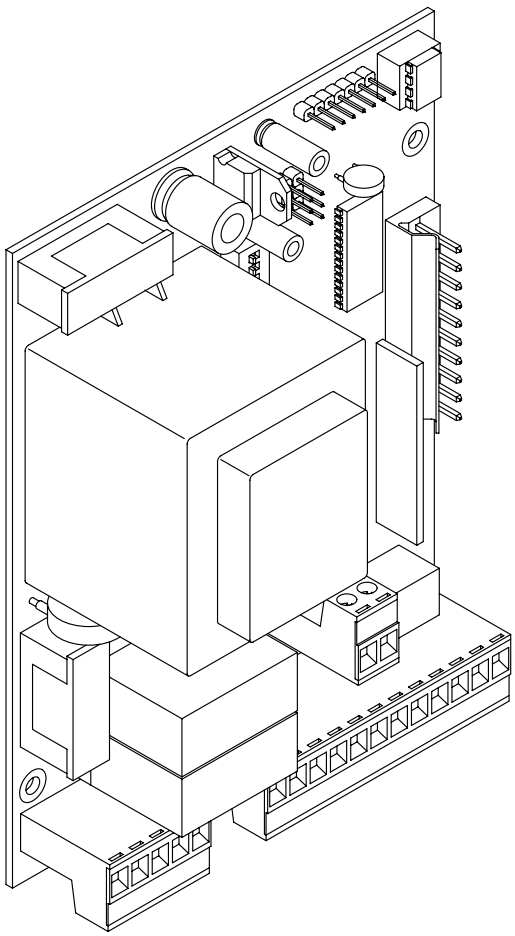
GB CONTROL PANEL

ALPHA - ALPHA BOM



INSTALLATION AND USER'S MANUAL

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

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DICHIARAZIONE DI CONFORMITÀ / DECLARATION OF CONFORMITY / DÉCLARATION DE CONFORMITÉ KONFORMITÄTSERKLÄRUNG / DECLARACION DE CONFORMIDAD / DECLARAÇÃO DE CONFORMIDADE

Fabbricante / Manufacturer / Fabricant / Hersteller / Fabricante / Fabricante: BFT S.p.a.

Indirizzo / Address / Adresse / Adresse / Dirección / Endereço: Via Lago di Vico 44
36015 - Schio
VICENZA - ITALY

- Dichiara sotto la propria responsabilità che il prodotto: / Declares under its own responsibility that the following product: /Déclare sous sa propre responsabilité que le produit: / Erklärt auf eigene Verantwortung, daß das Produkt: /Declara, bajo su propia responsabilidad, que el producto: / Declara, sob a sua responsabilidade, que o produto:

Centralina di comando mod./ Control unit mod./ Unité de commande mod./ Steuerzentrale mod./ Central de mando mod./ Central do mando mod./

ALPHA , ALPHA BOM

- È conforme ai requisiti essenziali di sicurezza delle Direttive: / It complies with the main safety requirements of the following Directives: / Est conforme aux exigences essentielles de sécurité des Directives: / Es entspricht den grundlegenden Sicherheitsbedingungen der Direktiven: / Es conforme a los requisitos esenciales de seguridad de las Directivas: / Está conforme aos requisitos essenciais de segurança das Directivas:

BASSA TENSIONE / LOW VOLTAGE / BASSE TENSION / NIEDERSPANNUNG / BAJA TENSION / BAIXA TENSÃO 73/23/CEE, 93/68/CEE (EN60335-1 ('03)) (e modifiche successive / and subsequent amendments / et modifications successives / und ihren nachfolgende Änderungen / e modificações sucessivas / y modificaciones sucesivas).
COMPATIBILITÀ ELETTROMAGNETICA / ELECROMAGNETIC COMPATIBILITY / COMPATIBILITÉ ÉLECTROMAGNÉTIQUE / ELEKTROMAGNETISCHE KOMPATIBILITÄT / COMPATIBILIDAD ELECTROMAGNETICA / COMPATIBILIDADE ELECTROMAGNÉTICA 89/336/CEE, 91/263/CEE, 92/31/CEE, 93/68/CEE (EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4, EN55014-1, EN55014-2) (e modifiche successive / and subsequent amendments / et modifications successives / und ihren nachfolgende Änderungen / e modificações sucessivas / y modificaciones sucesivas).
APPARECCHIATURE RADIO / RADIO SETS / INSTALLATIONS RADIO / RADIOAPPARATE / RADIOEQUIPOS / RADIOAPARELHOS 99/5/CEE (ETSI EN 301 489-3 (2000) +ETSI EN 301 489-1 (2000), ETSI EN 300 220-3 (2000), EN60950) (e modifiche successive / and subsequent amendments / et modifications successives / und ihren nachfolgende Änderungen / e modificações sucessivas / y modificaciones sucesivas).

