HAES

ESENTO®

REMOTE DISPLAY UNIT

FULLY FUNCTIONAL/PASSIVE LCD DISPLAY REPEATER PANEL

Installation, Commissioning & Operating Manual

Software Version 4.0 & Above

Approved Document DOC00636 Issue 4.0

CE

Haes Systems Ltd, Unit 3 Horton Industrial Park, West Drayton, UB7 8JD

Model Number

Esento, LCD display repeater panel XL-RDU

European Standard EN54-2 : 1997 + A1 : 2006
Control and indicating equipment for fire detection and fire alarm systems for buildings.

European Standard EN54-4 : 1997 + A1 : 2002 + A2 : 2006
Power supply equipment for fire detection and fire alarm systems for buildings.

IMPORTANT NOTE

PLEASE READ THIS MANUAL BEFORE HANDLING THE EQUIPMENT AND OBSERVE ALL ADVICE GIVEN IN IT

THIS PARTICULARLY APPLIES TO THE PRECAUTIONS NECESSARY TO AVOID E.S.D

ATTENTION

IMPORTANT SAFETY NOTES

The panel is safe to operate provided it has been installed in compliance with the manufacturer's instructions and used in accordance with this manual.

Hazardous voltages are present inside the panel—DO NOT open it unless you are qualified and authorised to do so. There is no need to open the panel's enclosure except to carry out commissioning, maintenance and remedial work. This work must only be carried out by competent service personnel who are fully conversant with the contents of the panel's installation manual and have the necessary skills for maintaining this equipment.

This fire alarm system requires periodic checks as specified in BS 5839 Part 1 It is the responsibility of the system user to ensure it is regularly serviced and maintained in good working order.

Disclaimer

No responsibility can be accepted by the manufacturer or distributors of this fire alarm panel for any misinterpretation of an instruction or guidance note or for the compliance of the system as a whole. The manufacturer's policy is one of continuous improvement and we reserve the right to make changes to product specifications at our discretion and without prior notice. E & O E.

CONTENTS

PRODUCT OVERVIEW

The Esento, LCD Remote Display repeater panels have the same, easy to use, controls and indications as the main control panels with the addition of a 4 line x 40 character, backlit LCD display.

The remote display units are fully functional with 'Silence', 'Resound' and 'Reset' controls, as well as Disable and Test Mode functions. It is also possible to disable the controls for each or all repeater panels to make them passive (indication only). Up to 8 repeater panels can be supported on a system.

Repeater panels are designed to be wired in a fault tolerant (fail safe) loop configuration, from comms A to B and back to the main panel again. This enables repeater panels to still work if there is a break in the cables.

If replacing an older system where the existing cabling cannot be configured in a loop as above, it is possible to re-programme the control panel back to legacy RS485 circuit comms monitoring. This then allows any topology of comms cabling to be utilised.

The main circuit board has 2, switch –ve, outputs which provide fire and fault signals. Inputs are available for use as PSU fault inputs. An input for a remote key-switch is also provided.

Controls are enabled via a 4 digit code entry. The user code can be changed in the programming settings. An eight button keypad is used to control the system and allow access to the function options.

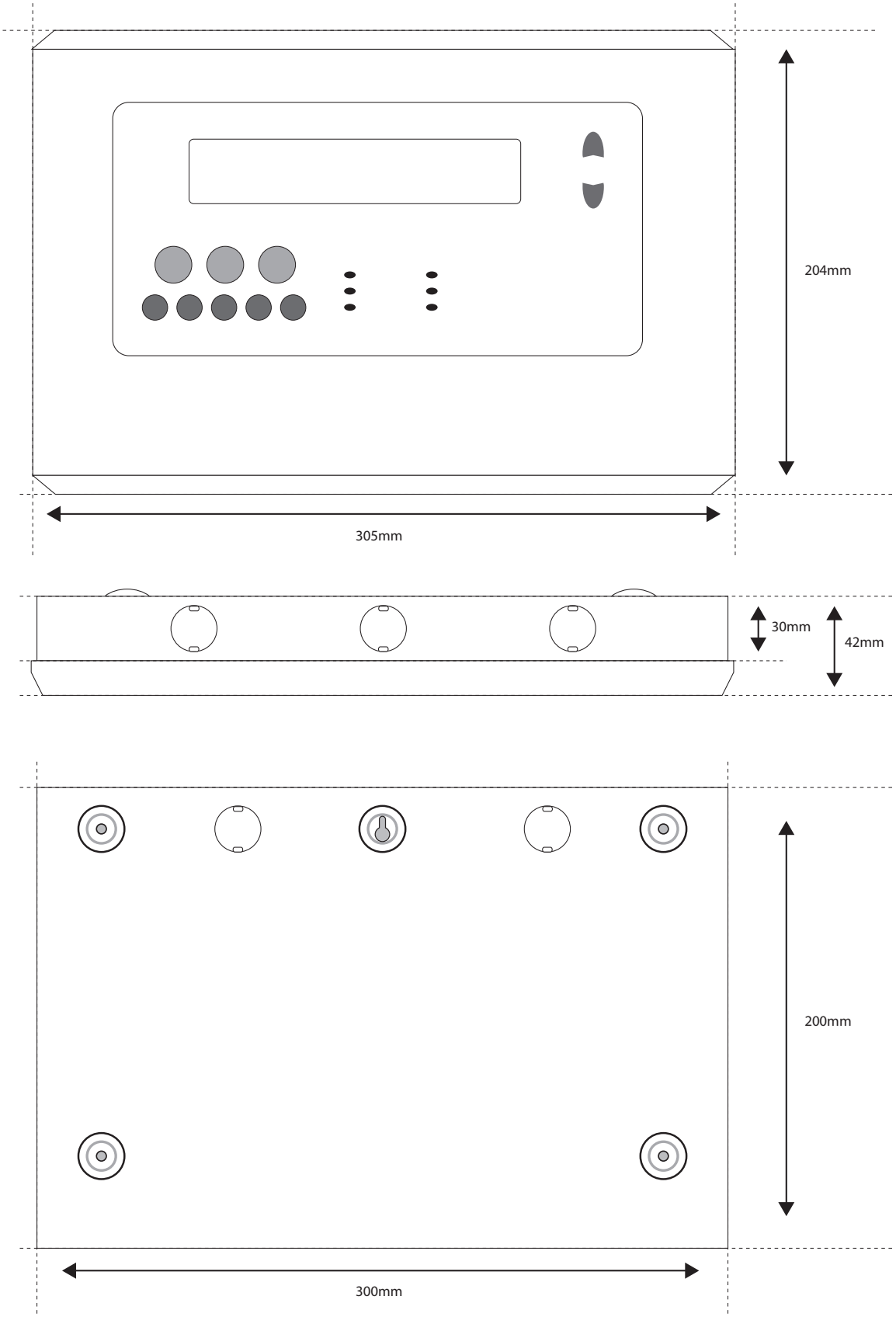
The remote display unit is housed in a robust sheet steel enclosure suitable for wall mounting. Cable entry is via 20mm 'knockouts' located at the top and rear of the cabinet.

