



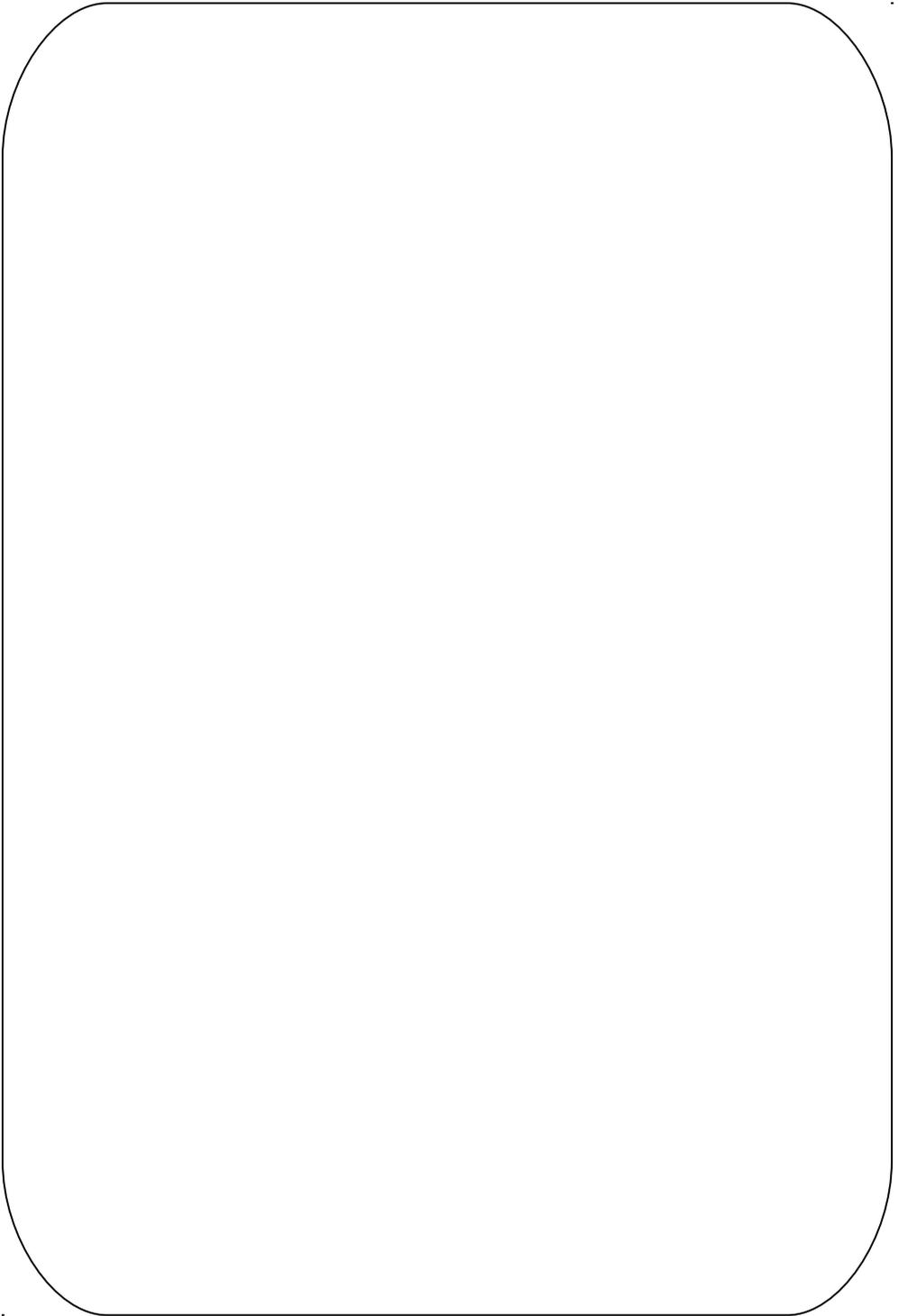
ELFIPA

AUTOMAZIONE TIRO A VOLO
REALIZZAZIONI ELETTRONICHE



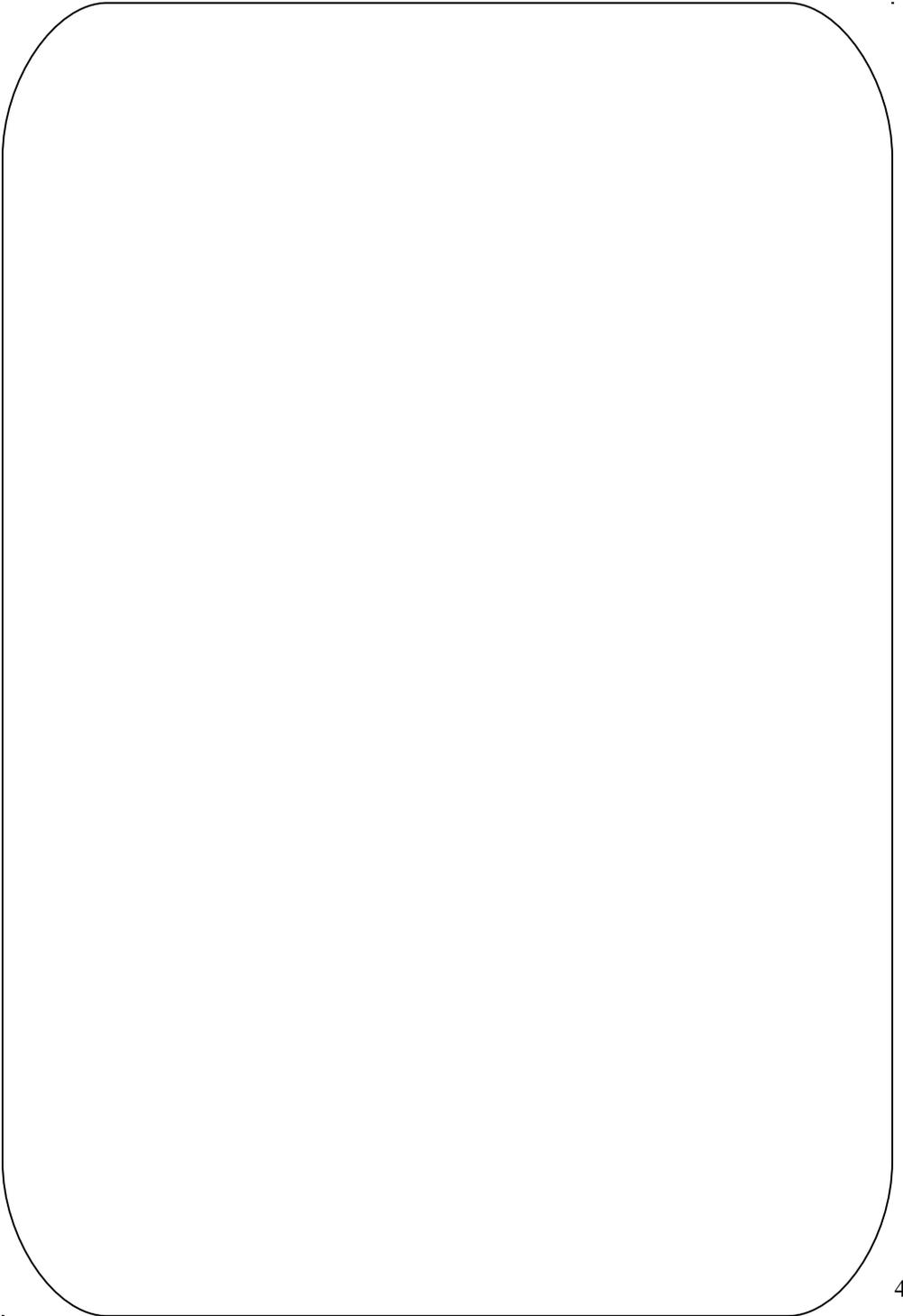
Exchange Box

Operating Instructions



INDEX

1	SUMMARY	4
2	SPECIFICATIONS OF THE PRODUCT	5
2.1	Intended Use	5
2.2	Dimensions and Weights	5
2.3	Electronic Supply Data	5
2.4	Environment Conditions and Using Limits	6
2.5	Safety Directions	6
3.	INSTRUCTIONS	7
3.1	Connections of the Exchange Box to the Sequencer or to the Token Machine (if present)	7
3.3	Connections the Microphones	9
3.3	Connections the Trench "Open Microphone Lamps"	10
3.4	Connections the Skeet "Open Microphone Lamps"	12
3.5	Connections of the Machines	14
3.5.1	Connections the Trench Machines	14
3.5.2	Connections the Hunting and Skeet Machines	15
3.6	Connections of the 230Vac Pull and Mark lamps	16
3.7	Use of the "Exchange Box" if it is intended to work with the Radio Transmitter	17
3.7.1	Activation of the Transmitter	18
3.7.2	Range codes combinations	18
3.8	Solutions to possible problems	19
4.	ELIMINATION OF THE PRODUCT	20
	DECLARATION OF CONFORMITY	21



This Manual is provided together with the following equipments:

“Exchange Box for Bunker/ Skeet/ Hunting with connectors with Transmitter”

In this manual the equipment is called “Exchange Box”

1. SUMMARY

Dear customer, we thank you to choose our product and we ask you to **read carefully** the Operating Instructions on the use of the “Exchange Box”, which is 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 “Exchange Box” is a product that enable the ranges to work with more disciplines tank to a system of automatic exchange for machines and microphones when the discipline is changed; moreover it is created to signal the functioning of the microphone through a lamp that is placed on the basis of the pedestal. The model with transmitter let the connections of the skeet and hunting machines via radio.



