Control panel for single/double-leaf swing gates - 24V dc

- Display for programming and trouble-shooting.
- Electronic adjustment of working and slowdown times for single motor.
- Dual programming modes: automatic with obstacle detection feature or sequential step-by-step.
- Quick closing.
- Pedestrian opening.
- Delay time in opening and closing.
- Multi-occupation function.
- Pre-blinking.
- Second radio channel interface (available as accessory).
- Electric lock output integrated on board.
- Reversing stroke and lock pulse (for electric-lock installation only).
- 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>PQ20A, PQ20A1D</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>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>Electric lock</td>
<td>12V, max 15 W</td>
</tr>
<tr>
<td>Working temperature</td>
<td>-20°C to +60°C</td>
</tr>
<tr>
<td>IP rate (boxed)</td>
<td>IP55</td>
</tr>
</tbody>
</table>
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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
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.

⚠️ Connect the control panel only to a power supply line equipped with safety grounding system.

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 12453 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.

This panel can control double leaf gate as well as single leaf gate.

In case of single leaf gates, please pay particular attention to paragraphs marked by this symbol:

---

CE COMPLIANCE DECLARATION

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

declares that

The product type: Q20A ELECTRONIC CONTROLLER for gate automation (1 or 2 motors), 24V
Models: PQ20A, PQ20A1D
Accessories: MRX02

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** = main fuse BATTERY 10A
- **F3** = self-restoring fuse BLINKER 24V - 1,6A
- **F4** = self-restoring fuse ELECTRIC LOCK 12V - 1,6A

- **RL1** = relay motor 1 OPEN
- **RL2** = relay motor 1 CLOSE
- **RL3** = relay motor 2 OPEN
- **RL4** = relay motor 2 CLOSE
- **RL5** = relay ELECTRIC LOCK
- **CN1** = START COMMANDS
- **CN2** = PHOTOCELLS
- **CN3** = SAFETY EDGES
- **CN4** = ELECTRIC LOCK and BLINKER
- **CN5** = MOTORS M1 - M2
- **CN6** = EXTERNAL AERIAL
- **CN7** = SOFTWARE plug
- **CN8** = 2° RADIO CHANNEL interface plug
- **CN9** = SECONDARY - TRANSFORMER 20Vac plug
- **CN10** = BATTERY plug
- **Q7** = mosfet BLINKER
- **Q8** = mosfet PHOTOCELLS

**PROGRAMMING KEYS**

<table>
<thead>
<tr>
<th>Key</th>
<th>Description</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>UP</td>
<td>UP or START command</td>
</tr>
<tr>
<td>DOWN</td>
<td>DOWN or PEDESTRIAN command</td>
</tr>
</tbody>
</table>
**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 = ELECTRIC LOCK and BLINKER**

13. Electric Lock 12V - 15W
14. Blinker 24V dc 20W

**CN5 = MOTORS M1 - M2**

17. MOTOR M1
18. MOTOR M2

**CN6 = EXTERNAL AERIAL**

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

**CN8 = 2nd radio channel interface plug**

**CN9 = secondary TRANSFORMER 20V ac**

**CN10 = BATTERY**
3.1 MOTORS wiring

M1 motor 1 → first to open and last to close.
M2 motor 2 → second to open and first to close.

Wire M1 to 17 - 18 terminal CN5.
Wire M2 to 19 - 20 terminal CN5.

In case of single leaf gate wire M1 to 17 – 18, terminal CN5 and set H9 to 01.

According to the type of motor you have make the connections as indicated in the below table:
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 1-4, 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 1-4, terminal 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. [H] on [O].

3.3.2 KEY SWITCH
It is possible to connect a KEY SWITCH (contact N.O.) to 1-4, terminal 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 the safety of people and objects.

**Nota:** 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 CLOSING area.

**NB:** If no PHOTOCELL in CLOSING 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 to 00.

- The operation of the SAFETY EDGE in CLOSING stops the gate and reverses to opening position.
- The operation of the SAFETY EDGE in OPENING doesn’t affect the normal duty cycle.

⚠️ After the intervention of the safety edge in CLOSING the gate stays in OPENING position.
Give a START command to restart the gate normal operation.

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 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 until giving another OPENING command.
- The operation of the SAFETY EDGE in CLOSING doesn’t affect the normal duty cycle.

⚠️ After the intervention of the safety edge in OPENING the gate stops and stays still.
Give a START command to restart the normal operation.

MECHANICAL safety edge
RESISTIVE safety edge
Safety edge MECHANICAL
Safety Edge RESISTIVE
Mechanical edge
Resistive edge
MECHANICAL
RESISTIVE

After the intervention of the safety edge in CLOSING the gate stays in OPENING position.
Give a START command to restart the gate normal operation.

After the intervention of the safety edge in OPENING the gate stops and stays still.
Give a START command to restart the normal operation.
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 ELECTRIC LOCK

Wire the ELECTRIC LOCK to 13–14, terminal CN4.

