



# WASP HIGHLY SECURE REMOTE CONTROL SYSTEMS

- Complete FM Remote Control System
- 1 – 3 Channels
- 12 / 24Vdc Supply
- High Security **KEELOQ** CODE HOPPING Protocol
- 'Easy Learn' Feature
- Easy Installation Via Screw Terminals.
- Up to 7 Transmitters per System
- Relay Outputs 5A @ 230Vac
- Momentary or Latching Outputs
- Robust Enclosure
- FCC / CE Compliant
- Range up to 100 Metres



## Description

A versatile general purpose remote control, which can be used for controlling many different applications. The system utilises the highly secure Keeloq code hopping protocol to ensure reliable operation.

Easy to install, the receiver is connected using standard 'screw terminals' provided. Power to the receiver is 12 or 24Vdc and the output(s) can switch up to 5A at 230Vac.

The receiver outputs operate when the transmitter switch is pressed. The outputs can be set to 'momentary' or 'latching' operation.

The system is supplied ready to 'plug and play', in addition a further 6 transmitters can be 'learnt' by the receiver.

## Remote Control System

| Part Number | Description                | Freq (MHz) | Range** (Metres) |
|-------------|----------------------------|------------|------------------|
| WASP-S1     | Remote Control System 1 sw | 433.92     | 100              |
| WASP-S2     | Remote Control System 2 sw | 433.92     | 100              |
| WASP-S3     | Remote Control System 3 sw | 433.92     | 100              |

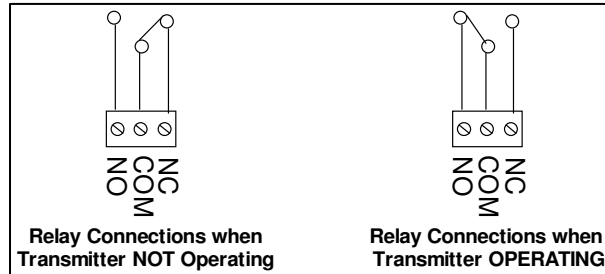
## Additional AM Transmitter Keyfobs

| Part Number | Description                 |
|-------------|-----------------------------|
| HORNET-TX1  | Transmitter Keyfob 1 switch |
| HORNET-TX2  | Transmitter Keyfob 2 switch |
| HORNET-TX3  | Transmitter Keyfob 3 switch |

\*\* Range stated is optimum, direct line of sight. In worst conditions this can be reduced.

## Data Outputs

Each output relay provides an isolated switch. Outputs 2 to 4 Connections are Common (COM) and Normally Open (NO) which close together when activated. Output 1 has an additional Normally Closed (NC) changeover contact.

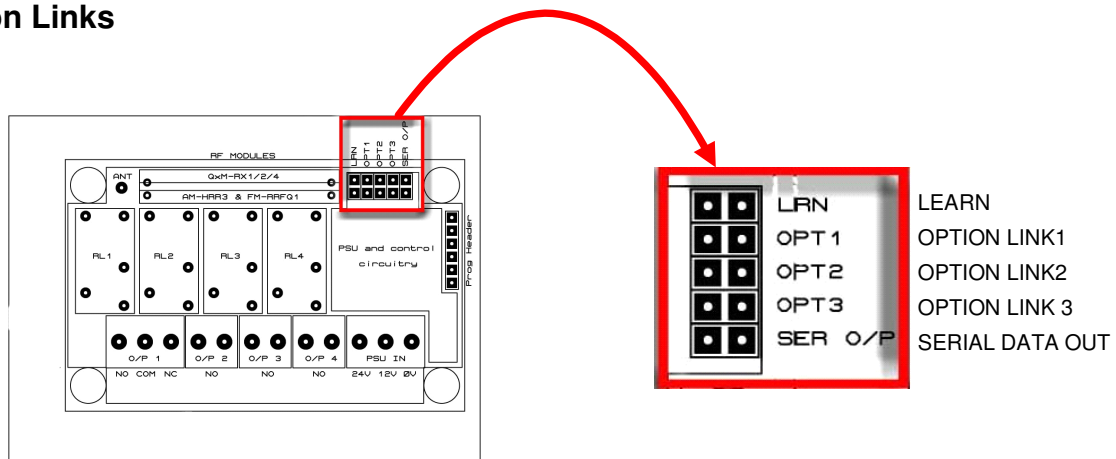


The action of the relay outputs is set by the Option link setting Jumper. A link is made / removed by the small shorting link 'cap' placed over the pin header.

Option Link 1 Fitted = Momentary Operation  
Option Link 1 Not Fitted = Latching Operation

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

## Option Links



## To Learn a New Transmitter switch follow this procedure

Any transmitter button can be learnt to one or many of the receiver output relays. Each button must be learnt to each relay individually by following this procedure:

1. Select the receiver output relay to learn to:
  - a. Briefly short the LRN (Learn) pins once
  - b. The Learn LED will flash once to indicate output relay 1 is selected
  - c. After the LED stops flashing, press the short the LRN pins again to select the next relay channel
  - d. Repeat step c until the required output relay is selected.
2. Press the button on the transmitter you want to learn to the relay output.
3. The Learn LED will then illuminate, press the same transmitter button again.
4. The Learn LED will then flash to indicate learning is complete.
5. To test the operation, press the transmitter button again and you will hear the relay 'click' as it operates.



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## Erasing Receivers Memory

1. Short the LRN (Learn) pins for approx 10 seconds.
2. When the Learn LED turns OFF all memory is erased
3. This is factory default state which is indicated by all output LED's flashing together.

**NOTE:** You cannot erase individual Tx encoders

## Technical Specifications

### Transmitter Keyfob

Battery Type GP23AE (supplied)

| Electrical Characteristics    | Min | Typical | Max | Units |
|-------------------------------|-----|---------|-----|-------|
| Supply Voltage                | 8.5 | 9       | 16  | Vdc   |
| Supply Current : Quiescent    |     | 0       |     | mA    |
| Supply Current : Transmitting |     | 8       |     | mA    |
| Operating frequency           |     | 433.92  |     | MHz   |

### Receiver Decoder

Dimensions 96mm x 55mm x 29mm

| ELECTRICAL CHARACTERISTICS           | MIN | TYPICAL | MAX | DIMENSION |
|--------------------------------------|-----|---------|-----|-----------|
| Supply Voltage for +12Vdc            | 11  | 12      | 13  | Vdc       |
| Supply Voltage for +24Vdc            | 23  | 24      | 25  | Vdc       |
| Supply Current: Quiescent            |     | 14      |     | mA        |
| Supply Current: All relays operating |     | 140     |     | mA        |

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