12/24V BASIC RECEIVER

Made in Italy

PN # 030207

Thank you for choosing this product .
Please read this manual carefully before installing this product.

SUMMARY

1- PRODUCT SPECIFICATIONS

1A - Introduction

The 12/24V basic receiver is a 2 relay output receiver, operating at 433,92 Mhz in AM/ASK modulation.
It is designed for automatic closing systems and anti-burglar systems.
The operating frequency is among the European harmonized frequencies; The antenna is connected with a F- type connector.
The relay outputs are 2 : P1 and P2
P1 with relay contacts C and N/O
P2 with relay contacts C and N/C or N/O according to the selection of J2 (see par. 1H).
The operating mode of P1 is Pulse and of P2 can be Pulse or Latch.
The power supply is 12 or 24 Vdc or Vac (see par. 1F).
The IP grade of 2X allows only indoor installations.
The product fully complies with the EMC European Regulations (CE) and the FCC Part 15 Regulations.

1B - Usable Transmitters

- 2 button transmitter - Item : 030210
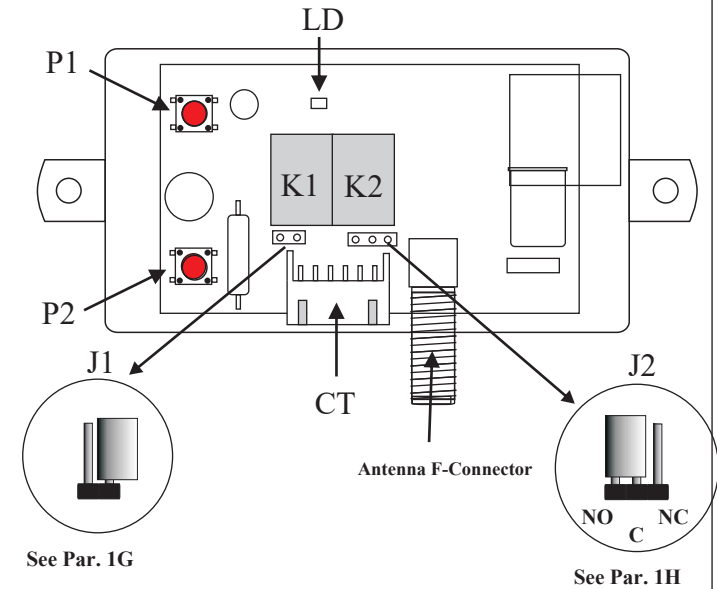- 4 button transmitter - Item : 030212

1C - Technical specifications

Receiver type:	Superheterodyne.
Demodulation: Operating	AM/ASK.
frequency: Local oscillator	433,92 MHz.
frequency: Intermediate	6,6128 MHz.
frequency: Sensitivity (for	10,7 MHz.
good signal): Input	-115 dBm.
impedance:	75 Ohm.
Supply voltage :	12 / 24 Vdc (± 10%).
Current absorbtion:	
at rest:	11 mA
with 1 relay excited:	30 mA
Number of relays:	2 (1NO, 1NO/NC).
Relay operating mode:	Pulse / Latch
Commutable max power:	24W or 24VA .
Memory capacity (tx keys):	42.
Operating temperature:	-4 ÷ +158 °F.
Dimensions:	4.13 x 1.77 x 1.1 in
Weight:	2.29 oz
IP Protection grade:	2X

1D - Receiver overview

LEGEND :

P1 :	Push button P1	J2 :	K2 output type Jumper
P2 :	Push button P2	K1 :	Relay K1
LD :	LED Red	K2 :	Relay K2
J1 :	Power selection Jumper	F :	F-type antenna connector

See Par. 1G

See Par. 1H

Antenna F-Connector

1E - Wiring diagram

Tuned antenna with male F-Connector

6 pole connector
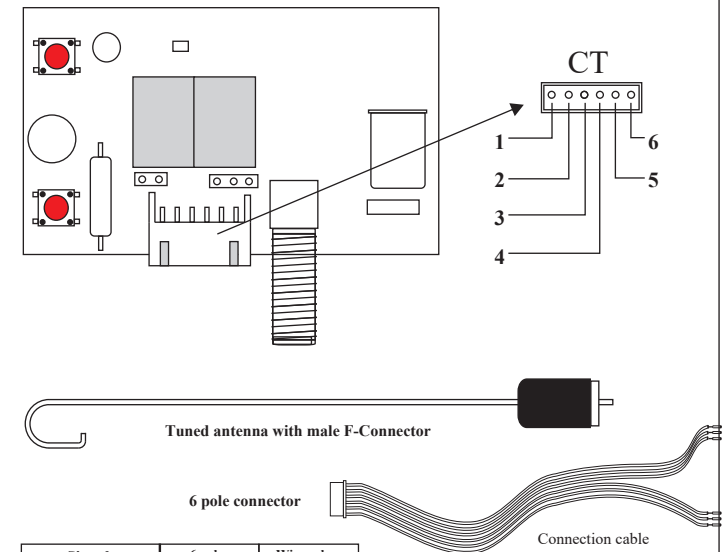
Connection cable

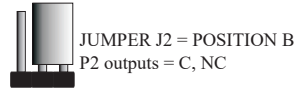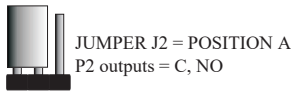| Signal	6 pole connector	Wire color
GND	1	BLACK
+ 12 / 24 Vdc	2	RED
K1 C Contact	3	GREEN
K1 NO Contact	4	GREEN
K2 C Contact	5	ORANGE
K2 Contact : according to J2 selection	6	ORANGE

