

Specification

Operating temperature	-10 to +50°C
Storage temperature	-20 to +60°C
Humidity	0 to 95% non-condensing
IP rating	IP54
Operating voltage	2 x 18 to 30V DC
Typical operating current	22mA @ 24V DC
Max operating current	25mA @ 18V DC
Operating frequencies	868 MHz
Output transmitter power	Variable 0-14 dBm
Dimensions	270mm (W) 205mm (H) 75mm (D)

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-00249
Approved to	EN54-4 EN54-18 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 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



RCC 24V Installation Guide

General

The Ziton Radio Cluster Communicator (RCC) 24V is available under the following part number:

PART NO	VARIANT TYPE
ZPR868 -C	Ziton RCC 24V c/w Wire Aerials

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

Power requirements

To meet the requirements of BS5839-1, the Radio Cluster Communicator (RCC) should be powered from a dual output 24V DC power supply. The power supply must be EN54-4 approved.

The unit draws an average of 22mA at 24V DC and a maximum of 25mA at 18V DC. The operating voltage range is 17V to 30V DC. The current drawn from the RCC should be taken into consideration when calculating the total load of the 24V PSU.

Installation of the RCC

Ensure that the Radio Cluster Communicator is sited in accordance with the survey and design details. The recommended minimum distance between metal objects from the aerial is 600mm. The recommended minimum distance to any electrical equipment is 2 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: -

868MHz Radio Cluster Communicator transceiver PCB, complete with aerials.

Removing / inserting the Ziton RCC PCB

The Radio Cluster Communicator 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).

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.

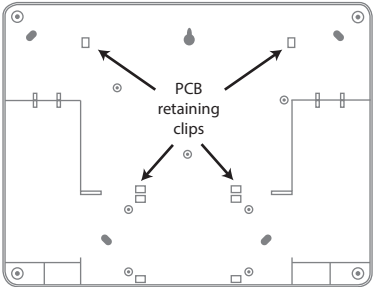


Figure 1

Gaining cable access

Remove required cable entry knockouts for both 2 core 24V power connections. See the 'Wiring connections' section for more information to the RCCs power connections. DO NOT USE knockouts located in the shaded area for power cable entry. Ensure that power cables and cable glands used are fire rated. Available knockouts are shown in Figure 2.

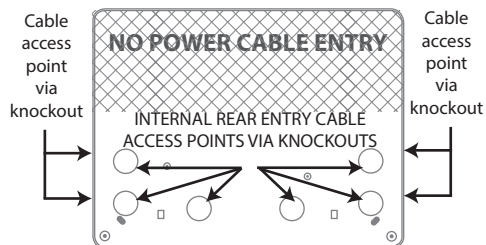


Figure 2

Back box mounting

Position the Radio Cluster Communicator in the required location and mark the required fixing positions. These are shown in Figure 4.

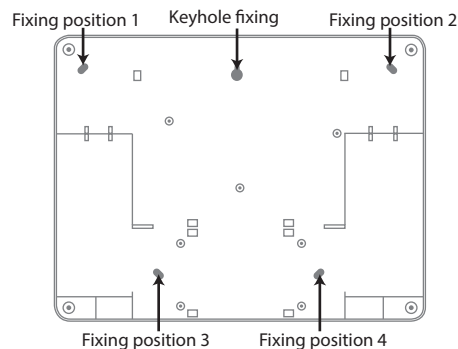


Figure 4

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 RCC PCB

To re-insert the PCB, firstly lower into place and slide the lower edge of the board under the bottom two retaining clips (see 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 screw.

Wiring connections

The 24V Radio Cluster Communicator has four power connections: POWER1 +, -, and POWER2 +, -. The connections are accessed by removing the front cover of the Radio Cluster Communicator. The cable is to be passed through the access points provided, (previously detailed in Figure 2). Figure 5 shows an example of wiring a single RCC whilst Figure 6 shows an example of the wiring connections of multiple RCCs.

