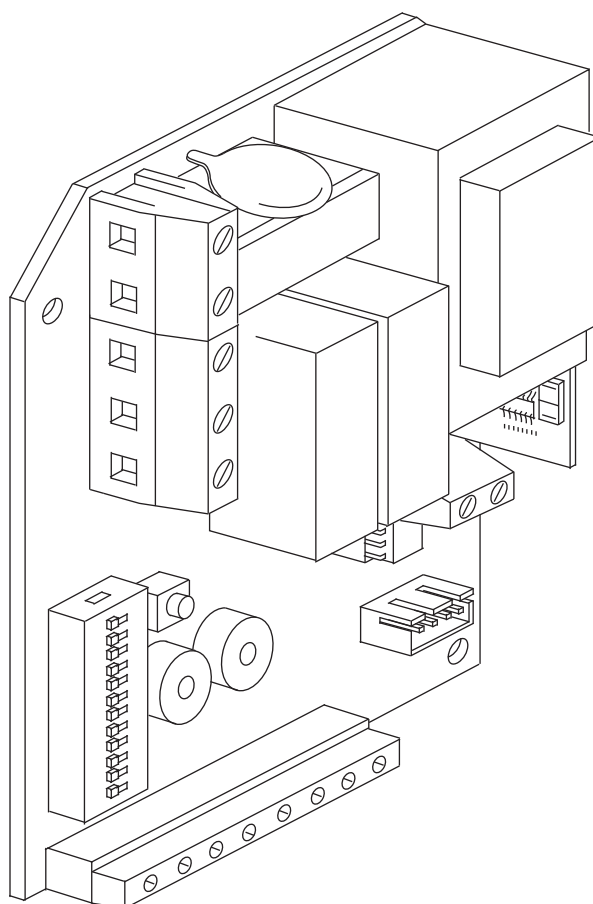


- I** QUADRO DI COMANDO
- GB** CONTROL UNIT
- F** UNITÉ DE COMMANDE
- D** STEUERZENTRALE
- E** CENTRAL DE MANDO
- P** CENTRAL DO MANDO



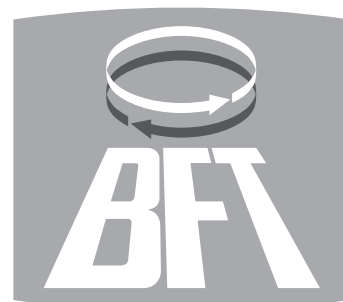
ELBA



ISTRUZIONI D'USO E DI INSTALLAZIONE
INSTALLATION AND USER'S MANUAL
INSTRUCTIONS D'UTILISATION ET D'INSTALLATION
INSTALLATIONS-UND GEBRAUCHSANLEITUNG
INSTRUCCIONES DE USO Y DE INSTALACION
INSTRUÇÕES DE USO E DE INSTALAÇÃO



AZIENDA CON SISTEMA DI GESTIONE
INTEGRATO CERTIFICATO DA DNV
= UNI EN ISO 9001:2000 =
UNI EN ISO 14001:2004



Thank you for buying this product, our company is sure that you will be more than satisfied with the performance of the product.

Read the **"Instruction Manual"** supplied with this product carefully, as it provides important information about safety, installation, operation and maintenance. This product complies with recognised technical standards and safety regulations. We declare that this product is in conformity with the following European Directives: 2004/108/EEC (amended by RL 91/263/EEC, 92/31/EEC and 93/68/EEC), 2006/95/EEC, 99/5/EEC.

1) GENERAL OUTLINE

Elba is a control unit for motors having maximum power of 470 W (e.g. tubular motors for roller shutters and sunshades, roll-up door openers etc.), compatible with the EElink protocol.

It is provided with the connections for opening (or start), closing and stop control buttons, for accessories such as the twilight sensor, anemometer and, when requested, safety devices.

When the key is pressed, a START command is generated.

The commands can also be sent via radio through; the transmitters can directly be memorised by means of the key and the LED present on the board or by means of the radio self-learning method or using the cloning mechanism.

If the control unit allows it, set up a centralised control system via wire, which can be divided into 8 or more zones, without having to interfere with the wiring.

2) GENERAL SAFETY

WARNING! An incorrect installation or improper use of the product can cause damage to persons, animals or things.

