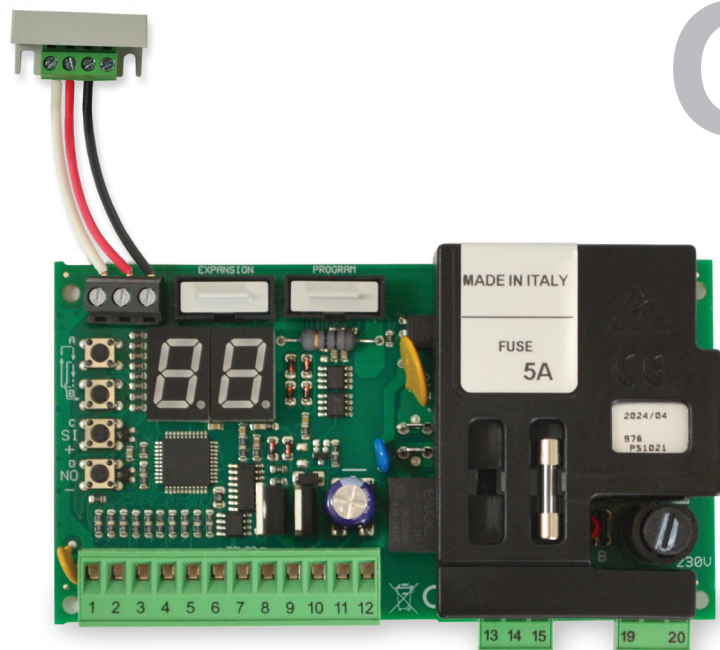


# Q60S



### Control unit for sliding gates - 230V ac

- Integrated LED display for programming and fault diagnostics.
- Advanced programming with manual adjustment of individual parameters.
- Electronic adjustment of forces, work time and slowdown.
- Adjustable pedestrian opening.
- Multi-occupation function with priority to opening.
- Automatic, semi-automatic, and step-by-step closing.
- Motor and photocell test function.
- Plug-in terminal blocks.
- Input for timer function.
- Pre-wired 433.92MHz radio receiver.

### TECHNICAL FEATURES

Item code	PQ60SR
Control unit dimensions	136 x75 x 35 mm
Weight	160 g
Power supply voltage	230V ~ 50-60Hz
Power supply voltage tolerance	-10% +20%
Transformer	230/21V ac – 15V A
Main fuse	5 A
Rated power	600 W
Maximum power consumption	3,5 A
Standby power consumption	30 mA
Flashing light power supply	24Vac, ma x 20 W
Accessories power supply	24 Vdc , ma x 5 W
Electric lock power supply	12Vdc, ma x 15 W
Operating temperature	-20 +50 °C

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# 1. WARNINGS AND INSTALLATION TIPS

**WARNING:** This manual contains important safety information. Improper installation or misuse can cause serious harm to people and objects.

Please read these instructions carefully, paying particular attention to the sections marked with the symbol .

**Keep this manual in a safe and sheltered place for future reference.**



**Do not allow children to play with the equipment or fixed control devices. Keep remote controls out of reach of children.**



**Always disconnect the electrical power before making any type of connection or intervention on the control unit.**



**Always connect the earth cable.**

The connection, programming, and commissioning of the control unit must be carried out by qualified and experienced personnel, fully complying with the laws, regulations, and standards, with particular attention to the requirements specified by the EN 12453 standard.

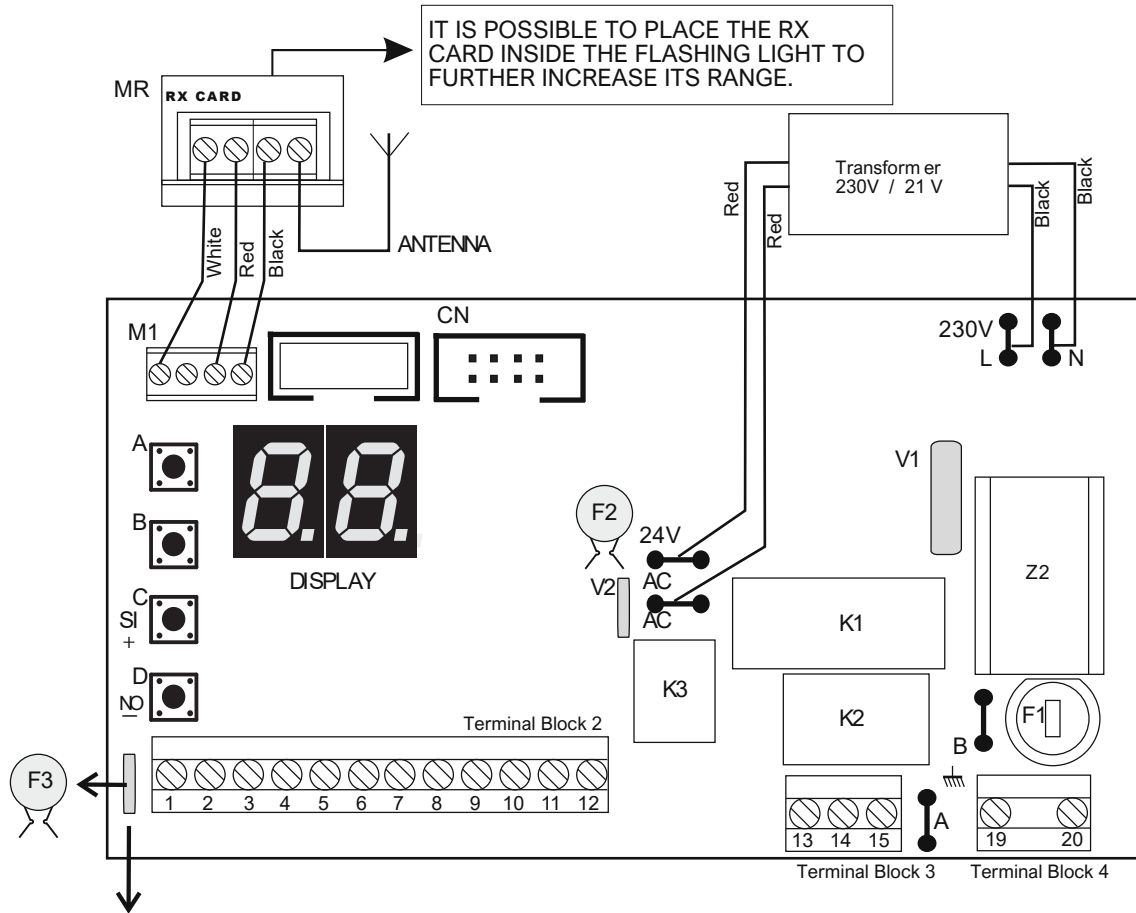
**This device is designed to be used exclusively with the power supply unit (transformer) provided.**

**A disconnect device must be incorporated into the wiring in accordance with the wiring diagram and instructions (refer to paragraph 3).**

