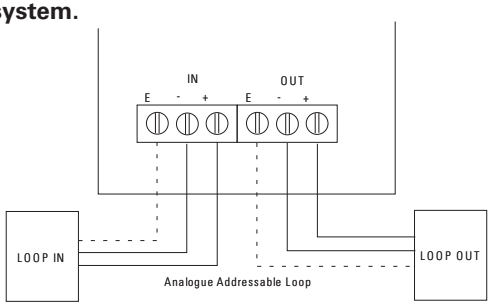
Loop powered beacon wiring (CAB382)

Connection details

Earth screen of cable to be continuous between beacons

⚠ WARNING

Do NOT use high voltage testers if any equipment is connected to the system.



Wall sounder wiring (CAS381, CASB383)

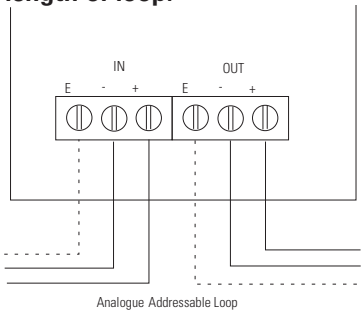
Installation

Fix to mounting surface using two suitable screws - the rear gasket fits underneath the base and the sounder gasket fits inside the base

Connection

⚠ WARNING

Do NOT use high voltage testers if ANY equipment is connected to the system. Earth screen must be continuous along entire length of loop.



Note: Care should be taken to ensure the cable does not put stress on the circuit board

IP66 wall sounder wiring (CAS381WP, CASB383-WP)

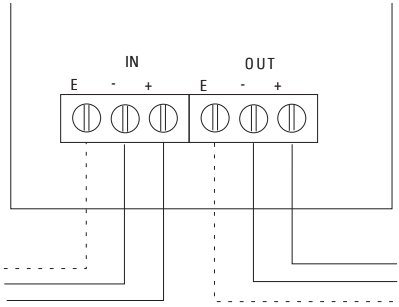
Installation

1. Drill required holes for the cable gland fixing
2. Drill out the required fixing holes
3. Fix to mounting surface using two suitable screws

Connections

⚠ WARNING

Do NOT use high voltage testers if ANY equipment is connected to the system. Earth screen must be continuous along entire length of loop.



Analogue Addressable Loop

Base Sounder VAD (CASBB394)

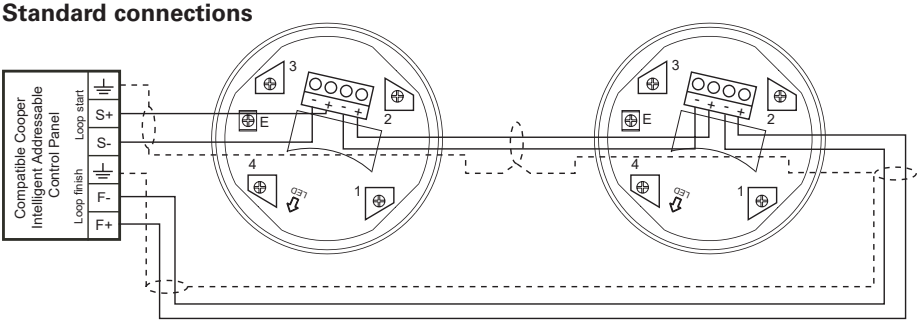
Installation

1. Installation is simple using first fix base.
2. First fix base is fixed to mounting surface via 2 fixings holes.
3. Cables enter through aperture in base (rear entry only).
4. Main body is then clipped into place on base, main body locks into place when pressed into position.
5. Cables pass through aperture in sounder body and terminate at the front.
6. Connections are to connector block on front of main sounder body.

System functionality

1. Volume and tone are set by control panel, no need to access sounder to alter setting.
2. Soft addressed.

Standard connections



Note: Base terminal 1, 2, 3 and 4 not used. All wiring terminates as shown above.

⚠ WARNING

Do NOT use high voltage testers if ANY equipment is connected to the system. Earth screen must be continuous along entire length of loop.