1F - Main features

- 42 storable transmitter keys
- Single transmitter key or Full memory erasure
- Programmable operation mode of the P2: momentary or latching
- Easy transmitter memorization

1G - Power selection

JUMPER J1 = CLOSED
Supply = 12 Vdc / Vac

JUMPER J1= OPEN
Supply = 24 Vdc / Vac
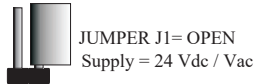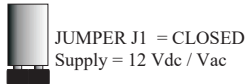
1H - P2 Output type selection

JUMPER J2 = POSITION A
P2 outputs = C, NO

JUMPER J2 = POSITION B
P2 outputs = C, NC

2- PROGRAMMING TRANSMITTER AND RECEIVER

The Transmitter and Receiver provided operate at 433 MHz.
Receiver can store up to 42 unique transmitter codes.

Transmitter Setup:
(It is recommended that the dip-switches be changed from the default setting)

1. Open the battery compartment door and locate the dip-switches.
2. Change the dip-switches to the settings you prefer.
3. Record for future reference.

Transmitter Left Button to Receiver Programming:
(standard Open/Stop/Close function)

1. Press and hold the left transmitter button down. Red light on transmitter should be on.
2. On the receiver, push the P1 push-button until the red LD light comes on.
3. Release both buttons.
4. Transmitter left button to receiver programming is complete.

Transmitter Right Button to Receiver Programming:
(Hold-Gate-Open)   (Only if auto close timer is enabled).

The 2-channel receiver allows for programming the P2 relay from momentary mode (default) to latching mode. Transmitter right button can then be programmed to hold the gate open, over-riding the auto-close feature if activated.

1. Press and hold the right transmitter button down. Red light on transmitter should be on.
2. On the receiver, push the P2 push-button until the red LD light comes on.
3. Release both buttons.
4. Transmitter right button to receiver programming is complete.

Receiver Programming: Relay P2 programming from momentary to latching mode (to hold gate open)

1. On the receiver, push the P2 push-button until the red LD light comes on, then release.
2. Red LD light should be steady.
3. While the red LD light is on, push the P1 push-button down and release.
4. Red LD light should be flashing. Latching mode is set.

Verifying Receiver P2 relay is programmed to latching mode:

1. On the receiver, push the P2 push-button until the red LD light comes on, then release.
2. Red LD light should be flashing. If the red LD light is steady, redo the Receiver Programming section above.

Resetting receiver P2 relay to momentary mode:

1. On the receiver, push the P2 push-button until the red LD light comes on, then release.
2. Red LD light should be flashing.
3. While flashing press the P1 button once and release.
4. Momentary mode is set.

Erasing Single Transmitter from Receiver Memory:

The dip-switch settings of the transmitter to delete must be known. If known follow the steps below.

1. Set the dip-switches in a transmitter to match the switch settings of the transmitter code to delete.
2. Press and hold the left transmitter button.
3. On the receiver, push the P1 push-button until the red LD light comes on. Then release both.
4. Press and hold the right transmitter button.
5. On the receiver, push the P2 push-button until the red LD light comes on. Then release both.
6. Transmitter is now erased from receiver memory.

Erasing all Transmitters from Receiver Memory:

1. Press the P2 button on the receiver until the red LD light comes on. Then release P2 button.
2. While red LD light is on press the P1 and P2 buttons simultaneously and hold until the red LD light begins to blink slowly. It should blink 4 times then all transmitter codes are erased.

3- TRANSMITTER NUMBER DISPLAY

It is possible to display how many transmitter keys are stored in the memory. The number is displayed, in binary notation (0 or 1), by a sequence of led flashes.

A short flash (½ second) of LD gives a binary "0".
A long flash (1 second) of LD gives a binary "1".
The complete sequence is composed by 6 flashes and by a final longer flash (2 seconds).
According to its position, each flash has a different "weight".

First flash :	$2^0 = 1$
Second flash :	$2^1 = 2$
Third flash :	$2^2 = 4$
Fourth flash :	$2^3 = 8$
Fifth flash :	$2^4 = 16$
Sixth flash :	$2^5 = 32$

Procedure
1) Keep P1 or P2 pressed down until LD switches on.
2) Release the button and then push P2 for a while before LD switches off.
At this point begins the sequence of flashes.
Take a note of the sequence to calculate the corresponding decimal number, as shown in the following examples.

Es. N° 1 : Memory empty
Weights   1   2   4   8   16   32   End Sequence
Sequence :   _   _   _   _   _   _   _____
Final number : $0+0+0+0+0+0 = 0$

Es. N° 2 : 5 transmitter keys
Weights   1   2   4   8   16   32   End Sequence
Sequence :   __   _   __   _   _   _   _____
Final number : $1+0+4+0+0+0 = 5$

Es. N° 3 : 12 transmitter keys
Weights   1 2 4 8 16 32 End Sequence
Sequence :   _   _   __   __   _   _
_____   Final number : $0+0+4+8+0+0 = 12$

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