- The **"Warnings"** leaflet and **"Instruction booklet"** supplied with this product should be read carefully as they provide important information about safety, installation, use and maintenance.
- Scrap packing materials (plastic, cardboard, polystyrene etc) according to the provisions set out by current standards. Keep nylon or polystyrene bags out of children's reach.
- Keep the instructions together with the technical brochure for future reference.
- This product was exclusively designed and manufactured for the use specified in the present documentation. Any other use not specified in this documentation could damage the product and be dangerous.
- The Company declines all responsibility for any consequences resulting from improper use of the product, or use which is different from that expected and specified in the present documentation.
- Do not install the product in explosive atmosphere.
- The Company declines all responsibility for any consequences resulting from failure to observe Good Technical Practice when constructing closing structures (door, gates etc.), as well as from any deformation which might occur during use.
- The installation must comply with the provisions set out by the following European Directives: 2004/108/EEC, 2006/95/EEC, 98/37/ECC and subsequent amendments.
- Disconnect the electrical power supply before carrying out any work on the installation. Also disconnect any buffer batteries, if fitted.
- Fit an omnipolar or magnetothermal switch on the mains power supply, having a contact opening distance equal to or greater than 3 mm.
- Check that a differential switch with a 0.03A threshold is fitted just before the power supply mains.
- Check that earthing is carried out correctly: connect all metal parts for closure (doors, gates etc.) and all system components provided with an earth terminal.
- The Company declines all responsibility with respect to the automation safety and correct operation when other manufacturers' components are used.
- Only use original parts for any maintenance or repair operation.
- Do not modify the automation components, unless explicitly authorised by the company.
- Instruct the product user about the control systems provided and the manual opening operation in case of emergency.
- Do not allow persons or children to remain in the automation operation area.
- Keep radio control or other control devices out of children's reach, in order to avoid unintentional automation activation.
- The user must avoid any attempt to carry out work or repair on the automation system, and always request the assistance of qualified personnel.
- Anything which is not expressly provided for in the present instructions, is not allowed.
- This application is not meant for use by people (children included) with impaired mental, physical or sensory capacities, or people who do not have suitable knowledge, unless they are supervised or have been instructed by people who are responsible for their safety.

3) TECHNICAL SPECIFICATIONS

Mains power supply:.....230V~ ±10%, 50Hz*
 Motor current: 2A
 Motor power:..... 470W
 Number of storable radio-controls:63
 Reception frequency:..... 433.92MHz
 Current for external attachments:..... 70mA
 Maximum Number of zones with wire control (master)::8 o 127
 Max. connection length:.....250m
 Weight:350g approx
 (* other voltages available on request).

4) WIRING

WARNING! For connection to the mains, use a multipolar cable having a minimum cross section of 3x1.5 mm² and complying with the current standards. (For example, if the cable is not protected, it must be at least equal to H07 RN-F, whereas if it is protected it must be at least equal to H07 VV-F with a 3x1.5 sq mm² cross section).

WARNING: Wiring must be carried out by qualified, expert personnel in a professional manner and in accordance with all regulations in force, using appropriate materials.

A disconnecting switch must be installed upline from the system with a contact separation of at least 3 mm and offering a thermal-magnetic and differential protection capacity that is adequate for the equipment's power demand. For wiring, use only cables that meet harmonized or national standards and have a cross-section coordinated with the safety devices upline, with the equipment's power demand and with installation conditions.

When running cables to the motor assembly for connection of accessories, safety devices and controlgear, keep mains power wiring well separated from low-voltage accessory wiring. **To ensure there are no breaks in the earth circuit, connect the actuator's earth wire to the earth wire of the power supply using the relevant terminal provided.**

Serial line connections to produce a hardwired centralized control system must be made using only twisted pair cabling of the kind used for telephone systems. When using a telephone cable with more than one pair, it is essential to use wires from the same pair.

The length of the telephone cable between one unit and the next must not be greater than 250 m.

Control buttons must have markings to show the actual direction of movement. In the event you are connecting devices to the STOP and PHOTOCCELL terminals, **you will need to remove the factory-connected jumpers. If several devices are to be connected to one of these inputs, they must be connected in series with each other.**

TERMINAL	DESCRIPTION
1-2	Single-phase mains power (1=N, 2=L)
3-4-5	Motor connection: 3 start 1 + capacitor 4 common 5 start 2 + capacitor
6-7	OPEN/START INPUT (N.O.)
6-8	CLOSE INPUT (N.O.)
6-9	STOP/WIND SENSOR INPUT A STOP control can be connected to this input, or a wind sensor can be connected to provide automatic closing when wind speed reaches a settable threshold. The setting is made by adjusting DIP switches n° 1 and 2.
6-10	PHOT INPUT (N.C.) The safety device operates locally only.
6-11	TWILIGHT SWITCH INPUT (N.O.) Atwilight switch can be connected to this input to provide automatic opening and closing as environmental light conditions change. When the contact closes, a close command is sent to the actuator; when the contact opens again, the actuator is made to open.
12-13	24V~ max. 70mA output - power supply to photocells or other devices.
14-15	Antenna input for built-in radio-receiver board (14: SIGNAL. 15: BRAIDING)

5) ADJUSTING PARAMETERS AND OPERATING LOGIC

5.1) ADJUSTING OPERATING TIME AND AUTOMATIC CLOSING TIME

TW trimmer (fig. 1): operating time adjustable from a minimum of 10 sec. to a maximum of 240 sec..