**In case of dead man command, make sure the area is free and clear.**

**Regularly inspect the installation and check for any signs of wear or damage in the cables. If maintenance or repair is necessary, do not use the device until the correct functioning of the system has been restored.**

## 2. WIRING DIAGRAM AND COMPONENT DESCRIPTION

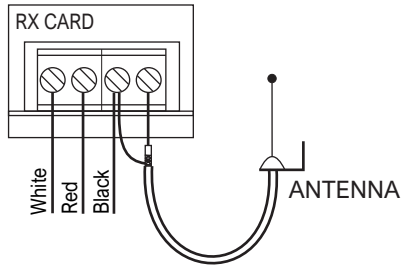


- DISPLAY = 7- segment display
- F1 = Line fuse 230 Vac 5A
- F2 = Fuse 24V - 1,6A
- F3 = Fuse 24V - 2A
- M1 = RX or antenna
- M2 = START and safety
- M3 = Motor
- M4 = Power supply
- A B  $\oplus$  = Earth connection
- MR = RX card
- CN = Electric lock card (MEL01)
- Z2 = Filter
- K1/ K2 = Motor relays
- K3 = Flashing light relay
- V1 = Primary varistor
- V2 = Secondary varistor

A		Main Menu
B		Parameters/Functions
C		Confirm / +
D		Back / -

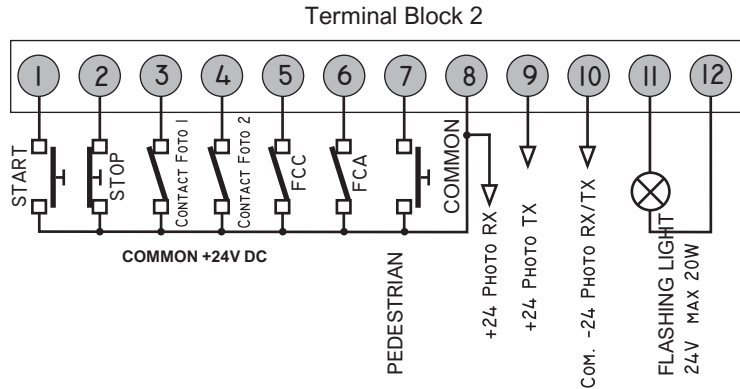


**Radio card**



**Terminal block 2 = START contacts / POWER SUPPLY and PHOTOCELLS**

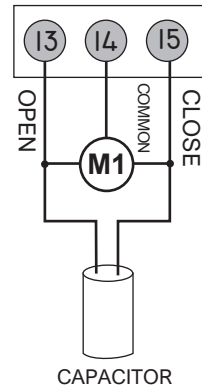
- 1 START (contact N.O.)
- 2 STOP (contact N.C.)
- 3 CLOSING PHOTOCELL / SAFETY EDGE (contact N.C./8K2)
- 4 OPENING PHOTOCELL / SAFETY EDGE (contact N.C./8K2)
- 5 CLOSING LIMIT SWITCH
- 6 OPENING LIMIT SWITCH
- 7 PEDESTRIAN START (contact N.O.)
- 8 COMMON / +24V PHOTO RX
- 9 + 24V TX FOTO
- 10 COMMON / -24V PHOTO RX/TX
- 11 } Flashing light power supply 24V ac -max 20W
- 12 }



**Terminal block 3 = MOTOR**

- 13 OPEN
  - 14 COMMON
  - 15 CLOSE
- } MOTOR

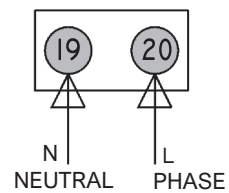
**Terminal Block 3**



**Terminal block 4 = MAIN LINE 230V**

Make sure the electrical circuit is equipped with a disconnect device wired to the control panel.

**Terminal Block 4**



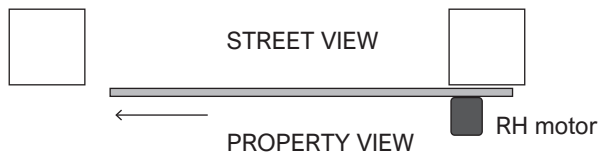
**Electric lock plug**



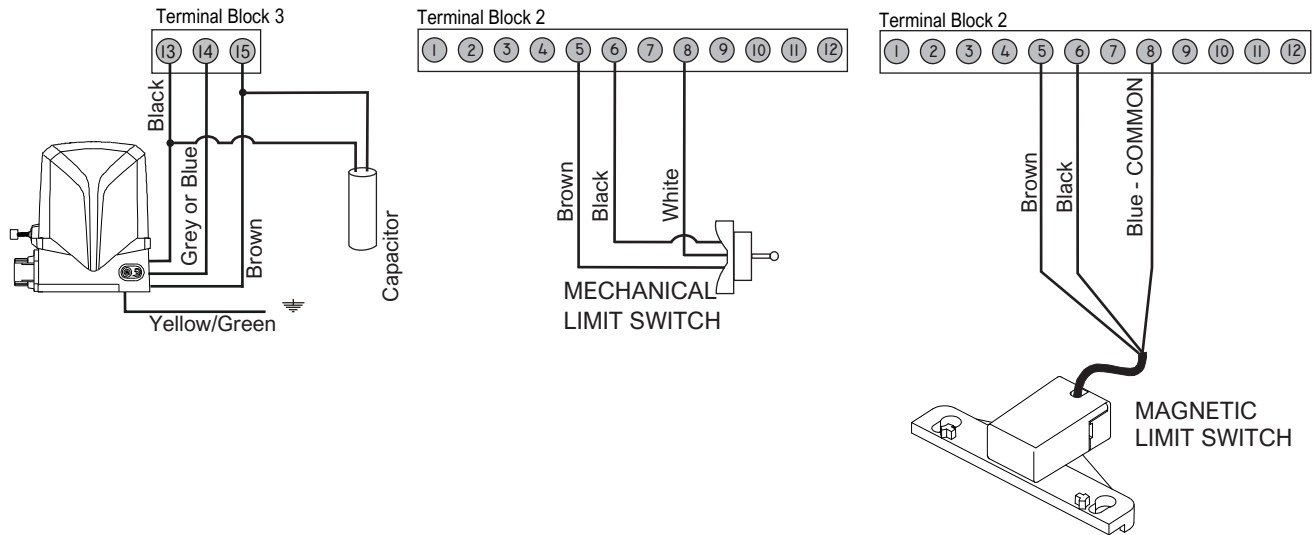
### 3.1 MOTOR AND LIMIT SWITCHES

Wiring has to comply with the position of the motor, as outlined below:

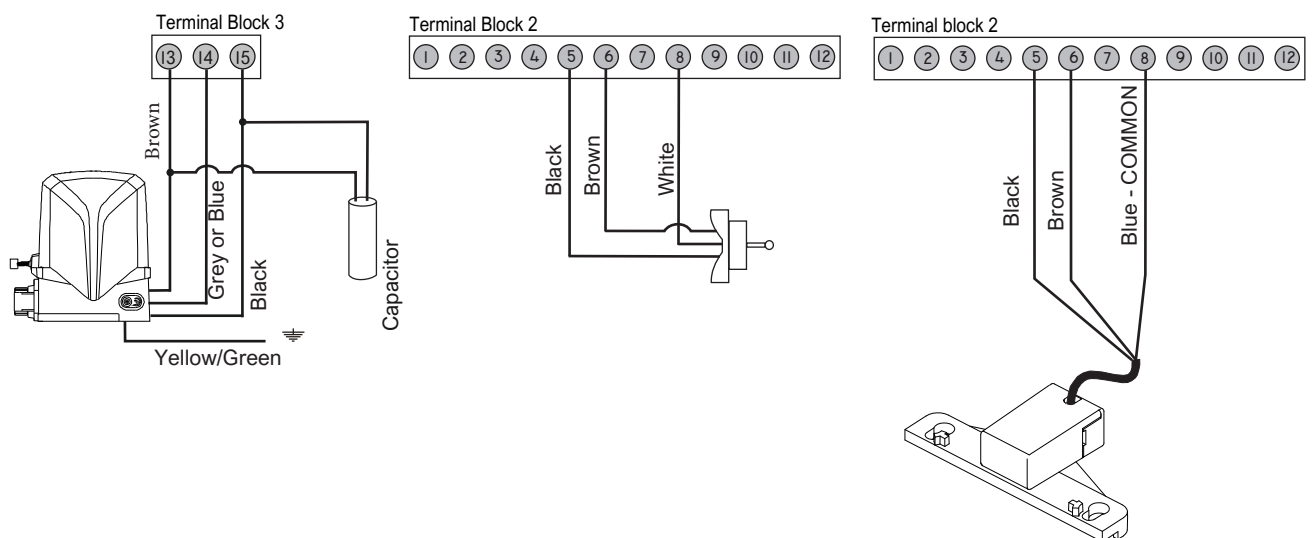
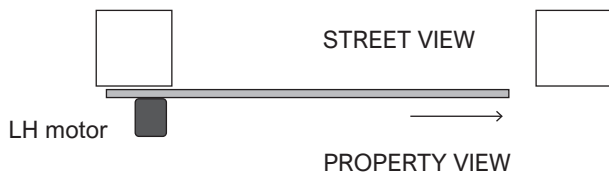
#### RH MOTOR (property view)



THE MOTOR IS FACTORY SUPPLIED AS RH WIRED



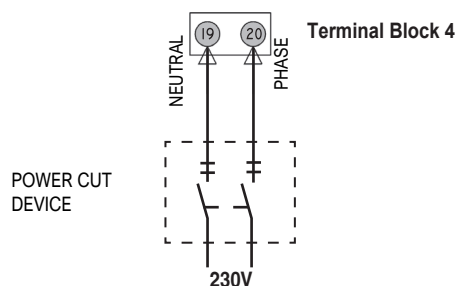
#### LH MOTOR (property view)



## 3.2 MAIN POWER LINE

The power line to the control unit must be protected by a suitably rated **POWER CUT DEVICE**.

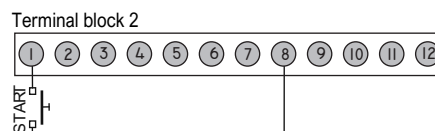
Connect the 230V power line to terminals 19-20 of terminal block 4, respecting polarity (**19 NEUTRAL - 20 LINE**).



## 3.3 START contacts

Wire any START contact (contact N.O.) to terminals **1-8, terminal block 2**.

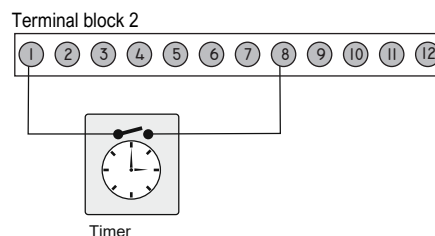
An additional START contact can be wired in **PARALLEL** (contact N.O.)



### 3.3.1 TIMER as permanent START contact

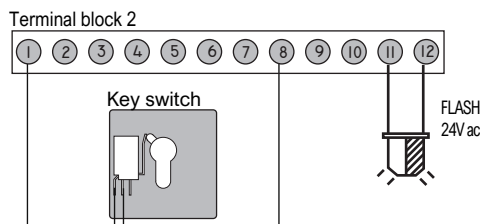
Wire the TIMER (contact N.O.) to terminals **1-8, terminal block 2**.

**WARNING!:** USING THE TIMER FUNCTION IT IS MANDATORY TO ACTIVATE THE MULTI-OCCUPATION FUNCTION "P1"



### 3.3.2 KEY SWITCH

Wire the KEY SWITCH as START command (contact N.O.) to terminals **1-8, terminal block 2**.



### 3.3.3 FLASHING LIGHT

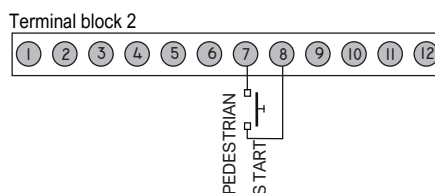
Wire the FLASHING LIGHT (max 20W) to terminals **11 - 12 terminal block 2**.

- FAST flashing → OPENING
- SLOW flashing → CLOSING
- Flashing light ON → PAUSE

## 3.4 PEDESTRIAN OPENING

Wire the PEDESTRIAN OPENING contact (contact N.O.) to terminals **7- 8, terminal block 2**.

Additional PEDESTRIAN OPENING contact can be wired in **PARALLEL** (contact N.O.)

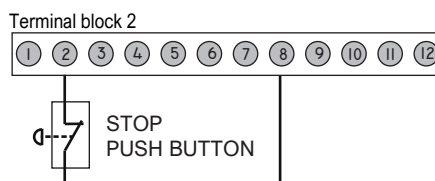


## 3.5 STOP push button

Wire the **STOP** push button (contact N.C.) to terminals **2 - 8, terminal block 2**. Additional **STOP** push buttons can be wired in **series** (contact N.C.).



The connection of an emergency STOP button is essential for the safety of people and objects.

