HiSPEC
LIGHTING • FIRE & CO DETECTION

Hispec RF-PRO Relay Base with 10-year sealed battery

UK CA CE

HSSA/RB/RF10-PRO

SPECIFICATION

Product Life:	10 years
Supply Voltage:	230V AC
Backup Battery:	3V Rechargeable Lithium Battery (Sealed)
Battery Consumption:	0.8W (standby)
Contact Rating:	250V AC, 5A / 30V DC, 5A Continuous or Pulse mode
Visual Indicator:	Green - Bright: Power Present Red - Flashing: Low Battery Red - Illuminated: RF Pairing Mode
Wireless Interconnection:	Radio Frequency [868MHz] max 20pcs RF devices Indoor max 30m / outdoor max 80m
Hardwire Interconnection:	max 40pcs devices in 150m
Operating/Storage Temperature:	-10°C to 40°C
Operating/Storage Humidity:	15% to 95% Relative Humidity
Plastic Material:	ABS
Approval:	CE

INTRODUCTION

Please carefully read and retain this manual for the entire duration of the device's use, as it contains vital information on the installation and operation of the HSSA/RB/RF10-PRO Relay Base. The manual should be considered an integral part of the product, and if you are installing the device, it is mandatory to provide a copy of the manual to the homeowner and any subsequent users.

The HSSA/RB/RF10-PRO is a versatile device that switches a relay upon receiving a wireless alarm signal from a compatible Hispec RF10-PRO smoke/heat/CO alarm.

The electrically isolated contacts of the relay can be used for numerous applications, such as signaling and activating flashing beacons. The HSSA/RB/RF10-PRO is specially designed to operate with Hispec RF-PRO devices.

The HSSA/RB/RF10-PRO RF Pairing Relay Base is powered by 230V AC mains and features rechargeable backup cells. By default, the relay operates continuously, meaning it switches on when one of the smoke alarms detects fire and switches off when the alarm condition ceases.

IMPORTANT SAFETY NOTES

• The installation of mains-powered HSSA/RB/RF10-PRO RF Pairing Relay Base should be performed by a qualified electrician in accordance with the relevant local Regulations for Electrical Installations. Incorrect installation may expose the user to shock or fire hazards and damage the product. This unit is not waterproof and must not be exposed to dripping or splashing.

• It is mandatory to incorporate an all-pole mains switch into the electrical installation of the building.

• For connecting the pattress to Alternative Energy Sources – (Wind, solar, UPS, etc.) - This product is designed to be connected to a Pure or True Sine Wave 230V AC supply. If you plan to connect it to a power source that utilizes an inverter, such as a PV solar panel, ensure that the Total Harmonic Distortion (THD) is less than 5%. If you are unsure, please consult the inverter manufacturer. The same applies to battery-powered UPS (Uninterruptible Power Supply) inverters.

• The relay base must not be powered from a light dimmer circuit.

INSTALLATION INSTRUCTION

1. BEFORE WIRING THE RF PATTRESS

NOTE: USER IS STRONGLY RECOMMENDED TO READ THE MANUAL AND FOLLOW THE STEPS IN CHRONOLOGICAL ORDER TO COMPLETE THE SET UP OF RF RELAY PATTRESS.

Carefully read and follow these instructions:

1. Disengage the mains from the circuit before installing the apparatus to ensure safety.

2. Locate a desired mounting position, either near the external device you want to control or underneath a Hispec “Fast Fix” alarm base. Avoid mounting near metal framework or large metal objects as this will reduce RF range capabilities.

3. If the incoming wiring is on the surface of the wall/ceiling, use appropriately sized trunking/conduit to cover exposed cable. Remove the plastic knockout with a sharp knife, ensuring that there is no gap when fixed with the trunking/conduit. There is one suitable surface cabling knockout.

Note: *the other two surface entries are not recommended as the wiring will reduce the antenna signal). There is one rear entry knockout. Refer to Fig.2 for details.*

2. WIRING INSTRUCTION

At this point, the HSSA/RB/RF10-PRO module should have already been screwed to the wall/ceiling and the correct cabling should be in place.

