

# MC4-24



## Installation and user manual for sliding gate motor MC4-24 (24Vdc) with D13 control board



### Main characteristics

|                                   |                          |
|-----------------------------------|--------------------------|
| <i>Control board</i>              | D13                      |
| <i>Motor gear</i>                 | MC4 24Vdc                |
| <i>Kind of limit switch</i>       | Mechanical or magnetical |
| <i>Feeding</i>                    | 30Vdc                    |
| <i>Absorbed current</i>           | max 6.3A                 |
| <i>Absorbed power</i>             | 150W                     |
| <i>Thrust</i>                     | 12Nm                     |
| <i>Speed</i>                      | 0.18m/s                  |
| <i>Maximum pushing power</i>      | 300N                     |
| <i>Maximum weight of the gate</i> | 350Kg                    |
| <i>Temporary service</i>          | 80%                      |

|                                    |                              |
|------------------------------------|------------------------------|
| <i>Output voltage for commands</i> | 30Vdc 300mA max              |
| <i>Flashing light</i>              | Clean contact                |
| <i>Warning light "gate open"</i>   | 30Vdc 3W max                 |
| <i>Working time</i>                | Self learned                 |
| <i>Forewarning time</i>            | 2.5s (switchable off)        |
| <i>Inversion time</i>              | 1.5s                         |
| <i>Automatic closing time</i>      | 3s - 80s (switchable off)    |
| <i>Working temperature</i>         | -20°C / + 70°C               |
| <i>Maximum humidity</i>            | < 95% (without condensation) |
| <i>Protection grade</i>            | IP44                         |
| <i>Isolation class</i>             | I                            |

- Detection of obstacles by the reading of the absorbed current, for a precise and safety functioning.
- Self learning of functioning current
- Self learning of working times of gate
- Electronic regulation of power
- Optional battery charger
- Check of safeties before any maneuver
- Soft start and soft stop for a quiet movement of the gate
- Slowing down at the end of maneuver, adjustable and desconnectable
- Delaying time during a reversal maneuver in order to avoid mechanical damages to the motor
- Easy settings by dipswitch of the direction of movement depending how you have installed the gate.
- Visualization by LED of the state of the inputs and functioning
- Mechanical or magnetical limit switch in opening FCA and in closing FCC
- Command Step-Step with 4 modalities of functioning (can be programmed by dipswitch)
- Command of Alt (STOP)
- Command partial opening (pedestrian) APP
- Safety opening SA for the protection in opening phase
- Photocell FOT
- Radio module MODP433 433.92MHz professional with B&B Rolling-Code decoding, capability of 60 remote control
- Extractable memory module for transferring remote controls to other control boards
- Possibility of remote programming by remote control master.

## IMPORTANT WARNINGS!

**WARNING! FOR THE SAFETY OF PERSONS IT'S IMPORTANT TO FOLLOW THIS INSTRUCTIONS!**

### KEEP CAREFULLY THIS INSTRUCTIONS!

- The present manual instruction is headed to installers and specialized stuff of "Energy utilization devices", with the knowledge of construction parameters and of protection against accidents for automated gates. The materials used must be certified and fit the usage conditions of the automation.
- Keep away children from command devices of the gate (remote control, pushbuttons,...).
- Don't let that children or animals play nearby the gate.
- Periodically check the gate, verifying that there are not present unbalancing, signs of usury or damage. In this case stop the usage of the gate as his functioning, in such conditions, could be source of damages to things or persons.
- Before any installation, regulation or cleaning operation on the gate and of his components, unplug feeding line by the proper thermo-magnetically switch, set before the installation, and disconnect also any battery.

- Control board must be connected to feeding line by an Omni-polar switch, with opening distance between contacts not lower than 3mm. Such device must be protected from accidentally reactivation (installation on a lockable box).
- Hang signs, easily visible, that inform of the presence of a motorized gate.

**WARNING! A NOT CORRECT INSTALLATION CAN CAUSE SERIOUS DAMAGES!**

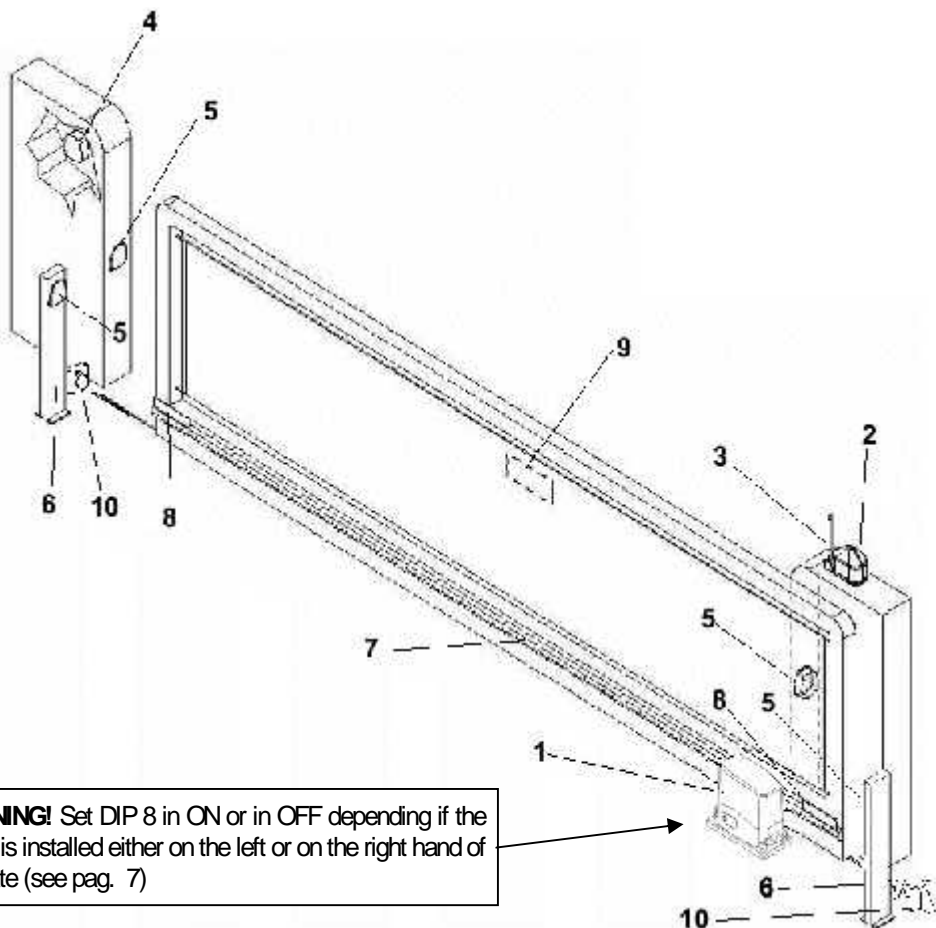
### FOLLOW ALL THE INSTALLATION INSTRUCTION!

- The motor MC4 is destined to motorize sliding gates with a maximum weight of the leaf not greater than 400Kg. The motor could be installed even at the right then at the left side of the gate.
- The device must be destined exclusively to the usage it was conceived for. Any other usage is to be considered improper and therefore dangerous.
- Control pushbuttons have to be installed at an height between 1.5m and 1.8m, in a position not accessible by children or under age, in direct view of the gate but distant of it. They must be protected by unauthorized usage and set up in order to avoid any accidentally activation.



The no observance of the described notes could cause damages to persons, animals or objects. In such case the producer can't be considered responsible.