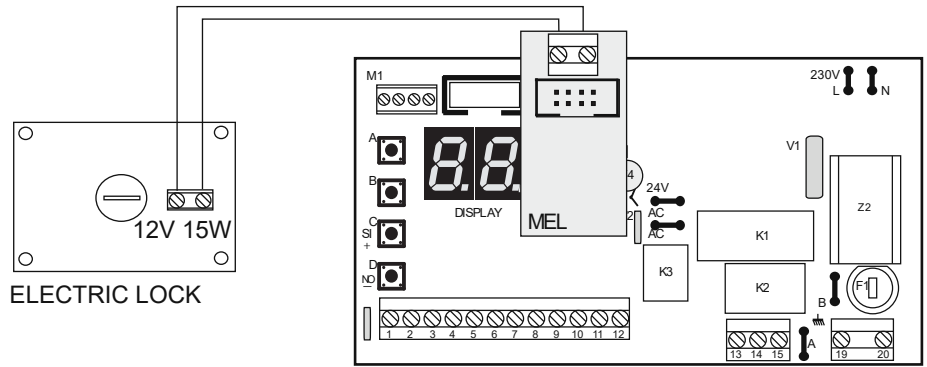




### 3.6 ELECTRIC LOCK (MEL CARD)

TURN THE POWER OFF AND PLUG THE MEL CARD INTO CN CONNECTOR

- WIRE THE ELECTRIC LOCK



### 3.7 PHOTOCELLS

#### 3.7.1 CLOSING photocell

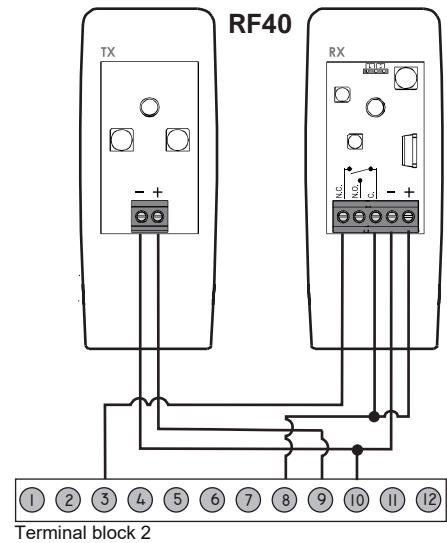
Power the photocell through terminals **8 - 9 - 10**, terminal block **2**.  
Wire the N.C. photocell contact to terminals **3 - 8**, terminal block **2**.  
Additional PHOTOCCELL can be wired in **SERIES** (contact N.C.).

- If the closing photocell beam is broken the gate **STOPS** and **REVERSES** after about 1,5 seconds.
- If the photocell beam is broken during opening the gate keeps on working normally.



**For the safety of people and objects, it is important to install at least a CLOSING photocell set.**

Note: To temporarily deactivate the closing photocell only during the installation, set **E3** to "no"



PHOTOCCELL WIRING	
<b>8</b>	= Power supply + PHOTO RX
<b>9</b>	= Power supply + PHOTO TX
<b>10</b>	= Power supply - COMMON PHOTO TX/RX
<b>3 - 8</b>	= Photocell contact

#### 3.7.2 OPENING photocell

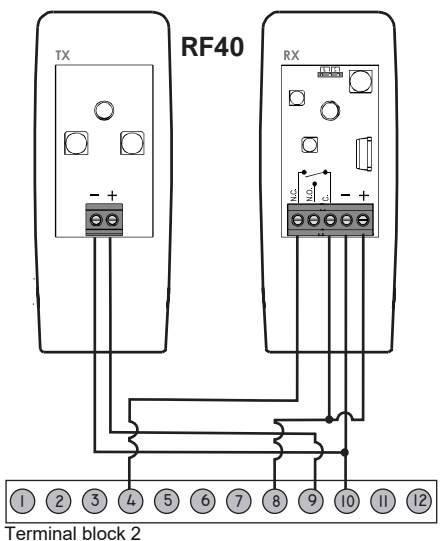
Power the photocell through terminals **8-9-10**, terminal block **2**.  
Wire the N.C. photocell contact to terminals **4-8**, terminal block **2**.  
Additional PHOTOCCELL can be wired in **SERIES** (contact N.C.).

- If the opening photocell beam is broken the gate **STOPS** and **REVERSES** for about 3 seconds.
- A **START** command gets the gate **CLOSING**.
- If the photocell beam is broken during closing the gate keeps on working normally.



**For the safety of people and objects, it is important to install at least an OPENING photocell set.**

Note: Set **E4** to **EA** to activate the output.



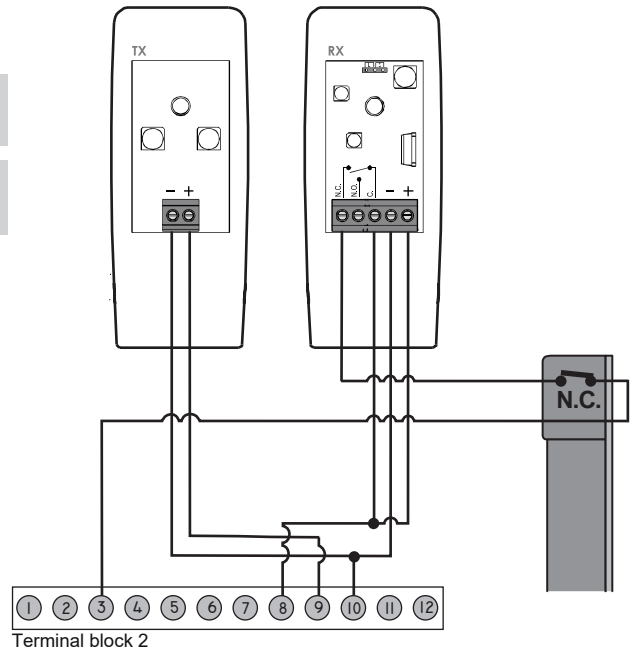
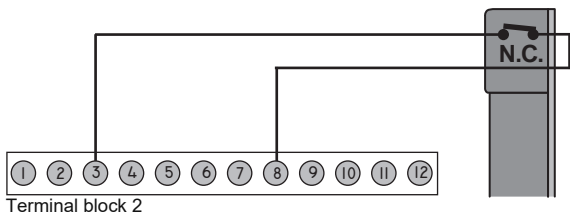
PHOTOCCELL WIRING	
<b>8</b>	= Power supply + PHOTO RX
<b>9</b>	= Power supply + PHOTO TX
<b>10</b>	= Power supply - COMMON PHOTO TX/RX
<b>4 - 8</b>	= Photocell contact

### 3.8 SAFETY EDGES

#### 3.8.1 CLOSING SAFETY EDGE (mechanical)

Wire the SAFETY EDGE to terminals **3 - 8**, terminal block **2**.

- If the CLOSING safety edge is activated the gate **STOPS** and **REVERSES** after about 1,5 seconds.
- If the safety edge is activated during **OPENING** the gate keeps on working normally.