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>Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECORDING a transmitter as OPENING COMMAND</td>
<td>01...99 (max)</td>
</tr>
<tr>
<td>RECORDING a transmitter as PEDESTRIAN OPENING</td>
<td>01...99 (max)</td>
</tr>
<tr>
<td>RECORDING a transmitter as SECOND RADIO CHANNEL (optional)</td>
<td>01...99 (max)</td>
</tr>
<tr>
<td>DELETING a single transmitter</td>
<td>01...99</td>
</tr>
<tr>
<td>DELETING all transmitters at once</td>
<td>01...99</td>
</tr>
<tr>
<td>SETTING the 2° radio channel interface</td>
<td>01...06</td>
</tr>
</tbody>
</table>

### PROGRAMMING

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTOMATIC with OBSTACLE DETECTION feature</td>
<td></td>
</tr>
<tr>
<td>SEQUENTIAL (step by step without obstacle detection)</td>
<td></td>
</tr>
<tr>
<td>Return to the DEFAULT SETTINGS</td>
<td></td>
</tr>
</tbody>
</table>

### MOTOR TORQUE / OBSTACLE DETECTION

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBSTACLE DETECTION – Motor 1 - AUTOMATIC MODE ONLY</td>
<td>C1</td>
</tr>
<tr>
<td>OBSTACLE DETECTION – Motor 2 - AUTOMATIC MODE ONLY</td>
<td>C1</td>
</tr>
<tr>
<td>SLOWDOWN SPEED – Motor 1</td>
<td>01 (min)...05 (max) ..... 10 (max)</td>
</tr>
<tr>
<td>SLOWDOWN SPEED – Motor 2</td>
<td>01 (min)...05 (max) ..... 10 (max)</td>
</tr>
</tbody>
</table>

### FUNCTIONS

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>MULTI-OCCUPATION</td>
<td>00 = OFF 01 = ON</td>
</tr>
<tr>
<td>PRE-BLINKING</td>
<td>00 = OFF 01 = ON</td>
</tr>
<tr>
<td>PHOTOCELL TEST</td>
<td>00 = OFF 01 = ON</td>
</tr>
<tr>
<td>REVERSING STROKE (for electric lock only)</td>
<td>00 = OFF 01 = ON</td>
</tr>
<tr>
<td>LOCK PULSE (for electric lock only)</td>
<td>00 = OFF 01 = ON</td>
</tr>
<tr>
<td>QUICK CLOSING</td>
<td>00 = OFF 01 = ON</td>
</tr>
<tr>
<td>SINGLE LEAF GATE</td>
<td>00 = OFF 01 = ON</td>
</tr>
<tr>
<td>SEPARATE PUSH-BUTTONS Function</td>
<td>00 = OFF 01 = ON</td>
</tr>
<tr>
<td>MOTOR TEST</td>
<td>00 = OFF 01 = ON</td>
</tr>
<tr>
<td>LEAF RELEASE in CLOSING – Motor 1 (automatic mode only)</td>
<td>C1</td>
</tr>
<tr>
<td>LEAF RELEASE in OPENING – Motor 1 and 2 (automatic mode only)</td>
<td>C1</td>
</tr>
<tr>
<td>BLINKER VOLTAGE</td>
<td>00 = INTERMITTENT 01 = FIXED</td>
</tr>
</tbody>
</table>

### TIMES

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>DELAY in OPENING</td>
<td>00 = OFF 01 (min)...03 (max) ..... 10 (max)</td>
</tr>
<tr>
<td>DELAY in CLOSING</td>
<td>00 = OFF 01 (min)...03 (max) ..... 20 (max)</td>
</tr>
<tr>
<td>AUTOMATIC CLOSING</td>
<td>00 = OFF 01 (min)...03 (max) ..... 99 (max)</td>
</tr>
<tr>
<td>PEDESTRIAN AUTOMATIC CLOSING</td>
<td>00 = OFF 01 (min)...03 (max) ..... 99 (max)</td>
</tr>
<tr>
<td>Page</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
</tr>
<tr>
<td>5</td>
<td>Working Time - Motor 1</td>
</tr>
<tr>
<td>6</td>
<td>Working Time - Motor 2</td>
</tr>
<tr>
<td>7</td>
<td>Slow Down - Motor 1</td>
</tr>
<tr>
<td>8</td>
<td>Slow Down - Motor 2</td>
</tr>
<tr>
<td>9</td>
<td>Pedestrian Opening</td>
</tr>
<tr>
<td>10</td>
<td>Electric Lock Pulse Time</td>
</tr>
</tbody>
</table>