Fig. 1 Product Dimension

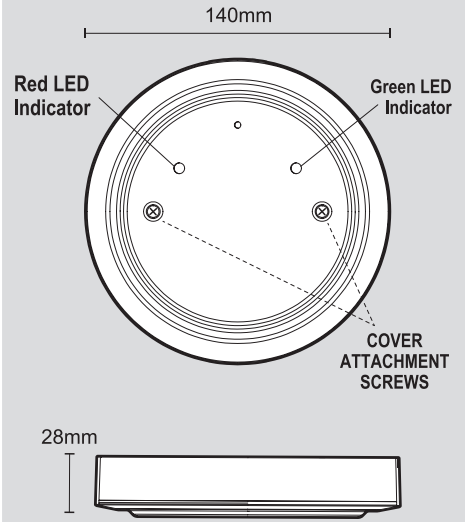
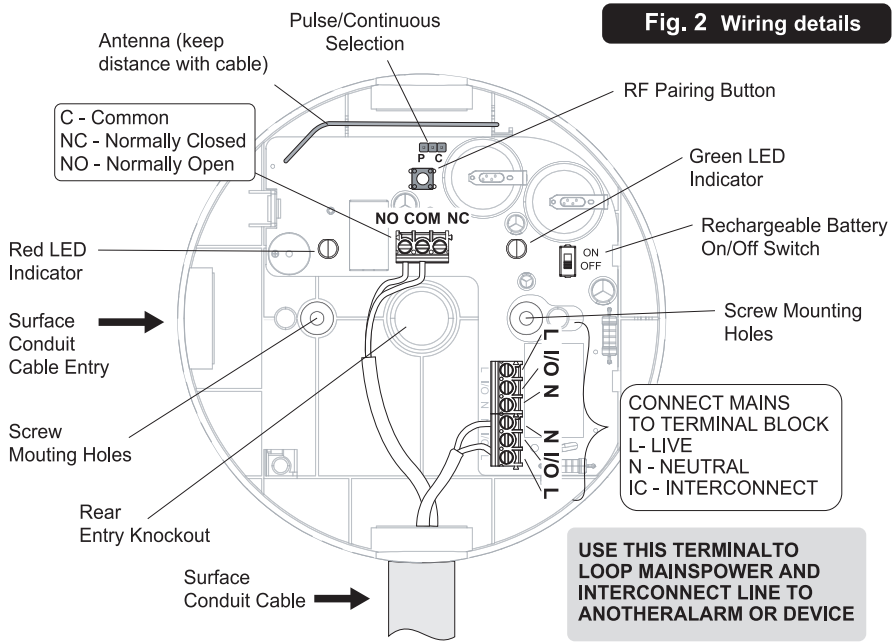


Fig. 2 Wiring details



1. Connect the power supply wires (Live & Neutral) to the mains terminal block according to Fig.2. (Screw tightening torque: max 0.5Nm (5.1kgf.cm).

Note: *Do not connect a green/yellow or copper earth wire to any terminal, as the unit must not be earthed.*

2. Connect the L (Live) wire from the power supply of the auxiliary device to the COM (Common) terminal.

3. Connect either the NC or NO contact of the relay (depending on what is required for controlling the auxiliary device) to the auxiliary device.

• If the relay is used to cut out a boiler in case of alarm, use NC. (see Fi.g 4)

• For a Beacon that should only be on in case of alarm, use NO. (see Fig. 5)