A nominal 28v dc supply is required to power the remote display units which can be obtained from the control panel or remote power supply unit.

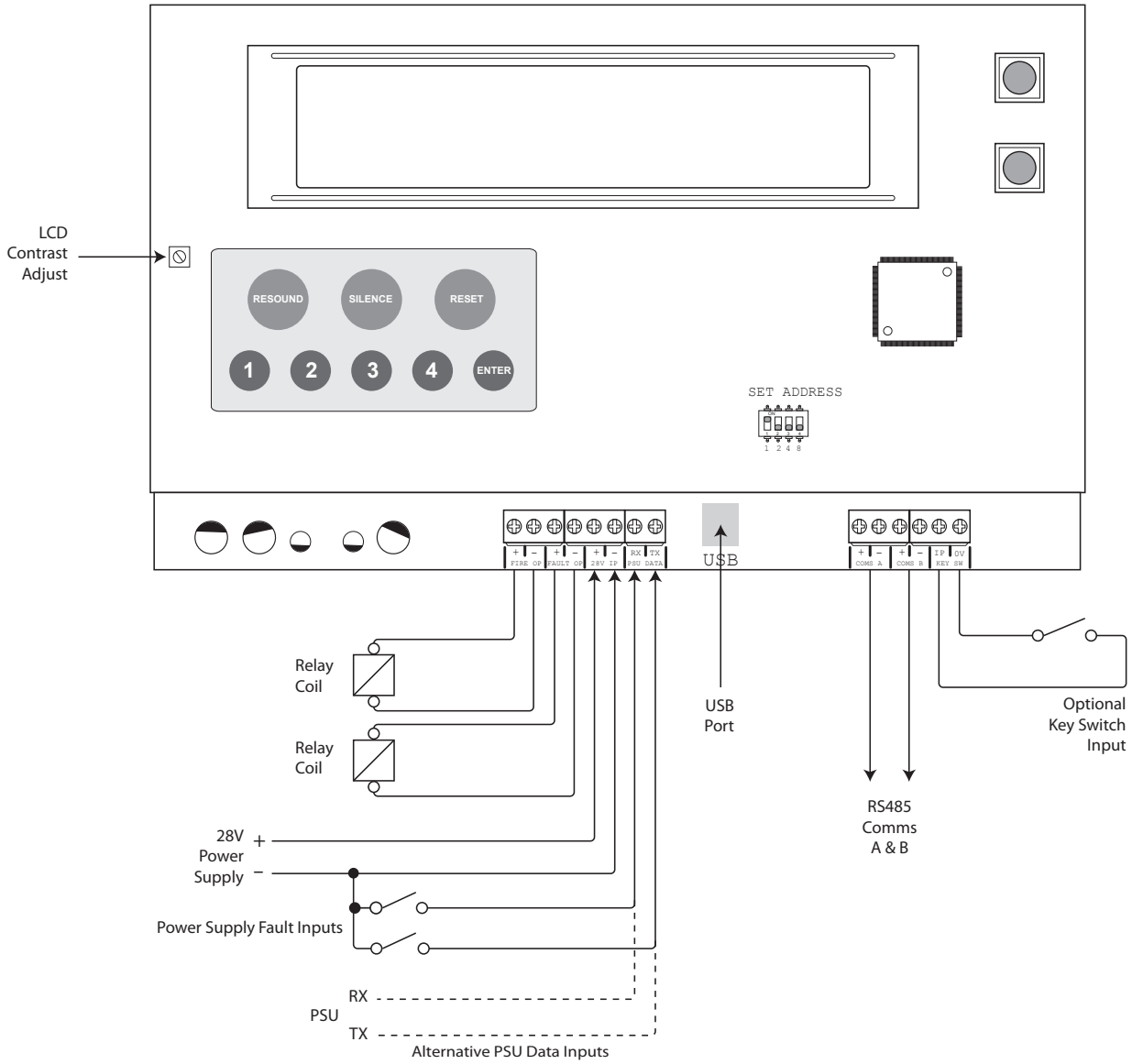
Quiesecent and alarm current details for standby battery calculations

	Standby Current	Alarm Current
XL-RDU remote display unit	60mA	89mA

CABINET



MAIN PCB TERMINALS



TECHNICAL SPECIFICATION

Inputs & Outputs	
Terminal capacity	0.5mm^2 to 2.5mm^2 solid or stranded wire.
FIRE OP +/-	A 28v +ve & switched negative output which activates when a fire is present on the network. Current limited to 40mA.
FAULT OP +/-	A 28v +ve & switched negative output which activates when a fault is present on the network. Current limited to 40mA.
28v IP +/-	The RDU requires a 28 volt DC supply input. This can be derived from a control panel output or local battery charger / power supply unit. The repeater consumes around 100mA in normal operation. When deriving from a control panel supply, consideration should be given to battery standby times.
PSU DATA RX/TX	These are normally configured as switch negative fault inputs to collect a fault signal from a local power supply if fitted. They can be programmed to accept data from a compatible PCA12 type power supply unit.
USB	USB type B connector for PC config purposes. Max 5v dc
COMS A	RS485 data comms output to next network panel or repeater. For long cable runs a 120R termination resistor is recommended.
COMS B	RS485 data comms input from previous next network panel or repeater. For long cable runs a 120R termination resistor is recommended.
KEY SW IP/0V	A 0v and input provided for connection of an external keyswitch to enable the controls. A keyswitch can be mounted in a separate box or a link can be fitted to leave controls permanently enabled. In the case of a lost password this input can still enable the controls.