### Safety Devices

<table>
<thead>
<tr>
<th>Page</th>
<th>Description</th>
<th>Value</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>STOP push button</td>
<td></td>
<td>00 = OFF 01 = ON</td>
</tr>
<tr>
<td>12</td>
<td>PHOTOCELL in Closing</td>
<td></td>
<td>00 = OFF 01 = ON</td>
</tr>
<tr>
<td>13</td>
<td>PHOTOCELL in Opening</td>
<td></td>
<td>00 = OFF 01 = ON</td>
</tr>
<tr>
<td>14</td>
<td>SAFETY EDGE in Closing</td>
<td></td>
<td>00 = OFF 01 = MECHANICAL ON 02 = RESISTIVE ON</td>
</tr>
<tr>
<td>15</td>
<td>SAFETY EDGE in Opening</td>
<td></td>
<td>00 = OFF</td>
</tr>
</tbody>
</table>

### Maintenance and Service

<table>
<thead>
<tr>
<th>Page</th>
<th>Description</th>
<th>Value</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>Cycles performed (no possibility of RESET)</td>
<td></td>
<td>EX.: 12573 cycles Display shows the cycles performed in 3 sequences</td>
</tr>
<tr>
<td>17</td>
<td>Set maintenance COUNTDOWN</td>
<td></td>
<td>EX: 123 cycles left to maintenance</td>
</tr>
<tr>
<td>18</td>
<td>SET WORKING cycles</td>
<td></td>
<td>00 = OFF 01 = 1000 cycles 02 = 2000 cycles 99 = 99000 cycles (max)</td>
</tr>
<tr>
<td>19</td>
<td>Display INSTALLATION DATE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Set INSTALLATION DATE</td>
<td></td>
<td>day 01 = 10 month 08 year 18</td>
</tr>
<tr>
<td>21</td>
<td>Motors DIRECT COMMAND</td>
<td></td>
<td>01 = OPEN 02 = CLOSE 03 = OPEN 04 = CLOSE 05 = OPEN 06 = CLOSE</td>
</tr>
</tbody>
</table>

### Self Diagnostic - Fault Messages

<table>
<thead>
<tr>
<th>Page</th>
<th>Description</th>
<th>Value</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>22</td>
<td>Control unit ready to program</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>PHOTOCELL in Closing</td>
<td></td>
<td>PEDESTRIAN START</td>
</tr>
<tr>
<td>24</td>
<td>PHOTOCELL in Opening</td>
<td></td>
<td>THE TRANSMITTER is compatible and can be saved</td>
</tr>
<tr>
<td>25</td>
<td>SAFETY EDGE in Closing</td>
<td></td>
<td>OBSTACLE DETECTION M1 operating</td>
</tr>
<tr>
<td>26</td>
<td>SAFETY EDGE in Opening</td>
<td></td>
<td>OBSTACLE DETECTION M2 operating</td>
</tr>
<tr>
<td>27</td>
<td>STOP - open contact. Close the contact</td>
<td></td>
<td>SAVE settings</td>
</tr>
<tr>
<td>28</td>
<td>MOTORS running</td>
<td></td>
<td>QUICK ROTATION = normal operation SLOW ROTATION = slowdown</td>
</tr>
</tbody>
</table>
The radio capacity can store till 99 different users.

Press and use up/down to go to setting.
Press again to select the RADIO MENU: the display shows.
Use to choose the setting you wish within the RADIO MENU.

### 4. PROGRAMMING

#### 4.1 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 and use up/down to go to setting.
Press again to select the RADIO MENU: the display shows.

Use 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:

- rd = radio compatible
- = transmitter in storage

1. Scroll to go to setting:
2. Press and hold the transmitter and at the same time press .
The display shows the radio code position.
3. The display shows when memory is full

Repeat step 1 and 2 to record any additional transmitter.

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

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:

- \( rd \) = radio compatible
- \( 01 \ 02 \ldots \ 99 \) = Transmitter in storage

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Scroll</td>
<td>( \uparrow \ \downarrow \ \leftarrow \rightarrow ) to go to setting:</td>
</tr>
<tr>
<td>2</td>
<td>Press and hold the transmitter and at the same time press ( \uparrow \ \downarrow )</td>
<td>The display shows the radio code position.</td>
</tr>
<tr>
<td>3</td>
<td>The display shows ( FL ) when memory is full</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Press ( \uparrow \ \downarrow ) to return to previous setting, then press ( \uparrow \ \downarrow ) again as many times as the display shows:</td>
<td>or wait 20 seconds, to go out of the programming automatically.</td>
</tr>
</tbody>
</table>

### Recording a transmitter as SECOND RADIO CHANNEL

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:

- \( rd \) = radio compatible
- \( 01 \ 02 \ldots \ 99 \) = Transmitter in storage

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Scroll</td>
<td>( \uparrow \ \downarrow \ \leftarrow \rightarrow ) to go to setting:</td>
</tr>
<tr>
<td>2</td>
<td>Press and hold the transmitter and at the same time press ( \uparrow \ \downarrow )</td>
<td>The display shows the radio code position.</td>
</tr>
<tr>
<td>3</td>
<td>The display shows ( FL ) when memory is full</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Press ( \uparrow \ \downarrow ) to return to previous setting, then press ( \uparrow \ \downarrow ) again as many times as the display shows:</td>
<td>or wait 20 seconds, to go out of the programming automatically.</td>
</tr>
</tbody>
</table>
## 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 other transmitters.

