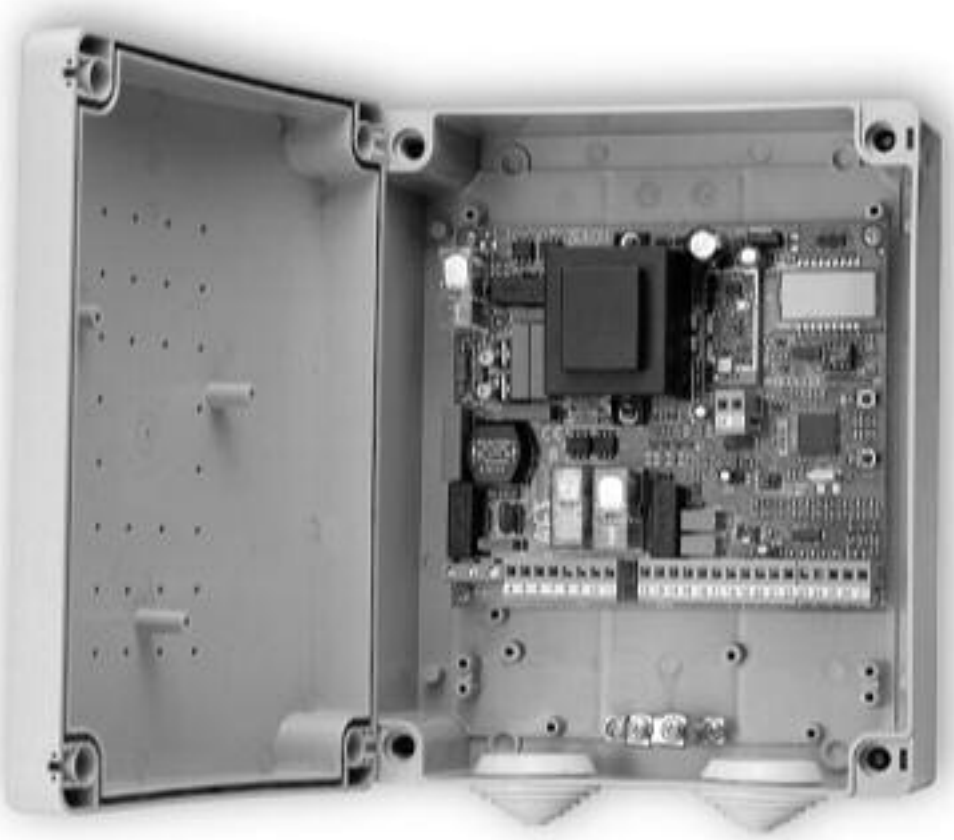
ALTAIR MA

D811322 05-05-02 Vers. 03



CONTROL UNIT

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, 98/37/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 3mm.
- 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.

1) GENERAL OUTLINE
The **ALTAIR** control panel is suitable for swing gates. It is supplied by the manufacturer with standard functional settings. Any alteration must be set by means of the incorporated display programmer or by means of **UNIPRO** and **UNIRADIO**. The Control unit completely supports the **EELINK** protocol.

The most significant innovative characteristics of the Altair control panel are:
- management of two motors with electronic torque setting, see paragraph3
- management of on-board receiver, according to the new type of radio-control cloning, see paragraph 8
- presetting for operation with local or centralised controls via wire, see paragraph 11.

Its main characteristics are:
- Power supply: 230V ∿ ±10% 50Hz (other voltages on request)
- No-load absorption from the mains: 0.2A max
- Maximum power with 2 motors: 300W each
- Maximum power with 1 motor: 300W
- Motor force limitation: to be set electronically
- Blinker output: 40W max
- Gate-open warning light output: 24V ∿ 3W max
- Supply output for accessories: 24V ∿ 5VA max
- Manoeuvre limit switch: with operation time limitation, operation time to be set
- Safety inputs: Stop, photocells
- Control inputs: Start, pedestrian
- Separate opening / closing limit-switch inputs for each motor.
- Separate inputs for safety devices.
- Operational options: various, depending on the settings and controls applied
- Radio receiver: 433.92 MHz rolling-code or fixed code
- Maximum numbers of radio control devices to be managed: 63
- Centralised controls with other controllers: presetting for serial protocol with an external accessory.

CHECK
The control unit runs a check on the operating relays and safety mechanisms (photocells, sensor ridge, etc.) before performing opening and closing cycles.
In case of malfunctions, carry out self-diagnosis (paragraph 12) and check the wiring.

3) CONTROL UNIT TECHNICAL SPECIFICATIONS

Power supply:	230V ∿ ±10% 50Hz*
No-load absorption from the mains:	0.2A max
Mains/low voltage insulation:	> 2MOhm 500Vdc
Dielectric strength:	mains/low voltage 3750Vac for 1 minute
Motor output current:	1.25A+1.25Amax
Motor relay commutation current:	10A
Maximum power with 2 motors:	300W+300W
Maximum power with 1 motor:	300W
Blinker:	40W max
Gate-open warning light:	24Vac 3W max
Supply to accessories:	24V ∿ (0.2A max absorption)
Degree of protection for box:	IP 55
Dimensions:	see figure 1
Fuses:	see figure 2

(*other voltages available on request)

4) TERMINAL BOARD CONNECTIONS (Fig.3)
WARNING - During wiring and installation operations, refer to the current standards and to 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.

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.

JP7

1	GND terminal
2-3	Single-phase mains supply (2=L) (3=N)

JP8

4-5-6	Connection to motor 1: 4 on 1 5 common (blue) 6 on 2

D811322_03

7-8-9 Connection to motor 2:
7 on 1
8 common (blue)
9 on 2

10-11 230V ∿ output for blinker light (40W max)

JP9

13-14 24V ∿ 200mA max output – supply to photocells or other devices

15-16 Output (N.O. contact (24V ∿/0.5A max)) for gate-open warning light or, alternatively, 2nd radio channel (see paragraph 6 “configuration”)

17-18 STOP pushbutton (N.C.) input. If not used, leave the bridge connected.

17-19 Photocell (N.C.) input. If not used, leave the bridge connected.

17-20 START pushbutton (N.O.) input

17-21 Pedestrian pushbutton (N.O.) input.. Activation is only carried out by motor 2 for the operation time set; if the opening cycle has been started (from a non-pedestrian function), the pedestrian command has no effect.

17-22 BAR1 electric edge contact input (N.C.). In case of triggering, movement is stopped and reversed for about 3s.

17-23 BAR2 electric edge contact input (N.C.) In case of triggering, movement is stopped and reversed for about 3s.

17-24 Opening limit switch for motor 1 (n.c.). If not used, leave the jumper connected.

17-25 Closing limit switch for motor 1 (n.c.). If not used, leave the jumper connected.

17-26 Opening limit switch for motor 2 (n.c.). If not used, leave the jumper connected.

17-27 Closing limit switch for motor 2 (n.c.). If not used, leave the jumper connected.

JP6

28-29 24V ∿ output for photocell transmitters

30 Photocell check input

JP4

31-32 Antenna input for plug-in radio-receiver board (31 signal - 32 braid). N.B. The board is provided with a terminal board which can be pulled out for easier maintenance or replacement. The board is supplied with a series of pre-wired jumpers to facilitate the installer’s work.

