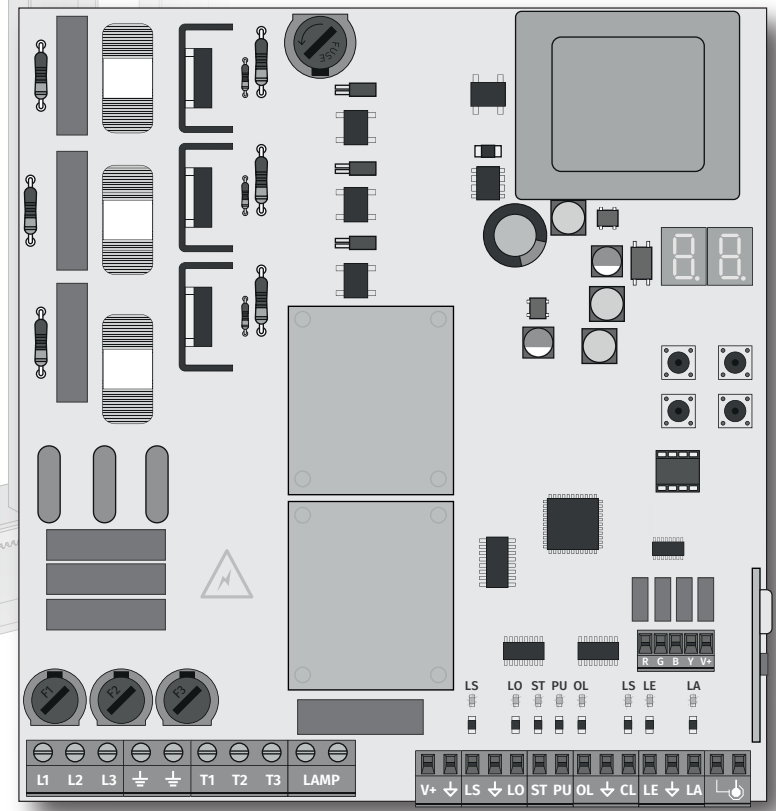




MC410

INSTALLER AND USER'S MANUAL









motorline[®]

PROFESSIONAL

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01. SAFETY INSTRUCTIONS

	This product is certified in accordance with European Community (EC) safety standards.
	This product complies with Directive 2011/65/EU of the European Parliament and of the Council, of 8 June 2011, on the restriction of the use of certain hazardous substances in electrical and electronic equipment and with Delegated Directive (EU) 2015/863 from Commission.
	(Applicable in countries with recycling systems). This marking on the product or literature indicates that the product and electronic accessories (eg. Charger, USB cable, electronic material, controls, etc.) should not be disposed of as other household waste at the end of its useful life. To avoid possible harm to the environment or human health resulting from the uncontrolled disposal of waste, separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources. Home users should contact the dealer where they purchased this product or the National Environment Agency for details on where and how they can take these items for environmentally safe recycling. Business users should contact their vendor and check the terms and conditions of the purchase agreement. This product and its electronic accessories should not be mixed with other commercial waste.
	This marking indicates that batteries should not be discarded like other household waste at the end of their useful life. Batteries must be delivered to selective collection points for recycling.
	The different types of packaging (cardboard, plastic, etc.) must be subject to selective collection for recycling. Separate packaging and recycle it responsibly.
	This marking indicates that the product and electronic accessories (eg. charger, USB cable, electronic material, controls, etc.) are susceptible to electric shock by direct or indirect contact with electricity. Be cautious when handling the product and observe all safety procedures in this manual.

01. SAFETY INSTRUCTIONS

GENERAL WARNINGS

- This manual contains very important safety and usage information. Read all instructions carefully before beginning the installation/usage procedures and keep this manual in a safe place that it can be consulted whenever necessary.
- This product is intended for use only as described in this manual. Any other enforcement or operation that is not mentioned is expressly prohibited, as it may damage the product and put people at risk causing serious injuries.
- This manual is intended firstly for specialized technicians, and does not invalidate the user's responsibility to read the "User Norms" section in order to ensure the correct functioning of the product.
- The installation and repair of this product may be done by qualified and specialized technicians, to assure every procedure are carried out in accordance with applicable rules and norms. Nonprofessional and inexperienced users are expressly prohibited of taking any action, unless explicitly requested by specialized technicians to do so.
- Installations must be frequently inspected for unbalance and the wear signals of the cables, springs, hinges, wheels, supports and other mechanical assembly parts.
- Do not use the product if it is necessary repair or adjustment is required.
- When performing maintenance, cleaning and replacement of parts, the product must be disconnected from power supply. Also including any operation that requires opening the product cover.
- The use, cleaning and maintenance of this product may be carried out by any persons aged eight years old and over and persons whose physical, sensorial or mental capacities are lower, or by persons without any knowledge of the product, provided that these are supervision and instructions given by persons with experienced in terms of usage of the product in a safe manner and who understands the risks and dangers involved.

- Children shouldn't play with the product or opening devices to avoid the motorized door or gate from being triggered involuntarily.
- If the power cable is damaged, it must be replaced by the manufacturer, after-sales service or similarly qualified personnel to avoid danger.
- The device must be disconnected from the electrical network when removing the battery.
- Ensure that blocking is avoided between the actuated part and its fixed parts due to the opening movement of the actuated part.

WARNINGS FOR TECHNICIANS

- Before beginning the installation procedures, make sure that you have all the devices and materials necessary to complete the installation of the product.
- You should note your Protection Index (IP) and operating temperature to ensure that is suitable for the installation site.
- Provide the manual of the product to the user and let them know how to handle it in an emergency.
- If the automatism is installed on a gate with a pedestrian door, a door locking mechanism must be installed while the gate is in motion.
- Do not install the product "upside down" or supported by elements do not support its weight. If necessary, add brackets at strategic points to ensure the safety of the automatism.
- Do not install the product in explosive site.
- Safety devices must protect the possible crushing, cutting, transport and danger areas of the motorized door or gate.
- Verify that the elements to be automated (gates, door, windows, blinds, etc.) are in perfect function, aligned and level. Also verify if the necessary mechanical stops are in the appropriate places.
- The control board must be installed on a safe place of any fluid (rain, moisture, etc.), dust and pests.
- You must route the various electrical cables through protective tubes, to protect them against mechanical exertions, essentially on

01. SAFETY INSTRUCTIONS

the power supply cable. Please note that all the cables must enter the control board from the bottom.