TCA trimmer (fig. 1): automatic closing time adjustable from a minimum of 3 sec. to a maximum of 180 sec..

Automatic closing can also be disabled by setting the trimmer to its lowest setting.

The TCA countdown starts when the operating time ends.

5.2) ADJUSTING OPERATING LOGIC

The board features 12 DIP switches for adjusting operating logic:

DIP 1: DIP 2:	STOP/WIND input setting			
	DIP 1	DIP 2	TERMINAL	THRESHOLD
	OFF	OFF	STOP input (default)	-
	ON	OFF	Anemometer input	20 Km/h (5,6 m/s)
	OFF	ON	Anemometer input	40 Km/h (11,2 m/s)
	ON	ON	Anemometer input	60 Km/h (16,8 m/s)
DIP 3:	OPEN/START input setting [OFF] ON: Input between terminals 6-7 works as START OFF: Input between terminals 6-7 works as OPEN			
DIP 4:	Open/closed loop logic [OFF] ON: closed loop OFF: open loop			
DIP 5:	Master/slave logic [OFF] ON: Control panel is set up as the Master unit in a centralized connection system. OFF: Control panel is set up as a SLAVE unit in a centralized connection system.			
DIP 6:	Zone programming [OFF] ON: Control panel is in Zone setting mode OFF: Control panel is in normal operating mode			
DIP 7:	Deadman [OFF] ON: Deadman mode: operation continues as long as the control key is held down. (OPEN-CLOSE). Input between terminals 6-7 works as OPEN (regardless of position of DIP 3). Input between terminals 6-9 works as STOP (regardless of position of DIP 1 and 2). NEITHER A WIND SENSOR NOR TWILIGHT SWITCH CAN BE CONNECTED. OFF:Pulse operation, according to 2- or 4-step logic.			
DIP 8:	Photocell off during opening [OFF] ON: when beam is broken, operation of the photocell is switched off during opening. During closing, movement is reversed immediately. OFF:when beam is broken, photocells are active during both opening and closing. When beam is broken during closing, movement is reversed only once the photocell is cleared.			
DIP 9:	2-step logic on [OFF] ON: Switches to 2-step logic. A start pulse has the following effects: door closed:.....opens during opening:.....stops and closes again door open:.....closes during closing:.....stops and opens again OFF: Switches to 4-step logic. A start pulse has the following effects: door closed:.....opens during opening:.....stops and switches on TCA (if configured) door open:.....closes during closing:.....stops and does not switch on tca (stop) after stop:.....opens			
DIP 10:	Transmitter management [OFF] ON: Control panel is in transmitter management mode (memorizing/deletion of remote controls) OFF:Control panel is in normal operating mode			
DIP 11:	Wireless self-learning on [OFF] ON: Enables wireless memorizing of transmitters: 1-Press in sequence the hidden key and normal key (T1-T2-T3-T4) of a transmitter that has already been memorized. 2-Press within 10 sec. the hidden key and normal key (T1-T2-T3-T4) of a transmitter to be memorized. The receiver exits programming mode after 10 sec.: you can use this time to enter other new transmitters. This mode does not require access to the control panel. OFF:Disables wireless memorizing of transmitters.			

DIP 12:	Fixed-code receiver setting [OFF]
	ON: Receiver is configured for operation in fixed-code mode. OFF:Receiver is configured for operation in rolling-code mode.

5.3) ZONE SETTING (Fig. 3)

When you set DIP switch n°6 to ON, you enter zone setting mode allowing you to set zones via the board. In this mode, you can assign a zone number from 0 to 7 to the device. Use a universal handheld programmer to set values in the range 8 to 127.

NOTE: if DIP switch n°10 is set to ON (transmitter management), this switch has priority over n°6, which means you will not be able to enter zone setting while wireless management is on.

While in this mode, the LED flashes as follows to show that the relevant zone has been set correctly:

- zone 0: the LED stays permanently lit;
- zone from 1 to 7: the LED blinks a number of times equal to the number of the zone set;
- zone from 8 to 127: the LED blinks rapidly and continually.

