

Features

- 868MHz FM Technology
- 1 – 4 Channels each 1000W
- Upto 2KM Range
- 12-30Vdc / 230Vac supply
- Waterproof Receiver (IP68)
- High Security RF Protocol
- 4 Relays 5A @ 230Vac
- Outputs Momentary or Latching
- Any Switch Map to Any Relay
- Systems supplied 'ready to Go'
- CE Compliant



Applications

- General Purpose Remote Switching
- Industrial switching, conveyors, machinery, pumps
- Clay Pigeon Release
- All known Lighting types (LED, fluorescent, halogen, tungsten, xenon; basically all lighting types).

Description

A highly versatile general purpose Remote Control System for many different applications.

Housed in a rugged IP68 weatherproof enclosure, The TRAP system is ideally suited to any outside Remote switch requirement. Each receiver has 4 relays, using the 'easy-learn' process each relay can be controlled from any switch on any transmitter.

Installation is by screw terminals to the power supply, and the output relay contacts. The output relays are activated by the button press on the transmitter encoder.

TRAP Remote Control System



Ordering Information



Systems Operating from 12-30Vdc

Part Number	Description	Receiver Power Supply	Range** (Metres)
TRAP-S1	System 1 channel	12-30Vdc	2000
TRAP-S4	System 4 channel	12-30Vdc	2000

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

Additional Transmitters



Transmitters ship with Lanyard



Part Number	Description
TRAP-T1	Transmitter 1 switch
TRAP-T2	Transmitter 2 switch
TRAP-T4	Transmitter 4 switch
TRAP-T16	Transmitter 16 switch (8Sw + Shift Key)
FIREFLY -TX-IPKIT	'O' Ring, Seals Transmitter to IP68

Custom Systems

To create a custom transmitter can be as simple as a just a custom Sticker!

Please contact Sales for further info.



Additional receivers

These can be used with any existing TRAP transmitter or SABRE transmitter

Part Number	Description
TRAP-RX	Receiver unit



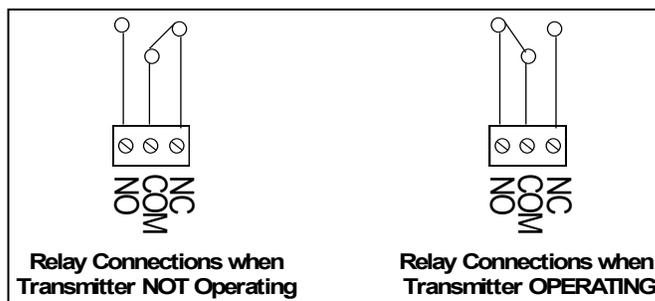
TRAP Remote Control System



Relay Outputs

The TRAP system provides 4 relay switches each capable of switching up to 1.2KW (5A @ 230V). Each relay is independent and separately controlled. The TRAP series remote control system provides switched contacts and can therefore be used to switch most voltages either ac or dc.

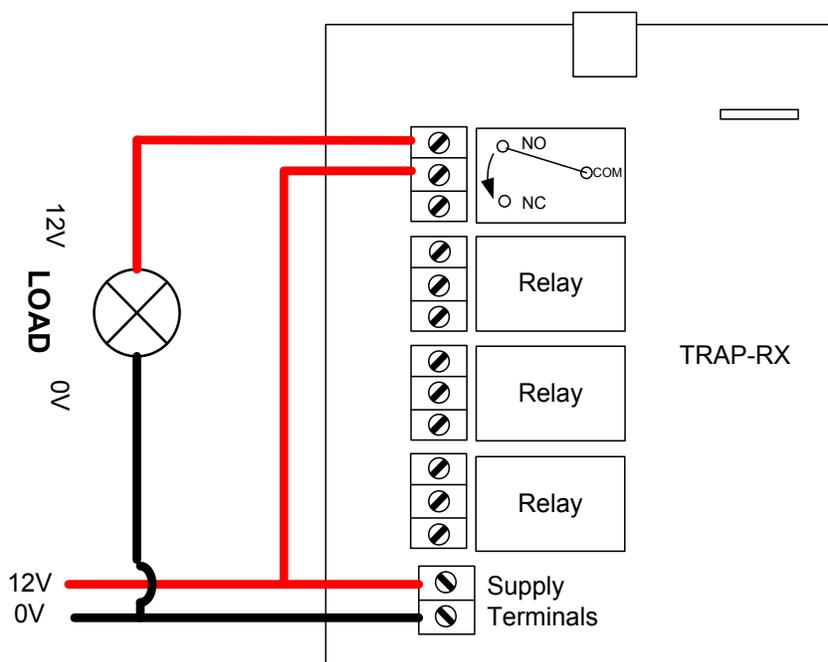
Each output relay provides an isolated switch. Connections are Common (COM), Normally Open (NO) and Normally Closed (NC).