- If the automatism is to be installed at a height of more than 2,5m from the ground or other level of access, the minimum safety and health requirements for the use of work equipment workers at the work of Directive 2009/104/CE of European Parliament and of the Council of 16 September 2009.
- Attach the permanent label for the manual release as close as possible to the release mechanism.
- Disconnect means, such as a switch or circuit breaker on the electrical panel, must be provided on the product's fixed power supply leads in accordance with the installation rules.
- If the product to be installed requires power supply of 230Vac or 110Vac, ensure that connection is to an electrical panel with ground connection.
- The product is only powered by low voltage safety with control board (only at 24V motors).
- Parts/products weighing more than 20 kg must be handled with special care due to the risk of injury. It is recommended to use suitable auxiliary systems for moving or lifting heavy objects.
- Pay special attention to the danger of falling objects or uncontrolled movement of doors/gates during the installation or operation of this product.

WARNINGS FOR USERS

- Keep this manual in a safe place to be consulted whenever necessary.
- If the product has contact with fluids without being prepared, it must immediately disconnect from the power supply to avoid short circuits, and consult a specialized technician.
- Ensure that technician has provided you the product manual and informed you how to handle the product in an emergency.
- If the system requires any repair or modification, unlock the automatism, turn off the power and do not use it until all safety

conditions have been met.

- In the event of tripping of circuits breakers or fuse failure, locate the malfunction and solve it before resetting the circuit breaker or replacing the fuse. If the malfunction is not repairable by consult this manual, contact a technician.
- Keep the operation area of the motorized gate free while the gate in in motion, and do not create strength to the gate movement.
- Do not perform any operation on mechanical elements or hinges if the product is in motion.

RESPONSABILITY

- Supplier disclaims any liability if:
 - Product failure or deformation result from improper installation use or maintenance!
 - Safety norms are not followed in the installation, use and maintenance of the product.
 - Instructions in this manual are not followed.
 - Damaged is caused by unauthorized modifications
 - In these cases, the warranty is voided.

MOTORLINE ELECTROCELOS SA.

Travessa do Sobreiro, nº29
4755-474 Rio Côvo (Santa Eugénia)
Barcelos, Portugal

SYMBOLS LEGEND:



• Important safety notices



• Useful information



• Programming information



• Potentiometer information



• Connectors information



• Buttons information

02. CONTROL BOARD

TECHNICAL SPECIFICATIONS

The **MC410** is a three-phase electronic control board (400V 3 phases) designed to equip STARK (sliding gates) and KVM115 (sectional doors) motors from the Motorline brand. This control board allows for more precise operation, reflecting savings in all mechanical components of the gate and automation, as well as protection against exponential current increases when starting AC motors.

• Power Supply	400V 3~ ±10% (50Hz-60hz)
• Flashing light's output (NO)	230Vac (1000W max)
• RGB Lightbulb's output	24Vdc (100mA max)
• Motor's output	400Vac (1500W max)
• Auxiliary accessories output	24Vdc (325mA max)
• Working temperature	-25° C to +55° C
• Incorporated Radio Receptor	433,92 Mhz
• OP Transmitters	12bits or Rolling Code
• Maximum Memory Capacity	100 (full opening) 100 (pedestrian opening)
• Control board Dimensions	172 x 184 mm
• Fuse F1-F2-F3	T 8A 250V
• Fuse F4	T 63ma 250V retardo

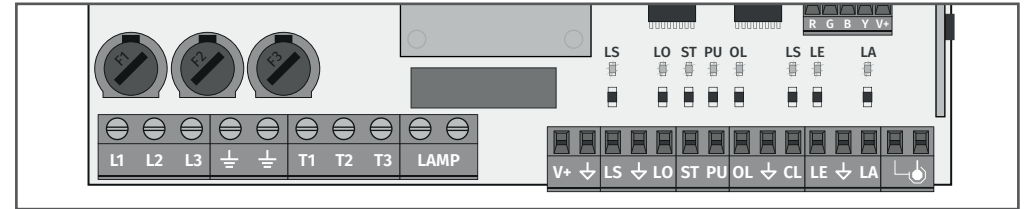
LEDs

LEDs

+24V • LED On indicates that the line for V+ output is OK.
+5V • LED On indicates that the line for 5V is OK.
LS • LED On when the Pedestrian Pushbutton is pressed.
LO • LED On when the Total Pushbutton is pressed.
ST • LED On when the ST circuit is closed.
PU • LED On when the Sequential Pushbutton is pressed.
FO • LED On indicates limit switch opening in closed state. That is, it is not within limits.
FC • LED On indicates limit switch Closing in closed state. In other words, it is not within the limits.
LE • LED On when the ↓ LE circuit is closed.
LA • LED On when the ↓ LA circuit is closed.