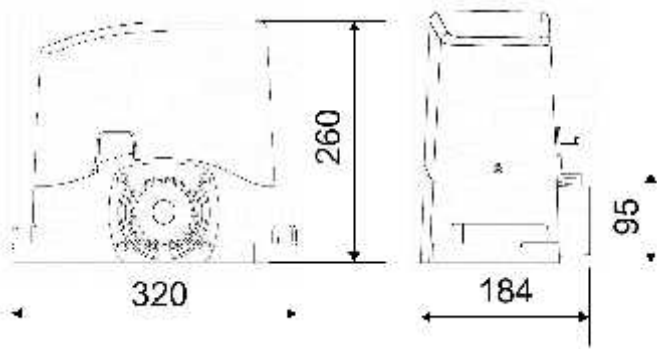
## TYPICAL INSTALLATION



|    |                  |
|----|------------------|
| 1  | Motor gear MC4   |
| 2  | Blinker          |
| 3  | Antenna          |
| 4  | Key selector     |
| 5  | Photocell        |
| 6  | Column           |
| 7  | Rack             |
| 8  | Limit switch     |
| 9  | Advising sign    |
| 10 | Mechanical stops |

**WARNING!** Set DIP 8 in ON or in OFF depending if the motor is installed either on the left or on the right hand of the gate (see pag. 7)

## SIZE



## PRE-INSTALLATION CHECK

Before proceeding with the installation we suggest to go through the followings checking and operations:

- Before proceeding with the installation of the automation, the installer must do an analysis of risks of the automated closing and the set up in safety of it, as by norms EN 12453 and EN 12445.
- Verify that frequency and voltage of feeding line comply with what reported in this manual.
- Verify that environment temperature comply with the range reported in this manual.
- Assure that the space between fix organs and parts in movement during closing and opening, could not become dangerous, consult norms in force.
- It is absolutely compulsory to install stopping devices to stop the end of running of the gate even in opening then in closing. Such stops must be properly dimensioned as by the characteristics of the gate to stop.
- Columns of the gate need to have sliding or guides to avoid derailment or accidentally release of the gate.
- Before installing the motor, verify that the gate is in good mechanical conditions and correctly balanced, that open and close correctly. The structure of the gate must be properly dimensioned, during his running the gate don't have to present excessive lateral unbalancing, the lower system wheel/rail and upper roller/guide must operate without excessive frictions or hardenings.
- If a pedestrian door is present, it is necessary to take proper precautions as by the Art. 5.4.1 of the normative EN12453.

## INSTALLATION OF THE MOTOR

### FIXING OF THE PLATE

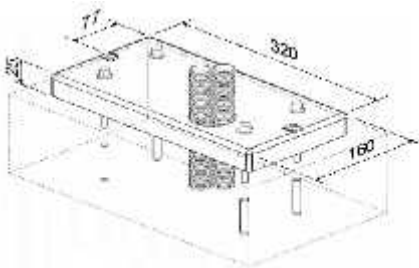


Fig.1 – Fixing by screw-anchors

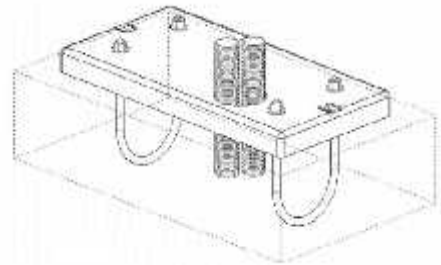


Fig.2 – Drowning into the concrete

Respecting the overall sizes, fix to the ground the base-plate by 4 sturdy screw-anchors (fig.1), or drown it into the concrete (fig.2). Plan one or more hoses for the passage of the power lines.

### **WARNING!**

It is necessary to know the dimensions of the rack in order to calculate the right position of the counter-plate.

### FIXING OF THE MOTOR TO THE PLATE

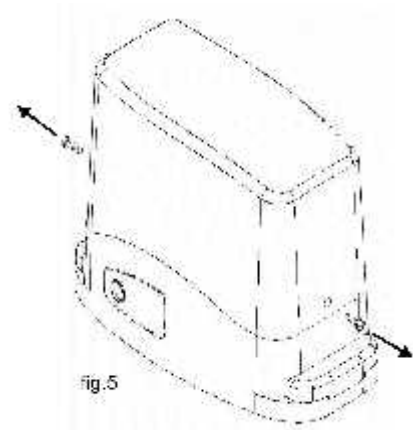
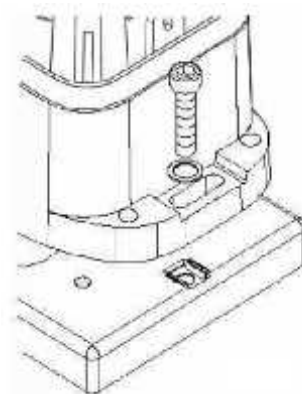


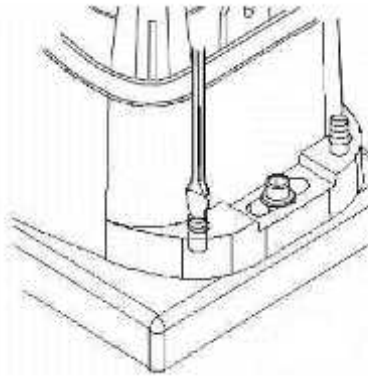
Fig.5

For the fixing of the motor proceed unscrewing and taking away the cover of the motor. Set the gear on the plate. Insert the two socket (or square screws)



It's important to strongly tighten the two square screws, making sure that for the complete run of the gate, the motor gear is well fixed on the ground.

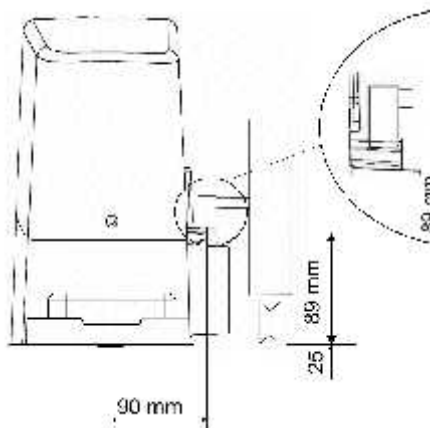
In case the regulation allowed by the rack wouldn't be sufficient, it's possible to compensate the height of the motor gear by acting on the 4 screws.



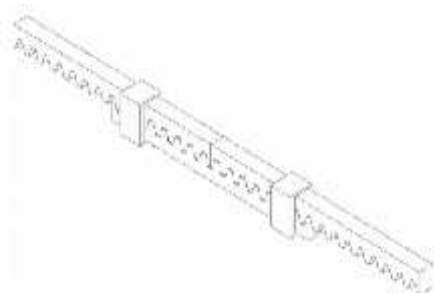
As suggested, after a few maneuvers of the motor, to do a further tighten.

### FIXING OF THE RACK

Release the motor and set the gate at its complete opening. Put a rack element on the pinion, and fix it with screws and spacing bars to the gate. Manually move the gate putting the pinion into line with the last spacing bar. Definitely fix the rack element.



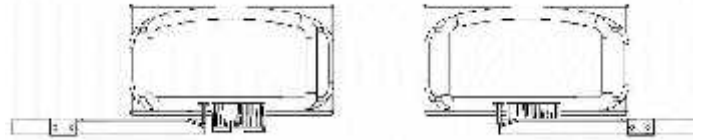
For a correct positioning of the other elements and in order to assure their straightness, it's necessary to use a rack element as reference and support.