SCHIO, 20/06/2005

Il Rappresentante Legale / The legal Representative
Le Représentant Légal / Der gesetzliche Vertreter
El Representante Legal / O Representante legal

(GIANCARLO BONOLLO)

Thank you for buying this product, our company is sure that you will be more than satisfied with the product's performance. The product is supplied with a " Warnings " leaflet and an " Instruction booklet ". These should both be read carefully as they provide important information about safety, installation, operation and maintenance. This product complies with the recognised technical standards and safety regulations. We declare that it is in conformity with the following European Directives: 89/336/EEC, 73/23/EEC and subsequent amendments.

1) GENERAL OUTLINE

The ALPHA-ALPHA BOM mod. control units have been designed to control one single operator.

2) SCRAPPING

Warning: This operation should only be carried out by qualified personnel. Materials must be disposed of in conformity with the current regulations. In case of scrapping, the automation devices do not entail any particular risks or danger. In case of materials to be recycled, these should be sorted out by type (electrical components, copper, aluminium, plastic etc.).

3) DISMANTLING

Warning: This operation should only be carried out by qualified personnel. When the control unit is disassembled to be reassembled on another site , proceed as follows:

- Disconnect the power supply and the entire electrical installation.
- In the case where some of the components cannot be removed or are damaged, they must be replaced.

4) WARNING

- Make sure that an omnipolar or magnetothermal switch, having a contact opening distance equal to or greater than 3,5 mm, is fitted to the automation power supply mains.
- Make sure that a differential switch with a 0.03A threshold is fitted before the power supply mains.
- Make sure that all safety devices installed on the gate are always in working order; otherwise, disconnect the power supply, release the motors and immediately request assistance from qualified personnel.
- Do not allow persons or children to remain within 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.

Correct controller operation is only ensured when the data contained in the present manual are observed. The company is not to be held responsible for any damage resulting from failure to observe the installation standards and the instructions contained in the present manual.

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.

Thank you for buying this product, our company is sure that you will be more than satisfied with its performance.
This product is supplied with an "Instruction Manual" which should be read 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 it is in conformity with the following European Directives: 89/336/EEC, 73/23/EEC and subsequent amendments.

1) 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 construction components of this product must comply with the following European Directives: 89/336/CEE, 73/23/EEC, 98/37/EEC and subsequent amendments. As for all non-EEC countries, the above-mentioned standards as well as the current national standards should be respected in order to achieve a good safety level.
- 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: 89/336/CEE, 73/23/EEC, 98/37/EEC 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 3,5 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.
- Fit all the safety devices (photocells, electric edges etc.) which are needed to protect the area from any danger caused by squashing, conveying and shearing.
- Position at least one luminous signal indication device (blinker) where it can be easily seen, and fix a Warning sign to the structure.
- 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.
- Installation must be carried out using the safety devices and controls prescribed by the EN 12978 Standard.

2) GENERAL OUTLINE

The ALPHA-ALPHA BOM mod. control units have been designed to control one single operator.

3) TECHNICAL DATA

Power supply: ..... 230V±10%, 50Hz(*)
Mains insulation/very low voltage: .....> 4MΩ, 500V⎓
Working temperature: ..... -10 / +55°C
Max. motor power absorbed: 500W
Dielectric strength:.... .....mains/low voltage 3750V~for 1 minute
Gate-open warning light: .....24V~, 3W max
Supply to accessories:..... 24V~, (0.2A max absorption)
Incorporated Rolling-Code radio receiver:.. Frequency 433.92MHz
Coding: .....Rolling-Code Algorithm to be cloned
No. combinations: ..... 4 milliard
Antenna impedance:..... 50Ohm (RG58)
Max no. radio transmitters to be memorised:..... 63
Dimensions:.....see figure 1
(* other voltages available on request)

4) TERMINAL BOARD CONNECTIONS (Fig.2)

For the electric diagram and the cross section of the cables refer to the manual of the actuator.
WARNING – During the wiring and installation operations, refer to the current standards as well as principles of good technical practice.
Wires powered at different voltages must be physically separated, or suitably insulated with at least 1 mm extra insulation. The wires must be clamped by an extra fastener near the terminals, for example by bands.
All the connection cables must be kept at an adequate distance from the dissipator.
Connect the yellow/green conductor of the power supply cable to the earth terminal.
230V cables must be physically separate from the safety very low voltage circuits.
Keep the mains voltage connections definitely separate from the (24V) very low voltage connections.
The capacitors inside the control unit must be positioned in such a way as not to decrease the surface and air distances with respect to the safety very low voltage.

