

HORNET-RX Datasheet



DiGi Electronics Part Number	HORNET-RX-DG
Manufacturer	RF Solutions
Manufacturer Product Number	HORNET-RX
Description	REMOTE RCVR 4-CH 433MHZ 12-32VDC
Detailed Description	RF Receiver 433.92MHz FM Receiver, Relay

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Purchase and inquiry

Manufacturer Product Number:

HORNET-RX

Series:

-

Function:

Receiver

Frequency:

433.92MHz

Interface:

Receiver, Relay

Power - Output:

-

Features:

100m Range, IP68

Base Product Number:

HORNET

Manufacturer:

RF Solutions

Product Status:

Obsolete

Modulation or Protocol:

FM

Applications:

General Remote Control

Sensitivity:

-

Data Rate (Max):

-

Voltage - Supply:

12V ~ 30V

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

HTSUS:

8526.92.5000

ECCN:

EAR99



HORNET Remote Control

433MHz Receiver

Features

- Up to 100metres Range
- 4 Changeover Relays
- 12-30Vdc or 230Vac versions
- Reliable FM Technology
- Each output Rated 1000W
- Waterproof Enclosure to IP68
- Momentary or Latching Relays
- Any Switch Map to Any Relay Output
- CE / FCC Compliant

Applications

- General Purpose Remote Switching
- Electric Gates
- Roller Shutter Doors
- Garden Lighting



Description

Supplied complete ready to operate without any user configuration required. The HORNET is a rugged IP68 weatherproof remote control receiver. Built in mounting points and easy wiring using High Quality screw Terminals.

With a range of up to 100m the HORNET is ideal for a wide variety of switching applications.

Transmitters may be added using the 'learn' process, any button on the transmitter can be used to control one or many outputs of the receiver.

HORNET 433MHz



System Part Numbers

Operating from 12-30Vdc



Part Number	Description	Frequency (MHz)	Range** (Metres)
HORNET-S1	System 1 channel	433.92	100
HORNET-S2	System 2 channel	433.92	100
HORNET-S3	System 3 channel	433.92	100
HORNET-RX	Receiver 4 channel	433.92	

**Range stated is optimum, direct line of sight. In worst conditions this can be reduced by over 50%

Part Number	Description	Frequency (MHz)	Range** (Metres)
HORNET-S1M	System 1 channel	433.92	100
HORNET-S2M	System 2 channel	433.92	100
HORNET-RXM	Receiver 2 channel	433.92	

**Range stated is optimum, direct line of sight. In worst conditions this can be reduced by over 50%

Additional Transmitters



Part Number	Description
HORNET200-TX1	Transmitter 1 switch
HORNET200-TX2	Transmitter 2 switch
HORNET200-TX3	Transmitter 3 switch

Bespoke Versions

Custom versions available with your own logo and or protocol.

Please contact Sales for further info.



