EURO fire EN54

REPEATER

FEUN-RP

REPEATER PANEL FOR
EUROFIRE FEUN & FEWN FIRE PANELS

Installation Instructions

Note: This is an important document. It should be read and retained by the user of the Fire Control System

INTRODUCTION

This manual provides the necessary guidance for the installation of a 'Eurofire' Repeater Panel.
Persons carrying out system installation should be familiar with the relevant code of practice relating to the installation of fire detection and alarm systems within buildings. The 'Eurofire' repeater is an advanced system based on microprocessor control circuitry. It is recommended that Emergi-lite Safety Systems Ltd are contacted for initial commissioning and future service requirements of any 'Eurofire' equipment.

SYSTEM DESIGN GUIDE

When installing the Eurofire Repeater, the system designer should ensure:-

1. The installation complies with the relevant code of practice for installations.

2. The panel / repeater network uses cable which meets the requirements of BS5839-1 : 2002.

3. That alarm sounder circuits have NO SPURS and the total sounder consumption does not exceed 100mA.

4. It is recommended that the cabling used for alarm circuits is Fire Protected, 2-core + screen complying with the requirements in BS5839-1 : 2002

5. The correct End of Line (EoL) devices on the alarm lines (including those not in use). These devices must be fitted after the last sounder.

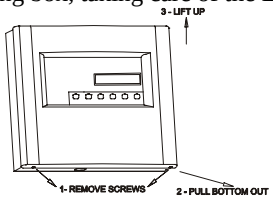
6. Sounders have a series blocking diode fitted that only allows current to flow through the sounders when the supply to the sounders is polarised in accordance with the markings on the Repeater Panel PCB sounder terminal markings.

INSTALLATION PROCEDURE

It is recommended that installation is delayed until all building or maintenance work has been completed. If building work is being carried out in the vicinity of the installation it may result in damage to the panel.

1. Remove repeater panel from its packing and retain the packing for storage of panel parts during installation.

2. To remove the front – remove two screws located under the bottom edge, pull the bottom edge out then lift up. Store it face down in the packaging box, taking care of the LED light guides on the back.



3. Remove the 6 * 4mm screws securing the main printed circuit board from the box. It is essential that once the main PCB has been removed it is stored safely, observing anti-static precautions. Use the packing if no anti-static containers are available. Keep the 4mm screws in a safe place.

4. Once the cable entry routes have been decided remove the appropriate knock-outs from the enclosure.

5. Note two 11mm-6mm keyhole slots and two 6mm holes set in dimples are cut in the back of the enclosure. The enclosure can be securely fixed to the fabric of the building in the following way. Hold the enclosure on the wall in the desired mounting position and mark the location of the fixing holes. The panel should be mounted at a height such that the liquid crystal display is at eye level to the user.

6. Drill and plug wall in the four marked positions then fit enclosure with the appropriate fixing screws.

7. Feed the required cables into the enclosure then make off a reasonable working length (identify each cable). Remove any debris from the enclosure.

8. Refit the repeater PCB taking into account anti-static precautions. Insulation tests are prohibited once the PCB has been re-fitted.

9. Refit the outer lid using the two 4mm screws.

SETTING UP REPEATER

When networked, the Eurofire EN54 panel passes to the repeater LED and LCD information. The repeater will then display all fire and fault conditions that are on the control panel. From the repeater, the operator is able to access The Eurofire User menu functions only.
A panel/repeater network consists of a 4-wire connection - 2 power and 2 signal, and can be upto 1000M apart (using appropriate cable to meet requirements of BS5839-1 : 2002.).

There are three methods of networking a repeater to a panel:-

- Star.
- IsoStar - This is Isolated Star connection, using a network isolator card
- DualStar- This configuration, requires a network isolator card.
  With the DualStar, the network is wired as both Star and Isostar. Should a fault occur on any one set of the wiring, the network will still operate using the other set of wiring.

Illustrations are shown on page 6 & 7.