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 all transmitters at once

1. Scroll 🖤 to go to setting:  
2. Press and hold 🟢 for about 10 seconds until the display shows:  
   All codes are now deleted  
3. Release 🟢. The control unit goes back to stand-by position  
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.
<table>
<thead>
<tr>
<th></th>
<th>Setting the 2° RADIO CHANNEL INTERFACE</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 select the function:</td>
</tr>
<tr>
<td></td>
<td>MONOSTABLE contact</td>
</tr>
<tr>
<td></td>
<td>BISTABLE contact</td>
</tr>
<tr>
<td></td>
<td>TIMER</td>
</tr>
<tr>
<td></td>
<td>PILOT LIGHT</td>
</tr>
<tr>
<td></td>
<td>COURTESY LIGHT</td>
</tr>
<tr>
<td></td>
<td>MAGNETIC LOCK</td>
</tr>
<tr>
<td>4</td>
<td>Press ▶ to return to previous setting,</td>
</tr>
<tr>
<td></td>
<td>then press again ▶ ▶ as many times as</td>
</tr>
<tr>
<td></td>
<td>the display shows:</td>
</tr>
<tr>
<td></td>
<td>or wait 20 seconds, to go out of the</td>
</tr>
<tr>
<td></td>
<td>programming automatically.</td>
</tr>
</tbody>
</table>

**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.

**MAGNETIC LOCK**  
The contact is a permanent CLOSED contact (N.C.).  
The contact OPENS (N.O.) a second before the gate starts OPENING and CLOSES (N.C.) a second after the CLOSING cycle is completed.
4.2 **PROGRAMMING**

Press and scroll to go to setting. Then press to go to PROGRAMMING; display shows . Use 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.

1. Scroll to go to setting:

2. Press and hold for about 10 seconds.
   When starting the programming the gate:
   - Closes for about 5 seconds (from any position)
   - Stops and starts opening till reaching the full opening position
   - Stops briefly (about 3 sec.)
   - Then starts closing
   - Before reaching the closing position slows down

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

**N.B.**:
If OBSTACLE DETECTION works uncorrect (stops + reverses) change the sensitivity level.
### SEQUENTIAL STEP BY STEP programming

MANUAL setting of the working times.

Using this programming procedure, the **obstacle detection** function is automatically **disabled**.

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

SEQUENTIAL PROGRAMMING can be performed direct from 🔄 on the control unit or using a transmitter previously recorded.

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Scroll</td>
<td>🔄 🔄 🔄 to go to setting:</td>
</tr>
<tr>
<td>2</td>
<td>Press</td>
<td>🔄 To confirm. Display shows:</td>
</tr>
<tr>
<td>3</td>
<td>Press</td>
<td>the <strong>transmitter</strong> (or 🔄).&lt;br&gt;• Motor 1 starts opening.</td>
</tr>
<tr>
<td>4</td>
<td>At 90% of the opening cycle press again the <strong>transmitter</strong> (or 🔄).&lt;br&gt;• Motor 1 starts slowing down and reaches the opening position.</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Let</td>
<td>Motor 1 still for 4-5 seconds and then press again the <strong>transmitter</strong> (or 🔄).&lt;br&gt;Motor 1 working times are now set. The display shows:</td>
</tr>
<tr>
<td>6</td>
<td>Repeat</td>
<td>step 3, 4, 5 to set motor 2&lt;br&gt;Motor 2 working times are now set.&lt;br&gt;• the gate stops for about 3 seconds.&lt;br&gt;• then starts closing&lt;br&gt;• slow down and reaches the closing position</td>
</tr>
<tr>
<td>7</td>
<td>Now</td>
<td>the control unit has detected and saved automatically all working parameters and returns to stand-by position.</td>
</tr>
</tbody>
</table>

#### 4.2.2 Return to the DEFAULT settings

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

### RESTORE FACTORY DATA (Default)

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Scroll</td>
<td>🔄 🔄 🔄 to go to setting:</td>
</tr>
<tr>
<td>2</td>
<td>Press</td>
<td>and hold 🔄 for about 5 seconds.</td>
</tr>
</tbody>
</table>
| 3    | Factory data are restored and display shows: | 🔄

(setting saved)
4.3 **MOTOR TORQUE / OBSTACLE DETECTION**

Use this function to set the sensibility of the OBSTACLE DETECTION, AUTOMATIC PROGRAMMING only.

Press \[ \text{ } \] and scroll \[ \text{ } \] to go to setting \[ \text{ } \].

Press \[ \text{ } \] to go to setting \[ \text{ } \].

Use \[ \text{ } \] to select the according function.

