## Specification

| | |
|---|---|
| **Operating temperature** | -10 to +50°C |
| **Storage temperature** | -20 to +60°C |
| **Humidity** | 0% to 95% non-condensing |
| **IP rating** | IP54 |
| **Operating voltage** | 18 to 22V loop powered |
| **Typical operating current** | 40mA loop powered (1st loop)<br>+ 7mA per each connected loop |
| **Max operating current** | 47mA loop powered (1st loop)<br>+10mA per each connected loop |
| **Operating frequencies** | 868 MHz |
| **Output transmitter power** | Variable 0-14 dBm |
| **Dimensions** | 270mm (W) 205mm (H) 75mm (D) |
| **Weight** | 0.95kg |

## Regulatory information

| | |
|---|---|
| **Manufacturer** | EMS Radio Fire & Security Systems Ltd. Technology House, Sea Street, Herne Bay, Kent, CT6 8JZ, United Kingdom |
| **Year of manufacture** | See serial number label inside unit |
| **Certification** | CE |
| **Certification body** | 0359 |
| **CPR certificate** | 0359-CPR-00248 |
| **Approved to** | EN54-18<br>EN54-25 |
| **Application** | Intended for use in fire detection and fire alarm systems in and around buildings. Indoor use only. |
| **European Union directives** | 1999/5/EC (R&TTE directive): Hereby EMS Radio Fire & Security Systems declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. |

2002/96/EC (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see www.recyclethis.info

## Contact information

For contact information, see www.utcfireandsecurity.com

ZITON





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# Radio Hub - Four Loop Installation Guide

## General

The Ziton Radio Hub is available under the following part number:

| PART NO | VARIANT TYPE |
|---|---|
| ZPR868 -H | Ziton Radio Hub - Four Loop c/w wire aerials |

The address of the unit is set using the menu programming structure available on the Radio Hub – see programming manual for details. The installation must conform to BS5839:Part 1 (or applicable local codes). This Radio Hub is suitable for indoor use only.

## Loop design

The Radio Hub is powered from the loop; the unit draws a typical current of 40mA (for loop 1) plus 7mA per each additional connected loop. The current drawn from the Hub should be taken into consideration when calculating the total load of a loop. A maximum of one Radio Hub can be connected to a loop.

## Installation of the Radio Hub

Ensure that the Radio Hub is sited in accordance with the survey and design details. The Radio Hub is required to be connected via glands to the relative control panel (CIE). The recommended minimum distance between metal objects or other equipment from the aerial is 600mm. The recommended minimum distance to any other electrical equipment is 2 metres. The maximum distance between the Radio Hub and the CIE is 10 metres.

To gain access into the unit, remove the four corner covers and screws, allowing removal of the front plate. These must be kept in a safe place for refitting once installation is complete. Housed inside the unit will be the following part:-

1 x 868MHz Radio Hub pcb complete with aerials.

## Removing the Ziton Hub PCB

Care must be taken to ensure the Ziton Hub PCB is not damaged in the installation process. The Ziton Radio Hub PCB can be removed for additional access to mounting points if required. If removed, care must be taken to ensure that the PCB is carefully stored and correctly re-inserted and secured by the PCB retaining clips (shown in Figure 1).

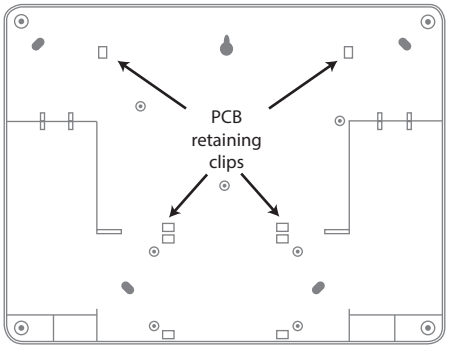


**Figure 1**

In order to remove the PCB, firstly remove the PCBs central retaining screw then release the top two retaining clips, by gently easing them outwards. This will allow the top of the board to be freed. Release the bottom two retaining clips by gently easing them outwards. This will release the PCB.

Having now unclipped the PCB, it must be carefully lifted away from the casework and stored in a suitable, safe location.

## Gaining cable access

Remove required cable access points for loop wiring connections. DO NOT USE cable access points in the shaded area for loop wiring. Available cable access points are shown in Figure 2.

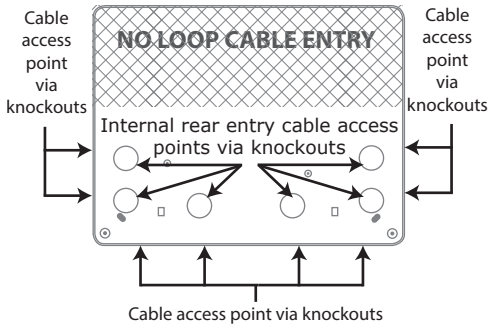


**Figure 2**

## Back box mounting

Position the Radio Hub in the required location and mark the required fixing positions. These are shown in Figure 3.

