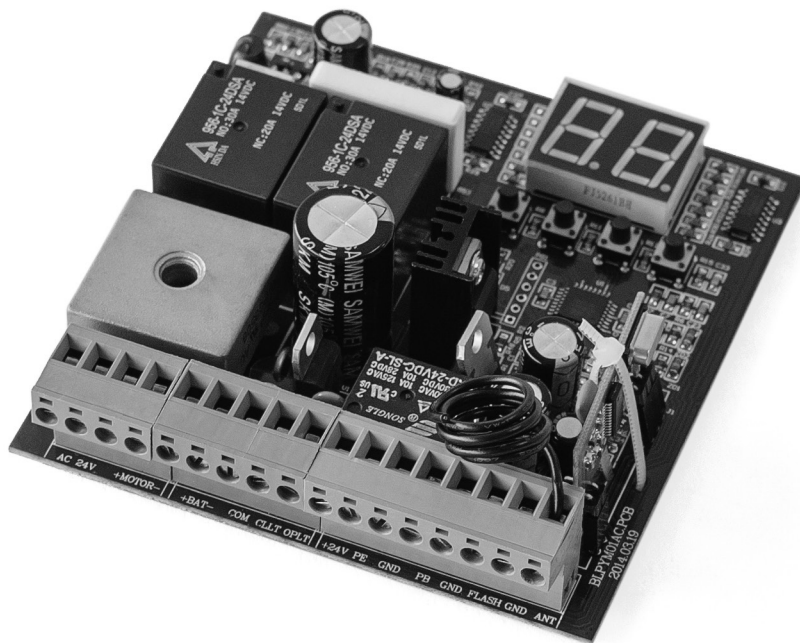# MC41SP

USER'S/INSTALLER'S MANUAL

Motorline®
PROFESSIONAL

v3.0
REV. 07/2019

00. CONTENT

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01. SAFETY INSTRUCTIONS

CE	This product is certified in accordance with European Community (EC) safety standards.
RoHS	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.
🗑 ♻	(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 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.

GENERAL WARNINGS

- This manual contains very important safety and usage information. very important. 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.

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 central 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 the power supply cable. Please note that all the cables must enter the central 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 satefy with central (only at 24V motors)

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 of 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.

SYMBOLS LEGEND:

- Important safety notices
- Useful information
- Programming information
- Potentiometer information
- Connectors information
- Buttons information

CONTROL BOARD CONNECTIONS

To ensure proper operation of the equipment, it is advisable to connect GND to ground in order to eliminate possible interference.
The connector 7, COM, must be for limit switches only.