---

**OBSTACLE DETECTION ADJUSTMENT – MOTOR 1**

1. Scroll \[ \text{ } \] to go to setting:

2. Press \[ \text{ } \] to confirm. The display shows the OBSTACLE DETECTION value set.

3. Use \[ \text{ } \] to change the sensitivity value of motor 1.

   - OFF
   - MINIMUM SENSITIVITY
   - MAXIMUM SENSITIVITY

4. Press \[ \text{ } \] 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.

---

**OBSTACLE DETECTION ADJUSTMENT - motor 2**

1. Scroll \[ \text{ } \] to go to setting:

2. Press \[ \text{ } \] to confirm. The display shows the OBSTACLE DETECTION value set.

3. Use \[ \text{ } \] to change the sensitivity value of motor 2.

   - OFF
   - MINIMUM SENSITIVITY
   - MAXIMUM SENSITIVITY

4. Press \[ \text{ } \] 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.

---

**N.B.:**

If OBSTACLE DETECTION works uncorrect (stops + reverses) change the sensitivity level \[ \text{ } \] to \[ \text{ } \].
### SLOWDOWN speed - motor 1

1. Scroll **△** **▽** to go to setting:

2. Press **A** to confirm. The display shows SPEED value set.

3. Use **△** **▽** to change SLOWDOWN speed of motor 1.

4. Press **B** to return to previous setting, then press **B** again as many times as display shows:

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

### SLOWDOWN speed - motor 2

1. Scroll **△** **▽** to go to setting:

2. Press **A** to confirm. The display shows SPEED value set.

3. Use **△** **▽** to change SLOWDOWN speed of motor 2.

4. Press **B** to return to previous setting, then press **B** again as many times as display shows:

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

---

⚠️ **If SLOW DOWN speed has been changed, repeat the whole PROGRAMMING procedure.**
4.4 FUNCTIONS

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

- \textbf{OFF} = function DEACTIVATED
- \textbf{ON} = function ACTIVATED

Press \( \text{[] and use } \) to go to setting \( \text{[] to confirm.} \)

Use \( \text{[] to turn:} \)

Function \textbf{OFF} \( \text{[] \text{[] to return to previous setting, then press } \text{[} \text{[] again as many times as display shows:} \)

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

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 \( \text{[] \text{[] to go to setting:} \)

2 Press \( \text{[} \text{[} to confirm. \)

3 Use \( \text{[] \text{[] to turn:} \)

Function \textbf{OFF} \( \text{[] \text{[]} to return to previous setting, then press } \text{[} \text{[] again as many times as display shows:} \)

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

PRE-BLINKING

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

1 Scroll \( \text{[] \text{[] to go to setting:} \)

2 Press \( \text{[} \text{[} to confirm. \)

3 Use \( \text{[] \text{[] to turn:} \)

Function \textbf{OFF} \( \text{[] \text{[]} to return to previous setting, then press } \text{[} \text{[] again as many times as display shows:} \)

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 ▲ ▼ to go to setting:
2. Press A to confirm.
3. Use ▲ ▼ to turn:
   - Function OFF
   - Function ON
4. Press ▼ to return to previous setting, then press ▼ again as many times as display shows:
   - (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. → N.O. → N.C.), the power is restored, for normal operation.

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

REVERSING STROKE

N.B. This function is activated just when an ELECTRIC LOCK is fitted. When giving an OPENING command the gate goes to CLOSING position for 1 second in order to help the lock release easily.

1. Scroll ▲ ▼ to go to setting:
2. Press A to confirm.
3. Use ▲ ▼ to turn:
   - Function OFF
   - Function ON
4. Press ▼ to return to previous setting, then press ▼ again as many times as display shows:
   - (setting saved)

LOCK PULSE

N.B. This function is activated just when an ELECTRIC LOCK is fitted. When giving a CLOSING command the gate goes to CLOSING position and pushes for 1 second more in order to hook the lock correctly.

1. Scroll ▲ ▼ to go to setting:
2. Press A to confirm.
3. Use ▲ ▼ to turn:
   - Function OFF
   - Function ON
4. Press ▼ to return to previous setting, then press ▼ again as many times as display shows:
   - (setting saved)
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).
If the photocells are not involved, the gate will close according to the AUTOMATIC CLOSING TIME set.

1. Scroll [▲ ▼] to go to setting:
2. Press [OK] to confirm.
3. Use [▲ ▼] to turn:
   - Function OFF
   - Function ON
4. Press [ESC] to return to previous setting, then press [OK] again as many times as display shows:
   or wait 20 seconds, to go out of the programming automatically.

SINGLE LEAF MODE

Enable this function in case of single-leaf gate.

1. Scroll [▲ ▼] to go to setting:
2. Press [OK] to confirm.
3. Use [▲ ▼] to turn:
   - Function OFF
   - Function ON
4. Press [ESC] to return to previous setting, then press [OK] again as many times as display shows:
   or wait 20 seconds, to go out of the programming automatically.

