Professional Remote Control Systems

Applications

- Garden Lighting
- Pond pumps
- Remote outdoor Switching
- Access control
- Industrial control

Features

- 4 switched channels 1000W rated
- 150/2000m range
- 12-32Vac/dc and 230Vac supply
- Completely waterproof ABS enclosure (IP68)
- All outputs momentary, latching or timed
- Any switch maps to any relay or multiple relays
- 868MHz Reliable FM Technology
- EMC Compliant for Europe
- 10 Cable entry points for easy installation.

Description

Whatever your switching application the **ELITE Remote control system** with 4 individual relay switches and a completely waterproof IP68 enclosure will be a great choice.

The **ELITE remote control system** has been designed with the requirements of electricians in mind and therefore it can be used to switch all lighting types as well as other applications such as Water Features, Electric gates and Garage Doors.

Each receiver has 4 switches outputs. Using our one touch 'easy-learn' process each relay can be controlled from any switch on any compatible transmitter.

Thanks to the latest technology each of the 4 outputs on the **ELITE remote control system** can be set to operate in a **timed, momentary or latching** mode for complete flexibility.

FM76316

ELITE Low Voltage Remote Control System

System Part Numbering

Part Number	Description	Receiver Power Supply	Range** (Metres)
ELITE-S4L	System 4 outputs With **FOBBER-8T6**	230Vac	150m
ELITE-XS4L	System 4 outputs With **TRAP-T6**	230Vac 12-32 Vac/dc	2000m
ELITE-RXL	Receiver 4 output	230Vac 12/32Vac/dc	-

**Range stated is optimum - Line of Sight. Range can be hugely reduced by obstacles or other interference.

Additional Transmitters

TRAP Series 2000m Range Transmitters

Transmitters ship with: Wall Mounting Cradle, rubber boot and Lanyard.

Note: the boot must be removed from the transmitter to fit in the cradle.

Part Number	Description
TRAP-T1	Transmitter 1 switch
TRAP-T2	Transmitter 2 switch
TRAP-T4	Transmitter 4 switch
TRAP-T6	Transmitter 4 Switch + All ON/OFF
TRAP-T8	Transmitter 8 switch
TRAP-T16	Transmitter 16 switch (8Sw + Shift Key)
FIREFLY-TX-IPKIT	'O' Ring, Seals Transmitter to IP68

Mechanical Dimensions:

ELITE Low Voltage Remote Control System

Part Number	Description
FOBBER-8T1	Transmitter Key fob 1 switch
FOBBER-8TL1	Transmitter Key fob 1 channel on/off
FOBBER-8T2	Transmitter Key fob 2 switch
FOBBER-8TL2	Transmitter Key fob 2 channel on/off
FOBBER-8T3	Transmitter Key fob 3 switch
FOBBER-8T4	Transmitter Key fob 4 switch
FOBBER-8T6	Transmitter Key fob 4 channel with All On/Off
FOBBER-8T8	Transmitter Key fob 8 switch

Mechanical Dimensions:

(All dimensions in mm)

32.7

8

59.2
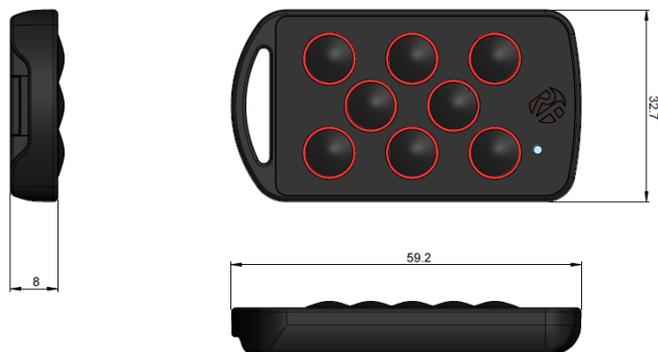
Custom Versions

The top Face Overlay Label may be customised to incorporate custom Branding / colours. Please contact our sales department for further information, availability and cost.

ELITE Low Voltage Remote Control System

Sync/Pair Button – Press once to auto sync. See Advanced operation for other pairing options.

