GUIDE MANUAL

Analogue Repeater
User's and installation guide

INDEX

GB

1- Introduction

This manual contains instructions for installation, commissioning and maintenance of the analogue repeater, and technical data.
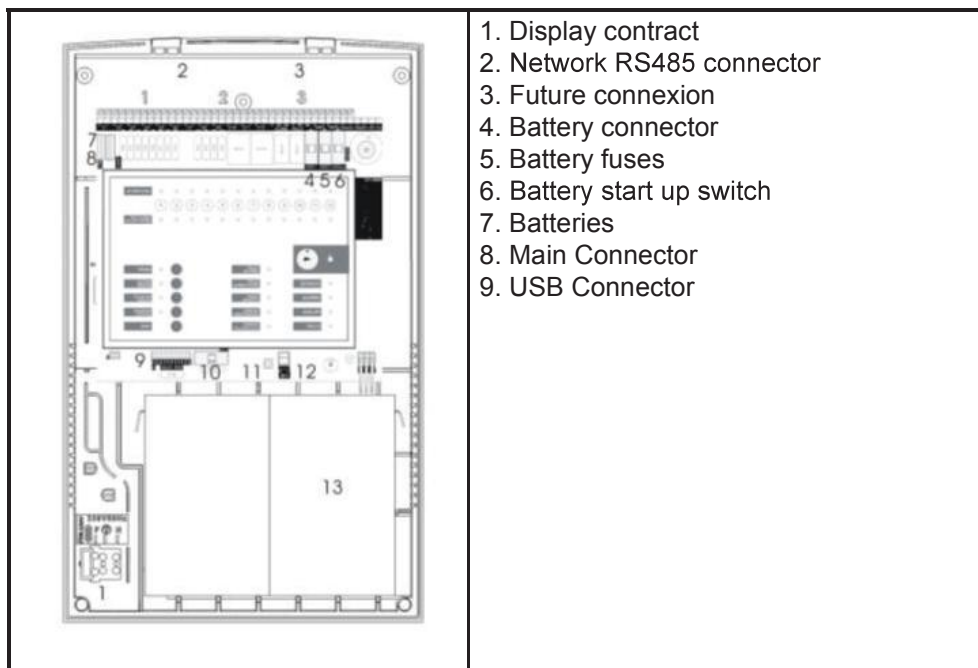
These are designed to serve small and medium-sized installations that require a fire detection system, such as businesses, schools, small and medium enterprises, etc.

The analogue repeater panels are designed in accordance with the requirements listed in the standards EN54 Part 13.

GB

These repeaters should be installed by qualified personnel who are familiar with the guidelines of EN54 Part 14.

1.1- General Description

1. Display contract
2. Network RS485 connector
3. Future connexion
4. Battery connector
5. Battery fuses
6. Battery start up switch
7. Batteries
8. Main Connector
9. USB Connector

2- Pre-Installation Checks

Before installing the equipment, verify that all material on the following list is inside the package:
- One Repeater
- 5x20 4A fuse
- 5x20 500 mA fuse.
- Two key
- Installation manual
- Battery cable
- Language labels

If you find any on the above material missing or damaged, contact your dealer.

3- Installation Guide

This chapter defines the steps for proper installation of the Analogue Repeater. The installer must read the entire manual before installing the system. Not following the instructions in this manual can cause damage to equipment.

3.1- Installation Guide

Before installing this equipment must ensure that they meet the following conditions:

- The ambient temperature should be between -10 º C and 40 º C.
- The relative humidity should be below 95%.
- Do not install the panel in places with mechanical vibrations or shocks.
- Do not install the panel where it obstructs access to internal equipment and wiring connections.

It is imperative that the fire detection and alarm system has been designed by qualified personnel taking into account EN-54 part 14, as well as local regulations.

3.2- Tools Required

Listed below are the basic tools for installation of the panel:

- Screwdriver for terminal blocks.
- Phillips screwdriver for the screws on the front cover.
- Cable cutters or strippers.
- Voltmeter.
- Drill and appropriate bits to fix the panel to the wall.