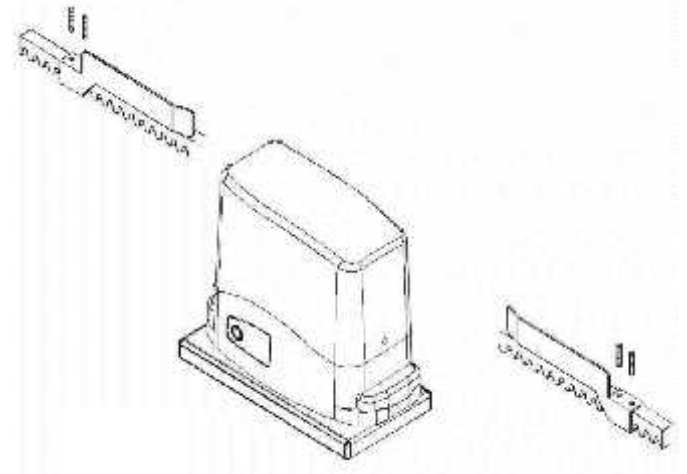
It is also necessary to assure a space of 2 mm between rack and pinion so that the gate weight doesn't burden on the pinion of the motor gear.

### FIXING OF MECHANICAL LIMIT SWITCH (MC4C)

The gate must be equipped with beaten whether in opening then in closing, which will prevent the gate derailment. The position of the beaten must assure that limit switch brackets don't collide with pinion.

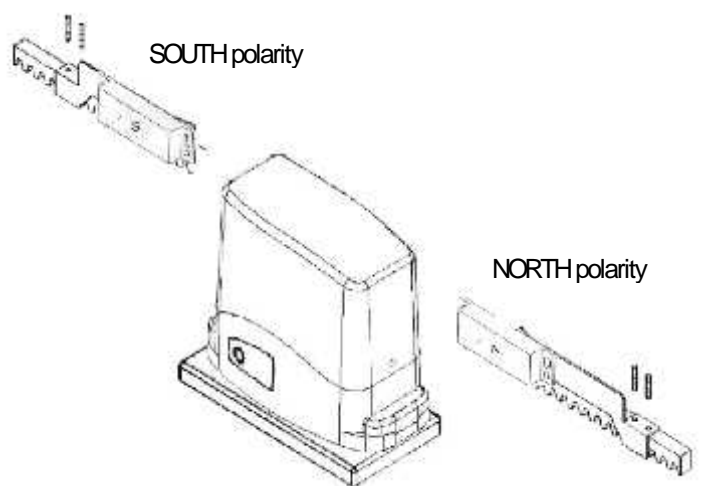


Put manually the gate in opening position, leaving a space between 30 to 50 mm between the gate and the mechanical stop (beaten), according to the weight of the gate. Fix the limit switch bracket through the dowels so that the limit switch is pressed. Repeat the operation with the gate in closing.



### INSTRUCTION FOR MAGNETIC LIMIT SWITCHES (MC4 MFC)

The gate must have stops in opening and in closing in order to avoid the derailment of the gate. The position of the stop must assure that limit switch brackets don't collide with the pinion. Manually move the gate in opening position and leaving a space between 30 and 50 mm between the gate and the mechanical stop, according to the weight of the gate. Fix the bracket of the magnetic limit switches with the proper pivot. Repeat the operation with the gate in closing position.



## MAINTENANCE

The motor gear MC4 is provided with a permanent lubrication of grease so it doesn't need of maintenance; nevertheless his good working depends on the state of the gate.

### **WARNING!**

- None apart the maintainer, who must be a specialized technician, could command the gate in automatic during its maintenance.
- It is suggested therefore to cut electric energy, avoiding also electric shocks.
- If, otherwise, the energy has to be present for possible verifications, is recommended to check or disable any command devices (radio-controls, pushbuttons, etc) excepted the one used by the maintainer.

Each of the following operations must be done when we realize the need and in any case every 6 months.

#### Mechanic maintenance:

- Clean from debris the rail and the respective wheels;
- Check the good fixing of the motor and the relative plate;
- do an unlocking maneuver in order to be sure that the mechanism will always be efficient.

#### Electric maintenance:

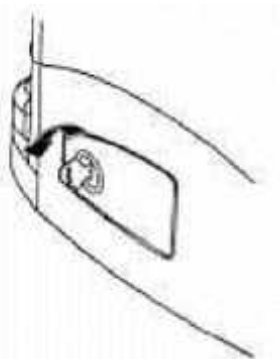
- Check the good state of the safety devices;
- Check the efficiency of the electronic power regulation
- Check the efficiency of the ground system (differential). Test the differential switch once a month pushing the test button on the pushbutton.

## USAGE OF THE MANUAL RELEASE

The manual release of the motor MC4 can be operated **at stopped motor and in absence of feeding and with discharged batteries** , in order to move manually the gate.

### **WARNING!**

- Don't use the manual release during normal functioning of the gate.
- Before unlocking the motor, unplug the feeding by the proper Omni-polar switch, set up before the installation.
- Keep the release key in a site easy to reach by the user.



#### MANUAL RELEASE PROCEDURE

- Insert the unlocking key and rotate it counter clockwise of 90°.
- Pull the handle until it is perpendicular to the motor gear.

## DISPOSAL

The disposal of materials must be done by current norms in force.

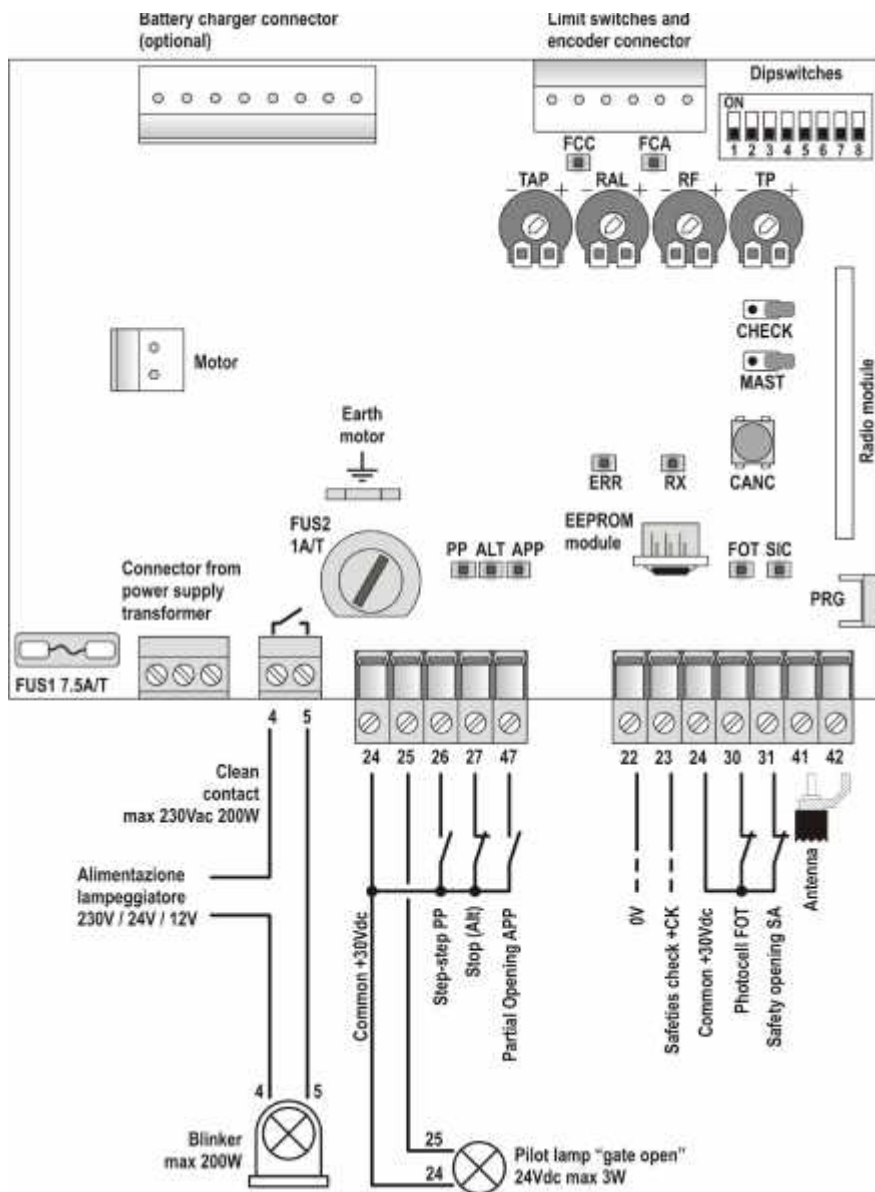
## CONNECTING CLAMPS AND ELECTRICAL PLAN

