Multi-function control panel for double/single swing gate - 230Vac

- Programming display
- Electronic adjustment of each motor’s working time
- Automatic programming procedure with obstacle detection (anti-crushing function) or step-by-step programming procedure with electronic adjustment of power and deceleration for each motor.
- “Quick closing” function
- Pedestrian Opening function
- Electronic adjustment of the delay between leaves for opening and closing.
- Multi-Occupation function.
- Pre-Blinking function.
- Additional radio channel (optional module)
- Terminal for electric lock (optional module)
- Reversing stroke and lock pulse functions for electric lock.
- Built-in radio receiver 433.92MHz (64 codes) suitable for standard fix-code transmitters or rolling-code transmitters.
- Terminal for safety edge 8K2 type
- Fault Diagnostic with display messages

TECHNICAL FEATURES

<table>
<thead>
<tr>
<th>Item code</th>
<th>PQ80A, PQ80A1D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Panel 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>Control Panel Weight</td>
<td>160 g</td>
</tr>
<tr>
<td>Main Power</td>
<td>230 ~ 50-60Hz</td>
</tr>
<tr>
<td>Main Power Tolerance</td>
<td>-10% +20%</td>
</tr>
<tr>
<td>Transformer</td>
<td>230/21Vac – 15VA</td>
</tr>
<tr>
<td>Main Fuse</td>
<td>5 A</td>
</tr>
<tr>
<td>Rated power input</td>
<td>600 W</td>
</tr>
<tr>
<td>Rated current</td>
<td>3.5 A</td>
</tr>
<tr>
<td>Current in stand-by mode</td>
<td>30 Ma</td>
</tr>
<tr>
<td>Blinker power supply</td>
<td>24 Vac, max 20 W</td>
</tr>
<tr>
<td>Accessories power supply</td>
<td>24 Vdc, max 5 W</td>
</tr>
<tr>
<td>Electric Lock power supply</td>
<td>12 Vdc, max 15 W</td>
</tr>
<tr>
<td>Box dimensions</td>
<td>220 x 295 x 95 mm</td>
</tr>
<tr>
<td>Working temperature</td>
<td>-20 +50 °C</td>
</tr>
<tr>
<td>Protection Level (with box)</td>
<td>IP55</td>
</tr>
</tbody>
</table>
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1. WARNINGS

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 12445 provisions.

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

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

When operating a biased-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: 🔄
2. WIRING DIAGRAM and COMPONENTS

DISPLAY = segments display
J1 = radio module
J5 = plug for optional modules
F2 = 230V fuse 5A
FR1 = 24V fuse 1.6A (self-restorable)
FR2 = 24V fuse 0.6A (self-restorable)
V1 = secondary varistor
K2/K3 = motors relay
K4 = blinker relay
TR2 = filter
JP1 = AERIAL terminal block
JP2 = secondary transformer plug 24Vac
JP3 = main transformer plug 230Vac
JP4 = CONTROLS terminal block
JP5 = PHOTOCELLS terminal block
JP6 = BLINKER terminal block
JP7 = Motor 1 (M1) terminal block
JP8 = Motor 2 (M2) terminal block
JP9 = 230V MAIN power/earth terminal block

Display BUTTONS Legend

<table>
<thead>
<tr>
<th>A</th>
<th>ENTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>EXIT</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>INCREASE or START command (when not programming)</td>
</tr>
<tr>
<td></td>
<td>DECREASE or PEDESTRIAN START command (when not programming)</td>
</tr>
</tbody>
</table>
3. ELECTRIC WIRINGS

WIRING Diagram for 230Vac motor

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
JP1 = AERIAL terminal block

- 21 aerial cable (SIGNAL)
- 22 aerial cable (EARTH)

JP2 = TRANSFORMER secondary plug 24Vac (red wires)

JP3 = TRANSFORMER main plug 230Vac (black wires)

JP4 = CONTROLS terminal block

1. START command (N.O. contact)
2. STOP command (N.C. contact)
3. PEDESTRIAN START command (N.O. contact)
4. NEUTRAL for controls

JP5 = PHOTOCELLS and SAFETY DEVICES

- 5 CLOSING PHOTOCELLS terminal (N.C. contact)
- 6 OPENING PHOTOCELLS terminal (N.C. contact)
- 7 Photocells RECEIVER power supply -24V
- 8 Photocells RECEIVER/TRANSMITTER
- 9 Photocell TRANSMITTER power supply -24V

JP6 = BLINKER terminal block

- 10 BLINKER power supply 24Vac
- 11 BLINKER power supply 24Vac

JP7 = MOTOR 1 (M1) terminal block

- 12 OPENING
- 13 NEUTRAL
- 14 CLOSING

JP8 = MOTOR 2 (M2) terminal block

- 15 OPENING
- 16 NEUTRAL
- 17 CLOSING

JP9 = 230V MAIN POWER/EARTH terminal block

Pole disconnect means must be incorporated in the fixed wiring to the control panel

JP5 = plug for optional modules
### 3.1 MOTORS wiring

**M1** motor 1 → first opening and last closing leaf.

**M2** motor 2 → last opening and first closing leaf.

Wire motor 1 **M1** to terminals 12 - 13 - 14 on JP7 terminal block.

Wire motor 2 **M2** to terminals 15 - 16 - 17 on JP8 terminal block.

In case of single leaf gate, please wire the motor to 12 - 13 - 14 terminals on terminal block JP7.

Please see the following wiring scheme for your automation model as the Open/Close connections may vary:

<table>
<thead>
<tr>
<th>AUTOMATION MODEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional Ram</td>
</tr>
<tr>
<td>Articulated ram motor</td>
</tr>
<tr>
<td>Slimline Ram</td>
</tr>
<tr>
<td>Wheel-driven motor</td>
</tr>
<tr>
<td>Underground motor</td>
</tr>
</tbody>
</table>

**GATE TYPE**

- **Left leaf 1st opening (M1)**

- **Right leaf 1st opening (M1)**

- **Left leaf (M1)**

- **Right leaf (M1)**
3.2 MAIN POWER wiring

Pole disconnect means must be incorporated according to current rating.

Connect 230V power to 18 - 19 - 20 terminals on JP9 terminal block, paying attention to respect polarity (18 PHASE- 20 NEUTRAL).

3.3 START controls wiring

Wire the START control/push-button to 1 and 4 terminals on JP4 terminal block (N.O. contact).

Additional START controls/push-buttons can be wired in parallel (N.O. contact).

3.3.1 TIMER (for permanent opening command) wiring

Wire the TIMER to 1 and 4 terminals on JP4 terminal block (N.O. contact).

NOTICE:
IF WIRING A TIMER-CLOCK YOU MUST SET MULTI-OCCUPATION FUNCTION ON

3.3.2 KEY-SWITCH wiring

Wire the KEY-SWITCH to 1 and 4 terminals on JP4 terminal block (N.O. contact).