02. CONTROL BOARD

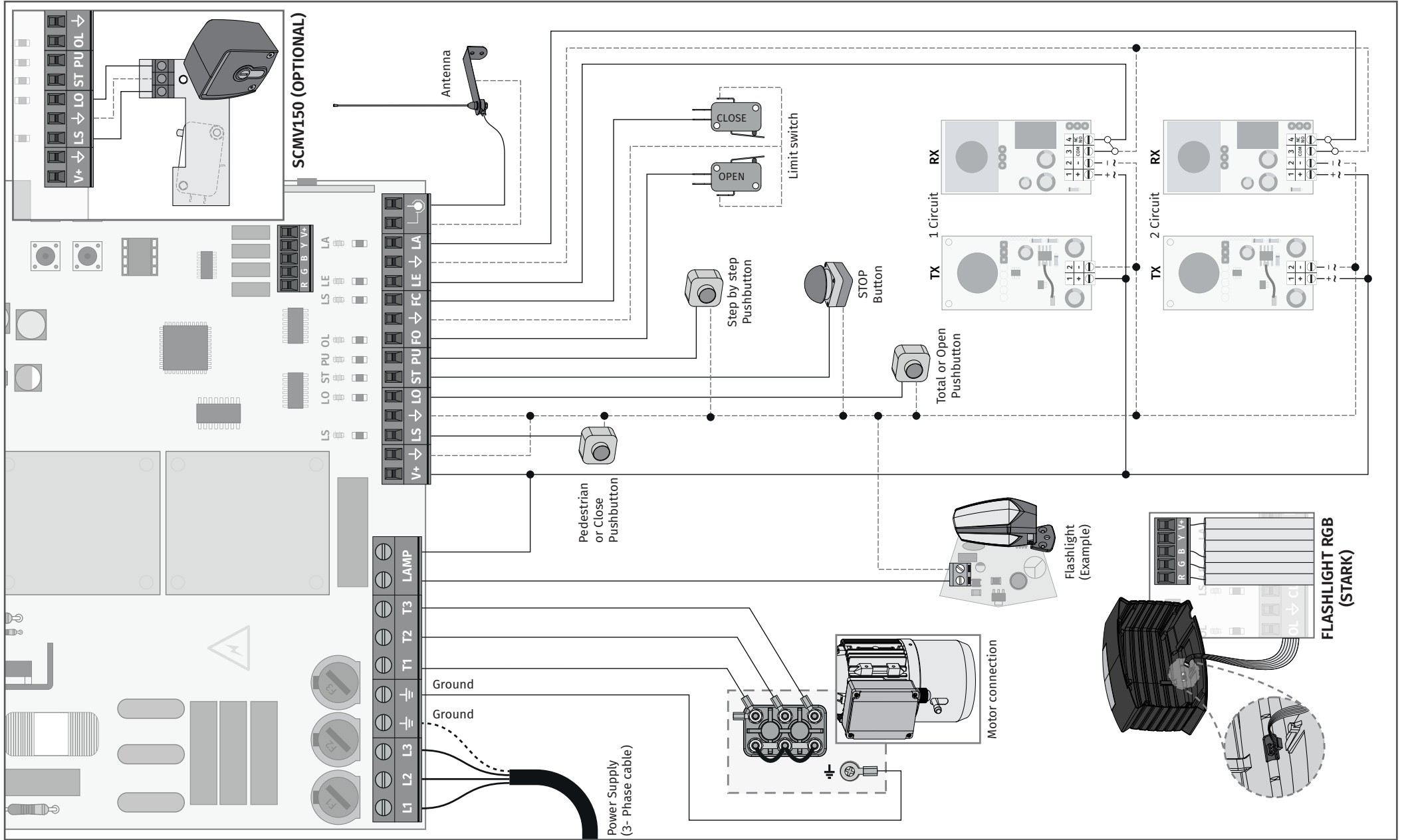
CONNECTORS



CN1	01 (L1) • Input Phase 1 - 400V 02 (L2) • Input Phase 2 - 400V 03 (L3) • Input Phase 3 - 400V	Power Supply 400Vac
	04 (Ground) • Grounding connection 05 (Ground) • Grounding connection	Motor and power ground connection
	06 (T1) • Motor Output Phase 1 - 1500W máx. 07 (T2) • Motor Output Phase 2 - 1500W máx. 08 (T3) • Motor Output Phase 3 - 1500W máx.	Power Supply 110/230Vac
	09 (LAMP1) • Flashing light Output - 1000W 10 (LAMP2) • Flashing light Output - 1000W	Courtesy light or Flashing light: This output allows the connection of a courtesy light or a Flashing light.
	11 (V+) • Power supply 24Vdc 325mA max. 12 (GND) • Power supply 24Vdc 325mA max.	24Vdc Auxiliary Power Supply
CN2	13 (LS) • Full Pulsing Input (NA) 14 (GND) • Common 15 (LO) • Pedestrian Pulsing Input (NA)	Pushbuttons: This circuit allows the connection of pushbuttons for full or pedestrian opening
	16 (ST) • Button STOP Input (NC) 17 (PU) • Sequential Pushbutton (NA)	ST: This circuit allows the connection of a button stop. Its operation depending on the P6 configuration (check page 11B).
	18 (FO) • Opening limit-switch (NC) 19 (GND) • Common 20 (FC) • Closing limit-switch (NC)	Limit switches: 03 and 04: The control unit requires the connection of limit switches when opening and closing (both in NC). The activation of any of the limit switches causes the movement to stop immediately. The activation of the limit switches is visible on the display by OP (opening limit switch activated) and CL (closing limit switch activated), as well as on the OL and CL leds.
	21 (LE) • Photocells 1 (NC) 22 (GND) • Common 23 (CL) • Photocells 2 (NC)	Safety circuits: This circuit allows the connection of photocells. Its operation depending on the configuration of the P5 and P6 menus (check page 11B).
	24 (GND) • Common 25 (ANT) • Antenna	

