

# WASP-S2 Datasheet



<https://www.DiGi-Electronics.com>

DiGi Electronics Part Number	WASP-S2-DG
Manufacturer	<a href="#">RF Solutions</a>
Manufacturer Product Number	WASP-S2
Description	REMOTE CONTROL SYSTEM 2SW
Detailed Description	RF Transmitter and Receiver, Set 433.92MHz KEELO Q Handheld, 2 Switches

This model WASP-S2 is available at DiGi Electronics.

DiGi Electronics offers a global database of semiconductor and electronic component datasheets.

We welcome your inquiries regarding pricing, lead time, or other product-related questions.

 [Request a Quote](#)

 [Datasheet Search](#)



Tel: +00 852-30501935

RFQ Email: [Info@DiGi-Electronics.com](mailto:Info@DiGi-Electronics.com)

DiGi is a global authorized distributor of electronic components.

## Purchase and inquiry

Manufacturer Product Number:

WASP-S2

Series:

-

Function:

Transmitter and Receiver, Set

Frequency:

433.92MHz

Interface:

Handheld, 2 Switches

Power - Output:

-

Features:

-

Base Product Number:

WASP

Manufacturer:

RF Solutions

Product Status:

Obsolete

Modulation or Protocol:

KEELOQ

Applications:

-

Sensitivity:

-

Data Rate (Max):

-

Voltage - Supply:

12VDC or 24VDC

## Environmental & Export classification

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

5A991G

REACH Status:

REACH Unaffected

HTSUS:

8525.60.2000

# Secure Remote Control System

## Features

- Complete FM Remote Control System
- 1 – 3 Channels
- 12 / 24Vdc Supply
- High Security Protocol
- ‘Easy Learn’ Feature
- Easy Installation Via Screw Terminals
- Up to 7 Transmitters per System
- Relay Outputs 5A @ 230Vac
- Momentary or Latching Outputs
- ABS Enclosure
- FCC / CE Compliant
- Range up to 100 Metres
- EMC Compliant for Europe



## Applications

- General Purpose Remote Switching
- Garage Doors
- Electric Gates, Shutters
- Access Control

## Description

A versatile general purpose remote control, which can be used for controlling many different applications.

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.

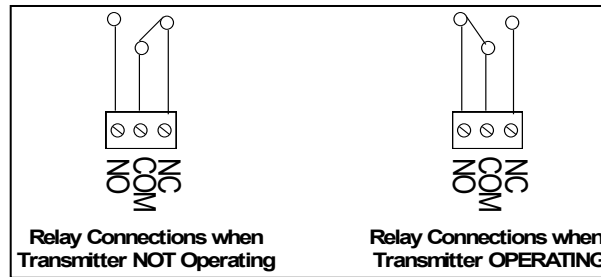
The system is supplied ready to ‘plug and play’, in addition a further 6 transmitters can be ‘learnt’ by the receiver.