Erase Button – Press and hold to erase all pairings, see advanced operation for individual erase

Timer Select Button – Used to select timer mode

Signal Test mode – Press to enter signal test mode

Momentary/ Latching selection – Make the link to select momentary operation break the link for latching operation. (default is latching)

Status LEDs – Flash when signals are sent/received

Mag sync – Touch a magnet to the plastic case in the cross hatched area to replicate the sync button on board without opening the case

POWER

SYNC
ERASE
TIMER
TEST

RELAY 1
RELAY 2
RELAY 3
RELAY 4

8
7
6
5
4
3
2
1

RELAY 1
RELAY 2
RELAY 3
RELAY 4
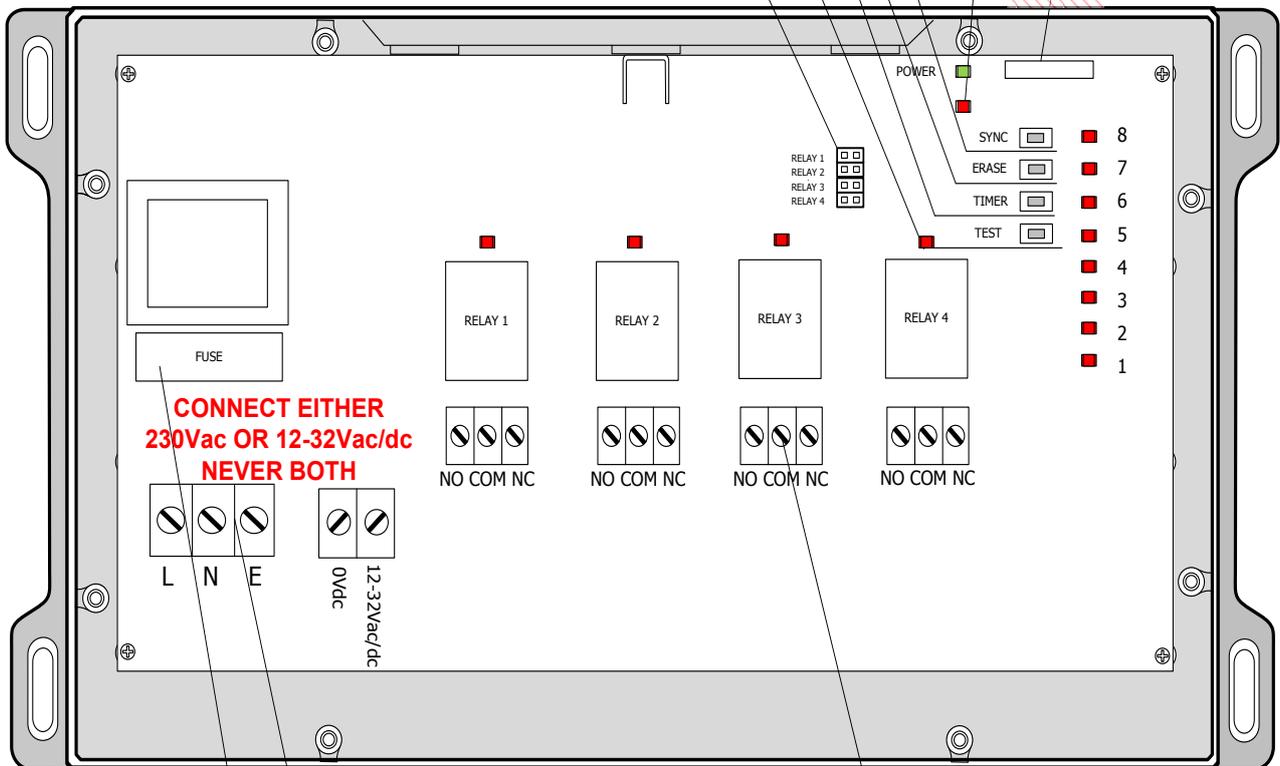
FUSE

CONNECT EITHER 230Vac OR 12-32Vac/dc NEVER BOTH

NO COM NC   NO COM NC   NO COM NC   NO COM NC

L N E   0Vdc 12-32Vac/dc

230Vac power input

Power input fuse – must be 500mA (Fast blow recommended)