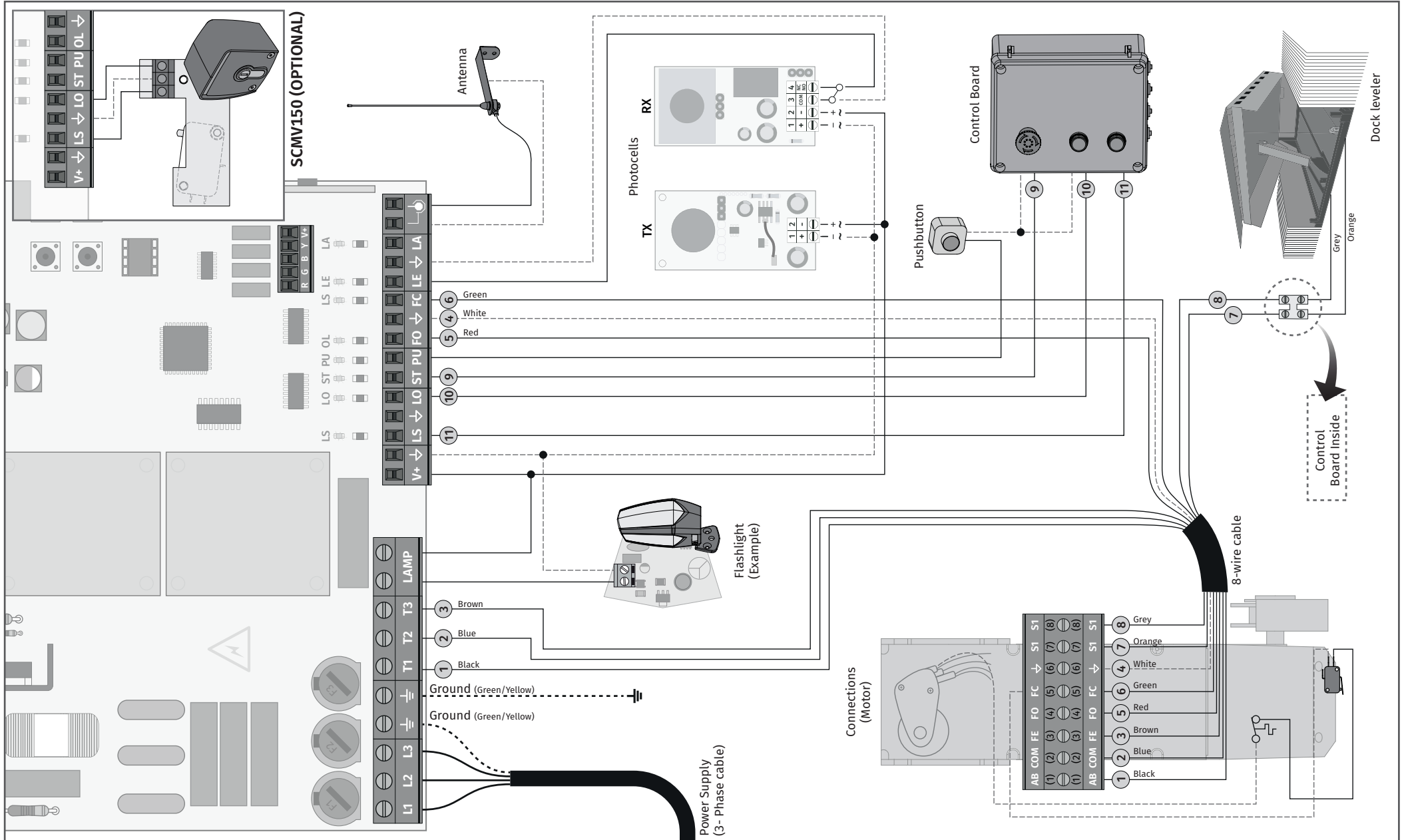
03. INSTALLATION

INSTALLATION MAP (STARK)



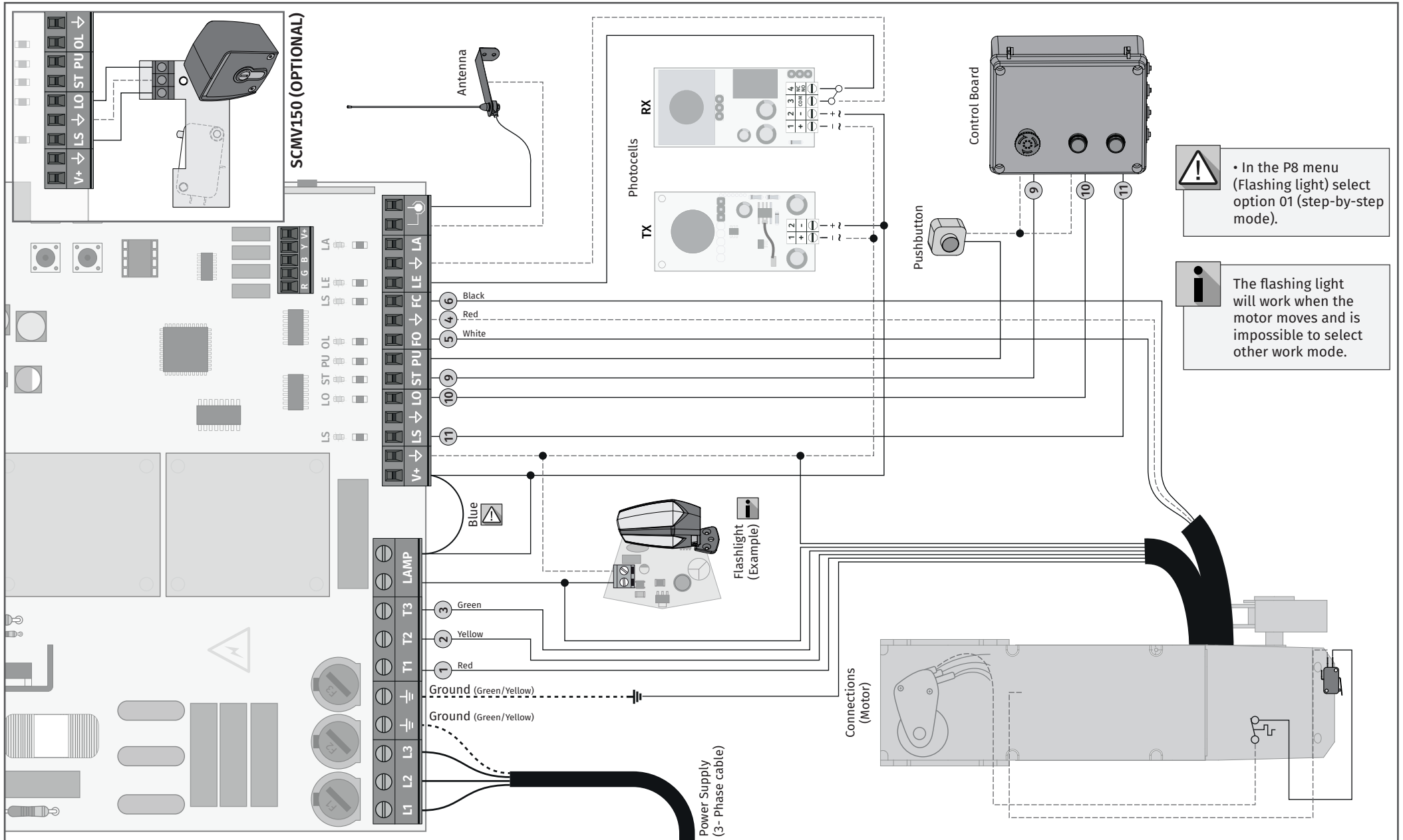
03. INSTALLATION

INSTALLATION MAP (KVM115)



03. INSTALLATION

INSTALLATION MAP (KVM2020)



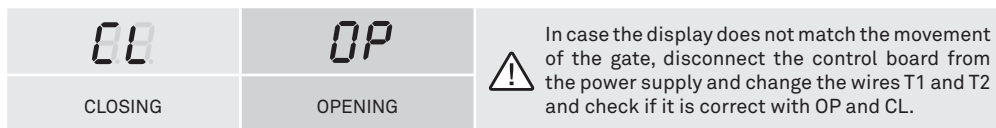
03. INSTALLATION

BASE INSTALLATION PROCESS



The installation process assumes that the gate already has the limit switches installed. For more information, consult the motor manual.