Antenna

Flashing Light

Pushbutton or key selector

Photocells

RX

TX

ANT
GND FLASH GND
PB
PE GND
+24V
OPLT
COM CLLT
+BAT-
+MOTOR-
AC 24V

C
D
A
P

Batteries
12V
12V

Ground

Limit switches
OPENING
CLOSE

Engine

Transformer 230V or 110V

230/110 V

C Y C MKP/X2
300V~ 10nFK
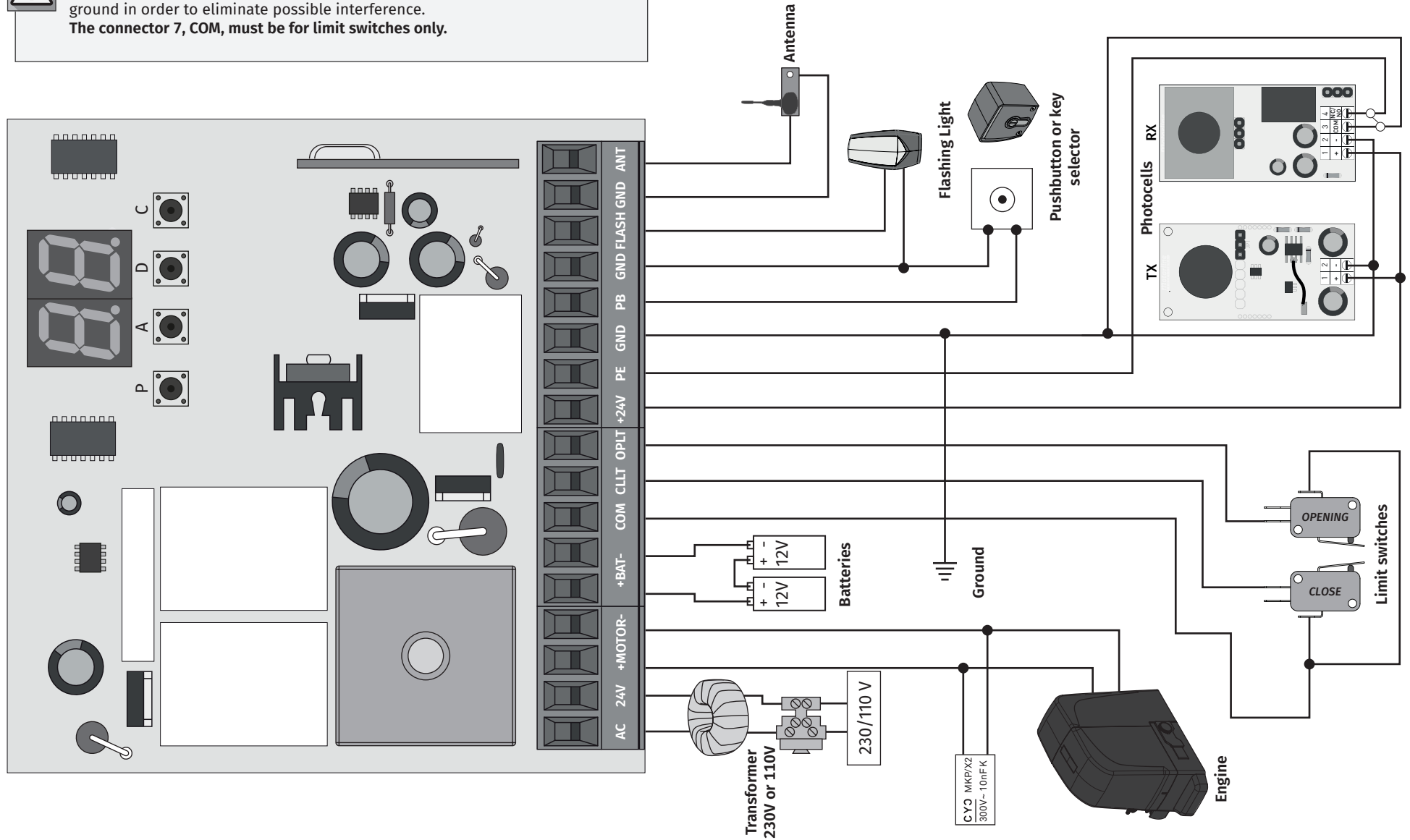
03. THE CONTROL BOARD

TECHNICAL CHARACTERISTICS

This control board has been developed to automate sliding or sectional gates with limit switch, soft start/stop function and built-in radio receiver.

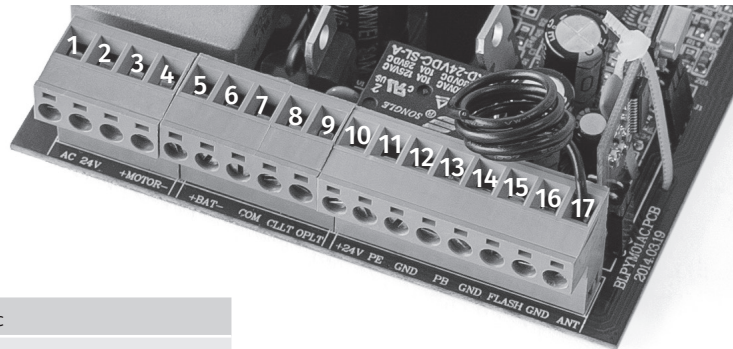|	
• **Power supply**	24Vac
• **Motor output power**	180W max.
• **OP transmitters**	Rolling Code
• **Maximum memory capacity**	30 Codes
• **Operating temperature**	-25°C ~ 55°C
• **Built-in radio receiver**	433,92 Mhz
• **Output for auxiliary accessories**	24V-250ma/6W
• **External lamp output**	24V-5W max.
• **Battery output**	Use of 24V battery max. 7A