3.3- Installation Steps

GB

3.3.1- Removing the front cover

Unscrew the 2 screws on the front located at the bottom. Once unscrewed remove the cover.
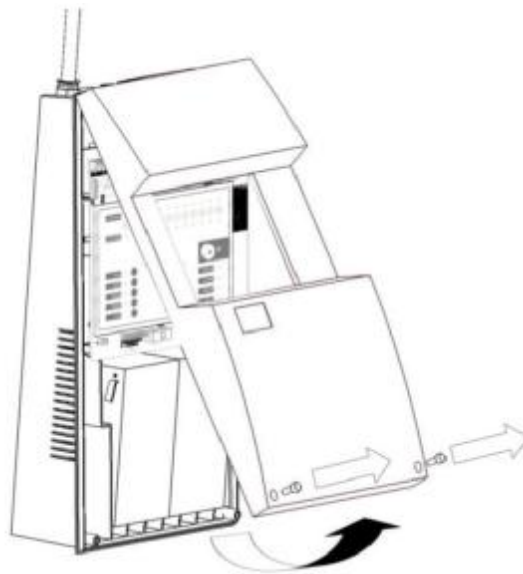
3.3.2- Panel location on the wall

Choose a location easily accessible and free of obstacles, where the indicator lights are easily seen, and the cover can be easily removed. The panel must be located at a height of 1.5m.

Remember that the weight of the batteries is significant.

3.3.3- Fixing the panel to the wall

Place the rear housing in the proper position against the wall and mark the position of the holes to make sure the casing is level.

Do not use the back cover as a guide when drilling the holes, as this may cause irreparable damage to the equipment.

Drill holes in the wall, and prepare the required holes for the cable installation. Screw the cabinet to the wall using the holes in the box.

3.3.4- Language Selection

The repeater are designed to be easy to customize the language. In the languages sheet attached to this manual, you will find the entries for Spanish, English, Italian and Portuguese. Select the required language and insert the card into the slot located at the bottom of the keyboard. The locations are marked with the letters ABC.
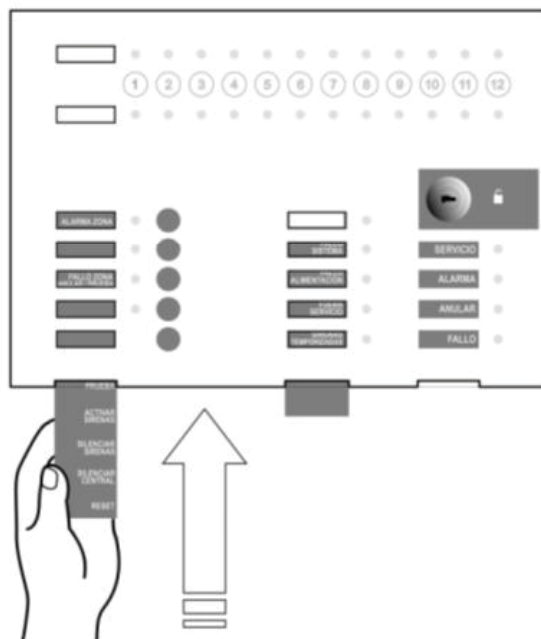
3.3.5- Electrical wiring

It is recommended that the equipment is powered and tested before connecting analogue network.

The repeater must be connected via an external circuit breaker using a 1.5 mm^2 cable section. The voltage should be 230V.

To avoid crossing the network, the mains cable must be separated from the communication bus lines. If the system can be affected by an electrical disturbance, we recommend the use of a ferrite tube as close as possible to the connection.

It is essential to use the holes marked on the box. Use a drill bit to drill the box and insert the cable glands.