|      |   |
|------|---|
| 1, 3 | Feeding 230Vac ± 10% (50-60 Hz)                     |
|      | Ground connection                                   |
| 4, 5 | Output for blinker LAMP, 230Vac 200W max            |
| 24   | Output +24Vdc 10W max (common tension and safeties) |
| 25   | Output Pilot lamp "Open Gate" SCA, 24Vdc 3W max     |
| 26   | (NO) Input Step-Step command PP                     |
| 27   | (NC) Input of command ALT/STOP                      |
| 47   | (NO) Input of command of partial opening APP        |

|  |  |
|--|--|
|  | <b>(NC)</b> Normally closed entrance, if not used it has to be connected with the common (clamps 24) |
|--|--|

|    |   |
|----|---|
| 22 | Reference 0V                                |
| 23 | Output feeding for safeties check +24Vdc CK |
| 24 | Output common +24Vdc                        |
| 30 | (NC) Input photocell FOT                    |
| 31 | (NC) Input safety Opening SA                |
| 41 | Input of radio antenna                      |
| 42 | Input of radio antenna cable shield         |

|  |   |
|--|---|
|  | <b>(NO)</b> Normally opened entrance, it has to remain opened if not used |
|--|---|



### WARNING!

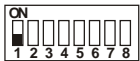
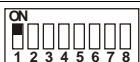










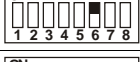
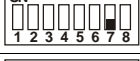

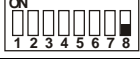
The correct connection to system earth of the device is fundamental for the electrical safety!

## FUSES



- If necessary check the status of fuses but before unplug the feed line and disconnect the eventually battery. Restore the feeding only after having insert the fuse.
- In case of intervention of the fuse, once resolved the failure, it must be substitute with another of the same characteristic.

| Fuses | Value  | Description                                  |
|-------|--------|--|
| FUS1  | 7.5A/T | Protection of the motor and internal feeding |
| FUS2  | 1A/T   | Protection external command services         |

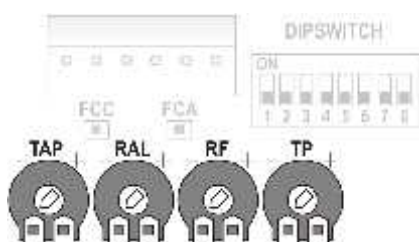
## DIPSWITCH

| DIP            | Position  | Function          | Description   |
|----------------|---|-------------------|---|
| 1 OFF          |    | FOT               | Modality <u>STOP-REOPEN</u> : Even in opening than in closing , the gate stops and at the release of the photocell FOT after 2 seconds it reopens.                                    |
| 1 ON           |    | FOT               | Modality <u>REOPEN</u> : makes the inversion of motion in closing phase.  |
| 2 OFF          |    | FOT/TP            | At the passage trough the photocell the pause time restarts (if trimmer TP isn't at the minimum).   |
| 2 ON           |    | FOT/TP            | The passage trough the photocell sets the pause time at 5s (if trimmer TP isn't at the minimum).  |
| 3 OFF<br>4 OFF |    | Command PP        | Function modality <u>OPEN-CLOSE</u>   |
| 3 OFF<br>4 ON  |    | Command PP        | Function modality <u>OPEN-STOP-CLOSE-STOP</u>   |
| 3 ON<br>4 OFF  |    | Command PP        | Function modality <u>REMOTE OPENING</u> : Opens, only at complete opened gate is possible to close.   |
| 3 ON<br>4 ON   |    | Command PP        | Function modality <u>CONDOMINIUM</u> : makes only the opening. The closing takes place at the expiring of pause time.   |
| 5 OFF          |    | External blinking | If <u>DIP 5 is OFF</u> : the contact LAMP is closed during the maneuver and open at control board not working. Use this mode for the connection of an <b>external warning light</b> . |
| 5 ON           |    | Internal blinking | If <u>DIP 5 is ON</u> : the contact LAMP is blinking during the maneuver and open at control board not working. Use this mode to connect a Lamp as flashing light.                    |
| 6 OFF          |    | Forewarning       | Blinker and motor start immediately together.   |
| 6 ON           |    | Forewarning       | The blinker starts 2.5s before of the manoeuvre.  |
| 7 OFF          |   |                   | Not used  |
| 7 ON           |  |                   | Not used  |
| 8 OFF          |  | Direction         | Defined direction of motion (motor and limit switch as by serigraphy and manual instruction).   |
| 8 ON           |  | Direction         | Direction of motion inverted (motor and limit switch with inverted meanings with reference to serigraphy and manual instruction).   |

## CHECK JUMPER

| Jumper      | Position  | Function          | Description  |
|-------------|---|-------------------|--|
| CHECK open  |  | Check of safeties | Enables the check of safeties at every start of manoeuvre. |
| CHECK close |  | Check of safeties | Disable the check of safeties.                             |

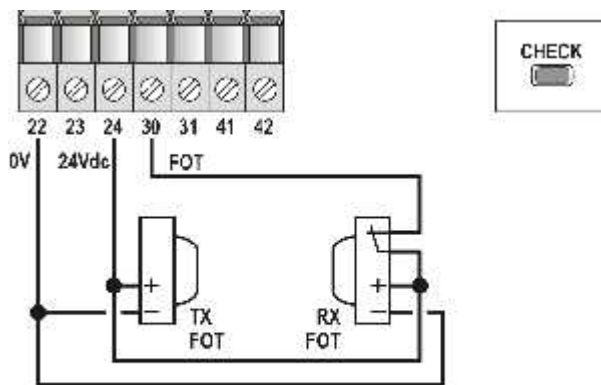
## DESCRIPTION OF TRIMMERS



| Trimmer | Description   |
|---------|---|
| TAP     | Working Time for partial opening (input APP)                            |
| RAL     | Slowing down Time in closing, between 0s and 8s.                        |
| RF      | Electronic power regulation of motor.                                   |
| TP      | Pause time for automatic closing (3s - 80s, at the minimum it disables) |