DESCRIPTION OF THE CONNECTIONS

1	Input Power 24V ac			
2	Input Power 24V ac			
3	Motor Output 24V			
4	Motor Output 24V	**11**	Photocell Input - PE (NC)
5	Battery Input (+)	**12**	GND for Photocells
6	Battery Input (-)	**13**	Input Push-Button Opening - PB
7	Limit Switch - COM	**14**	GND to push-button/flashing light
8	Closing limit switch (CCLT)	**15**	Output Flashing light 24Vdc 5W max (FLASH)
9	Opening limit switch (OPLT)	**16**	GND for antenna
10	Power supply accessories + 24Vdc	**17**	Antenna Input

04. PROGRAM

INTRODUCTION TO THE CENTRAL PROGRAMMING

P	**PROGRAMMING** button
A	**INCREASE** button
D	**DECREASE** button
C	**COMMAND PROGRAMMING** button

ℹ️
• When the power is turned on, the display shows a countdown from 99 to 11, and the courtesy lamp remains on for 2 seconds.
• When the engine is in **stand-by**, the display shows "**--**".
• When the motor is in the **open**, the display shows **OP**.
• When the engine is **running**, the display will show **CL**.

Note • If there is a flashing light on, it will flash during the door movement cycles (**stop - stop - lock - stop**).

PROGRAMMING/DELETING COMMANDS

ADD COMMANDS

01 • Press the C button until the display shows SU.

02 • Press 2 times the button 1,2 or 3 of the command you want to add until the message SU starts to flash (*button 4 is automatically programmed for pedestrian opening*).
Repeat this whenever you want to add commands.

• **The memory has a capacity of 30 different code commands.**
• **The control board is compatible with Rolling Code commands.**
• **Flashing FU indicates memory is full and no further commands can be added.**

DELETE COMMANDS

• Press the **C** button for 8 seconds. When the display shows **DL,** all commands have been erased.

ℹ️ **BUTTON OPERATION**

button 1 • ⎤
button 2 • ⎥ Selectable for **full opening**
button 3 • ⎥
button 4 • ⎦

button 3 • Button 3 is automatically assigned to the **partial opening** as soon as you program another button for full opening.
If you do not want partial opening, make sure that function P7 has 00 values.

MENUS FUNCTIONS

The control board has the following functions:

P1	PROGRAMMING OPENING STRENGTH - *F1 (minimum) to F9 (maximum)*
P2	PROGRAMMING CLOSED FORCE - *F1 (minimum) to F9 (maximum)*
P3	PROGRAMMING SECURITY PHOTOCELLS - *enable/disable*
P4	PROGRAMMING AUTOMATIC DOOR CLOSURE TIME - *01 to 99 seconds*
P5	PROGRAMMING FUNCTION CONDOMINIUM - *enable/disable*
P6	PROGRAMMING TIME OF WORK - *05 to 90 seconds*
P7	PROGRAMMING PARTIAL OPENING - *01 to 10 seconds*

⚠ The programming of each of the functions is done using the P, A and D keys, the P key is to select the function and A and D to scroll through the menus.
When one of the functions P1 to P6 is selected for more than 20 seconds without programming, the control panel automatically exits the programming mode.

P1 - OPENING FORCE

01 • Press the P button for 4 seconds to the control board enter programming mode until the display shows P1 message.

02 • Press the P button again for 2 seconds until the display shows the current setting.

03 • Use the A and D buttons to select the aperture force you want: F1 (minimum) to F9 (maximum).

04 • Press the P button for 2 seconds to confirm the setting and return to the stand-by mode (--).