6) WIRELESS SETTINGS AND MANAGEMENT (Fig. 2)

Transmitters that can be used with the Elba panel can have 2 or 4 keys. There are two possible ways of associating keys with commands:

- free: any key can be associated with the START command;
- automatic: t1 = START, t2 = STOP, t3 = OPEN, t4 = CLOSE.

Each command can be valid for a zone or room depending on how the board has been set up (master/slave).

NOTE: While in wireless management mode, wireless commands are not executed: once you have finished, remember to set DIP switch n°10 to OFF.

6.1) TRANSMITTER PROGRAMMING ON START OUTPUT (Fig.2)

6.2) AUTOMATIC TRANSMITTER PROGRAMMING (Fig.2)

In the fixed key association, if key 1 is pressed in phase b), all the four keys are automatically associated to the respective functions, if another key is pressed (2, 3 or 4), only keys 2, 3 and 4 are automatically associated.

By appropriately memorising the transmitter keys on the various receivers, a centralised-type system can be obtained without having to connect the control panels via wire. For this purpose, use transmitters with 4 keys, and memorise all transmitters on all the system panels using key 2 and each of them on an individual panel using key 1; this way key 1 (START) will only control the operator where it has been memorised, whereas keys 2 (STOP), 3 (OPEN) and 4 (CLOSE) will act globally on all operators (fig. 5).

6.3) REMOTE TRANSMITTER PROGRAMMING (Fig.2)

6.4) DELETING LIST OF TRANSMITTERS (Fig.2)

6.5) FIXED-CODE RECEIVER

Using DIP switch n°12 you can set the management mode for transmitters that have been memorized in the receiver built into the ELBA panel:

- DIP 12 OFF: rolling-code mode (default setting).
- DIP 12 ON: fixed-code mode.

6.6) PROGRAMMING THE RECEIVER USING EELINK PROTOCOL

The receiver can also be programmed using the EELink protocol by connecting the universal handheld programmer via the UNIFLAT and UNIDA accessories as illustrated in fig. 6.

For receiver programming, refer to the programmer's instructions. A total of 63 remote controls can be memorized.

When it comes to output arrangement, the ELBA control panel acts as a 4-channel receiver in which outputs have the following functions, regardless of programmed operation:

- output 1: START (local command with 2- or 4-step logic);
- output 2: STOP (zone and local stop command);
- output 3: OPEN (zone and local open command);
- output 4: CLOSE (zone and local close command).

7) CENTRALIZED CONNECTION

The control panel's special serial inputs and outputs (SCS1) make the centralized connection of a number of automated devices possible. That way, all the automated devices connected can be opened or closed with a single command. Connect all control panels using twisted pair cabling only, proceeding as shown in the diagram in Fig.4.

When using a telephone cable with more than one pair, it is essential to use wires from the same pair.

The length of the telephone cable between one unit and the next must not be greater than 250 m.

At this point, each control panel needs to be configured appropriately, starting by entering a MASTER control panel that will have control over all the others, which therefore have to be set as SLAVE units (DIP 5).

Also set the Zone number (DIP 6) in the range 0 to 127 (range 9 to 127 with programmer).

A centralized system can be produced either with an open loop or closed loop (DIP 4):

open loop: the connections marked with dotted lines in Fig.4 are not made. When connecting, the MASTER unit must be the first in the series.

Closed loop: the connections marked with dotted lines in Fig.4 are made. When connecting, the MASTER unit can be in any position.

8) STATISTICS

By connecting a programmer that is compatible with the EELink protocol, you can read a number of statistical parameters relating to the system, such as:

Board version: gives the name and version of the board connected.

List description: gives the description assigned to the system. This description can be entered or edited via the universal handheld programmer.

Number of operations: gives the number of operations that the panel has performed since its installation.

Number of operations since service: gives the number of operations performed since the last service, where service means any board configuration operation, including self-diagnosis.

Service date: gives the date of the last service.

Update service: can be used to update the number of operations since the last service.

9) SELF-DIAGNOSIS

The panel features a LED that, during the automation system's normal operation, flashes on and off quickly once a second to indicate that it is being powered and that no programming modes are active.

If the LED stays unlit, check mains power and make sure DIP switch n°10 is not set to ON (wireless management on).

If the LED stays steadily lit, or flashes on and off a number of times followed by a pause lasting approx. 1 sec., or flashes quickly and continuously, make sure DIP switch n°6 is not set to ON (zone programming mode).

In addition to the warnings provided by the LED, the ELBA panel can be used to run the self-diagnosis functions provided for by the EELink protocol.

When you run self-diagnosis with the aid of the universal handheld programmer, you get a diagnostic message telling you what inputs are active, i.e. in a state other than the normal standby state. Standby state is defined as the condition whereby no command signal is active and no safety device has been triggered.