SEPARATE PUSH-BUTTONS Function

This allows to use different push-buttons/controls for opening and closing.
To use this function, you need to wire:
- opening push-button/control [START] terminals
- closing push-button/control [PEDESTRIAN START] terminals

1. Use [▲ ▼] buttons to move inside the menu, till the display shows:
2. Press button [OK] to confirm.
3. Use [▲ ▼] buttons to select:
   - SEPARATE PUSH-BUTTONS Function OFF
   - SEPARATE PUSH-BUTTONS Function ON
4. Press button [ESC] to go back to the top level menus, then press button [OK] again till the display shows:
   or wait the timeout (20 seconds) to exit.
### MOTORS’ TEST

This function allows to check the good operation of the motors in opening and closing.

1. Scroll to go to setting:
2. Press to confirm.
3. Use to turn:
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.

### LEAF RELEASE in CLOSING - motor 1

**Use this function only with AUTOMATIC Programming**

This function allows motor 1 to release thrust force on the gate when full closing has been completed.

1. Scroll to go to setting:
2. Press to confirm.
3. Use to set thrust force value:
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.

### LEAF RELEASE in OPENING - motor 1 and 2

**Use this function only with AUTOMATIC Programming**

This function allows motor 1 and 2 to release thrust force on the gate when full opening has been completed.

1. Scroll to go to setting:
2. Press to confirm.
3. Use to turn:
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.
**BLINKER TENSION**

This function allows to select the blinker output tension.

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
<th>Selections</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Scroll</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Press</td>
<td>HL</td>
</tr>
<tr>
<td>3</td>
<td>Use</td>
<td>INTERMITTENT (Default) 00 01</td>
</tr>
<tr>
<td>4</td>
<td>Press</td>
<td>Sd</td>
</tr>
</tbody>
</table>

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.
4.5 TIMES settings

This menu enables to set any WORKING TIME as well as COUNTDOWN for AUTOMATIC CLOSING.

Press A and use ▲▼ to go to main menu

Press again A to go to

Use ▲▼ to select the according setting.

## DELAY TIME in OPENING

This function allows to set the delay time in opening.

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Scroll</td>
<td>▲▼</td>
</tr>
<tr>
<td>2</td>
<td>Press</td>
<td>A</td>
</tr>
<tr>
<td>3</td>
<td>Use</td>
<td>▲▼</td>
</tr>
<tr>
<td>5</td>
<td>Press</td>
<td>3</td>
</tr>
</tbody>
</table>

**Setting**

- **00 (OFF)**
- **01**
- **10 (max)**

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

## DELAY TIME in CLOSING

This function allows to set the delay time in closing.

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Scroll</td>
<td>▲▼</td>
</tr>
<tr>
<td>2</td>
<td>Press</td>
<td>A</td>
</tr>
<tr>
<td>3</td>
<td>Use</td>
<td>▲▼</td>
</tr>
<tr>
<td>4</td>
<td>Press</td>
<td>3</td>
</tr>
</tbody>
</table>

**Setting**

- **00 (OFF)**
- **01**
- **20 (max)**

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

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

1. Scroll **△ □ ▼** to go to setting:  
2. Press **△** to confirm.  
3. Use **△ □ ▼** to set the countdown:  
   - Setting **00** the AUTOMATIC CLOSING is TURNS OFF  
   - Setting **01** to **99** (max)  
4. Press **△** to return to previous setting, then press **△** again as many times as display shows:  
   - Setting **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 **△ □ ▼** to go to setting:  
2. Press **△** to confirm.  
3. Use **△ □ ▼** to set the pedestrian countdown:  
   - Setting **00** the PEDESTRIAN AUTOMATIC CLOSING is TURNS OFF  
   - Setting **01** to **99** (max)  
4. Press **△** to return to previous setting, then press **△** again as many times as display shows:  
   - Setting **5d** (setting saved)  
   - or wait 20 seconds, to go out of the programming automatically.

### WORKING time - Motor 1

This function enables to set the working time in opening/closing of motor 1.

- **Attention:** This function applies ONLY with SEQUENTIAL PROGRAMMING.
- The AUTOMATIC PROGRAMMING on the contrary sets automatically the working time and cannot be changed.

1. Scroll **△ □ ▼** to go to setting:  
2. Press **△** to confirm.  
3. Use **△ □ ▼** to decrease/increase motor 1 working time.  
   - Setting **01** to **99** (max)  
4. Press **△** to return to previous setting, then press **△** again as many times as display shows:  
   - Setting **5d** (setting saved)  
   - or wait 20 seconds, to go out of the programming automatically.
### WORKING time - Motor 2

This function enables to set the working time in **opening/closing** of motor 2.

⚠️ This function applies **ONLY** when **SEQUENTIAL PROGRAMMING** is performed.

The **AUTOMATIC PROGRAMMING** on the contrary sets automatically the working time and cannot be changed.

1. Scroll ↑ ▼ to go to setting:  
2. Press to confirm.  
3. Use ↑ ▼ to decrease/increase motor 2 working time.  
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.

#### SLOWDOWN – Motor 1

This function enables to set slowdown in **opening/closing** of motor 1.

