Control panel for sliding gates - 24V dc

- Display for programming and trouble-shooting.
- Electronic adjustment of working and slowdown times.
- Dual programming modes: automatic with obstacle detection feature or sequential step-by-step.
- Quick closing.
- Pedestrian opening.
- Multi-occupation function.
- Pre-blinking.
- Second radio channel interface (available as accessory).
- Integrated radio receiver 433.92MHz (99 users) suitable for both fixed and rolling-code Proteco’s transmitters.
- Individual output for MECHANICAL N.C. and RESISTIVE 8K2 safety edges.
- Operational self diagnostic.

TECHNICAL FEATURES

<table>
<thead>
<tr>
<th>Item</th>
<th>PQ20S, PQ20S1D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions</td>
<td>137 x 84 x 37 mm</td>
</tr>
<tr>
<td>Box dimensions</td>
<td>220 x 290 x 90 mm</td>
</tr>
<tr>
<td>Pcb’s weight</td>
<td>160 g</td>
</tr>
<tr>
<td>Main power</td>
<td>1700 g</td>
</tr>
<tr>
<td>Tension to control unit</td>
<td>230V ac ~ 50-60 Hz -10% +20%</td>
</tr>
<tr>
<td>Main power tolerance</td>
<td>20V ac</td>
</tr>
<tr>
<td>Transformer</td>
<td>230/20V – 130 VA</td>
</tr>
<tr>
<td>Main fuse</td>
<td>2 A</td>
</tr>
<tr>
<td>Battery fuse</td>
<td>10 A</td>
</tr>
<tr>
<td>Rated power input</td>
<td>250 W</td>
</tr>
<tr>
<td>Max. absorption rate</td>
<td>10 A</td>
</tr>
<tr>
<td>Absorption in stand-by</td>
<td>40 mA</td>
</tr>
<tr>
<td>Blinker</td>
<td>24V dc, max 20 W</td>
</tr>
<tr>
<td>Accessories</td>
<td>24V dc, max 5 W</td>
</tr>
<tr>
<td>Working temperature</td>
<td>-20 to +60 °C</td>
</tr>
<tr>
<td>IP rate (boxed)</td>
<td>IP55</td>
</tr>
</tbody>
</table>
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1. WARNINGS AND INSTALLATION TIPS

WARNING: This manual contains important information concerning personal safety. An incorrect installation or an improper use may lead to severe injuries.

Read carefully and pay particular attention to the safety sections marked by the symbol ⚠️.

Store this manual safely for future use

⚠️ Do not allow children or pets near your gate. Never let children operate or play with gate controls. Keep the remote controls away from children and unauthorised users.

⚠️ All wirings or operations on the control panel must be performed with the control panel disconnected from the power supply.

Wiring, settings and commissioning of this control board must be carried out by qualified and experienced personnel only. The installation has to comply to laws and regulations in force, with particular reference to EN 12445 provisions.

This appliance is only to be used with the power supply unit provided with the appliance.

Means for disconnection must be incorporated in the fixed wiring in accordance with the wiring rules and wiring diagram (please see paragraph 3).

When operating a based-off switch, make sure that other persons are kept away. Frequently examine the installation for signs of wear or damage to cables.

Do not use if repair or adjustment is needed.

---

CE COMPLIANCE DECLARATION

Manufacturer: PROTECO S.r.l.
Address: Via Neive, 77 - 12050 CASTAGNITO (CN) - ITALIA

declares that

The product type: Q20S ELECTRONIC CONTROLLER for sliding gates 24V
Modello: PQ20S, PQ20S1D

Is built to be integrated into a machine or to be assembled with other machinery to create a machine under provisions of 2006/42/EC Machinery Directive.

It complies with the essential requirements of EEC Directives:
2014/30/UE (EMC) 2014/35/UE (LVD)
2014/53/UE (RED)
RoHS2 2011/65/CE

And with EN 60335-1 - EN 60335-2-103

The manufacturer declares that the start-up of the machinery is not permitted unless the machine, in which the product is incorporated or of which is becoming a component, has been identified and declared as conformed to 2006/42/EC Machinery Directive.

Note: These products have undergone test in a typical uniform configuration.

Castagnito, July 18th 2018

Marco Gallo
CEO
2. COMPONENTS

DISPLAY = LCD display
U4 = radio receiver
F1 = self-restoring fuse ACCESSORIES 24V - 0.5A
F2 = BATTERY fuse 10A
F3 = self-restoring fuse BLINKER 24V - 1.6A
F4 = self-restoring fuse ELECTRIC LOCK 12V - 1.6A
RL1 = motor relay OPEN
RL2 = motor relay CLOSE
CN1 = START contacts
CN2 = PHOTOCELLS contacts
CN3 = safety edge
CN4 = limit switch
CN5 = motor and blinker
CN6 = external aerial
CN7 = software plug
CN8 = 2nd radio channel interface plug
CN9 = secondary transformer 24Vac
CN10 = battery
Q7 = mosfet blinker
Q8 = mosfet photocells

PROGRAMMING KEYS

<table>
<thead>
<tr>
<th>Button</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>ENTER / settings selection</td>
</tr>
<tr>
<td>B</td>
<td>EXIT / SAVE</td>
</tr>
<tr>
<td><img src="UP" alt="Up" /></td>
<td>UP or START command</td>
</tr>
<tr>
<td><img src="DOWN" alt="Down" /></td>
<td>DOWN or PEDESTRIAN command</td>
</tr>
</tbody>
</table>
3. WIRING TABLE

motors 24Vdc

PROTECO S.r.l.  Via Neive, 77 - 12050 Castagnito (CN) ITALY  Tel. +39 0173 210111 - Fax +39 0173 210199  info@proteco.net - www.proteco.net
### Terminals (INPUTS / OUTPUTS)

#### CN1 = START contacts

1. START (contact N.O.)
2. STOP push button (contact N.C.)
3. PEDESTRIAN START (contact N.O.)
4. COMMON

#### CN2 = PHOTOCELLS

5. CLOSE (contact N.C.)
6. OPEN (contact N.C.)
7. RX PHOTOCELL -24V
8. TX/RX +24V
9. TX PHOTOCELL -24V

#### CN3 = SAFETY EDGES

10. CLOSE
11. OPEN
12. COMMON

#### CN4 = LIMIT SWITCH

13. CLOSE
14. OPEN
15. COMMON

#### CN5 = BLINKER and MOTOR

17. Motor 24V dc

#### CN6 = EXTERNAL AERIAL

21. Coaxial wire 1 (SIGNAL)
22. Coaxial wire 2 (EARTH)

#### CN8 = 2° radio channel interface plug

#### CN9 = Secondary transformer 24Vac

#### CN10 = Battery
3.1 MOTOR and LIMIT SWITCH wiring

Once the motor has been positioned, wire as shown below.