The jumpers relate to the following terminals: 17-18, 17-19, 17-22, 17-23, 17-24, 17-25, 17-26, 17-27, 17-30.

If the above-mentioned terminals are in use, remove their respective jumpers.

5) MOTOR MOVEMENT CONTROL PARAMETERS

The functional parameters can be changed by means of the incorporated display programmer or by means of UNIPRO. Here is an explanation of each option, followed by the setting procedure.

Meaning of the options:

- Operation time: sets the time for the opening and closing manoeuvres.
- Automatic Closing Time (TCA): sets the dwell time with the gate open, following which the gate is closed again if the TCA function is active.
- Motor torque (pushing force): sets the pushing force electronically applied to each motor during the opening and closing manoeuvres.
- Leaf phase-difference time on opening: sets the time delay for the initial opening manoeuvre of motor 1 with respect to motor 2.
- Leaf phase-difference time on closing: sets the time delay for the initial closing manoeuvre of motor 2 with respect to motor 1.
- 3-step or 4-step function logic: the Start command modifies the gate status depending on whether the 3-step or 4-step logic is active, as specified in the table below. The status of the gate-open warning light is also specified.

gate status	4 steps	3 steps	gate-open warning light
gate closed	opens	opens	off
on opening	stops and enters tca (if it is activated)	stops and enters tca (if it is activated)	on
gate open	closes	closes	on
on closing	stops and does not enter tca	stops and opens	blinks
after stop command	opens	opens	on

- Impulse lock: activates inhibition of the Start command from pushbutton and Start command from radio-control device during gate opening.
- Prealarm: activates the blinker for 3 seconds before starting the manoeuvre.
- Rapid closing past photocell: if activated, after going past the gate photocells, with the gate open, the gate closes again in automatic mode even when the TCA is entered. You are advised to activate the photocells during closing only.
- Photocells on opening: if activated, it inhibits the photocells during opening. In this case, photocell triggering during opening is ignored. Photocell triggering during closing causes the gate to stop and then reopen. If not activated, photocell triggering on opening causes the gate to stop and reopen once the obstacle has been removed.
- Gate-open or 2nd radio channel warning light: if activated, allows you to connect a 24V ∿ warning light, as in figure 3. In this case the light indicates the position of the gate as specified in the table above. If not activated, the output to terminals 14 and 15 shows a current-free and normally open contact, which is only activated for 2 seconds each time key 2 is pressed on the associated radio-control device. Key 1 is reserved for the Start command.
- One-motor control only: if active, you can just have motor 2 running.

6) PROGRAMMING

6.1) Programming by means of UNIPRO

Connect the **UNIPRO** programmer to the control unit by means of the **UNIDA** accessory (see fig. 4). The Altair control unit does not supply the **UNIPRO** programmer, which therefore needs an appropriate supply unit. Enter the “CONTROL UNITS” menu and the “PARAMETERS” submenu, then scroll the display screenfuls using the up/down arrows, and set the numerical values of the parameters listed below.

- **Operation time (uorH t) [10s]**
  Set the numerical value of the operation time from 3 to 90 seconds.
- **Automatic Closing Time (tcA) [10s]**
  Set the numerical value of the automatic closing time from 3 to 90 seconds.
- **Motor torque (Mot torQUE) [50%]**
  Set the numerical value of the motor torque between 1% and 99%.
- **Opening delay time (oPEn dELAY t IME) [1s]**
  Set the opening delay time between 1 and 5 seconds.
- **Closing delay time (cLS dELAY t IME) [1s]**
  Set the closing delay time between 1 and 20 seconds.
- **Zone (ZonE) [1]**
  Set the zone number between a minimum value of 0 and a maximum value of 127. See paragraph 11 on “Serial connection”.

Enter the “CONTROL UNITS” menu and the “LOGIC” submenu, then scroll the display screenfuls using the up/down arrows, and set the numerical values of the parameters listed below.

- **TCA (tcA) [OFF]**

ON Activates automatic closing

OFF Excludes automatic closing

- **3 Steps/4Step (3 StEP) [OFF]**

ON Enables 3-step logic. stops and reopens

OFF Enables 4-step logic.

- **Impulse lock (ibL oPEn) [OFF]**

ON Enables impulse lock during the opening phase.

OFF Excludes impulse lock during the opening phase.

- **Pre alarm (PrE-ALArM) [OFF]**

ON The blinker comes on about 3 seconds before the motor starts.

OFF The blinker comes on at the same time as the motor starts.

- **Rapid closing (FASt cLS) [OFF]**

ON Activates rapid closing with the gate open, past the photocell.

OFF Command not entered.

- **Photocells on opening (Photc. oPEn) [OFF]**

ON Enables on closing phase only.

OFF: Enables on opening and closing phase.

- **Gate-open or 2nd radio channel warning light (ScA 2ch) [OFF]**

ON The output between terminals 15 and 16s configured as Gate-open warning light, in this case the 2nd radio channel controls pedestrian opening.

OFF The output between terminals 15 and 16 is configured as 2nd radio channel.

- **Motors in operation (1 Mot on) [OFF]**

ON Only motor 2 is in operation (terminals 3, 4 and 5). With this configuration, the pedestrian input is disabled.

OFF Both motors are in operation.

- **Loop (LooP) [OFF]**

ON In the case of a closed loop centralised connection (Fig.7), set the control unit to ON.

OFF In the case of an open centralised connection (Fig.7), set the control unit to OFF.

D811322_03

- **Master/Slave (MASTER) [OFF]**

ON The control panel is set as Master in a centralised connection (see Paragraph 11).

OFF The control panel is set as Slave in a centralised connection (see Paragraph 11).

6.2) Programming by means of the display

The display programmer available in the board allows you to set all the ALTAIR control panel functions.

WARNING! To modify the configuration, you need to close jumper J1.

Make reference to fig. A and B.

The predefined parameter is shown between square brackets [0].

The writing appearing on the display is indicated between round brackets.

Press the small OK key to display an introduction menu, press OK twice to bypass this introduction. Now you enter a menu including the following submenus: Parameters, logics, radio, language, default and self-diagnosis.

In the first 4 menus you can move up/down within each menu and enter the submenus, then confirm the values set using the OK key. If you press OK in the DEFAULT menu, you can reprogram the control unit with the factory-set values. The SELF-DIAGNOSIS menu allows you to check the external connections.

To go back and exit the programming function, simultaneously press the up/down keys several times.

If, at the end of the diagnosis, the reply is OK, it means that the control unit and connected devices work correctly.

At the end of the configuration, open jumper J1.

7) RADIO TECHNICAL SPECIFICATIONS

Frequency ..... : 433.92MHz

Coded by means of ..... : Rolling-code algorithm

No. combinations ..... : 4 milliard

Antenna impedance ..... : 50Ohm (RG58)

Max no. radio transmitters to be memorised: 63

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, or activates the pedestrian function, depending on the setting.

Transmitter versions which can be used:

- MITTO Transmitter

MITTO2 – double-channel, MITTO4 – four-channel.

Keys ..... : Yellow

Power supply ..... : 2 3V Lithium batteries (CR2016 type)

Range ..... : 50 / 100 metres

- TRC Transmitter

TRC1-single-channel, TRC2- double-channel, TRC4- four-channel.