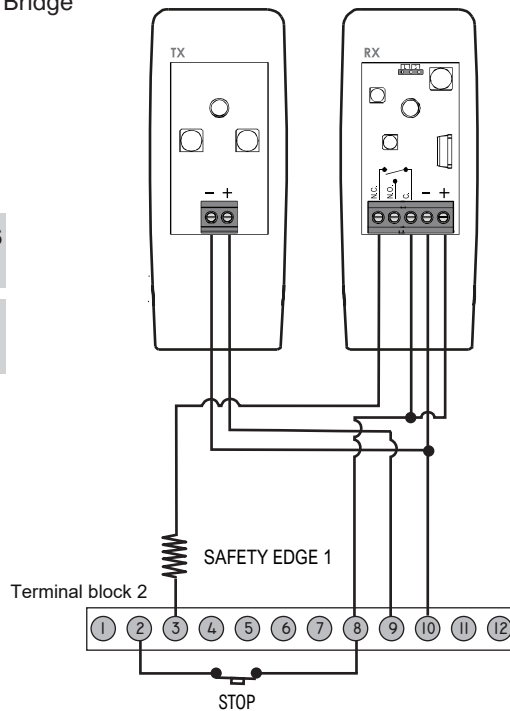
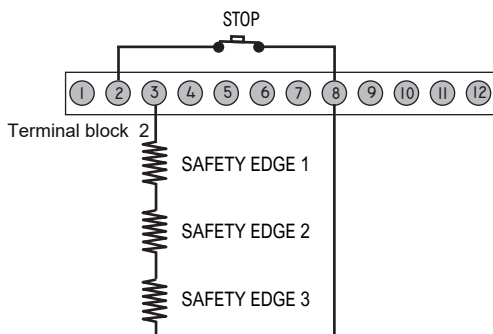


#### 3.8.2 CLOSING SAFETY EDGE (resistive)

Wire the SAFETY EDGE to terminals **3 - 8**, terminal block **2**. Bridge the **STOP contact**, terminals **2 - 8** and set  $\epsilon$  3 as follows:

- 1 Safety Edge set to 1C
- 2 Safety Edges set to 2C
- 3 Safety Edges set to 3C
- If the **CLOSING** safety edge is activated the gate **STOPS** and **REVERSES** after about 1,5 seconds.
- If the safety edge is activated during **OPENING** the gate keeps on working normally.

The input can support up to a maximum of three 8K2 sensitive edges as per the diagram.

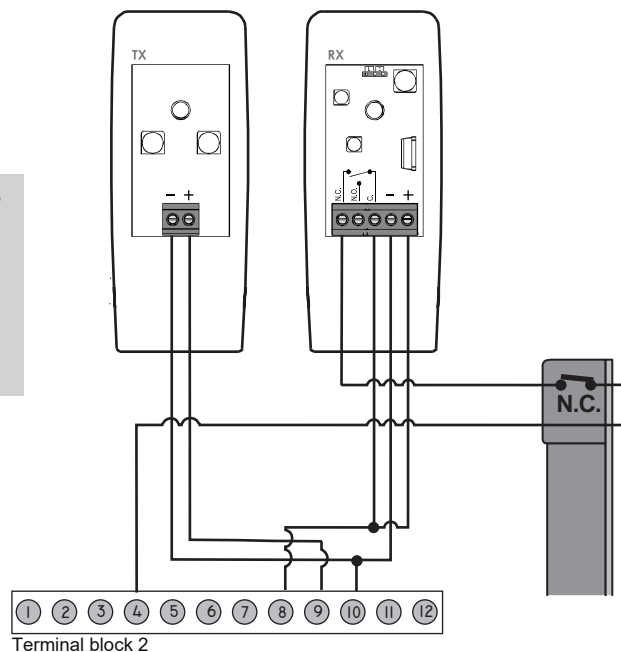
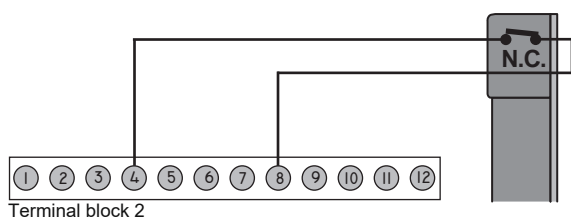


### 3.8.3 OPENING SAFETY EDGE (mechanical)

Wire the SAFETY EDGE to terminals 4 - 8, terminal block 2.

Note: Set  $E4$  to  $EC$  to activate the output

- If the **OPENING** safety edge is activated the gate **STOPS** and **REVERSES** for 3 about 3 seconds.
- A **START** command gets the gate **CLOSING**.
- If the photocell beam is broken during closing the gate keeps on working normally.



### 3.8.4 OPENING SAFETY EDGE (resistive)

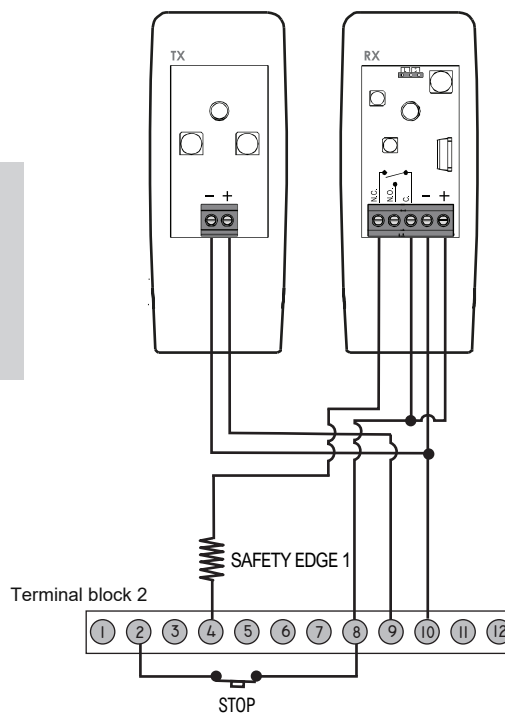
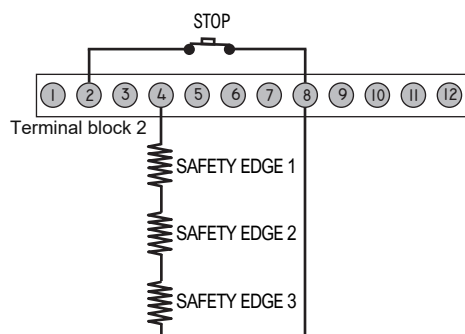
Wire the SAFETY EDGE to terminals 4 - 8, terminal block 2.

Bridge the **STOP** contact, terminals 2 - 8 and set  $E4$  as follows:

- 1 Safety Edge set to 1o
- 2 Safety Edges set to 2o
- 3 Safety Edges set to 3o

- If the **OPENING** safety edge is activated the gate **STOPS** and **REVERSES** for 3 about 3 seconds.
- A **START** command gets the gate **CLOSING**.
- If the photocell beam is broken during closing the gate keeps on working normally.

The input can support up to a maximum of three 8K2 sensitive edges as per the diagram.



