

# ELFIPA

AUTOMAZIONE TIRO A VOLO  
REALIZZAZIONI ELETTRICHE

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*Transmitter + Radio  
Receiver for Target  
Machine Control.*

*Operating Instructions*

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## DECLARATION OF CONFORMITY



The Firm **ELFIPA S.n.c.**

P.zza XXIV Maggio, 6 – 31040 Gorgo al Monticano (TV)

Dichiara sotto la propria responsabilità che:

the Product

***Transmitter + Radio Receiver for Target Machine Control***

Models: - ***RTX1F - RTX1A - RTX8F - RTX8A - RX1F - RX1A***

to which is referred this Conformity Declaration CE, has been planned and built, according to the following Community Directives:

- Electromagnetic Compatibility Directive (EMC) 89/336/CEE
- R&TTE Directive 1999/5/CE
- Machines Directive 98/37/CE

In particular, the following harmonized norms have been applied:

**CEI EN 61000-6-3 ; CEI EN 61000-6-1 ; CEI EN 55022 ; CEI EN 61000-4-3 ; CEI EN 61000-4-2**

*Therefore the Product above-sued can be considered properly done to guarantee the safety of things and people, provided that it has been installed correctly, following what it's written in the Operating Instructions.*

N.B. It's not allowed to make the product working till the machine, in which the product is integrated, is not identified and declared conforming to the Directive 98/37/CE.

### 1. SUMMARY

Dear customer, we thank you to choose our product and we ask you to read attentively the Operating Instructions on the using of " Transmitter + Radio Receiver", necessary for a correct use of it and for its safety.

The information of the manual have the aim to provide notices about:

- The use of "Transmitter + Radio Receiver for Target Machine Control";
- Technical Features;
- Elimination Instructions.

FEATURES OF THE PRODUCT:

- The "Transmitter + Radio Receiver for Target Machine Control" is a kit that let you control at distance one or more target machines, whose:

- Once you set the code which identifies it, the "Radio Transmitter" can control the receivers, that are linked to him, by using its 8 Buttons and their combinations;
- The "Radio Receiver with 1 Channel", through the Button (PROGRAM), can memorize maximally 8 (codes + buttons combinations), that are sent by the Transmitter or the Transmitters and that are used to control the connected target machine;
- The "Radio Receiver with 8 Channels", through the Button (PROGRAM), can memorize maximally 8 (codes), that are sent by the Transmitter or the Transmitters and that can control maximally 8 Target Machines, connected to it.



*These Operating Instructions must be considered part of the product "Transmitter + Radio Receiver for Target Machine Control" and therefore must be kept for all the period in which the product works, in case you need them in the future.*

## 2. SPECIFICATIONS

### 2.1 Intended Use

The "Transmitter+ Radio Receiver for Target Machine Control" is destined to be integrated in a Target Machine.

There are no other uses for this product.

### 2.2 Dimensions and Weights

The overall dimensions of the product (not packed) are:

#### Remote-control (Tx)

Width: 65mm  
Length: 120mm  
Height: 22mm

#### Receiver (Rx)

Width: 140mm  
Length: 115mm  
Height: 65mm

The overall weight (Remote-control (Tx) +Receiver (Rx) ) is 0,74kg.

### 2.3 Electronic Supply Data

#### Remote-control (Tx)

Battery 9 V DC

#### Receiver (Rx)

12-24 V (AC-DC), input ~30mA (for Receiver with 1 Channel)  
12-24 V (AC-DC), input ~80mA (for Receiver with 8 Channels)



*ELFIPA S.n.c. doesn't take any responsibility for a wrong installation or connection of the product. It's suitable that all the operations are made by skilled workers.*

## 4. ELIMINATION OF THE PRODUCT

When you decide to use no-more the product "Transmitter + Radio Receiver for Target Machine Control" and so you want to eliminate it, it's suitable to make it inoperative, taking out the Remote-control (Tx) battery and disconnecting the Receiver (Rx) from the supply circuit.

It's absolutely forbidden to disperse this product in the environment.

For the disposal of the product, take it in the proper ecological platforms or give it to special recycling firms.