General Specification	
Enclosure	Steel IP30. Epoxy powder coated Interpon Radon, silver grey
Cabling	The use of fire resistant screened cable, is recommended, FireBurn, FP200 or equivalent. Minimum size 1mm^2. Max cable length 1Km Non fire resistant cable can be used, BELDEN 9271 or BELDEN 9860. Maximum cable length 1.2Km
Temperature range	-5 deg C to +40 deg C max RH 95%

SAFETY

Suppliers of articles for use at work are required under section 6 of the Health and Safety at Work Act 1974 to ensure as reasonably as is practical that the article will be safe and without risk to health when properly used. An article is not regarded as properly used if it is used “without regard to any relevant information or advice” relating to its use made available by the supplier.

It is assumed that the system, of which this control panel is a part, has been designed by a competent fire alarm system designer in accordance with BS 5839 Part 1 and with regard to BS EN 54 parts 2 and 4 in the case of control equipment and power supplies. Design drawings should be provided to clearly show the position of any field devices and ancillary equipment.
This product should be installed, commissioned and maintained by, or under the supervision of, competent persons according to good engineering practice and,

(i) BS 7671 (IEE wiring regulations for electrical installations)
(ii) Codes of Practice
(iii) Statutory requirements
(iv) Any instructions specifically advised by the manufacturer

According to the provisions of the Act you are therefore requested to take such steps as are necessary to ensure that any appropriate information about this product is made available by you to anyone concerned with its use.

This equipment is designed to be operated from 230V AC 50/60 Hz mains supplies and is of Class I construction. As such it must be connected to a protective earthing conductor in the fixed wiring of the installation. Failure to ensure that all conductive accessible parts of this equipment are adequately bonded to the protective earth will render the equipment unsafe.

This equipment must only be installed and maintained by a suitably skilled and technically competent person.

THIS IS A PIECE OF CLASS 1 EQUIPMENT AND MUST BE EARTHED

These panels are designed to comply with the requirements of EN 54 part 2.

Installation of the panel should only be carried out by qualified personnel. The electronic components within the panel can be damaged by static charge. Suitable precautions must be taken when handling circuit boards. Never insert or remove boards or components, or connect cables, with the mains power on or batteries connected.

Equipment Guarantee

This equipment is not guaranteed unless the complete system is installed and commissioned in accordance with the laid down national standards by an approved and competent person or organisation.

CE This product has been manufactured in conformance with the requirements of all applicable EU Council Directives

ESD PRECAUTION

Electronic components are vulnerable to damage by Electrostatic Discharges (ESD). An ESD wrist strap, suitably grounded, should be worn at all times when handling pcbs. These wrist straps are designed to prevent the build up of static charges, not only within a persons body, but on many other materials.
ESD damage is not always evident immediately, faults can manifest themselves at anytime in the future.
All pcbs should be stored in static shielded bags (silvered) for safe keeping, when not mounted in the control panel.

GENERAL

Care should be taken with regards to avoiding the close proximity of high voltage cables or areas likely to induce electrical interference. Earth links should be maintained on all system cables and grounded in the control panel. The detection and sounder circuit cabling is classed as extra low voltage and must be segregated away from mains voltage.

- Any junction boxes used should be clearly labelled FIRE ALARM.
- Any ancillary devices, e.g. door retaining magnets, must be powered from a separate power source.
- Any coils or solenoids used in the system must be suppressed, to avoid damage to the control equipment.

MOUNTING THE CABINET

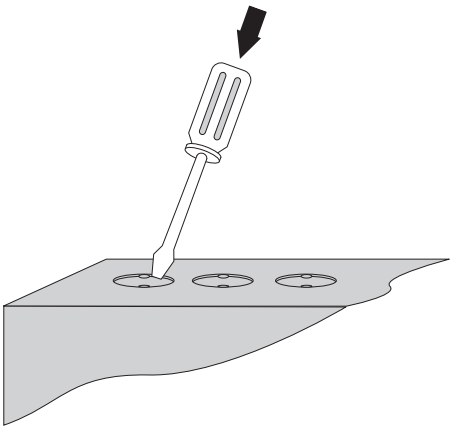
The site chosen for the location of the panel should be clean, dry and not subject to shock or vibration. Damp, salt air or environments where water ingress or extremes of temperature may affect the panel must be avoided. The temperature should be in the range -5° to +40°C, and the relative humidity should not exceed 95%.

Before mounting the cabinet remove the main PCB.

Remove the 6 x M4 nuts & washers securing the PCB. The board can then be carefully lifted off it's mounting pillars.

Secure the cabinet to the wall using the four indented holes in the back box. Ensure the box is mounted level and in a convenient location where it may be easily operated and serviced.

External cables should be glanded via preformed knockouts at the top and rear of the cabinet. Remove any knockouts and ensure the cabinet is clear of swarf etc prior to refitting the PCB. Always ensure that if a knockout is removed, the hole is filled with a good quality cable gland. Any unused knockouts must be securely blanked off.



Knockouts should be removed with a sharp tap at the rim of the knockout using a flat 6mm broad bladed screwdriver.

Use of excessive force will damage the enclosure around the knockout.

REPEATER PANEL SETUP & PROGRAMMING

Up to 8 repeater panels can be supported on a system. The remote display units are fully functional with 'Silence' 'Resound' and 'Reset' controls, as well as Disable and Test Mode functions. It is possible to disable the controls of each or all repeater panels to make them passive.

Repeater Comms PCB

To run remote display units, a Comms PCB (TPCA05) must be fitted to the main control panel.

The Comms PCB fits into the control panel on top of the main circuit board where the ribbon cable from the display board is normally plugged.

To fit the Comms PCB, power down the panel, un-plug the display board ribbon cable from the main circuit board and plug the Comms PCB into the socket instead.

A socket is provided on the top of the Comms PCB to re-connect the display board ribbon cable.

In order to initialise the Comms PCB in the main control panel the Network/Repeater mode DIL switch, located on the main circuit board, must be switched to the ON position. For the 16-32 zone size panel this is switch No. 3. For the 2-12 zone size panels this is switch No. 7. If this has not been set correctly the 'System Fault' lamp will be illuminated.

See panel manual for further details of fitting a TPCA05, Comms PCB.