NOTE: the twilight sensor input appears as the timer input.

10) MAINTENANCE AND DEMOLITION

The maintenance of the system should only be carried out by qualified personnel regularly. The materials making up the set and its packing must be disposed of according to the regulations in force.

Batteries must be properly disposed of.

The descriptions and illustrations contained in the present manual are not binding. The Company reserves the right to make any alterations deemed appropriate for the technical, manufacturing and commercial improvement of the product, while leaving the essential product features unchanged, at any time and without undertaking to update the present publication.

Fig. 1

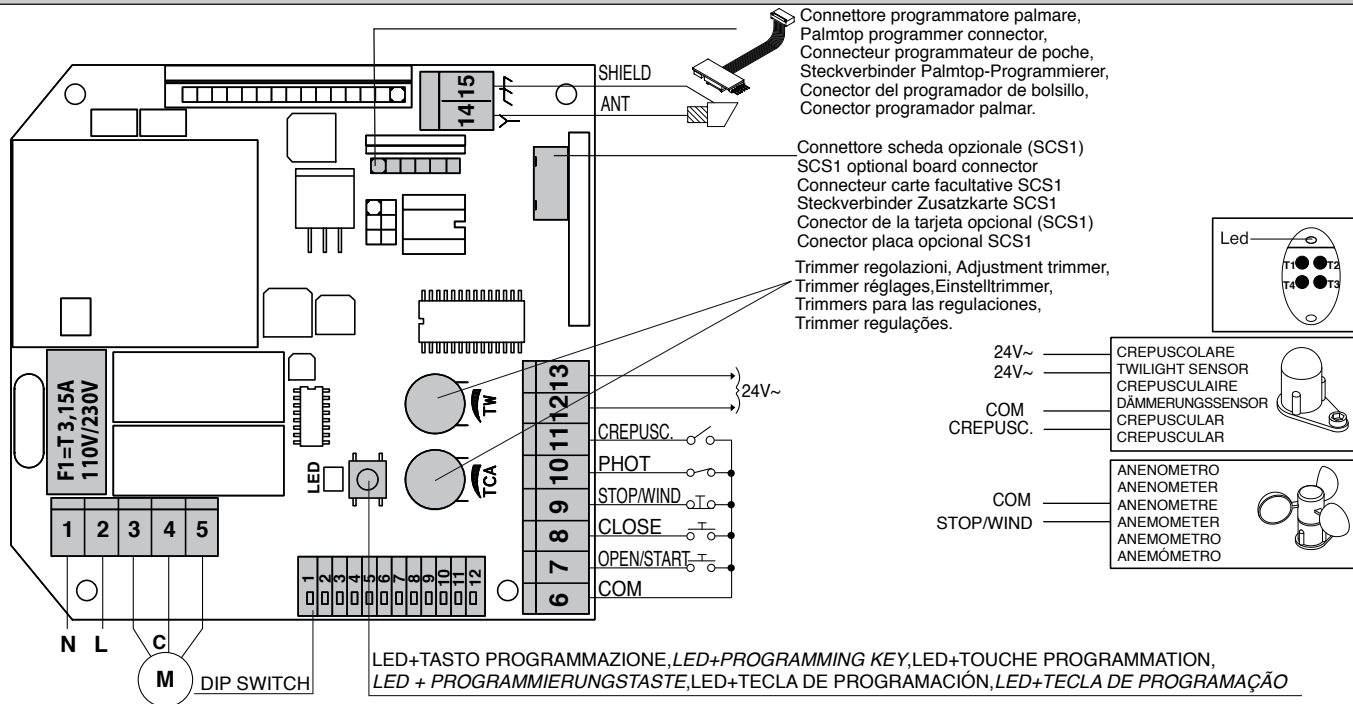
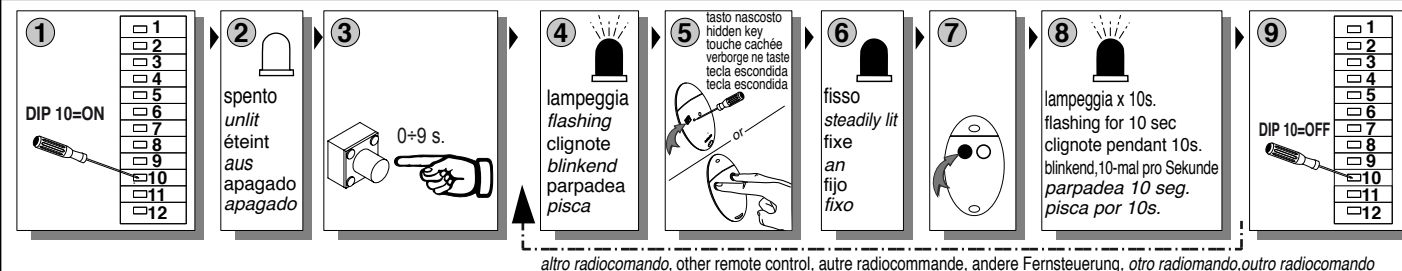
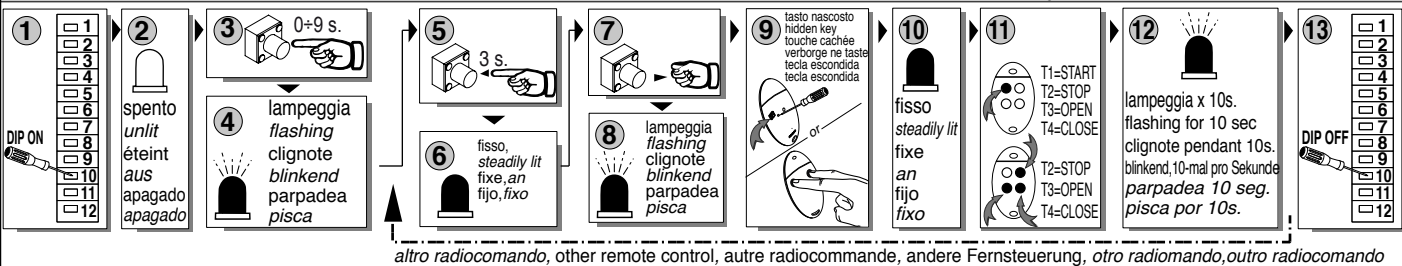