Wall Sounder VAD (CASB393)

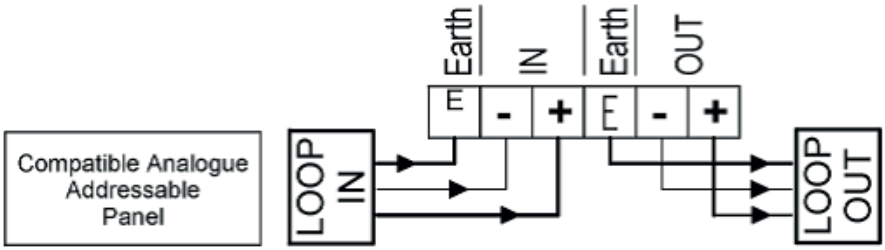
Installation

1. Installation is simple using first fix base.
2. First fix base is mounted to surface via 2 fixings holes.
3. Cable entry can be rear or side
4. Main body is then clipped into place on base, main body locks into place when pressed into position.
5. Cables pass through aperture in sounder body and terminate at the front.
6. Connections are to connector block on main sounder body.

System functionality

1. Volume and tone are set by control panel, no need to access sounder to alter setting.
2. Soft addressed.

Standard connections



⚠ WARNING

Do NOT use high voltage testers if ANY equipment is connected to the system. Earth screen must be continuous along entire length of loop.

IP66 Wall Sounder VAD (CASB393WP)

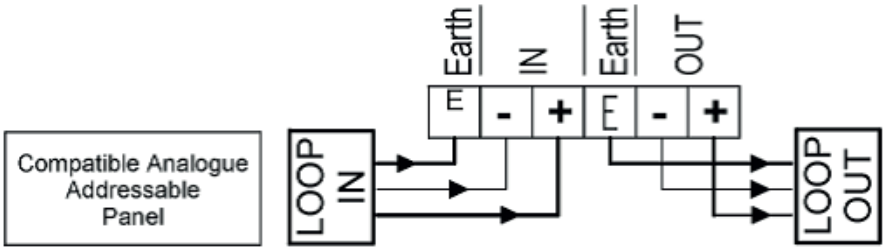
Installation

1. Installation is simple using first fix base.
2. First fix base is mounted to surface via 2 fixings holes.
3. Cable entry can be rear or side
4. Main body is then bolted into place on base.
5. Cables pass through aperture in sounder body and terminate at the front. Ensure cables are correctly sealed for IP66 integrity.
6. Connections are to connector block on main sounder body.

System functionality

1. Volume and tone are set by control panel, no need to access sounder to alter setting.
2. Soft addressed.

Standard connections



⚠ WARNING

Do NOT use high voltage testers if ANY equipment is connected to the system. Earth screen must be continuous along entire length of loop.

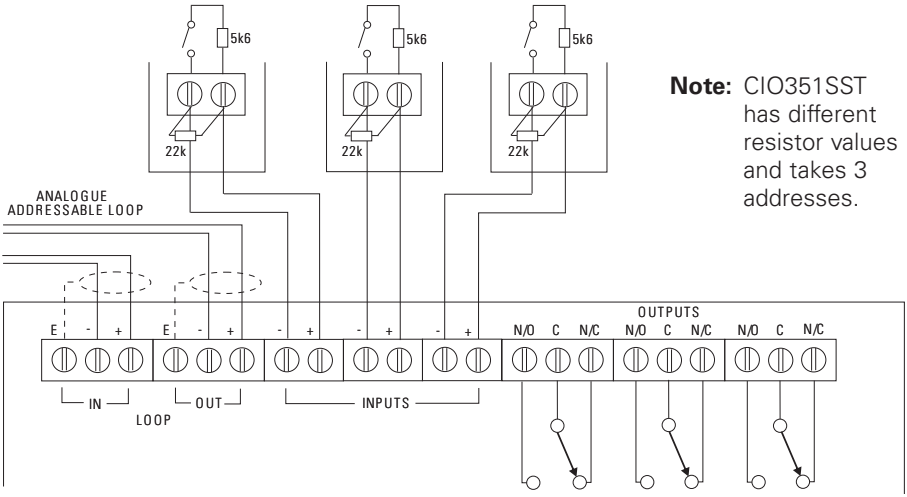
3 way input output unit (CIO351, CIO351S, CIO351SST)

Installation

1. Separate the two halves of the unit and remove the PCB before drilling (PCB can be added back in after).
2. Drill out (or knock out) the required cable entries in the surface mounting back-box
3. Fit the back-box in position and pass the wires into it
4. Connect the unit according to the diagram below

Note: No addressing of the interface is required. See control panel operation for details.