It is advisable to use a shielded cable. Connect the cable shield to the corresponding terminals (insulating the screen to prevent short circuits) and ensure that the facility has an approved mains Earth.
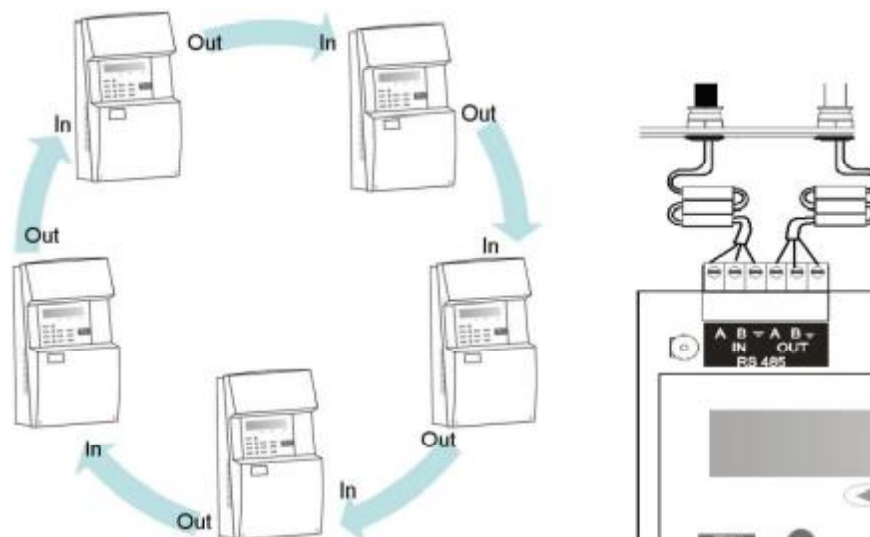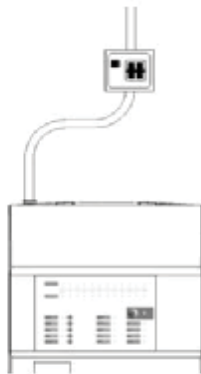
3.3.6- Power up the repeater

Always disconnect the mains power before handling the repeater.

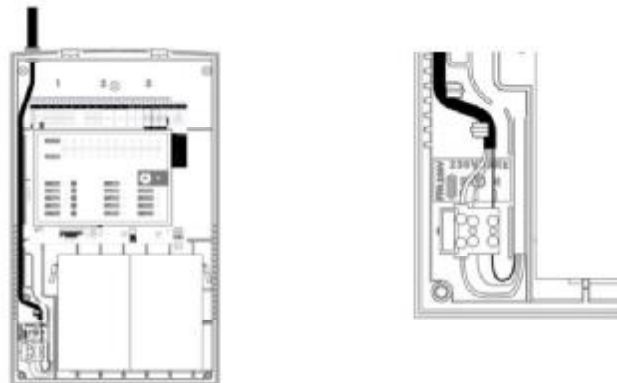Always connect the mains first and then the batteries.

3.3.6.1- Mains connection

Make the Earth cable longer so that in case of abrupt removal it is the last to disconnect. Insert the wire into the plastic guide tabs using the plastic case, to prevent the wire coming loose in the case of sudden removal.

Never use the fuses to connect and disconnect the mains power, use the external circuit breaker.

3.3.6.2- Battery connection

The repeater requires two 12V batteries. The housing takes 12V 2.3A/h and 12V 7A/h batteries for the central units. The batteries must be connected in series for the proper functioning of the panel.

The cable supplied with the unit must be connected so that the positive terminal of one battery is connected with the negative terminal of the other.

The batteries are placed in the bottom of the box, in the space reserved for this purpose. Place the 12V 2.3A/h batteries horizontally or the 12V 7A/h batteries vertically.