Installation

Below is a simple example showing one possible way to wire a relay in order to give switched power to an external load: When the relay is energised the 'COM' connects to 'NO' and power is applied to the Load.

1. Open the enclosure by removing fixing screws from the enclosure and slide out the circuitboard.
2. Connect the power supply screw terminals 12-32V ac or dc to the supply terminals.
3. Wire your desired connections to the relay switches
4. Once all required wiring is complete, use the handheld TRAP transmitter to switch the outputs on and off.
5. As supplied, the handheld will operate the outputs - button 1 to output 1, button 2 to output 2 etc.
6. Change the output functions to latching, / Momentary Operation..



Advanced operation - Pairing a transmitter button

With this system, you can pair together any individual transmitter switch with any receiver relay switch. Without opening either enclosure

1. Remove the green transmitter rubber over-boot
2. Briefly (less than 1 second) place the transmitter next to the receiver in the position shown and then remove it.
3. The receiver will buzz **once** (One buzz means the receiver unit is ready to allocate a transmitter to relay switch 1)
4. Press the switch on the transmitter which you wish to pair
5. The receiver will buzz twice to confirm pairing
6. Repeat for any additional transmitter switches

NOTE: Each receiver has a maximum memory for up to 28 pairings, these can be from any switches on any transmitters!

Advanced Note: It is possible to select relay switches 2-4, by repeating step 3 and counting the number of buzzes. 2 buzzes for relay 2 3 for 3 etc.



Advanced operation - Erasing receiver memory

1. Hold the transmitter in the position shown in position for ~5 seconds.
2. The receiver will sound a long buzz to confirm erased

TRAP Remote Control System



Advanced Operation

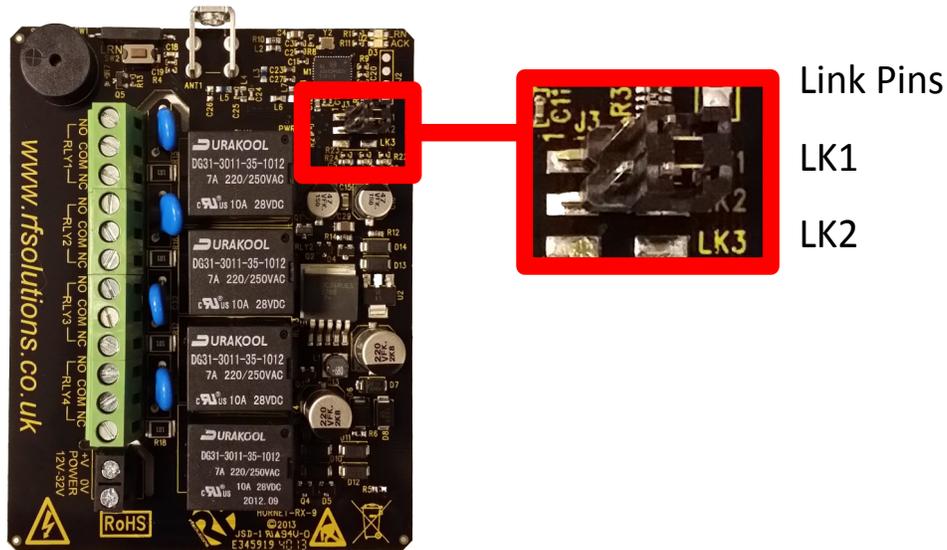
Configuring receivers

Receivers can be used for many applications. The link pins LK1 and LK2 set the action of the relays

1/2 sec Mom = Relay will operate for 1/2 sec

Mom = Relay will operate for as long as transmitter switch operated

Latch = Relay will toggle ON/OFF on each transmitter button press



Link Pins

LK1

LK2

Link Positions		Switch relays			
LK1	LK2	RLY 1	RLY 2	RLY 3	RLY 4
Open	Open	1/2 sec Mom	1/2 sec Mom	1/2 sec Mom	1/2 sec Mom
Closed	Open	Mom	Mom	Latch	Latch
Open	Closed	Mom	Mom	Mom	Mom
Closed	Closed	Latch	Latch	Latch	Latch

TRAP Remote Control System



Technical specifications

Transmitters: TRAP-Transmitter

Enclosure Rating: Standard IP67 (upgradeable to IP68)
Battery Type: 3 x AAA (supplied)
Battery Life: 2 years @ approx. 50 1/2second presses p/day
Dimensions: 90 x 54 x 27 mm