Standard connections



Note: CIO351SST has different resistor values and takes 3 addresses.

Note: No addressing of the interface is required. See control panel operation for details.

1. Only connect cable screen to its adjacent earth terminal
2. The end of line resistor must always be fitted, even if the inputs are unused
3. Monitored inputs can detect open or short circuit faults
4. Output relays are volt-free contacts and are not monitored

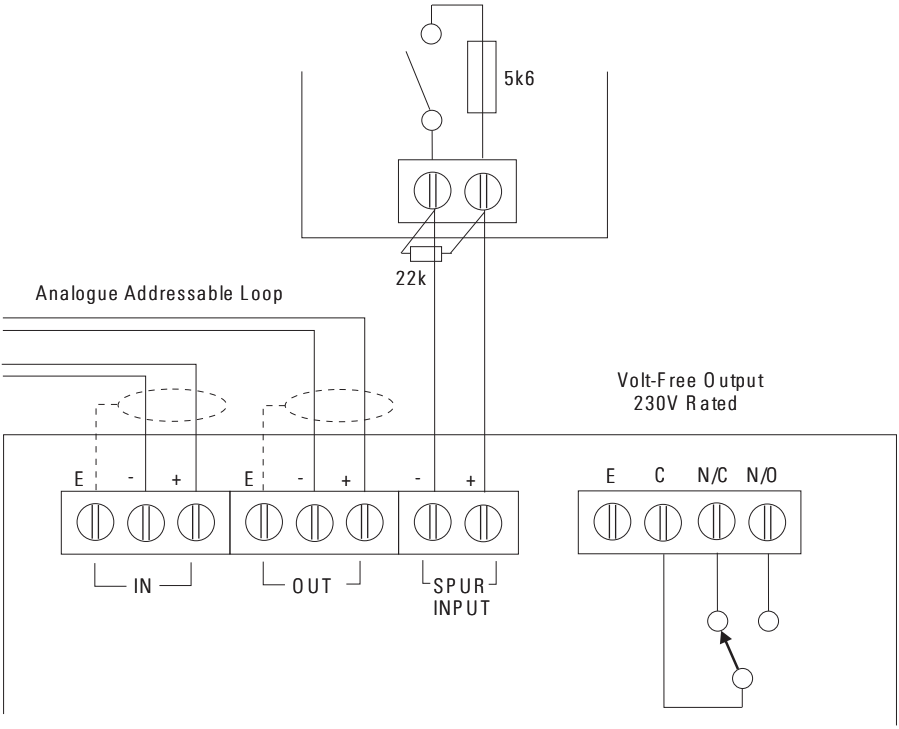
1 Channel mains rated I/O unit wiring (CMIO353)

Installation

1. Separate the two halves of the unit and remove the PCB before drilling (PCB can be added back in after).
2. Drill out (or knock out) the required cable entries in the surface mounting back box
3. Fit the back-box in position and pass the wires into it
4. Connect the unit according the diagram below

Note: No addressing of the interface is required. See control panel operation for details

Standard connections



Note:

1. Only connect cable screen to its adjacent earth terminal
2. The end of line resistor must always be fitted, even if the spur is unused