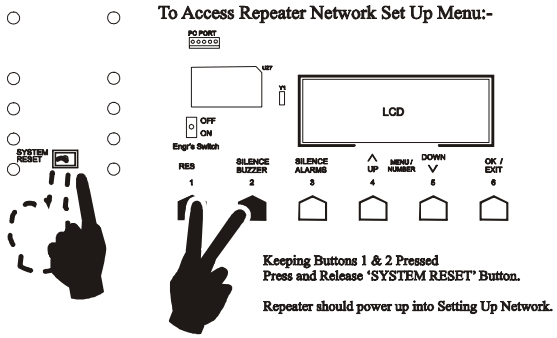
Networking Repeater to Eurofire E54 control panel

1) Ensure that the wiring between the repeater and Eurofire panel is error free and correct for the method of interconnection being used. This should be one of the following:-
   - Star Connection.
   - IsoStar Connection or
   - DualStar Connection

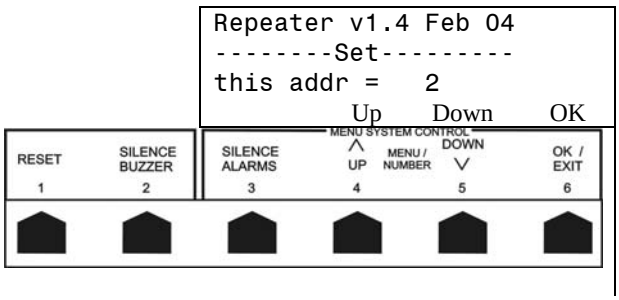
   See pages 6 & 7.

2) At the Repeater:-
   - Ensure that the panel front is removed and enter the network setup menu:-

     Keeping buttons 1 & 2 pressed, press and release the 'SYSTEM RESET' button.
     The repeater should power up into the Networking Setup menu ie:-



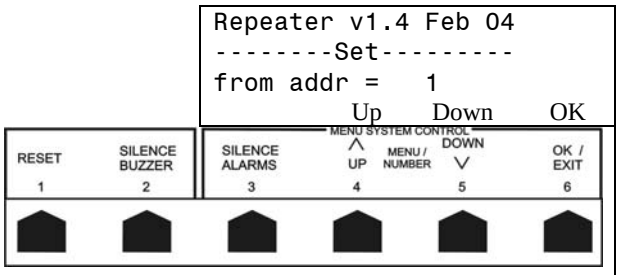
   - The first screen involves setting the network address of the repeater –'**This Address**'.
     The repeater must be given a different address to any other address used on the network.



Sets the address of the repeater

button 4 Up Increases the address of the repeater.
button 5 Down Decreases the address of the repeater.
button 6 OK This accepts address for the repeater and moves on to setting the address of the panel to which the repeater will be connected.

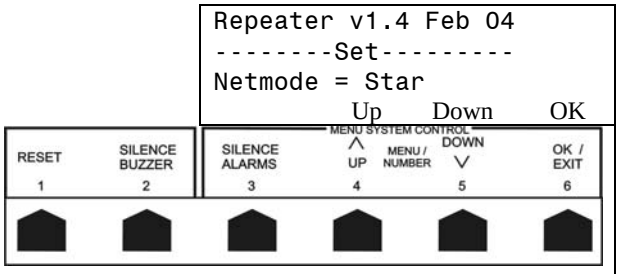
- After setting the repeater address, the next screen sets the address of the Eurofire EN54 panel which the repeater is be networked to –'F**rom Address**'



Sets the address of the Eurofire EN54 panel that the repeater will be networked to.

button 4 Up Increases the address.
button 5 Down Decreases the address.
button 6 OK This accepts the address to which the repeater will be networked to. Moves on to setting network mode i.e. Star, IsoStar or DualStar.

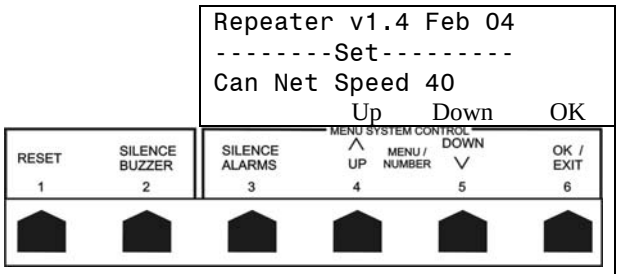
- Set the method of networking - '**Net Mode**'.



Sets the method of networking:-
- Star.
- Isostar or
- DualStar

button 4 Up Next method.
button 5 Down Previous method.
button 6 OK This accepts the choice of network connection. This must be the same as the Eurofire panel, otherwise the repeater will not work correctly.

- Set the speed of the network '**CanSpeed**'.

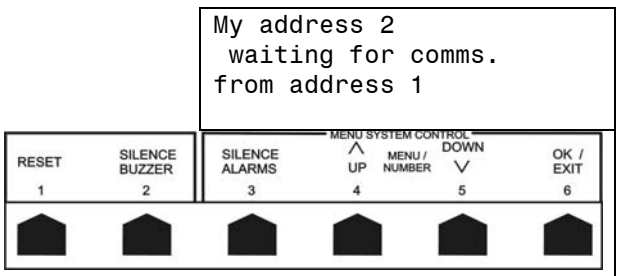


Sets Repeater Network Speed:-
- 15Kbits/sec.
- 20Kbits/sec
- 40Kbits/sec

button 4 Up Next network speed.
button 5 Down Previous network speed.
button 6 OK This accepts the choice of network speed. This must be the same setting as the network speed for Eurofire EN54 control panel, otherwise they will <u>not</u> network to each other.