WARNING! For connection to the mains, use a multipolar cable with a minimum of 3x1.5mm² cross section and complying with the previously mentioned regulations. For example, if the cable is out side (in the open), it has to be at least equal to H07RN-F, but if it is on the inside (or outside but placed in a plastic cable cannel) it has to be or at least egual to H05VV-F with section 3x1.5mm².

JP1

1-2 Power supply 230V +/- 10% 50/60 Hz (Neutral to terminal 1).
3-4-5 Connection to motor M (terminal 4 common, terminals 3-5 motor and capacitor drive).
1-4 Connection to blinker and electric lock 230V mod. EBP.

JP2

7-8 *Alpha:* START or key selector input (N.O.)
Alpha BOM:
START or key selector input (N.O.) with trimmer TW=max.
OPEN input (N.O.) with trimmer TW=min.
7-9 STOP pushbutton (N.C.). If not used, leave the bridge connected.
7-10 Photocell input or pneumatic edge (N.C.). If not used, leave the bridge connected.
7-11 Opening limit switch (N.C.). If not used, leave the bridge connected.

7-12 Closing limit switch (N.C.). If not used, leave the bridge connected.
13-14 Output 24V~supply to photocells or other devices.
15-16 Output for gate-open warning light outputor alternatively 2nd radio channel.
17-18 Antenna input for radio-receiver plug-in board (17 signal-18 braid).

JP3

19-20 *Alpha:* PEDESTRIAN input (N.O.)
Alpha BOM: PEDESTRIAN input (N.O.) with trimmer TW=max.
CLOSE input (N.O.) with trimmer TW=min.

WARNING: the pedestrian function can be used provided that limit switches are fitted.

JP4 Radio-receiver board connector, 1-2 channels.
Fig.7 shows a general wiring diagram.

5) LED (Fig.3)
The ALPHA-ALPHA BOM control units are provided with a series of self-diagnosis LEDs which control all the functions.
DL1:Incorporated radio receiver LED
DL2:*Alpha:* comes on with the START command
Alpha BOM:
START (trimmer TW=max)-comes on with the START command
OPEN (trimmer TW=min)-comes on with the OPEN command
DL3:STOP - goes off when a STOP command is given.
DL4:PHOT - Photocell - goes off when the photocells are not aligned or in the presence of obstacles.
DL5:SWO - Goes off when the opening limit switch is operated.
DL6:SWC - Goes off when the closing limit switch is operated.

6) DIP-SWITCH SELECTION (Fig.3)
DIP1)
TCA [ON] - Automatic closing time TCA.
ON: Activates automatic closing
OFF: Excludes automatic closing
DIP2)
FCH [ON] - Photocells.
ON: Photocells are only active in the closing phase.
OFF: Photocells are active both in the closing and opening phase.
DIP3)
BLI - Blocks impulses.
ON: START commands are not accepted during the opening phase.
OFF: START commands are accepted during the opening phase.
DIP4)
3P/4P - 3 Steps/4 Steps
ON: Enables 3-step logic.
OFF: Enables 4-step logic.
DIP5)
CODE FIX – Fixed code.
ON: Activates incorporated receiver in fixed code mode.
OFF: Activates incorporated receiver in rolling-code mode.
DIP6)
RADIO LEARN - Radio transmitter programming
ON: This enables transmitter storage via radio:
1 – First press the hidden key (P1) and then the normal key (T1, T2, T3 or T4) of a transmitter already memorised in standard mode by means of the radio menu.
2 – Within 10s press the hidden key (P1) and the normal key (T1, T2, T3 or T4) of a transmitter to be memorised.
The receiver exits the programming mode after 10s, other new transmitters can be entered before the end of this time.
This mode does not require access to the control panel.
OFF: This disables transmitter storage via radio. The transmitters are only memorised by means of manual programming.
DIP7)
SCA – Gate-open warning light or 2nd radio channel.
OFF: Activates relay output in Gate-open warning light mode.
ON: Activates relay output as 2nd radio channel.
DIP8)
FAST CLOSE
ON: Closes the gate after photocell disengagement, before waiting for the end of the TCA set.
OFF: Command not entered.