## CONNECTION OF PHOTOCELLS

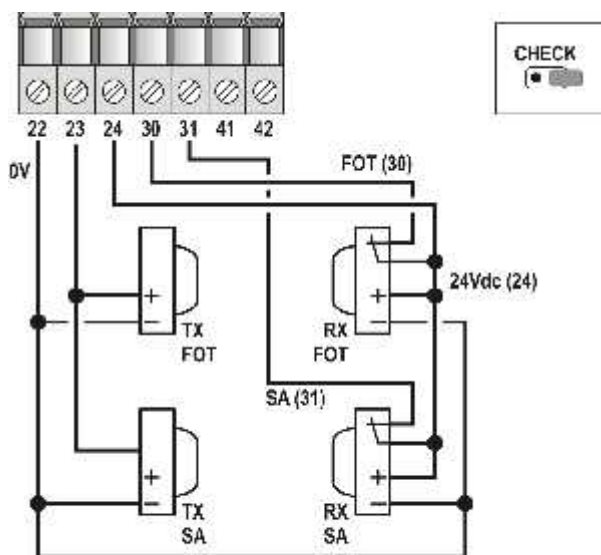
Standard connection (**jumper CHECK closed**, without check securities) of the photocell FOT (same procedure is for the SA):



Connection without FOT check  
(jumper CHECK closed)

The control board D13 is provided by a feeding voltage **+CK (clamp 23)** for the control (check) of photocells or similar safeties (input **FOT** and **SA**).

To allow to the D13 board to control the safeties you have to connect the positive feeding of each transmitter to the clamp 23 (+24V CK) and **open the jumper CHECK**.



FOT and SA with safety check  
(jumper CHECK open)

During the installation phase (LEDs RX and ERR blink alternatively) the board checks which securities are connected to the feeding of **+CK (clamp 23)** according to the plan above. The securities whose TX transmitters are connected to the +24V common feeding (clamp 24) are not controlled.

At the end of the installation and before each maneuver, the under check securities will be controlled through the deactivation and the following reactivation of the +CK output and the simultaneous control of the securities state. If this control fails (e.g.: photocell doesn't work) the move will be stopped and the ERR LED will blink 5 times.

To disable the securities check, close the **jumper CHECK**.

In order to connect more safeties to the same entrance (e.g.: FOT), connect the normally closed contacts (NC) in series.

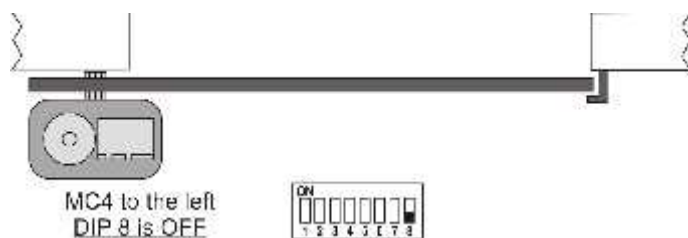
## INSTALLATION PROCEDURE

### WARNING!

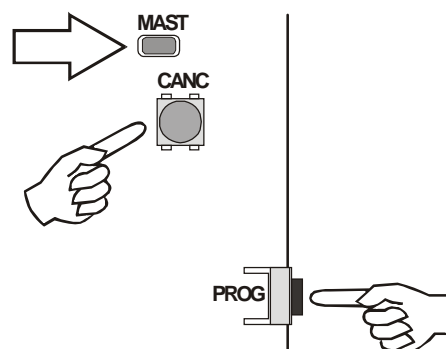
During the installation:

- LEDs' RX and ERR blink alternatively
- The slowing down isn't functioning
- The check of securities isn't functioning

- 1) Check the fixing of motor and gate.
- 2) Adjust opening and closing limit switches in order to stop the gate at the desired position.
- 3) At board switched off, set DIP 8 according if the motor is installed either on the left or on the right hand of the gate:



- 4) Put the gate at the middle of his run and switch on the D13 board. Verify that no buzz, overheated or undesired command of the motor are present.
- 5) Verify that the LEDs' ALT, SA, FOT, FCC, FCA are lighted on (input closed on the common) and the LEDs' PP and APP are off (input open).
- 6) Reset the settings of the board: close the **jumper MAST** and push simultaneously **buttons PROG and CANC**: the LEDs' ERR and RX blink together; after approx 5s the board is reset and LEDs' ERR and RX blink alternatively (installation phase). **Reopen the jumper MAST.**



- 7) Program the DIPs 1, 2, 3, 4, 5, 7, 8 in **OFF** and the DIP 6 in **ON** (forearm enabled). Open the **jumper CHECK** to check the securities before any maneuver, otherwise close the jumper to disable this function.
- 8) Adjust the trimmer **RF1** at the middle of its run (power regulation of approx 50%), and the trimmers **RAL**, **TP** and **TAP** at the minimum.
- 9) Verify that the first manoeuvre of the gate, after the switching on, is an opening. If not, verify connections or that there are not safeties enabled. If the motor buzzes or it works only in one direction,



check the right connection of the common or capacitor. In contrary case verify that there are no active safeties (FOT, SA) and verify the correct setting of DIP8.

- 10) Adjust trimmer **RF1** in order to regulate the push of the motor, according to current laws.

#### **WARNING!**

- The installer have to respect what indicated in the normative EN 12453 for what concerning the limitation of dynamic impact power. For such purpose he have to use the necessary instruments for measure such power which must be certified instruments and accorded to normative in force.
- The conformity could be obtained by the proper regulation of the motor torque and eventually by other safety devices (sensible edges, rubber profile of adequate height and profile, ...).

- 11) Let the gate do 3 complete cycles (opening and closing) ) without interventions of safeties, so that the board is able to learn working times of the gate. At the third maneuver LEDs' ERR and RX will stop to blink alternatively: it means that the installation phase is over.
- 12) Adjust the trimmer **TP** in order to set the **pause** (automatic closing time) from 0s to 80s approx. When the trimmer **TP** is at the minimum disables the automatic closing.
- 13) Adjust the trimmer **TAP** to set the **partial opening time** of the gate.
- 14) Adjust the trimmer **RAL** to set the **slowing down time in closing**, from 0 to 8s. When the trimmer **RAL** is set at the minimum it disables the slowing down.
- 15) Adjust the dipswitches according to the desired motor functioning.

#### **WARNING!**

After the installation and the regulation of the board, the installer have to check the perfect functionality and compliant of the installation, particularly protections and safeties.

### **COMMANDS AND FUNCTIONING MODALITIES**

#### **MODALITY OPEN-CLOSE (DIP 3 OFF and DIP 4 OFF)**

Pushing button **PP** or a button of the **radio-control**, the board makes alternatively an opening and a closing phase.

#### **MODALITY OPEN-STOP-CLOSE-STOP (DIP 3 OFF and DIP 4 ON)**

Pushing button **PP** or a button of the **radio-control**, the board makes alternatively opening-STOP-closing-STOP.

#### **MODALITY "REMOTE OPENING" (DIP 3 ON and DIP 4 OFF)**

Pushing button **PP** or a button of the **radio-control**, the board makes an opening; only when the gate reaches the limit switch or when the working time is expires, it is possible to close the gate.

During the closing phase the gate reopens.

This modality is suggested in presence of lot of interferences on the radio transmission or when many users can command simultaneously the gate.

#### **MODALITY "CONDOMINIUM" (DIP 3 ON and DIP 4 ON)**

Pushing button **PP** or a button of the **radio-control**, the board makes an opening; closing takes place automatically only with the pause time (trimmer **TP**).

This modality is recommended in condominiums with lot of users.