Make sure that the selected value is appropriate to stop the gate movement whenever you encounter an obstacle.

The opennign force is factory set at the F5 value.

P2 - CLOSING FORCE

01 • Press the P button for 4 seconds to the control board enter programming mode until the display shows P1 message.

02 • Press the A button as many times as necessary until P2 appears.

03 • Press the P button again for 2 seconds until the display shows the current setting.

04 • Use the A and D buttons to select the locking force you want: F1 (minimum) to F9 (maximum).

05 • Press the P button for 2 seconds to confirm the setting and return to stand-by mode (--).

Make sure that the selected value is suitable for reversing the gate movement whenever you encounter an obstacle.

The locking force is factory set at the F5 value.

P3 - PHOTOCELLS

01 • Press the P button for 4 seconds to the control board enter programming mode until the display shows P1 message.

02 • Press button A as many times as necessary until P3 appears.

03 • Press the P button again for 2 seconds until the dispaly displays the message H0 (photocells inactive) or H1 (photocells active).

04 • Use the A and D buttons to select the function you want: H0 (photocells inactive) or H1 (photocells active).

05 • Press the P button for 2 seconds to confirm the function you have set and return to standby mode (--).

The photocell function is deactivated at the factory.

P4 - AUTOMATIC DOOR CLOSE (ON/OFF)

01 • Press the P button for 4 seconds to the control board enter programming mode until the display shows P1 message.

02 • Press button A as many times as necessary until P4 appears.

03 • Press the P button again for 2 seconds until the display shows the current time.

04 • Use the A and D buttons to select the auto-lock time you want: 01 to 99 seconds. Selecting 00 deactivates the automatic closing.

05 • Press the P button for 2 seconds to confirm the time you have set and return to standby mode (--).

P5 – CONDOMINIUM FUNCTION (ON/OFF)

01 • Press the P button for 4 seconds to the control board enter programming mode until the display shows P1 message.

02 • Press the A button as many times as necessary until P5 appears.

03 • Press the P button again for 2 seconds until the display shows the current status of the function.

04 • Press the A button to activate the function (B1 will appear in the display) or the D button to deactivate (B0 will appear in the display).

05 • Press the P button for 2 seconds to confirm the function you have set and return to standby mode (--).

ℹ️ **B0 (inactive condominium function) -** By pressing the button of a command programmed *during the opening, the movement of the gate stops.* By pressing the button of a command programmed *during the closing, the movement of the gate reverses the direction*.

B1 (active condominium function) - By pressing the button of a command programmed **during the opening, the movement of the gate does not stop**. When you press a command **with the gate fully open, it will close immediately**. When you press a command **during closing, the gate reverses direction and returns to the lock after being fully opened and has reached the time programmed in function P4.**

P6 – WORKING TIME

01 • With the limit switch plates installed, unlock the engine, open the gate by about 500mm and then lock the engine again.

02 • Press the P button for 4 seconds to the control board enter programming mode until the display shows P1 message.

03 • Press button A as many times as necessary until P6 appears.

04 • Press the P button again for 2 seconds.

05 • The door should open:

        - **If you open it, immediately stop the programming, close the gate manually and start programming with the gate closed (active closing limit switch).**
        - **If you close, immediately stop the programming and reverse the motor connection wires (3 by 4) and the limit switches (8 by 9). Reschedule the working time (with the gate fully closed) and the gate will open and close automatically.**

 After this operation, the control unit returns to satand-by mode (--) and the operating time is programmed.

P7 – PARTIAL OPENING

01 • Press the P button for 4 seconds to enter the programming mode until the display • shows the message P1.

02 • Press button A as many times as necessary until P7 appears.

03 • Press the P button again for 2 seconds until the display shows the current time.

04 • Use the A and D buttons to select the desired pedestrian opening time: 01 to 10 seconds. Selecting 00 disables the partial aperture.

05 • Press the P button for 2 seconds to confirm the function you have set and return to standby mode (--).