HORNET 433MHz

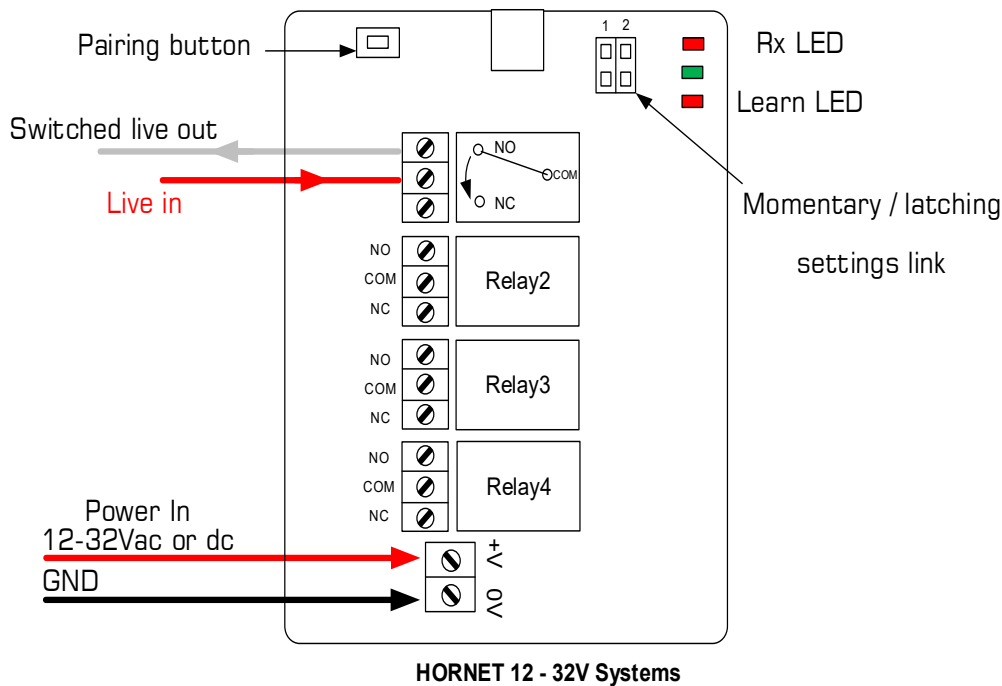


HORNET-RX (12-32Vdc Version)

The HORNET system is supplied ready to use straight out of the box.

When supplied as a system the Transmitter will be paired to the receiver as follows: Transmitter button 1 will switch relay output 1, Transmitter button 2 to relay 2 and so on). Each button press will change the state of the relay (i.e. one press for on, one press for off).

1. Open the enclosure by removing the antenna and fixing screws from the base
2. The circuit board will then slide out.
3. Connect to the screw terminals



Configuring Output Relays Momentary or Latching

These are set by the Jumper Links

Momentary = operates as long as transmitter is operated

Latching = Relay changes state each time transmitter is pressed

Link Positions		Relays			
LK1	LK2	RLY 1	RLY 2	RLY 3	RLY 4
Fitted	Fitted	Mom	Mom	Mom	Mom
Fitted	Open	Mom	Mom	Latch	Latch
Open	Fitted	Mom	Latch	Latch	Latch
Open	Open	Latch	Latch	Latch	Latch

HORNET 433MHz



Pairing Transmitters to the HORNET-RX (12-32Vdc Version)

Please note that the HORNET Systems are provided ready to operate and Pairing a transmitter to a receiver is only required when replacing or adding a new transmitter.

To pair a new transmitter switch follow this procedure

Note!: Any transmitter button can be configured to operate any of the receiver relays.

1. Select the receiver output relay to learn to:
2. Briefly press the receiver Pairing switch (S2) once
3. The Learn LED will flash once to indicate relay 1 is selected
4. After the LED stops flashing, press the Learn switch again to select the next relay channel
5. Repeat step 4 until the required relay is selected.
6. Press the button on the transmitter you want to learn to the chosen relay.
7. The Learn LED will flash to indicate Pairing is complete.

Pairing a Transmitter to a Receiver

Each receiver has a maximum memory for up to 30 pairings, these can be from the same or any number of transmitters.

Erasing Receivers Memory

1. Press and hold the receiver Learn Switch for approx 10 seconds.
2. When the Learn LED turns ON all memory is erased

NOTE: You cannot erase individual Tx encoders



HORNET 433MHz

HORNET-RXM (230Vac Powered Receivers)