Wiring a single RCC

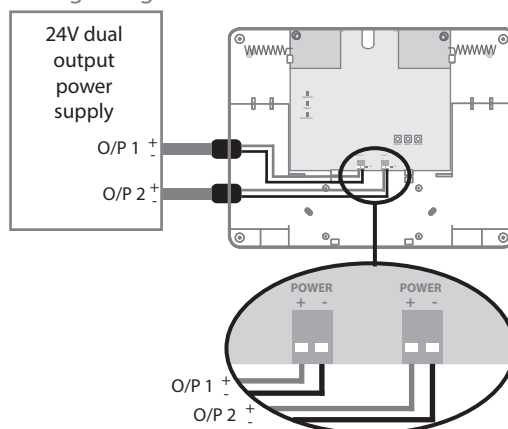


Figure 5

Wiring multiple RCCs

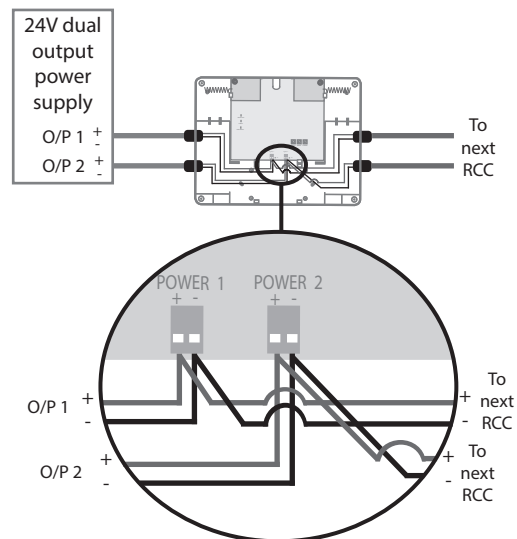


Figure 6

Note: There should be 300mm spacing between O/P 1 and O/P 2's cables where possible.

Overview of RCC PCB

The names and functions of the RCC PCB are shown below in Figure 7.

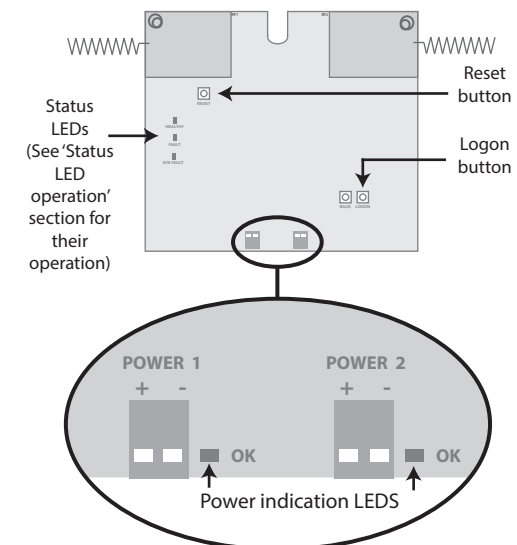


Figure 7

Status LED operation

Power Indication LEDs - 24V Power 1 and Power 2 inputs both have associated power indication LEDs. When both supplies are present, both green LEDs will be fully illuminated. When one of the PSUs either goes below 18V input or voltage is not present, the associated power indicator will extinguish. The yellow FAULT LED will also illuminate. The loss of power at both Power 1 and Power 2 inputs will result in a total loss of RCC power.

Power LED - A green LED will be visible on the front plate of the Radio Cluster Communicator and will illuminate constantly whilst sufficient power to the Radio Cluster Communicator is present.

Fault LED - A yellow LED will be visible on the front plate of the Radio Cluster Communicator and will illuminate constantly in the event of a loss of power to one of the two power inputs or an aerial tamper.

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

Reset button

The Reset button is used to reset the RCC.

Logon button

The Logon button is used to log the RCC on to the Radio Hub. See programming manual for more information.