7 - TX ERASURE

Single transmitter erasure
Keep the button **P1** pressed down until the first red led **DL3** switches on ; push the key "A" of the transmitter to cancel : if this one was stored, it is cancelled: at the end of the operation both the led **DL3** and **DL4** blink 2 times a to confirm .For the erasure of the key "B" of the transmitter push 2 times **P1.** The second position is shown by the flash of the second red led **DL4;** at this point activate the key "B" of the transmitter to cancel.

Complete erasure
Keep the button **P1** pressed down until the first red led **DL3** switches on, release it, push it again and keep it pushed down until 3 blinks of the red led **DL3** and green led **DL4** occur. In this way the memory is completely cancelled.

8 - N° OF STORED TX DISPLAY

It is possible to display the number of the transmitters stored in the memory. Push 2 times **P1:** at this point a sequence of 7 flashes of **DL3** and **DL4** commences: this sequence represents the number of stored transmitters, expressed in binary annotation. Referring to the table below and the next example it is possible to find the corresponding decimal number:

Led on	1°	2°	3°	4°	5°	6°	7°
value DL4	1	2	4	8	16	32	64
value DL3	0	0	0	0	0	0	0

Example :
Led sequence: DL3, DL3, DL4, DL4, DL3, DL3, DL3.
Number: 0 + 0 + 4 + 8 + 0 + 0 + 0 =12
Than the receiver has 12 stored transmitters .

MEMORY FULL

In case of full memory, that means **85** transmitters are already stored, if one try to store an extra transmitter, a sequence of 3 blinks of **DL3** and **DL4** occurs and the operation fails.

Notice

Any changes or modifications on equipment not expressly approved could void the user's authority to operate with the equipment.

GUARANTEE

The warranty period of the receiver is 24 months, beginning from the manufacturing date of the receiver.

During this period, if the product doesn't operate correctly, due to a defective component, the product will be repaired or replaced at our sole discretio. The warranty does not extend to the receiver case which can be damaged by conditions outside our control.

2 RELAY
EXTERNAL MINI RECEIVER

MANUAL INSTALLATION

CE

Thank you for choosing this product.
You are recommended to read carefully this manual before installing the product.

1 - DESCRIPTION

1A - Introduction
The receiver is , designed for the control of automatic closing systems and anti-burglar systems, thanks to its very high security coding system (KeeLoq® Hopping code).
The operating frequency is among the European harmonised frequencies; the product fully complies with the EMC European Regulations (CE).
The code sent by the transmitter changes at every activation, avoiding any scanning and copying risk.
A special algorithm allows to keep synchronized transmitter and receiver.

The receiver has 2 output relays (with NO and NO/NC contacts, and can be connected to many types of mechanics (gate, garage door, rolling shutters, awnings, anti-burglar appliances, lighting, etc.).
All the receivers of the range can store into the EEPROM a serial number, a manufacturer key and a synchronism algorithm of more transmitters.
The programming can be done in self-learning mode by means of one button.
The housing protection of IP65 allows external installations.
The appliance full complies with the European Regulations 89/336/EEC, 73/23/EEC ,EN 60336-1 and FCC Part 15.

2 - TECHNICAL SPECIFICATIONS

Receiver type	Superheterodyne
Carrier frequency	433,92 MHz
Local oscillator frequency	6.6128 MHz
Demodulation	AM/ASK
Local Oscillator	VCO / PLL
Channel width	> 25 KHz
Intermediate frequency	10.7 MHz
Input sensitivity	-115 dBm
Local oscillator spurious emissions	< -57 dBm
Input load:	50 Ohm
Power supply:	12 / 24 Vac/dc
Consumption:	
Steady / 12 Vdc (2 relays excited)	1,5 mA / 40 mA
Steady / 24 Vdc (2 relays excited)	1,4 mA / 48 mA
Max applicable power	24VA
Relay number	2
Contacts	NO, NO/NC
Memory capacity	85 user codesTX
security code	Rolling code
Max code combination number	2^{64}
Operating temperature	-20°/+70°C
Housing protection	IP65
Weight	gr. 130
Overall dimensions (mm)	80 x 80 x 50