Keys: ..... : Red

Power supply: ..... : 12V Alkaline battery

Range: ..... : 50 / 100 metres

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.

8) RECEIVER CONFIGURATION

The **Clonix64** receiver combines the 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 included automatically 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 the lost transmitter is 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 Clonix receiver allows you to carry out fixed code additional cloning, which although abandoning the variable code, provides a high number of coding combinations.

PROGRAMMING

Transmitter storage can be carried out in manual mode, or by means of the **UNIRADIO** programmer which allows you to create installations in the "collective receivers" mode, as well as manage the complete installation database using the **EEdbase** software.

The **Clonix 64** receiver is programmed by connecting **UNIRADIO** to the **ALTAIR** control panel, using the **UNIFLAT** and **UNIDA** accessories, as shown in fig. 4.

9) MANUAL PROGRAMMING

In the case of standard installations where advanced functions are not required, you can proceed to manual storage of the transmitters, making reference to fig. B for basic programming.

- If you wish the transmitter to activate output 1 (START) by means of key1 and output 2 (2nd ch. relay) by means of key2, enter the transmitter in menu "key1=Start key2=2nd ch.", as in fig. B.
- If you wish the transmitter to activate output 1 (START) by means of key1, key2, key3 or key4, enter the transmitter in menu "Start key", as in fig. B.
- If you wish the transmitter to activate output 2 (2nd radio channel relay) by means of key1, key2, key3 or key4, enter the transmitter in menu "2nd ch. key", as in fig. B.

  Note: Hidden key P1 appears differently depending on the transmitter model.

  For **TRC 1-2 / MITTO 2-4**, press hidden key P1 (fig. 4). For **TRC 4**, the key P1 function corresponds to simultaneously pressing the 4 transmitter keys or, after opening the battery compartment, bridging the two P1 points by means of a screwdriver (fig. 4).

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) RADIO TRANSMITTER CLONING

Clones can be added by means of UNIRADIO, and the only limitation to this is the maximum number of transmitters the receiver can memorise.

Note: in rolling-code cloning, the level of safety of the code anti-copying system is very high, and is the same as that of the transmitters memorised manually in the receivers.

Knowledge of the cloning **key code** or the reading from the key transmitter allow the operator to create additional clones by remote control, without needing further information.

To create replacement clones, you need to have the complete receiver memory data; therefore, if you plan to carry out replacement cloning operations by remote control, you need to memorise the contents of the receiver memory by reading it using **UNIRADIO** and entering it in the **EEdbase** database.

When assigning a specific key on an additional clone transmitter to a specific output channel on a receiver, a predefined procedure is followed. This procedure can be modified as required if radio transmitter storage is carried out by means of **UNIRADIO**, or otherwise it is identical to the procedure for the first transmitter, the one with the KEY TRANSMITTER LABEL.

The keys on the replacement clone transmitter maintain the same association with the output channels of the receiver as the replaced transmitter.

Code reading:

In the case where a receiver code in not known, reading can be obtained by proceeding in the following way.

1) Switch **UNIRADIO** on and wait for the welcome message.
2) Use the **<arrow up>** and **<arrow down>** keys to select item **<go the menu number>.**
3) Press **<enter>.**
4) When in the subsequent menu, type number **225** and press **<enter>**.
5) Follow the instructions appearing on the **UNIRADIO** display.

Having carried out key code reading, you are advised to write it down on the appropriate card supplied and given to the user (Fig.6). Note the type of receiver configuration (rolling code or fixed code) on the card, in order to avoid errors in any subsequent transmitter cloning operations.

10.1) Cloning with rolling-code

a) Cloning by addition with code

For practical clone creation, refer to instructions on the UNIRADIO device or, for clone addition, observe the following simplified procedure:

1) Switch **UNIRADIO** on and wait for the welcome message.
2) Use the **<arrow up>** and **<arrow down>** keys to select item **<go the menu number>**.
3) Press **<enter>**.
5) When in the subsequent menu, type number **2121** and press **<enter>**.
6) Follow the instructions appearing on the **UNIRADIO** display.

D811322_03

b) Cloning by addition with master
For practical clone creation by means of the master transmitter (marked with the key label) refer to the instructions on the UNIRADIO device, or observe the following simplified procedure:
1) Switch **UNIRADIO** on and wait for the welcome message.
2) Use the **<arrow up>** and **<arrow down>** keys to select item **<go the menu number>**.
3) Press **<enter>**.
5) When in the subsequent menu, type number **2122** and press **<enter>**.
6) Follow the instructions appearing on the **UNIRADIO** display.

10.2) Cloning with fixed code
NOTE: ALTHOUGH A HIGH NUMBER OF COMBINATIONS FOR TRANSMITTER CODING IS INCLUDED IN THE FIXED CODE CONFIGURATION, THE SAFETY LEVEL OF THE CODE ANTI-COPYING SYSTEM IS INFERIOR.
In the cases where you do not wish to manage the list or the cloning key or the key transmitter, additional clones can be generated by means of UNIRADIO, starting from any transmitter which is already memorised within the system.
This operation can only be carried out if the receiver is configured to operate with a fixed code (no longer a rolling code).
To do this, you must activate the FIXED CODE option in the logic menu, see fig. A.
To activate it through UNIPRO:
Enter the "**CONTROL UNITS**" menu, the "**LOGICS**" submenu and the "**SPECIAL LOGICS**" submenu; then scroll the display screenfuls using the up/down arrows to set the numerical values of:
- Address (13) [0]
ON fixed code
OFF rolling code

When assigning a specific key on an additional clone transmitter to a specific output channel on a receiver, a predefined procedure is followed which can be decided at will if the radio transmitter storage is carried out by means of **UNIRADIO**, or otherwise is identical to the key transmitter procedure.
For fixed code clone creation, refer to the **UNIRADIO** instructions or observe the following simplified procedure:
1) Switch **UNIRADIO** on and wait for the welcome message.
2) Use the **<arrow up>** and **<arrow down>** keys to select item **<go the menu number>**.
3) Press **<enter>**.
4) When in the subsequent menu, type number 213 and press **<enter>**.
5) Select menu **<fixed code cloning>** and press **<enter>**.
6) Follow the instructions appearing on the **UNIRADIO** display.

10.3) COLLECTIVE RECEIVERS
Collective installations can be carried out by means of the **UNIRADIO** programmer. For instance, just one transmitter can be used to control a "collective" receiver (ref. "C", Fig.5), and an "individual" receiver (ref. PX, Fig. 5).
In this type of installation, the appropriate codes need to be assigned to the various receivers by means of UNIRADIO.
Each code is made up of 10 figures in hexadecimal format (thus figures from 0 to 9 as well as characters A-B-C-D-E-F are allowed), e.g.:

1A9C-22FD-00

The first eight characters represent the actual code, the last two figures represent the type of receiver, either collective or individual. If the last two figures are equal to 00, it means that the receiver is preset for collective operation, whereas if the last two figures are different from 00, it means that the receiver is preset for individual operation. Therefore, if you wish to carry out an installation similar to the one illustrated in Fig. 5, you will need to assign a collective code to receiver "C" (e.g. **1A9C-22FD-00**) and then assign the same code to the individual receivers, except for the two last figures which must be in progressively increasing sequence (**1A9C-22FD-01,1A9C-22FD-02, 1A9C-22FD-03** etc.).
All the transmitters programmed with a particular code will therefore be automatically enabled to activate both the collective receiver (being provided with the same initial code number) and their own individual receiver (being provided with the full code number).
If necessary, a transmitter can be set exclusively to activate the collective receiver by being assigned the entire collective receiver code (in our example 1A9C-22FD-00).