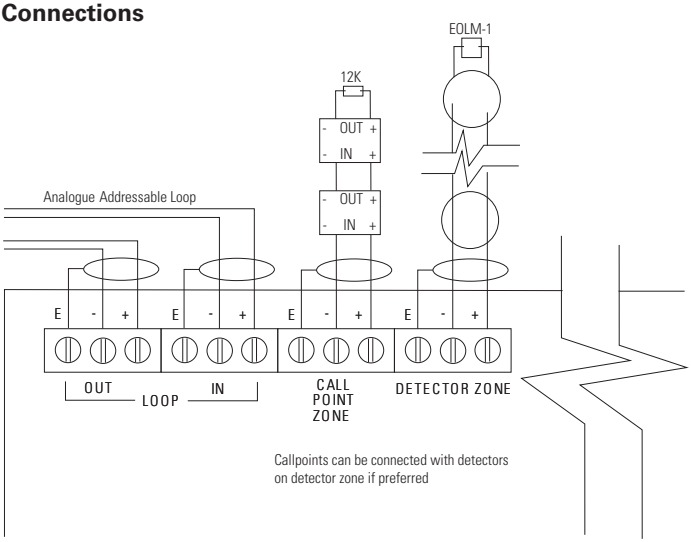
Zone monitor unit wiring (CZMU352)

Installation

1. Separate the two halves of the unit
2. Drill out (or knock out) the required cable entries in the surface mounting back - box
3. Fit the back-box in position and pass the wires into it
4. Connect the unit according to the diagram below

Note: No addressing of the interface is required. See control panel operation for details

Standard Connections



Note:

1. This unit can only be used with the CDBB300 range of detector bases and compatible detectors
2. Only connect cable screen to its adjacent earth terminal
3. The end of line resistor must always be fitted, even if the spur is unused
4. Maximum spur length - See BS5839 Pt1:2002 for Zone Coverage
5. Maximum number of call points allowed is unlimited, max number of conventional detectors is 20
6. Detector zone end of line device is EOLM-1 (supplied)
7. Callpoint zone has 6K8 ohms end of line resistor

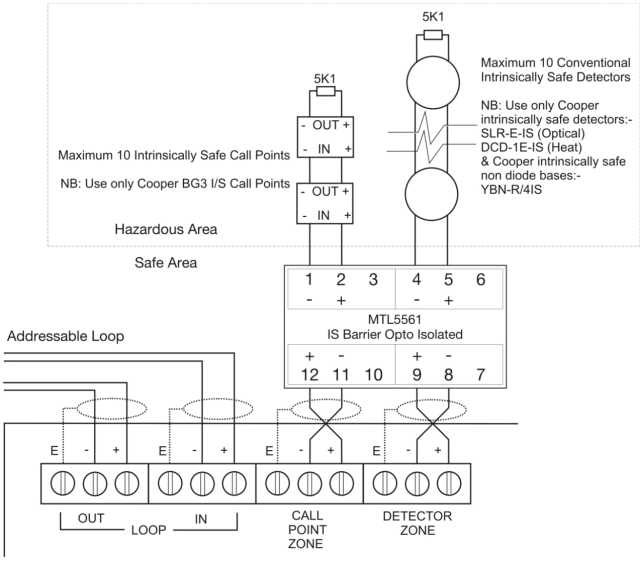
Intrinsically safe zone monitor unit wiring (CZMU352-IS)

Installation

1. Separate the two halves of the unit
2. Drill out (or knock out) the required cable entries in the surface mounting backbox
3. Fit the back-box in position and pass the wires into it
4. Connect the unit according to the diagram below
5. Recommended Cable Type: FIRETUF, FP200, MICC

Note: No addressing of the interface is required. See control panel operation for details. There are no serviceable parts so no maintenance procedures apply

Standard connections



Note:

1. This detection zone can only be used with intrinsically safe detectors SLR-E-IS (optical) / DCD-1E-IS (Heat) with the non-diode base YBN-R/4IS
2. The call point zone can only be used with BG3 I/S call points
3. Only connect cable screen to its adjacent earth terminal
4. The end of line resistor must always be fitted, even if the spur is unused
5. Maximum spur length – See BS5839 Pt1:2001 for Zone Coverage