## PROGRAMMING MENU - Functions and Parameters

PA	FUNCTIONS/PARAMETERS LIST	DEFAULT
01	Work time	21
F1	Force	14
F <sub>r</sub>	Force during SLOWDOWN	19
r1	SLOWDOWN time	6
tP	Automatic closing PAUSE time	3
Pd	PEDESTRIAN opening time	7
F <sub>n</sub>	Limit Switch with N.O. contact	no
P2	MULTI-OCCUPATION	no
P3	Automatic CLOSING	SI
P4	PRE-BLINKING	no
P6	SLOWDOWN	SI
P7	MOTOR test	SI
P8	PHOTOCELL test	no
P9	SOFT START	SI
SU	SAVE SETTINGS	SI <sup>key</sup> <sub>C</sub>

PU		
U9	Motor BRAKE Time	no
UR	OPEN / CLOSE using onboard keys C/D	no
SU	SAVE SETTINGS	SI <sup>key</sup> <sub>C</sub>







EE		DEFAULT
E1	INPUT 1	Go
E2	INPUT 2	no
EE	INPUT 3	tC
E4	INPUT 4	no
E5	INPUT 5	FC
E6	INPUT 6	FR
E7	INPUT 7	PE
SU	SAVE SETTINGS	SI <sup>key</sup> <sub>C</sub>

rR	Radio capacity 56 codes totally
r=	Display RADIO CODES
tC	Store a new REMOTE CONTROL
CP	Store a REMOTE CONTROL as STOP function
Pd	Store a REMOTE CONTROL as PEDESTRIAN function
EL	Store a REMOTE CONTROL as ELECTRIC LOCK function
rC	Delete all EXISTING REMOTE CONTROLS

dE	
rP	RESET TO FACTORY VALUES





AS	
IN	SEQUENTIAL programming

# MAIN Menu





	Symbol	Legenda
A 	- -	STAND BY
B 	<i>PA</i>	PARAMETERS/FUNCTIONS
C 	<i>PU</i>	USER MENU
SI + 	<i>EE</i>	INPUTS MENU
D 	<i>rA</i>	RADIO
NO 	<i>dE</i>	DEFAULT
	<i>AS</i>	SEQUENTIAL PROGRAMMING

## 4. PROGRAMMING





### 4.1 *PA* PARAMETERS AND FUNCTIONS

- Press A  and select menu *PA*
- Press B  to scroll the menu and get to the desired parameter
- Press <sub>YES</sub> C  to confirm or <sub>NO</sub> D  to go back





### *n1* MOTOR Work Time

1	Use keys <sub>+</sub> C  and <sub>-</sub> D  to set the WORK TIME	01 ↓ 99 (max)
2	Press B  to scroll the menu till displaying	SU
3	Press and hold <sub>+</sub> C  during 5 seconds to save the setting or wait 30 seconds, the control unit saves automatically	





### *F1* MOTOR Force

1	Use keys <sub>+</sub> C  and <sub>-</sub> D  to set the MOTOR FORCE	08 ↓ 19
2	Press B  to scroll the menu till displaying	SU
3	Press and hold <sub>+</sub> C  during 5 seconds to save the setting or wait 30 seconds, the control unit saves automatically	





### *F<sub>r</sub>* Force during SLOWDOWN

1	Use keys <sub>+</sub> C  and <sub>-</sub> D  to set the FORCE during SLOWDOWN	10 ↓ 19
2	Press B  to scroll the menu till displaying	SU
3	Press and hold <sub>+</sub> C  during 5 seconds to save the setting or wait 30 seconds, the control unit saves automatically	





## r i Slowdown time

1	Use keys $\overset{c}{+}$  and $\overset{d}{-}$  to set the SLOWDOWN time of Motor 1  ATTENTION: if the slowdown time is increased, the work time shall be increased accordingly with the same value.	0 ↓ (01-2")
2	Press $\overset{b}{\square}$  to scroll the menu till displaying	SU
3	Press and hold $\overset{c}{+}$  during 5 seconds to save the setting or wait 30 seconds, the control unit saves automatically	





## t P Automatic closing PAUSE TIME

1	Use keys $\overset{c}{+}$  and $\overset{d}{-}$  to set the automatic closing PAUSE TIME	0 ↓ 99 (max)
2	Press $\overset{b}{\square}$  to scroll the menu till displaying	SU
3	Press and hold $\overset{c}{+}$  during 5 seconds to save the setting or wait 30 seconds, the control unit saves automatically	





## Pd PEDESTRIAN opening time

1	Use keys $\overset{c}{+}$  and $\overset{d}{-}$  to set the PEDESTRIAN OPENING time	0 ↓ (01-1)
2	Press $\overset{b}{\square}$  to scroll the menu till displaying	SU
3	Press and hold $\overset{c}{+}$  during 5 seconds to save the setting or wait 30 seconds, the control unit saves automatically	





## F n LIMIT SWITCH with N.O. contact

1	Use keys $\overset{c}{+}$  and $\overset{d}{-}$  to set the TYPE OF CONTACT:  Limit switch <b>NORMALLY OPEN (N.O.)</b> Limit switch <b>NORMALLY CLOSED (N.C.)</b>	S 1 no
2	Press $\overset{b}{\square}$  to scroll the menu till displaying	SU
3	Press and hold $\overset{c}{+}$  during 5 seconds to save the setting or wait 30 seconds, the control unit saves automatically	





## P2 MULTI OCCUPATION

1	Use keys $\overset{c}{+}$  and $\overset{d}{-}$  to set the MULTI OCCUPATION function  ON = OFF =	S 1 no
2	Press $\overset{b}{\square}$  to scroll the menu till displaying	SU
3	Press and hold $\overset{c}{+}$  during 5 seconds to save the setting or wait 30 seconds, the control unit saves automatically	





**P3 AUTOMATIC CLOSING**

1	Use keys $\overset{C}{+}$  and $\overset{D}{-}$  to set the AUTOMATIC CLOSING function	ON = 51 OFF = no
2	Press $\overset{B}{\square}$  to scroll the menu till displaying	5U
3	Press and hold $\overset{C}{+}$  during 5 seconds to save the setting or wait 30 seconds, the control unit saves automatically	





**P4 PRE-BLINKING**

1	Use keys $\overset{C}{+}$  and $\overset{D}{-}$  to set the PRE-BLINKING function	ON = 51 OFF = no
2	Press $\overset{B}{\square}$  to scroll the menu till displaying	5U
3	Press and hold $\overset{C}{+}$  during 5 seconds to save the setting or wait 30 seconds, the control unit saves automatically	





**P6 SLOWDOWN**

1	Use keys $\overset{C}{+}$  and $\overset{D}{-}$  to set the SLOWDOWN function	ON = 51 OFF = no
2	Press $\overset{B}{\square}$  to scroll the menu till displaying	5U
3	Press and hold $\overset{C}{+}$  during 5 seconds to save the setting or wait 30 seconds, the control unit saves automatically	





**P7 Motor TEST**

1	Use keys $\overset{C}{+}$  and $\overset{D}{-}$  to set the Motor TEST function	ON = 51 OFF = no
2	Press $\overset{B}{\square}$  to scroll the menu till displaying	5U
3	Press and hold $\overset{C}{+}$  during 5 seconds to save the setting or wait 30 seconds, the control unit saves automatically	


**P8 Photocell TEST**

1	Use keys $\overset{C}{+}$  and $\overset{D}{-}$  to set the Photocell TEST function	ON = 51 OFF = no
2	Press $\overset{B}{\square}$  to scroll the menu till displaying	
3	Press and hold $\overset{C}{+}$  during 5 seconds to save the setting or wait 30 seconds, the control unit saves automatically	