Relay switch terminals:

Normally Open   Common   Normally Closed

# ELITE Low Voltage Remote Control System
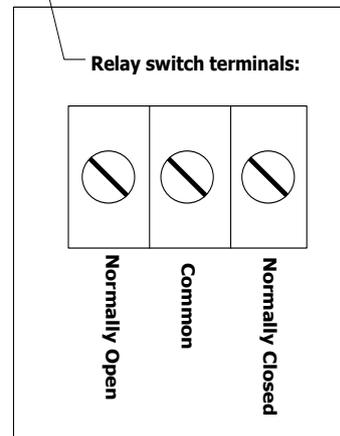
Quick Installation Guide (systems only)

The ELITE system provides 4 switches each capable of switching up to 1.2KW (5A @ 230V). Each channel is independent and separately fused. The ELITE-L series Remote control system provides switched contacts and can therefore be used to switch most voltages be they AC or DC (see maximums on page 7).

To install the ELITE-L System:

1. Screw the antenna into the terminal (**shown as ANT**) through the top of the enclosure. Tighten the antenna to ensure a good seal - "finger tight" is sufficient, no tools should be used.

2. Mount the ELITE system receiver box in the wall in your desired location (see Page 8 for wall mounting dimensions and information).

3. Open the enclosure by removing fixing screws from the enclosure front and then removing the front from the enclosure.

4. Wire either MAINS, LIVE, Neutral and Earth connections to the power supply screw terminal as shown below **(shown as A).** Or wire 12-32Vac or 12-32Vdc to the low voltage terminals **(shown as B).**

5. Wire your desired connections to the relay switches **(shown as C)**.

6. Once all required wiring is complete, use the handheld ELITE transmitter to switch the outputs on and off.

7. As supplied the handheld will operate the outputs - Button 1 to output 1, Button 2 to output 2 etc.

8. All buttons will operate in a latching mode - Press for on, press again for off. It is possible to change the operation to momentary mode by fitting the links **(shown as D)**.