7) TRIMMER ADJUSTMENT (Fig.3)
TCA (Dip1 ON).
It is used to set the automatic closing time, after which the gate closes automatically (adjustable from 0 to 90 s.).
TW
Alpha: Sets the motor working time (from 0 to 90s), after which the motors stop.
In the case where electrical limit switches are used, add a few extra seconds after the gate leaf stopping time.
Alpha BOM: Working time is fixed to 10s.
trimmer TW = min: inputs 7-8 and 19-20 are considered as OPEN and CLOSE inputs respectively.
trimmer TW = max: inputs 7-8 and 19-20 are considered as START and PEDESTRIAN inputs respectively.

8) INTEGRATED RECEIVER TECHNICAL SPECIFICATION
Receiver output channels:
- output channel 1, if activated, controls a START command
- output channel 2, if activated, controls the excitation of the 2nd radio channel relay for 1s.

Transmitter versions which can be used:
all Rolling Code transmitters compatible with .

ANTENNA INSTALLATION
Use an antenna tuned to 433MHz.
For Antenna-Receiver connection, use RG8 coaxial cable.
The presence of metallic masses next to the antenna can interfere with radio reception. In case of insufficient transmitter range, move the antenna to a more suitable position.

9) PROGRAMMING
Transmitter storage can be carried out in manual mode, or by means of the Universal palmtop programmer which allows you to create installations in the “collective receivers” mode, as well as manage the complete installation database using the EEdbase software.

10) MANUAL PROGRAMMING
In the case of standard installations where no advanced functions are required, it is possible to proceed to manual storage of the transmitters
1) If you wish the transmitter T key to be memorised as Start, press thSW1 button on the control unit, otherwise if you wish the transmitter key to be memorise as second radio channel, press the SW2 button on the control unit.
2) When the DL1 LED blinks, press the transmitter P1 hidden key, and the DL1 LED will stay on permanently.
3) Press the key to be memorised on the transmitter, LED DL1 will start blinking again.
4) To memorise another transmitter, repeat steps 2) and 3).
5) To exit the storage mode, wait until the LED is switched off completely.

IMPORTANT NOTE: ATTACH THE ADHESIVE KEY LABEL TO THE FIRST MEMORISED TRANSMITTER (MASTER).
In the case of manual programming, the first transmitter assigns the key code to the receiver; this code is necessary in order to carry out subsequent cloning of the radio transmitters.

10.1) CONTROL UNIT MEMORY CANCELLATION
In order to cancel the control unit memory completely, simultaneously press for 10 seconds the SW1 and SW2 buttons on the control unit (DL1 LED blinking). Correct memory cancellation will be indicated by the DL1 LED staying on permanently. To exit the storage mode, wait until the LED is switched off completely.

11) RECEIVER CONFIGURATION

The on-board receiver combines characteristics of utmost safety in copying variable code (rolling code) coding with the convenience of carrying out transmitter "cloning" operations thanks to an exclusive system.
Cloning a transmitter means creating a transmitter which can be automatically included within the list of the transmitters memorised in the receiver, either as an addition or as a replacement of a particular transmitter.
Cloning by replacement is used to create a new transmitter which takes the place of the one previously memorised in the receiver; in this way a specific transmitter can be removed from the memory and will no longer be usable.
Therefore it will be possible to remotely program a large number of additional transmitters or, for example, replacement transmitters for those which have been lost, without making changes directly to the receiver.
When coding safety is not a decisive factor, the on-board receiver allows you to carry out fixed-code additional cloning which, although abandoning the variable code, provides a high number of coding combinations, therefore keeping it possible to "copy" any transmitter which has already been programmed .

12) RADIO-TRANSMITTER CLONING (Fig.7)

Rolling-code cloning / Fixed-code cloning
Make reference to the universal palmtop programmer instructions and the CLONIX Programming Guide.

12.1) ADVANCED PROGRAMMING: COLLECTIVE RECEIVERS

Make reference to the universal palmtop programmer Instructions and the CLONIX Programming Guide.