- 01 • Make connections for all accessories according to the wiring diagram (page 5A).
- 02 • Connect the control board to a 400V 3 ~ phase power supply (terminals L1, L2, L3)
- 03 • Check that the movement of the gate matches the one shown on the display:



- 04 • Check the limit switches so that the **CL LED** goes out when the closing limit switch is activated and the **OP LED** goes out when the opening limit switch is activated.
- 05 • Make an automatic or semi-automatic programming of the course - menu **[P0]** (page 10A).
- 06 • Adjust the force - menu **[P2]** (page 11A).
- 07 • Enable or disable the use of photocells in the **[P5]** menu (page 11B).
- 08 • Enable or disable the use of photocells 2 in the **[P6]** menu (page 11B)
- 09 • Program a transmitter (page 8B).

The control board is now fully configured!
Check the pages of the menu programming if you want to configure other features of the Control board.

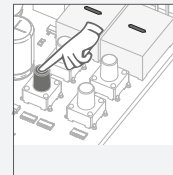
04. PROGRAMMING

PROGRAMMING AND DELETE TRANSMITTERS

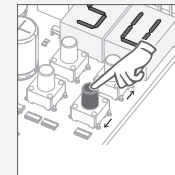
SU TRANSMITTER PROGRAMMING FOR TOTAL OPENING

SP TRANSMITTER PROGRAMMING FOR PEDESTRIAN OPENING.

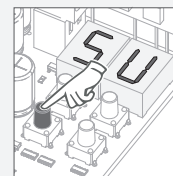
• PROGRAMMING TRANSMITTERS



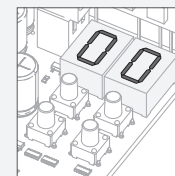
01 • Press the cmd button for 3 sec.



02 • Select **[SU]** use **UP** or **DW**.



03 • Press cmd once to confirm.



04 • The first free position appears.

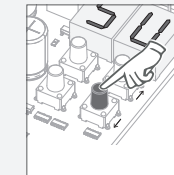


05 • Press the transmitter button you want to program. The display will blink and move to the next free location.

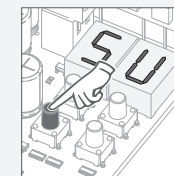
• ERASE TRANSMITTERS



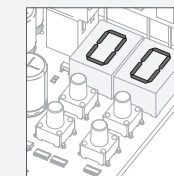
01 • Press the cmd button for 3 sec.



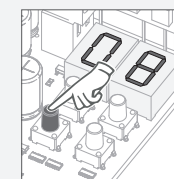
02 • Select **[SU]** use **UP** or **DW**.



03 • Press cmd once to confirm.



04 • Use **UP** or **DW** to select the transmitter location you want to delete.



05 • Press cmd for 3 sec and the location will be empty. The display will blink and the position will be free.

• ERASE ALL THE TRANSMITTERS

01 • Press the cmd button for 10 sec.

02 • The display will show **[SU]**.

03 • **[SU]** will flash.

04 • **[LU]** flashes, confirming that all transmitters have been deleted.



• If you do not press any button for 10 sec. the control board will return to standby.

05. FUNCTIONS

MENUS P

MENU	FUNCTION	MAX. MIN. PROGRAMMABLE	STATE	FACTORY VALUE OL	FACTORY VALUE SE
P0	Course programming	-	00 Automatic program 01 Semi-automatic program	-	-
P1	Not applicable				
P2	Force adjustment	min. 0 max. 9	00 Force adjustment	06	06
P3	Pedestrian Course time	min. 0s max. 99s	Time adjustment in pedestrian course	10	10
P4	Pause time	min. 0s max. 99s	00 Adjusting the pause time total opening 01 Adjusting the pause time pedestrian opening	10	10
P5	Photocell Circuit 1 (activation and management of the operating mode)	min. 0 max. 1	00 Disables 01 Active	00	00
		min. 0 max. 1	00 In Closing 01 In Opening	00	00
		min. 0 max. 2	00 Invert 01 Stop 02 Invert 2 sec. and Stop	00	00
P6	Photocell Circuit 2 (activation and management of the operating mode)	min. 0 max. 1	00 Desativa 01 Activa	00	00
		min. 0 max. 1	00 In Closing 01 In Opening	01	01
		min. 0 max. 2	00 Invert 01 Stop 02 Invert 2 sec. and Stop	01	01
		min. 0 max. 1	00 Disables the ST emergency button 01 Activates the ST emergency button	00	01
P7	Operating logic	min. 0 max. 2	00 Automatic mode function	00	01
			01 Step by step mode function		
			02 Condominium mode function		
P8	Flashing light	min. 0 max. 2	00 Flashing (opening and closing)	00	00
			01 Step by step mode function		
			02 Courtesy light		
P9	Distance programming	min. 0 max. 1	00 Distance PGM OFF	00	9B
			01 Distance PGM ON		

05. FUNCTIONS

MENUS E

MENU	FUNCTION	MAX. MIN. PROGRAMMABLE	STATE	FACTORY VALUE OL	FACTORY VALUE SE
E0	Human presence	min. 0 max. 1	00 Deactivates human presence 01 Activates human presence 02 Activates human presence - Close	00	00
			00 Disables push buttons mode 01 Activates push buttons mode		
E1	Soft start	min. 0 max. 9	00 Desactivates Soft start	03	03
			01 Activates Soft start		
E2	Courtesy light time	min. 0min max. 99min	Courtesy light time adjustment (min)	03	03
E3	Follow me	-	00 Desactivates follow me	00	00
			01 Activates follow me (Open gate)		
E4	Not applicable				
E5	Not applicable				
E6	Not applicable				
E7	Maneuver counter	-	Shows the number of maneuvers	-	-
E8	Reset - Select version	min. 0 max. 2	01 Reset - Sliding Motor	00	00
			02 Reset - Sectional Motor		
E9	RGB Output	-	00 Continued output	01	01
			01 Intermittent output		
TRANSMITTER					
E0	Transmitter programming for total opening.				6B
E1	Transmitter programming for pedestrian opening.				6B

- We can only enter programming with the gate stopped (electrically).
- To access the P MENU press the **MENU** for 3 sec.
- To access the E MENU press the **MENU** for 10 sec.
- Use **UP** or **DW** to navigate through the menus
- Press **MENU** when you want to confirm access to a menu.
- Press **UP** or **DW** simultaneously to exit programming

05. FUNCTIONS

P0 | AUTOMATIC PROGRAMMING

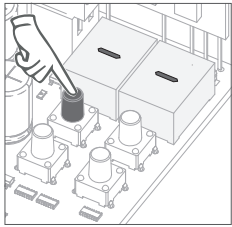
AU

This menu allows automatic programming of the motor.