9. For advanced operation such as adding extra transmitters different button mapping options see advanced operation section.
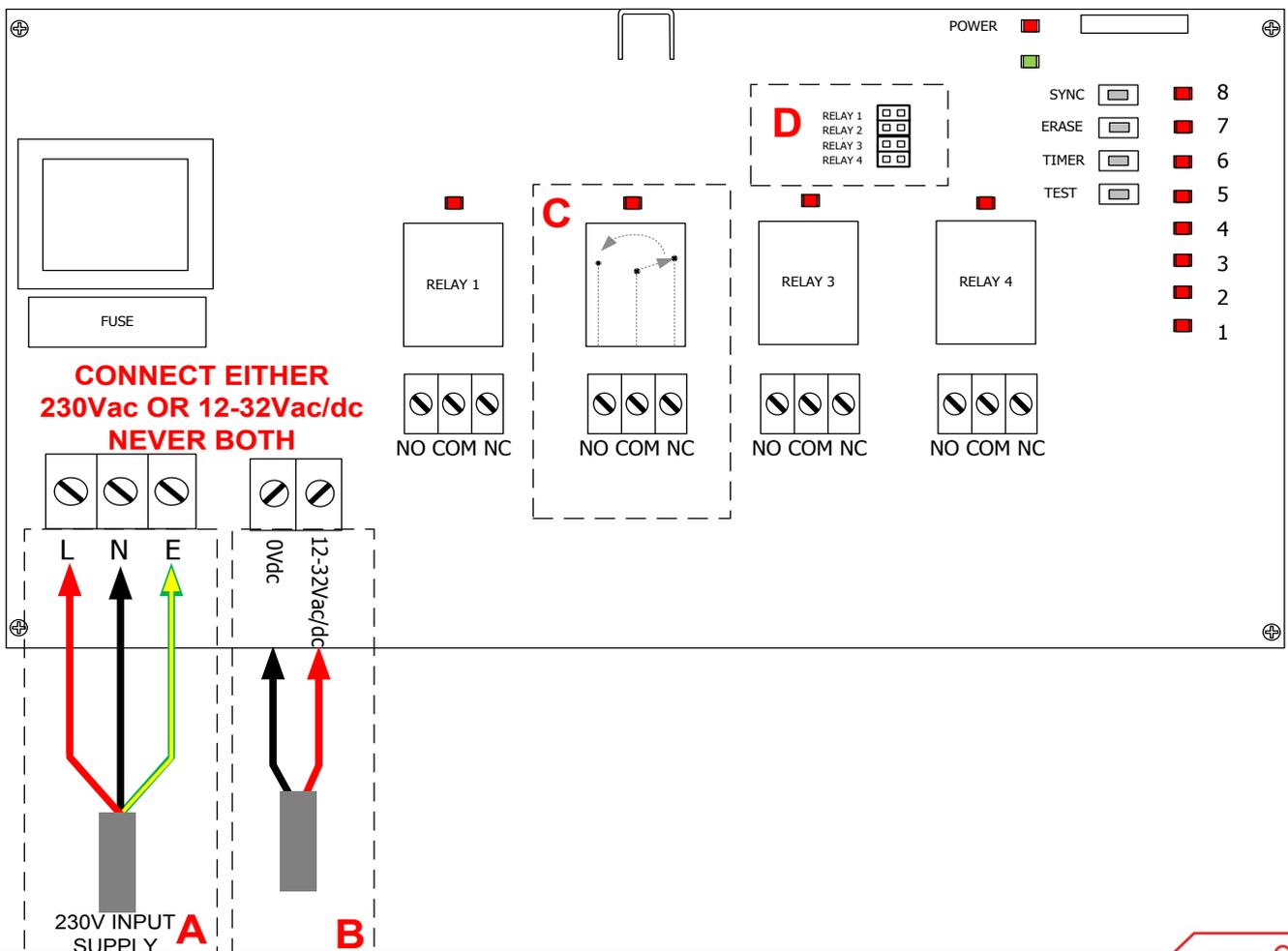
Advanced operation

The ELITE system comes with one transmitter, this is already SYNC'ed and will operate the system out of the box.

To AUTO-SYNC a new transmitter
1.   To SYNC a new ELITE handheld transmitter to the receiver box - simply press the SYNC button on the ELITE receiver board. (see page 3 for button locations)
2.   The ELITE receiver will flash all of its relay output LEDs at a high rate to show that it is ready for AUTO-SYNC.
3.   Press ANY button on the transmitter handheld that you wish to SYNC to the receiver.
4.   All flashing LEDs will go out, the SYNC LED will flash quickly for 2 seconds then go out.
5.   The ELITE receiver will then exit SYNC mode and return to normal operating mode - you may now use the transmitter to switch the outputs.
NOTE: Maximum 31 handhelds can be auto sync'ed.

MANUAL-SYNC individual transmitter buttons (advanced)
1.   To SYNC a specific ELITE handheld transmitter button to a specific output on the ELITE receiver box - press the SYNC button on the ELITE receiver board. (see page 3 for button locations).
2.   The ELITE receiver will flash all its relay output LEDs at a high rate to show that it is ready for SYNC.
3.   Press the SYNC button again - the ELITE receiver will flash output LED 1 only - this is showing that output 1 is selected. Pressing the SYNC button again will select output 2 and so on, through to output 4.
4.   Once you have selected the required output (that output LED only is flashing) press the SPECIFIC button on the transmitter handheld that you wish to SYNC to the receiver.
5.   The flashing LEDs will go out, the SYNC LED will flash quickly for 2 seconds then go out.
NOTE: After a successful pairing the Elite-RX will exit SYNC mode automatically.
        You cannot perform a SYNC ALL and a MANUAL SYNC on a single transmitter.
        Maximum of 31 BUTTONS can be auto sync'ed

Erasing ALL transmitters:
1.   Open the case and apply power
2.   Press and hold the ERASE button for 10 seconds
3.   All relay LEDs flash together and then go out
4.   Erase complete, you can now follow the pairing process to pair your transmitters to the receiver.