3.4 PEDESTRIAN START controls wiring

Wire the PEDESTRIAN START control/push-button to 3 and 4 terminals on JP4 terminal block (N.O. contact).

Additional PEDESTRIAN START controls/push-buttons can be wired in parallel (N.O. contact)
3.5 STOP push-button wiring

Wire the STOP push-button to terminals 2 and 4 on JP4 terminal block. Additional STOP controls/push-buttons can be wired in parallel (N.C. contact).

The wiring of an emergency stop push-button is highly recommended for the safety of people and objects.

**Note:** Should you need to temporarily exclude the STOP connections, please set parameter in the ACCESSORIES menu to 00 =DISABLED.

3.6 PHOTOCELLS wiring

3.6.1 CLOSING Photocells

Power the CLOSING PHOTOCELLS wiring them to terminals 7 - 8 - 9 on JP5 terminal block. Wire the N.C. contact of the photocells to terminals 5 - 7 on JP5 terminal block.

The closing photocells will behave as follows:

- If an obstacle interrupts the photocell beam when the gate is closing, the automation STOPS and REVERSES in about 1.5 seconds.
- An obstacle detected by the photocells when the gate is OPENING does not cause any effect.

Additional sets of CLOSING PHOTOCELLS can be wired in series (N.C. contact).

**Note:** Should you need to temporarily exclude the CLOSING PHOTOCELLS connections, please set parameter in the ACCESSORIES menu to 00 =DISABLED.

3.6.2 OPENING Photocells

Power the OPENING PHOTOCELLS wiring them to terminals 7 - 8 - 9 on JP5 terminal block. Wire the N.C. contact of the photocells to terminals 6 - 7 on JP5 terminal block.

The opening photocells will behave as follows:

- If an obstacle interrupts the photocell beam when the gate is opening, the automation STOPS. Once the obstacle has been removed the gate CONTINUES to open.

Additional sets of OPENING PHOTOCELLS can be wired in series (N.C. contact).

**Note:** Should you need to temporarily exclude the OPENING PHOTOCELLS connections, please set parameter in the ACCESSORIES menu to 00 =DISABLED.
3.7 SAFETY EDGE wiring

3.7.1 CLOSING (Mechanical) Safety Edge
Wire the CLOSING SAFETY EDGE to terminals 5 - 9 on JP5 terminal block.

- If the safety edge meet any obstacle while the gate is CLOSING, the automation STOPS and REVERSES.
- An obstacle detected by the safety edge while the gate is OPENING does not cause any effect.

3.7.2 OPENING (Mechanical) Safety Edge
Wire the OPENING SAFETY EDGE to terminals 6 - 9 on JP5 terminal block.
The opening safety edge will behave as follows:

- If the safety edge meet any obstacle while the gate is OPENING, the automation STOPS and REVERSES for about 10 cm.
- An obstacle detected by the safety edge while the gate is CLOSING does not cause any effect.
3.8 BLINKER wiring

You can wire a flashing light (20W max) to 10 - 11 terminals on JP6 terminal block.

The flashing light will behave as follows:

- **QUICK** flashing → the gate is OPENING
- **SLOW** flashing → the gate is CLOSING
- **STILL** light on → the gate is in PAUSE TIME before the automatic closing

Note: You can select the kind of flashing light with the parameter in the FUNCTIONS menu.

3.9 ELECTRIC-LOCK wiring

Plug the interface module MEL04 (optional) into J5 connector, please pay attention to the module’s orientation as shown in the picture.

Then wire the electric-lock to the MEL04 terminals.

3.10 AUX/2ND RADIO CHANNEL module

Plug the additional MRX01 module (optional) into J5 connector, please pay attention to the module’s orientation as shown in the picture.

Before setting the dip-switches SW1 on the AUX module, make sure that the control panel is disconnected from any power supply.
3.10.1 2ND RADIO CHANNEL settings
Note: to use the MRX04 module as a 2nd radio channel, you need to save the corresponding radio code.
Please refer to RADIO menu, parameter $R_3$.
Select the AUX module settings with SW1 dip-switch-block:

**STABLE switch**
Electric contact closes every time you press the remote control.

To select this mode, please set the dip-switches on the module as shown:
1= ON 2= OFF 3= OFF  Dip-switch 4 is non influential.

**BISTABLE switch – Toggle Mode**
Electric contact closes or opens every time you press the remote control.

To select this mode, please set the dip-switches on the module as shown:
1= OFF 2= ON 3= OFF  Dip-switch 4 is non influential.

**TIMER mode**
Electric contact closes when you press the remote control and stays closed for 90 seconds.

To select this mode, please set the dip-switches on the module as shown:
1= ON 2= ON 3= OFF  Dip-switch 4 is non influential.

3.10.2 CONTROL LIGHT settings
You can use the MRX01 module to control an indicator light.
The electric contact stays closed, so the light stays on, during all the opening-closing cycle.

To select this mode, please set the dip-switches on the module as shown:
1= OFF 2= OFF 3= ON  Dip-switch 4 is non influential.

3.10.3 COURTESY LIGHT settings
You can also use the MRX01 module to control a courtesy light when the gate is operating.
The electric contact closes since the gate starts operating till 90 seconds after the gates stops.

To select this mode, please set the dip-switches on the module as shown:
1= ON 2= OFF 3= ON  Dip-switch 4 is non influential.

**Note:**
You can fit both the optional modules on the same control panel, placing them one on the top of the other as shown. No matter which one you put first.

**But please pay attention carefully to the orientation of the modules:** both reference slots facing the control panel shown as in the picture.
4. MAIN Menu

<table>
<thead>
<tr>
<th>Display</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA</td>
<td>RADIO menu</td>
</tr>
<tr>
<td>CC</td>
<td>PROGRAMMING menu</td>
</tr>
<tr>
<td>FF</td>
<td>FORCE menu</td>
</tr>
<tr>
<td>HH</td>
<td>FUNCTIONS menu</td>
</tr>
<tr>
<td>LL</td>
<td>TIMES menu</td>
</tr>
<tr>
<td>PP</td>
<td>ACCESSORIES menu</td>
</tr>
<tr>
<td>UU UI</td>
<td>Counter (number of cycles from 00.00.00 to 99.99.99)</td>
</tr>
</tbody>
</table>

4. PROGRAMMING

4.1 AA RADIO menu

This control panel can be used with standard fix code radio transmitters as well as with rolling-code radio transmitters. Transmitter's version musts be choosen before starting any commissioning procedure.

Once the first radio radio code has been stored into the receiver the control panel will work with such type of radio transmitter only (fix-code OR rolling code). Reset will not be possible.

You can store up to 64 different radio codes on this control panel.

Press button AA and use SCROLL to select menu AA, then press button CONFIRM to enter the RADIO menu: display will show AA.