These Operating Instructions must be considered part of the product “Exchange Box” and therefore must be kept for all the period in which the product works, in case you need them in the future.

2. SPECIFICATIONS OF THE PRODUCT

2.1 Intended Use

The "Exchange Box" is a product which is intended to be joined to our "Computerised Automatic Sequencer" with a firmware that has been updated to the version "4.00" or to a superior one.

- QSK05 : Machine Exchange Box with Transmitter-
For an installation in hunting ranges without cables.

2.2 Dimensions and weighs

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

Width: 32 cm
Length: 26 cm
Height: 12 cm

The overall weigh is 2 kg.

2.3 Electronic supply data

220 Vac, input ~15 VA
12 Vdc, input ~200 mA (2 A for the direct control of the machines)



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.

2.4 Environment Conditions and Using Limits

The "Exchange Box" is arranged to work in temperature and humidity standard conditions.

These standard conditions correspond to temperatures included between -5°C to +40°C with a degree of humidity of 10% to 80%.

The product is made to be installed next to the "Computerised Automatic Sequencer" and has 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 "Exchange Box" from the electronic supply;
- To guarantee the maximum stability and safety of the "Exchange Box", 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 "Exchange Box" (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. INSTRUCTIONS

3.1 Connection of the Exchange Box to the Sequencer or to the Token Machine (if present)

To connect the "Exchange Box", work as follows:

- 3.1.1 If you have the token machine, disconnect the cable of the token machine which goes behind the sequencer and connect it to the "Exchange Box" (Fig.1, point 1); then insert the connector (fig.1, point 2) on one side of the "Exchange Box" to the token machine socket, which is placed on the rear part of the sequencer.
- 3.1.2 Connect the other connector (Fig. 1, point 3) of the "Exchange Box" to the microphone socket which is placed on the back of the sequencer.
- 3.1.3 Check if the switch on the cover (Fig.1, point 5) of the "Exchange Box" is on "OFF".
- 3.1.4 Connect the power supply cable (Fig. 1, point 4) of the "Exchange Box" to the power supply socket (230 Vac).