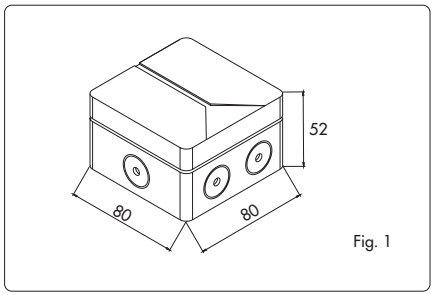

Fig. 1

3 - COMPOSITION

The receiver is composed by :

- 1 box with electronics
- 1 cover
- 2 screws
- 2 gumm taps
- 1 antenna net
- 2 screws with plugs

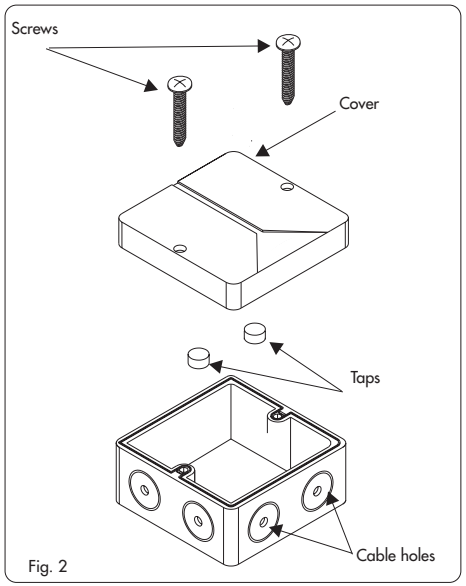

Fig. 2

4 - INSTALLATION

4.1 - Positioning

The receiver allocation is very important for the best operation of the system. Place the receiver far from interference sources as big magnetic fields, informatic systems, radio emissions. The installation and the antenna positioning is very important for the best receiving as well.

4.2 - Fixing

Remove the receiver cover.
Fix the box by using the screws and the plugs supplied

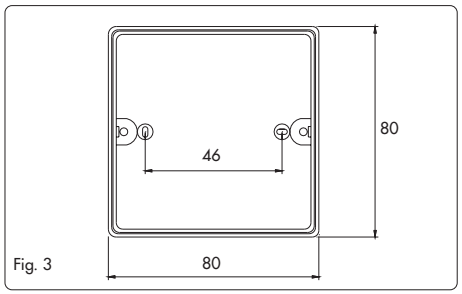

Fig. 3

At the end place the taps supplied over the holes to protect the screws head.

5 - LAYOUT CONNECTIONS

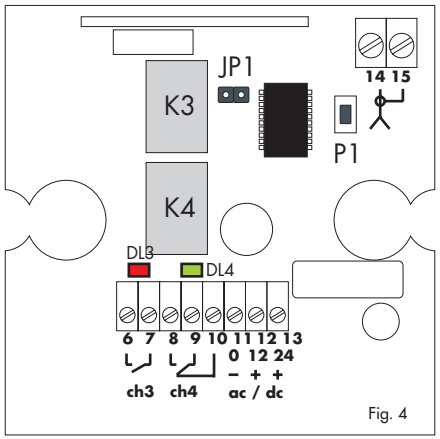

Fig. 4

5.1 - Contacts

terminal 6 =	Contact NO Relay3
terminal 7 =	Contact C Relay3
terminal 8 =	Contact NO Relay4
terminal 9 =	Contact C Relay4
terminal 10 =	Contact NC Relay4
terminal 11 =	Input supply Common
terminal 12 =	Input supply +12 Vac/dc
terminal 13 =	Input supply +24 Vac/dc
terminal 14 =	Pole Antenna
terminal 15 =	GND Antenna

5.2 - Relay K4 Configuration

The relay K4 can be configured in step mode. Close the jumper JP1.


JP1 = CLOSED
K4 Step mode


JP1=OPEN
K4 Pulse mode

6 - TX PROGRAMMING

Memorizing

The receiver makes the memorization of the transmitters buttons in sequential way.
Keep the button **P1** pressed down until the red led **DL3** switches on , release **P1** and push the key "A" of the transmitter ; after push again **P1**, the second red led **DL4** switches on , release **P1** and push the key "B" of the transmitter. After a while both the led will switch off and the procedure will be finished.