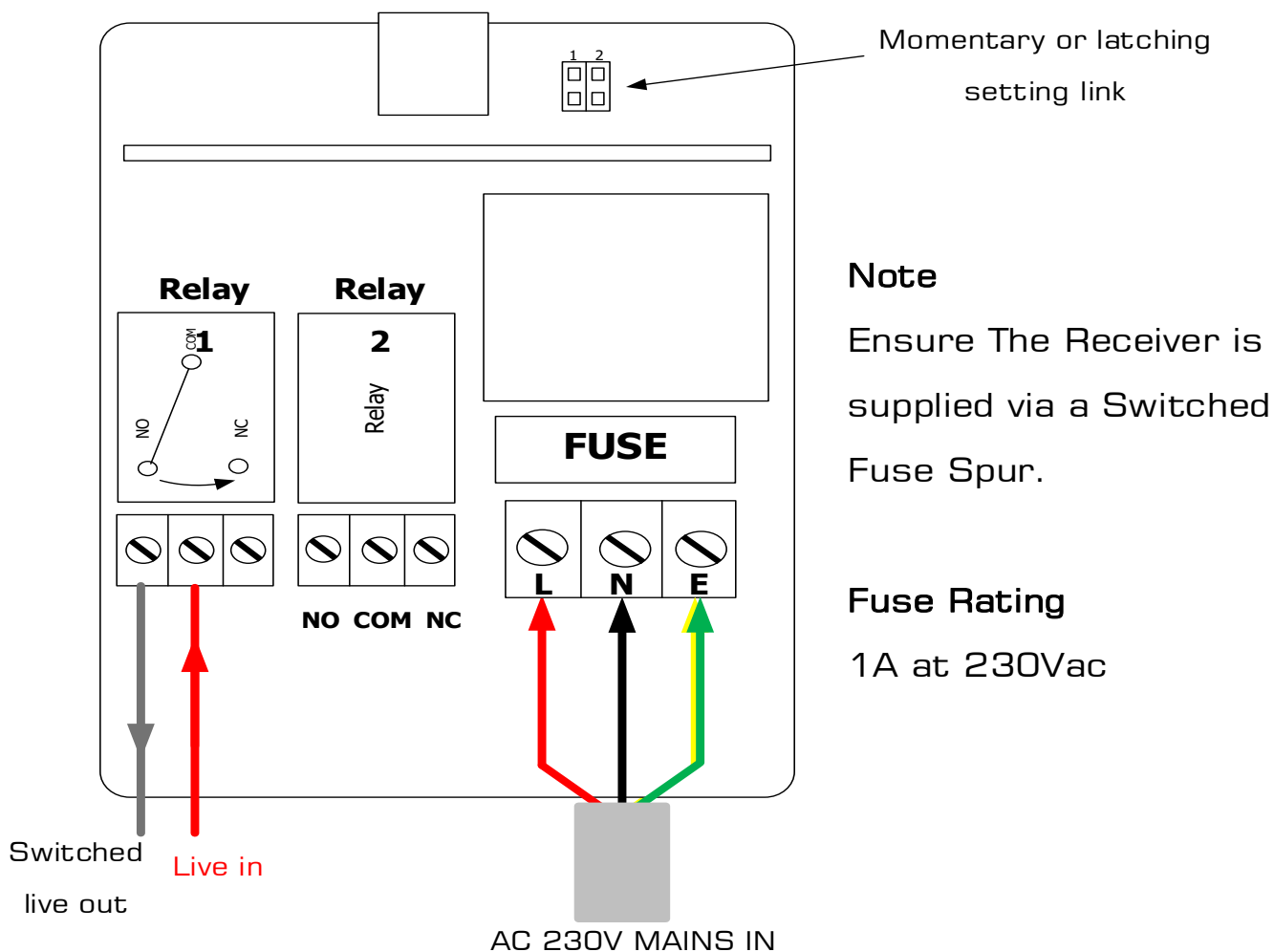
The HORNET-RXM system is supplied ready to use straight out of the box.

When supplied as a system the Transmitter will be paired to the receiver as follows: Transmitter button 1 will switch relay output 1, Transmitter button 2 to relay 2. Each button press will change the state of the relay (i.e. one press for on, one press for off).

1. Open the enclosure by removing the antenna and fixing screws from the base
2. The circuit board will then slide out.
3. Connect to the screw terminals

Warning!

The Receiver unit is designed to be a fixed installation, connected to a mains supply. Before removing the cover ensure that the mains input supply is removed. Any operation of the product that involves removal of the cover should only be carried out by a competent person or qualified electrician.



HORNET 433MHz



Pairing Transmitters to the HORNET-RXM (230Vac version)

Please Note: During Learn and Erase the relays operate at high speed. They should be isolated from sensitive equipment during this process.

To Pair additional Transmitter buttons to receiver Relay #1

1. Apply power the receiver and wait 10secs for the unit to enter 'normal operation' mode.
2. Switch the receiver unit OFF and then ON again in ~1sec intervals **FOUR** times finally leaving the unit powered.
3. The receiver emits a continuous 'Click' to confirm it is now in 'learn' Mode
4. Press the chosen transmitter button.
5. The receiver will acknowledge by sounding the a single 'buzz'
6. Learn Process complete.

To Pair additional Transmitter buttons to receiver Relay #2

1. Apply power the receiver and wait 10secs for the unit to enter 'normal operation' mode.
2. Switch the receiver unit OFF and then ON again in ~1sec intervals **SIX** times finally leaving the unit powered.
3. The receiver emits a continuous 'Click' to confirm it is now in 'learn' Mode
4. Press the chosen transmitter button.
5. The receiver will acknowledge by sounding the two 'buzzes'
6. Learn Process complete.

Erasing Receivers Memory

1. Power the receiver unit up and wait 10 seconds for the unit to enter 'normal operation' mode.
2. Switch the unit off and then on again at ~1 second intervals **TEN** times, leaving the unit powered.
3. The receiver confirms Erase cycle complete by giving three short 'Buzzes'

Configuring Receiver Relays

The jumper links set the outputs to be Momentary (operates as long as transmitter is operated)

or Latching (Relay changes state each time transmitter is pressed).