# WASP Remote Control System



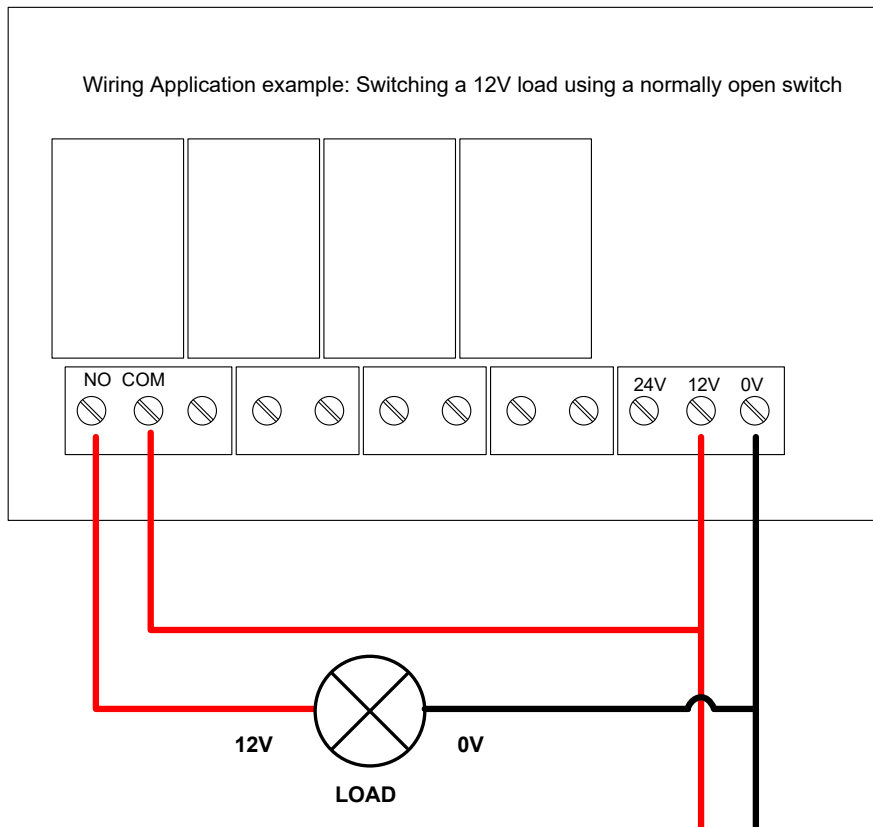
## Relay Outputs

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.



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

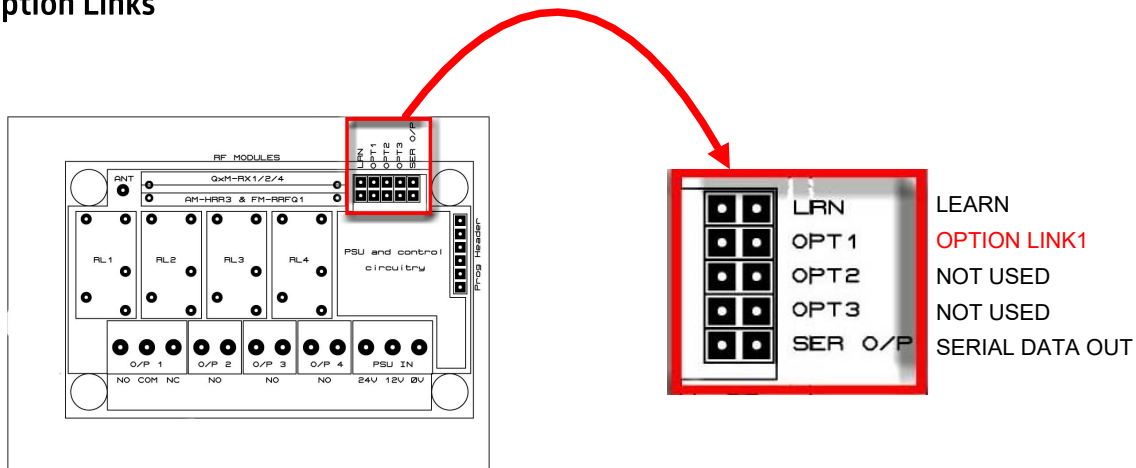
## Wiring Diagram



# WASP Remote Control System



## Option Links



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 = All Relays Momentary Operation\*

Option Link 1 Not Fitted = All Relays Latching Operation\*

\*the receiver unit must be power cycled after changing the jumper link configuration.

## 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:
2. Briefly short the LRN (Learn) pins once
3. The Learn LED will flash once to indicate output relay 1 is selected
4. After the LED stops flashing, press the short the LRN pins again to select the next relay channel
5. Repeat until the chosen output relay is selected.
6. Press the button on the transmitter you want to learn to the relay output.
7. The Learn LED will then illuminate, press the same transmitter button again.
8. The Learn LED will then flash to indicate learning is complete.
9. To test the operation, press the transmitter button again and you will hear the relay 'click' as it operates.

## Erasing Receivers Memory

Short the LRN (Learn) pins for approx 10 seconds.

When the short is removed all memory is erased.

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

# WASP Remote Control System



## System Part Numbering

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



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

## Additional Transmitters



Part Number	Description
HORNET-TX1	Transmitter 1 switch
HORNET-TX2	Transmitter 2 switch
HORNET-TX3	Transmitter 3 switch
HORNET -TX-IPKIT	'O' Ring, Seals Transmitter to IP65

## Bespoke Versions

Custom versions available with your own logo and or protocol.  
Please contact Sales for further info.



# WASP Remote Control System



## Low Battery Indication

When the battery on the HORNET-TX becomes low (<2.1V) the LED will indicate this by pulsing on and off and one second intervals. The battery should be changed at this point. When the battery reaches this level the HORNET-TX may continue to operate but the range will be reduced and the LED will dim.