### 3.4 Resolutions of Possible Problems

Here follow some cases, where there can be found some problems in the functioning of the " Transmitter + Radio Receiver for Target Machine Control"; the customer can solve these problems by his/her-self:

Kind of problem	Possible Cause	Solution
The Receiver (Rx) doesn't turn on	Electric Supply absent or interrupted	Verify the correctness of the electric connections
		Verify that the button of the target machine is in position ON.
The Receiver (Rx), during the ordinary functioning, turns down	Electric Supply interrupted	Verify the presence of electric supply
		Verify the integrity of the connections at the source of electric supply.
There's no communication between Tx and Rx		<ul style="list-style-type: none"> <li>- Verify that the Tx battery isn't exhausted: in this case change it with another one of 9V mod. 6LR61.</li> <li>- Verify that between Tx and Rx there's a distance less than 100 meter.</li> <li>- Verify that between Tx and Rx there are no obstacles, such as trees, cement and iron buildings or other materials that obstruct the radio propagation .</li> </ul>

For other problems and if you don't manage to solve the problems above, ask some skilled workers for help.

### 2.4 Environment Conditions and Using Limits

The "Transmitter + Radio Receiver for Target Machine Control" is arranged to work in temperature and humidity standard conditions.

These standard conditions correspond to temperatures included between -5°C and +40°C with a degree of humidity of 50% 620%.

The product is made to be installed inside outdoor machines. Both the Remote-control (Tx) and the Receiver (Rx) have to be prevented from weather conditions (rain, humidity, etc..)

The declared protection index is IP 40.

### 2.5 Safety Directions

The "Transmitter + Radio Receiver for Target Machine Control" implies some risks and for them is absolutely necessary to pay attention to what follows:

- Before doing whatever cleaning operations or maintenance, disconnect the "Transmitter + Radio Receiver for Target Machine Control" from the electronic supply;
- To guarantee the maximum stability and safety of the Receiver (Rx), it must be positioned on a solid, plane and stable surface;
- **Warning** this is an A Class product. If it is set in a residential place, it can cause radio troubles. In this case the user can be asked to take proper measures.
- ELFIPA S.n.c. doesn't take any responsibility for the following cases:



- Unproper use of the product "Transmitter + Radio Receiver for Target Machine Control" (for the Intended Use, go to paragraph 2.1 of this Manual);
- Defects in the electronic supply;
- Modifications or interventions not authorized and made by not skilled workers;
- Non-observance (partial or total) of the Operating Instructions.

### 3. OPERATING INSTRUCTIONS

#### 3.1 Setting the CODE of Radio Receiver (Rx)

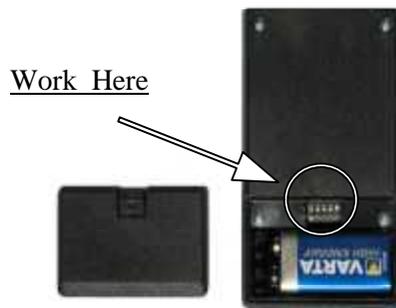
The settings of the Code are necessary to set various implants, one near the other, without any disturbs.

If there is only one implant, you can choose the code you want, otherwise you must set all the implants with different codes.

In particular cases ( like Hunting Sport), transcribing attentively all the operations you will make, you can join "Radio Transmitters" with different codes to one or more "Radio Receivers" with maximally 8 combinations for a single "Radio Receiver".

To set the memorization of the Radio Transmitter/s, follow these directions:

- 1- Open the battery compartment on the back of "Radio Transmitter" (is seen Figure below) and with the help of a small screwdriver work on the first micro 4 levers, so that a set of 16 possible combinations (see table field code combinations) .