Set Number of Repeater Panels

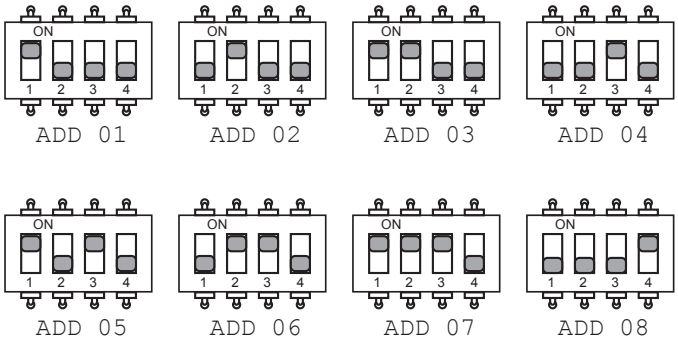
The control panel will need to be programmed for the number of repeater panels on the system. See over page.

The number of repeater panels on the system is programmed at the main control panel with Level 3 programming mode active *(see panel manual for details of Level 3 programming mode).*

Addressing

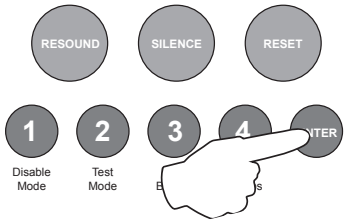
Each remote display unit needs to have a seperate address. The addressing is done using the 4 DIL switches located on the circuit board (labelled SET ADDRESS) using binary code values, see diagram below.

The address should be set in sequence from 1 - 8, first display unit = address 01, next unit = address 02 etc. The main control panel should always be address 00 (all switches off).



To set the number of repeater panels at the main control panel use:

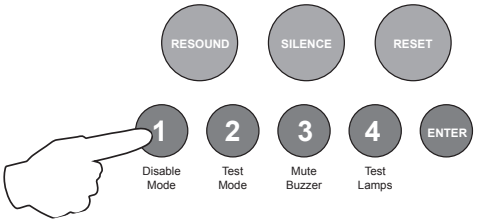
(2) (1) (2) (3) **Panel Wide Settings**



There are 11 general, panel wide, settings available.

Enter the above code and press the ENTER button. The 11 programmable options are represented by fire zone LEDs 1 - 11, Option 2 being the, 'set number of repeater panels' setting.

Use button 1 to move to option 2



Fire LED	Programming Option
1	
2	**Set number of repeater panels on system**
3	
4	
5	
6	

OPTION 2. Set Number of Repeater Panels on System

With the zone 2 fire LED lit, the amber, fault LEDs will show the current quantity of repeaters set 0 - 8. (1 LED lit = 1 repeater, 2 = 2 etc..).

Press the ENTER button, zone 2 fire LED will pulse to indicate 'edit mode'.

Now use buttons 1 & 3 to increase or decrease the quantity. Button 1 increases, button 3 decreases.

When finished press the ENTER button again and the zone 2 fire LED will return to steady 'view mode'.

Press button 1 for 3 seconds to exit programming mode 2-1-2-3.

CABLING

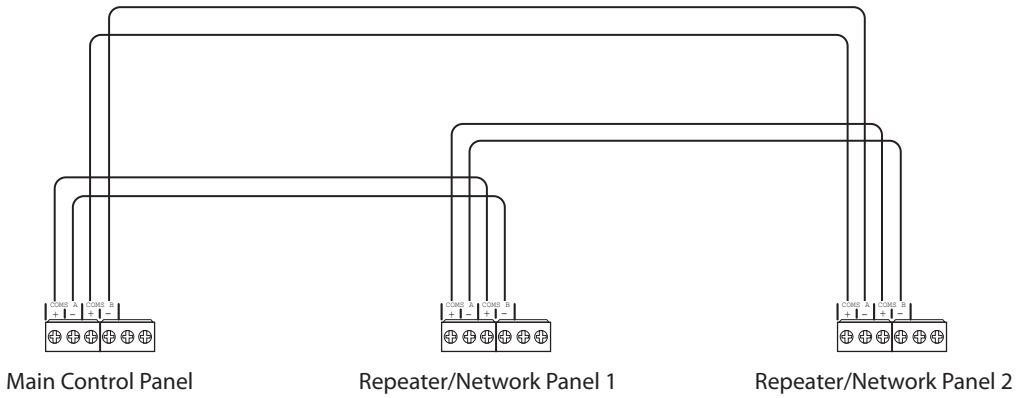
The remote display units are designed to be wired in a fault tolerant (fail safe) loop configuration, from Comms A +/- to Comms B +/- on the next repeater or network panel and so on until returning to Comms B +/- on the main control panel again (see Fig.1). This enables repeater panels to still work if there is a break in the cables. Up to 1Km of cable can be used between each repeater. 120R terminating resistors can be used to reduce interference between each leg of the loop.

Any suitable screened cable can be used or fire resistant cable, 'NoBurn', FP200 etc.

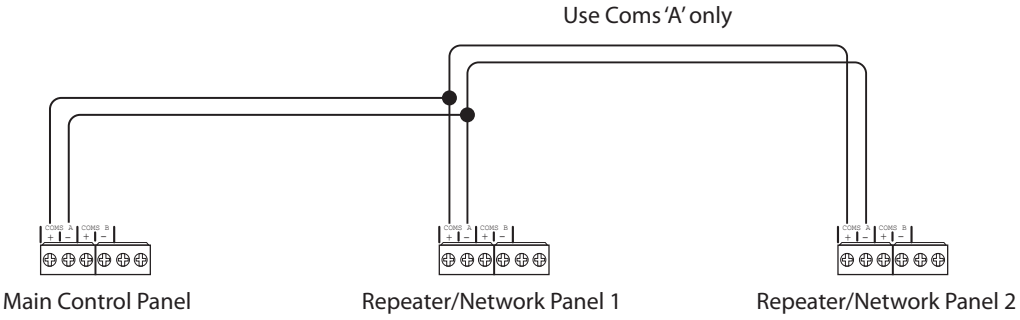
If replacing an older system where the existing cabling cannot be configured in a loop as shown, it is possible to re-programme the control panel back to legacy, radial circuit comms monitoring. This then allows any topology of comms cabling to be utilised (see Fig. 2).

The network comms monitoring type is programmed at the main control panel with Level 3 programming mode active (see panel manual for details of Level 3 programming mode).