By default the motor comes RH pre-wired (inner view).

3.1.1 Motor with MECHANICAL LIMIT SWITCH

Motor positioned to the RIGHT of the gate

\[ \text{OUTER VIEW} \quad \text{INNER VIEW} \]

RH Motor

Motor positioned to the LEFT of the gate

\[ \text{OUTER VIEW} \quad \text{INNER VIEW} \]

LH Motor

If the motor is positioned to the LEFT (inner view), change the operational direction, going to \[ \text{C6} \] and setting \[ \text{01} \] (motor inversion).

3.1.2 Motor with MAGNETIC LIMIT SWITCH

If the motor is fitted with MAGNETIC limit switch, go to \[ \text{C7} \] and set \[ \text{01} \] (magnetic limit switch mode ON).

Motor positioned to the RIGHT of the gate (inner view)

The SMALL magnetic switch must always be positioned to the LEFT in OPENING.

The BIG magnetic switch must always be positioned to the RIGHT in CLOSING.

Motor positioned to the LEFT of the gate (inner view)

If the motor is positioned to the LEFT (inner view), change the operational direction, going to \[ \text{C6} \] and setting \[ \text{01} \] (motor / limit switch inversion).
3.2 MAIN POWER

Once all wirings are done, power the control unit. Connect the 230V to the transformer (130VA, primary 230V - secondary 20V) and the transformer’s output to CN9.

3.2.1 BATTERY
In case of power cut it is possible to connect no. 2 back-up batteries 12V 1,2Ah to CN10.

3.2.2 DC TENSION
It is possible to power the control unit DC. Replace the transformer by any other kind of power bank and wire to CN9, as picture shows. Pay attention to polarity (+ / -). If polarity is inverted, the control unit automatically goes to low consumption mode.

3.3 START PUSH BUTTON

It is possible to connect a START PUSH BUTTON (contact N.O.) to terminal CN1.

An additional START PUSH BUTTON shall be wired in PARALLEL (contact N.O.).

3.3.1 TIMER

It is possible to connect a TIMER (contact N.O.) to CN1.

When the TIMER is fitted, the gate remains OPENED for the whole time set and then CLOSES automatically.

ATTENTION:
If a TIMER is connected, it is necessary to set the MULTI-OCCUPATION function, HI on 01.

3.3.2 KEY SWITCH

It is possible to connect a KEY SWITCH (contact N.O.) to CN1.

3.4 PEDESTRIAN OPENING

PEDESTRIAN START contacts (N.O.) must be wired to 3-4, terminal CN1.

Additional PEDESTRIAN START contacts shall be wired in PARALLEL (contact N.O.)
3.5 STOP PUSH BUTTON

Wire the STOP push button (contact N.C.) to 2-4, terminal CN1.
Additional STOP push buttons shall be wired in series (contact N.C.).

The emergency STOP push button is highly recommended for safety of people and objects.

NB: If no STOP PUSH BUTTON is connected, set P1 to 00.

3.6 PHOTOCELLS

3.6.1 Photocells in CLOSING
Wire the photocells to 7-8-9, terminal CN2.
Wire the N.C. contact of the photocells to 5-7, terminal CN2.
An additional set of photocells can be connected, wiring in series the N.C. contacts.
  • If the photocell beam is interrupted during CLOSING, the gate STOPS and reverses for 1.5 seconds.
  • If the photocell beam is interrupted during opening, the gate keeps on working normally.

For safety reasons a set of photocells must be installed to protect the gate OPENING area.

NB: If no PHOTOCELL in OPENING is connected, set P2 to 00.

3.6.2 Photocells in OPENING
Wire the photocells to 7-8-9, terminal CN2.
Wire the N.C. contact of the photocells to 6-7 terminal CN2.
An additional set of photocells can be connected, wiring in series the N.C. contacts.
  • If the photocell beam is interrupted during opening, the gate STOPS.
  • Once the beam is free from obstacles, the gate RESTARTS opening normally.

For safety reasons a set of photocells must be installed to protect the gate OPENING area.

NB: If no PHOTOCELL in OPENING is connected, set P3 to 00.
3.7 SAFETY EDGE

3.7.1 SAFETY EDGE IN CLOSING

Wire the SAFETY EDGE to **10 – 12**, terminal **CN3**.

NB: If no SAFETY EDGE is connected in CLOSING, set **P4** to **00**.

The operation of the SAFETY EDGE in **CLOSING** stops the gate and reverses to opening position. The gate remains opened as long as another **CLOSING command** is given.

The operation of the SAFETY EDGE in **OPENING** doesn’t affect the normal duty cycle.

3.7.2 SAFETY EDGE IN OPENING

Wire the SAFETY EDGE to **11 – 12**, terminal **CN3**.

NB: If no SAFETY EDGE is connected in OPENING, set **P5** to **00**.

The operation of the SAFETY EDGE in **OPENING** stops the gate and reverses to closing position for 10 cm. The gate remains still as long as another **OPENING command** is given.

The operation of the SAFETY EDGE in **CLOSING** doesn’t affect the normal duty cycle.
### 3.8 BLINKER

Wire the blinker (max 20W) to 16–17, terminal CN5.

- **SLOW** flash → OPENING
- **QUICK** flash → CLOSING
- Light **ON** and **FIXED** → COUNTDOWN

NB:

The **HL** setting allows to choose the outgoing tension: 00 intermittent tension (Default), or 01 fixed tension.

### 3.9 Second radio channel AUX / WARNING LIGHT / COURTESY LIGHT / MAGNETIC LOCK

Switch the POWER OFF before plugging the interface.

Plug the interface **MRX02** (sold as optional) into **CN8** according to the driving slot.

Go to **AA** and set **R6**.

---

**NL**

3.8 BLINKER

Wire the blinker (max 20W) to 16–17, terminal CN5.

- **SLOW** flash → OPENING
- **QUICK** flash → CLOSING
- Light **ON** and **FIXED** → COUNTDOWN

NB:

The **HL** setting allows to choose the outgoing tension: 00 intermittent tension (Default), or 01 fixed tension.

### 3.9 Second radio channel AUX / WARNING LIGHT / COURTESY LIGHT / MAGNETIC LOCK

Switch the POWER OFF before plugging the interface.

Plug the interface **MRX02** (sold as optional) into **CN8** according to the driving slot.