**P9 SOFT START**


1	Use keys $\overset{C}{+}$  and $\overset{D}{-}$  to set the SOFT START function	ON = 51 OFF = no
2	Press $\overset{B}{\square}$  to scroll the menu till displaying	SU
3	Press and hold $\overset{C}{+}$  during 5 seconds to save the setting or wait 30 seconds, the control unit saves automatically	



**SU SAVE**

1	Press and hold $\overset{C}{+}$  during 5 seconds to save the setting	51
---	--	----





**4.2 PU USER menu**

Press  $\overset{A}{\square}$   and select menu **PU**





Press  $\overset{B}{\square}$   to scroll the menu and get to the USER menu

Press  $\overset{C}{+}$   to confirm or  $\overset{D}{-}$   to go back

**U9 MOTOR BRAKE TIME**





1	Use keys $\overset{C}{+}$  and $\overset{D}{-}$ 	no OFF 0,01 seconds 01 ↓ 0,99 seconds 99 (max)
2	Press $\overset{B}{\square}$  to scroll the menu till displaying	SU
3	Press and hold $\overset{C}{+}$  during 5 seconds to save the setting or wait 30 seconds, the control unit saves automatically	

**UR OPEN/CLOSE using onboard keys C and D**





1	Use keys $\overset{C}{+}$  and $\overset{D}{-}$ 	C = OPEN AP D = CLOSE CH
2	Press $\overset{B}{\square}$  to scroll the menu till displaying	SU
3	Press and hold $\overset{C}{+}$  during 5 seconds to save the setting or wait 30 seconds, the control unit saves automatically	







## 4.3 EE INPUTS

- Press **A**  and select menu **EE**
- Press **B**  to scroll and get to the INPUTS menu
- Press **C**  to confirm or **D**  to go back





### E1 INPUT 1 - functions

1	Use keys <b>C</b>  and <b>D</b>  to set the desired function for INPUT 1	OFF = <b>no</b> START = <b>co</b> OPEN = <b>op</b> CLOSE = <b>cl</b> SEPARATED BUTTON OPEN = <b>po</b> SEPARATED BUTTON CLOSE = <b>pc</b> ELECTRIC LOCK ON = <b>el</b>
2	Press <b>B</b>  to scroll the menu till displaying	<b>SU</b>
3	Press and hold <b>C</b>  during 5 seconds to save the setting or wait 30 seconds, the control unit saves automatically	






### E2 INPUT 2 - functions

1	Use keys <b>C</b>  and <b>D</b>  to set the desired function for INPUT 2	ON = <b>no</b> STOP = <b>st</b>
2	Press <b>B</b>  to scroll the menu till displaying	<b>SU</b>
3	Press and hold <b>C</b>  during 5 seconds to save the setting or wait 30 seconds, the control unit saves automatically	





### E3 INPUT 3 - functions

1	Use keys <b>C</b>  and <b>D</b> 	OFF = <b>no</b> CLOSING PHOTOCCELL = <b>tc</b> 1 SAFETY EDGE 8K2 = <b>1c</b> 2 SAFETY EDGES 8K2 = <b>2c</b> 3 SAFETY EDGES 8K2 = <b>3c</b>
2	Press <b>B</b>  to scroll the menu till displaying	<b>SU</b>
3	Press and hold <b>C</b>  during 5 seconds to save the setting or wait 30 seconds, the control unit saves automatically	





## E 4 INPUT 4 - functions

1	Use keys $\overset{c}{+}$  and $\overset{d}{-}$  to set the desired function for INPUT 4	OFF = <b>no</b> OPENING PHOTOCELL = <b>EA</b> CLOSING PHOTOCELL = <b>EC</b> 1 OPENING SAFETY EDGE 8K2 = <b>10</b> 2 OPENING SAFETY EDGES 8K2 = <b>20</b> 3 OPENING SAFETY EDGES 8K2 = <b>30</b>
	If the beam of the closing photocell  (refer to chapter 3.7.1) is cut, the gate will not accept any OPENING command, even if the photocell test is OFF.	
2	Press $\overset{b}{\square}$  to scroll the menu till displaying	<b>SU</b>
3	Press and hold $\overset{c}{+}$  during 5 seconds to save the setting	
	or wait 30 seconds, the control unit saves automatically	





## E 5 INPUT 5 - functions

1	Use keys $\overset{c}{+}$  and $\overset{d}{-}$  to set the desired function for INPUT 5	CLOSING LIMIT SWITCH ON = <b>FC</b> CLOSING LIMIT SWITCH OFF = <b>no</b>
2	Press $\overset{b}{\square}$  to scroll the menu till displaying	<b>SU</b>
3	Press and hold $\overset{c}{+}$  during 5 seconds to save the setting	
	or wait 30 seconds, the control unit saves automatically	


## E 6 INPUT 6 - functions

1	Use keys $\overset{c}{+}$  and $\overset{d}{-}$  to set the desired function for INPUT 6	OPENING LIMIT SWITCH ON = <b>FA</b> OPENING LIMIT SWITCH OFF = <b>no</b>
2	Press $\overset{b}{\square}$  to scroll the menu till displaying	<b>SU</b>
3	Press and hold $\overset{c}{+}$  during 5 seconds to save the setting	
	or wait 30 seconds, the control unit saves automatically	



## E 7 INPUT 7 - functions


1	Use keys $\overset{c}{+}$  and $\overset{d}{-}$  to set the desired function for INPUT 7	OFF = <b>no</b> PEDESTRIAN START = <b>PE</b> OPEN = <b>oP</b> CLOSE = <b>CL</b> SEPARATED BUTTON OPEN = <b>PO</b> SEPARATED BUTTON CLOSE = <b>PC</b> ELECTRIC LOCK ON = <b>EL</b>
2	Press $\overset{b}{\square}$  to scroll the menu till displaying	<b>SU</b>
3	Press and hold $\overset{c}{+}$  during 5 seconds to save the setting	
	or wait 30 seconds, the control unit saves automatically	



## SU SAVE SETTINGS

1	Press and hold $\overset{c}{+}$  during 5 seconds to save the setting	<b>S1</b>
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## 4.4 RADIO

Press **A**  and select menu ****

Press **B**  to scroll and get to the RADIO menu


Press **C**  to confirm or **D**  to go back

**Radio capacity 56 codes totally**


### **Display RADIO CODES STORED**

1	The display shows the number of stored codes from 1 to 56.	<b>1 → 56</b>
2	It is possible to delete one single radio code. Choose the radio code you wish to delete and press <b>D</b> 	


### **Store a new remote control**

1	Press and hold the remote control. A red dot will appear on the display to confirm a code is being transmitted.	
3	Simultaneously press <b>C</b> 	<b>1 → 56</b>


### **Store a remote control as STOP function**

1	Press and hold the remote control.	
2	A red dot will appear on the display to confirm a code is being transmitted.	
3	Simultaneously press <b>C</b> 	<b>1 → 56</b>

### **Store a remote control as PEDESTRIAN function**

1	Press and hold the remote control.	
2	A red dot will appear on the display to confirm a code is being transmitted.	
3	Simultaneously press <b>C</b> 	<b>1 → 56</b>



### **Store a remote control as ELECTRIC LOCK function**

1	Press and hold the remote control.	
2	A red dot will appear on the display to confirm a code is being transmitted.	
3	Simultaneously press <b>C</b> 	<b>1 → 56</b>


### **Delete all EXISTING REMOTE CONTROLS**

1	Press and hold <b>D</b>  until the display shows <b></b>	<b></b>
	All radio codes have been deleted	



## 4.5 **dE** DEFAULT - Factory values

Press **A**  and select menu **dE**  
 Press **B**  to scroll and get through the menu

### **rP** Reset to factory values

Press and hold **C**  to restore the factory values.