Fault Tolerant Loop Wiring *Fig.1*

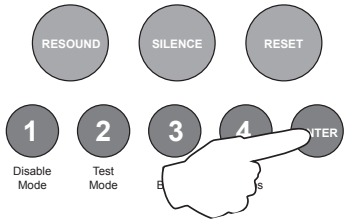


Radial/Legacy Wiring *Fig.2*



To change the Comms monitoring type at the main control panel use:

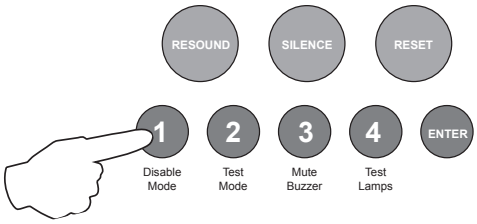
(2) (1) (2) (3) **Panel Wide Settings**



There are 11 general, panel wide, settings available.

Enter the above code and press the ENTER button. The 11 programmable options are represented by fire zone LEDs 1 - 11, Option 6 being the, 'change repeater comms monitoring type' setting.

Use button 1 to move to option 6



Fire LED	Programming Option
1	
2	
3	
4	
5	
6	**Change network/repeater comms monitoring type**

OPTION 6. Change Network/Repeater Comms Monitoring Type (EN54!)

With the zone 6 fire LED lit, the amber, fault LEDs will show the current setting.

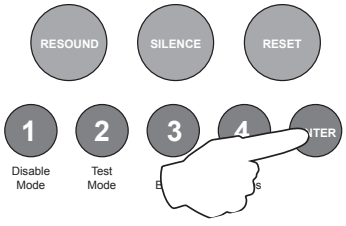
LED 1 OFF = fault tolerant monitoring (default). LED 1 ON = legacy, radial circuit monitoring.

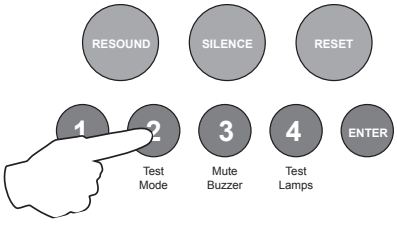
Press the ENTER button, zone 6 fire LED will pulse to indicate 'edit mode'.

Now use button 2 to change the setting (LED 1 ON or OFF).

When finished press the ENTER button again and the zone 6 fire LED will return to steady 'view mode'.

Press button 1 for 3 seconds to exit programming mode 2-1-2-3.

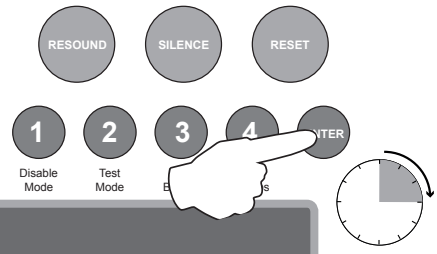




USER MENU

The user menu is used for the general access of information and the setup of the repeater features. This includes viewing any active disablements on the network, setting the real time clock and configuring the names in the repeater i.e company name, network panel names & zone identification text as well as editing the user access code and other options.

To invoke the user menu press and hold the ENTER button for 3 seconds. After 3 seconds the panel will beep and an 'Access Code Check' dialogue will appear in the display prompting the user access code to be entered.



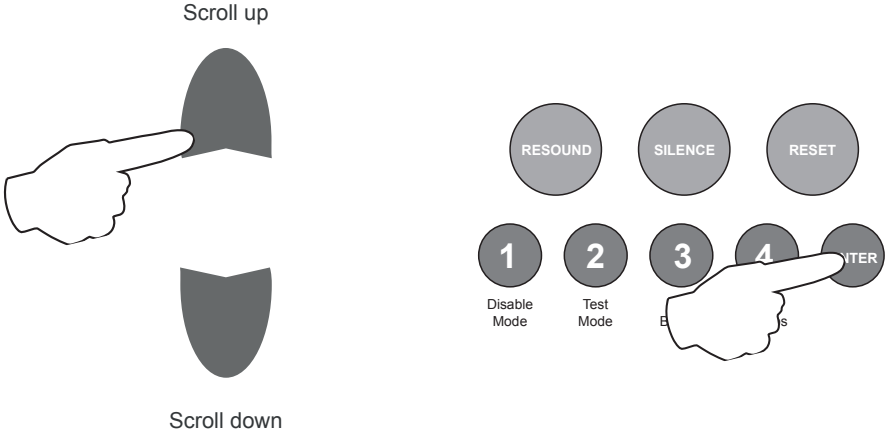

```
Access Code Check
Enter Access Code:  >      <

[1-4]-Code          [1 Held]-Exit
```

Enter the 4 digit access code. This is 1-2-3-4 by default but can be changed in the settings.

```
User Menu
>1.View Active Disablements                    <
 2.Set Time & Date
 3.Configure Repeater
```

The user menu will then be displayed. Use the UP & DOWN scroll buttons to navigate through the menu and the ENTER button to access the programming option. See menu structure over page.

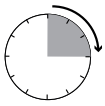


USER MENU STRUCTURE

1. View Active Disablements
2. Set Time & Date
    1. Set Clock
    2. Set Daylight Savings
    3. Go Back
3. Configure Repeater
    1. Edit Company Name
    2. Edit Panel Names
    3. Edit Zone Names
    4. Set PSU Monitoring
        1. PCA12 Present
        2. Disable Battery Monitoring
        3. Go Back
    5. Edit Access Code
        - Current Password 1234 (change password)
        - Default Password (set back to default password)
        - Password/Key Required (set if access password required Y/N)
    6. Repeater Options
        1. Mute Fault & Alarm Buzzer
        2. Serialised Zone Numbering
        3. Display Panel Names
        4. Lower Buzzer Volume
        5. Go Back
    7. Go Back
4. Go Back

1. View Active Disablements

Press the ENTER button and all active zone, sounder circuit or delay disablements on the entire network will be displayed. Use the scroll buttons to view the disablements.

The display will time out automatically or holding button 1 for 3 seconds  will take you back to the user menu.

2. Set Time & Date

1. Set Clock - Press the ENTER button to access the clock setting mode. Use the scroll buttons to alter the values and the ENTER button to move on to the next value. The final ENTER will set the value to all repeaters on the network and return to the Set Time & Date menu. If a mistake is made the only option is to go around the setting process again.

2. Set Daylight Savings - Press the ENTER button to access the daylight saving setting mode. Use the scroll buttons to alter the start or end dates and the ENTER button to move to the next value. Press ENTER again to select daylight saving ON or OFF and use the scroll buttons to change the setting. The final ENTER will set the value to all repeaters on the network and return to the Set Time & Date menu.