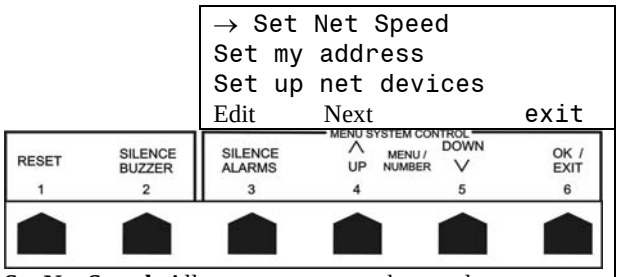
The speed of networking should be set the same for both the Repeater and Eurofire control panel. If they are set to different speeds, they will <u>not</u> network to each other.

After setting the network speed, the repeater panel should now be waiting for communications from the Eurofire EN54 panel ie:-



Shows that the repeater of address 2. Is waiting for communications from Eurofire EN54 panel of address 1.

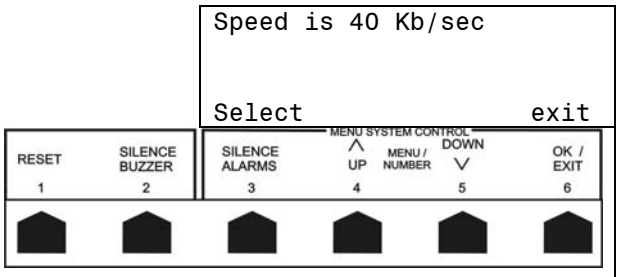
3) Eurofire control panel network should now be set up in order for it to be networked to the repeater. At the Eurofire panel, select Option **27 SETUP NETWORK**, (accessed through the engineers menu.) On entering the networking menu, the LCD should display the following:-



Set Net Speed: Allows you to set up the panels networking speed – **ensure that the net speed is set the same for everything on the network otherwise the network will fail.**
Set my address: This allows you to set the network address of the panel.
Set up net devices: This allows you to connect other Panels or Repeaters to this panel.

button 3 Edit. This allows you to enter the function that is indicated by the cursor (→)
button 4 Next Moves the cursor between the available functions.
button 6 exit This returns back to the menu system saving all changes that have been made.

- Set the network speed, '**Set Net Speed'**



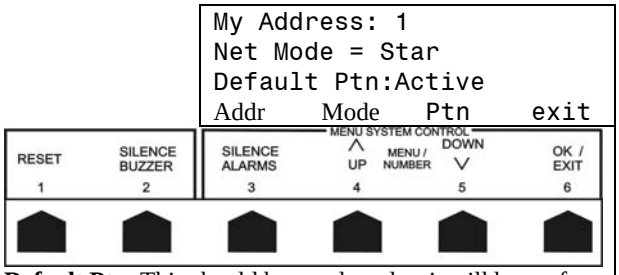
Shows the network speed of this panel.

Button 3 – Select Allows you to change the panel network speed:-
- 15Kbits/sec
- 20Kbits/sec or
- 40Kbits/sec

Button 6 exit Returns back to previous menu saving all changes.

All network devices should be set to the same network speed. If the repeater and control panel network speeds are set to different values, they will <u>not</u> network with each other.

- After setting the network speed. Set the network address and method of networking for the control panel this is done through the **'Set my address'** option:-



Default Ptn, This should be un-altered as it will be set for some other control.

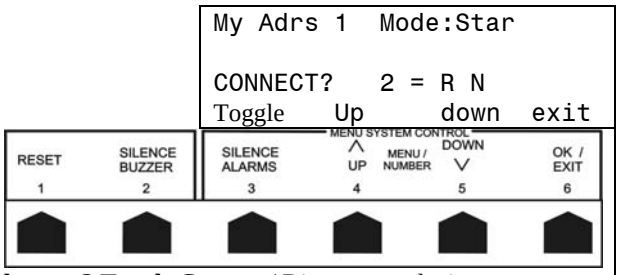
The address of this panel is set to No.1 and the method of networking is Star (Star Connection)

Button 3 – Addr This allows you to change the network address of this panel.
Button 4 sets the network configuration.
- Star
- Isostar
- DualStar

Button 5 Ptr This toggles the default pattern as either Active or Inactive.
Button 6 exit Returns back to previous menu saving all changes.