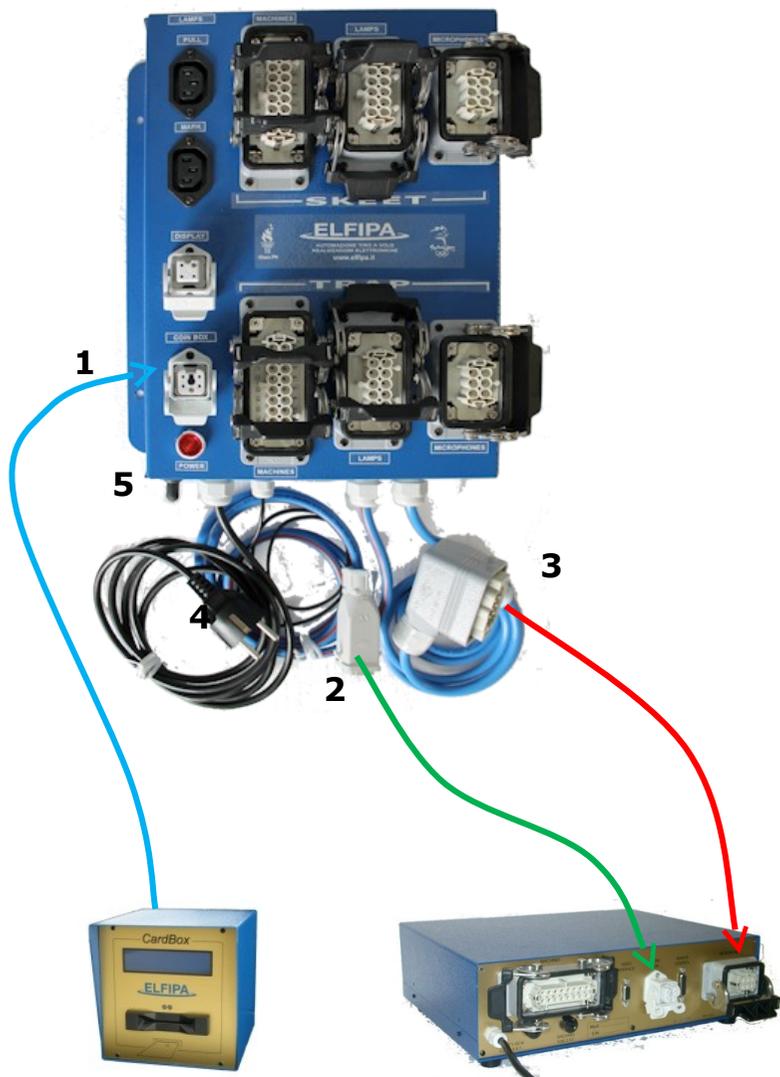
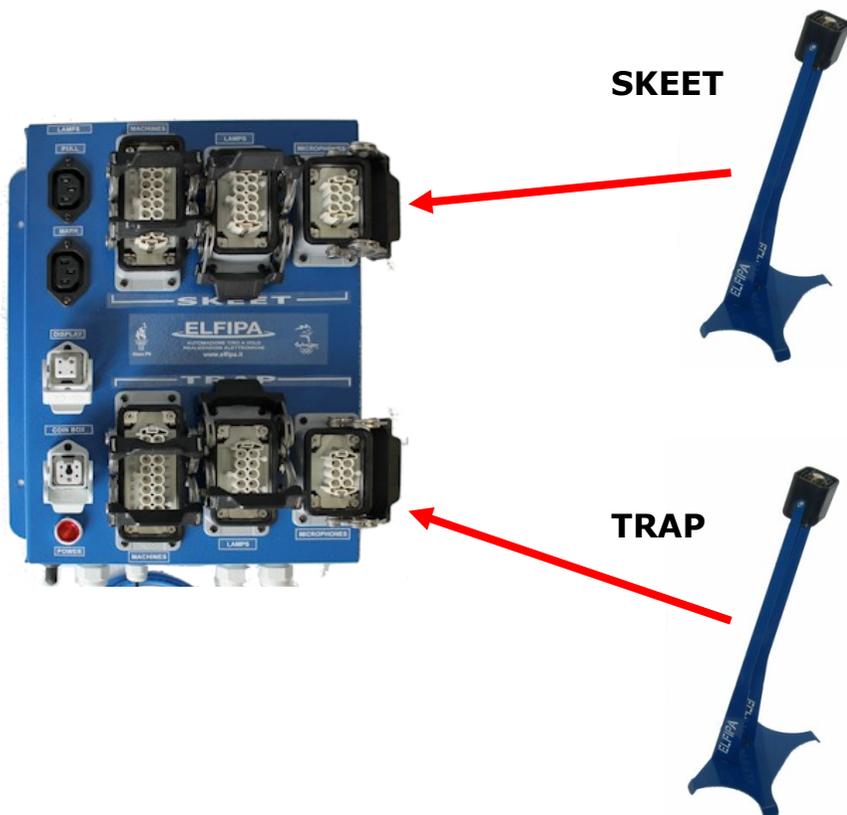


Fig.1

3.2 Connections the Microphones

You can connect the "Exchange Box" to both the trench microphones and the skeet ones.

- 3.2.1 On the preexisting ranges, take the microphones connector (which has previously been disconnected from the sequencer) and connect to the female connector which is marked by the red arrow.
- 3.2.2 In case the microphones haven't been wired yet, see the manual of the sequencer for a correct connection of the male connectors of the microphones.



3.3 Connections the Trench "Open Microphone Lamps":

When the "Exchange Box" includes an external connector (marked by the red circle), connect the lamps to the male connector that is given with the product, following the numeration of the pins which is mentioned at page bottom.