13) ACCESSORIES

SPL (fig.4).
Pre-heating optional board. Recommended for temperatures below -10°C. (In the case of hydraulic motors).
ME (fig.5).
Optional board used to connect a 12V~ electric lock.
Note: the ME optional board is not operated by the START control of the integrated radio board. For the correct functioning of the ME optional board use one of the following configurations:
1. use the second radio channel as START control and perform the necessary connections to the terminal board.
2. use the plug-in radio receiver.

EBP (fig.2).
The EBP electric lock with continuous service can be connected directly to terminals 1 and 4.

14) SCRAPPING

Warning: This operation should only be carried out by qualified personnel. Materials must be disposed of in conformity with the current regulations. In case of scrapping, the automation devices do not entail any particular risks or danger. In case of materials to be recycled, these should be sorted out by type (electrical components, copper, aluminium, plastic etc.).

15) DISMANTLING

Warning: This operation should only be carried out by qualified personnel. When the control unit is disassembled to be reassembled on another site, proceed as follows:
- Disconnect the power supply and the entire electrical installation.
- In the case where some of the components cannot be removed or are damaged, they must be replaced.

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

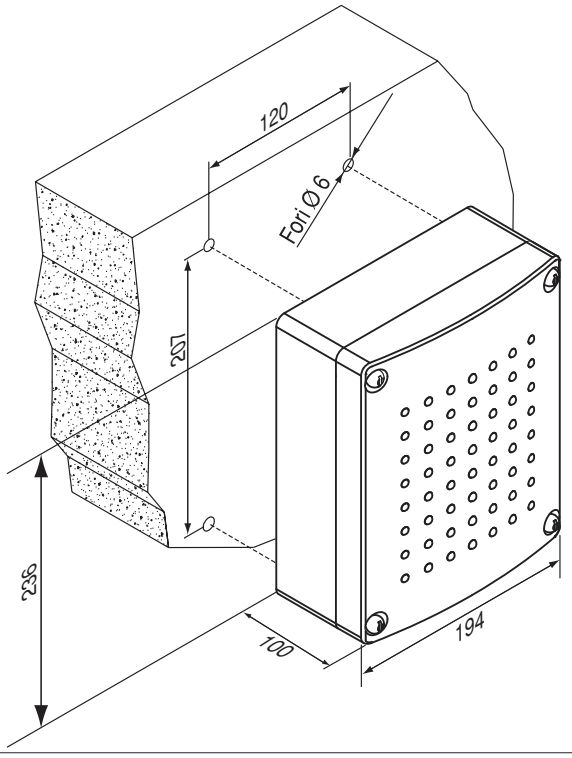


Fig. 2

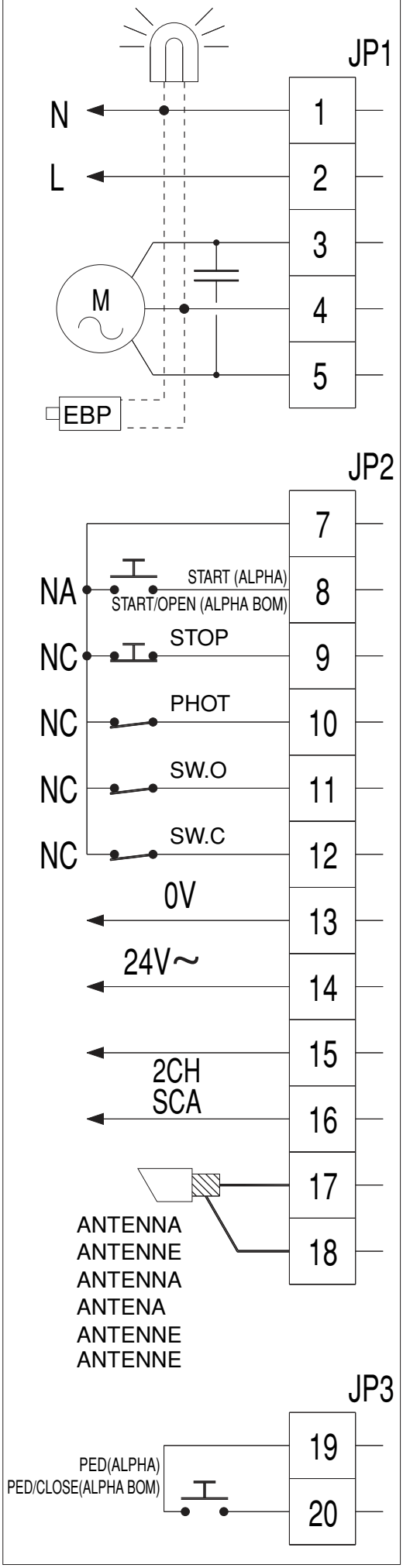


Fig. 3

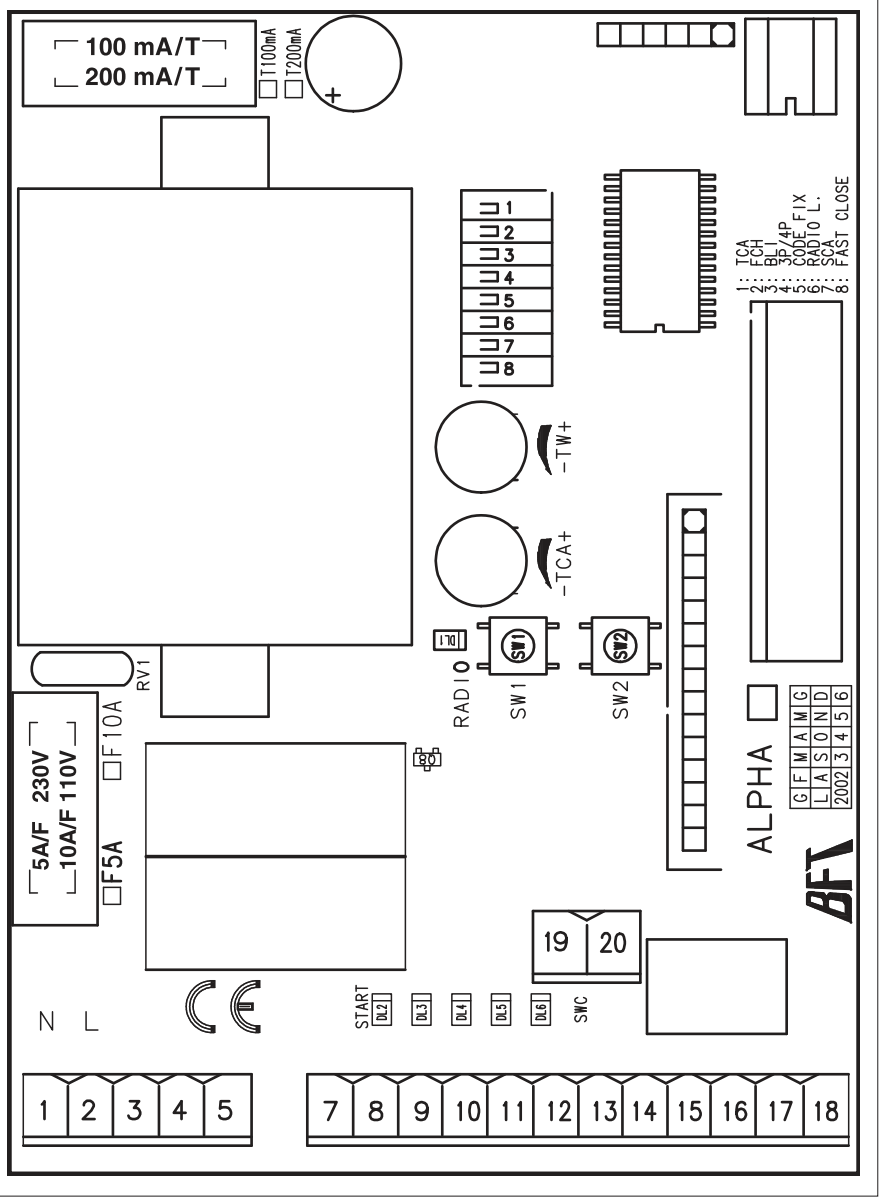


Fig. 4

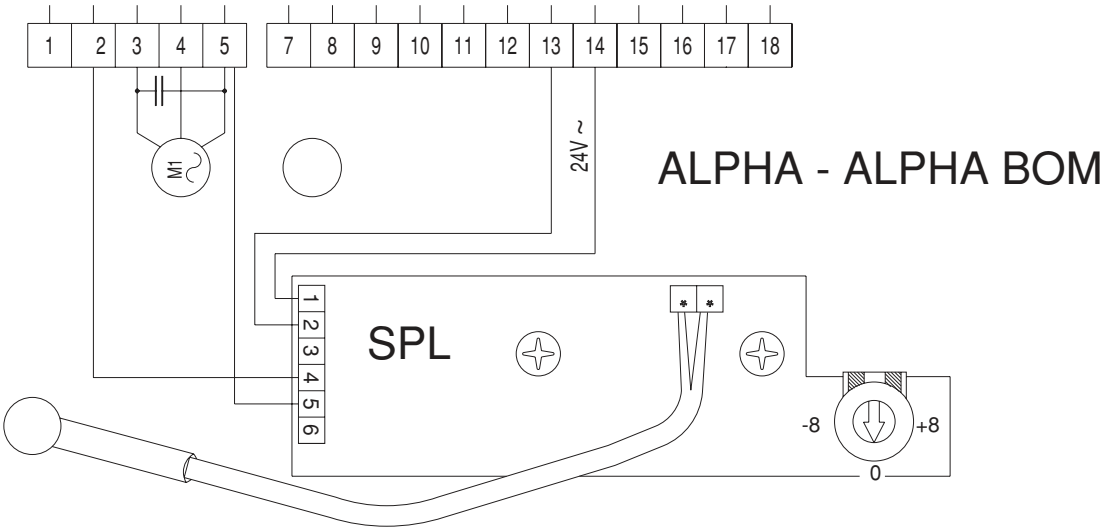


Fig. 5

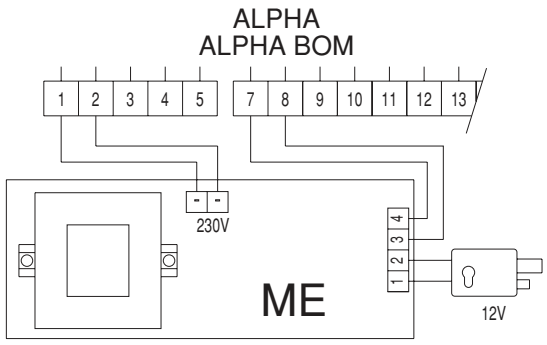
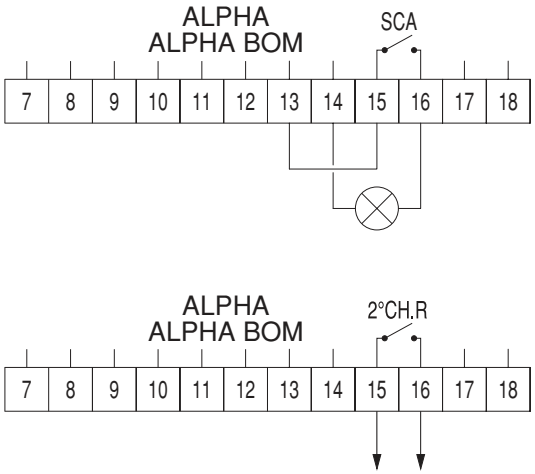
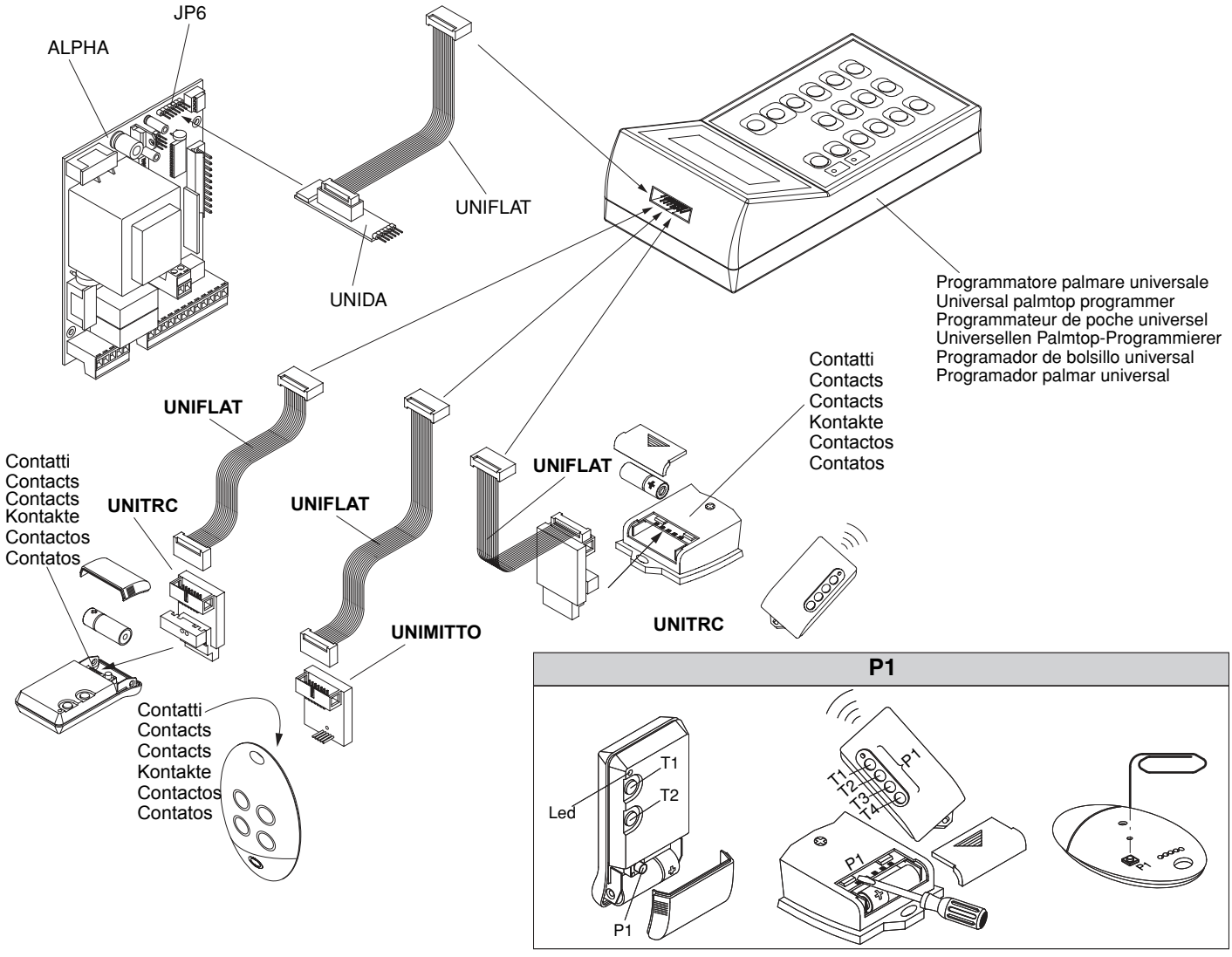