Fig. 4 Relay used to cut out a boiler in case of alarm

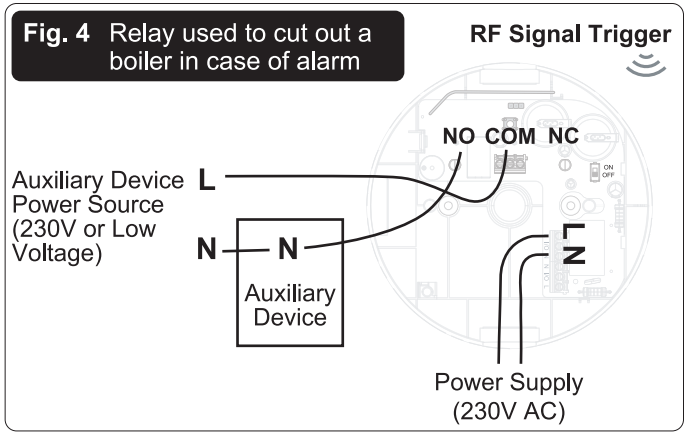
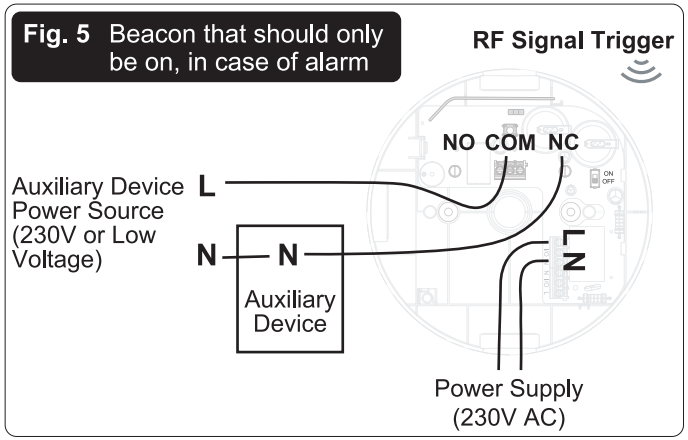
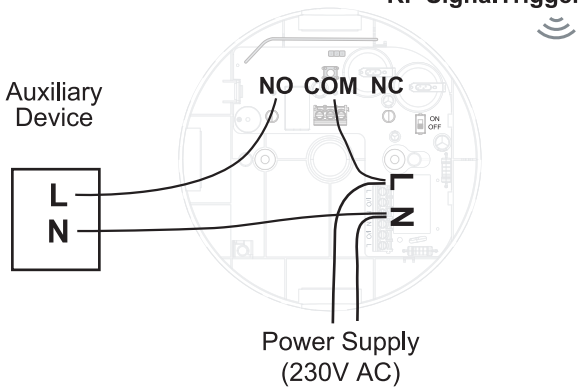


Fig. 5 Beacon that should only be on, in case of alarm



4. Alternatively, if the auxiliary device is powered from the same circuit as the relay (i.e. 230VAC), insert a link wire between the L (Live) terminal and the C (Common) terminal of the relay. Then, connect either the NC or NO contact of the relay (depending on what is required) to the auxiliary device. Connect the N (Neutral) terminal from the relay to the auxiliary device as shown in the diagrams below. (see Fig. 6)

Fig. 6 Auxiliary device powered from same circuit as relay



3. SET UP RELAY OPERATION TO EITHER CONTINUOUS OR PULSE

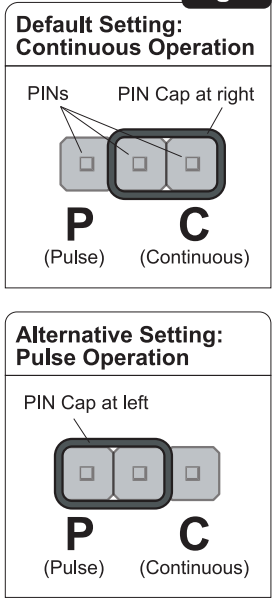
1.To switch between continuous or pulse operation, find the location PIN cap and the 3 PINs labelled on Fig. 2.

By default, a black pin cap should be fitted to 2 pins at the right side, that means the relay operates continuously in which it will switch on when one of the smoke alarms detects fire and switches off when the alarm condition ceases.

2. If momentary (pulse) relay operation is required, remove the black pin cap and fit it into the “P” position (see Fig. 7).

This is commonly used with warden call systems where only momentary short signaling is required. Do this before connecting the mains power or activating the rechargeable lithium batteries. With the switch in the “C” position, the alarm signal will switch the latching relay until a cancel signal is received.