- 2- It is **Important** to know that the "Radio Transmitter" can work in two ways: one of 24bit (Old) and another of 32bit (New). The last one is used **actually** with the new Radio Receivers. The new "Radio Receivers" are different from the previous one because they have a red button (PROGRAM) inside the blaster or externally on the box. To switch between modes, adjust the micro lever 5 °, as shown in appendix A), or alternatively cutting the bridge of copper, as shown in Appendix B):

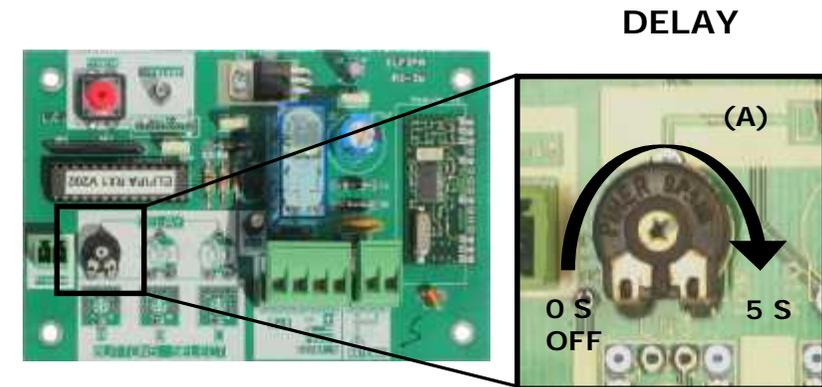
#### 3.3 Setting Delay Time

Inside the "Radio Receiver" there's a trimmer (A), on which you can work using a small screwdriver, to set or not a delay time to control the target machine. This is associate to the first stored button, and all the remainders are to direct command.

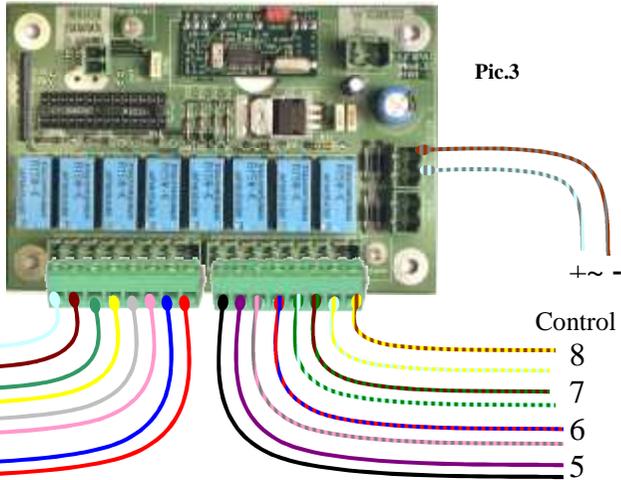
If the trimmer (A) is turned completely anticlockwise, in the position (0 Sec), there will be a direct control, without any delay, also the first stored button, (in this case all the stored buttons have the same function).

Instead, if you turn the trimmer clockwise, there will be a delay time that will go from 0,3 Sec to maximally 5 Sec, depending on the position of the arrow in the excursion of the same trimmer (A).

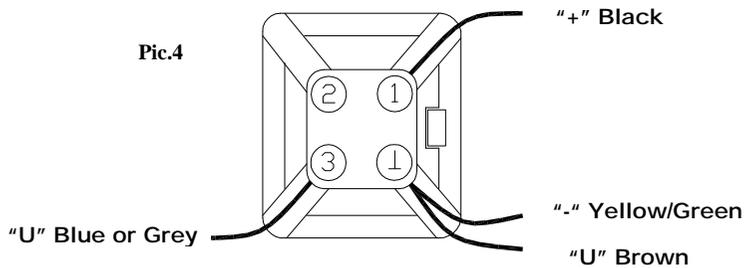
Supposing that the arrow will be in the middle of the entire excursion, the delay time will correspond to 2,5 sec.



b) – The Connections in the “Radio Receiver with 8 Channel” are nine: one for the supply and eight for each Control Relay, you have free relay’s contacts and use them as required by the connection, with a common to the positive or negative. To connect the supply to the input (Power/AC) use the White/Grey (-) and Grey\Brown(+) threads. For the outputs of the eight Control Relay, follow the colours as in picture 3.