WARNING!: The installation code will have to be chosen with care, avoiding codes which are too simple and codes which have already been assigned during previous installations.
In "Communal buildings" installations, no additional cloning operations can be carried out by means of the "Master" transmitter, since the code is directly assigned by the installer.
The codes ending with letters FB, FC, FD, FE and FF are not valid.

At this point it will be possible to program all the radio transmitters required, using the **UNIRADIO** programmer, managed by the **EEdbase** software if necessary.

NOTE: The EEdbase software provides a more efficient installation database management and a simpler storage procedure in the case of complex installations.

Programming of receivers is carried out through UNIRADIO according to the following procedure:
a) Configuration of complete parameters for each receiver by means of **UNIRADIO**
b) Transfer of programming data to the receiver.

a) Parameter configuration
1) Switch **UNIRADIO** on and wait for the welcome message.
2) Use the **<arrow up>** and **<arrow down>** keys to select item **<go the menu number>**.
3) Press **<enter>**.
4) When in the subsequent menu, type number 243 and press **<enter>**.
5) Configure the receiver following the instructions displayed on the screen:
list definition: enter 64
output configuration: not active for this panel
description: indicate the name of the list, maximum 15 characters
receiver code: enter the assigned receiver code, paying attention to the distinction between **"collective"** and **"individual"** receiver.
clone default: assign the required output to the required transmitter key, taking care to avoid assigning a key to an individual receiver, which has already been assigned to a collective receiver, or vice versa.
Example: T1 output 1 (Start) = collective receiver and
T2 output 1 (Start) = individual receiver

b) Transfer of programming data
6) Exit the list parameter menu by pressing **<ESCAPE>** and return to the initial menu.
7) Use the **<arrow up>** and **<arrow down>** keys to select item **<go the menu number>**.
8) Press **<enter>**.
9) When in the subsequent menu, type number 223 and press **<enter>**.
10) Connect the receiver to be programmed as indicated in Fig.4.
11) Wait for the data to be transferred.

Repeat this procedure for each receiver to be memorised.
Refer to the **UNIRADIO** instructions for further details.

Then use the individual receiver codes to set up all the required radio transmitters, following the instructions given in paragraph 10a **"Rolling-code cloning with code".**
You can carry out creation and cloning of other radio transmitters at any time by using the code number assigned, which is chosen at the installer's or user's discretion. You are therefore advised to write it down on the appropriate card supplied and to give it to user of the **"individual"** receiver (Fig.6).
To create replacement clones, you need to have the complete receiver memory data; therefore, if you plan to carry out replacement cloning operations by remote control, you need to memorise the contents of the receiver memory by reading it using **UNIRADIO** and entering it in the **EEdbase** database.

NOTE: For installations in the **"collective receivers"** mode, it is advisable to create a complete installation database, by means of **EEdbase**, containing the data for each receiver and transmitter, and to number progressively each memorised transmitter, in order to be able to carry out additional or replacement cloning operations, even years later, without needing to make changes directly to the receivers.
Refer to the **UNIRADIO** instructions and to the on-line **EEdbase** software guide.
WARNING!: The cloning procedures specified in paragraph 10 give a simplified explanation of how to carry out cloning, without having the clones created contained in a database.
Refer to the **UNIRADIO** instructions for further information concerning the creation and management of a database.

11) CENTRALISED SERIAL CONNECTION
The control unit already manages the local Start, Stop, Photocell and Pedestrian commands.

Besides operating locally, the control unit is also preset for operating in a centralised installation, by means of an accessory, including several "zones" grouping together devices which are compatible with the protocol. A master panel must be chosen in each zone, the commands of which are carried out by all the other devices belonging to the same zone. A "centralised" command can therefore be sent via wire by means of the master panel to a given zone: the devices contained in that zone will carry out the said command. Besides deciding on the zone master panel, you must configure the zone address for each device included in the centralised installation. The Altair panel can be included in the centralised installation both as zone master and as slave (only carrying out commands).
Moreover, a centralised installation via wire can be obtained both by closing the connection loop (fig.7) and by leaving the connection loop open. With the loop closed, each zone master unit is able to check command completion by each slave unit, and to update certain statistics relating to loop composition; the failed commands will therefore be repeated after a few minutes. With the loop open, these operations cannot be carried out, all the other functions however remaining unchanged. Therefore, the zone number, master/slave and closed loop/open loop values must be set in the panel. Here follows the procedure for setting these parameters.

11.1) Programming of centralised installation through Unipro
Connect the **UNIPRO** programmer to the control unit by means of the **UNIDA** accessory (see fig. 4). The Altair control unit does not supply the **UNIPRO** programmer, which therefore needs an appropriate supply unit.
Enter the "CONTROL UNITS" menu, the "PARAMETERS" submenu, and the "SPECIAL PARAMETERS submenu; then scroll the display screenfuls using the up/down arrows, and set the numerical values of the parameters listed below.
- Configuration (1) [1]
  Enter the zone number

Enter the "CONTROL UNITS" menu, the "LOGICS" submenu, and the "SPECIAL LOGICS" submenu; then scroll the display screenfuls using the up/down arrows, and set the numerical values of the parameters listed below.
- Address (11) [0]
ON activates closed loop
OFF open loop
- Address (12) [0]
ON master
OFF no master.

11.2) Programming of centralised installation through display
The display programmer available in the board allows you to set all the ALTAIR control panel functions. Make reference to fig. A and B. Set the zone number in the PARAMETERS menu, and set the closed loop/open loop and master/no master values in the LOGICS menu.
The predefined parameter is shown between square brackets [0].
The writing appearing on the display is indicated between round brackets.

12) SELF-DIAGNOSIS MENU (SELF-DIAGNOSIS)
In the SELF-DIAGNOSIS menu you can check the external connections: In case of error, the display indicates the number of the terminal which does not work correctly, therefore proceed to checking the devices connected. Make reference to fig. A and B.
You can also carry out self-diagnosis through UNIPRO. In this case connect the UNIPRO programmer to the control unit by means of the UNIFLAT accessory (see fig. 5). The Altair control unit does not supply the UNIPRO programmer, which therefore needs an appropriate supply unit.
Enter the "CONTROL UNITS" menu, the "SELF-DIAGNOSIS" submenu and press ENTER. Wait for the command to be executed, after which you get an "All OK!" reply if the external wiring is correct; otherwise, in case of error, an error diagnosis is shown, as seen in fig. B.

13) STATISTICS
The statistics are only managed through UNIPRO. Therefore connect the UNIPRO programmer to the control unit, enter the CONTROL UNITS/ STATISTICS menu and scroll the screenful displaying statistical parameters:
- Board microprocessor software version
- Number of cycles carried out. If the motors are replaced, take down the number of manoeuvres carried out up to that time.
- Number of cycles carried out since the latest maintenance operation. It is automatically set to zero after each self-diagnosing or parameter writing operation.
- Date of latest maintenance. To be manually updated from the appropriate "Update maintenance date" menu.
- Installation description. Allows you to enter 16 characters identifying the installation.
- Number of zone operating units (advanced statistics) Address 16: indicates the number of actuators belonging to the same zone as that of the master (only updated in the master boards).
- Number of total operating units (advanced statistics) Address 17: indicates the number of actuators connected (only updated in the master boards).

