

# C079-2 RF Portal Installation Instructions **Honeywell**

## Introduction

The RF Portal is a wireless transceiver for the Honeywell V2 and Alpha transmitter range. The RF Portal allows the control panel to receive signals from wire-free detectors and radio keyfobs.

One RF Portal will allow the control panel to assign wire-free detectors to detection zones. However, multiple RF Portals can be used to increase coverage.

On a G2 system, a maximum of two RF Portals can be connected to the RS485 (AB) line to support up to 44 zones.

On Galaxy Dimension and Flex a maximum of 8 RF Portals can be connected to the available RS485 (AB) lines.

**To avoid radio traffic congestion do not exceed 24 wireless sensors per RF Portal. A good guideline is 16 sensors per RF Portal.**

## PCB Layout

**Figure 1** shows the layout of the PCB in the mounting box.

## Tamper By-pass Link

The Tamper By-pass Link (**LK1**) must be removed to allow the cover tamper to function through the operation of switch (**SW2**).

## LEDs

The red **BUS** LED gives power and communication status of the RF Portal as per the table below

0.1s on / 0.9s off	Good communication
1.5s/on 1.5s off	Not Configured
Slow Flash	Bad communication
Off	No Power

**Table1. BUS LED Indications**

The green **RX** LED will blink upon receipt of valid signals. If an RF 'jam' condition occurs (continuous interference), the LED will light continuously and will switch off again only when the jam condition clears.

The yellow **TX** LED is on when the RF Portal is transmitting.

## Mounting the Plastic Base

Before mounting the base it is recommended that a survey is carried out to determine the suitability of the site for RF installation.

## NOTES:

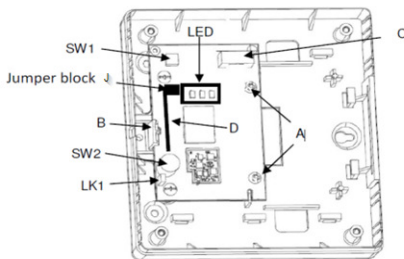
- The antenna (**D**) must be orientated vertically.
- The plastic base is mounted using three screws. (Note these are not provided with the installation kit).
- The plastic base must be mounted before attaching the PCB as access to the mounting holes will be restricted.

## Mounting (Refer to Figure 1)

1. Either remove one of the knockouts in the side of the plastic base or in the centre of the base (see doc ref: 800-02456).
2. Fit the two plastic supports for the PCB from the underside of the plastic base (**A**).
3. Using three screws, attach the plastic base loosely to a wall or electrical mounting box.
4. Bring the cable from the control panel into the base through the relevant knockout hole.
5. Firmly secure the plastic base with the three screws.

## Attaching the PCB

1. Place the PCB over the two plastic supports and the two pillars (**A**).
2. Pull back the clip (**B**) then press the PCB firmly into place.
3. To allow the cover tamper switch (**SW2**) to function, remove the by-pass link (**LK1**).
4. Attach the cover tamper spring over the lid tamper switch (**SW2**).



**Figure 1 - Layout**

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## Addressing the RF Portal

The RF Portal must be given a unique address before connecting to the power supply. Select an address from 0-F via the Address Setup Switch (**SW1**). (G2 must have address 4 or 5 only).

To select mode of operation select the appropriate setting on the Jumper block (**J**).

	Open	Closed	Availability
1	$\alpha1+\alpha2$	$\alpha1+V2$	Yes. Protocol Selection
2	-	Russian	Yes. Russian Frequency Select
3	Ant1+2	Ant1	Not used
4	-	Galaxy	Not used
5	-	Rx Tool	Refer to section "RAG indicator" below
6	-	Tx Tool	Refer to section "RAG indicator" below

**Table 2. Jumper Selection**

## Connecting the RF Portal

Connect the RS485 AB data bus lines from the panel to RF Portal AB data lines.

Power can be supplied from the control panel power supply or from a remote power supply if the distance causes a large voltage drop on the cable.

Connect Power to the RF Portal, observing polarity, +ve & -ve on terminal (**C**). (See electrical specifications below).

Keep all cables away from the antenna location (**D**).

## Configuring the RF Portal

Refer to the relevant control panel instructions for instructions on registering the RF Portal onto the system.

## Attaching the Cover

Place the cover over the plastic base then firmly attach with the four self-tapping screws provided.

## Signal Strength (RAG indicator)

The RF portal has an inbuilt signal strength indicator, (3 Strengths are indicated – See below). This allows the installer to assess the suitability of location for an RF Portal during the install process.

Descriptions for this and the operational modes are given below.

## Tx Mode

- Ensure mode selection Jumpers 1 to 4 are in the desired configuration.
- Ensure mode selection Jumper 5 is not fitted (open).
- Fit RF portal mode selection Jumper No 6 (closed).
- Repower RF Portal.
- The amber LED will flash every 3 seconds indicating that an RF message has been transmitted.

## Rx Mode

- Ensure mode selection Jumpers 1 to 4 are in the desired configuration.
- Ensure mode selection Jumper 6 is not fitted (open).
- Fit RF portal mode selection Jumper No 5 (closed).
- Repower RF Portal.
- All 3 LEDs will begin to flash in unison. This indicates that there is no signal received.
- When an RF message has been received the LED corresponding to the received signal strength range will flash then settle in the ON state.
- The received signal ranges and their respective LED indications are as follows:
  - Signal level 0-2 = RED
  - Signal level 3-6 = AMBER
  - Signal level 7-10 = GREEN
- If the RF portal does not receive an RF message within 10 seconds all 3 LEDs will go back to flashing in unison.

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## Specifications (PCB only)

Width:	68mm	3"
Height:	105mm	5"
Depth:	10mm	1/2"
Weight: (approx)	45g	1.6oz
Humidity	0-85%	
Operating temperature	-10°C to +40°C	
Nominal Supply voltage	12V DC	
Current : Nominal	35mA	
Current : Maximum	40mA	

This product is suitable for use in systems designed to comply with:

EN50131-1: 2006+A1:2009

- Security Grade – 2
- Environmental Class – II

Radio functionality has been independently tested to EN50131-5-3 at CNPP, France

**Honeywell Security**

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