Use buttons to scroll the lower level menu and select:

A1 Saving a new remote control code – standard START command

1. Use buttons to move inside the menu, till the display shows:

2. Now press and hold the remote control and simultaneously press button on the control panel.
The display shows the radio code position.

3. If the display shows It means that memory is full and no further code can be stored.

Repeat steps 1) and 2) to save another remote control as START command.

4. Press button to go back to the top level menus, then press button again till the display shows:

Or wait the timeout (20 seconds) to exit.
### Saving a new remote control code – PEDESTRIAN START command

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Use <strong>↑</strong> <strong>↓</strong> <strong>←</strong> <strong>→</strong> buttons to move inside the menu, till the display shows:</td>
</tr>
<tr>
<td>2</td>
<td>Now press and hold the <strong>remote control</strong> and simultaneously press button <strong>A</strong> on the control panel. The display shows the radio code position.</td>
</tr>
<tr>
<td>3</td>
<td>If the display shows It means that memory is full and no further code can be stored.</td>
</tr>
<tr>
<td>4</td>
<td>Press button <strong>↑</strong> to go back to the top level menus, then press button <strong>↓</strong> again till the display shows: Or wait the timeout (20 seconds) to exit.</td>
</tr>
</tbody>
</table>

Repeat steps 1) and 2) to save another remote control as PEDESTRAIN START command.

### Saving a new radio code for the 2ND RADIO CHANNEL

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Use <strong>↑</strong> <strong>↓</strong> <strong>←</strong> <strong>→</strong> buttons to move inside the menu, till the display shows:</td>
</tr>
<tr>
<td>2</td>
<td>Now press and hold <strong>remote control</strong> and simultaneously press button <strong>A</strong> on the control panel. The display shows the radio code position.</td>
</tr>
<tr>
<td>3</td>
<td>If the display shows It means that memory is full and no further code can be stored.</td>
</tr>
<tr>
<td>4</td>
<td>Press button <strong>↑</strong> to go back to the top level menus, then press button <strong>↓</strong> again till the display shows: Or wait the timeout (20 seconds) to exit.</td>
</tr>
</tbody>
</table>

### Deleting an existing remote control code

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Use <strong>↑</strong> <strong>↓</strong> <strong>←</strong> <strong>→</strong> buttons to move inside the menu, till the display shows:</td>
</tr>
<tr>
<td>2</td>
<td>Press button <strong>A</strong> to confirm</td>
</tr>
<tr>
<td>3</td>
<td>Use <strong>↑</strong> <strong>↓</strong> <strong>←</strong> <strong>→</strong> buttons to select the position of the code you want to delete</td>
</tr>
<tr>
<td>4</td>
<td>Press and hold button <strong>A</strong> for about 5 seconds till the display shows</td>
</tr>
<tr>
<td>5</td>
<td>Release button <strong>A</strong>, control unit returns to stand-by</td>
</tr>
<tr>
<td>6</td>
<td>Press button <strong>↑</strong> to go back to the top level menus, then press button <strong>↓</strong> again till the display shows: Or wait the timeout (20 seconds) to exit</td>
</tr>
</tbody>
</table>

Repeat steps 1) to 5) to delete other existing remote control codes.
### Deleting ALL stored radio codes

1. Use ↑ ↓ buttons to move inside the menu, till the display shows: 

2. Press and hold button  for about 10 seconds till the display shows

3. Release button  , control unit returns to stand-by

4. Press button  to go back to the top level menus, then press buttons  again till the display shows: 
   or wait the timeout (20 seconds) to exit

### PROGRAMMING menu

Press button  and use ↑ ↓ to select menu  , then press button  to enter the PROGRAMMING menu: display will show  

Use ↑ ↓ buttons to scroll the lower level menu.

### Selecting the PROGRAMMING MODE

**AUTOMATIC programming mode, with OBSTACLE DETECTION**

**IMPORTANT:**
- Please check first that motors force (default setting level is 7 in a 1 to 10 range) is suitable to the leaves’ weight.
- In case of very light or very heavy gates please adjust  and  settings in  FORCE menu accordingly before carry-out any programming procedure: the leave shouldn’t stop if a light force is opposed.

- If possible is better to program the control unit when motors are cold (not after repeated use)
- The gate must have opening and closing ground stops for a correct AUTOMATIC programming procedure.

1. Use ↑ ↓ buttons to move inside the menu, till the display shows: 

2. Press and hold button  for about 10 seconds.
   - The control panel starts the automatic programming procedure, the gate will:
     - Open for 3-5 seconds (no matter if it was open, closed or mid-way)
     - Stop and reverse till the fully closed position
     - Perform a complete opening-closing cycle

3. Now working times, deceleration times and the level of sensibility for obstacle detection have been automatically set.

If further adjustments of the sensibility level for obstacle detection are needed, please refer to settings  and  in the  FORCE menu.

If  and  settings are changed once programming is completed, you need to re-start AUTOMATIC programming procedure again.

**NOTE:**
In AUTOMATIC programming mode C1, working times of the motors (L5 and L6 settings) can’t be changed.
### SEQUENTIAL programming mode

This step-by-step programming procedure allows you full control of each setting and finer professional adjustments.

If the control panel is programmed using this procedure, obstacle detection function is automatically disabled.

**IMPORTANT:**
Please check first that motors force (default setting level is 7 in a 1 to 10 range) is suitable to the leaves’ weight.
In case of very light or very heavy gates please adjust $F_1$ and $F_2$ settings in $F_F$ FORCE menu accordingly before carry-out any programming procedure: the leave shouldn’t stop if a light force is opposed.

- If possible is better to program the control unit when motors are cold (not after repeated use)
- The gate must have opening and closing ground stops for a correct SEQUENTIAL programming procedure.

You can program the control panel with the sequential procedure using button $\bullet$ on the control panel or using a remote control previously saved.

1. Use $\uparrow$, $\downarrow$, $\leftarrow$, $\rightarrow$ buttons to move inside the menu, till the display shows:

2. Press button $\leftarrow$ to confirm. The display shows:

3. Press the remote control (or button $\downarrow$ on the control panel).
   - Leaf 1 starts opening.

4. When Leaf 1 is about to 90% of the opening path, press again the remote control (or button $\downarrow$ on the control panel).
   - Leaf one decelerates and continues opening.

5. Once Leaf 1 has reached the fully open position, wait 4 - 5 seconds and then press again the remote control (or button $\downarrow$).
   The working parameters for Leaf 1 have been set. The display now shows:

6. **Repeat steps 3, 4, 5 of this procedure to set working times for Leaf 2 too.**

7. Now working times, deceleration times and the level of sensibility for obstacle detection have been automatically set.