Go to **AA** and set **R6**.
### SETTINGS TABLE

**RADIO settings**

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>RECORDING a transmitter as OPENING COMMAND</td>
<td>01...99 (users) &lt;br&gt; FL = full memory</td>
</tr>
<tr>
<td>A2</td>
<td>RECORDING a transmitter as PEDESTRIAN OPENING</td>
<td>01...99 (users) &lt;br&gt; FL = full memory</td>
</tr>
<tr>
<td>A3</td>
<td>RECORDING a transmitter as SECOND RADIO CHANNEL (optional)</td>
<td>01...99 (users) &lt;br&gt; FL = full memory</td>
</tr>
<tr>
<td>A4</td>
<td>DELETING a single transmitter</td>
<td>01...99</td>
</tr>
<tr>
<td>A5</td>
<td>DELETING all transmitters at once</td>
<td>01...99</td>
</tr>
<tr>
<td>A6</td>
<td>SETTING the 2° radio channel interface</td>
<td>01...05</td>
</tr>
</tbody>
</table>

**PROGRAMMING**

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1</td>
<td>AUTOMATIC with OBSTACLE DETECTION feature</td>
<td>01...05</td>
</tr>
<tr>
<td>B2</td>
<td>SEQUENTIAL (step by step without obstacle detection)</td>
<td>01...05</td>
</tr>
<tr>
<td>B3</td>
<td>Return to the DEFAULT SETTINGS</td>
<td>01...05</td>
</tr>
<tr>
<td>B4</td>
<td>MOTOR positioning, RH or LH</td>
<td>RH</td>
</tr>
<tr>
<td>B5</td>
<td>ELECTROMECHANICAL or MAGNETIC LIMIT SWITCH</td>
<td>MECHANICAL</td>
</tr>
</tbody>
</table>

**MOTOR TORQUE / OBSTACLE DETECTION**

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>OBSTACLE DETECTION - AUTOMATIC MODE ONLY</td>
<td>01 (min)...05 (max)</td>
</tr>
<tr>
<td>C2</td>
<td>SLOWDOWN SPEED</td>
<td>01 (min)...05 (max)</td>
</tr>
</tbody>
</table>

**FUNCTIONS**

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>D1</td>
<td>MULTI-OCCUPATION</td>
<td>00 = OFF &lt;br&gt; 01 = ON</td>
</tr>
<tr>
<td>D2</td>
<td>PRE-BLINKING</td>
<td>00 = OFF &lt;br&gt; 01 = ON</td>
</tr>
<tr>
<td>D3</td>
<td>PHOTOCELL TEST</td>
<td>00 = OFF &lt;br&gt; 01 = ON</td>
</tr>
<tr>
<td>D4</td>
<td>QUICK CLOSING</td>
<td>00 = OFF &lt;br&gt; 01 = ON</td>
</tr>
<tr>
<td>D5</td>
<td>MOTOR TEST</td>
<td>00 = OFF &lt;br&gt; 01 = ON</td>
</tr>
<tr>
<td>D6</td>
<td>BLINKER TENSION</td>
<td>00 = INTERMITTENT &lt;br&gt; 01 = FIXED</td>
</tr>
</tbody>
</table>

**TIMES**

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>E3</td>
<td>AUTOMATIC CLOSING</td>
<td>00 = OFF &lt;br&gt; 01 (min)...03 (max) .......... 99 (max)</td>
</tr>
<tr>
<td>E4</td>
<td>PEDESTRIAN AUTOMATIC CLOSING</td>
<td>00 = OFF &lt;br&gt; 01 (min)...03 (max) .......... 99 (max)</td>
</tr>
<tr>
<td>E7</td>
<td>SLOWDOWN</td>
<td>00 = OFF &lt;br&gt; 01 (min)...07 (max) .......... 10 (max)</td>
</tr>
<tr>
<td>E9</td>
<td>PEDESTRIAN OPENING</td>
<td>01 (min)...07 (max) .......... 25 (max)</td>
</tr>
</tbody>
</table>
## SAFETY DEVICES

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>STOP push button</td>
<td>00 = OFF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>01 = ON</td>
</tr>
<tr>
<td>P2</td>
<td>PHOTOCCELL in CLOSING</td>
<td>00 = OFF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>01 = ON</td>
</tr>
<tr>
<td>P3</td>
<td>PHOTOCCELL in OPENING</td>
<td>00 = OFF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>01 = ON</td>
</tr>
<tr>
<td>P4</td>
<td>SAFETY EDGE in CLOSING</td>
<td>00 = OFF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>01 = MECHANICAL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>02 = RESISTIVE</td>
</tr>
<tr>
<td>P5</td>
<td>SAFETY EDGE in OPENING</td>
<td>00 = OFF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>01 = MECHANICAL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>02 = RESISTIVE</td>
</tr>
</tbody>
</table>

## MAINTENANCE and SERVICE

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1</td>
<td>Cycles performed (no possibility of RESET)</td>
<td>Ex.: 12573 cycles</td>
</tr>
<tr>
<td></td>
<td>Display shows the cycles performed in 3 sequences</td>
<td>01 = 12573 cycles</td>
</tr>
<tr>
<td></td>
<td></td>
<td>25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>73</td>
</tr>
<tr>
<td>U2</td>
<td>Set maintenance COUNTERDOWN</td>
<td>00 = OFF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>01 = 123 cycles left to maintenance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>23</td>
</tr>
<tr>
<td>U3</td>
<td>Set WORKING CYCLES</td>
<td>00 = OFF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>01 = 1000 cycles</td>
</tr>
<tr>
<td></td>
<td></td>
<td>02 = 2000 cycle</td>
</tr>
<tr>
<td></td>
<td></td>
<td>99 = 99000 cycles (max)</td>
</tr>
<tr>
<td>U4</td>
<td>Show INSTALLATION DATE</td>
<td>00 = OFF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>01 = day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>02 = month</td>
</tr>
<tr>
<td></td>
<td></td>
<td>03 = year</td>
</tr>
<tr>
<td>U5</td>
<td>Set INSTALLATION DATE</td>
<td>00 = OFF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>01 = day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>02 = month</td>
</tr>
<tr>
<td></td>
<td></td>
<td>03 = year</td>
</tr>
<tr>
<td>U6</td>
<td>Motor DIRECT COMMAND</td>
<td>01 = OPEN</td>
</tr>
<tr>
<td></td>
<td></td>
<td>02 = CLOSE</td>
</tr>
</tbody>
</table>

## SELF DIAGNOSTIC - Fault messages

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5L</td>
<td>START</td>
</tr>
<tr>
<td>5Ld</td>
<td>PEDESTRIAN START</td>
</tr>
<tr>
<td>R</td>
<td>THE TRANSMITTER is compatible and can be saved</td>
</tr>
<tr>
<td>A</td>
<td>OBSTACLE DETECTION operating</td>
</tr>
<tr>
<td>5d</td>
<td>SAVE settings</td>
</tr>
<tr>
<td>5</td>
<td>QUICK ROTATION = normal operation</td>
</tr>
<tr>
<td>5d</td>
<td>SLOW ROTATION = slowdown</td>
</tr>
</tbody>
</table>

Q205_1_2018
### MAIN TABLE

<table>
<thead>
<tr>
<th>A</th>
<th>Go to main settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Confirm</td>
</tr>
<tr>
<td>B</td>
<td>EXIT / SAVE</td>
</tr>
</tbody>
</table>

**Display** | **Main Settings**
---|---
RA | RADIO
CC | PROGRAMMING
FF | MOTOR TORQUE/ OBSTACLE DETECTION
HH | FUNCTIONS
LL | WORKING TIMES
PP | SAFETY DEVICES
UU | MAINTENANCE

### 4. PROGRAMMAING

#### 4.1 RA RADIO Settings

The control unit can manage both fixed and rolling code transmitters: once the first transmitter has been recorded, the control unit will only accept that kind of radio code. Therefore if the radio code entered is fixed code, the control unit will recognize just fixed code transmitters and viceversa. NO RESET POSSIBLE.