#### **PARTIAL OPENING (APP)**

A n.o. pushbutton connected between **clamps 24** and **47**, commands a partial opening of the gate, which is adjustable by trimmer **TAP**. If during the phase of partial opening arrives a command of complete opening the gate executes this last one.

#### **PUSHBUTTON ALT (STOP)**

Pushing the button **ALT** (stop) that is connected to the clamp **27** makes the board stop any motion of the gate. The automatic closing is suspended.

The restart of motion takes place only by a new command.

#### **FOREWARN**

Putting **DIP 6** in **ON**, the blinker is lighted on for approx 2.5s. to indicate the beginning of any maneuver.

#### **SLOWING DOWN**

In order to have a precise and quiet stop of the gate it is possible to set a period of slowing down in closing before the stop of motor.

**WARNING: due to clearances or particular features of some motors, in case of repeated inversions of motion without reaching the full opening or closing, the working time increases and the beginning of the slowing down can assume different positions, till to be not visible. A full opening or closing re-establish the right operation.**

To activate and adjust the slowing down time in closing, use the trimmer **RAL**, from 0s to 8s approx.

#### **AUTOMATIC CLOSING**

Adjust trimmer **TP** for the desired closing time. When you don't need any automatic closing, set the trimmer TP at the minimum. If during an automatic closing the photocells intervene and the **DIP 2** is in **OFF**, the internal timer will be restart. If the **DIP 2** is in **ON**, the closing takes place 5s after the release of photocells.

#### **SAFETY OPENING "SA"**

The intervention of the **safety opening SA** (clamp 31) during an opening movement determines the immediate stop of the gate and the restart in closing for 2s. The restart of motion can take place only with a new command and it will be, for sure, a closing movement.

#### **PHOTOCELL FOT**

The **photocell FOT** installed at the entrance of the gate has to be connected to **clamp 30**. With the **DIP 1** in **OFF** (modality stop-reopen) passing trough the photocell, even in opening than in closing, the gate stops and after 2s from the release, the gate reopens.

With the **DIP 1** in **ON** (modality reopen) only in closing and passing trough the photocell the gate stops and reopens after a brief pause; during opening it makes no effect.

#### **OBSTACLE DETECTION MODULE**

The control board checks continuously the functioning of the motor during the normal motion. If it is detected a situation that stops the motor, after approx 1 second the control panel reverses the motion for about 2s, the LED **ERR** and the pilot lamp **SCA** blink 4 times. The restart of movement can take place only by a new command and it would be certainly in the opposite side.

#### **CHECK OF SAFETIES**

The control board is provided by a feeding voltage of **+CK** (clamp 23) for the control of photocells or similar safeties (input **FOT** and/or **SA**). Connecting photocells as by electric plan and the opening of the **jumper CHECK**, the functionality of the safeties is verified before any maneuver.

## SIGNALLING LED AND "GATE OPEN" PILOT LAMP

Generally, the **LED RX** signals the power of the radio transmission received, the **LED ERR** and the pilot lamp **SCA (clamp 25)** signals that the gate is open or an error situation.

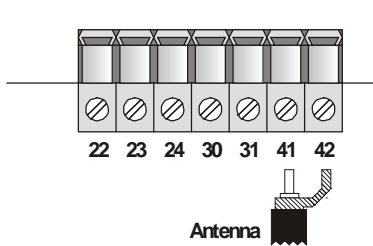
The alternate blinking of the LEDs' RX and ERR signals the phase of installation (see pag.8).

| LED ERR  | Description of the Error                                      |
|----------|---|
| 1 blink  | Error in the memory module EEPROM                             |
| 2 blinks | Error in the check of safeties before any maneuver            |
| 3 blinks | Encoder malfunctioning  |
| 4 blinks | Intervention of obstacle detection module                     |
| 7 blinks | Not correct limit switch detect during installation procedure |
| 8 blinks | Expired working time  |

## RECORDING OF RADIO-CONTROLS

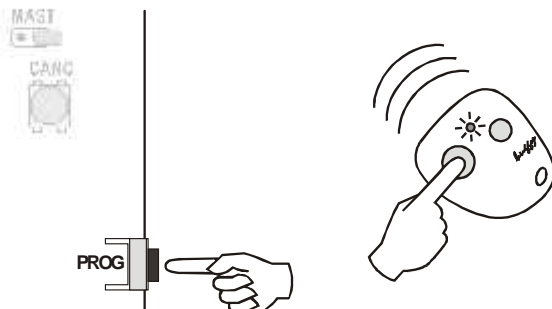
### CONNECTION OF THE ANTENNA

It necessary to connect the antenna with maximum 5m of 50ohm Coax cable to the clamps **41** and **42**, knowing that in order to have the best performance, the antenna must be installed as high as possible, close to the receiver, in an area free of radio magnetic interferences and far from metallic elements. For short ranges is enough to connect a piece of rigid cable (17cm for the frequency 433.92MHz).



### RECORDING PROCEDURE

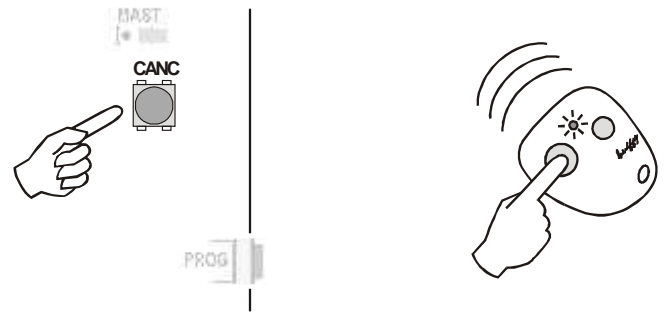
- After having verified the correct functioning of the installation proceed to the recording of remote controls.
- Verify that pushing the button of the radio control, the RX LED of the control board blinks. If this don't happen it means that the radio signal is not compatible.
- If the RX LED of the board blinks without having push any button on the radio control, it means that we are in presence of radio interferences or that other radio-controls are transmitting. In this conditions, it is suggestible you do not proceed through the recording phase.
- Keep pushed button **PROG** on the control board and push the desired button of the radio-control till the RX LED remains always lighted on (recording done).



- Release the pushbuttons and control the functioning.

## DELETING OF A RADIO CONTROL

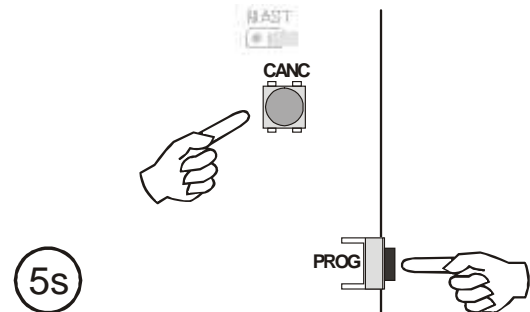
- First, push the button **CANC** on the control board then, for 1s, the desired button to be delete on the remote control. Now the RX LED remains lighted on (deleting done).



- This procedure must be done for every button you want to delete.

## TOTAL DELETING OF ALL RADIO-CONTROLS

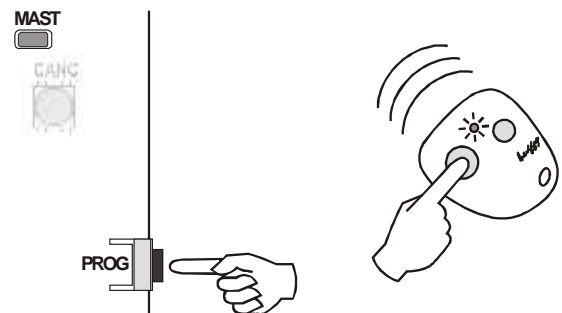
- Left the jumper **MAST** open. Push simultaneously buttons **PROG** and **CANC** of the Control Board.