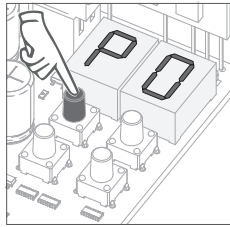
Note • This mode requires the use of limit switches.

During automatic programming, the motor performs the following maneuvers:

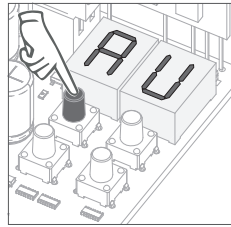
- 1 • Close the gate until it reaches the closing limit switch
- 4 • Opens gate until reaching the opening limit switch
- 5 • Close the gate until it reaches the closing limit switch



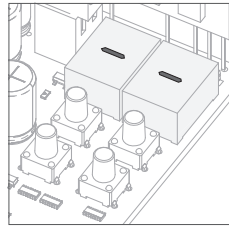
01 • Press **MENU** for 3 seconds.



02 • Appears **[P0]**. Press **MENU** for 1 second.



03 • Appears **[AU]**. Press **MENU** for 1 second to start automatic programming.



04 • When programming is complete, the display returns to the initial state **[--]**.

05. FUNCTIONS

P0 | SEMI-AUTOMATIC PROGRAMMING

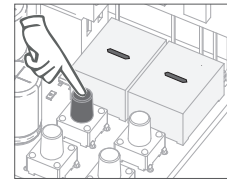
MA

This menu allows you to program the motor's operating time semi-automatically, allowing you to manually set the limit switch time.

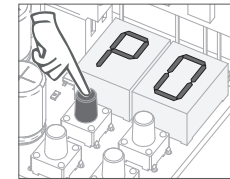
This way, we automatically set the deceleration time and stop the door when it reaches the limit switch as programmed.



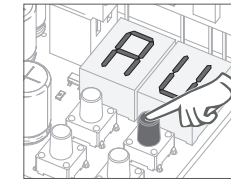
If you do not press **MENU**, automatic programming is performed.



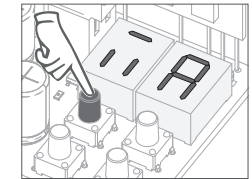
01 • Press **MENU** for 3 seconds.



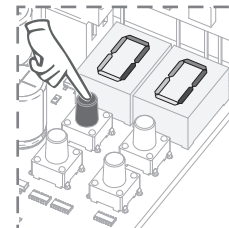
02 • Appears **[P0]**. Press **MENU** for 1 second.



03 • Appears **[AU]**. Press **UP** 1 time to show **MA**.



04 • When **[MA]** appears, press **MENU** for 1 second. The motor will start to close the door.



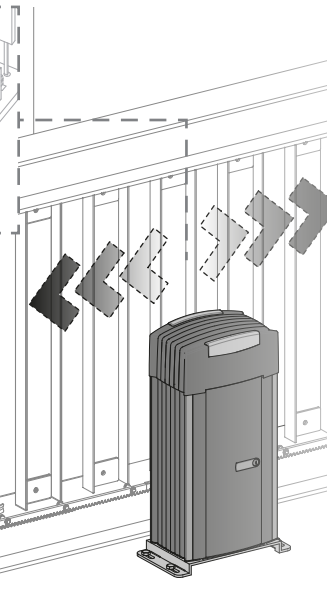
05 • When the closing limit switch is reached or pressing the transmitter, it will open automatically.

06 • When the opening limit switch is reached or the transmitter is pressed, it will close automatically.

07 • Press the **MENU/transmitter** button or when the gate reaches the limit switch so that the opening operating time is recorded and closing begins.

08 • Press **MENU** or another controller such as the transmitter when you want to start slowing down the closing.

09 • Press the **MENU** button on the transmitter or when the gate reaches the limit switch so that the closing time is recorded and programming is completed.



05. FUNCTIONS

P2 - P3 - P4

P2 FORCE ADJUSTMENT

This menu allows you to define the force that is injected into the motor when it moves at normal speed.

DEFAULT VALUE	MIN VALUE	MAX VALUE
06	00	09

- 01 • Press **MENU** until it appears **[F0]**.
- 02 • Press **MENU** to edit the value.
- 03 • Use **UP** and **DW** to change the value.
- 04 • Press **MENU** for 2sec. to save the new value.

P3 PEDESTRIAN COURSE TIME

This menu allows you to set the pedestrian course time.

DEFAULT VALUE	MIN VALUE	MAX VALUE
10	00	99

- 01 • Press **MENU** to edit the value.
- 02 • Use **UP** and **DW** to change the value.
- 03 • Press **MENU** for 2sec. to save the new value.

P4 PAUSE TIME

RF Allows to set the pause time at total opening.

DEFAULT VALUE	MIN VALUE	MAX VALUE
10	00	99

RP Allows to set the pause time at the pedestrian opening.

- 01 • Press **MENU** until it appears **[AF]**.
- 02 • Use **UP** or **DW** to navigate the parameters.
- 03 • Press **MENU** to edit the value.
- 04 • Use **UP** and **DW** to change the value.
- 05 • Press **MENU** for 2sec. to save the new value.

05. FUNCTIONS

P5 - P6

P5 PHOTOCELLS 1 PROGRAMMING

This menu allows you to program the LE safety behavior (photocell 1).

- LE** Enable or disable photocells
- HE** Define whether this security will act when opening or closing the gate.
(00 - acts on closing / 01 - acts on opening)
- HL** Define the behavior that the gate will have when this security is activated.
00 When safety is activated, the direction of movement of the gate is reversed
01 When the security is activated, the movement of the gate stops.
02 When security is activated, the movement of the gate reverses for 2 sec. is for. The movement is not resumed automatically.

LE DEFAULT VALUE	LE OFF	LE ON
00	00	01
HC DEFAULT VALUE	HC CLOSE	HC OPEN
00	00	01
HL DEFAULT VALUE	FUNCTIONS HL	
00	00 01 02	

- 01 • Press **MENU** until it appears **[LE]**.
- 02 • Use **UP** or **DW** to navigate the parameters.
- 03 • Press **MENU** to edit the value.
- 04 • Use **UP** and **DW** to change the value.
- 05 • Press **MENU** for 2sec. to save the new value.