- 1 = lamp of microphone 1
- 2 = lamp of microphone 2
- 3 = lamp of microphone 3
- 4 = lamp of microphone 4
- 5 = lamp of microphone 5
- 6 = not connected
- 7 = not connected
- 8 = not connected

- 9 = parallel repeat button in all the microphones
- 10 = common in the lamps and in the buttons

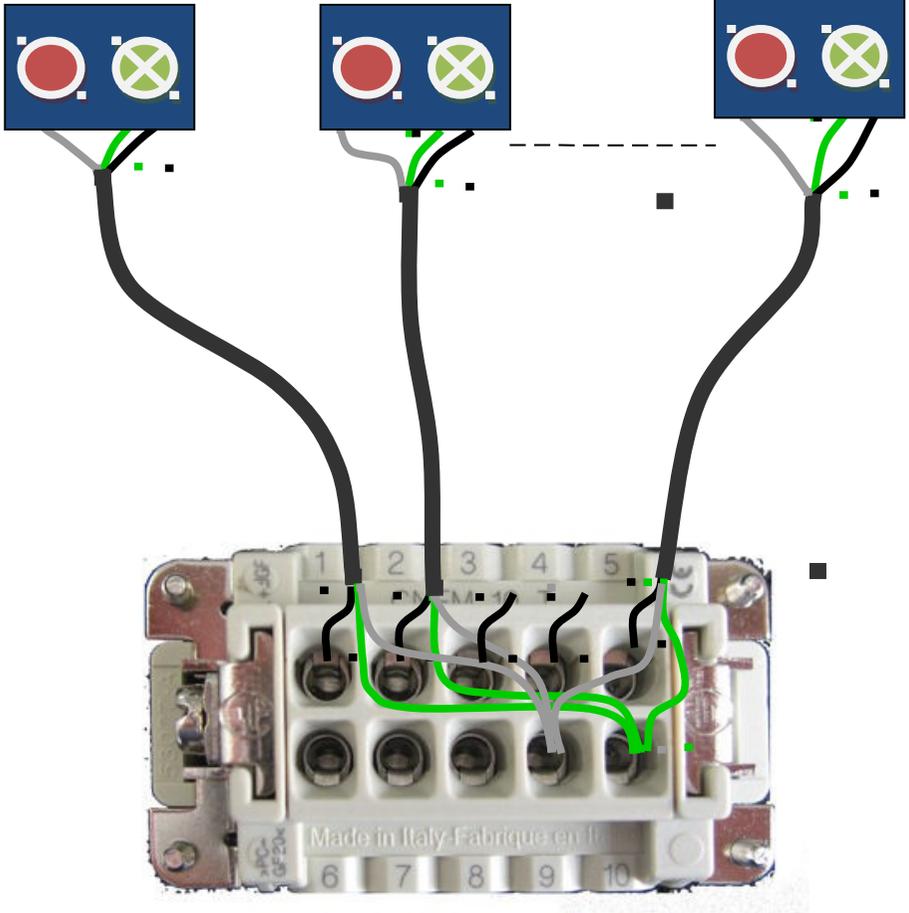
Attention: The use of the repeat button with the open microphone can cause unwilling releases.

Examples of connections of the lamps to the microphones:

Microphone on station 1

Microphone on station 5

Microphone on station 2



3.4 Connections the Skeet "Open Microphone Lamps":

When the "Exchange Box" includes an external connector (marked by the red circle), connect the lamps to the male connector that is given with the product, following the numeration of the pins which is mentioned at page bottom.



- 1 = lamp of microphone 1
- 2 = lamp of microphone 2
- 3 = lamp of microphone 3
- 4 = lamp of microphone 4
- 5 = lamp of microphone 5
- 6 = lamp of microphone 6
- 7 = lamp of microphone 7
- 8 = lamp of microphone 8

- 9 = parallel repeat button in all the microphones
- 10 = common in the lamps and in the buttons (GND)