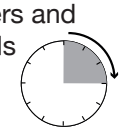
3. Go Back - Return to previous menu. (Holding button 1 for 3 seconds at any time will also save the settings and return to the previous menu).

3. Configure Repeater (Note: these repeater configurations, including names, are only entered for the local repeater. If using multiple repeaters each must be programmed seperately).

1. Edit Company Name - Press the ENTER button to access the Company Name edit mode. Use the scroll buttons to move the characters through the lists and press the ENTER button to move to the next character along. Buttons 1 & 3 also navigate forwards & backwards along the line.

Button 4 changes the character lists between upper case and lower case letters, numbers and symbols. 40 characters are available for name, phone number etc. When completed hold button 1 for 3 seconds  to save settings and return to the Configuration Menu.

2. Edit Panel Names - If the system contains networked control panels the RDU can be programmed to display a different name for each of the panels on the network rather than Panel 1, Panel 2 etc. Press the ENTER button to access the Edit Panel Names mode. Up to 8 panel names are available, 1 is the master panel and 2-8 are the network slave panels (in panel address sequence). Use the scroll buttons to select the panel and press the ENTER button to edit the panel name. Use the scroll buttons to move the characters through the lists and press the ENTER button to move to the next character along. Buttons 1 & 3 also navigate forwards & backwards along the line.

Button 4 changes the character lists between upper case and lower case letters, numbers and symbols. Up to 16 characters are available. When completed hold button 1 for 3 seconds  to save settings and return to the Configuration Menu.

3. Edit Zone Names - This contains a list of the potential 256 zone names in the system. The zone names in the menu are defaulted to show the relevant zone and the panel it belongs to, i.e FIRST Zone on Panel 1. Press the ENTER button to access the Edit Zone Names mode.

It is necessary to have some awareness of the system setup i.e. panel sizes in the network before editing names.

From the descripive text, i.e FIRST Zone on Panel 1, use the scroll buttons to select the required zone name for editing.

Buttons 2 & 3 can be used at this point as a short cut to jump to the next or previous panel No.

WIth the required zone name selected press the ENTER button. Use the scroll buttons to move the characters through the lists and press the ENTER button to move to the next character along. Buttons 1 & 3 also navigate forwards & backwards along the line.

Button 4 changes the character lists between upper case and lower case letters, numbers and symbols. Up to 40 characters are available. When completed hold button 1 for 3 seconds to save settings and return to the Configuration Menu.

4. Set PSU Monitoring - There are two PSU data inputs supplied on the repeater PCB. These are normally configured as switch negative fault inputs to collect a fault signal from a local battery charger/ power supply unit. In this setting they can be configured to accept data signals from a PCA12 type power supply and in this mode to prevent monitoring of the batteries if none are fitted.

Press the ENTER button to access the Set PSU Monitoring mode. Use the scroll buttons to navigate to the setting.

1. PCA12 present. Press the ENTER button to change the setting from NO to YES
2. Disable Battery Monitoring. Press the ENTER button to change the setting from NO to YES
3. Go Back. Press the ENTER button to exit user menu

5. Edit Access Codes - Press the ENTER button to access the Edit Access Codes mode.

To change the user access code, use the scroll buttons to move the cursor forwards or backwards between the 4 characters and use buttons 1-4 to enter the required number. When completed hold button 1 for 3 seconds to save settings and return to the Configuration Menu.

To set user access code back to the factory defaut (1-2-3-4) use the scroll buttons to move the cursor to ‘Set Default’ and press the ENTER button. When completed hold button 1 for 3 seconds to save settings and return to Configuration Menu.

To switch off the need for a user access code use the scroll buttons to move the cursor to ‘Password/ Key Required YES’ and press the ENTER button to change the setting to NO. In this setting all the buttons will be live all the time and holding the ENTER button for 3 seconds will access the user menu.

When completed hold button 1 for 3 seconds to save settings and return to the Configuration Menu.

6. Repeater Options - There are four general local options available. Press the ENTER button to access the repeater options mode. Use the scroll buttons to select the required option as below:

1. Mute Fault/Alarm Buzzer. To permanently disable the internal repeater buzzer, press the ENTER button to change the setting from ENABLED to DISABLED.

2. Seralised Zone Numbering YES/NO. Zone numbers on the network will default to provide sequential zoning from panel 1 to panel 8 (i.e. potentially from zone 1 to zone 256). When a network system is powered up the Remote Display Unit will work out the zone sequences automatically depending on the size of each of the panels on the network and the order they have been addessed in. e.g. If Panel 1 has 4 zones then the first zone on Panel 2 will be reported as Panel 2 Zone 5.

   Should this not be required press the ENTER button to change the setting from YES to NO. In this case the repeater will report the first zone on panel 2 as Panel 2 Zone 1.

3. Display Panel Names YES/NO. If the network panel names have been programmed the RDU can be reverted back to display panel numbers again using this option. Press the ENTER button to change the setting from YES to NO. The RDU will store the programmed names in it's memory and so they can easily be returned to YES.

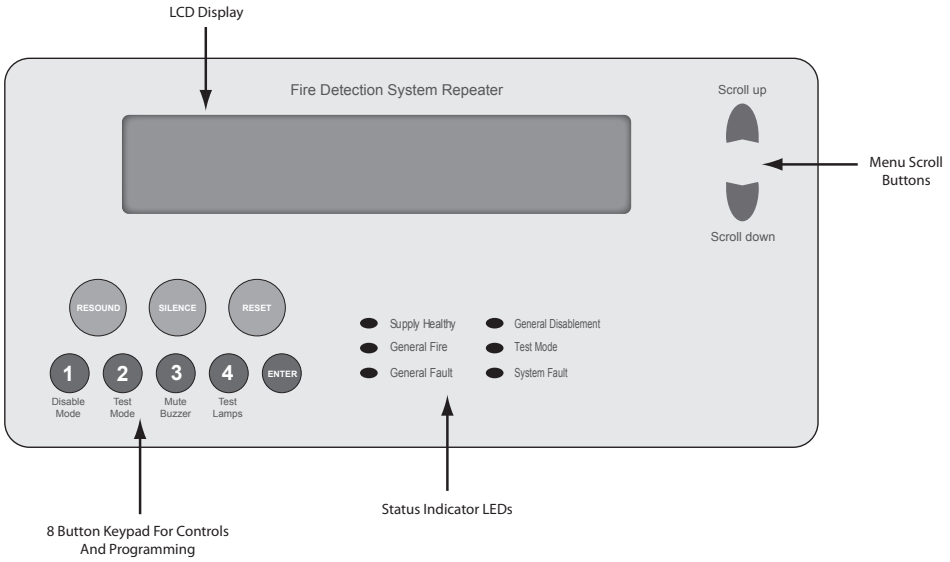
4. Lower Buzzer Volume YES/NO. To lower the volume of the internal repeater buzzer, press the ENTER button to change the setting from NO to YES.