Fig. 6



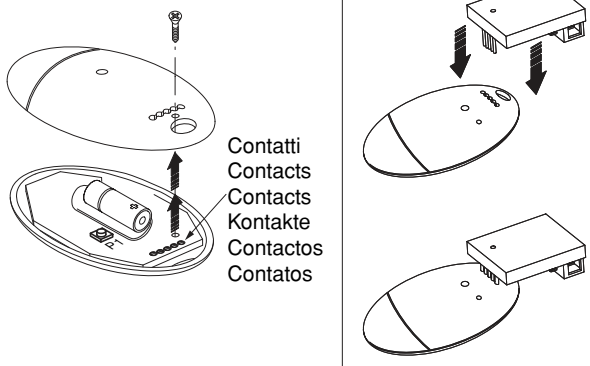
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Fig. 7

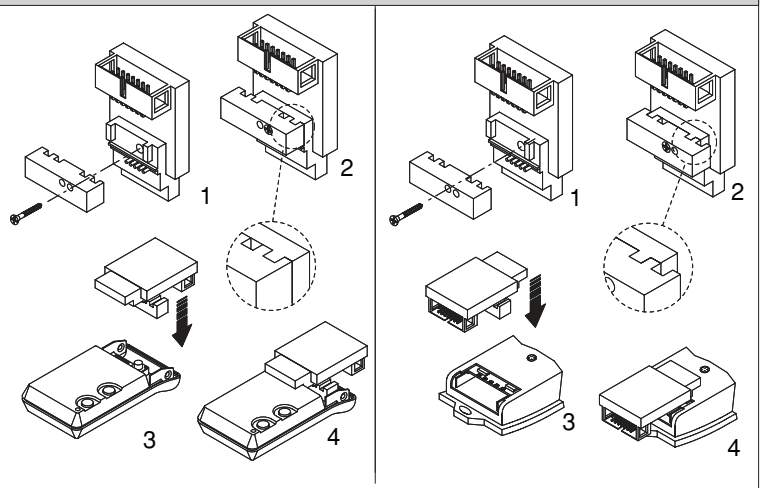


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UNIMITTO



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