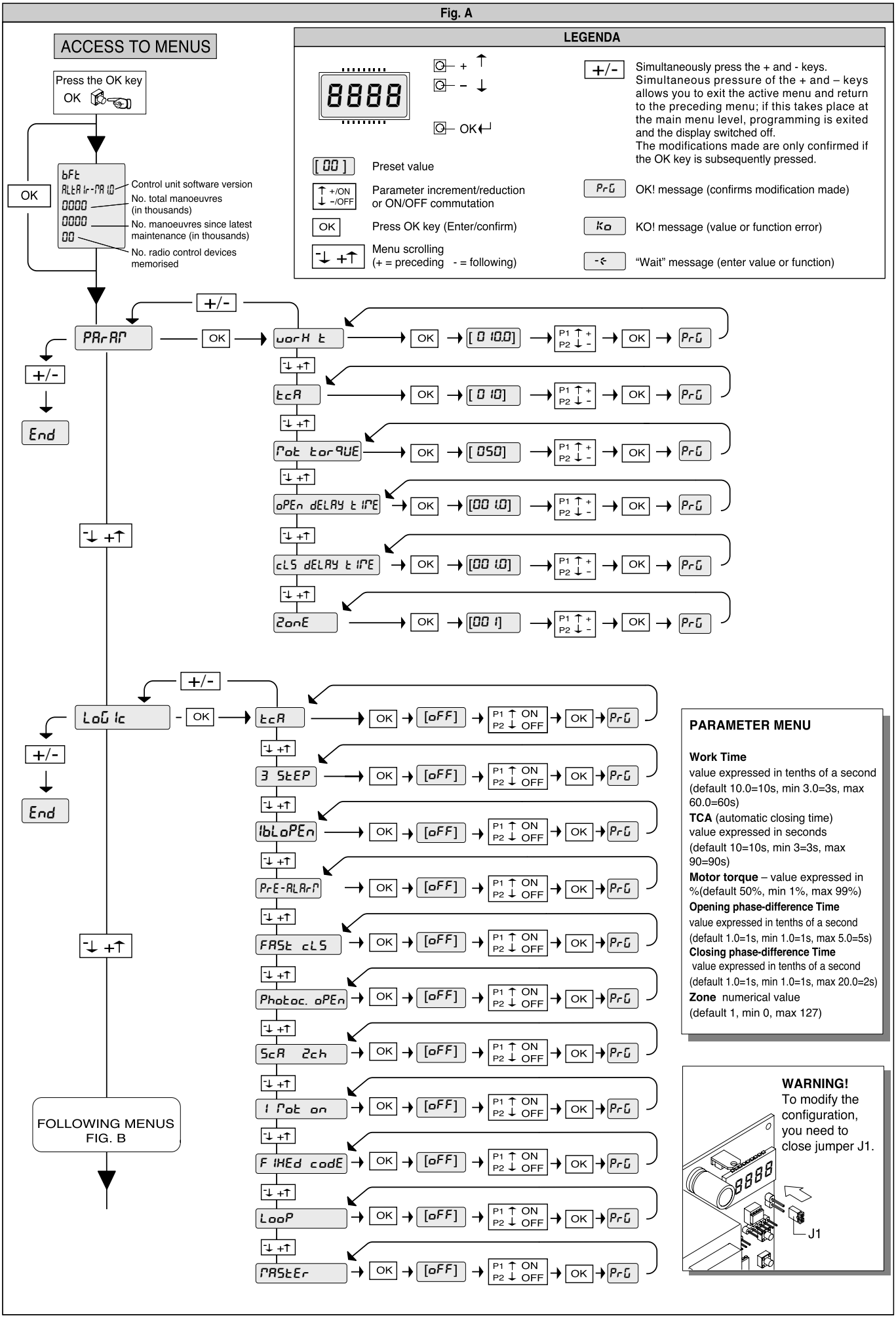
14) SCRAPPING
Warning: This operation should only be carried out by qualified personnel. Materials must be disposed of in conformity with the current regulations. In case of scrapping, the automation devices do not entail any particular risks or danger. In case of materials to be recycled, these should 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.