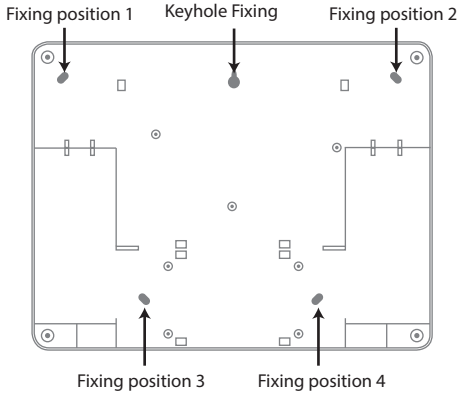


**Figure 3**

Using suitable screws and fixings install the top screw and locate over the keyhole slot provided. Ensure the screw does not protrude too far from the wall so a secure mounting can be achieved. Install the remaining two screws in the bottom left and right hand positions provided. Additional fixings are available if required in the top left and right hand positions provided.

## Re-Inserting the Ziton Hub PCB

To re-insert the PCB, firstly lower into place and slide the lower edge of the board under the bottom two retaining clips (as shown in Figure 1). Then ease the top two retaining clips outwards and secure it into place. The PCB should now be correctly affixed into position. Secure the PCB in the housing by fitting the PCBs central retaining

## Wiring

The Radio Hub has up to four separate sets of Loop connections: Loop IN - , +, and Loop OUT -, + for each available Loop. The connections are accessed by removing the front plate of the Radio Hub. The cable is to be passed through the access points provided. See Figure 4 for connection diagram.

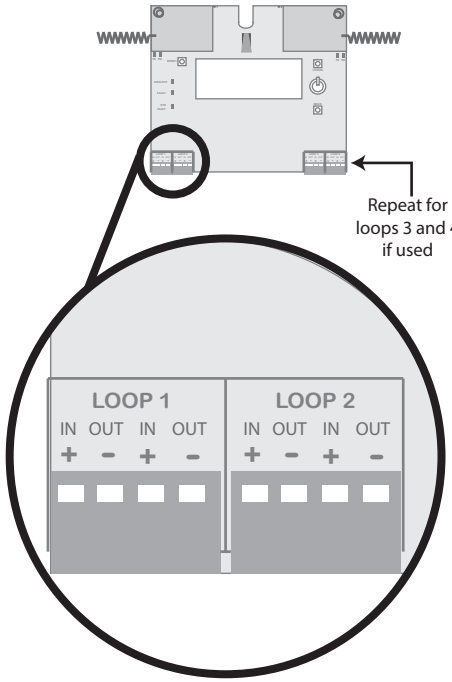


**Figure 4**

## Functional testing

When polled by a ZP compatible panel, the Radio Hub, in its normal condition will return the following analogue values.

| Slot 1 | Slot 2 | Slot 3 | Slot 4 | Slot 5 | Slot 6 |
|---|---|---|---|---|---|
| 149 | 181 | 244 | N/A | 090 | 244 |

## Overview of Radio Hub PCB

The names and functions of the Radio Hub PCB are shown below in Figure 5.

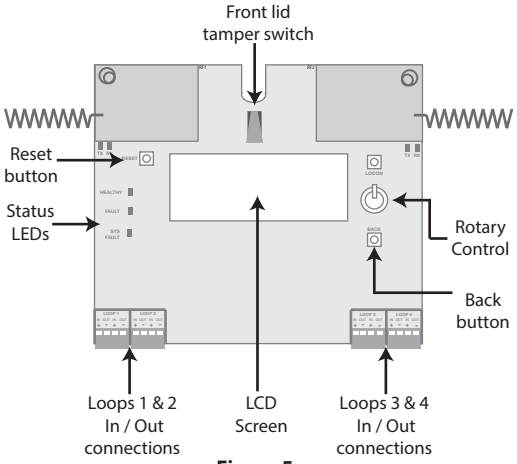


**Figure 5**

## Status LED operation

Power LED - A green LED will be visible on the front plate of the Radio Hub. This will be illuminated constantly whilst power is supplied to the Radio Hub from the control panel via the Loop 1 connection.

Fault LED - A yellow LED will be visible on the front plate of the Radio Hub. This will illuminate constantly in the event of an aerial tamper fault on the Radio Hub.
Note: This will be illuminated whilst the front lid is removed.

System Fault LED - A yellow LED will illuminate constantly if a checksum error is detected in either the software program or configuration data.

## Rotary Control operation

The Rotary Control is used to scroll through and enter menu options for programming purposes.

## Reset button

The Reset button is used to reset the Radio Hub

## Back button

The back button is used to move back a step in the menu.



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