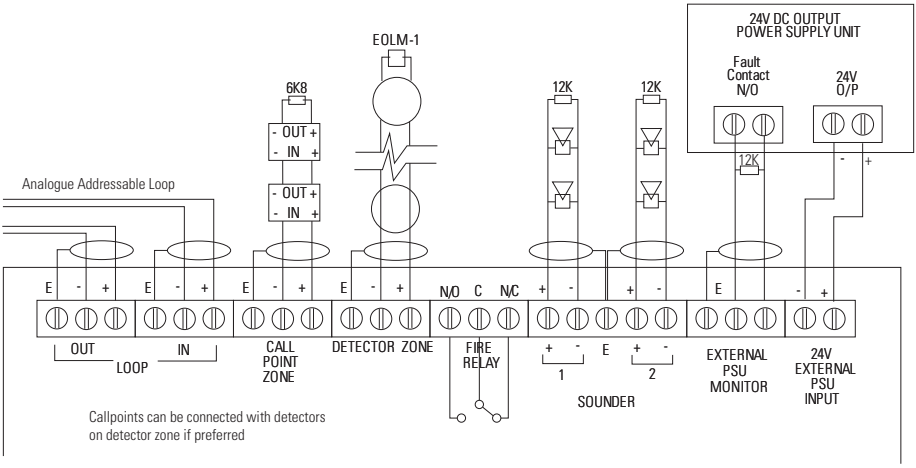
Shop monitor unit wiring (MSU840)

Installation

1. Separate the two halves of the unit
2. Drill out (or knock out) the required cable entries in the surface mounting back - box
3. Fit the back-box in position and pass the wires into it
4. Connect the unit according to the diagram below

Note: No addressing of the interface is required. See control panel operation for details

Standard connections



Note:

1. This unit can only be used with the CDBB300 range of detector bases and compatible detectors
2. Only connect cable screen to its adjacent earth terminal
3. The end of line resistor must always be fitted, even if the spur is unused
4. Maximum spur length - See BS5839 Pt1:2002 for Zone Coverage
5. Maximum number of call points allowed is unlimited, max number of conventional detectors is 20
6. Detector zone end of line device is EOLM-1
7. Callpoint zone has end of line resistor
8. 24V DC must always be present even if sounder circuits are not used

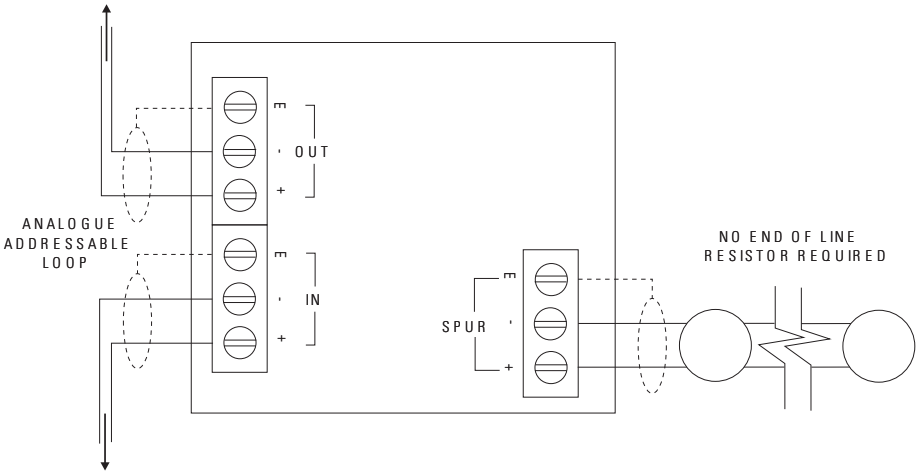
Spur isolator wiring (CSI350)

Installation

1. Fit the unit in position
2. Connect the unit according to the diagram below

Note: A Spur Isolator must be used when making spurs from the analogue addressable panel loop. Without this unit, the self addressing features of the system will not function correctly. No addressing of the interface is required. See control panel operation for details

Standard connections



Note:

1. Only connect cable screen to its adjacent earth terminal
2. For maximum spur length / load see BS5839 Pt1:2002
3. This unit can only be used with Eaton CAB300 and CDB300/I Sensor bases and compatible sensors