The radio capacity can store till 99 different users.

Press A and use up/down to go to setting RA.

Press again A to select the RADIO MENU: the display shows RA

Use up/down to choose the setting you wish within the RADIO MENU.

#### Recording a TRANSMITTER as START command

Press one of the transmitter’s key, the display shows:

- \(r d\) = radio compatible
- \(0102\ldots99\) = transmitter in storage

1. Scroll up/down to go to setting: 

2. **Press and hold the transmitter and at the same time press \(\Delta\)**

   The display shows the radio code position.

3. The display shows FL when memory is full

Repeat step 1 and 2 to store any additional transmitter.

4. **Press \(\bigcirc\) to return to previous setting, then press \(\bigcirc\) again as many times as the display shows:**

   or wait 20 seconds, to go out of the programming automatically.
### Recording a transmitter as PEDESTRIAN OPENING

Press one of the transmitter’s key, the display shows:

- \( rd = \text{radio compatible} \)
- or
- \( 01 02 \ldots 99 = \text{transmitter in storage} \)

1. **Scroll** \( \uparrow \downarrow \) to go to setting: \( \text{R2} \)

2. **Press** and **hold** the transmitter and at the same time press \( \text{+} \)
   
The display shows the radio code position.

3. **The display shows** \( F L \) when memory is full

   \( \text{FL} \)

Repeat step 1 and 2 to record any additional transmitter as PEDESTRIAN OPENING.

4. **Press** \( \text{S} \) to return to previous setting, then press \( \text{S} \) again as many times as the display shows:
   
   \( \text{max} \)

   or wait 20 seconds, to go out of the programming automatically.

### Recording a transmitter on SECOND RADIO CHANNEL

> **Important:** It is mandatory to plug the interface MRX02 into the according slot with power OFF

Press one of the transmitter’s key, the display shows:

- \( rd = \text{radio compatible} \)
- or
- \( 01 02 \ldots 99 = \text{transmitter in storage} \)

1. **Scroll** \( \uparrow \downarrow \) to go to setting: \( \text{R3} \)

2. **Press** and **hold** the transmitter and at the same time press \( \text{+} \)
   
The display shows the radio code position.

3. **The display shows** \( F L \) when memory is full

   \( \text{FL} \)

Repeat step 1 and 2 to record any additional transmitter as SECOND RADIO CHANNEL.

4. **Press** \( \text{S} \) to return to previous setting, then press \( \text{S} \) again as many times as the display shows:
   
   \( \text{max} \)

   or wait 20 seconds, to go out of the programming automatically.
Deleting all transmitters at once

1. Scroll 
   to go to setting:  
2. Press to confirm  
3. Use to select the radio code to delete  
4. Hold for about 10 seconds until the display shows:  
5. Release . The control unit goes back to stand-by position  

Repeat the procedure to delete any transmitter.

6. Press to return to previous setting, then press again as many times as the display shows: 
or wait 20 seconds, to go out of the programming automatically.

The TRANSMITTER POSITION DELETED will be subsequently available to save a NEW ONE.

Deleting a single transmitter

To delete a single transmitter keep a full list of users.

1. Scroll to go to setting:  
2. Press to confirm  
3. Use to select the radio code to delete  
4. Hold for about 5 seconds until the display shows:  
5. Release . The control unit goes back to stand-by position  

Repeat the procedure to delete any transmitter.

6. Press to return to previous setting, then press again as many times as the display shows: 
or wait 20 seconds, to go out of the programming automatically.
**Setting the 2° RADIO CHANNEL INTERFACE**

1. Scroll ▲ ▼ to go to setting:  
2. Press ▼ to confirm

3. Use ▲ ▼ to select the function:  
   - MONOSTABLE contact  
   - BISTABLE contact  
   - TIMER  
   - PILOT LIGHT  
   - COURTESY LIGHT  
   - MAGNETIC LOCK

4. Press ▲ to return to previous setting, then press again ▼ as many times as the display shows:  
   - or wait 20 seconds, to go out of the programming automatically.

### MONOSTABLE contact
The contact CLOSES only when the transmitter is pressed.

### BISTABLE contact
The contact CLOSES or OPENS each time the transmitter is pressed.

### TIMER
The contact CLOSES when pressing the transmitter and remains closed during 90 seconds.

### PILOT LIGHT when GATE IS OPENED
The contact CLOSES when the gate starts OPENING and OPENS only when reaching the CLOSING position, no matters if the gate STOPS during operation.

### COURTESY LIGHT
The contact CLOSES when the gate starts OPENING and OPENS 90 seconds after reaching the CLOSING position.
### 4.2 PROGRAMMING

Press and scroll \( \uparrow \) UP  \( \downarrow \) DOWN to go to setting.

Then press \( \cdot \) to go to PROGRAMMING: display shows "C"

Use \( \uparrow \) UP  \( \downarrow \) DOWN to select the according setting.

#### 4.2.1 Setting the Programming mode.

**AUTOMATIC programming with OBSTACLE DETECTION feature**

**ATTENTION:**

AUTOMATIC PROGRAMMING can only be performed with ground stops in Opening and Closing.

<table>
<thead>
<tr>
<th>Step</th>
<th>Instruction</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Scroll ( \uparrow ) UP  ( \downarrow ) DOWN to go to setting:</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Press and hold ( \cdot ) for about 10 seconds.</td>
<td></td>
</tr>
</tbody>
</table>

When starting the programming the gate:

- Closes till reaching the CLOSING limit switch (from any position).
- Stops and starts opening till reaching the OPENING limit switch.
- Stops briefly (about 3 sec.), then starts CLOSING, slowing down till reaching the CLOSING limit switch.