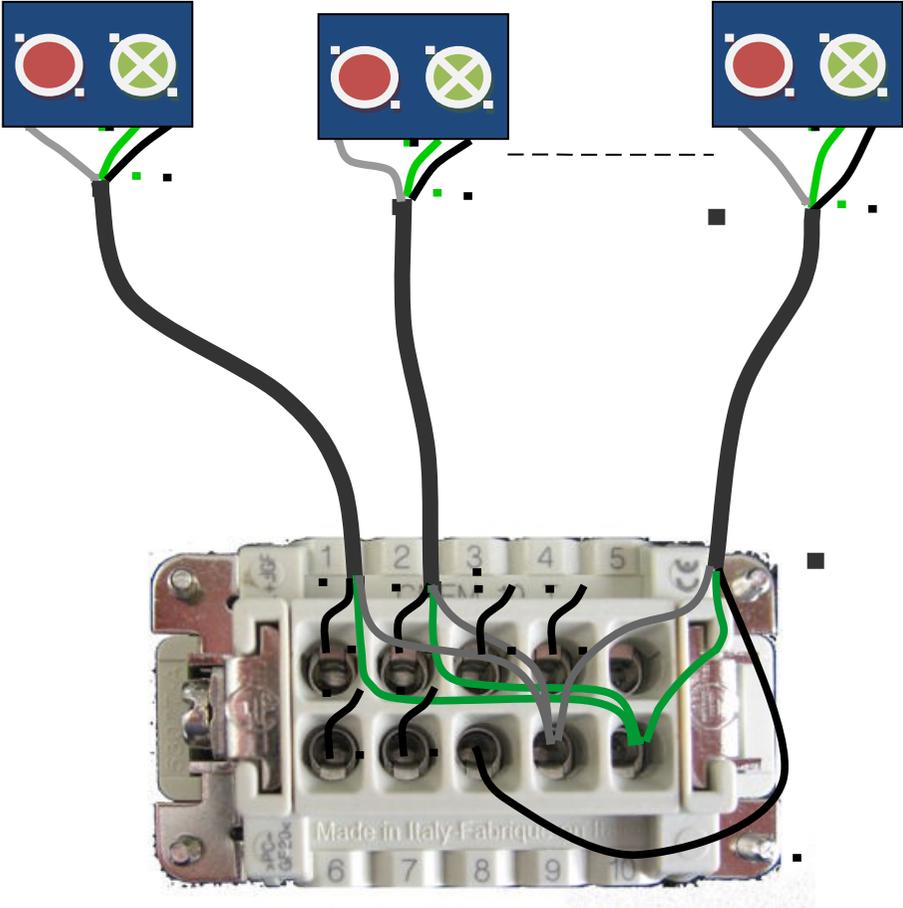
Attention: The use of the repeat button with the open microphone can cause unwilling releases.

Examples of connections of the lamps to the microphones:

Microphone on station 1

Microphone on station 2

Microphone on station 8



3.5 Connections of the Machines

The Trench Machines, the Hunting and the Skeet ones can be connected to the "Exchange Box", as follows.

3.5.1 Connections to the Trench Machines:

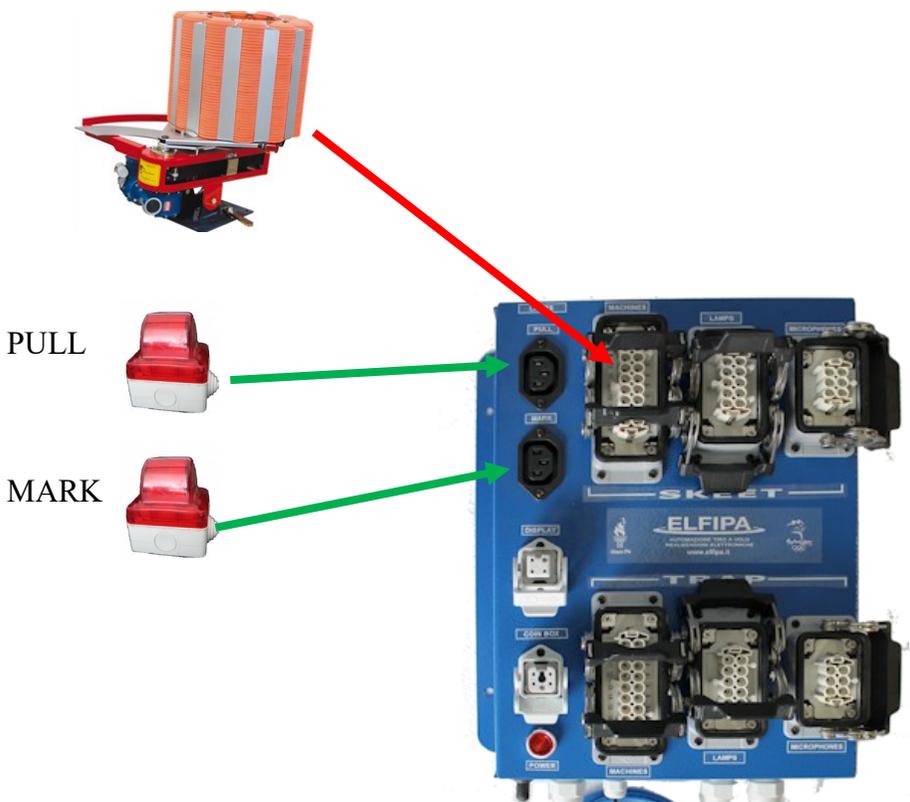
3.5.1.1 On the preexisting ranges, take the machines connector (which has previously been disconnected from the sequencer) and connect to the female connector which is marked by the red arrow.

3.5.1.2 In case the machines haven't been wired yet, see the manual of the sequencer for a correct connection of the male connectors of the machines.



