



## Features

- Rugged radio remote control
- Upto 2KM Range.
- One transmitter can control many receivers
- Waterproof receiver to IP68

## Description

Supplied ready to operate the SABRE-TRAP system is designed for continuous operation 365 days of the year. This rugged professional use system is designed to meet the heavy usage needs associated with club traps.

Each receiver has four independent outputs which can easily be paired with individual switches from one or many transmitters.

Building a bespoke control system is easy with transmitters containing up to 8 switches.

## Ordering Information

Part Number	Description	Frequency (MHz)	Range**
SABRETRAP-S1	System 1 channel	869.5	2Km
SABRESKEET-S3	System 3 channel	869.5	2Km
TRAP-RX	Receiver Unit only	869.5	2Km

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

# SABRE Trap Remote Control System



## Systems

SABRE Trap is available as a pre-configured system or as individual parts :

Part Number	Description
SABRETRAP-S1	SABRETRAP single Switch system



Part Number	Description
SABRESKEET-S3	SABRESKEET System Includes: 1 x SABRE-T3 2 x TRAP-RX



## Additional Transmitters

SABRE Transmitters are available individually with 1, 3 or 8 buttons and can be configured to work any existing TRAP-RX receiver. Also compatible are the

Part Number	Description
SABRE-T1	Transmitter 1 switch
SABRE-T3	Transmitter 3 switch
SABRE-T4	Transmitter 4 switch
SABRE-T8	Transmitter 8 switch



## Additional receivers

Additional receivers are available complete with standard wiring, these can be used with any existing

Part Number	Description
TRAP-RX	Receiver Unit Supplied with cable connection to traps.



# SABRE Trap Remote Control System

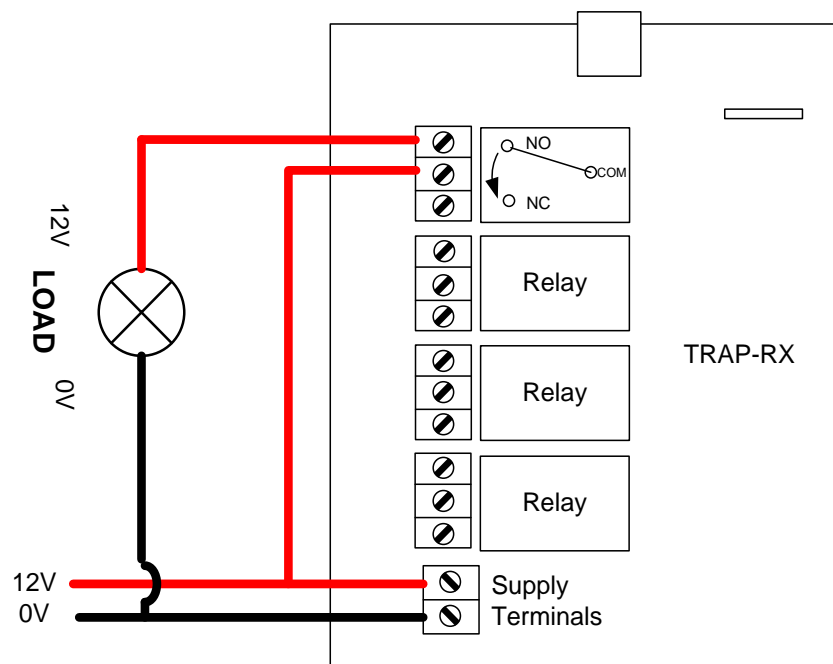


## Connecting the receiver unit.

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.

1. Open the enclosure by removing fixing screws from the enclosure front and then removing the front from the enclosure.
2. Connect the power supply screw terminals 12-32V ac or dc to the low voltage 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. For additional functions including operation such as adding extra transmitters, different button mapping options, changing the outputs to latching, see advanced operation section.

## Application Circuit



## Notes for clay pigeon release applications

### PLEASE READ BEFORE ATTEMPTING INSTALLATION:

This system is supplied complete with cable in order to connect to the clay trap release.

**Warning : Not all clay traps have the same wiring convention!**

The system is pre-wired (as diagram below) before connecting, CHECK YOUR CONNECTIONS. (using a multi-meter) if you are in any doubt, DO NOT CONNECT THE SYSTEM, consult a qualified Electrician. Although the system operates on 12-32V DC damage may occur to the receiver unit if wrong connections are made.