**⚠️ THIS OPERATION IS MANDATORY IN ORDER TO DETECT MOTOR ABSORPTION.**

3 Now the control unit has saved automatically all working parameters and returns to stand-by position.

**N.B.:**

If OBSTACLE DETECTION works uncorrect (stops + reverses) change the sensibility rate.
### SEQUENTIAL STEP BY STEP programming

**MANUAL setting of working times.**

- The obstacle detection gets automatically turned OFF.

**ATTENTION:**

The SEQUENTIAL PROGRAMMING can only be performed with ground stops in Opening and Closing.

SEQUENTIAL PROGRAMMING can be performed direct from 📷 or using a transmitter previously recorded.

1. Scroll 📷 📷 📷 go to setting:  
2. Press 📷 to confirm. Display shows:  
3. Make sure the gate is in CLOSING POSITION.  
4. Press the transmitter (or 📷 ). The gate starts OPENING.  
5. At 90% of the opening cycle, press the transmitter (or 📷 ), the gate starts slowdown till reaching the OPENING limit switch.  
6. The gate stops briefly (about 3 sec.), then starts CLOSING, slowing down till reaching the CLOSING limit switch.  
7. Now the control unit has saved automatically all working parameters and returns to stand-by position.

---

### 4.2.2 Return to default settings

The control unit is set with default working times and functions. If you wish to return to default settings follow the below procedure:

---

### RESTORE FACTORY DATA (Default)

1. Scroll 📷 📷 📷 to go to setting:  
2. Press 📷 for about 5 seconds.  
3. Factory data are restored and display shows:  

[setting saved]
### 4.2.3 Motor positioning (RH and LH)

#### How to position the motor, RH or LH (see paragraph 3.1)

The control unit allows to switch electronically the motor direction, from **RH** (default) to **LH** as follows:

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Scroll <strong>▲</strong> <strong>▼</strong> to go to setting:</td>
</tr>
<tr>
<td>2</td>
<td>Press <strong>▲</strong> to confirm.</td>
</tr>
<tr>
<td>3</td>
<td>Scroll <strong>▲</strong> <strong>▼</strong> to select:</td>
</tr>
<tr>
<td></td>
<td><strong>RH motor closing to LEFT</strong> (inner view)</td>
</tr>
<tr>
<td></td>
<td><strong>LH motor closing to RIGHT</strong> (inner view)</td>
</tr>
<tr>
<td>4</td>
<td>Press <strong>▲</strong> to return to previous setting, then press <strong>▲</strong> again as many times as display shows</td>
</tr>
<tr>
<td></td>
<td>or wait 20 seconds, to go out of the programming automatically.</td>
</tr>
</tbody>
</table>

### 4.2.4 Limit switch

#### MAGNETIC / ELECTROMECHANICAL limit switch

The control unit allows to manage both **MECHANICAL** (NC contact) and **MAGNETIC** limit switches (NO contact)

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Scroll <strong>▲</strong> <strong>▼</strong> to go to setting:</td>
</tr>
<tr>
<td>2</td>
<td>Press <strong>▲</strong> to confirm.</td>
</tr>
<tr>
<td>3</td>
<td>Scroll <strong>▲</strong> <strong>▼</strong> to select:</td>
</tr>
<tr>
<td></td>
<td><strong>MECHANICAL</strong> limit switch (NC)</td>
</tr>
<tr>
<td></td>
<td><strong>MAGNETIC</strong> limit switch (NO)</td>
</tr>
<tr>
<td>4</td>
<td>Press <strong>▲</strong> to return to previous setting, then press <strong>▲</strong> again as many times as display shows</td>
</tr>
<tr>
<td></td>
<td>or wait 20 seconds, to go out of the programming automatically.</td>
</tr>
</tbody>
</table>
## 4.3 MOTOR TORQUE / OBSTACLE DETECTION settings

Use this function to adjust the MOTOR TORQUE or the OBSTACLE DETECTION sensibility, AUTOMATIC PROGRAMMING only. 

Press \( \uparrow \) and scroll \( \downarrow \) to go to setting \( F\) \( F \) 

Press \( A \) to go to setting \( F \) \( F \) 

Use \( \uparrow \) \( \downarrow \) to adjust the sensibility value. 

4. Press \( A \) to return to previous setting, then press \( A \) again as many times as display shows or wait 20 seconds, to go out of the programming automatically. 

### N.B.: 
If OBSTACLE DETECTION works incorrect (stops + reverses) adjust \( F \) \( F \). 

## TORQUE/OBSTACLE DETECTION adjustment

1. Scroll \( \uparrow \) \( \downarrow \) \( \uparrow \) \( \downarrow \) to go to setting: \( F \) \( F \) 

2. Press \( \uparrow \) to confirm. The display shows the OBSTACLE DETECTION rate set. 

3. Use \( \uparrow \) \( \downarrow \) \( \uparrow \) \( \downarrow \) to adjust the sensibility value: 

   - MINIMUM 
   - MAXIMUM 

4. Press \( \uparrow \) to return to previous setting, then press \( \uparrow \) again as many times as display shows or wait 20 seconds, to go out of the programming automatically. 

### N.B.: 
If OBSTACLE DETECTION works incorrect (stops + reverses) adjust \( F \) \( F \). 

## SLOWDOWN speed

1. Scroll \( \uparrow \) \( \downarrow \) \( \uparrow \) \( \downarrow \) to go to setting: \( F \) \( S \) 

2. Press \( \uparrow \) to confirm. 

   Press \( \uparrow \) to confirm. The display shows the SPEED set. 

3. Use \( \uparrow \) \( \downarrow \) \( \uparrow \) \( \downarrow \) to adjust the SLOWDOWN SPEED. 

4. Press \( \uparrow \) to return to previous setting, then press \( \uparrow \) again as many times as display shows or wait 20 seconds, to go out of the programming automatically. 

If SLOWDOWN speed has been changed, repeat the whole PROGRAMMING procedure. 

---

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### 4.4 FUNCTIONS

Use this menu to TURN ON/OFF any special function.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>OFF function DEACTIVATED</td>
</tr>
<tr>
<td>01</td>
<td>ON function ACTIVATED</td>
</tr>
</tbody>
</table>

Press \[ ⊖ \] and use \[ ⬆ \] \[ ↓ \] \[ ⬇ \] \[ ↑ \] to go to setting \[ HH \].
Press again \[ ⊖ \] to enter the menu: display shows \[ H - \].
Use \[ ⬆ \] \[ ↓ \] \[ ⬇ \] \[ ↑ \] to select the according setting.

### H1 MULTI-OCCUPATION

This function gives priority to OPENING:
During the OPENING cycle, additional START commands will be ignored for all the duration of OPENING and COUNT DOWN.