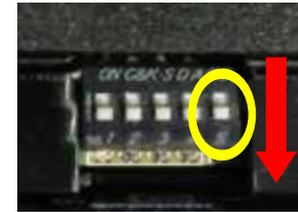


CONNECTION TO THE STANDARD MACHINE THORN MALE ILME

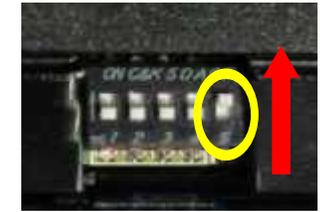


The connection above can be modified, according to your own needing, moving the connection threads in other positions; all this depends on the connection you will make.

a) Setting up the transmitter with the 5th micro lever, for receiver:

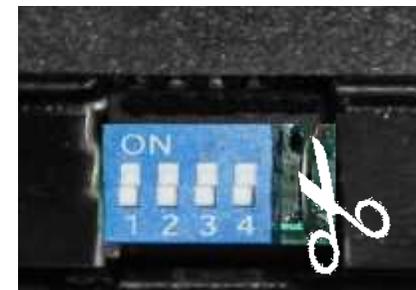


without pushbutton



with pushbutton

b) Use a cutter to slice through the length of wire as shown in picture. In this condition, the transmitter becomes compatible with receivers without button. Close the battery cover to the end.



CODE RANGE COMBINATIONS :

- |                     |                      |
|---------------------|----------------------|
| code 0 = - - - - ON | code 8 = - - - ■ ON  |
| code 1 = ■ - - - ON | code 9 = ■ - - ■ ON  |
| code 2 = - ■ - - ON | code 10 = - ■ - ■ ON |
| code 3 = ■ ■ - - ON | code 11 = ■ ■ - ■ ON |
| code 4 = - - ■ - ON | code 12 = - - ■ ■ ON |
| code 5 = ■ - ■ - ON | code 13 = ■ - ■ ■ ON |
| code 6 = - ■ ■ - ON | code 14 = - ■ ■ ■ ON |
| code 7 = ■ ■ ■ - ON | code 15 = ■ ■ ■ ■ ON |

- 3- Turn ON the power supply of machine; press and keep the red button (PROGRAM) pressed.



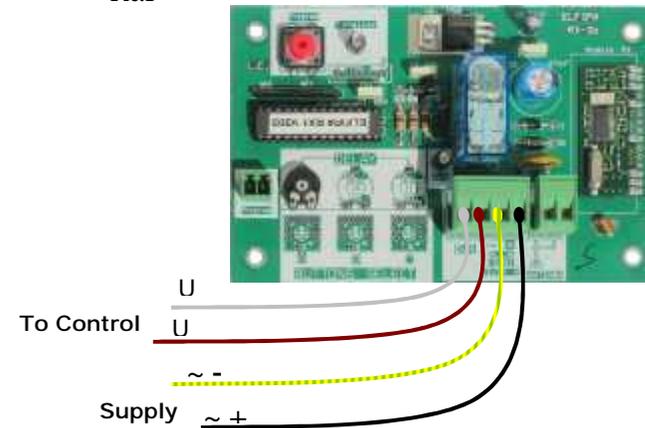
- 4- Using the "Radio Transmitter", that has already been set, press one or more buttons, that are used to control the target machine, according to your own needing.  
 Example: for a double shot-gun press at the same time the 2 chosen buttons and then leave them. Every release of the buttons corresponds to a memorization for maximally 8 save-positions.
- 5- To finish the programming, release the red button (PROGRAM) so that the sequence of pressed buttons will be memorized. Now the "Radio Receiver" is ready for its ordinary use.
- 6- In some versions, the Button (PROGRAM), is lodged on the board. In this case the cover must be opened and to play the same procedures as to the point 3. 4. 5.

### 3.2 Internal Connections of the Radio Receiver (Rx)

a) – The connections in the "Radio Receiver with 1 Channel" are two; one for the supply and one for the Control Relay: for the board RX-3a (like in Picture 1) and for the board RX-3 (like in picture 2). To connect the supply at the input (Power/AC), that is protected from accidental inversions of polarity and short circuit, you have to use Yellow\Green (-) and Black (+) threads. For the output of the Relay (OUT) the other 2 threads Brown and Blue (or Grey).

The connection (ELFIPA) we'll find in the thorn can be seen in picture 4, that can be modified according to your own needing.

Pic.1



Pic.2