- During the first 5 seconds the RX LED will blink slowly. At the end of deletion the Rx and ERR LEDs will remain lighted on. Release the buttons now.

## INSTALLATION OF THE "MASTER" RADIO-CONTROL

- Close the jumper **MAST**: the LED ERR blink quickly. Push the button **PROG** and simultaneously the button of the radio-control (Ety4F or Emy4F) to record as "MASTER", till the LED RX remains always lighted on.



- Release buttons and the RX LED will switch off..
- To verify the correct recording of the MASTER, push simultaneously **buttons 1 and 4** of the radio-control: The LED RX on the control board will blink slowly for 10s.
- Reopen the jumper MAST.

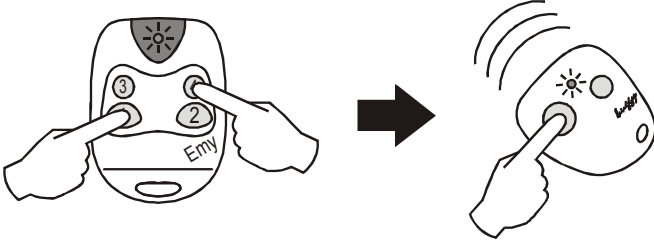
**NOTE:** Only one remote-control can be recorded as "MASTER". The recording of a new "MASTER" eliminates automatically the previous recorded.

## REMOTE RECORDING OF NEW RADIOCONTROLS BY THE "MASTER" RADIOCONTROL

- In order to avoid the opening of the box where the board or the radio receiver is stored, the control board is supplied by a function

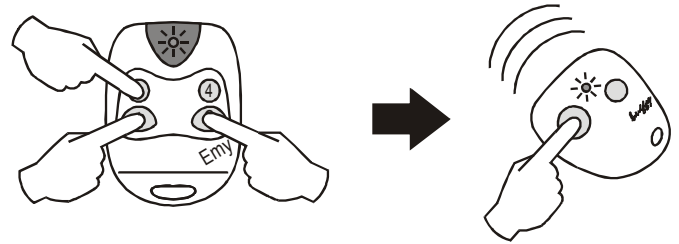
that allows to remote recording new radio-controls. To do this it is necessary to record a radio-control of the series Ety4 or Emy4 as "MASTER".

- b) Push simultaneously the **buttons 1 and 4** of the radio-control "MASTER". The LED of the radio-control will remain lighted on for 10s.
- c) Push (at least for one second) within this period, the button of the radio control we want to record. It is possible to record more radio-controls and more pushbuttons in sequence. The procedure ends after 10 seconds from the last recording.



**REMOTE DELETING OF RADIO CONTROLS USING THE "MASTER" RADIOCONTROL"**

- a) Push simultaneously on the "MASTER" radio-control the **buttons 1-2-3**. The LED of the radio-control will remain lighted on for 10s.
- e) Within this period push the button of the radio-control to be deleted.



- f) Verify the correct deleting of the pushbutton. To delete other pushbuttons repeat the procedure from the beginning.

- d) Test the new radio-controls recorded. In case it is not working one of the following situations could be happened: the command of the radio control MASTER (1 and 4) was not right received, the command of the new radio-control was not right received or the memory is full (max 60 radio controls).

**CE STATEMENT OF CONFORMITY**

PROGET s.r.l declares that the product

**MC4-24**

complies with the essential requisites contained in the following directives:

- directive on the electromagnetic compatibility 89/336/EEC and following
- directive on the low voltage 73/23/CEE and following

Applied laws of harmonization:

EN55014-1, EN55014-2, EN 61000-3-2, EN 61000-3-3, EN60335-1

Furthermore this product is compatible with the usage in an installation complying to Statement 98/37/CE (machinery) norms:

EN 12453, EN 12445, EN 12341-1

The present product could not be used in an independent way but must be incorporate in an installation composed of further elements. Therefore is forbidden to put in functioning the device before the installation is declared compliant to the requirements of Statement 98/37/CE (machinery).

PROGET s.r.l  
 Via Europa, 3, 31047 Ponte di Piave, (ITALY)  
 phone: +39 0422 857377  
 fax: +39 0422 857367  
 email: [proget@proget-beb.com](mailto:proget@proget-beb.com)

**Ponte di Piave, 21-02-2008**

**Officer In Charge: GINO BASSI**

The description and the electrical plan of this instructions guide are not binding. Although the main features of the device will be kept unchanged, Proget s.r.l. reserves itself at any time the faculty to improve the performance of the device even for commercial matters, and the right to up-date the instructions guide without any commitments.



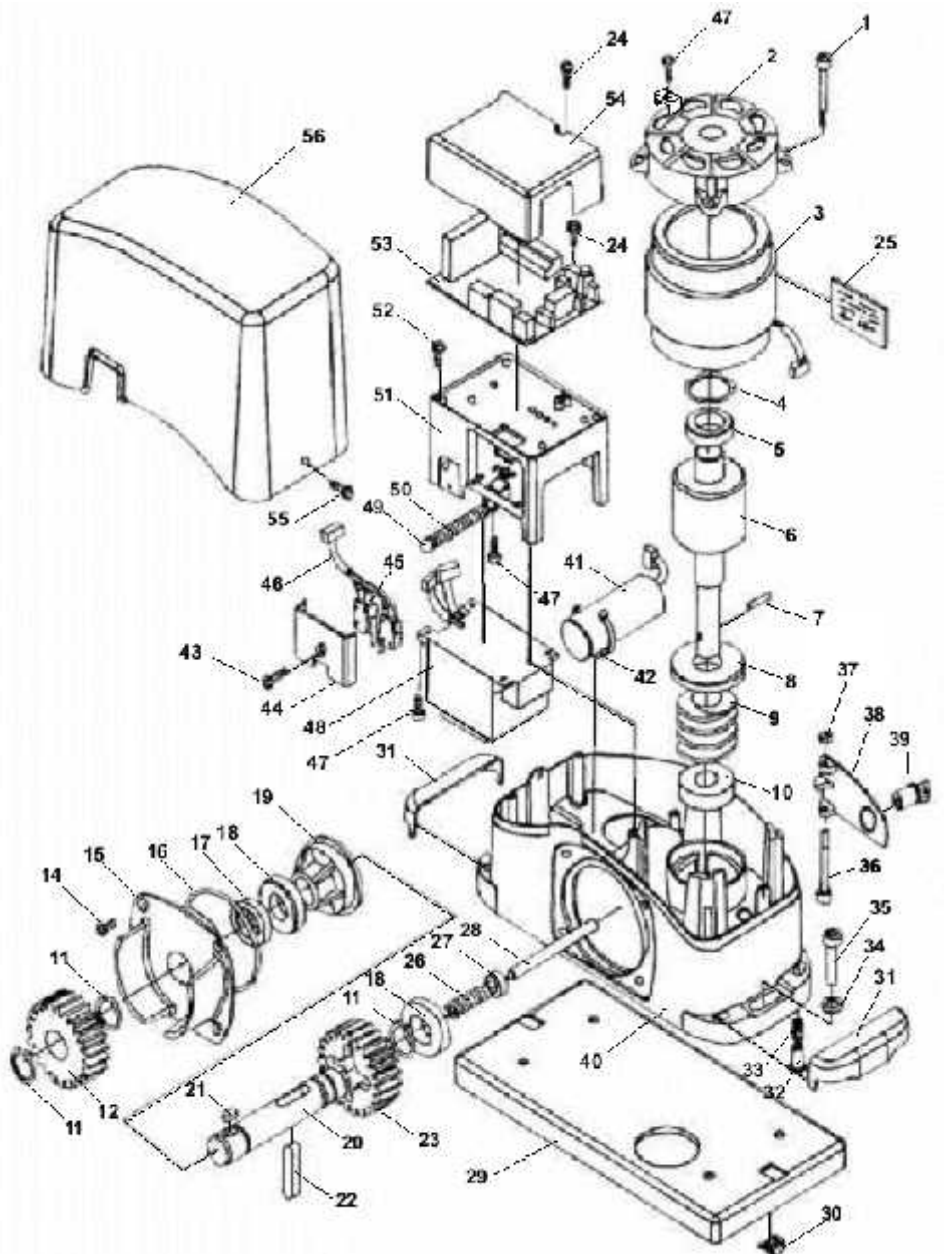
**PROGET srl**  
 Via Europa, 3 31047 Ponte di Piave (TV) - ITALY  
 tel. +39 (0)422 / 857377 fax +39 (0)422 / 857367  
 web: <http://www.proget-beb.com> email: [proget@proget-beb.com](mailto:proget@proget-beb.com)