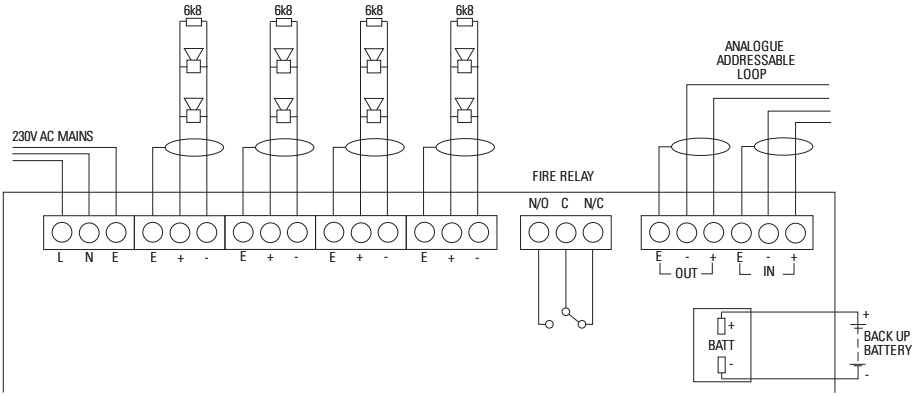
4 Way sounder controller wiring (CSC354CPR)

Installation

1. Remove the cover of the unit
2. Fit the back-plate in position and pass the wires into it taking care not to damage the circuit board
3. Connect the unit according to the diagram below

Note: No addressing of the interface is required. See control panel operation for details. This unit requires a permanent 230V AC supply

Standard connections



Note:

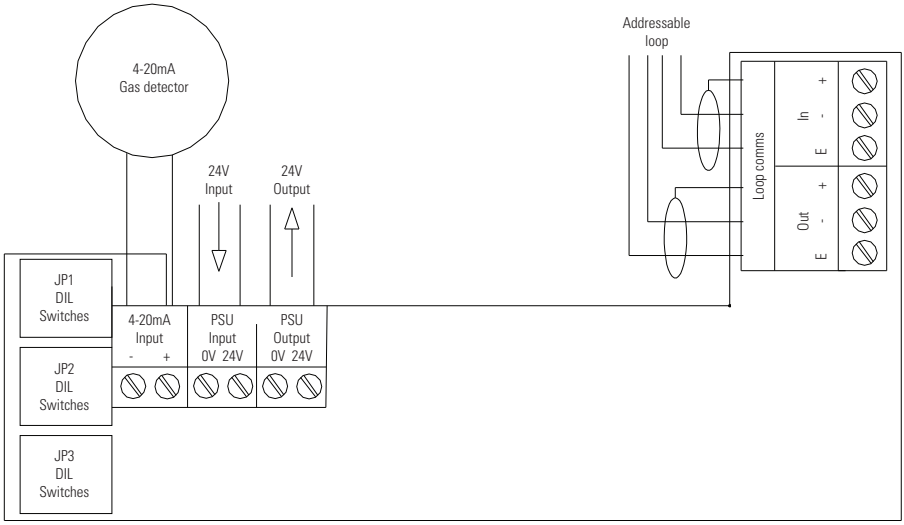
1. Only connect cable screen to its adjacent earth terminal
2. The end of line resistors must always be fitted, even if the sounder circuits are unused

4-20mA interface wiring (CGI420, CIT420, CGI420R, CIT420R)

Installation

1. Separate the two halves of the unit
2. Drill out (or knock out) the required cable entries in the surface mounting back-box
3. Fit the back-box in position and pass the wires into it
4. Connect the unit according to the diagram below
5. Set the required threshold levels via the DIL switches

Standard connections



Note:

Recommended Loop Cable Type: FIRETUF, FP200, MICC No addressing of the interface is required. See control panel operation for details. There are no serviceable parts so no maintenance procedures apply. 24V DC must always be present.