## Advanced Operation

### To pair a new transmitter using a magnet externally

In order to learn a new Transmitter, a magnet may be used, this means that new transmitters can be paired WITHOUT opening the enclosure

1. Briefly hold a magnet next in the position shown
2. The receiver unit buzzer will sound one beep
3. One beep means the receiver unit is ready to allocate a transmitter switch to Relay output 1
4. Briefly hold the magnet again the receiver buzzer will beep twice (selecting the next relay 2).
5. Repeat steps 2-5 until the required output relay is selected.
6. Press the button on the transmitter which you want to pair
7. The buzzer will sound one beep to confirm pairing
8. Repeat for all transmitters buttons that you wish to pair

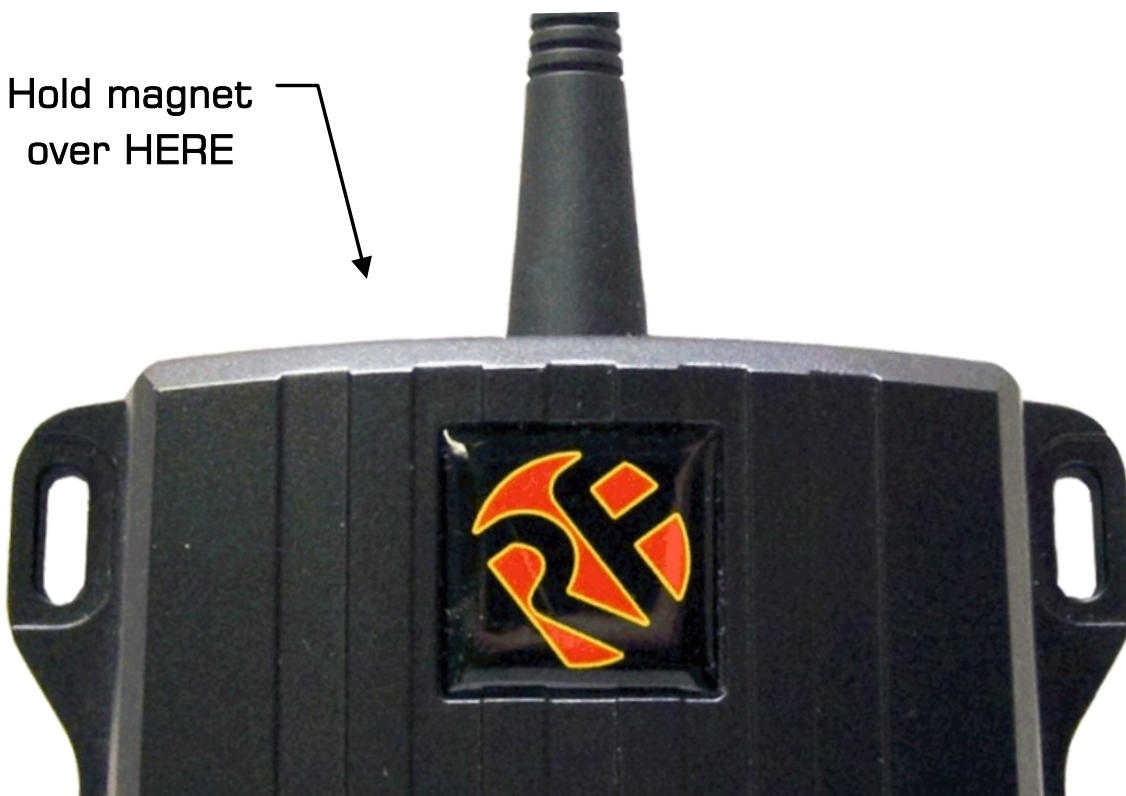
**NOTE:** each receiver has a maximum memory for up to 28 pairings, these can be from the same or any number of transmitters.

### Erasing receivers memory

Hold a magnet in position for 10 seconds.

1. After 10 seconds The buzzer will sound a long beep to confirm erase

Hold magnet  
over HERE





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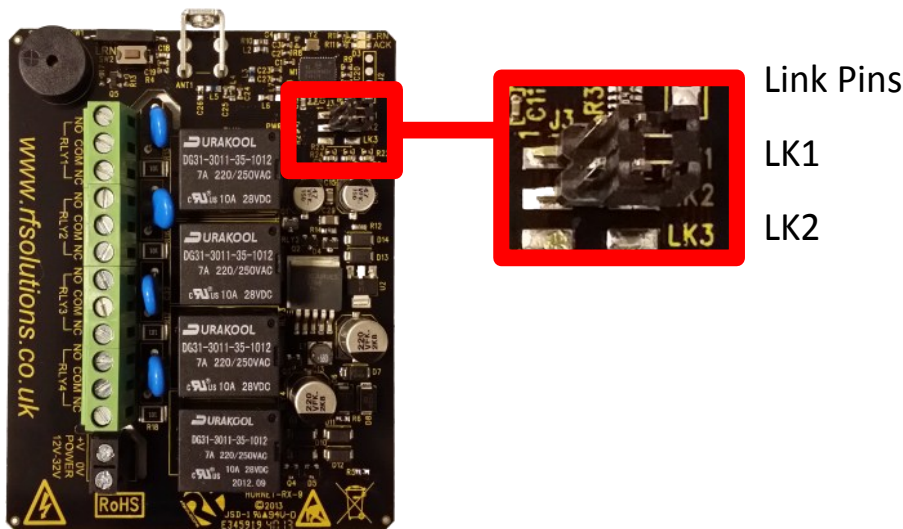
## To pair a new transmitter using the on board Switch

