simplicity Plus

ACTIVE REPEATER

INSTALLATION MANUAL

Zeta® ALARM SYSTEMS

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1.GENERAL INFORMATION

1.1 Safety Information

Please consult the Simplicity Plus Installation manual for safety information relating to the simplicity System.

1.2 Product Disposal At The End Of Its Working Life

Like all electronic equipment, at the end of its working life this unit should not be disposed of in a refuse bin. It should be taken to a local reprocessing site as per the guidelines of the WEEE directive, for correct disposal.

1.3 Environmental Information

- It will operate in ambient temperatures of –5 to 40^{o}C
- It will operate in a relative humidity of up to 95% (non condensing)
- It will withstand vibrations between 5 & 150 Hz
- The repeater should be maintained as described in section 3 of the Simplicity Plus User Manual, Maintenance Guide & Log Book.

1.4 Equipment Guarantee

If this equipment is not fitted and commissioned according to our guidelines, and the relevant National Standards, by an approved and competent person or organisation, the warrantee may become void.

2. Overview of the Simplicity Plus Active Repeater

The Simplicity Plus active repeater is used on a Simplicity Plus Panel with version 1.A or later software. If the panel has an earlier version of software, the older passive repeater can be used instead.

It is powered from the Simplicity Panel, so is connected via 4 cores: 2 x power and 2 x data. Op to 8 repeaters can be connected. The first 2 repeaters can be powered from the panel. Subsequent repeaters would need an external power supply.

Each repeater can be selectively configured to determine which commands it will send to the network. EG to allow some repeaters to reset the system, and others to not reset the system.

Each Repeater can also be configured to run in a different language (Although any device labels entered by the installer will just be in the language entered)

The repeater shows Alarms and faults from the fire panel. It does not show disablements or test mode events.

The repeater can be configured to start panel sounders, stop panel sounders, Silence panel Buzzers and reset the panel. The repeater can not interrogate panel configuration or device status. The repeater can not select disablements or test mode.

3. Repeater Access Levels

The Simplicity Plus active repeater has the following access levels:-

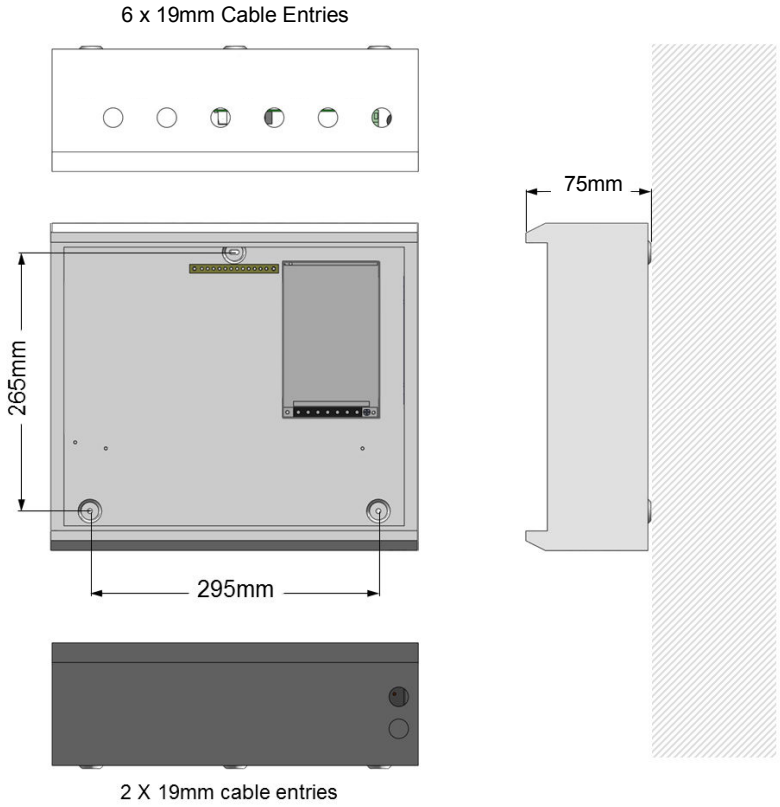
Access Level	Access Code	Available functions
AL1	N/A	View panel indications Silence fault buzzer Scroll between multiple event messages
AL2	123	Start Alarm Sounders (Evacuate) Stop Alarm Sounders Reset panel
AL3	369	Select Repeater Panel Language Select Panel the repeater connects to Select Repeater Number Configure repeater response • Start Sounders • Stop Sounders • Reset Panel • Silence All

4. MOUNTING THE FIRE ALARM PANEL

The Simplicity Plus Active Repeater comes with many cable entry holes. If another entry hole is required, it is strongly recommended that the, the termination PCBs should be removed and stored in a safe place. This would also help while fixing the back box to the wall.

4.1 FIXING THE BACK BOX TO THE WALL

Figure 2: Plan view inside the enclosure without PCBs. Side view for surface installation.



Fix the enclosure to the wall using the three mounting holes provided.