1. Scroll ↑ ▼ to go to setting:  
2. Press to confirm.  
3. Use ↑ ▼ to decrease/increase motor 1 slowdown time:  
   - Setting motor 1 SLOWDOWN turns OFF  
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.

#### SLOWDOWN – Motor 2

This function enables to set slowdown in **opening/closing** of motor 2.

1. Scroll ↑ ▼ to go to setting:  
2. Press to confirm.  
3. Use ↑ ▼ to decrease/increase motor 2 slowdown time:  
   - Setting motor 2 SLOWDOWN turns OFF  
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.
### PEDESTRIAN OPENING

This function enables to set the *pedestrian opening* of motor 1.

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Scroll 🖼️, 🕔, 🕕 to go to setting:</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Press 🏨 to confirm.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Use 🕔, 🕕 to set the <em>pedestrian opening time</em>:</td>
<td>Setting 00 the pedestrian leaf will fully open.</td>
</tr>
<tr>
<td></td>
<td>⚠️</td>
<td>Setting 00 (full opening) 01 (min) ... 12 (max) (setting saved)</td>
</tr>
<tr>
<td>4</td>
<td>Press 🕔 to return to previous setting, then press 🕔 again as many times as display shows:</td>
<td>or wait 20 seconds, to go out of the programming automatically.</td>
</tr>
</tbody>
</table>

### ELECTRIC LOCK

This function enables to set the ELECTRIC LOCK pulse time.

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Scroll 🖼️, 🕔, 🕕 to go to setting:</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Press 🏨 to confirm.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Use 🕔, 🕕 to set the pulse time:</td>
<td>01 (min) ... 05 (max) (setting saved)</td>
</tr>
<tr>
<td>4</td>
<td>Press 🕔 to return to previous setting, then press 🕔 again as many times as display shows:</td>
<td>or wait 20 seconds, to go out of the programming automatically.</td>
</tr>
</tbody>
</table>
4.6 SAFETY DEVICES

This menu helps setting and handling the safety devices.

Press and scroll to go to setting PP.
Press again to confirm, the display shows P.
Use to select the according setting.

STOP emergency push button

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

3 Use to turn the contact:
   OFF – stop button deactivated
   ON – stop button activated

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.

PHOTOCELL in OPENING

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

3 Use to turn the contact:
   OFF – photocell in opening deactivated
   ON – photocell in opening activated

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.

PHOTOCELL in CLOSING

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

3 Use to turn the contact:
   OFF – photocell in closing deactivated
   ON – photocell in closing activated

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 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 ▶ 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 ▶ again as many times as display shows:
   or wait 20 seconds, to go out of the programming automatically.
**4.7 MAINTENANCE and SERVICE SETTING**

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

Press the menu button and scroll to go to setting 4.7.
Press again to confirm, the display shows the according setting.

Use the menu button to select the according setting.

### Cycles performed (no possibility of reset)

This feature shows how many OPERATIONS your gate performed.

1. Scroll to go to setting:

2. Press:
   - 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 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.

### Maintenance countdown

This feature shows the number of cycles left to MAINTENANCE

1. Scroll to go to setting:

2. Press:
   - If display shows 3 times maintenance countdown has not been set (default)
   - If display shows a view in 3 sequences like:
     - First view
     - Second view
     - Third view

   It means **123 cycles 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 proceed now to maintenance.

3. 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.
# Setting maintenance service

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

1. Scroll **▲ ▼** to go to setting:  

2. Press **Q** to confirm:

3. Use **▲ ▼** to set the desired number of cycles till next maintenance service.
   
   - The number of cycles entered in **JD** will be automatically transferred as well to setting **JP** (cycles left to maintenance)
   
   - **01** (1000 cycles)  
   - **02** (2000 cycles)  
   - **55** (55000 cycles)  
   - **99** (99000 cycles)  

4. Press **B ▼** to return to previous setting, then press **B ▼** 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**.

1. Scroll **▲ ▼** to go to setting:  

2. Press **A ▼** to confirm:

   - **00** installation date has not been set.
   - **10** (day), **08** (month), **18** (year) installation date has been set.

3. 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.
### Motors direct command

This function enables to check the correct motors’ operation or to reach electrically limit switches in Opening/Closing without unlocking the motors.

<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 select</td>
</tr>
<tr>
<td>3</td>
<td>Use ▲ ▼ to:</td>
</tr>
<tr>
<td></td>
<td>▲ OPEN motor 1 while holding the key</td>
</tr>
<tr>
<td></td>
<td>▼ CLOSE motor 1 while holding the key</td>
</tr>
<tr>
<td></td>
<td>▲ OPEN motor 2 while holding the key</td>
</tr>
<tr>
<td></td>
<td>▼ CLOSE motor 2 while holding the key</td>
</tr>
<tr>
<td>4</td>
<td>Press ▼ to return to previous setting, then press ▼ again as many times as display shows:</td>
</tr>
</tbody>
</table>

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

### Set installation date

This function enables to set the date of first INSTALLATION.