P6 PHOTOCELLS 2 PROGRAMMING

This menu allows you to program the LA safety behavior (photocell 2).

- LR** Enable or disable photocells 2.
- HE** Define whether this security will act when opening or closing the gate.
(00 - acts on closing / 01 - acts on opening)
- HL** Define the behavior that the gate will have when this security is activated.
00 When safety is activated, the direction of movement of the gate is reversed
01 When the security is activated, the movement of the gate stops.
02 When security is activated, the movement of the gate reverses for 2 sec. is for. The movement is not resumed automatically.
- HE** Enable or disable the Stop push button function

LA DEFAULT VALUE	LA OFF	LA ON
00	00	01
HC DEFAULT VALUE	HC OFF	HC ON
01	00	01
HL DEFAULT VALUE	FUNCTIONS HL	
02	00 01 02	
HE DEFAULT VALUE	HE OFF	HE ON
00	00	01

- 01 • Press **MENU** until it appears **[LA]**.
- 02 • Use **UP** or **DW** to navigate the parameters.
- 03 • Press **MENU** to edit the value.
- 04 • Use **UP** and **DW** to change the value.
- 05 • Press **MENU** for 2sec. to save the new value.

05. FUNCTIONS

P7- P8 - P9

P7

OPERATING LOGIC

This menu allows to set the operating logic of the automation
 00 Automatic Mode - Whenever there is an order, the movement is reversed.
 01 Step-by-step mode - Logic opens / stops / closes / stops.

Note • Stopping movement during closing disables automatic closing.
 02 Condominium mode - Does not respond to orders during opening and pause time.

- 01 • Press **MENU** to edit the value.
- 02 • Use **UP** and **DW** to change the value.
- 03 • Press **MENU** for 2sec. to save the new value.

DEFAULT VALUE	AUTOMATIC	STEP BY STEP	CONDOMINIUM
00	00	01	02

P8

FLASHING LIGHT

This menu allows you to define the mode of operation of the flashing light (LAMP). The default value is 0 (flashing).

00 Flashing (opening and closing) - In the 2-second intermittent opening, in the 1-second intermittent closing. At pause time it remains on.
 01 Step by step mode - In the opening and closing movement, the flashing light is permanently on. When stopped it remains off.
 02 In the opening and closing movement the flashing light is permanently on. When in pause time it remains on.
 When stopped or closed, the time defined in E2 remains on.

- 01 • Press **MENU** to edit the value.
- 02 • Use **UP** and **DW** to change the value.
- 03 • Press **MENU** for 2sec. to save the new value.

DEFAULT VALUE	FLASHING	STEP BY STEP	FLASHING/STOP
00	00	01	02

P9

DISTANCE PROGRAMMING

This menu allows you to enable/disable distance programming.

- 01 • Press **MENU** to edit the value.
- 02 • Use **UP** and **DW** to change the value.
- 03 • Press **MENU** for 2sec. to save the new value.

DEFAULT VALUE	PGM À DISTÂNCIA OFF	PGM À DISTÂNCIA ON
00	00	01

Distance Programming Operation (PGM ON):



- Press the buttons indicated in the image simultaneously for 10 seconds and the flashing light will flash (the 1st free position appears in the display). Each time you store 1 transmitter, the control board will exit distance programming. If you want to memorize more transmitters, you will always have to repeat the process of pressing the transmitters buttons simultaneously for 10 seconds for each new transmitter.

05. FUNCTIONS

E0 - E1 - E2

E0

HUMAN PRESENCE

00 Deactivates human presence
 HP 01 Ascent and descent in human presence
 02 Automatic ascent, descent in human presence

FACTORY VALUE:
00

PL 01 ACTIVATED Total Closing Total Opening
 00 DEACTIVATED Pedestrian maneuvers Total maneuvers

FACTORY VALUE:
00

- 01 • Press **MENU** until it appears [HP] .
- 02 • Use **UP** or **DW** to navigate the parameters.
- 03 • Press **MENU** to edit the value.
- 04 • Use **UP** and **DW** to change the value.
- 05 • Press **MENU** for 2sec. to save the new value.

E1

SOFT START

This menu allows you to activate the soft start.
 The higher the selected value, the longer the soft start duration.
 The maximum value is 9.

DEFAULT VALUE	MIN VALUE	MAX VALUE
03	00	09

- 01 • Press **MENU** to edit the value.
- 02 • Use **UP** and **DW** to change the value.
- 03 • Press **MENU** for 2sec. to save the new value.

E2

COURTESY LIGHT TIME

This menu allows you to adjust the courtesy light time for the closed, open and stopped gate.
 The maximum time is 99 minutes.

Note • This parameter is only activated if option 2 is selected in P8.

DEFAULT VALUE	MIN VALUE	MAX VALUE
03	00	99

- 01 • Press **MENU** to edit the value.
- 02 • Use **UP** and **DW** to change the value.
- 03 • Press **MENU** for 2sec. to save the new value.

05. FUNCTIONS

E3 - E7 - E8 - E9

E3 FOLLOW ME			
00 Disabled	DEFAULT VALUE	MIN VALUE	MAX VALUE
01 The control board, when in the open position, gives a closing order of 5 sec. after the safety device detects the passage of an object / user			
02 The control board, when in the open or in the open position, gives a closing order of 5 sec. after the safety device detects the passage of an object / user.			
	00	00	02

01 • Press **MENU** to edit the value.
02 • Use **UP** and **DW** to change the value.
03 • Press **MENU** for 2sec. to save the new value.

E7 MANUEVERS COUNTER	
This menu allows you to view the number of maneuvers performed.	
01 • Press MENU to view.	

E8 RESET - SELECT VERSION			
This menu allows you to reset the factory values for the two existing versions: 01 Reset Sectional Doors to factory settings 02 Reset Sliding Gates to factory settings	DEFAULT VALUE	RESET (SECTIONAL)	RESET (SLIDING)
	00	01	02

01 • Press **MENU** to edit the value.
02 • Use **UP** and **DW** to change the value to [01] or [02].
03 • Press **MENU** for 2sec. to save the new value.

E9 RGB OUTPUT			
This menu allows you to set the operation mode of RGB outputs.	DEFAULT VALUE	CONTINUOUS OUTPUT	INTERMITTENT OUTPUT
	01	00	01

01 • Press **MENU** to edit the value.
02 • Use **UP** and **DW** to change the value.
03 • Press **MENU** for 2sec. to save the new value.