The jumper links are made/removed by the small link 'cap' placed over the pin header.

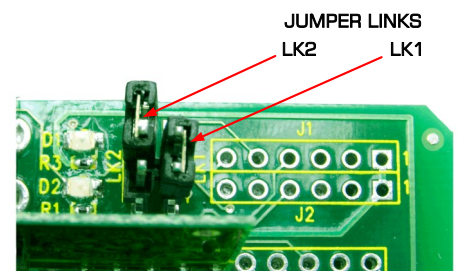
Link1 controls relay Output #1

Link2 controls relay Output #2

Link FITTED = MOMENTARY

Link OPEN = LATCHING

Image shows -
 RLY1 Momentary,
 RLY2 Latching.



HORNET 433MHz



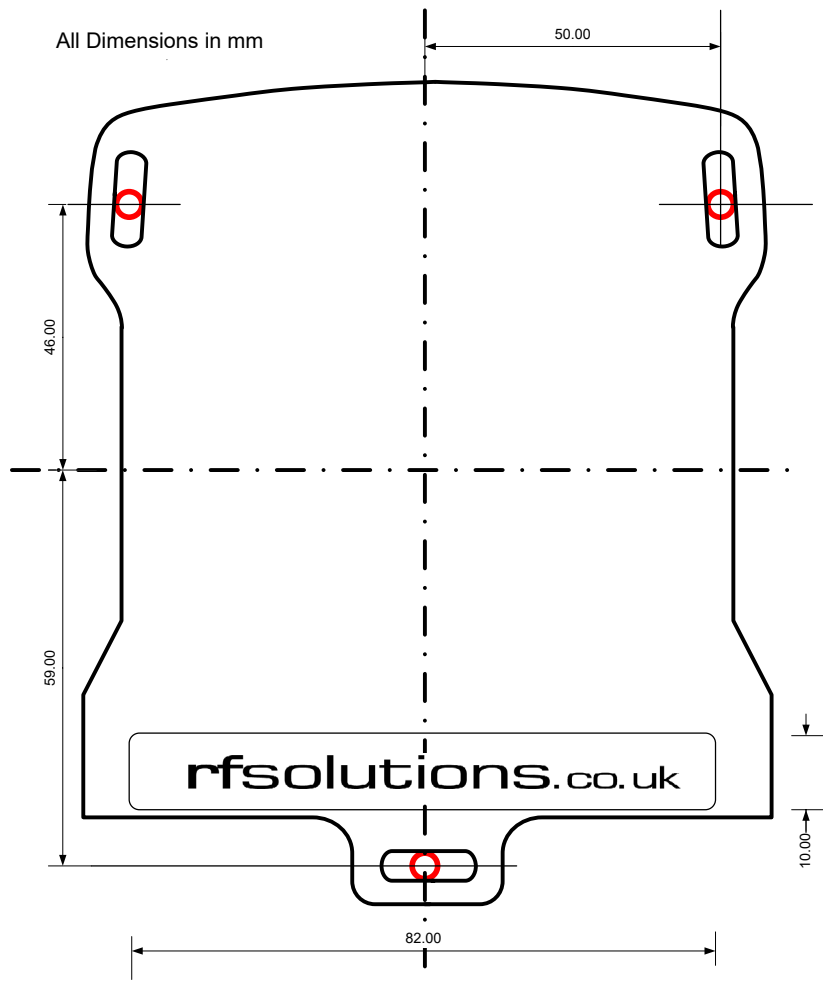
Technical Specifications

Enclosure Rating IP68
 Dimensions 130 x 112 x 42 mm (not including antenna)
 Storage Temperature: -10 to +70° Celsius. Operating Temperature: -10 to +50° Celsius.

ELECTRICAL CHARACTERISTICS	Min	Typical	Max	Units
Supply Voltage for 12-30V versions	10.5	12	30	Vdc
Supply Voltage for Mains versions		230		Vac
Relay Rating* (230Vac) RLY1-4		5(rms)	12(peak)	A
Supply Current : Quiescent @12V All relays operating*		10 140		mA
Supply Current @ 230V		~13		mA
Time delay from Tx on Switch to Rx Relay operation			100	mS
Time delay from Tx sw relax to Rx Relay release			300	mS

*The relay contacts in this unit are for functional use only and must not be used for isolation purposes

Enclosure Detail





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