3.5.2 Connections to the Hunting and Skeet Machines:

- 3.5.2.1 On the preexisting ranges, take the machines connector (which has previously been disconnected from the sequencer) and connect to the female connector which is marked by the red arrow.
- 3.5.2.2 In case the machines haven't been wired yet, see the manual of the sequencer for a correct connection of the male connectors of the machines.

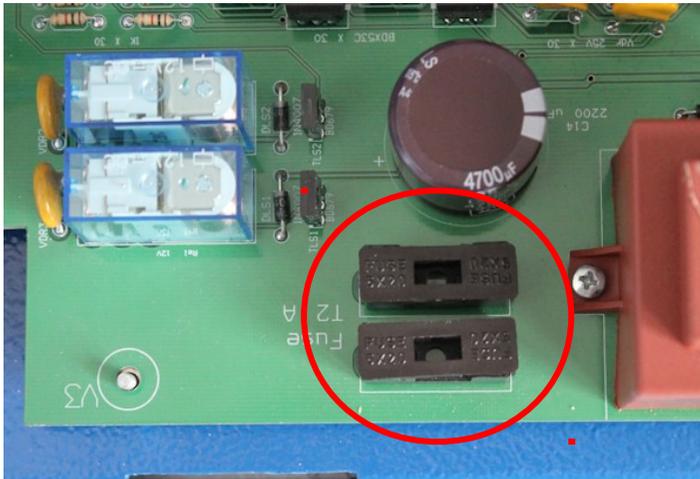


in case you want to keep control of the skeet lamps connected as in the sequencer, you must place in the 'on' the dip 6, see page 6, indicated by the yellow arrow.

3.6 Connections of the 230Vac Pull and Mark lamps

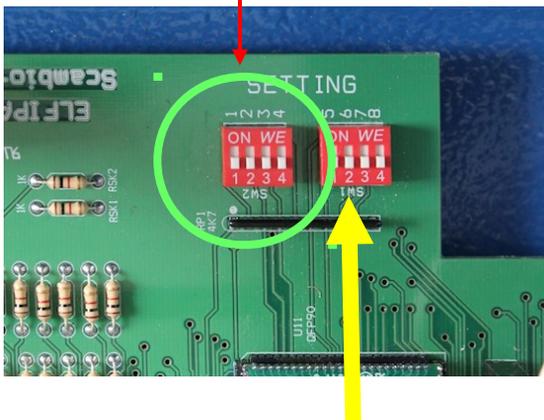
If you want to connect directly to 220V lamps to the " Exchange Box", can use the connectors indicated in the previous design.

WARNING: Inside the box there are two fuses, used only for these outputs; in case of failure, check these fuses.



3.7 Use of the "Exchange Box" if it is intended to work with the Radio Transmitter

If a model of the "Exchange Box" is intended to work with the Radio Transmitter, it is possible to use it to control the skeet and hunting machines. The insertion of the transmitter does not exclude the direct control of the machines that are connected through cables. Therefore you can have both connections through cable or through radio.



3.7.1 Activation of the Transmitter:

To enable the radio transmission to the Hunting machines, it is necessary to move downwards the gear of the DIP SWITCH n.5 of the block SW1 (as shown by the yellow arrow on the previous page) in ON position.

In case you don't want to use the transmitter it is important to keep the gear down to avoid possible interferences with other radios.

3.7.2 Range codes combinations

To set the range code, follow what is reported by the table below, working on the block SW2 (see the previous page in the green circle). Moreover refer to the manual of the radio receiver to do the programs.

code 0 = - - - - ON
code 1 = ■ - - - ON
code 2 = - ■ - - ON
code 3 = ■ ■ - - ON
code 4 = - - ■ - ON
code 5 = ■ - ■ - ON
code 6 = - ■ ■ - ON
code 7 = ■ ■ ■ - ON

code 8 = - - - ■ ON
code 9 = ■ - - ■ ON
code 10 = - ■ - ■ ON
code 11 = ■ ■ - ■ ON
code 12 = - - ■ ■ ON
code 13 = ■ - ■ ■ ON
code 14 = - ■ ■ ■ ON
code 15 = ■ ■ ■ ■ ON

3.8 Solutions to possible problems

Here follow some cases, where there can be found some problems in the functioning of the "Exchange Box"; the customer can solve these problems by his/her-self:

Kind of problem	Possible cause	Solution
The adapter does not turn on	Absent or interrupted electric power supply	Check the correctness of the electric connections
		Check that the switch of the target release machine is ON position
The adapter is on and the start led flashes quickly	The token machine has been disconnected or there is no credit in the token machine	Connect again the token machine or insert some credit
		See paragraph 3.4 of the manual to deactivate the token machine
The credit decreases, but the target release machines do not work	The cable between the adapter and the machines has been interrupted	Check if the connection cable between the adapter and the machines is correctly inserted and that the machines are on

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

4. ELIMINATION OF THE PRODUCT

When you decide to use no-more the product "Exchange Box" and so you want to eliminate it, it is suitable to make it inoperative, disconnecting it 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.