05. FUNCTIONS

INDICAÇÕES DO DISPLAY

00	IN STOP POSITION, FULLY OPEN
01	IN STOP POSITION, MIDDLE POSITION
02	IN STOP POSITION, FULLY CLOSED
03	TOTAL OPENING BUTTON PRESSED
04	PEDESTRIAN OPENING BUTTON PRESSED
05	CONTROL BOARD RUNNING OPENING COURSE
06	CONTROL BOARD RUNNING CLOSING COURSE
07	END OF OPENING COURSE TIME
08	END OF CLOSING COURSE TIME
09	ALL TRANSMITTERS DELETED
00 01 02	TRANSMITTER ADDED IN THE INDICATED POSITION
0E	OBSTRUCTED PHOTOCELL
0F	OBSTRUCTED PHOTOCELL 2
10	IN PAUSE TIME
11	IN PEDESTRIAN PAUSE TIME
12	EMERGENCY BUTTON PRESSED
13	NO LIMIT-SWITCHES INSTALL
1111	PHASE 1 OR MOTOR FAILURE
1112	PHASE 2 OR MOTOR FAILURE
1113	PHASE 3 OR MOTOR FAILURE

06. COMPONENTS TEST

ERL ERRORS

If the display shows the error **ERL1, 2, 3** it means that one of the input phases is missing or that the motor connections are incorrect.

Check all connections and try again.

To remove errors from the display you just need to click on any button on the control board or in charge.



NOTES:

- This control board was developed only to work with Motorline motors, however if you want to work with motors from other manufacturers make sure that this motor is in star configuration and that it is a 400V motor that does not exceed 1500W.

Simplified EU Declaration of Conformity

The undersigned **MOTORLINE ELECTROCELOS, S.A.**, with registered office at **Travessa do Sobreiro, n.º 29, 4755-474 Rio Côvo (Santa Eugénia), Barcelos**, declares that the present type of radio equipment - **MC410 Control board** - ecomplies with the Directive 2014/53/EU.

The full text of the declaration of conformity is available at the following internet address:

<https://motorline.pt/certification/mc410>



07. TROUBLESHOOTING

FINAL CONSUMERS INSTRUCTIONS AND SPECIALIZED INSTALLERS

Anomaly	Procedure	Behavior	Procedure II	Discovering the origin of the problem			
• Motor doesn't work.	• Make sure you have power supply connected to control board and if it is working properly.	• Still not working.	• Consult a qualified MOTORLINE technician.	1 • Open control box and check if it has 230V power supply; 2 • Check input fuses;	3 • Disconnect motors from control board and test them by connecting directly to power supply in order to find out if they have problems (see page 11B).	4 • If the motors work, the problem is on the control board. Pull it out and send it to our MOTORLINE technical services for diagnosis;	5 • If the motors don't work, remove them from installation site and send to our MOTORLINE technical services for diagnosis.
• Motor doesn't move but makes noise.	• Unlock motor and move the gate by hand to check for mechanical problems on the movement.	• Is the gate stuck?	• Consult a qualified gates technician.	1 • Check all motion axis and associated motion systems related with the gate and automatisme (rails, pulleys, bolts, hinges, etc) to find out what is the problem.			
		• The gate moves easily?	• Consult a qualified MOTORLINE technician.	1 • Check capacitors, testing operator with new capacitor; 2 • If capacitors are not the problem, disconnect motors	from control board and it them by connecting directly to power supply in order to find out if has problems (see page 11B).	3 • f the motors work, the problem is from control board. Pull it out and send it to our MOTORLINE technical services for diagnosis;	4 • If the motors don't work, remove them from installation site and send to our MOTORLINE technical services for diagnosis.
• Motors open but doesn't close.	• Unlock motor(s) and move the roller by hand to closed position. Block the motor again and turn off power supply for 5 seconds. Reconnect it and send order to open gate using transmitter.	• Gate opened but didn't close again.	1 • Check if there is any obstacle in front of the photocells; 2 • Check if any of the control devices (Key Selector, Pushbutton, Video Intercom, etc.) are stucked and sending permanent signal to control board; 3 • Consult a qualified MOTORLINE technician.	All control boards MOTORLINE have LEDs that easily allow to conclude which devices are with anomalies. All safety devices LEDs (Le) in normal situations remain On. All "START" circuits LEDs in normal situations remain Off. If LEDs devices are not all On, there is some security systems malfunction (photocells, safety edges). If "START" circuits LEDs are turn (Op and Cl), there is a control device sending permanent signal.		A) SECURITY SYSTEMS: 1 • Close with a shunt all safety systems on the control board (check manual of the control board in question). If the automated system starts working normally check for the problematic device. 2 • Remove one shunt at a time until you find the malfunction device. 3 • Replace it for a functional device and check if the motor works correctly with all the other devices. If you find another one defective, follow the same steps until you find all the problems.	B) START SYSTEMS: 1 • Disconnect all wires connected to the START connector. 2 • If the LED turned OFF, try reconnecting one device at a time until you find the defective device. NOTE: In case procedures described in sections A) and B) don't result, remove control board and send to our MOTORLINE technical services for diagnosis.
• Motor doesn't make complete course.	• Unlock motor and move gate by hand to check for mechanical problems on the gate.	• Encountered problems?	• Consult an experienced gates expert.	1 • Check all motion axis and associated motion systems related with the gate and automatisme (rails, pulleys, bolts, hinges, etc) to find out what is the problem.			
		• The gate moves easily?	• Consult a qualified MOTORLINE technician.	1 • Check capacitors, testing with new capacitors; 2 • If capacitors are not the problem, disconnect motor from control board and test it by connecting directly to power supply in order to find out if it is broken; 3 • If the motor(s) doesn't work,	remove it from installation site and send to our MOTORLINE technical services for diagnosis. 4 • If motor work well and move gate at full force during the entire course, the problem is from controller. Set force using trimmer on the board. Make a new working time programming, giving sufficient time for opening and closing with	appropriate force (consult control board manual). 5 • If this doesn't work, remove control board and send it to MOTORLINE technical services.	NOTE: Setting force of the controller should be suficiente to make the gate open and close without stopping, but should stop and invert with a little effort from a person. In case of safety systems failure, the gate shall never cause physical damaged to obstacles (vehicles, people, etc.).