Fig. 2

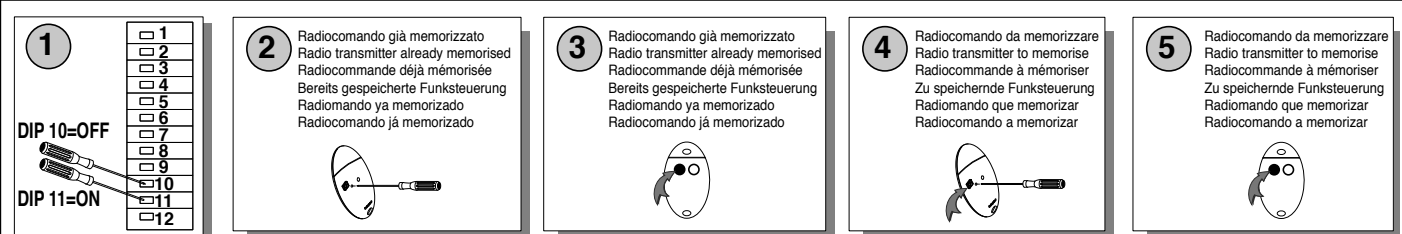
PROGRAMMAZIONE TRASMETTITORI SU START, TRANSMITTER PROGRAMMING ON START, PROGRAMMATION EMETTEURS SUR START, PROGRAMMIERUNG DER SENDER AUF START, PROGRAMACIÓN DE LOS TRANSMISORES CON START, PROGRAMAÇÃO DOS TRANSMISORES AO START



PROGRAMMAZIONE TRASMETTITORI AUTOMATICA, AUTOMATIC TRANSMITTER PROGRAMMING, PROGRAMMATION AUTOMATIQUE EMETTEURS, PROGRAMACION DE TRANSMISORES EN AUTOMATICA, AUTOMATISCHE PROGRAMMIERUNG DER SENDER, PROGRAMAÇÃO AUTOMÁTICA DOS TRANSMISORES.



PROGRAMMAZIONE TRASMETTITORI REMOTA, REMOTE TRANSMITTER PROGRAMMING, PROGRAMMATION ÉMETTEURS A DISTANCE, FERNPROGRAMMIERUNG DER SENDER, PROGRAMACION DE TRANSMISORES REMOTA, PROGRAMAÇÃO REMOTA DOS TRANSMISORES.



CANCELLAZIONE TRASMETTITORI, DELETING TRANSMITTERS, ANNULATION EMETTEURS, LÖSCHEN DER SENDER, CANCELACIÓN DE LOS TRANSMISORES, ANULAÇÃO DOS TRANSMISORES.