Fig. 7



4. SET UP RECHARGEABLE BATTERY STATUS FROM “OFF” TO “ON”

1. Turn on the rechargeable cells by gently sliding the switch into the “ON” position (see Fig. 2). This switch must be turned ‘ON’ to ensure correct operation.

2. Attach the cover to the fixing points and fix it in place using the two screws supplied.

5. TESTING THE RELAY PATTRESS POWER STATUS

1. Engage the mains power to activate the HSSA/RB/RF10-PRO.

2. Check if the green light is on. If the green light is not present, remove the plastic cover and check if the wires have been connected correctly (see Fig. 2).

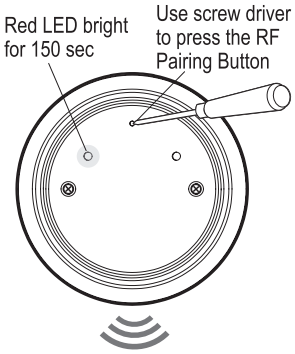
Note: *The green LED will be on whenever AC power is present. Switch on the rechargeable backup battery to ensure that the battery power has been charged.*

6. RF PAIRING SET UP

1. PROGRAM THE RF PAIRING

Find the RF Pairing Button on the RF Relay Pattress.

1.1 Press and hold the RF Pairing switch through the hole in the cover using a small screwdriver (see figure 1a) until the Red LED is illuminated. The Red LED Light will stay illuminated for 150 seconds.



1.2 RF pair all other RF Alarms and devices in the network. Consult the instruction manuals on how to RF Pair the Alarms and devices. Ensure that each individual Alarm/device is tested in its final location.

1.3 To complete the commissioning, the RF network must exit RF Pairing mode.

1.4 The HSSA/RB/RF10-PRO will automatically exit RF Pairing mode after 150 seconds. To manually exit RF Pairing mode, press the RF Pairing button again on the HSSA?RB?RF10-PRO one time. The Red LED indicator will turn off and the system will return to standby mode.

Note: *If some devices continue to flash amber/red, consult their instruction manual to manually exit RF Pairing mode. Check that the RF indicators have stopped flashing on all devices.*

Note: *Once all devices are paired, the system will not communicate with any other RF Alarms and RF devices outside of RF paired group.*

2. TEST THE RF PAIRING NETWORK

1. To test the RF connection, press the Test button for up to 20 seconds on any RF Paired Alarm. After a few seconds, all Alarms should sound. Ensure that the device connected to the relay contacts operates. After testing, release the test button – check the external device connected to the relay returns to its normal state. (If the continuous/pulse slide switch is in the pulse position, check the relay just switches on for 5 seconds and then switches off).

Note: *A maximum of 20 RF devices may be interconnected to one relay. When one alarm sounds, all interconnected alarms will sound and the relay will switch.*

Note: *The rechargeable cells enable the HSSA/RB/RF10-PRO to switch during mains failure upon receipt of an alarm signal. They will power the relay for up to 2 months in the event of the mains being off.*

CHECKING & MAINTAINANCE

1. CHECK PERFORMANCE INSTRUCTION

We recommend end-user to perform this RF Network Check on this device monthly. Please follow below steps:

(1) Check if the green LED power indicator is on. If it is off, check circuit breaker fuse, wiring, etc. When the mains is restored, the green light will come on solid.

(2) Check if the red LED is flashing once every 10 seconds. If so, it indicates the pattress has a battery problem.

• Check if the battery switch is in the “ON” position. If not, switch it to ON. If the switch is already at “ON”, leave the battery to recharge for 2 hours before checking again.

• If the unit continues to flash red every 10 seconds, then the unit is defective and must be replaced. See the "LIMITED WARRANTY" section.

(3) Press the Alarm Test Button and check that: (a) the relay switches and (b) the auxiliary device behaves as expected.

2. BACKUP BATTERY STATUS

To ensure HSSA/RB?RF10-PRO is functioning properly, it's crucial to periodically check the status of its rechargeable backup battery. We recommand end-user to perform this Backup Battery Status Check immediately after installation and at least once a year.