Check the build & condition of the wall to decide a suitable screw fixing.

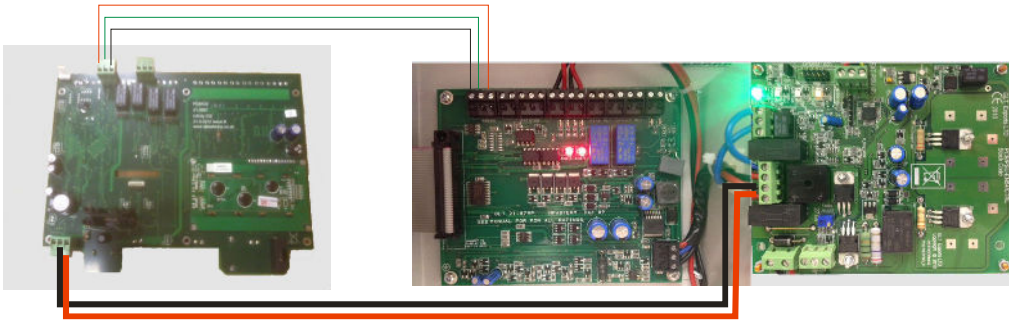
The mounting holes are designed for No 8 roundhead or countersunk woodscrews (or similar).

Remove any debris from the enclosure.

Take care not to damage the FACP during installation.

4.2 Repeater connection

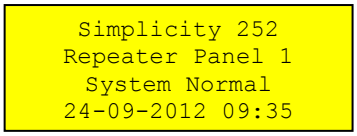
The Simplicity Plus Active repeater has an RS485 connection to a Simplicity Plus Panel. The repeater has full control. Up to 2 repeaters can be powered from the Aux 24V DC output on the panel. If 3 or more are to be connected, then they must be powered from external 24V power supplies. The panel supports up to 8 repeaters.



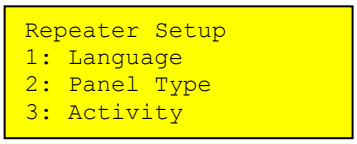
Simplicity Panel	Simplicity Repeater	Description
24V B +	24V DC IN +	Power for repeater
24V B -	24V DC IN -	Power for repeater
RS485 B	RS485 B	Data connection
RS485 A	RS485 A	Data connection
RS485 GND	RS485 GND	Data connection screen

5. CONFIGURING SIMPLICITY PLUS ACTIVE REPEATER

5.1 Configuring the Language



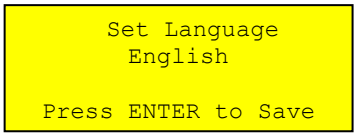
From the system Normal screen, press enter and type the engineer access code 369
Select Option 1 from the repeater set-up menu



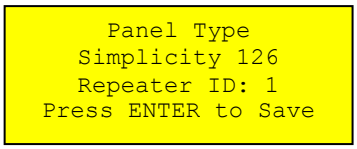
The panel now shows the language selection screen. Use Prev & Next Buttons
To select the desires language and press enter.

The languages available are:-

- English,
- Spanish,
- Portuguese,
- French,
- Italian,
- Hungarian,
- Serbian,
- Lithuanian



5.2 Configuring the Repeater Type and ID



For the repeater to function correctly, it needs to be set to the correct panel version.

To do this enter the repeater setup Menu and select option 2.

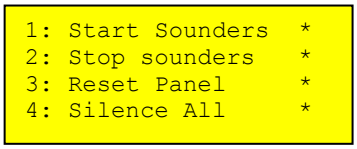
Select the correct panel type by using the prev / Next buttons

If there will be more than one repeater on the system, each repeater should be given a different ID (repeater number). Select a new repeater ID by pressing the relevant number (1 to 8) on the keypad.

If there is only one repeater, it can be left at the default ID of 1.

Press enter to save the changes.

5.3 Configuring the Repeater Activity Response

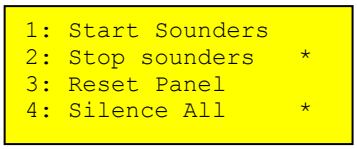


It is possible to configure which commands the repeater will send to the main panel.

To do this enter the repeater setup Menu and select option 2.

The menu gives 4 options: Start sounders, Stop sounders, Reset panel & silence All.
The currently selected options are marked with a *. Press the buttons 1 to 4 to toggle the required options on or off.

Eg to set a repeater so that it can stop sounders, but not to start them or reset the system, set as

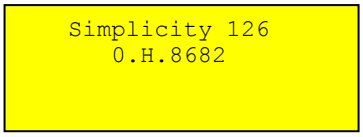


Each repeater could have different settings if required

5.3 Configuring the Repeater panel onto the Fire panel

The Simplicity panel configures the repeaters as part of the loop configuration routine. If a repeater has been added or removed, the loop should be relearned from the main panel.