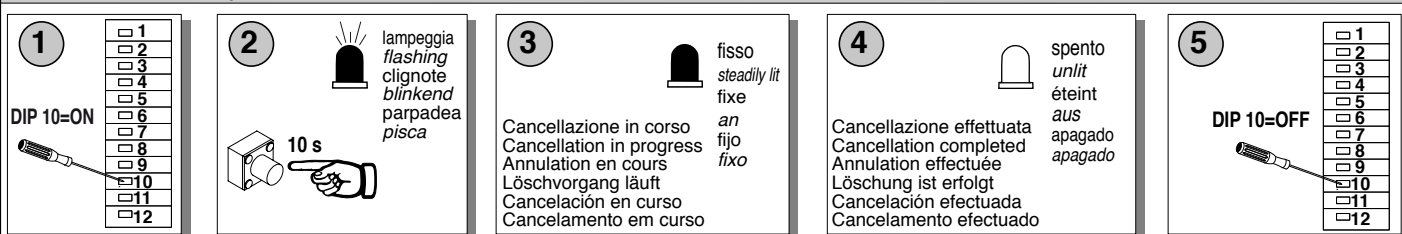


Fig.3

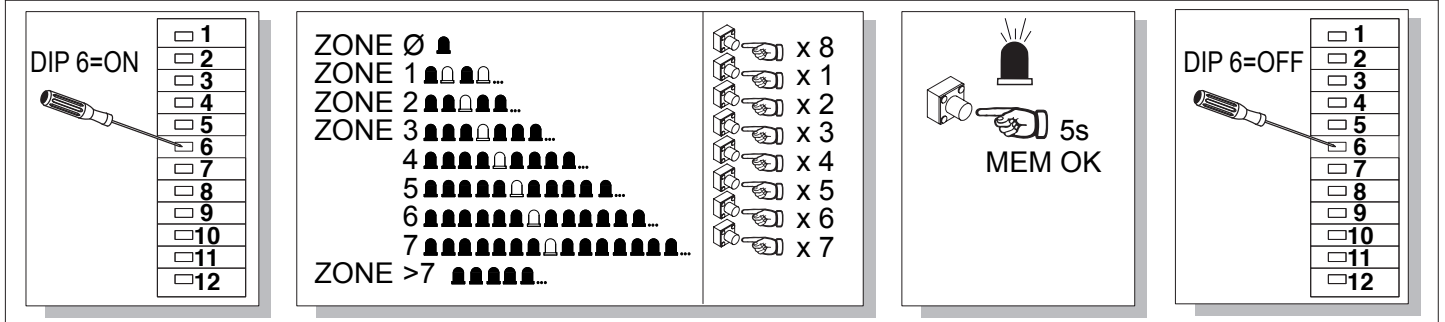


Fig.4

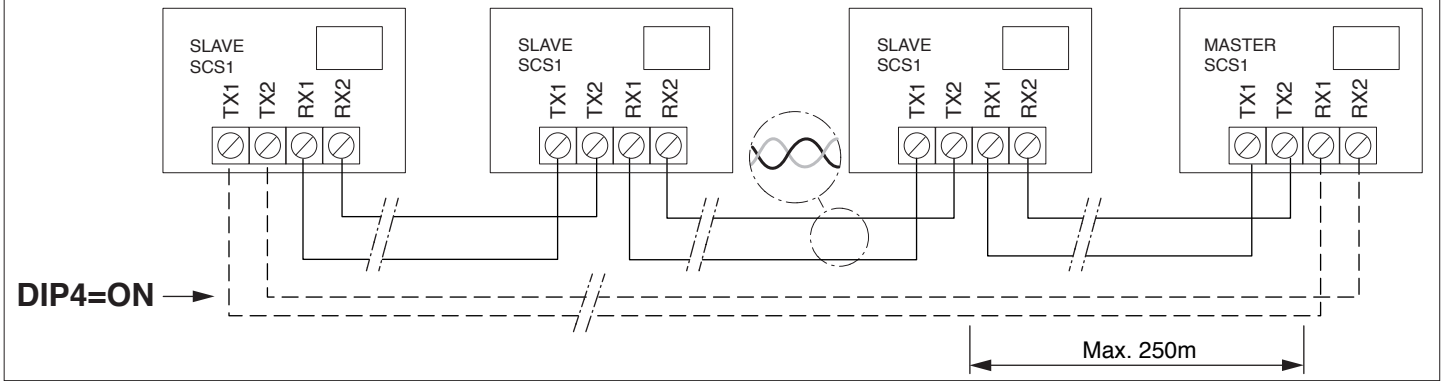


Fig.5