## 4.6 **RS** SEQUENTIAL programming

Press **A**  and select menu **RS**  
 Press **B**  to scroll and get through the menu

### **1n** SEQUENTIAL programming

1	Send a START pulse, the gate opens and the display shows	<b>n1</b>
2	When the door has completed approximately 90% of the cruise send a START pulse; "START" will appear on the display, and SLOWDOWN will begin.	<b>r1</b>
3	Upon reaching the opening position (Opening limit switch) the display shows The control unit has stored the OPENING and SLOWDOWN times and starts counting the PAUSE TIME.	<b>tP</b>
4	Upon reaching the desired PAUSE TIME, send another START pulse. The control unit has stored the PAUSE TIME, and the gate begins the CLOSING cycle.	
5	Let the gate reaching the full closing position. (Closing limit switch). The control unit goes automatically out of the programming mode, the procedure is completed.	

## 5. LIST OF FAULTS

In case of fault check the below error list:

<b>St</b>	STOP	STOP pulse has been sent
<b>tC</b>	Closing photocell	The closing photocell has been activated
<b>tA</b>	Opening photocell	The opening photocell has been activated
<b>CC</b>	8K2 Closing safety edge	8K2 safety edge has been activated
<b>oo</b>	8K2 Opening safety edge	8K2 safety edge has been activated
<b>tC</b>	CLOSING LIMIT SWITCH	CLOSING LIMIT SWITCH activated
<b>fA</b>	OPENING LIMIT SWITCH	OPENING LIMIT SWITCH activated
<b>GO</b>	START	Start pulse has been sent
<b>PE</b>	PEDESTRIAN START	Pedestrian Start pulse has been sent
<b>AP</b>	OPENING	Gate opening
<b>CH</b>	CLOSING	Gate closing
<b>PO</b>	DEAD MAN OPENING	Dead man opening pulse has been sent
<b>PC</b>	DEAD MAN CLOSING	Dead man closing pulse has been sent
<b>EL</b>	ELECTRIC LOCK	Electric lock releasing pulse has been sent
<b>- -</b>	Radio code transmitting	Receiving unknown radio code

Error	Fault	Cause	Solution
EF	PHOTOCELL TEST	• Incorrect wiring.	Check the wiring according to the diagram.
		• Photocell is not compatible.	Fit original photocells.
tA	OPENING PHOTOCELL	• Photocell is not aligned	Check the alignment between the transmitter and the receiver.
		• Obstacle cutting the photocell beam	Clear the photocell beam from obstacle and dust.
		• Incorrect wiring	Double check the wiring according to the diagram.
		• Photocell is not powered.	Check the voltage.
		• Photocell not connected. Input not disabled.	Disable the input (refer to chapter E 4)
tC	CLOSING PHOTOCELL	• Photocell is not aligned	Check the alignment between the transmitter and the receiver.
		• Obstacle cutting the photocell beam	Clear the photocell beam from obstacle and dust.
		• Incorrect wiring	Double check the wiring according to the diagram.
		• Photocell is not powered.	Check the voltage.
		• Photocell not connected. Input is enabled.	Disable the input (refer to chapter E 3)
FH	OPENING CLOSING PHOTOCELL	• Fault on both photocells	Check the control unit is properly powered. Check the wiring.
oo	OPENING 8K2 SAFETY EDGE	• Safety edge is not wired.	Double check the wiring according to the diagram.
		• Incorrect input setting	Set the input as resistive safety edge (refer to chapter E 4)
		• STOP bridge missing	Bridge the STOP input according to the diagram.
CC	CLOSING 8K2 SAFETY EDGE	• Unwired safety edge	Check the wiring according to the diagram.
		• Input not enabled as resistive safety edge	Set the input as resistive safety edge (refer to chapter E 3)
		• STOP jumper missing	Bridge the STOP input according to the diagram.
St	STOP	• Unwired emergency STOP button	Wire the emergency push button or disable the input (refer to chapter E 2)
		• Incorrect wiring	Check the wiring according to the diagram (refer to chapter 3.5)
fA	OPENING LIMIT SWITCH	• Limit switch engaged	Check the correct operation of the microswitch
		• The limit switch is not wired.	Check the wiring of the limit switch.
fC	CLOSING LIMIT SWITCH	• Limit switch engaged	Check the correct operation of the microswitch
		• The limit switch is not wired.	Check the wiring of the limit switch
IH	OPENING CLOSING LIMIT SWITCH	• Both limit switches are not wired.	Check the wirings
		• Input activated as N.O. contact	Check $F_n$ is set to "no", chapter 3.5
PE	PEDESTRIAN START	• Permanent PEDESTRIAN START signal	Check the perfect operation of all accessories connected to the pedestrian start input. (N.O. contact)
GO	START	• Permanent START signal	Check the perfect operation of all accessories connected to the start input. (N.O. contact)
- -	PERMANENT RADIO CODE SIGNAL	• Permanent RADIO CODE signal	Check the efficiency of the keys on each individual remote control. If a key is stuck, the LED on the remote control remains steadily lit. Remove the battery and check the fault is cleared. Same radio frequency interference.
ni	Motor TEST	• Motor is not wired	Wire Motor 2 as per diagram. Check the integrity of the fuse.
		• Incorrect wiring	Check the correct wiring of Motor 2 (refer to chapter 3.1).
		• Faulty stator	Use a "tester device" to check the stator voltage.

## 6. DISPOSAL



### Do not pollute the environment

Some electronic components may contain polluting substances.  
Dispose through designated collection centers and in accordance with local regulations.

## CE COMPLIANCE DECLARATION

Manufacturer: **PROTECO S.r.l**

Address: Via Neive, 77 – 12050 Castagnito (CN) – ITALIA

declares that

The product type: Q60S Control Unit for sliding gates 230V

Models: PQ60SR

Accessories: MEL01

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)**

**RoHS 3 UE 2015/863**

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 been tested in a typical homogeneous configuration.

*Castagnito, April 30th 2024*

Marco Gallo

Ceo