1. Disconnect the mains supply.

2. Then, check the relay as outlined in “CHECKING PERFORMANCE INSTRUCTION”.

3. If everything is satisfactory, reconnect the mains.

However, if the relay fails to operate, this unit is defective and needs to be replaced.

END OF LIFE

After 10 years (see date label on the side of the Relay), the HSSA/RB/RF10-PRO Relay Base must be replaced.

TROUBLESHOOTING THE RF PAIRING

If when testing, the HSSA/RB/RF10-PRO does not respond, then:

a. Ensure that the Alarm Test button has been held down until the RF light comes on, which can take up to 20 seconds.

b. If the issue persists, reset the RF pairing by pressing the RF Pairing button 5 times. The LED will flash red for 10 times, indicating that the RF memory has been cleared, and the HSSA/RB/RF10-PRO is now reset. To reset other devices in the system, refer to their respective instruction manuals. Once all devices are reset, repeat the RF pairing procedure.

c. If resetting the RF pairing does not improve the signal reception, try relocating the HSSA/RB/RF10-PRO and/or rotating/relocating the alarms. Signal reception can be improved significantly by changing the position of the alarms. However, this may also result in some devices being out of range of existing devices, even if they were properly paired before. Therefore, it's important to check that all detectors/relays are communicating in their final installed positions. If units are rotated and/or resited, it's recommended to return them to the factory settings before RF pairing all units again in their final positions. Finally, re-check the RF pairing to confirm that the issue has been resolved.

LIMITATIONS OF RF PAIRING

Hispec’s RF-PRO Pairing system is very reliable and is tested to high standards. However, due to its low transmitting power and limited range (required by regulatory bodies), there are some limitations to consider:

• Frequency antennas may be blocked by radio signals occurring on or near their operating frequencies, regardless of the alarm’s RF functionalities.

• Hispec RF-PRO systems should be tested regularly, at least monthly. This is to determine whether there is any external interference preventing communication, whether the radio paths have been disrupted by building work or renovations, and if so, to give a warning of these and other faults.

LIMITED WARRANTY

This device is in warranty under normal use and service for a period of 5 years from date of purchase. The company will not be obligated to repair or replace parts which are found to be in need of repair because of misuse, damage or alterations that have occurred after the date of purchase. Send the alarm with proof of purchase, postage and return postage prepaid, to your local distributor. The liability of the company arising from the sale of this alarm shall not in any case exceed the cost of replacement of alarm and in no case shall the company be liable for consequential loss or damages resulting from the failure of the alarm.

HISPEC ELECTRICAL PRODUCTS LTD. SHALL HAVE NO LIABILITY FOR ANY PERSONAL INJURY OR PROPERTY DAMAGE, OR ANY SPECIAL INCIDENTAL, CONTINGENT OR CONSEQUENTIAL DAMAGE OF ANY KIND RESULTING FROM A FIRE. THE EXCLUSIVE REMEDY FOR BREACH OF THE LIMITED WARRANTY CONTAINED HEREIN IS THE REPAIR OR REPLACEMENT OF THE DEFECTIVE PRODUCT AT HISPEC ELECTRICAL PRODUCTS LTD. OPTION. IN NO CASE SHALL HISPEC ELECTRICAL PRODUCTS LTD.’S LIABILITY UNDER ANY OTHER REMEDY PRESCRIBED BY LAW EXCEED THE PURCHASE PRICE. YOUR ALARM IS NOT A SUBSTITUTE FOR PROPERTY, DISABILITY, LIFE OR OTHER INSURANCE OF ANY KIND. APPROPRIATE COVERAGE IS YOUR RESPONSIBILITY. CONSULT YOUR INSURANCE AGENT.

This does not affect your statutory rights. Waste electrical products should not be disposed of with normal household waste. Please recycle where facilities exist. Check with your Local Authority or retailer for recycling advice. New regulation will encourage the recycling of Waste from Electrical and Electronic Equipment (European "WEEE Directive" effective August 2005).