Changing the Battery: Remove the six enclosure screws. Remove 2 battery compartment screws and replace batteries, taking care of cables and battery polarity

Electrical Characteristics	Min	Typical	Max	Units
Supply Voltage	3.3	4.5	6	V
Supply Current				mA
Frequency: FireFLY: Wideband		869.500		MHz
RF Output Power (ERP) @ 433 MHz	-		100	mW

Receiver Decoder: TRAP-Receiver

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

Electrical Characteristics	MIN	TYPICAL	MAX	DIMENSION
Supply Voltage for +12 v	11		32	Vdc
Relay Rating* (230Vac) RLY1-4		5	12	A
Supply Current : Quiescent		40		
All relays operating*		140		mA
Time delay from Tx on Switch to Rx Relay operation		30		mS
Time delay from Tx sw relax to Rx Relay release		30		mS

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

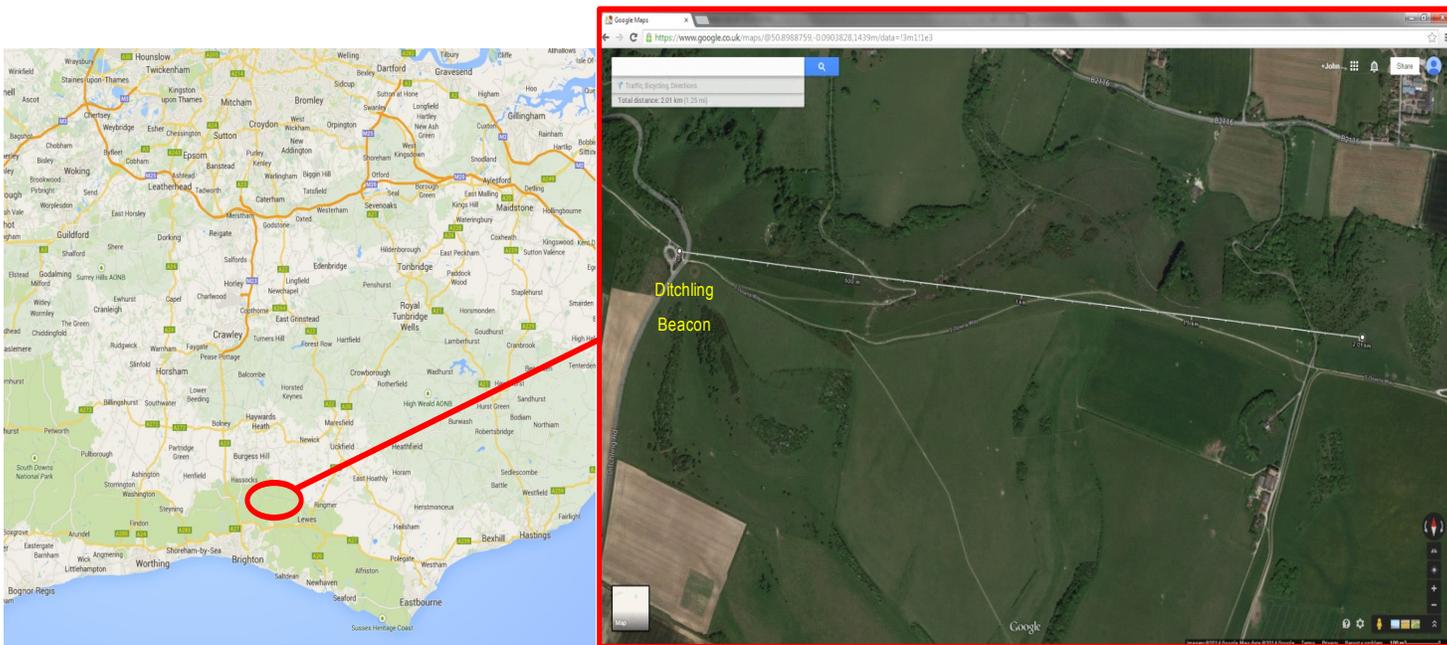
TRAP Remote Control System



Range Test Notes

Our Range Testing was conducted on Ditchling Beacon providing an open Line of Sight Test.

1. Receiver was mounted on the Bonnet of our vehicle in the Beacon Car park
2. The transmitter was carried along the beacon whilst being repeatedly operated. At full distance the Transmitter was also tested while placed on the ground. The transmitter was operated for long and short bursts.
3. 2KM range was achieved, the system was working 100% however testing ceased as we ran out of land.
4. Weather Conditions
5. Warm, Dry, Sunny, Broken Cloud, 20degC



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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.

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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/JB0104WW.