5. Go Back. Press the ENTER button to save the settings return to the Configuration Menu. (Holding button 1 for 3 seconds at any time will also save the settings and return to the previous menu).

4. Go Back

Press the ENTER button to exit the user menu.

PANEL CONTROLS & INDICATIONS



Status LED Indicators

	LED On	LED Pulsing
Supply Healthy:	Indicates supply is present.	N/A
General Fire:	N/A	Indicates panel is in alarm condition.
General Fault:	N/A	Indicates one or more faults are present.
General Disablement:	Indicates one or more circuits have been disabled.	Indicates disablement selection mode is active.
Test Mode:	Indicates one or more circuits are in test mode	Indicates test mode selection is active.
System Fault:	Indicates a system failure, panel not functional.	Indicates the panel has recovered from a system fault.

Keypad

RESOUND (red):	Use to resound the alarms after they have been silenced. Can also be used to invoke full evacuation.
SILENCE (blue):	Use to silence the sounders during an alarm condition.
RESET (green):	Resets the system back to standby mode.
1: (Disable Mode)	With controls active, use to disable zones, sounder circuits or aux outputs (see DISABLE MODE section). Also has the numeric value 1 for code entry.
2: (Test Mode)	With controls active, use to put zones or sounders circuits into test mode (see TEST MODE section). Also has the numeric value 2 for code entry.
3: (Mute Buzzer)	Mutes the panels internal fire and fault buzzer. (The buzzer will still blip every 5-6 seconds during a fire or fault condition). This function is operational without the need to activate controls. Also has the numeric value 3 for code entry.
4: (Test Lamps & Buzzer)	Use this button to illuminate all LEDs to check that they are working correctly. This function is operational without the need to activate controls. Also has the numeric value 4 for code entry.
ENTER:	This button is used access the user menu and to select and change programming options.

Activate Controls

In normal standby mode the keypad controls are inactive to protect from unauthorised operation. Controls are normally activated by entering a four digit code using the keypad.

The need to use a code to activate the controls is enabled by default but can be disabled in the programming. See User Menu options.

The display will prompt for the code to be entered when required:

```
Access Code Check
Enter Access Code:  >      <

[1-4]-Code          [1 Held]-Exit
```

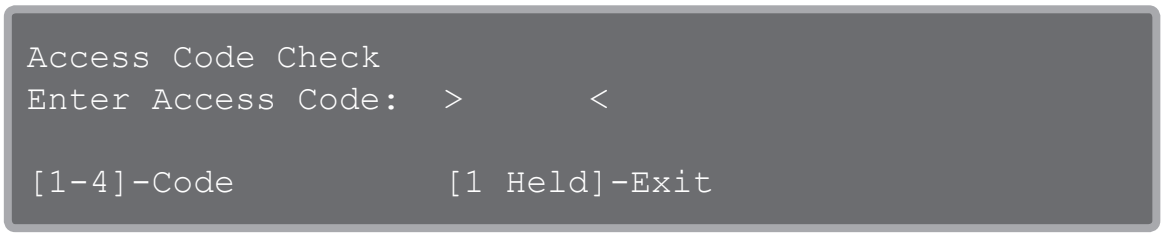
Enter the four digit code using buttons 1 - 4. The factory default code is 1-2-3-4 but can be changed in the engineering functions. All buttons on the keypad will now be operational.

Controls will automatically deactivate again after approx 2 minutes. The test lamps and mute buzzer functions are operational without the need to activate controls.

DISABLE MODE

Disable Mode is used to disable or isolate individual zone circuits or all sounder circuits, all auxiliary outputs, any configured delays or all F.A.R.E outputs (if configured).

To initialize disable mode press and hold the disable button (1) for 3 seconds. After 3 seconds the panel will beep and an Access Code Check dialog will appear on the display.



Enter the 4 digits of the access code to access the Disable Menu.

Disable Menu - use the scroll buttons to select the menu item and then press the ENTER button

1. ZONES
2. SOUNDERS
3. AUX OUTPUTS
4. FARE
5. DELAYS
6. Confirm
7. Go Back

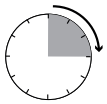
1. ZONES - Firstly select the target panel number using the scroll buttons and then press the ENTER button to go to the zone selection list. Use the scroll buttons to select the required zone, the zone text or description will be shown to assist with selection. Press the ENTER button to set the zone as DISABLED or ENABLED. (Note disabled zones will be indicated). Then hold button 1 for 3 seconds to confirm the settings for that panel. The display will revert back to the panel selection. To exit the panel selection mode press and hold button 1. Then navigate to the 7. Go back option and press enter to return to the normal screen. Alternatively the display will time out and revert to normal after a short period.

   The disablement will also be shown at the local panel and can be set or unset at the panel in the normal way.
2. SOUNDERS - Press the ENTER button to set as DISABLED or ENABLED. Refers to all sounders system wide on the network including any twin wire circuits present.
3. AUX OUTPUTS - Press the ENTER button to set as DISABLED or ENABLED. Refers to all fire & fault relays, All switch negative outputs system wide on the network.
4. FARE (Fire alarm routing equipment outputs-if configured) - Press the ENTER button to set as DISABLED or ENABLED. Refers to all configured FARE outputs system wide on the network.
5. DELAYS - Press the ENTER button to set as DISABLED or ENABLED. Refers to all configured delays, system wide on the network. Disablement of a delay will cause the affected outputs to operate immediately in the case of an alarm.
6. Confirm – in the case of options 2 to 5 press confirm to send the settings to the network.
7. Go Back – exit the disablement menu

When disablements have been made the display will show ‘ xxx disablements active’ It is possible to view the disablements in the user menu. See User Menu section.