1. Open the Receiver unit and extract the circuit board
2. Briefly press the receiver pairing switch (SW2)
3. The pairing LED will flash once to indicate relay output 1 is selected
4. After the LED stops flashing, press the switch again to select the next relay channel
5. The pairing LED will flash twice to show channel 2 is selected... and so on
6. Repeat steps 2-5 until the required output relay is selected.
7. With your relay selected press the button on the transmitter that you want to pair with it
8. The learn LED will flash to indicate pairing is complete

## 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



Link Pins

LK1

LK2

## Configuring Receivers (advanced)

Receivers can be used for many applications. The Jumper Links 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 change state on each transmitter switch operation

Link Positions		Relay Outputs			
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

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## Technical Specifications

### Transmitters: SABRE-T

Enclosure Rating: Standard IPx8

Battery Type: 4 x AAA (supplied)

Battery Life: 5 years @ approx 100 1/2 second presses p/day

Dimensions: 154 x 85 x 48mm

**Changing the Battery:** Remove the six fixing screws, remove battery and replace note polarity

Electrical Characteristics	Min	Typical	Max	Units
Supply Voltage		6V		V
Frequency:		869.500		MHz
RF Output Power (ERP) @ 868 MHz	-		20	dBm

### Receiver Decoder: TRAP-RX

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	DIMENSION
Supply Voltage	12	12	32	V ac or dc
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		20		mS
Time delay from Tx sw relax to Rx Relay release		20		mS

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

### Approvals Information:

- All RF Solutions products are manufactured in accordance with our ISO:9001 Quality System
- Further information available on request.

#### 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., fulfils 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.

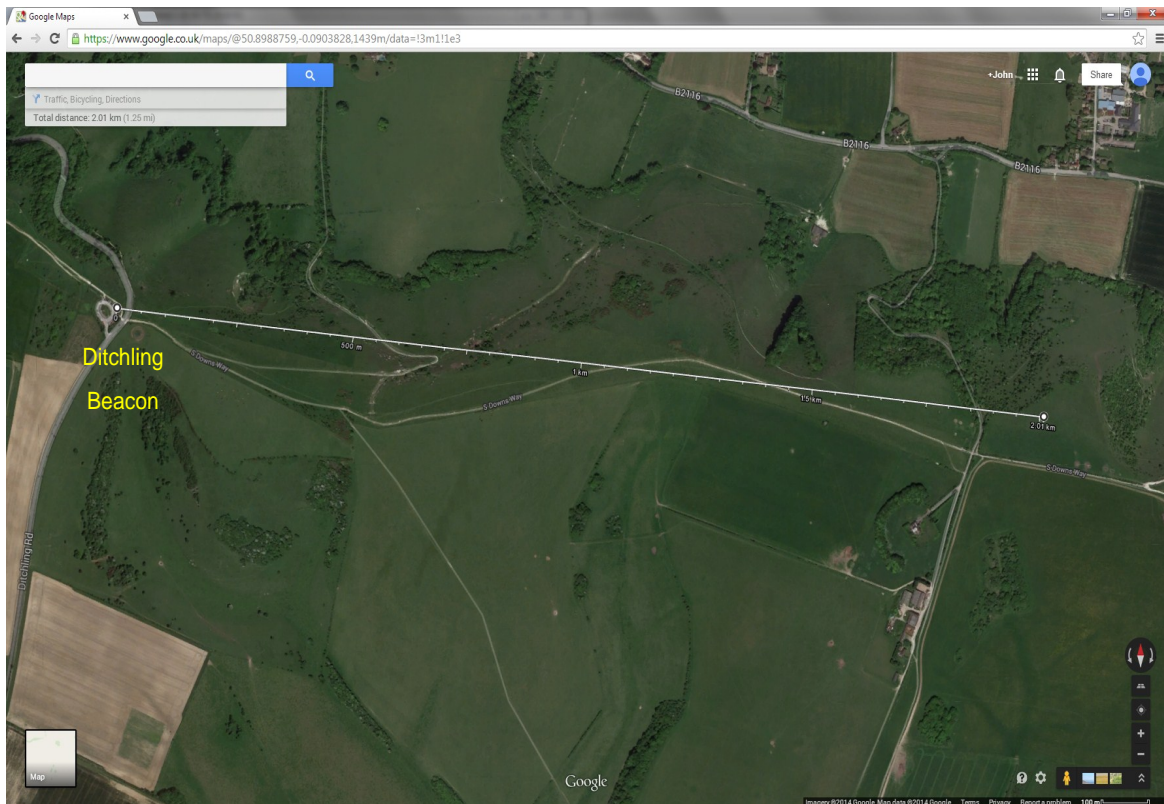
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## Range Test Notes

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
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, 22degC



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