ERASE Individual Transmitters:
1.   Open the case and apply power
2.   Press and release the ERASE button
3.   The LED next to ERASE should flash and all relay LEDs will be flashing
4.   Press any button on the transmitter to be erased
5.   All output LEDs will go out to show that the transmitter has been erased
6.   The ELITE will exit to normal operating mode

Setting MOMENTARY / LATCHING links
It is possible to set the relay switches on the ELITE receiver to either momentary or latching operation (Latching - one press for on, one press for off, Momentary - On while button is held only)
1.   The Momentary/Latching Setting links are in the position, shown as **(C) on page 4.**
2.   To set a relay switch to momentary choose the associated link cap:
        Link fitted - MOMENTARY
        Link Removed - LATCHING
4.   Re-apply the power to the ELITE-RXL.

Continued overleaf...

Advanced operation continued...

TEST MODE
The ELITE comes with an in-built test mode which allows a user to check the signal strength of any compatible handheld:
1. Press the TEST button on the PCB (see page 3 for button locations)
2. Press any button/activate the transmitter which you want to test
3. LEDs 1-8 will show a bar graph of the signal strength - the more LEDs flashing, the better the signal.
4. To exit test mode - press test again.
NOTES: - When in test mode the receiver still operates relays as normal.
         - For reliable communications please ensure at least 3 LED's are lit.
         - Try the transmitter in the location where it will be used to make sure it will work once installation complete.

TIMER SELECT MODE
NOTE: As default all timers are set to 0 seconds.
The ELITE has a timer option which can be set individually on each output. Meaning that you can set any output to de-activate after a different amount of time should you wish to.
1. To enter timer select mode - Press the TIMER button
2. Select your chosen output by pressing the TIMER button to scroll through each relay in turn
3. As soon as the LED for the required output stops flashing tap the TIMER button again
4. Each tap of the timer button will increase the timer delay in line with the table below

0 LED	1 LED	2 LED	3 LED	4 LED	5 LED	6 LED	7 LED	8 LED
0s	½ s	5s	10s	30s	1m	10m	30m	1hr

5. When you have selected the required delay stop tapping and, wait 3 seconds.
6. The Red TIMER LED will flash to show that the setting is saved
NOTE: Settings are saved even after power is removed.
NOTE: When zero LED's are lit the relays will operate as per the Momentary/latching links.

TIMERS and MOMENTARY/LATCHING setting links
1. When the momentary/latching setting link for a relay is set to MOMENTARY the timer will restart its count down every time a button is pressed.
2. When the momentary/latching setting link for a relay is set to LATCHING, the relay will turn ON/OFF with each button press. If the relay is left ON it will turn off after the timer period expires.

Erasing ALL Timers:
1. Open the case and apply power
2. Press and hold the TIMER button for 10 seconds,
3. A single relay LED will be flashing
4. When all Relay LED flash together and then go out the timer erase process is complete.
5. All relays will operate as per their jumper settings.

ELITE Low Voltage Remote Control System

Technical Specifications

Transmitters: ELITE-XTn

Enclosure Rating: Standard IP68
Battery Type: 3 x AAA (supplied)
Battery Life: 5 years @ approx. 50 1/2second presses p/day
Dimensions: 90 x 54 x 27 mm

Changing the Batteries: Remove the six fixing screws. Remove the 2 battery compartment screws, remove the battery compartment and replace batteries inside it, taking care not to damage cables and ensuring correct battery polarity

Electrical Characteristics	Min	Typical	Max	Units
Supply Voltage		4.5		V
Frequency:		869.500		MHz
RF Output Power (ERP) @ 869.50 MHz	-	100		mW

Receiver Decoder: ELITE-RXL

Enclosure Rating: IP68
Dimensions: 267 x 148 x 78 mm (not including antenna)
Storage Temperature: -10 to +70º Celsius.
Operating Temperature: -10 to +50º Celsius.