Connect the wires from the circuit (red and black) to the unused positive and negative terminals of the two batteries. Remember to connect the batteries together first, using the battery bridge cable.
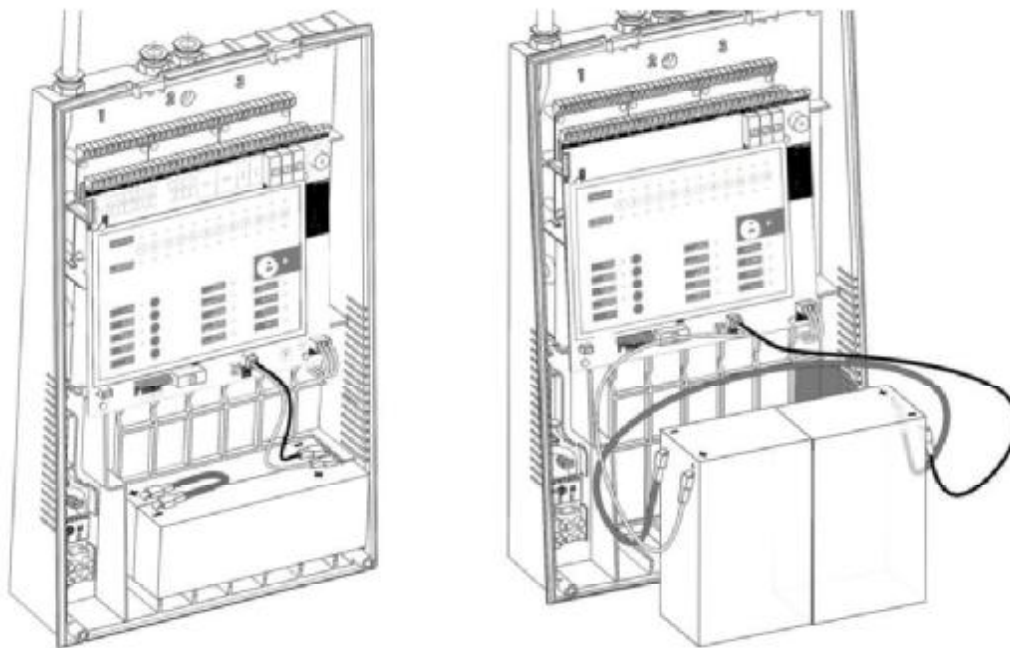
4- Star-up Guide System

This chapter defines step by step how you should correctly install the analogue repeater.

4.1- System supply

After reviewing all the points described above, the correct order to connect the power is:

• Connect the mains power supply.
• Connect the batteries.

Once both power supplies are connected all the panel indicators should be turned off except the green power LED.

If you notice any indication other than those described above, the origin of the problem in the installation should be detected and the fault repaired before proceeding (see problems).

5- User Guide

For operate the repeater, please find below details on the functions of all the indication and control elements of the unit.
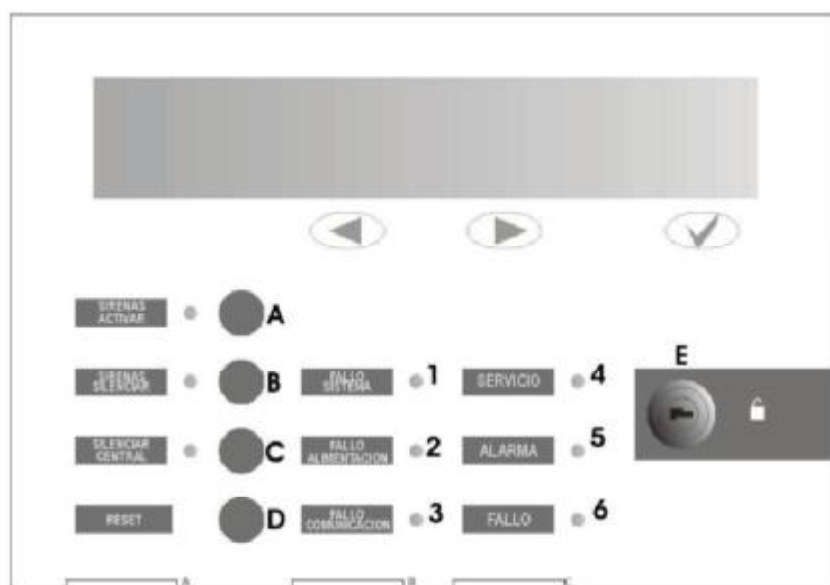
5.1- LED Indications

5.1.1- System fault LED (1)

This yellow LED is permanently active when there is any critical situation in the system. In this case the system is not operational.

5.1.2- Power suplí fault LED (2)

This yellow indicator flashes if there is any problem in the power supply, caused by the main power, batteries or fuses.

5.1.3- Comunication fault LED (3)

This yellow indicator flashes if there is any problem in the network communication

5.1.4- Power LED (4)

This green indicator indicates that the unit is powered either by mains or by batteries.

5.1.5- Alarm LED (5)

This red indicator is activated when the repeater detects an alarm in the analogue system, this alarm is sent by the analogues control panels assigned to the repeater.

5.1.6- Fault LED (6)

This yellow LED is blinks when the panel detects any kind of fault in any of its elements. To know where the fault has come from, you must look at the individual warning LED.

5.2- Acoustic warnings

5.2.1- Alarm warning

When an alarm situation occurs, the internal buzzer is activated in continuous mode.