If $F_1$ and $F_2$ settings are changed once programming is completed, you need to re-start AUTOMATIC programming procedure again.
### 4.2.2 Restoring DEFAULT SETTINGS

The control panel comes with pre-set working parameters according to the automation model used. You can reset the control panel to the default settings as follows:

#### RAM opener default settings

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Use buttons to move inside the menu, till the display shows:</td>
</tr>
<tr>
<td>2</td>
<td>Press and hold button for about 5 seconds.</td>
</tr>
<tr>
<td>3</td>
<td>Press button to go back to the top level menus, then press button again till the display shows: or wait the timeout (20 seconds) to exit.</td>
</tr>
</tbody>
</table>

#### ARTICULATED ARM opener default settings

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Use buttons to move inside the menu, till the display shows:</td>
</tr>
<tr>
<td>2</td>
<td>Press and hold button for about 5 seconds.</td>
</tr>
<tr>
<td>3</td>
<td>Press button to go back to the top level menus, then press button again till the display shows: or wait the timeout (20 seconds) to exit.</td>
</tr>
</tbody>
</table>

#### WHEEL-DRIVEN opener default settings

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Use buttons to move inside the menu, till the display shows:</td>
</tr>
<tr>
<td>2</td>
<td>Press and hold button for about 5 seconds.</td>
</tr>
<tr>
<td>3</td>
<td>Press button to go back to the top level menus, then press button again till the display shows: or wait the timeout (20 seconds) to exit.</td>
</tr>
</tbody>
</table>
### 4.3 FORCE menu

Use this menu to adjust the **sensibility level of the obstacle detection** in case of AUTOMATIC Programming mode (C1) or to adjust the **motors force** in case of SEQUENTIAL Programming mode (C2).

Press button A and use ↑, ↓, ↑↓ to select menu FF, then press button 0 to enter the FORCE menu: display will show F_.

Use ↑↓ buttons to scroll the lower level menus:

#### F1 TORQUE/POWER adjustment - MOTOR 1

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Use ↑↑↓↓ buttons to move inside the menu, till the display shows:</td>
<td>F1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Press button 0 to confirm. The display now shows the current torque/power level for Motor 1:</td>
<td>01 02 (min) 10 ....</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Use ↑↓ buttons to change the Motor 1 torque/power level.</td>
<td>(max)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Press button ↑ to go back to the top level menus, then press button ↓ again till the display shows: or wait the timeout (20 seconds) to exit.</td>
<td>5d</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### F2 TORQUE/POWER adjustment - MOTOR 2

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Use ↑↑↓↓ buttons to move inside the menu, till the display shows:</td>
<td>F2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Press button 0 to confirm. The display now shows the current torque/power level for Motor 2:</td>
<td>01 02 (min) 10 ....</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Use ↑↓ buttons to change the Motor 2 torque/power level.</td>
<td>(max)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Press button ↑ to go back to the top level menus, then press button ↓ again till the display shows: or wait the timeout (20 seconds) to exit.</td>
<td>5d</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### OBSTACLE DETECTION adjustment - MOTOR 1

1. Use buttons to move inside the menu, till the display shows:

2. Press button to confirm.
   - The display now shows the current sensibility level for the obstacle detection of Motor 1:
     - OFF
     - MIN
     - MAX

3. Use buttons to change the Motor 1 sensibility level

4. Press button to go back to the top level menus, then press button again till the display shows:
   - OFF
   - MIN
   - MAX
or wait the timeout (20 seconds) to exit.

### OBSTACLE DETECTION adjustment - MOTOR 2

1. Use buttons to move inside the menu, till the display shows:

2. Press button to confirm.
   - The display now shows the current sensibility level for the obstacle detection of Motor 2:
     - OFF
     - MIN
     - MAX

3. Use buttons to change the Motor 2 sensibility level

4. Press button to go back to the top level menus, then press button again till the display shows:
   - OFF
   - MIN
   - MAX
or wait the timeout (20 seconds) to exit.

**N.B.:**

NOTE: If OBSTACLE DETECTION is too sensitive, causing unexpected stops or reversal of leaves, you need to re-adjust settings to a lower level.
4.4 FUNCTIONS menu

Use this menu to enable/disable special settings.

- = function is ON
- = function is OFF

Press button A and use B C D E to select menu HH, then press button A to enter the FUNCTIONS menu; display will show HH.

Use B C D E buttons to scroll the lower level menus:

H1 MULTI-OCCUPATION Function

This function grants priority to the opening command; when two people activate the gate at the same time the first opening command prevails, while opening the control panel ignores any further command.

1 Use B C D E buttons to move inside the menu, till the display shows: H1
2 Press button A to confirm.
3 Use B C D E buttons to select:
   - MULTI-OCCUPATION Function OFF
   - MULTI-OCCUPATION Function ON
4 Press button 3 to go back to the top level menus, then press button again till the display shows:
   - or wait the timeout (20 seconds) to exit.

H2 PRE-BLINKING Function

This function makes the flashing light pre-blinking for 4-5 seconds before the gate starts opening.

1 Use B C D E buttons to move inside the menu, till the display shows: H2
2 Press button A to confirm.
3 Use B C D E buttons to select:
   - PRE-BLINKING Function OFF
   - PRE-BLINKING Function ON
4 Press button 3 to go back to the top level menus, then press button again till the display shows:
   - or wait the timeout (20 seconds) to exit.
### DECELERATION Function

This function decelerates the leaves at the end of the opening/closing cycle.

1. Use buttons to move inside the menu, till the display shows:  
2. Press button to confirm.  
3. Use buttons to select:  
   - DECELERATION Function OFF
   - DECELERATION Function ON
4. Press button to go back to the top level menus, then press button again till the display shows:  
or wait the timeout (20 seconds) to exit.

### PHOTOCELLS TEST Function

If this function is enabled, the control panel performs a quick start-up test with the photocells to make sure that they are in operation.

1. Use buttons to move inside the menu, till the display shows:  
2. Press button to confirm.  
3. Use buttons to select:  
   - PHOTOCELLS TEST Function OFF
   - PHOTOCELLS TEST Function ON
4. Press button to go back to the top level menus, then press button again till the display shows:  
or wait the timeout (20 seconds) to exit.

### REVERSING STROKE Function

For use with ELECTRIC-LOCK and MEL04 optional module only.

This setting makes the motors push in opposite direction for 1 second to help release the electro-lock if the pins are tight in the striker plate.

1. Use buttons to move inside the menu, till the display shows:  
2. Press button to confirm.  
3. Use buttons to select:  
   - REVERSING STROKE Function OFF
   - REVERSING STROKE Function ON
4. Press button to go back to the top level menus, then press button again till the display shows:  
or wait the timeout (20 seconds) to exit.
### LOCK PULSE Function

For use with ELECTRIC-LOCK and MEL04 optional module only.

This setting makes the motors operate full power for 1 second when they are near to closing to ensure lock returns to its striker plate.