1. Scroll \[ ⬆ \] \[ ↓ \] to go to setting:
2. Press \[ ⊖ \] to confirm.
3. Use \[ ⬆ \] \[ ↓ \] \[ ⬇ \] \[ ↑ \] to turn:
   - Function OFF 00
   - Function ON 01
4. Press \[ ⊖ \] to return to previous setting, then press \[ ⊖ \] again as many times as display shows:
   - Setting saved.
   - or wait 20 seconds, to go out of the programming automatically.

### H2 PRE-BLINKING

This function activates a pre-blinking during 4-5 seconds before any opening and closing cycle.

1. Scroll \[ ⬆ \] \[ ↓ \] to go to setting:
2. Press \[ ⊖ \] to confirm.
3. Use \[ ⬆ \] \[ ↓ \] \[ ⬇ \] \[ ↑ \] to turn:
   - Function OFF 00
   - Function ON 01
4. Press \[ ⊖ \] to return to previous setting, then press \[ ⊖ \] again as many times as display shows:
   - Setting saved.
   - or wait 20 seconds, to go out of the programming automatically.
**PHOTOCELL TEST**

The photocell test allows to check the good operation of the photocells at every opening and closing cycle.

1. Scroll \(\uparrow\) \(\downarrow\) \(\uparrow\) to go to setting:  \(H\ 4\)
2. Press \(\circ\) to confirm.
3. Use \(\uparrow\) \(\downarrow\) \(\uparrow\) to turn:
   - Function **OFF**
   - Function **ON**
4. Press \(\circ\) to return to previous setting, then press \(\circ\) again as many times as display shows:
   - \(5\ d\)
   - \(setting\ saved\)

**PHOTOCELL TEST OPERATION**

At every OPENING/CLOSING cycle, the control unit temporarily turns the power off from the photocell transmitter, to check the receiver relay performance.

If the check is successful and the relay contact exchange is correct (N.C. \(\rightarrow\) N.O. \(\rightarrow \) N.C.), the power is restored, for normal operation.

If a fault is detected the display shows \(FE\) (PHOTOCELL TEST FAILED).

---

**QUICK CLOSING**

By activating this function, the gate closes **1 second** after passing through the photocell beam in closing (once the opening cycle has been completed of course).

If the photocells are not involved, the gate will close according to the **AUTOMATIC CLOSING TIME** set.

1. Scroll \(\uparrow\) \(\downarrow\) \(\uparrow\) to go to setting:  \(H\ 8\)
2. Press \(\circ\) to confirm.
3. Use \(\uparrow\) \(\downarrow\) \(\uparrow\) to turn:
   - Function **OFF**
   - Function **ON**
4. Press \(\circ\) to return to previous setting, then press \(\circ\) again as many times as display shows:
   - \(5\ d\)
   - \(setting\ saved\)
### MOTOR TEST
This function allows to check the good operation of the motor in *opening and closing*.

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Scroll <strong>△</strong> <strong>▽</strong> to go to setting:</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Press <strong>▲</strong> to confirm.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Use <strong>△</strong> <strong>▽</strong> to turn:</td>
<td>Function OFF Function ON</td>
</tr>
<tr>
<td>4</td>
<td>Press <strong>△</strong> to return to previous setting, then press <strong>▲</strong> again as many times as display shows:</td>
<td></td>
</tr>
</tbody>
</table>

*or wait 20 seconds, to go out of the programming automatically.*

### BLINKER TENSION
This function allows to choose the blinker output tension.

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Scroll <strong>△</strong> <strong>▽</strong> to go to setting:</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Press <strong>▲</strong> to confirm.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Use <strong>△</strong> <strong>▽</strong> to set the output tension:</td>
<td>INTERMITTENT (Default) FIXED</td>
</tr>
<tr>
<td>4</td>
<td>Press <strong>△</strong> to return to previous setting, then press <strong>▲</strong> again as many times as display shows:</td>
<td></td>
</tr>
</tbody>
</table>

*or wait 20 seconds, to go out of the programming automatically.*
4.5 **TIMES settings**

This menu enables to set any **WORKING TIME**.

Press **A** and scroll **UP** to go to setting **LL**.
Press again **A** to confirm, the display shows **L**.
Use **A** to select the according setting.

---

**Working time adjustment has been excluded, since limit switches in OPENING and CLOSING SET the proper working time. However a default SAFETY TIME of 120 sec. has been included in case of gate uncorrect operation.**

---

**AUTOMATIC CLOSING**

This function enables to set the countdown for the **AUTOMATIC CLOSING**.

1. Scroll **A** to go to setting: **L3**
2. Press **A** to confirm.
3. Use **A** to set the automatic closing time:
   - Setting to 00 the automatic closing is turned OFF
   - 00 (OFF)
   - 01
   - 99
4. Press **A** to return to previous setting, then press **A** again as many times as display shows:
   - 5d (setting saved)
   - or wait 20 seconds, to go out of the programming automatically.

---

**PEDESTRIAN AUTOMATIC CLOSING**

This function enables to set the countdown for the **PEDESTRIAN AUTOMATIC CLOSING**.

1. Scroll **A** to go to setting: **L4**
2. Press **A** to confirm.
3. Use **A** to set the pedestrian automatic closing time
   - Setting to 00 the function is turned OFF
   - 00
   - 01
   - 99 (max)
4. Press **A** to return to previous setting, then press **A** again as many times as display shows:
   - 5d (setting saved)
   - or wait 20 seconds, to go out of the programming automatically.
## SLOWDOWN

This function enables to set the SLOWDOWN time in **closing and opening**.

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Scroll ⬆️ ⬇️ ⬇️ to go to setting:</td>
</tr>
<tr>
<td>2</td>
<td>Press ⭕️ to confirm.</td>
</tr>
<tr>
<td>3</td>
<td>Use ⬆️ ⬇️ to increase or decrease the <strong>slowdown time</strong>: Setting to ⭕️ the slowdown is turned <strong>OFF</strong></td>
</tr>
<tr>
<td>4</td>
<td>Press ⭕️ to return to previous setting, then press ⭕️ again as many times as display shows: or wait 20 seconds, to go out of the programming automatically.</td>
</tr>
<tr>
<td></td>
<td>(OFF) (min) (max)</td>
</tr>
</tbody>
</table>

## PEDESTRIAN OPENING

This function enables to set the **PEDESTRIAN OPENING** time.

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Scroll ⬆️ ⬇️ ⬇️ to go to setting:</td>
</tr>
<tr>
<td>2</td>
<td>Press ⭕️ to confirm.</td>
</tr>
<tr>
<td>3</td>
<td>Use ⬆️ ⬇️ to set the pedestrian opening working time:</td>
</tr>
<tr>
<td>4</td>
<td>Press ⭕️ to return to previous setting, then press ⭕️ again as many times as display shows: or wait 20 seconds, to go out of the programming automatically.</td>
</tr>
<tr>
<td></td>
<td>(OFF) (min) (max)</td>
</tr>
</tbody>
</table>
### 4.6 SAFETY DEVICES

This menu helps setting and handling the safety devices.