<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></td>
<td>If display shows 3 times ▼ installation date has not been set</td>
</tr>
<tr>
<td>3</td>
<td>Use ▲ ▼ ▼ to set the day and press ▼ to confirm.</td>
</tr>
<tr>
<td></td>
<td>Use ▲ ▼ ▼ to set the month and press ▼ to confirm.</td>
</tr>
<tr>
<td></td>
<td>Use ▲ ▼ ▼ to set the year and press ▼ to confirm</td>
</tr>
<tr>
<td></td>
<td>ex: 10 day 08 month 18 year</td>
</tr>
<tr>
<td>4</td>
<td>Press ▼ to return to previous setting, then press ▼ again as many times as display shows:</td>
</tr>
</tbody>
</table>

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

(setting saved)
## 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>
</table>
| **DISPLAY TURNED OFF** | • No tension.  
• Fuses damaged.  
• Transformer damaged. | Check the power supply.  
Find the cause and replace the fuse.  
Check wiring as well as in/out transformer’s tension. |
| **PHOTOCELL CLOSING** | • Non-calibrated photocell.  
• Obstacle in between.  
• Incorrect wiring.  
• Non-powered photocell.  
• Disconnected photocell, disconnected output. | Check the calibration between receiver and transmitter.  
Remove the obstacle and clean the lenses from dirt.  
Check the wiring.  
Check the tension on the transmitter and receiver.  
Turn P2 OFF. (see paragraph 3.6.1) |
| **PHOTOCELL OPENING** | • Non-calibrated photocell  
• Obstacle in between.  
• Incorrect wiring.  
• Non-powered photocell.  
• Disconnected photocell, disconnected output. | Check the calibration between receiver and transmitter.  
Remove the obstacle and clean the lenses from dirt.  
Check the wiring.  
Check the tension on the transmitter and receiver.  
Turn P3 OFF. (see paragraph 3.6.2) |
| **PHOTOCELL TEST** | • Incorrect wiring.  
• Non-compatible photocells. | Check the wiring.  
Use Proteco’s photocells. |
| **SAFETY EDGE CLOSING** | • Safety edge disconnected.  
• Incorrect wiring.  
• Input disabled.  
• Incorrect mode selection (MECHANICAL - RESISTIVE)  
• Incorrect micro adjustment. | Check the wiring.  
Turn P4 OFF.  
Check the safety edge type and set P4 accordingly.  
Adjust the inox wire tension. |
| **SAFETY EDGE OPENING** | • Disconnected safety edge.  
• Incorrect wiring.  
• Input disabled.  
• Incorrect mode selection (MECHANICAL - RESISTIVE)  
• Incorrect micro adjustment. | Check the wiring.  
Check the wiring.  
Turn P5 OFF.  
Check the safety edge type and set P5 accordingly.  
Adjust the inox wire tension. |
| **STOP PUSH BUTTON** | • Disconnected button.  
• Incorrect wiring. | Check the stop button wiring or turn P1 OFF. (see paragraph 3.5)  
Check the wiring. (paragraph 3.5) |
| **START COMMAND** | • Permanent start command. | Check the good operation of all devices connected to START (contact N.O.) (see paragraph 3.3). |
| **PEDESTRIAN COMMAND** | • Pedestrian start command. | Check the good operation of all devices connected to PEDESTRIAN START (contact N.O.) (see paragraph 3.4). |
| **MOTORS’ TEST** | • Disconnected motors.  
• Incorrect wiring.  
• Capacitor damaged. | Wire the motors according to the wiring table.  
Check motors’ wiring (paragraph 3.1).  
Use a tester to check the stator’s tension. |
| **PERMANENT RADIO SIGNAL** | • Unknown TRANSMITTER not in memory. | Check the transmitter’s keys.  
If a key sticks, the transmitter led remains on and fixed.  
Remove the transmitter’s battery and make sure the fault disappears from display. |
| **PERMANENT RADIO SIGNAL** | • PERMANENT START COMMAND FROM AN EXISTING TRASMITTER. | Check the transmitter’s keys.  
If a key sticks, the transmitter led remains on and fixed.  
Remove the transmitter’s battery and make sure the fault disappears from display. |
| **COUNTDOWN COMPLETED** | • blinker flashes every 5 sec. | Proceed to maintenance service.  
Reset the maintenance service |
6. BOX Installation

1) Choose the place for the box and mark the fixing points on the wall. Pay attention to respect the distances between the holes (fig. 1).
2) Make the drillings and fix the box with the pre-drilled holes downwards.
3) Slip the washer round the edge of the box, starting from centre down (fig. 2). Do not extend the washer, just push it into its housing and cut any excess.
4) Cut the rubber grommets the same size of the wires/cables for electrical wirings (fig. 3) so that the grommet perfectly adheres to the cable/wire. Do not cut the rubber grommets you’re not going to use.
5) Put all the grommets in the pre-drilled holes of the box and drive the cables/wires (fig. 4).
6) Once wirings and installation are finished close the box and screw the cover on the box (fig. 5).

7. 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.