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

Exchange Box

Models: - ***QSK03 – QSK04 – QSK05***

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

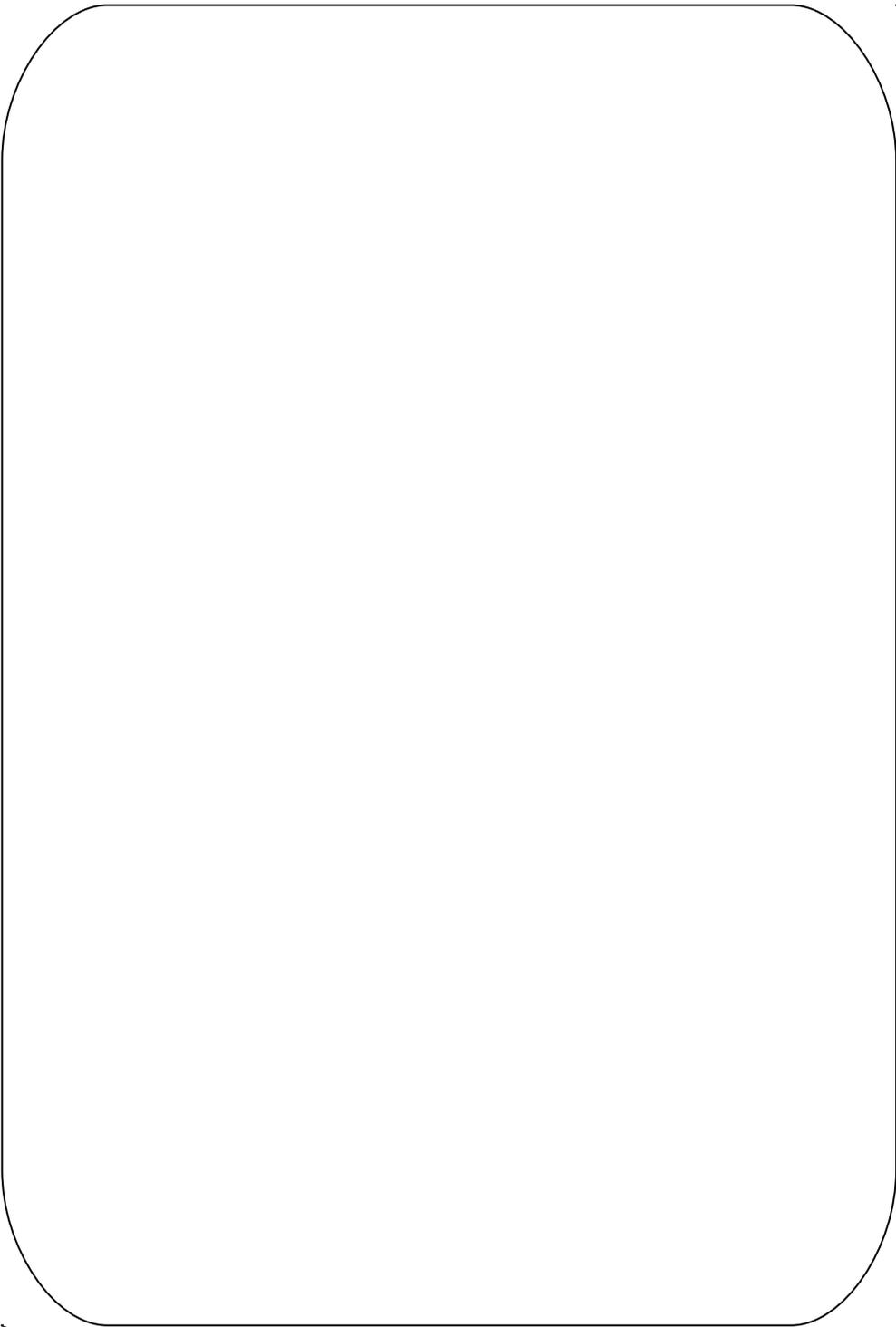
- Electromagnetic Compatibility Directive (EMC) 89/336/CEE
- R&TTE Directive 1999/5/CE
- Machines Directive 98/37/CE

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.



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