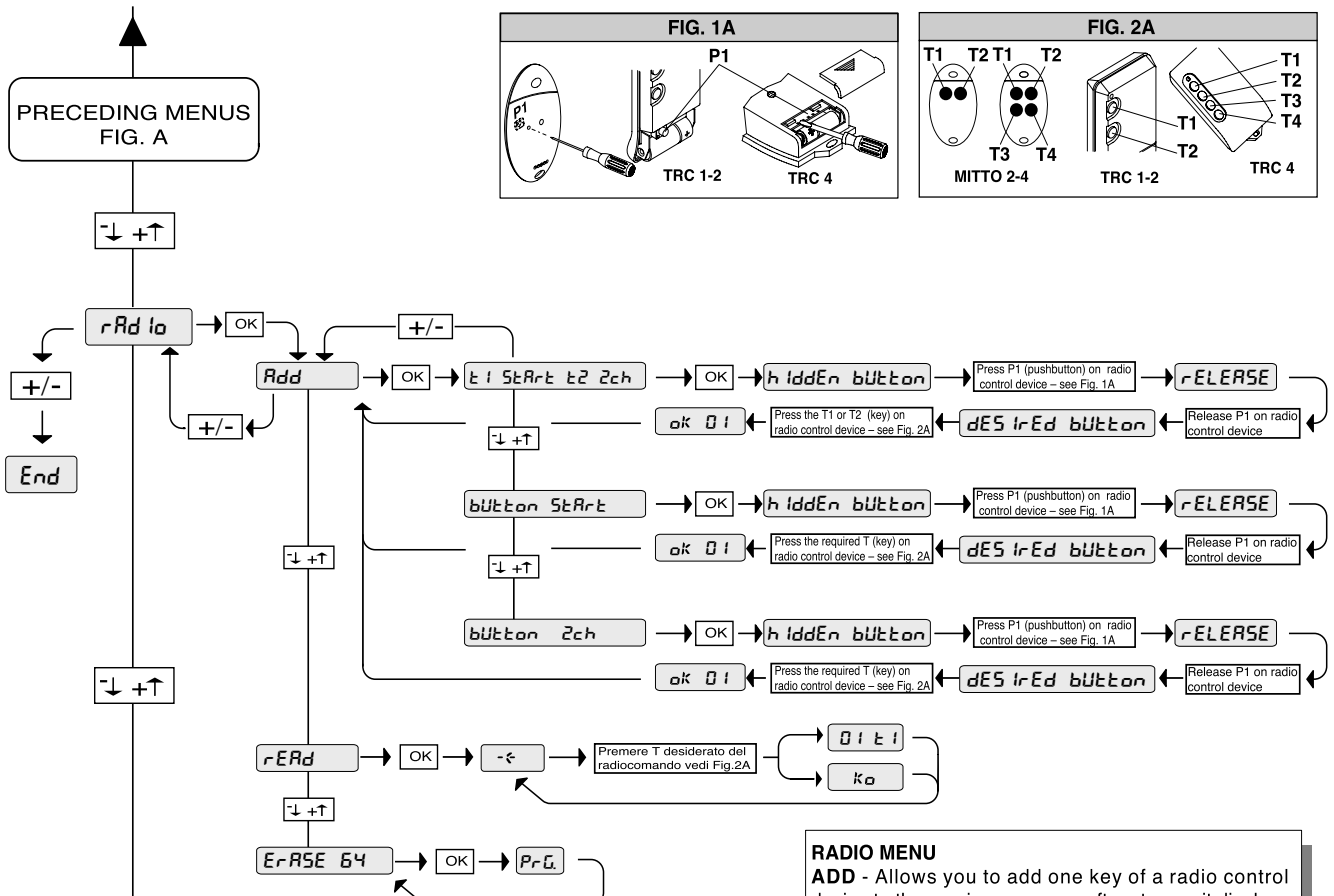
D811322_03

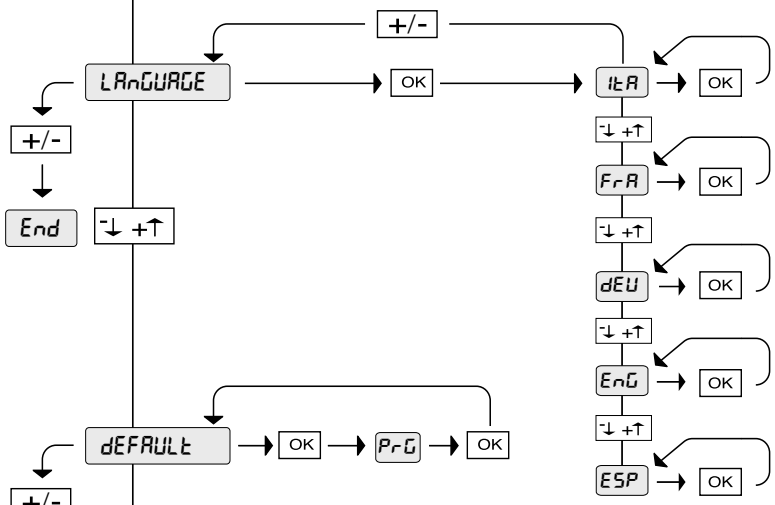
Fig. A

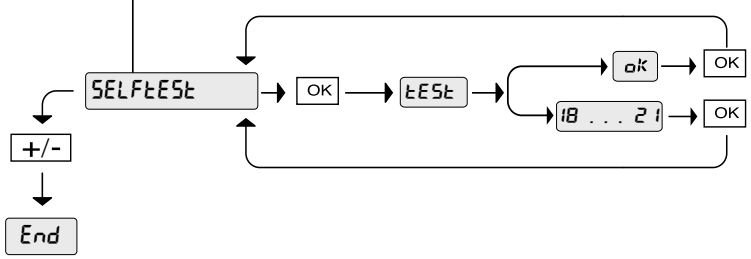


D811322_03

Fig. B







RADIO MENU

ADD - Allows you to add one key of a radio control device to the receiver memory; after storage it displays a message showing the receiver number in the memory location (from 01 to 64).

T1Start T2ch. – automatically associates key T1 to Start command, and key T2 to 2nd radio channel.

Button Start– associates the required key to Start command

Button 2ch – associates the required key to 2nd radio channel

READ - Checks one key on a receiver, if stored it displays a message showing the receiver number in the memory location (from 01 to 64), and the key number (T1, T2, T3 or T4).

ERASE 64

WARNING! Completely removes all memorised radio control devices from the receiver memory.

SELF-DIAGNOSIS MENU

OK = No error

18 = Stop error
19 = Photocell error
20 = Start error
21 = Pedestrian input error
22 = Bar error
23 = Bar2 error
24 = Swom1 error
25 = Swcm1 error
26 = Swom2 error
27 = Swcm2 error
30 = Fault error

Check correct operation of the device which is connected to the terminal having its number displayed.

D811322_03

Fig. 1

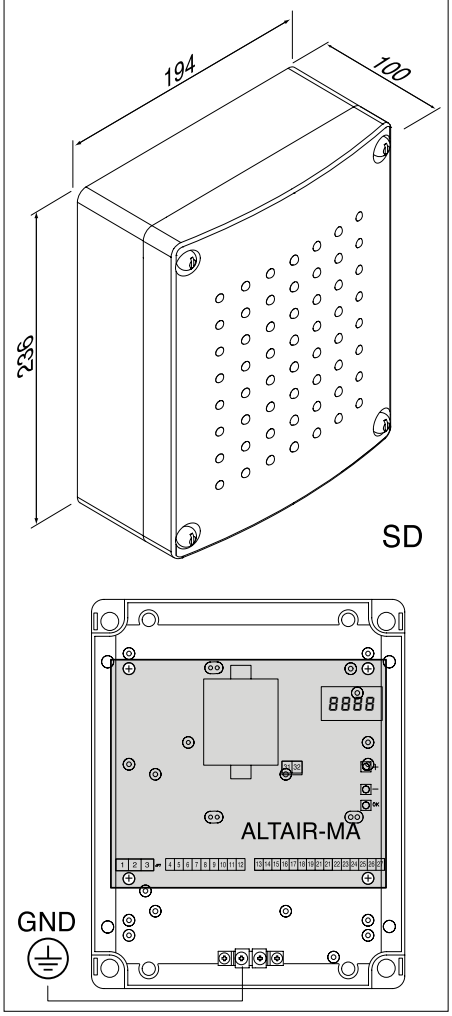
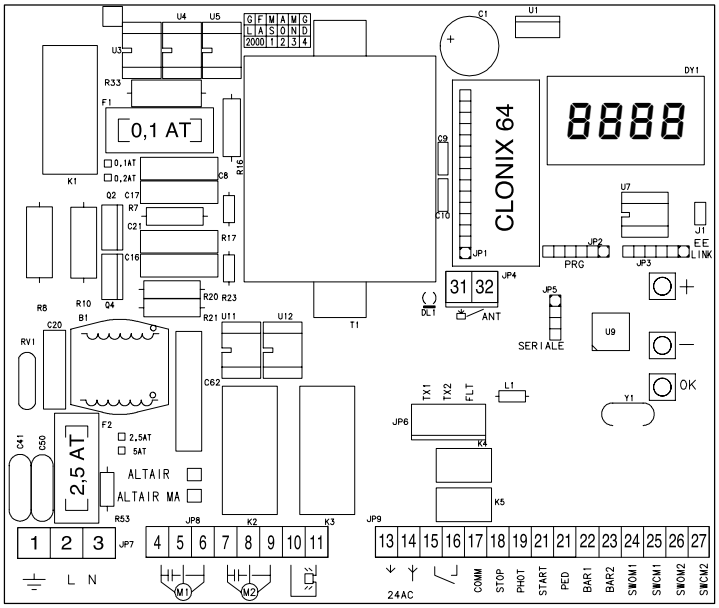
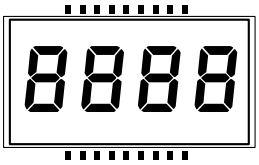


