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 22 VDC loop powered
Typical operating current	50 mA loop powered *(1st loop)* + 7 mA per each connected loop
Max operating current	170 mA loop powered *(1st loop)* +10 mA per each connected loop
Operating frequencies	868 MHz
Output transmitter power	14 dBm
Signalling protocol	X
Panel protocol	ZP
Dimensions *(W x H x D)*	270 x 205 x 75 mm
Weight	0.95 kg

Regulatory information

Manufacturer	KGS Manufacturing Poland Sp. z o.o. Ul. Kolejowa 24. 39-100 Ropczyce, Poland
Year of manufacture	See serial number label inside unit
Certification	CE 13 0905 UKCA 24 0359
DoP number	0359-CPR-00248
Approved to	EN54-18 EN54-25
Location	Type A: For indoor use
European Union directives	EMS declares that this device is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: firesecurityproducts.com
	2012/19/EU *(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 recyclethis.info

Contact information and product documentation

For contact information or to download the latest product documentation, visit firesecurityproducts.com.

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ZITON

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.

Pre installation

Installation must conform to applicable local installation codes and should only be installed by a fully trained competent person.

Ensure the radio hub is located as per the site survey.

This device contains electronics that may be susceptible to damage from Electrostatic Discharge *(ESD)*. Take appropriate precautions when handling electronic boards.

Loop design

The Radio Hub is powered from the loop; the unit draws a typical current of 50 mA *(for loop 1)* plus 7 mA 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.

Mounting location guidelines

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 fire control panel. The recommended minimum distance between metal objects or other equipment from the aerial is 600 mm. The recommended minimum distance to any other electrical equipment is 2 metres. The maximum distance between the radio hub and the fire control panel is 10 metres.

Remove cable entry points

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. Removing the front plate will expose the radio hub PCB.

Care must be taken to ensure the radio hub PCB is not damaged in the installation process. The PCB can be removed for additional access to mounting points if required. See the 'Removing/inserting the radio hub PCB' section for more details.

Retain the four corner covers and screws for re-assembly when installation completed.

Drill the cable entry points as necessary. Available cable access points are shown. *(Figure 1)*

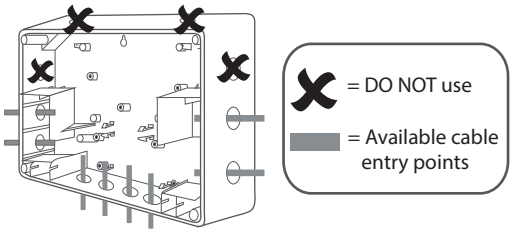

Figure 1

Fix to the wall

Position the radio hub in the required location and mark the five fixing positions shown. *(Figure 2)*

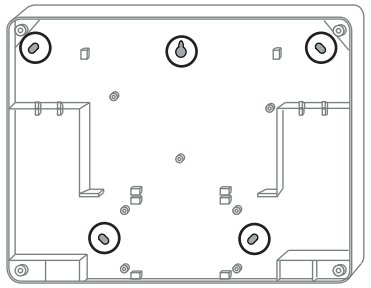

Figure 2

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.

All five circled fixing positions are available for use as required.

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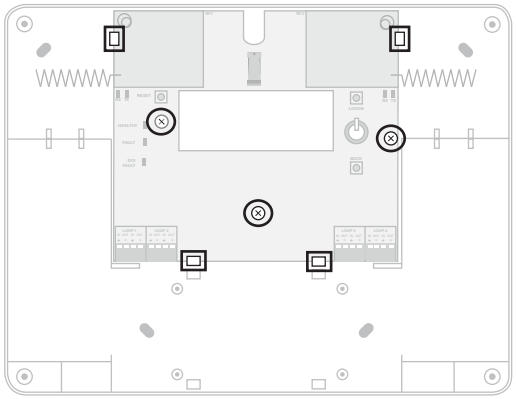
Removing / inserting the radio hub PCB

The 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, correctly re-inserted and held in place by all four PCB retaining clips. The PCB must also be further secured using all three PCB retaining screws.

The locations of the PCB retaining clips and PCB retaining screws are shown. *(Figure 3)*



= PCB retaining clips

= PCB retaining screws

Figure 3

In order to remove the PCB, firstly remove all three PCB retaining screws. Then release the top two PCB retaining clips, by gently easing them outwards. This will allow the top of the PCB to be freed. Release the bottom two PCB 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.

To re-insert the PCB, firstly lower into place and slide the lower edge of the PCB under the bottom two PCB retaining clips *(Figure 3)*. Then ease the top two PCB retaining clips outwards and secure it into place. The PCB should now be correctly affixed into position. Secure the PCB in the housing by refitting all three PCB retaining screws.

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.

Flame retardant cable glands must be used.

DO NOT leave excess cable in the radio hub.

Refer to the connection diagram. *(Figure 4)*

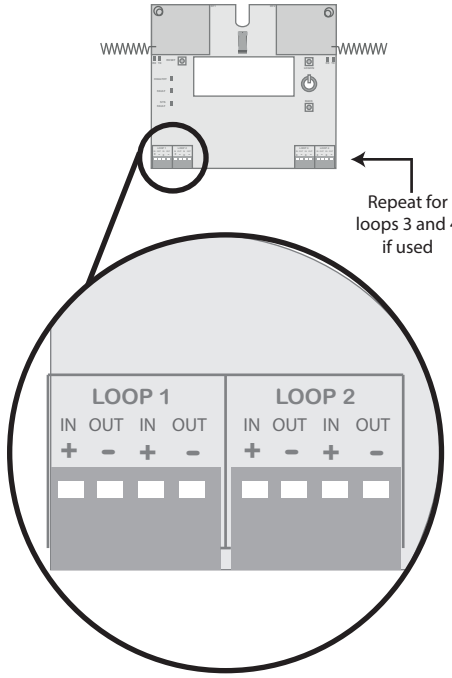


Figure 4

Applying power

Apply power to the control panel. The normal LED states for the radio hub are as below:

- HEALTHY LED - green LED will be on.
- FAULT LED - yellow LED will be off.
- SYS FAULT LED - yellow LED will be off.

The LED locations are shown *(Figure 5)*.

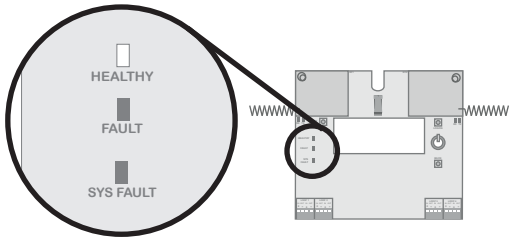


Figure 5

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

Refer to the Ziton radio hub programming manual *(TSD021)* for full details on radio hub and associated device functionality.

Overview of radio hub PCB

The names and functions of the radio hub PCB are shown *(Figure 6)*

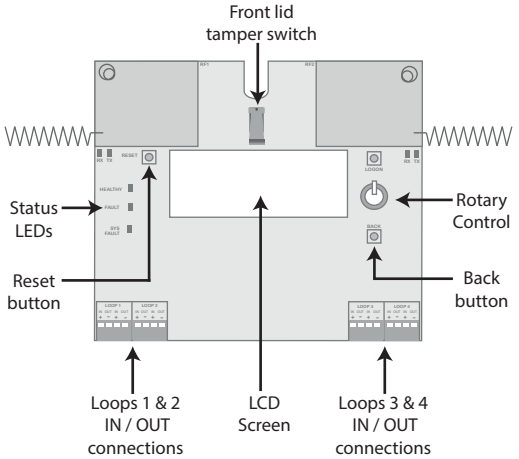


Figure 6

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.