1. Use ↓ ▲ buttons to move inside the menu, till the display shows:
2. Press button to confirm.
3. Use ↓ ▲ buttons to select:
   - LOCK PULSE Function OFF
   - LOCK PULSE Function ON
4. Press button ▼ to go back to the top level menus, then press button ▼ again till the display shows:
   - or wait the timeout (20 seconds) to exit.

### START-UP /SOFT START

When starting an opening cycle the control unit gives full power to both motors for 1.5 seconds in order to overcome the gate’s inertia (due to cold weather or long time inactivity).

If SOFT START is on the control unit gives full power to the motors gradually to prevent the gate from flapping/slamming.

1. Use ↓ ▲ buttons to move inside the menu, till the display shows:
2. Press button to confirm.
3. Use buttons to select:
   - START PULSE Function OFF
   - START PULSE Function ON
   - SOFT START Function ON
4. Press button ▼ to go back to the top level menus, then press button ▼ again till the display shows:
   - or wait the timeout (20 seconds) to exit.

### QUICK CLOSING Function

Quick closing after the car has gone through the photocells beam: the gate will complete opening and close immediately after the car without waiting for the entire pause time to elapse.

If another car arrives in the meanwhile, the gate will wait the standard pause time before closing.

1. Use ↓ ▲ buttons to move inside the menu, till the display shows:
2. Press button to confirm.
3. Use buttons to select:
   - QUICK CLOSING Function OFF
   - QUICK CLOSING Function ON
4. Press button ▼ to go back to the top level menus, then press button ▼ again till the display shows:
   - or wait the timeout (20 seconds) to exit.
### SINGLE LEAF Function

Enable this setting in case of a single-leaf swing gate.

1. Use buttons to move inside the menu, till the display shows: [H9]
2. Press button to confirm.
3. Use buttons to select: 
   - SINGLE LEAF Function OFF
   - SINGLE LEAF Function ON
4. Press button to go back to the top level menus, then press button again till the display shows:
   - or wait the timeout (20 seconds) to exit.

### 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 to START terminals
- closing push-button/control to PEDESTRIAN START terminals

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

### MOTORS TEST Function

If this function is enabled, the control panel performs a quick start-up test with the motors to make sure that they are in operation.

1. Use buttons to move inside the menu, till the display shows: [HC]
2. Press button to confirm.
3. Use buttons to select: 
   - MOTORS TEST Function OFF
   - MOTORS TEST Function ON
4. Press button to go back to the top level menus, then press button again till the display shows:
   - or wait the timeout (20 seconds) to exit.
**FINAL MOTOR RELEASE in CLOSING – Motor 1 only**

⚠️ Use only with the AUTOMATIC Programming mode - 🔄

This setting makes motor 1 to release the push a little bit once the gate is fully closed.

1. Use ▶️ ▼ buttons to move inside the menu, till the display shows:  
2. Press button ▼ to confirm.  
3. Use ▶️ ▼ buttons to select the level of the FINAL MOTOR 1 RELEASE when CLOSING:  
   - OFF
   - 01 (min)
   - 10 (max)
4. Press button ▶️ to go back to the top level menus, then press button ▼ again till the display shows:  
   - OFF  
   - max
   - min
   or wait the timeout (20 seconds) to exit.

**FINAL MOTORS RELEASE in OPENING – Motor 1 and 2**

⚠️ Use only with the AUTOMATIC Programming mode - 🔄

This setting allows both motor to release a little bit the push once the gate is fully open.

1. Use ▶️ ▼ buttons to move inside the menu, till the display shows:  
2. Press button ▼ to confirm.  
3. Use ▶️ ▼ buttons to select the level of the FINAL MOTORS RELEASE when OPENING:  
   - OFF
   - 01 (min)
   - 10 (max)
4. Press button ▶️ to go back to the top level menus, then press button ▼ again till the display shows:  
   - OFF  
   - max
   - min
   or wait the timeout (20 seconds) to exit.

**FLASHING LIGHT mode selection**

Use this settings to select the signal mode of the flashing light according to the blinker model you have.

1. Use ▶️ ▼ buttons to move inside the menu, till the display shows:  
2. Press button ▼ to confirm.  
3. Use ▶️ ▼ buttons to select:  
   - BLINKING signal (Standard Flashing Light)
   - FIX signal (LED Flashing Light)
4. Press button ▶️ to go back to the top level menus, then press button ▼ again till the display shows:  
   - OFF  
   - max
   - min
   or wait the timeout (20 seconds) to exit.
4.5 **TIMES menu**

Use this menu to adjust motors **operating time** and **pause time** before automatic closing.

Press button [A] and use [▼] [▲] [▼] to select menu [L L],
then press button [●] to enter the TIMES menu: display will show [L L].

Use [▼] [▲] [▼] buttons to scroll the lower level menus:

---

**OPENING DELAY between leafs**

Use this setting to adjust delay time between leafs when opening (from 1 to 10 seconds).

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong></td>
<td>Use [▼] [▲] [▼] buttons to move inside the menu, till the display shows:</td>
</tr>
<tr>
<td><strong>2</strong></td>
<td>Press button [●] to confirm.</td>
</tr>
<tr>
<td><strong>3</strong></td>
<td>Use [▼] [▲] [▼] buttons to set the delay time between opening leafs:</td>
</tr>
<tr>
<td><strong>4</strong></td>
<td>Press button [●] to go back to the top level menus, then press button [●] again till the display shows:</td>
</tr>
<tr>
<td></td>
<td>or wait the timeout (20 seconds) to exit.</td>
</tr>
</tbody>
</table>

---

**CLOSING DELAY between leafs**

Use this setting to adjust delay time between leafs when closing (from 1 to 20 seconds).

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong></td>
<td>Use [▼] [▲] [▼] buttons to move inside the menu, till the display shows:</td>
</tr>
<tr>
<td><strong>2</strong></td>
<td>Press button [●] to confirm</td>
</tr>
<tr>
<td><strong>3</strong></td>
<td>Use [▼] [▲] [▼] buttons to set the delay time between closing leafs:</td>
</tr>
<tr>
<td><strong>4</strong></td>
<td>Press button [●] to go back to the top level menus, then press button [●] again till the display shows:</td>
</tr>
<tr>
<td></td>
<td>or wait the timeout (20 seconds) to exit.</td>
</tr>
</tbody>
</table>
**L 3 AUTOMATIC CLOSING Pause time**

Use this menu set the pause time for the Automatic Closing (from 0 to 99 seconds).

1. Use \( \uparrow \) \( \downarrow \) \( \leftarrow \) \( \rightarrow \) buttons to move inside the menu, till the display shows: \( L 3 \)
2. Press button \( \uparrow \) to confirm.
3. Use \( \uparrow \) \( \downarrow \) \( \leftarrow \) \( \rightarrow \) buttons to set the pause time for automatic closing: \( 0 0 \) (OFF) \( 0 1 \) \( 9 9 \) (max)
4. Press button \( \uparrow \) to go back to the top level menus, then press button \( \uparrow \) again till the display shows: \( 5 d \)
or wait the timeout (20 seconds) to exit.