Press A and scroll ◀ ▲ to go to menu P
then press A to go to submenu P
Use ▼ ▲ to select the according setting.

#### P1 STOP emergency push button

1. Scroll ◀ ▲ ▼ to go to setting: P1
2. Press ▲ to confirm.
3. Use ◀ ▲ ▼ to turn the contact:
   - OFF – stop button deactivated
   - ON – stop button activated
4. Press 3 to return to previous setting, then press 3 again as many times as display shows:
   or wait 20 seconds, to go out of the programming automatically.

#### P2 PHOTOCELL in CLOSING

1. Scroll ◀ ▲ ▼ to go to setting: P2
2. Press ▲ to confirm.
3. Use ◀ ▲ ▼ to turn the contact:
   - OFF – photocell in closing deactivated
   - ON – photocell in closing activated
4. Press 3 to return to previous setting, then press 3 again as many times as display shows:
   or wait 20 seconds, to go out of the programming automatically.

#### P3 PHOTOCELL in OPENING

1. Scroll ◀ ▲ ▼ to go to setting: P3
2. Press ▲ to confirm.
3. Use ◀ ▲ ▼ to turn the contact:
   - OFF – photocell in opening deactivated
   - ON – photocell in opening activated
4. Press 3 to return to previous setting, then press 3 again as many times as display shows:
   or wait 20 seconds, to go out of the programming automatically.
### SAFETY EDGE in CLOSING

1. Scroll ▲ ▼ to go to setting:

2. Press ▶ to confirm.

3. Use ▲ ▼ to turn the contact:
   - OFF – safety edge in closing deactivated
   - ON – MECHANICAL safety edge in closing activated (N.C.)
   - ON – RESISTIVE safety edge in closing activated (8K2)

4. Press ▶ to return to previous setting, then press ▶ again as many times as display shows:
   - or wait 20 seconds, to go out of the programming automatically.

### SAFETY EDGE in OPENING

1. Scroll ▲ ▼ to go to setting:

2. Press ▶ to confirm.

3. Use ▲ ▼ to turn the contact:
   - OFF – safety edge in opening deactivated
   - ON – MECHANICAL safety edge in opening activated (N.C.)
   - ON – RESISTIVE safety edge in opening activated (8K2)

4. Press ▶ to return to previous setting, then press ▶ again as many times as display shows:
   - or wait 20 seconds, to go out of the programming automatically.
## 4.7 MAINTENANCE and SERVICE SETTINGS

This menu displays all data and maintenance status of your electric gate.

Press **U** and scroll **UP** **DOWN** to go to main menu **U**
then press **U-** to go to **U1**
Use **UP** **DOWN** to select the according setting

### U1 Cycles performed (no possibility of reset)

This feature shows how many OPERATIONS your gate performed.

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Scroll <strong>UP</strong> <strong>DOWN</strong> to go to setting:</td>
</tr>
</tbody>
</table>
| 2    | Press **U**
  Display shows the number of complete cycles performed.
  **ex:**
  a control unit that performed 12573 cycles,
  the display will show 3 views in sequence
  ![First view](#) ![Second view](#) ![Third view](#)
| 3    | Press **U** to return to previous setting, then press **U**
  again as many times as display shows: |

or wait 20 seconds, to go out of the programming automatically.

### U2 Maintenance countdown

This feature shows the number of cycles left to MAINTENANCE

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Scroll <strong>UP</strong> <strong>DOWN</strong> to go to setting:</td>
</tr>
</tbody>
</table>
| 2    | Press **U**
  • If display shows 3 times **00** maintenance countdown has not been set (default)
  • If display shows 3 sequences like:
  ![First view](#) ![Second view](#) ![Third view](#)
  It means 123 cycles are left to maintenance service.
  When countdown comes to the end, the blinker flashes 5 times every 5 minutes, after every full operation, while the display shows **UF** proceed now to maintenance
| 3    | Press **U** to return to previous setting, then press **U**
  again as many times as display shows: |

or wait 20 seconds, to go out of the programming automatically.
### Displaying installation date

This function shows the **INSTALLATION DATE**.

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Scroll <strong>▲</strong> <strong>▼</strong> to go to setting:</td>
</tr>
<tr>
<td>2</td>
<td>Press <strong>▲</strong> <strong>▼</strong> to confirm:</td>
</tr>
<tr>
<td></td>
<td>• If display shows 3 times <strong>00</strong>, installation date has not been set.</td>
</tr>
<tr>
<td></td>
<td>• If display shows a view in 3 sequences, installation date has been set:</td>
</tr>
<tr>
<td></td>
<td><img src="10" alt="Day" />, <img src="08" alt="Month" />, <img src="18" alt="Year" /></td>
</tr>
<tr>
<td>3</td>
<td>Press <strong>▲</strong> <strong>▼</strong> to return to previous setting, then press <strong>▲</strong> <strong>▼</strong> again as many times as display shows:</td>
</tr>
<tr>
<td></td>
<td>![Date](setting saved)</td>
</tr>
<tr>
<td></td>
<td>or wait 20 seconds, to go out of the programming automatically.</td>
</tr>
</tbody>
</table>

### Setting maintenance recall

This function enables to set the number of **CYCLES** to next maintenance service.

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Scroll <strong>▲</strong> <strong>▼</strong> to go to setting:</td>
</tr>
<tr>
<td>2</td>
<td>Press <strong>▲</strong> <strong>▼</strong></td>
</tr>
<tr>
<td>3</td>
<td>Use <strong>▲</strong> <strong>▼</strong> <strong>▼</strong> to set the desired number of cycles till next maintenance service.</td>
</tr>
<tr>
<td></td>
<td>![Cycle Options](1000 cycles), ![Cycle Options](2000 cycles), ![Cycle Options](55000 cycles), ![Cycle Options](99000 cycles)</td>
</tr>
<tr>
<td>4</td>
<td>Press <strong>▲</strong> <strong>▼</strong> to return to previous setting, then press <strong>▲</strong> <strong>▼</strong> again as many times as display shows:</td>
</tr>
<tr>
<td></td>
<td>![Date](setting saved)</td>
</tr>
<tr>
<td></td>
<td>or wait 20 seconds, to go out of the programming automatically.</td>
</tr>
</tbody>
</table>
### Set installation date

This function enables to set the **date of first INSTALLATION**.

1. Scroll to go to setting:
2. Press to confirm:
   - If display shows 3 times, installation date has not been set
3. Use to set the **day** and press to confirm.
   - Use to set the **month** and press to confirm.
   - Use to set the **year** and press to confirm.
   - Ex: day month year
4. Press to return to previous setting, then press again as many times as display shows:
   - or wait 20 seconds, to go out of the programming automatically.