Fig. 2





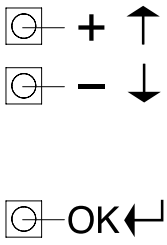
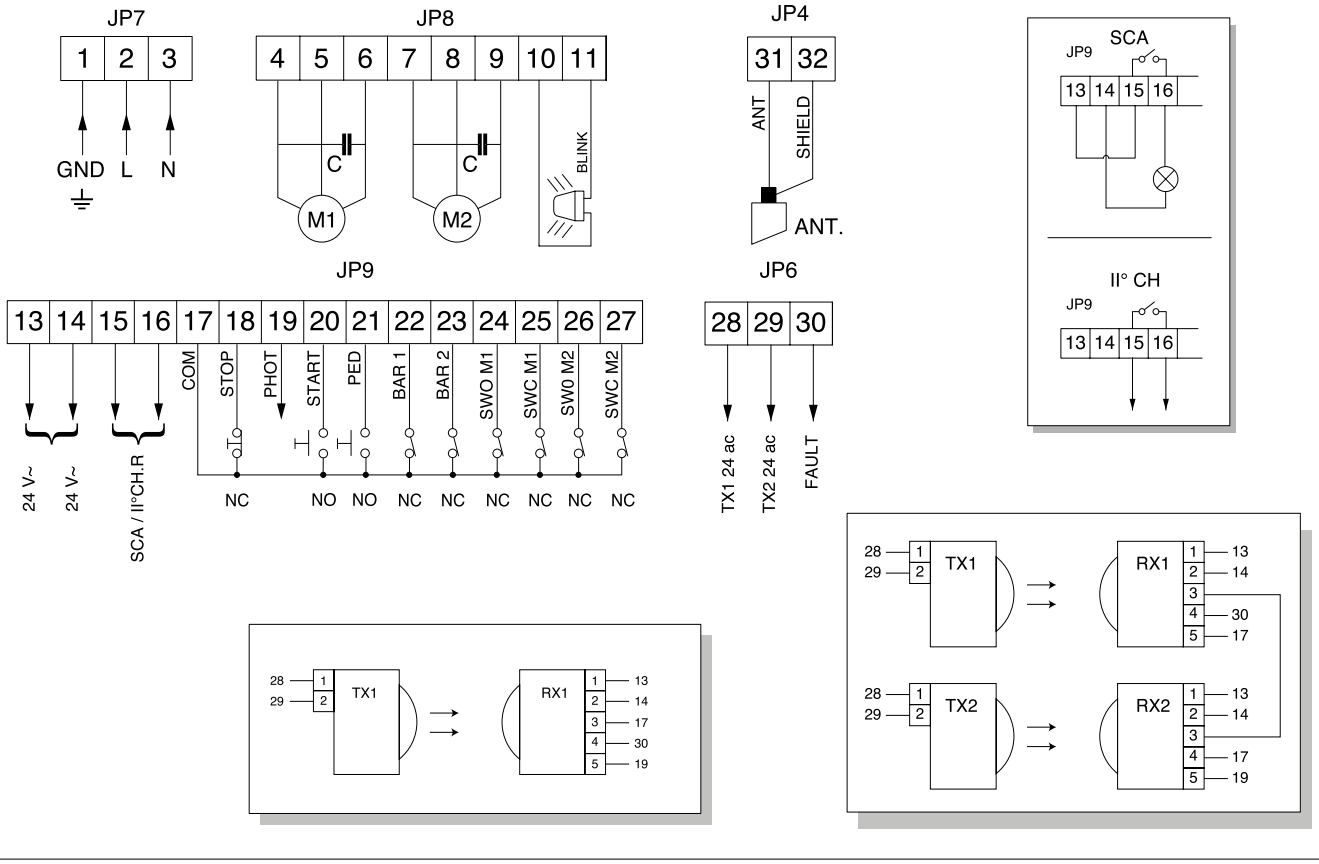
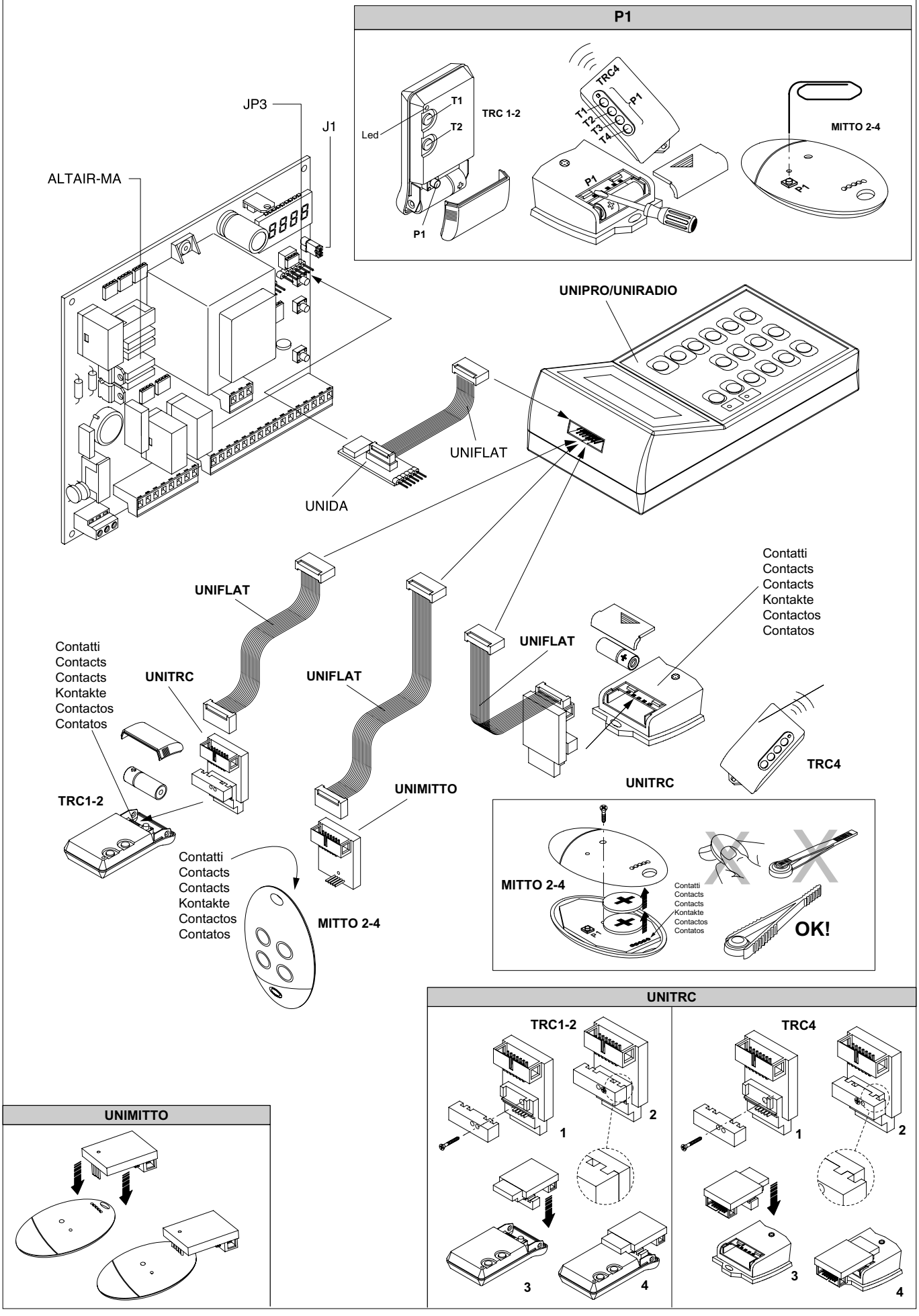