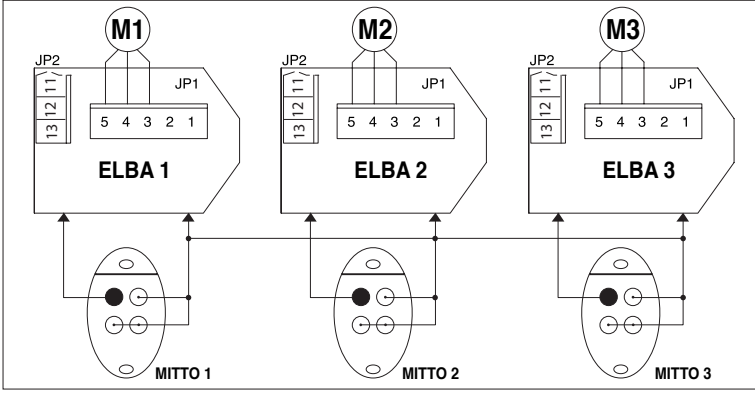
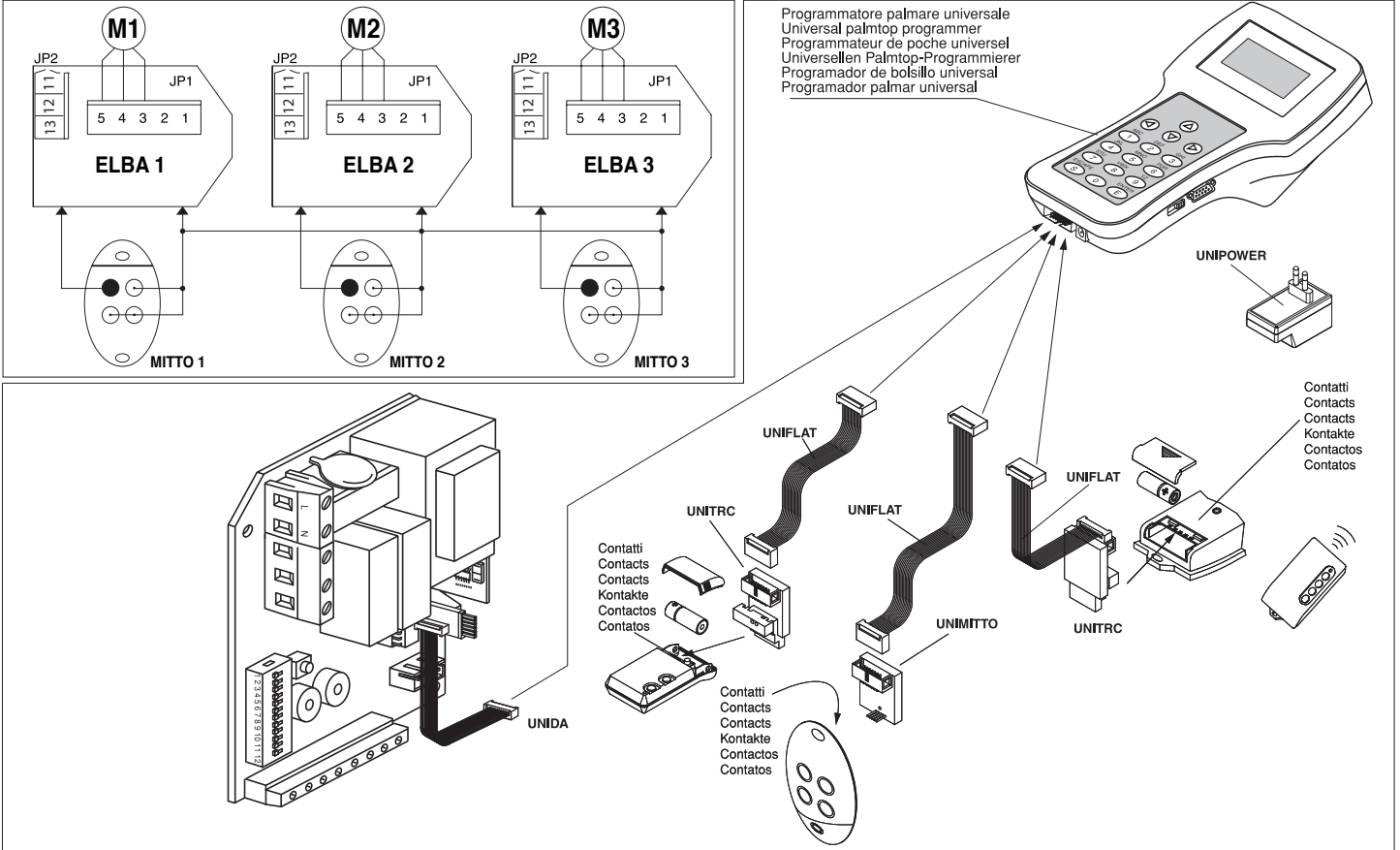


Fig.6



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