ELECTRICAL CHARACTERISTICS	MIN	TYPICAL	MAX	DIMENSION
Supply Voltage for MAINS		230Vac	+10%	Vac
Supply Voltage LOW VOLTAGE	12V	24	32	Vac/Vdc
Relay Rating* (230Vac) RLY 1-4		5		A(rms)
Supply Current : Quiescent	25	30	60	
All relays operating*	90	120	170	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

Approvals Information:

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

ELITE Low Voltage Remote Control System

Wall Mounting template (not to scale)

All Dimensions in mm

125.50

106.00

53.00

251.00
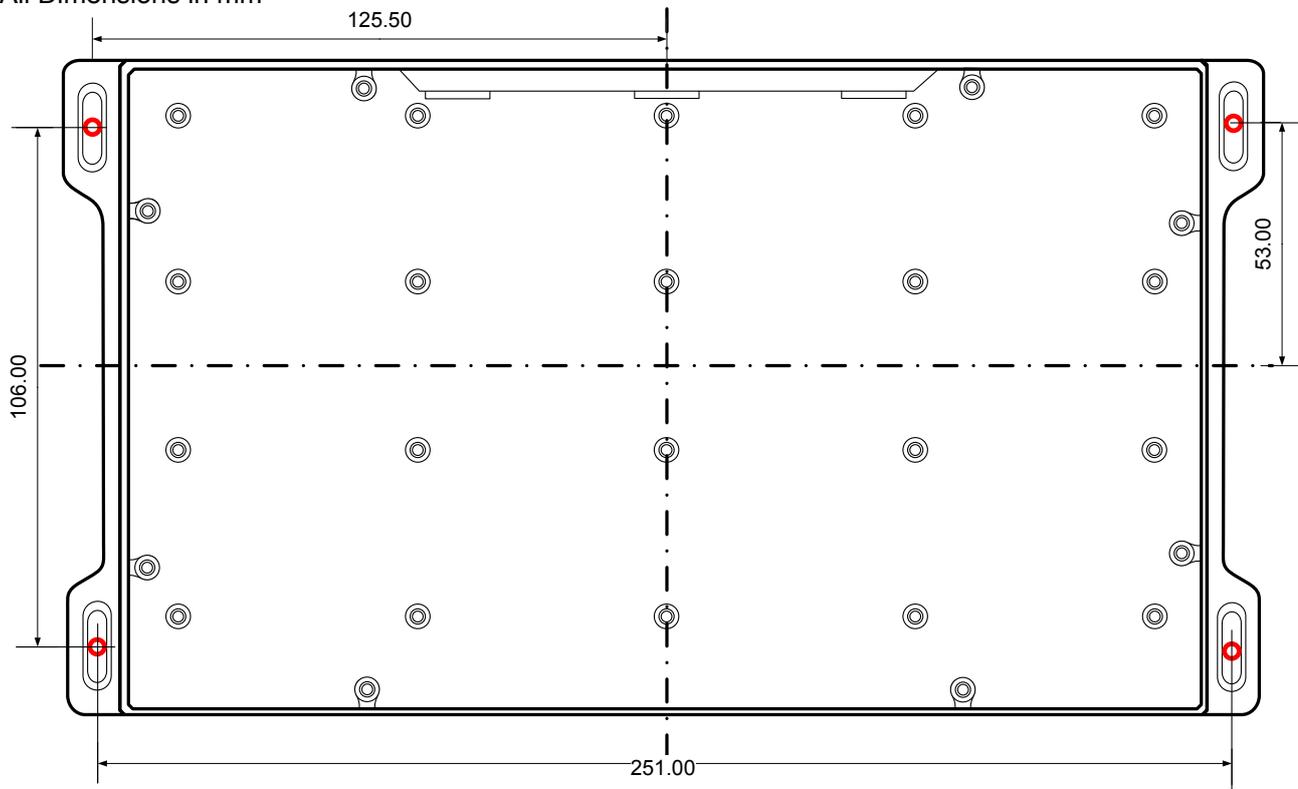
RF Solutions Ltd. Recycling Notice
Meets the following EC Directives:

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.