5.4 Check Software Version



To view the software version of the repeater panel, press the LED test button. This needs to be done at access level 2. The screen will show the Type of panel the repeater is configured for , and the software version

6 Menu Structure

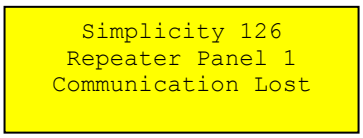
To help locate the different features available, the menu structure of the Simplicity Plus Active repeater panel is shown here.

MENU LAYOUT	
1:Language	Choose between English, Spanish, Portuguese, French, Italian, Hungarian, Serbian, Lithuanian with prev & next keys. Press enter to select
2:Panel Type	Select the panel this repeater is connected to with the Prev & Next Keys. Options are:- Simplicity 126 / Simplicity 64 / Simplicity 252 Infinity ID2/2 Zone / Infinity ID2/4 Zone / Infinity ID2/6 Zone / Infinity ID2/8 Zone Select repeater number with buttons 1 to 8. Each repeater on a system must have a different number
3:Activity	Selects which commands the repeater will send to the main panel:- 1. Start sounders 2. Stop Sounders 3. Reset Panel 4. Silence All A * means the option is selected. If Silence all has a *, it will silence its own buzzer, the panel`s buzzer, and any other repeaters connected. If silence is not marked with a *, it will just silence it`s own buzzer.

7. GENERAL FAULT FINDING

The Simplicity Plus Active repeater panel does not have any input or output circuits, so any General faults reported should be investigated at the maim panel. There are 2 possible faults which can be generated by the repeater itself

7.1 Communication fault



Communication fault means that the repeater can not see the communications from the main panel. The possible causes for this are:-

Communication cable reverse polarity. It should be connected A to A and B to B
Communication cable loose connection or cable break
Damaged repeater PCB
Damaged panel PCB

To check a PCB, Disconnect the data cable. Then check the DC voltage between B and A with a DVM. It should be around 1.5V

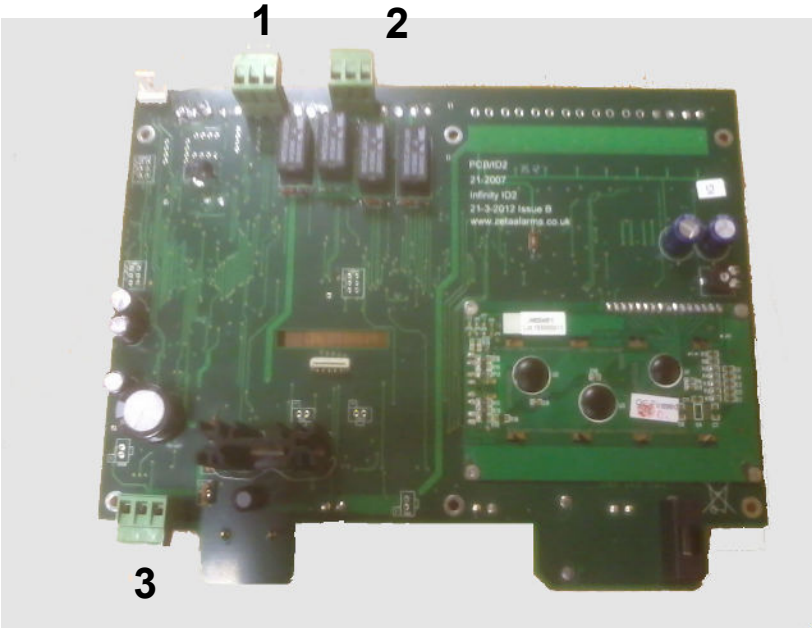
7.2 System fault

A system fault is an abnormal microprocessor running condition due to various unexpected phenomena.

This will result in the panel attempting to correct itself. Should this fault occur, the System Fault LED, General Fault LED, General Fault relay and fault internal buzzer will be constantly active until the control panel is reset.

Disconnect the power to the repeater. Wait for 10 seconds, then turn power back on. This should cause the system fault condition to clear. If not, it is likely that the PCB is damaged. Consult your supplier.

8. PCB TERMINATION CONNECTIONS.



Connection No	Description	Use
1	RS485	Connection to main panel
2	Fault Relay	Volt free relay. Normally energised. Operates on any fault
3	24VDC Input	Power Connection from Panel / Ext. power supply

9 SPECIFICATIONS

9.1 Enclosure specifications

DESCRIPTION	VALUE
ENCLOSURE SIZE	364 x 302 x 75 mm
TOP CABLE ENTRIES	6 x 19mm DIA ENTRIES

9.2 Electrical specifications

ELECTRICAL DESCRIPTION	VALUE
SUPPLY VOLTAGE	29V DC Nominal (19 to 30V DC)
OPERATING CURRENT	40mA typical
AUXILIARY FAULT OUTPUT	1 x FAULT RELAY SELV@1A (NORM. ENERG)
MAX NUMBER OF REPEATERS PER SYSTEM	8
REPEATER CONNECTION	RS485

Installation Manual Modification History

ISSUE	DATE	CHANGES
1.0	10/12/2013	Initial Release