rev. 1.0.2, 05/2008

# MC4 SPARE PARTS

|    |               |
|----|---------------|
| 1  | 390V6X60TCE   |
| 2  | 500CALSC-50   |
| 3  | 470S11062H506 |
| 4  | 410AED10      |
| 5  | 440C6203      |
| 6  | 470R6250      |
| 7  | 410SE6X32     |
| 8  | 450AT256210   |
| 9  | 430VD48       |
| 10 | 440C6204      |
| 11 | 410AD25       |
| 12 | 480RM4Z18     |
| 13 |               |
| 14 | 390V6X12TR    |
| 15 | 500 FLANSC-50 |
| 16 | 450CR4337     |
| 17 | 450AT25407    |
| 18 | 440C6005      |
| 19 | 570DISTSC     |
| 20 | 490ALSEC      |
| 21 | 410L8X7X15    |
| 22 | 410L10X8X50   |
| 23 | 570RM3Z23     |
| 24 | 390V2-9X13C   |
| 25 | 600ETDATISC   |
| 26 | 430MSBL       |
| 27 | 450AT10197    |
| 28 | 490PSBOTT     |
| 29 | 520CPSC-50    |
| 30 | 400DGM10      |
| 31 | 570CSTAFFSC   |
| 32 | 410RFM8FTT    |
| 33 | 400GM8X35     |
| 34 | 410RD10       |
| 35 | 390V10X35TCE  |
| 36 | 390V5X70TCE   |
| 37 | 400DAM15      |
| 38 | 500SPOSC-50S  |
| 39 | 420S2151B-KA  |
| 40 | 500CORSC-50   |
| 41 | 190CR16M450   |
| 42 | 380F290X3     |
| 43 | 390V4-2X19S   |
| 44 | 570PRMIC      |
| 45 | 330M16A300G   |
| 46 | 550CABSC-50   |



|    |              |
|----|--------------|
| 47 | 390V4-2X9-5C |
| 48 | 900ATRA      |
| 49 | 570TAPMOLL   |
| 50 | 430MFIN      |
| 51 | 570CAST      |
| 52 | 390V3-9X13C  |

|    |             |
|----|-------------|
| 53 | 900CT-1A    |
| 54 | 570CCT-1A   |
| 55 | 390V4-2X13I |
| 56 | 570CSC      |



|  |   |         |
|--|---|---------|
|  | <b>STATEMENT OF CONFORMITY</b><br><b>(Machine Directive 98/37/CE, Enclosure II, part A)</b> | Annex 2 |
|--|---|---------|

Constructor: \_\_\_\_\_

Address: \_\_\_\_\_

States that: \_\_\_\_\_

*(Door/Gate description, model, ID number)*

Location: \_\_\_\_\_

*(Address)*

It complies with:  
 98/37/CE Machinery Directive

It states that have been observed the applicable parts of the following rules:

- EN 13241-1 Doors and industrial, commercial and residential gates. Product rule. Products which are not resistant to the fire or without smoking control.
- EN 12453 Industrial, commercial and garage doors and gates. Safety of motorized doors. Requisites.
- EN 12445 Commercial and garage doors and gates. Safety of motorized doors. Testing methods.

Date:

Legible signature of the legal person in charge:



**Technical assistance:**

(Name, address, telephone, technician of reference)

This register contains technical references and registrations of the activities related to installation, maintenance, repairing and modification done, and it has to be available for eventual inspections from authorized organisms.

## TECHNICAL DATA OF THE MOTORIZED DOOR/GATE AND ABOUT THE INSTALLATION

Client: \_\_\_\_\_

*Name, address, person in charge*

Number of order: \_\_\_\_\_

*Number and date of the order*

Model and description: \_\_\_\_\_

*Door/Gate typology*

Size and weight: \_\_\_\_\_

*Dimension of the doorway, size and weight of the leaf*

Serial number: \_\_\_\_\_

*Univocal ID number of the door/gate*

Location: \_\_\_\_\_

*Address of the installation*

## LIST OF INSTALLED COMPONENTS

The technical features and the performances of the listed components (below) are described in the related manuals of installation and/or on the label stucked on the component.

Motor /Movement Set: \_\_\_\_\_

*Model, type, serial number*

Electrical panel: \_\_\_\_\_

*Model, type, serial number*

Photocells: \_\_\_\_\_

*Model, type, serial number*

Security appliances: \_\_\_\_\_

*Model, type, serial number*

Control appliances: \_\_\_\_\_

*Model, type, serial number*

Radio devices: \_\_\_\_\_

*Model, type, serial number*

Blinker: \_\_\_\_\_

*Model, type, serial number*

Other: \_\_\_\_\_

*Model, type, serial number*

## REGISTER OF THE RESIDUAL RISKS AND OF THE FORESEEABLE IMPROPER USE

Use sign-boards on the parts of the product with the highest level of risk and/or written information to give to the users of the door/gate or to the person in charge, about present risks and the improper or foreseeable use.

---

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| <i>Description of the intervention</i>   |          |                         |             |                     |          |
|--|----------|-------------------------|-------------|---------------------|----------|
| (Tick the square according to the intervention done. Describe the possible residual risks and/or the foreseeable improper use) |          |                         |             |                     |          |
| Installation   | Starting | Regulations             | Maintenance | Repairing           | Modifies |
| Note:  |          |                         |             |                     |          |
| Trimmer:<br>   |          | Dipswitch:<br>          |             | Jumper:<br>         |          |
| Date:  |          | Technician's signature: |             | Client's signature: |          |

| <i>Description of the intervention</i>   |          |                         |             |                     |          |
|--|----------|-------------------------|-------------|---------------------|----------|
| (Tick the square according to the intervention done. Describe the possible residual risks and/or the foreseeable improper use) |          |                         |             |                     |          |
| Installation   | Starting | Regulations             | Maintenance | Repairing           | Modifies |
| Note:  |          |                         |             |                     |          |
| Trimmer:<br>   |          | Dipswitch:<br>          |             | Jumper:<br>         |          |
| Date:  |          | Technician's signature: |             | Client's signature: |          |