### Motor direct command

This function enables to check the **correct motor direction** and allows to reach electrically the **limit switches** in **Opening/Closing** without unlocking the motor.

1. Scroll to go to setting:
2. Press to select
3. Use to:
   - OPEN while holding the key
   - CLOSE while holding the key
4. Press to return to previous setting, then press again as many times as display shows:
   - or wait 20 seconds, to go out of the programming automatically.
## 5. TROUBLE SHOOTING

The control unit is designed to display the most common faults. Here below the fault table and possible solutions.

<table>
<thead>
<tr>
<th>Fault</th>
<th>Probable cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISPLAY TURNED OFF</td>
<td>• No tension.</td>
<td>Check the power supply.</td>
</tr>
<tr>
<td></td>
<td>• Fuses damaged.</td>
<td>Find the cause and replace the fuse.</td>
</tr>
<tr>
<td></td>
<td>• Transformer damaged.</td>
<td>Check wiring as well as in/out transformer’s tension.</td>
</tr>
<tr>
<td>PHOTOCELL CLOSING</td>
<td>• Non-calibrated photocell.</td>
<td>Check the calibration between receiver and transmitter.</td>
</tr>
<tr>
<td></td>
<td>• Obstacle in between.</td>
<td>Remove the obstacle and clean the lenses from dirt.</td>
</tr>
<tr>
<td></td>
<td>• Incorrect wiring.</td>
<td>Check the wiring.</td>
</tr>
<tr>
<td></td>
<td>• Non-powered photocell.</td>
<td>Check the tension on the transmitter and receiver.</td>
</tr>
<tr>
<td></td>
<td>• Disconnected photocell, disconnected output.</td>
<td>Turn P2 OFF. (see paragraph 3.6.1)</td>
</tr>
<tr>
<td>PHOTOCELL OPENING</td>
<td>• Non-calibrated photocell</td>
<td>Check the calibration between receiver and transmitter.</td>
</tr>
<tr>
<td></td>
<td>• Obstacle in between.</td>
<td>Remove the obstacle and clean the lenses from dirt.</td>
</tr>
<tr>
<td></td>
<td>• Incorrect wiring.</td>
<td>Check the wiring.</td>
</tr>
<tr>
<td></td>
<td>• Non-powered photocell.</td>
<td>Check the tension on the transmitter and receiver.</td>
</tr>
<tr>
<td></td>
<td>• Disconnected photocell, disconnected output.</td>
<td>Turn P3 OFF. (see paragraph 3.6.2)</td>
</tr>
<tr>
<td>SAFETY EDGE TEST</td>
<td>• Incorrect wiring.</td>
<td>Check the wiring.</td>
</tr>
<tr>
<td></td>
<td>• Non-compatible photocells.</td>
<td>Use Proteco’s photocells.</td>
</tr>
<tr>
<td></td>
<td>• Safety edge disconnected.</td>
<td>Check the wiring.</td>
</tr>
<tr>
<td></td>
<td>• Incorrect wiring.</td>
<td>Check the wiring.</td>
</tr>
<tr>
<td></td>
<td>• Input disabled.</td>
<td>Turn P4 OFF.</td>
</tr>
<tr>
<td></td>
<td>• Incorrect mode selection (MECHANICAL - RESISTIVE)</td>
<td>Check the safety edge type and set P4 accordingly.</td>
</tr>
<tr>
<td></td>
<td>• Incorrect micro adjustment.</td>
<td>Adjust the inox wire tension.</td>
</tr>
<tr>
<td>SAFETY EDGE CLOSING</td>
<td>• Disconnected safety edge.</td>
<td>Check the wiring.</td>
</tr>
<tr>
<td></td>
<td>• Incorrect wiring.</td>
<td>Check the wiring.</td>
</tr>
<tr>
<td></td>
<td>• Input disabled.</td>
<td>Turn P5 OFF.</td>
</tr>
<tr>
<td></td>
<td>• Incorrect mode selection (MECHANICAL - RESISTIVE)</td>
<td>Check the safety edge type and set P5 accordingly.</td>
</tr>
<tr>
<td></td>
<td>• Incorrect micro adjustment.</td>
<td>Adjust the inox wire tension.</td>
</tr>
<tr>
<td>STOP PUSH BUTTON</td>
<td>• Disconnected button.</td>
<td>Check the stop button wiring or turn P1 OFF. (see paragraph 3.5)</td>
</tr>
<tr>
<td></td>
<td>• Incorrect wiring.</td>
<td>Check the wiring. (paragraph 3.5)</td>
</tr>
<tr>
<td>START COMMAND</td>
<td>• Permanent start command.</td>
<td>Check the good operation of all devices connected to START (contact N.O.) (see paragraph 3.3).</td>
</tr>
<tr>
<td>PEDESTRIAN COMMAND</td>
<td>• Pedestrian start command.</td>
<td>Check the good operation of all devices connected to PEDESTRIAN START (contact N.O.) (see paragraph 3.4).</td>
</tr>
<tr>
<td>MOTOR TEST</td>
<td>• Disconnected motor.</td>
<td>Wire the motor according to the wiring table.</td>
</tr>
<tr>
<td></td>
<td>• Incorrect wiring.</td>
<td>Check motor wiring (paragraph 3.1).</td>
</tr>
<tr>
<td></td>
<td>• Capacitor damaged.</td>
<td>Use a tester to check the stator’s tension.</td>
</tr>
<tr>
<td>LIMIT SWITCH</td>
<td>• Limit switch in opening/closing failed</td>
<td>Replace the limit switch</td>
</tr>
<tr>
<td></td>
<td>• Broken contacts.</td>
<td>Check the limit switch wiring</td>
</tr>
<tr>
<td>PERMANENT RADIO SIGNAL</td>
<td>• Unknown TRANSMITTER not in memory.</td>
<td>Check the transmitter’s keys.</td>
</tr>
<tr>
<td></td>
<td>• Permanent start command from an existing transmitter.</td>
<td>Check the transmitter’s keys.</td>
</tr>
<tr>
<td></td>
<td>If a key sticks, the transmitter led remains on and fixed.</td>
<td>Remove the transmitter’s battery and make sure the fault disappears from display.</td>
</tr>
<tr>
<td></td>
<td>Remove the transmitter’s battery and make sure the fault disappears from display.</td>
<td></td>
</tr>
<tr>
<td>COUNCOWN COMPLETED</td>
<td>• Proceed to maintenance service.</td>
<td>Reset the maintenance service.</td>
</tr>
</tbody>
</table>
6. DISPOSAL

Do not pollute the environment

Some electronic components may contain polluting substances. Ensure materials are passed to the authorised collection centres, according to the laws and the regulations on force, for safe disposal.