## Technical Specifications

### Transmitters: HORNET

Enclosure Rating: Standard (TBA) With IP Kit IP65

Battery Type: CR2032AE

Battery Life Est. 3 Years (Calculated as 50 operations per day)

Dimensions: 66 x 36 x 17mm

Operating Temperature: 0 to +70° Celsius.

Changing Batteries: Remove Two fixing screws, remove battery and replace, note polarity!

Electrical Characteristics	Min	Typical	Max	Units
Supply Voltage		3		V
Supply Current (transmitting)		8		mA
Frequency:	432.90	433.920	434.10	MHz
RF Output Power (ERP) @ 433 MHz	-	3		mW
Packet length		68		ms

### Receiver Decoder WASP-RX

Dimensions 96mm x 55mm x 29mm

Operating Temperature: 0 to +60° Celsius.

ELECTRICAL CHARACTERISTICS	Min	Typical	Max	Units
Supply Voltage for 12V versions for 12V versions	10.5 22	12 24	14 28	Vdc
Relay Rating* (230Vac)		5(rms)	12(peak)	A
Supply Current : @12V Quiescent All relays operating*		14 140		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

# WASP Remote Control System



## Reader Response

It is our intention to provide you with the best documentation possible to ensure successful use of your RF Solutions product.

If you wish to provide your comments on organization, clarity, subject matter, and ways in which our documentation can better serve you, please email us your comments to the Technical Publications Manager. The following is a few suggestions to comments you may have....

To: Technical Publications Manager  
 RE: Reader Response  
 From:  
 Company  
 Address  
 email:

Application:  
 Would you like a reply? Y / N  
 Datasheet: DS-WASP-3

## Questions:

1. What are the best features of this document?
2. How does this document meet your hardware and software development needs?
3. Do you find the organization of this document easy to follow? If not, why?
4. What additions to the document do you think would enhance the structure and subject?
5. What deletions from the document could be made without affecting the overall usefulness?
6. Is there any incorrect or misleading information (what and where)?
7. How would you improve this document?

## RF Solutions Ltd. Recycling Notice

Meets the following EC Directives:

### DO NOT

Discard with normal waste, please recycle.



### ROHS Directive 2002/95/EC

Specifies certain limits for hazardous substances.



### WEEE Directive 2002/96/EC

Waste electrical & electronic equipment. This product must be disposed of through a licensed WEEE collection point. RF Solutions Ltd., fulfills its WEEE obligations by membership of an approved compliance scheme.

### Waste Batteries and Accumulators Directive 2006/66/EC

Where batteries are fitted, before recycling the product, the batteries must be removed and disposed of at a licensed collection point.

**Environment Agency producer registration number:**  
 WEE/JB0104WV.

### Disclaimer:

Whilst the information in this document is believed to be correct at the time of issue, RF Solutions Ltd does not accept any liability whatsoever for its accuracy, adequacy or completeness. No express or implied warranty or representation is given relating to the information contained in this document. RF Solutions Ltd reserves the right to make changes and improvements to the product(s) described herein without notice. Buyers and other users should determine for themselves the suitability of any such information or products for their own particular requirements or specification(s). RF Solutions Ltd shall not be liable for any loss or damage caused as a result of user's own determination of how to deploy or use RF Solutions Ltd's products. Use of RF Solutions Ltd products or components in life support and/or safety applications is not authorised except with express written approval. No licences are created, implicitly or otherwise, under any of RF Solutions Ltd's intellectual property rights. Liability for loss or damage resulting or caused by reliance on the information contained herein or from the use of the product (including liability resulting from negligence or where RF Solutions Ltd was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict RF Solutions Ltd's liability for death or personal injury resulting from its negligence.

[www.rfolutions.co.uk](http://www.rfolutions.co.uk)

## RF Solutions Ltd

William Alexander House, William Way, Burgess Hill, West Sussex, RH15 9AG  
 Sales: +44(0)1444 227 910 Tech Support: +44(0)1444 227909



## OUR CERTIFICATE

DiGi provide top-quality products and perfect service for customer worldwide through standardization, technological innovation and continuous improvement. DiGi through third-party certification, we stricly control the quality of products and services. Welcome your RFQ to

Email: [Info@DiGi-Electronics.com](mailto:Info@DiGi-Electronics.com)



Tel: +00 852-30501935

RFQ Email: [Info@DiGi-Electronics.com](mailto:Info@DiGi-Electronics.com)

DiGi is a global authorized distributor of electronic components.