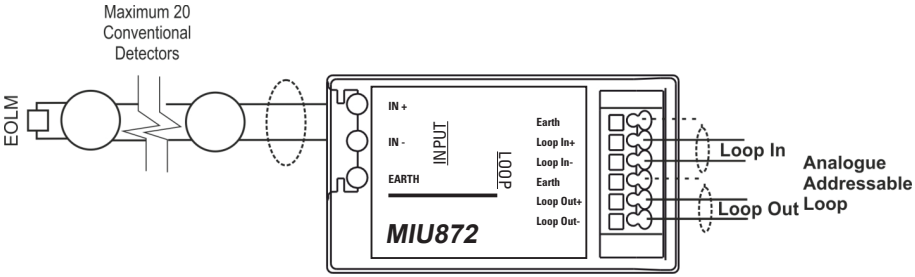
Micro zone monitor module wiring (MIU872)

Installation

1. Fit the box in position using the mounting details below
2. Connect the unit according to the diagram below
3. Recommended Loop Cable Type: FIRETUF, FP200, MICC

Note:

No addressing of the interface is required. See control panel operation for details. There are no serviceable parts so no maintenance procedures apply.



Standard connections

Note:

1. This unit can only be used with the CDBB300 range of detector bases and compatible detectors
2. Only connect cable screen to its adjacent earth terminal
3. The end of line resistor must always be fitted, even if the spur is unused
4. Maximum spur length – See BS5839 Pt1:2001 for Zone Coverage
5. Maximum number of call points allowed is unlimited, max number of conventional detectors is 20

Detector zone end of line device is EOLM-1 (supplied)

Micro input module wiring (MCIM)

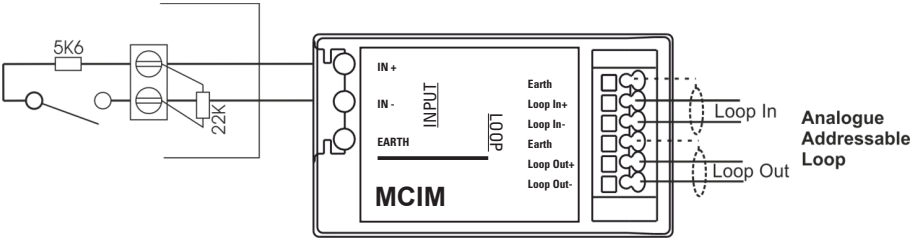
Installation

1. Fit the box in position using the mounting details below.
2. Connect the unit according to the diagram below.
3. Recommended Loop Cable Type: FIRETUF, FP200, MICC

Note:

No addressing of the interface is required. See control panel operation for details. There are no serviceable parts so no maintenance procedures apply.

Standard connections



Note:

1. Only connect cable screen to its adjacent earth terminal
2. The end of line resistor provided must always be fitted, even if the input is unused
3. Monitored inputs can detect open or short circuit faults

Micro output module wiring (MCOM, MCOM-R, MCOM-S)

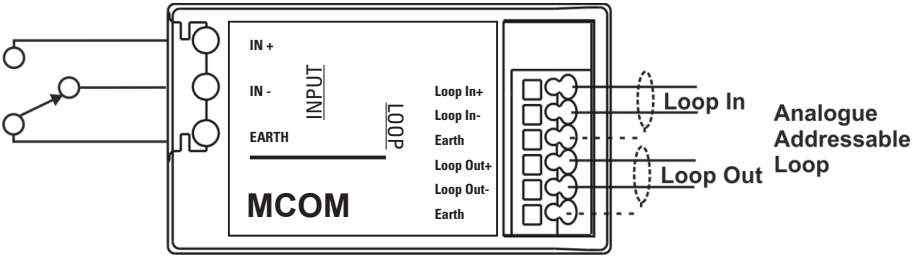
Installation

1. Fit the box in position using the mounting details below
2. Connect the unit according to the diagram below
3. Recommended Loop Cable Type: FIRETUF, FP200, MICC

Note:

No addressing of the interface is required. See control panel operation for details. There are no serviceable parts so no maintenance procedures apply.

Standard connections



Note:

1. Only connect cable screen to its adjacent earth terminal
2. Output relay are volt-free contacts and are not monitored

Notes

Eaton Electrical Systems Ltd.
Wheatley Hall Road
Doncaster
South Yorkshire
DN2 4NB

Eaton
EMEA Headquarters
Route de la Longeraie 7
1110 Morges, Switzerland
Eaton.eu

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