- Set '**My Address**' – Set the network address of the Eurofire EN54 control panel, this must be a different value to other devices on the network.
- Set '**Net Mode**' – Set the method of connection. This must be set to the way the network has been wired and should be the same as the setting on the repeater panel:-
  - Star
  - IsoStar or
  - DualStar
- Leave '**Default Pattern'** as set

- From '**Set up net devices'** option, the Eurofire EN54 panel will be programmed to communicate with the Repeater panel.
  Using Buttons 4 & 5, Scroll through addresses until the display is showing address of Repeater ie:-



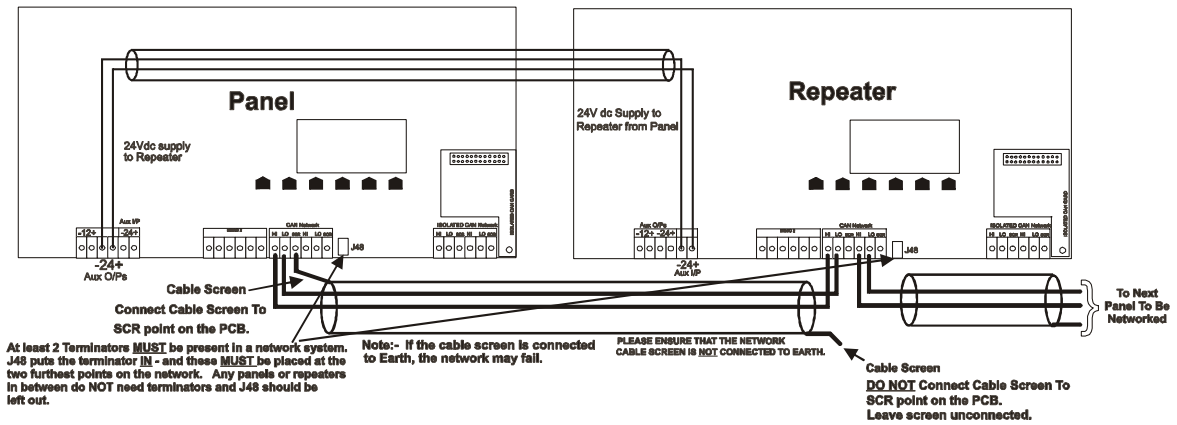
button 3 Toggle Connect / Disconnects devices
button 4 & 5 Up & Dwn scrolls through network list
button 6 exit Returns to menu system saving all changes

The top line shows the address of this panel is 1 and is connected in Star configuration

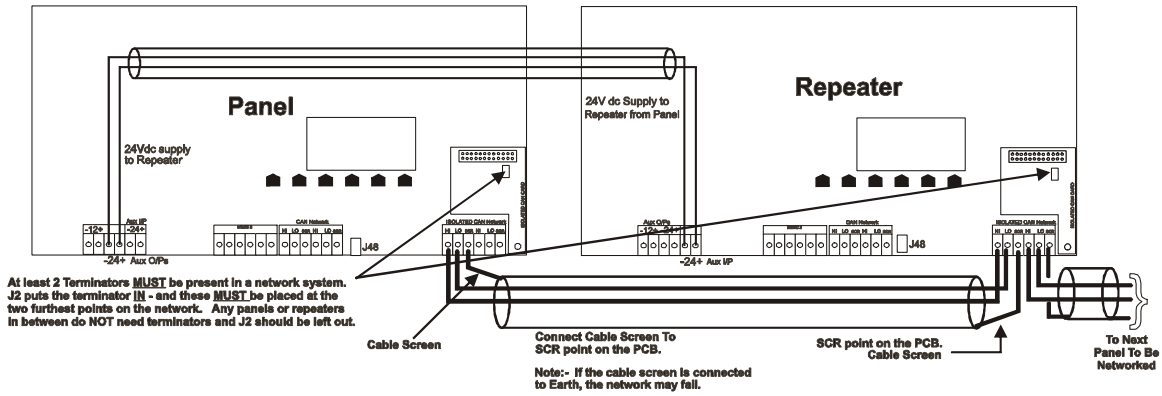
Line 3 shows that at address 2 there is a Repeater Panel (R), which is not yet connected (N) to this panel.

Pressing button3 toggle will connect panel2 to this panel (the 'N' will change to 'Y'.)

STAR NETWORK



ISOLATED STAR NETWORK



DualStar Panel To Repeater Networking