GB

5.2.2- Fault warning

When a fault occurs and there is no alarm, the buzzer is activated intermittently.

5.2.3- System failure warning

In this situation, the internal buzzer is activated continuously.

5.3- Control keys

5.3.1- Activate sounders (A)

The pressing of this key causes the immediate activation of the sounders. This control overrides any sounder delay that has been programmed.

5.3.2- Silence sounders (B)

Pressing this button disables the sounders when triggered. If a new alarm occurs the sounders are activated. After eliminating the alarm by pressing the reset button will return to standby.

5.3.3- Silence System   (C)

This key silences the buzzers when it is active (the buzzer of repeater and all buzzer of analogue control panel connected to the network), and the silence buzzer indicator lights. When the buzzer is re-activated, the silence buzzer indicator turns off.

5.3.4- Reset (D)

Pressing this button causes the system to return to the normal condition.

5.3.5- Keypad locking key (E)

When the key is in the closed position, the keypad is locked and cannot be used. For pressing buttons to take effect, you must put the key in the open position.

6- User Menu

After entering the code, default 2222, we can access to the navigation menu for the user. To insert the password use keys left and right and press OK. Below are the navigation menus.

```
█Network            ►|
 Language           ►|
 Password           ►|
 Check Version      ►↓
```

```
FW Upgrade          ►|
BACK                ►|
```

The selected menu is always displayed with a flashing asterisk.

6.1- Network Menu

```
*Network         ►| █Network Address   |
                  | Network Filter    |
                  | Back              |
```

In the Network menu you can access the submenus Network Address, Network Filter and Back to go back.

6.1.1 Network Address Menu

The option Network Address allows us to fix the Address to the repeater.

```
NETWORK ADDRESS
CURRENT ADDRESS   [ 1 ]
NEW ADDRESS       <001>
```

6.1.2- Network Filter Menu

The option Network Filer allows you to setup the repeater to work with one control panel or with all control panels inside the network. If we choose the option Listen all, the repeater show you all information inside the network. If we choose Selective Listen option, the repeater shows you the information for a one control panel.

```
NETWORK FILTER
NODE TYPE        [Listen all]
```

```
NETWORK FILTER
NODE TYPE       [SELECTIVE LISTEN]
LISTEN ADDRESS        [000]
```

6.2- Language Menu

In this menu you can select the language that is required for operation of the repeater.

```
LANGUAGE  SELECTION
LANGUAGE   [English]
```

Pressing the right and left arrows we can change the language.

6.2- Password Menu

In this menu you can change the password to the repeater

```
CHANGE  PASSWORD
NEW PASSWORD   [2] [2] [2] [2]
SAVE           [YES]
```

Pressing the right and left arrows we can change the password, validating with OK key.

6.4- Check Version Menu

In this menu you can check the version of software that we have installed in the repeater.

6.5- SW Update Menu

In this menu you can update the software version of the repeater.

```
SW  UPGRADE


         Accept                    Cancel
```

Pressing the OK key and then pressing the key BIOS, we go into the state allows us to do a software update.

6.6 Back Menu

This menu allows access to standby status.

7- Features

Mechanical features	
• Dimensions (height-width-depth)	439 mm x 268 mm x 112 mm
• Material	ABS

Environmental features	
• Working temperature	Between –5 ºC y 40 ºC
• Relative Humidity	Maximum 95% dry
• IP Rating	IP30
• Class type	3K5 de la EN60721-3-3-1995

Características de la red	
• Maximum points in the network	32 nodes
• Maximum length Between nodes	1Km
• Topologic	Ring or Bus (configurable)
• Recommended wire	Shielded and twisted 2x1.5 mm^2
• Maximum capacitance	500 nF
• Maximum resistance	22 Ohms

Power supply features	
• Mains voltage	230 Vac +10% -15%
• Output voltage	Max 29Vdc
• Protecting	250 Vac 4 A 5x20 (Time Lag Fuse)
• Maximum output current	1,5 A

Battery charger features	
• Output voltage	27,6Vdc a 20 ºC
• Temperature compensation	3 mV/ºC x C
• Maximum load current	350mA
• Rimax resistance	2.3 Ohmios
• Battery fuse	2A 5x20 (Quick Blow)