**L 4 PEDESTRIAN AUTOMATIC CLOSING Pause time**

Use this menu set the pause time for the Pedestrian Automatic Closing (from 0 to 99 seconds).

1. Use \( \uparrow \) \( \downarrow \) \( \leftarrow \) \( \rightarrow \) buttons to move inside the menu, till the display shows: \( L 4 \)
2. Press button \( \uparrow \) to confirm.
3. Use \( \uparrow \) \( \downarrow \) \( \leftarrow \) \( \rightarrow \) buttons to set the pause time for Pedestrian automatic closing: \( 0 0 \) (OFF) \( 0 1 \) \( 9 9 \) (max)
4. Press button \( \uparrow \) to go back to the top level menus, then press button \( \uparrow \) again till the display shows: \( 5 d \)
or wait the timeout (20 seconds) to exit.

**L 5 OPERATING TIME – Motor 1**

Use this menu to adjust Motor 1 opening/closing.

Use only with the SEQUENTIAL Programming mode - \( C 2 \)

In AUTOMATIC programming mode \( C 1 \), working time of MOTOR 1 can’t be changed

1. Use \( \uparrow \) \( \downarrow \) \( \leftarrow \) \( \rightarrow \) buttons to move inside the menu, till the display shows: \( L 5 \)
2. Press button \( \uparrow \) to confirm.
3. Use \( \uparrow \) \( \downarrow \) \( \leftarrow \) \( \rightarrow \) buttons to reduce/increase Motor 1 operating time: \( 0 1 \) \( 9 9 \) (max)
4. Press button \( \uparrow \) to go back to the top level menus, then press button \( \uparrow \) again till the display shows: \( 5 d \)
or wait the timeout (20 seconds) to exit.
### OPERATING TIME – Motor 2

Use this menu to adjust **Motor 1 opening/closing**.

⚠️ Use only with the **SEQUENTIAL Programming mode**.

In **AUTOMATIC** programming mode, the working time of MOTOR 2 can’t be changed.

1. Use buttons to move inside the menu, till the display shows: 
2. Press button to confirm.
3. Use buttons to reduce/increase Motor 2 operating time: 
4. Press button to go back to the top level menus, then press button again till the display shows: or wait the timeout (20 seconds) to exit.

### DECELERATION TIME – Motor 1

Use this setting to adjust opening/closing deceleration time for **Motor 1** (from 1 to 10 seconds).

Before adjusting this setting, please make sure that parameter \( H_3 \) in **FUNCTIONS** menu is: \( H_3 = 1 \) **Deceleration ON**

1. Use buttons to move inside the menu, till the display shows: 
2. Press button to confirm.
3. Use buttons to reduce/increase **Motor 1** deceleration time: 
4. Press button to go back to the top level menus, then press button again till the display shows: or wait the timeout (20 seconds) to exit.
### L8 DECELERATION TIME - Motor 2

Use this setting to adjust opening/closing deceleration time for **Motor 2** (from 1 to 10 seconds).

Before adjusting this setting, please make sure that parameter \( H3 \) in **FUNCTIONS** menu is:

\[ H3 = 1 \text{ Deceleration ON} \]

1. Use \( \mathbf{\downarrow} \mathbf{\uparrow} \mathbf{\downarrow} \) buttons to move inside the menu, till the display shows:
2. Press button \( \mathbf{\uparrow} \) to confirm.
3. Use \( \mathbf{\downarrow} \mathbf{\uparrow} \mathbf{\downarrow} \) buttons to reduce/increase **Motor 2 deceleration time**:

<table>
<thead>
<tr>
<th>( \text{L8} )</th>
<th>( \text{OFF} )</th>
<th>( \text{min} )</th>
<th>( \text{max} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>00</td>
<td>01</td>
<td>10</td>
</tr>
</tbody>
</table>

4. Press button \( \mathbf{\downarrow} \) to go back to the top level menus, then press button \( \mathbf{\uparrow} \) again till the display shows:

   - or wait the timeout (20 seconds) to exit.

### L9 PEDESTRIAN OPENING TIME

Use this setting to adjust operating time for **Pedestrian Opening for Motor 1** (from 1 to 12 seconds).

1. Use \( \mathbf{\downarrow} \mathbf{\uparrow} \mathbf{\downarrow} \) buttons to move inside the menu, till the display shows:
2. Press button \( \mathbf{\uparrow} \) to confirm.
3. Use \( \mathbf{\downarrow} \mathbf{\uparrow} \mathbf{\downarrow} \) buttons to set Motor 1 Pedestrian opening time:

<table>
<thead>
<tr>
<th>( \text{L9} )</th>
<th>( \text{total opening} )</th>
<th>( \text{min} )</th>
<th>( \text{max} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>01</td>
<td>01</td>
<td>12</td>
</tr>
</tbody>
</table>

4. Press button \( \mathbf{\downarrow} \) to go back to the top level menus, then press button \( \mathbf{\uparrow} \) again till the display shows:

   - or wait the timeout (20 seconds) to exit.
### 4.6 P P ACCESSORIES menu

Use this menu to manage terminals for wiring the accessories (controls and safety devices).

Press button `A` and use `UP` `DOWN` to select menu `PP`, then press button `B` to enter the ACCESSORIES menu: display will show `P`.

Use `UP` `DOWN` buttons to scroll the lower level menus:

<table>
<thead>
<tr>
<th>P1</th>
<th>EMERGENCY STOP terminals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Use <code>UP</code> <code>DOWN</code> buttons to move inside the menu, till the display shows:</td>
</tr>
<tr>
<td>2</td>
<td>Press button <code>A</code> to confirm.</td>
</tr>
<tr>
<td>3</td>
<td>Use <code>UP</code> <code>DOWN</code> buttons to select:</td>
</tr>
<tr>
<td></td>
<td>STOP Push-button – <strong>NOT WIRED</strong></td>
</tr>
<tr>
<td></td>
<td>STOP Push-button – <strong>WIRED</strong></td>
</tr>
<tr>
<td>4</td>
<td>Press button <code>A</code> to go back to the top level menus, then press button <code>A</code> again till the display shows:</td>
</tr>
<tr>
<td></td>
<td>or wait the timeout (20 seconds) to exit.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>P2</th>
<th>CLOSING PHOTOCELLS terminals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Use <code>UP</code> <code>DOWN</code> buttons to move inside the menu, till the display shows:</td>
</tr>
<tr>
<td>2</td>
<td>Press button <code>A</code> to confirm.</td>
</tr>
<tr>
<td>3</td>
<td>Use <code>UP</code> <code>DOWN</code> buttons to select:</td>
</tr>
<tr>
<td></td>
<td>CLOSING Photocells – <strong>NOT WIRED</strong></td>
</tr>
<tr>
<td></td>
<td>CLOSING Photocells – <strong>WIRED</strong></td>
</tr>
<tr>
<td>4</td>
<td>Press button <code>A</code> to go back to the top level menus, then press button <code>A</code> again till the display shows:</td>
</tr>
<tr>
<td></td>
<td>or wait the timeout (20 seconds) to exit.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>P3</th>
<th>OPENING PHOTOCELLS / SAFETY EDGE terminals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Use <code>UP</code> <code>DOWN</code> buttons to move inside the menu, till the display shows:</td>
</tr>
<tr>
<td>2</td>
<td>Press button <code>A</code> to confirm.</td>
</tr>
<tr>
<td>3</td>
<td>Usare i tasti <code>UP</code> <code>DOWN</code> per selezionare:</td>
</tr>
<tr>
<td></td>
<td>Opening Photocells/Safety Edges – <strong>NOT WIRED</strong></td>
</tr>
<tr>
<td></td>
<td>Opening Photocells – <strong>WIRED</strong></td>
</tr>
<tr>
<td></td>
<td>Standard Safety Edge (NC contact) – <strong>WIRED</strong></td>
</tr>
<tr>
<td></td>
<td>8K2 Safety Edge – <strong>WIRED</strong></td>
</tr>
<tr>
<td>4</td>
<td>Press button <code>A</code> to go back to the top level menus, then press button <code>A</code> again till the display shows:</td>
</tr>
<tr>
<td></td>
<td>or wait the timeout (20 seconds) to exit.</td>
</tr>
</tbody>
</table>

If a 8K2 safety edge is wired (P3 = 03), when detecting an obstacle the gate will STOP and:
- Reverse for about 10 cm when opening
- Reverse and open fully when closing

<table>
<thead>
<tr>
<th></th>
<th>8K2 Safety Edge – <strong>WIRED</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Use <code>UP</code> <code>DOWN</code> buttons to move inside the menu, till the display shows:</td>
</tr>
<tr>
<td>2</td>
<td>Press button <code>A</code> to confirm.</td>
</tr>
<tr>
<td>3</td>
<td>Usare i tasti <code>UP</code> <code>DOWN</code> per selezionare:</td>
</tr>
<tr>
<td></td>
<td>Opening Photocells/Safety Edges – <strong>NOT WIRED</strong></td>
</tr>
<tr>
<td></td>
<td>Opening Photocells – <strong>WIRED</strong></td>
</tr>
<tr>
<td></td>
<td>Standard Safety Edge (NC contact) – <strong>WIRED</strong></td>
</tr>
<tr>
<td></td>
<td>8K2 Safety Edge – <strong>WIRED</strong></td>
</tr>
<tr>
<td>4</td>
<td>Press button <code>A</code> to go back to the top level menus, then press button <code>A</code> again till the display shows:</td>
</tr>
<tr>
<td></td>
<td>or wait the timeout (20 seconds) to exit.</td>
</tr>
</tbody>
</table>
### 4.7 CYCLE COUNTING menu

You can use this function to check how many complete cycles (opening-closing) the system has performed from first installation.

Press button `A` and use `UP` `DOWN` to select menu `UU`, then press button `A` to enter the CYCLE COUNTING menu: display will show `UU`.

Use `UP` `DOWN` buttons to scroll the lower level menus:

#### EMERGENCY STOP terminals

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Use <code>UP</code> <code>DOWN</code> buttons to move inside the menu, till the display shows:</td>
</tr>
<tr>
<td>2</td>
<td>Press button <code>A</code> to confirm. The display shows the number of complete opening and closing cycles of the gate.</td>
</tr>
<tr>
<td>4</td>
<td>Press button <code>A</code> to go back to the top level menus, then press button <code>A</code> again till the display shows:</td>
</tr>
<tr>
<td></td>
<td>or wait the timeout (20 seconds) to exit.</td>
</tr>
</tbody>
</table>
## 5. TROUBLE-SHOOTING

<table>
<thead>
<tr>
<th>Display</th>
<th>Issue</th>
<th>Possible Reasons</th>
<th>Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DISPLAY OFF</td>
<td>Power-cut</td>
<td>Check main power supply</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Burnt fuses</td>
<td>Replace the fuses</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Transformer problem</td>
<td>Check all connections and input/output voltage</td>
</tr>
<tr>
<td>FC</td>
<td>CLOSING PHOTOCELLS</td>
<td>Misalignment of the photocells</td>
<td>Check transmitter and receiver position/alignment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Obstacle disturbing the photocells beam</td>
<td>Check and remove the obstacle. Also check the photocells eye and remove any dust or dirty deposit.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Incorrect wiring</td>
<td>Check all electrical wirings following the diagram</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Photocell not powered</td>
<td>Check power and voltage both on receiving and transmitting photocell</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Closing photocells not wired</td>
<td>Wire the photocells or disabled corresponding parameter (please refer to paragraph 3.6.1)</td>
</tr>
<tr>
<td></td>
<td>OPENING PHOTOCELLS</td>
<td>Misalignment of the photocells</td>
<td>Check transmitter and receiver position/alignment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Obstacle disturbing the photocells beam</td>
<td>Check and remove the obstacle. Also check the photocells eye and remove any dust or dirty deposit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Incorrect wiring</td>
<td>Check all electrical wirings following the diagram</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Photocell not powered</td>
<td>Check power and voltage both on receiving and transmitting photocell</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Opening photocells not wired</td>
<td>Wire the photocells or disable corresponding parameter (please refer to paragraph 3.6.2)</td>
</tr>
<tr>
<td></td>
<td>PHOTOCELLS TEST FAILED</td>
<td>Incorrect wiring</td>
<td>Check all electrical wirings following the diagram</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unfitting photocells</td>
<td>Please install original photocells</td>
</tr>
<tr>
<td></td>
<td>EMERGENCY STOP</td>
<td>Incorrect wiring</td>
<td>Check all electrical wirings following the diagram (paragraph 3.5)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Emergency STOP push-button not wired</td>
<td>Wire the STOP push-button or disable corresponding parameter (please see paragraph 3.5)</td>
</tr>
<tr>
<td></td>
<td>START COMMAND</td>
<td>The control panel is receiving a continuous START command</td>
<td>Make sure that all START controls connect are properly working and correctly wired (N.O. contact)</td>
</tr>
<tr>
<td></td>
<td>PEDESTRIAN START COMMAND</td>
<td>The control panel is receiving a continuous PEDESTRIAN START command</td>
<td>Make sure that all PEDESTRIAN START controls connect are properly working and correctly wired (N.O. contact)</td>
</tr>
<tr>
<td>ND</td>
<td>MOTORS TEST FAILED</td>
<td>Motors not wired</td>
<td>Wire the motors as shown in the diagram</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Incorrect wiring</td>
<td>Check motors electrical wiring (please see paragraph 3.3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Electrical coil broken</td>
<td>Use a tester to check the coil status</td>
</tr>
<tr>
<td></td>
<td>RADIO</td>
<td>The control panel is continuously receiving a radio command</td>
<td>Check all keys of the remote controls. Make sure that there is no stuck key (led on the remote control always on). If needed remove the battery from the remote control and check that the error message disappears from the display</td>
</tr>
</tbody>
</table>
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.
## Annex 1 - Table for Programming