TEST MODE

Test Mode is used when testing the fire alarm system. In test mode the devices in the zone(s) in test, detectors & call points etc, can be activated and the panel will automatically reset itself, enabling the system to be tested by one person. It is possible to test the detector head removal monitoring and also to test the system with or without the sounders.



To initialize Test mode press and hold the Test Mode button (2) for 3 seconds. After 3 seconds the panel will beep and an Access Code Check dialog will appear on the display.

```
Access Code Check
Enter Access Code:  >      <

[1-4]-Code          [1 Held]-Exit
```

Enter the 4 digits of the access code to access the Test Mode Menu.

Note: - Using the Remote Display Unit, it is only possible to put entire panels into test mode. Should it be required to set individual zones into test then this must be done at the local panel.

Firstly select the target panel using the scroll buttons and press the ENTER button.

Test Mode Menu - use the scroll buttons to select the menu item and then press the ENTER button to change the setting.

1. ALL ZONES
2. TEST WITH SOUNDERS
3. Confirm
4. Go Back

1. ALL ZONES - Press the ENTER button to change the setting to YES. This will set all zones in the selected panel to test mode. Setting to NO using the enter button is used to take a panel out of test mode if previously set. This can also be used if individual zones are in test mode on a particular panel.
2. TEST WITH SOUNDERS - Set to preferred requirement, YES/NO, using the ENTER button.
3. Confirm - Press the ENTER button to send the setting to the required panel.
4. Go Back - Press the ENTER button to exit the menu with no changes.

   Note:- it is possible to place all the panels in a network into test simultaneously.

When Test mode has been set the display will show ‘The system is in test mode’

A panel (or zone) in test mode will not send fire signals to other panels in the network. A fire on a non-test mode panel will override the test mode and bring full alarm outputs to operate.

Whilst in the test mode menu, holding button 4 for 3 seconds can be used as a short cut to remove all panels from test mode in one go.

XL-RDU PC CONFIGURATION SOFTWARE

This is a 'Windows' based PC configuration program to enable the download and upload of the RDU configuration data, including settings and text programming, via a standard A-B USB cable.

Min requirements: Windows XP Service Pack 3, Pentium 1 GHz or higher with 512 MB RAM or more

The software is included on a disc with the Remote Display Unit

Installing the software

Prior to connecting to the RDU, install the software program using the SETUP.EXE file provided & follow the on screen instructions, dependent upon the computer additional .NET utilities may be required to be installed during the process, this should all occur as prompted during the installation. Once installed successfully the USB cable may be connected between the PC and the RDU. The first time this is connected (assuming the RDU is powered up) a device driver file will be loaded at the PC automatically and the PC will declare the device is ready for use.

Connecting the USB cable

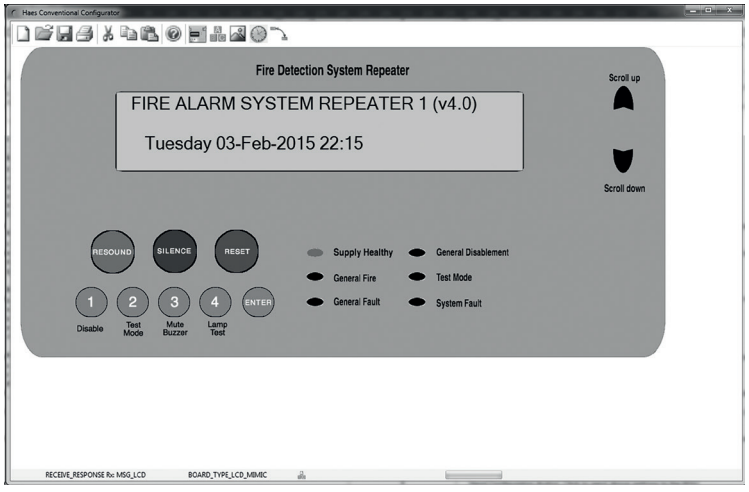
The USB cable is connected to the USB port at the bottom of the RDU PCB, (see main PCB terminals drawing). The lid will need to be removed to facilitate the connection of the cable. Once connected the Configurator program can be started on the PC using either the desktop icon or via the Windows Start / Program menu.

Establishing a connection

Once the program has started the window will show a mimic diagram of the RDU fascia. There are some icons at the top of the window. Click on the ''Connect To Panel'' icon. The program will attempt to retrieve data from the RDU. This may need to be attempted a few times to establish a connection. Progress is reported at the bottom left of the window. Once connected the screen diagram will mimic the text from the RDU display.

Mimic diagram functions

The screen diagram shows real time information from the RDU and functions as another repeater panel. The 'on screen' control buttons can be clicked and will operate as if buttons are being pressed on the RDU itself including the scrolling etc.



Program icons & functions

Along the top of the window are a number of icons which activate different aspects of the program.

1. New - start a new program file, resets existing information back to default settings.
2. Open - open an existing configuration file
3. Save - Save the current data to a file
4. Print - Not currently in use
5. Cut - Not currently in use
6. Copy - Text can be selected & copied using this icon
7. Paste - Copied Text can be pasted into a location using this icon
8. Help - Not currently in use
9. Show Fascia - Click to open the fascia mimic view
10. Edit Text Names - Click to open a screen where all text programming can be edited & sent to the RDU. Includes :-

    Zone Texts: Each panel has an allocation of up to 32 zones with 40 characters of text per zone. Complete the zone name text for the required system zones.

    Panel Names: Up to 8 panels with 16 characters of description for each.

    Company Name: 40 characters for installer / service company name / telephone number etc.

    Read Text Names: Retrieves all names currently stored in the RDU.

    Send Text Names: Sends all the programmed names down to the RDU

11. Repeater Options - Click to open a screen where various local settings can be changed:-

    PCA12 Present: Select if local PCA12 style power supply data is required.

    Battery Test Disabled: Select if using a local PCA12 type power supply with no batteries.

    DIsplay Panel Names: Un-tick to display the panel numbers again rather than any programmed names.

    Buzzer is Mutable: When ticked the internal buzzer will operated and can be muted. If un-ticked the buzzer will remain silent at all times.

    Access Code: Use to change the user access code.

    Send Configuration Button: Click to send above settings to the RDU.

12. Set Clock to PC Time - Sets the real time clock on the RDU to the same time displayed on the connected PC or laptop.
13. Connect To Panel - Click to establish communications with the RDU.

www.haes-systems.co.uk