Fig. 3



D811322_03

Fig. 4



D811322_03

Fig. 5

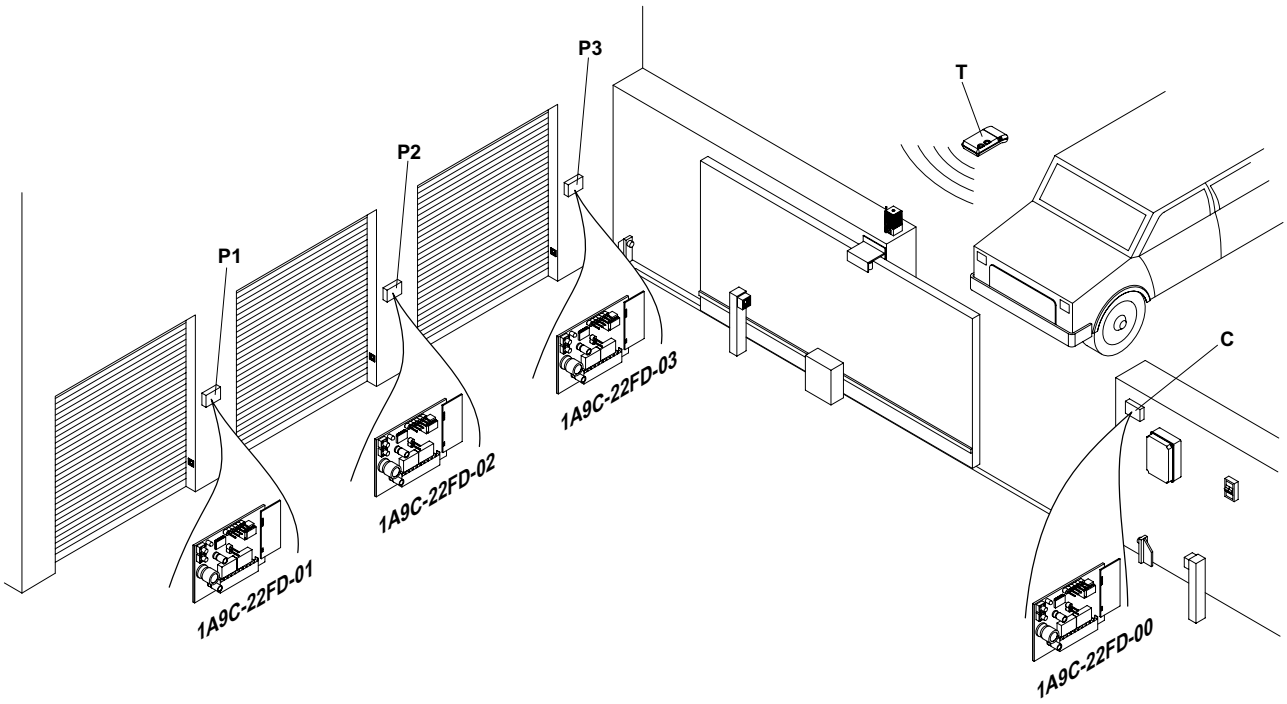


Fig. 6

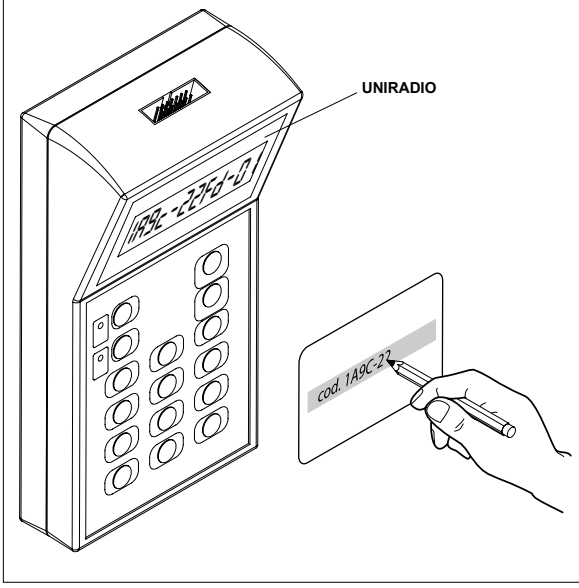
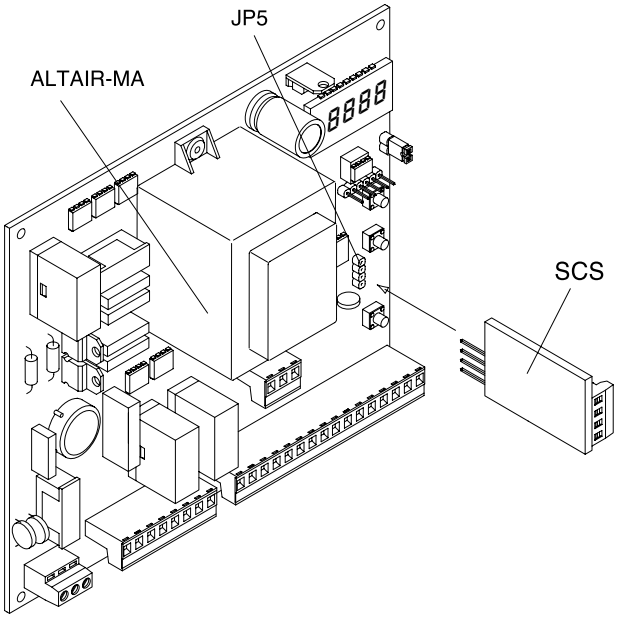
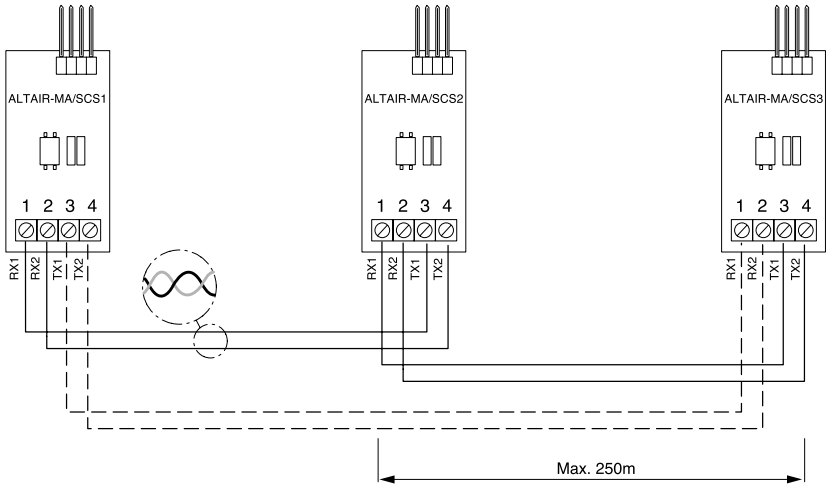


Fig. 7





D811322_03