### A A Radio Menu

| A1  | SAVING a new remote control – START command | 01...64 (max) |
| A2  | SAVING a new remote control – PEDESTRIAN START command | 01...64 (max) |
| A3  | SAVING a new remote control – 2nd RADIO CHANNEL With optional AUX module only | 01...64 (max) |
| A4  | DELETING an existing remote control code | 01...64 |
| A5  | DELETING ALL stored remote controls |

### C C Programming Menu

| C1  | AUTOMATIC Programming Procedure with OBSTACLE DETECTION |
| C2  | SEQUENTIAL Programming Procedure |
| C3  | Reset to Default Settings for RAM openers |
| C4  | Reset to Default Settings for ARTICULATED ARM openers |
| C5  | Reset to Default Settings for WHEEL-DRIVEN openers |

### F F Force Menu

| F1  | TORQUE/POWER adjustment - Motor 1 |
| F2  | TORQUE/POWER adjustment - Motor 2 |
| F3  | OBSTACLE DETECTION level adjustment - Motor 1 With | AUTOMATIC Programming Procedure only |
| F4  | OBSTACLE DETECTION level adjustment - Motor 2 With | AUTOMATIC Programming Procedure only |

### H H Special Functions Menu

| H1  | MULTI-OCCUPATION Function |
| H2  | PRE-BLINKING Function |
| H3  | DECELERATION Function |
| H4  | PHOTOCELLS TEST Function |
| H5  | REVERSING STROKE Function With electric lock and MEL04 module only |
| H6  | LOCK PULSE Function With electric lock and MEL04 module only |
| H7  | START PULSE Function |
| H8  | QUICK CLOSING Function |
| H9  | SINGLE LEAF Function |
| HA  | SEPARATE PUSH-BUTTONS Function |
| HC  | MOTORS TEST Function |
| HE  | FINAL RELEASE in CLOSING – Motor 1 With | Program. procedure only |
| HF  | FINAL RELEASE in OPENING – Motors 1 and 2 With | Program. procedure only |
| HL  | FLASHING LIGHT mode |

= DEFAULT Settings

(= memory is full)

| 00 = OFF  | 01 = ON |
| 02 = SOFT START |

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Via Neive, 77 - 12050 Castagnito (CN) ITALY
Tel. +39 0173 210111 - Fax +39 0173 210199
info@proteco.net - www.proteco.net
### TIMES Menu

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>L1</strong></td>
<td>OPENING DELAY between leafs</td>
<td>00 = OFF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>01 (min) .... ... 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 (max)</td>
</tr>
<tr>
<td><strong>L2</strong></td>
<td>CLOSING DELAY between leafs</td>
<td>00 = OFF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>01 (min) .... ... 20</td>
</tr>
<tr>
<td><strong>L3</strong></td>
<td>AUTOMATIC CLOSING pause time</td>
<td>00 = OFF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>01 (min) .... ... 9 9</td>
</tr>
<tr>
<td><strong>L4</strong></td>
<td>PEDESTRIAN CLOSING pause time</td>
<td>00 = OFF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>01 (min) .... ... 9 9</td>
</tr>
<tr>
<td><strong>L5</strong></td>
<td>OPERATING TIME – Motor 1</td>
<td>00 = OFF</td>
</tr>
<tr>
<td></td>
<td>(SEQUENTIAL Programming procedure only)</td>
<td>01 (min) .... ... 9 9</td>
</tr>
<tr>
<td><strong>L6</strong></td>
<td>OPERATING TIME – Motor 2</td>
<td>00 = OFF</td>
</tr>
<tr>
<td></td>
<td>(SEQUENTIAL Programming procedure only)</td>
<td>01 (min) .... ... 9 9</td>
</tr>
<tr>
<td><strong>L7</strong></td>
<td>DECELERATION TIME – Motor 1</td>
<td>00 = OFF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>01 (min) .... ... 10</td>
</tr>
<tr>
<td><strong>L8</strong></td>
<td>DECELERATION TIME – Motor 2</td>
<td>00 = OFF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>01 (min) .... ... 10</td>
</tr>
<tr>
<td><strong>L9</strong></td>
<td>PEDESTRIAN OPENING time</td>
<td>00 = Complete opening leaf 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>01 (min) .... ... 12</td>
</tr>
</tbody>
</table>

### ACCESSORIES Menu

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>P1</strong></td>
<td>EMERGENCY STOP terminals</td>
<td>00 = DISABLED</td>
</tr>
<tr>
<td></td>
<td></td>
<td>01 = ENABLED/WIRED</td>
</tr>
<tr>
<td><strong>P2</strong></td>
<td>CLOSING PHOTOCELLS terminals</td>
<td>00 = DISABLED</td>
</tr>
<tr>
<td></td>
<td></td>
<td>01 = ENABLED/WIRED</td>
</tr>
<tr>
<td><strong>P3</strong></td>
<td>OPENING PHOTOCELLS/ SAFETY EDGE terminals</td>
<td>00 = DISABLED</td>
</tr>
<tr>
<td></td>
<td></td>
<td>01 = Opening photocells WIRED</td>
</tr>
<tr>
<td></td>
<td></td>
<td>02 = Safety Edge (NC) WIRED</td>
</tr>
<tr>
<td></td>
<td></td>
<td>03 = Safety Edge 8K2 WIRED</td>
</tr>
</tbody>
</table>

### Display MESSAGES

- **-- Stand-by. Control Panel ready to work**
- **FC Closing PHOTOCELLS operating**
- **FA Opening PHOTOCELLS operating**
- **SP STOP operating**
- **ST START operating**
- **Pd PEDESTRIAN START operating**
- **rd Receiving a radio code (12/24 bit)**
- **A Obstacle detection intervention**
- **Sd Programming settings have been saved**
- **- Rotating dashes: motors are working**
  - Quick spinning = motors running in standard speed
  - Slow rotating = motors running in deceleration
- **- Dots between dashes: the brighter dots are the higher is the force setting (F1 and F2)**
CE COMPLIANCE DECLARATION

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

declares that

The product type: Q80A electronic controller for gate automation (1 or 2 motors), 220V
Models: PQ80A, PQ80AD
Accessories: MEL04, MRX01

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:
2006/95/EC Low Voltage Directive
R&TTE 99/5 Radio & Telecommunications Terminal Equipments Directive

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, January 17th 2016

Angela Gallo
Managing Director