

**scs sentinel**

MVE0100 OpenGate  
1 Automation Kit For  
Swing Gate



# scs sentinel MVE0100 OpenGate 1 Automation Kit For Swing Gate Instruction Manual

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**scs sentinel MVE0100 OpenGate 1 Automation Kit For Swing Gate**



## SAFETY INSTRUCTIONS

- **WARNING:** Important safety instructions. It is essential to follow these instructions for reasons of & personal safety. Keep these instructions in a safe place.
- **WARNING:** Important safety instructions. Follow all instructions carefully as improper installation may result in serious injury. This product is only designed for the automation of a swing gate for «residential» use. The power supply installation must comply with current standards in the country where the product is installed (NF C 15-100 for France) and be carried out by qualified staff. A means of disconnecting all the poles of the supply network must be provided. This device must be connected directly to the supply terminals and have a contact separation distance on all poles to ensure complete disconnection by the installation rules. The main supply must be protected against overload by a suitable trip switch and an earth leakage circuit breaker.
- **CAUTION:** The motorized system must be disconnected from its power source during installation, cleaning, maintenance, and parts replacement. Installation requires qualified staff with mechanical and electrical skills.
- Make sure that the temperature range indicated on the motorized device is suitable for the installation's location.
- Only original parts should be used to replace or repair the motorized system.
- Before installing the motorized device, check that the driven part is in good mechanical condition, properly balanced, and opens and closes correctly.
- The motorized device cannot be used with a driven part incorporating a side gate.
- Ensure that crushing caused by the opening movement of the driven part is avoided between the driven part and the surrounding fixed parts.
- After installation, ensure that the mechanism is properly adjusted and that the protection system and any manual disconnection devices function properly.
- Activation of the manual disconnection device may cause uncontrolled movement of the driven part due to mechanical failure or loss of balance.
- Frequently examine the installation for imbalance where applicable and signs of wear or damage to cables, springs, and mounting. Do not use if repair or adjustment is necessary.
- This appliance may be used by children at least 8 years old and by people with reduced physical, sensory, or mental capabilities or without experience or knowledge if they are properly supervised or instructed in the safe use of the appliance, and if the risks involved have been understood. Children should not play with the

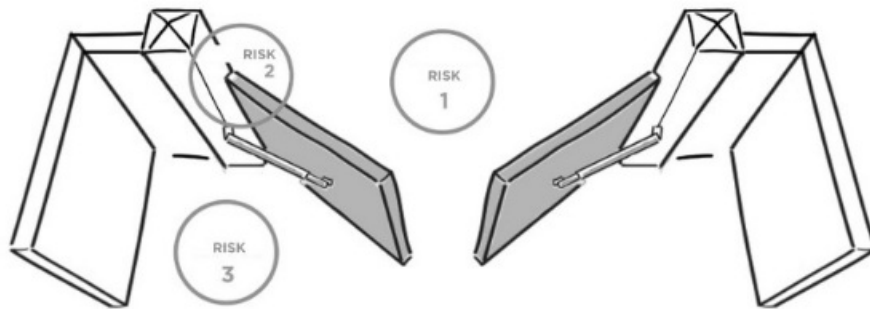
appliance. The user's cleaning and maintenance must not be carried out by unsupervised children.

- Do not allow children to play with the unit or its controls, including remote controls.
- Permanently attach the label for the manual disconnection device to the operating element of this device.

Only use the remote control when you have a complete view of the gate. If in any doubt, do not operate the system, as it could be damaged.

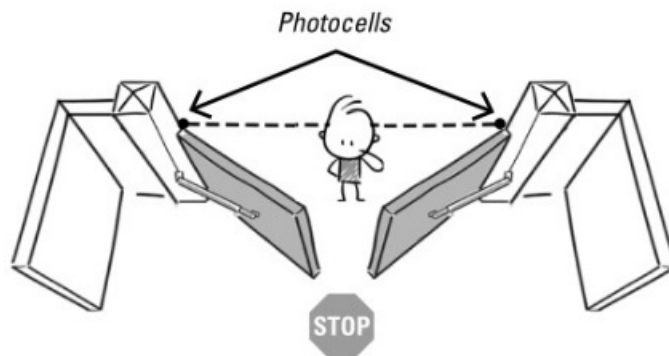
**SCS SENTINEL** certifies that its swing gate operators for residential use comply with European standards and safety regulations for swing gate operators (EN 60335-2-103). The use of this product outside the specified conditions or the use of components or accessories not recommended by SCS SENTINEL may compromise the safety! Prupen and persons, and is therefore prohibited. SCS SENTINEL accepts no liability for any damage resulting from failure to comply with the instructions provided in this manual.

**Potential risks** There are 4 potential risks 3 zones identified opposite:



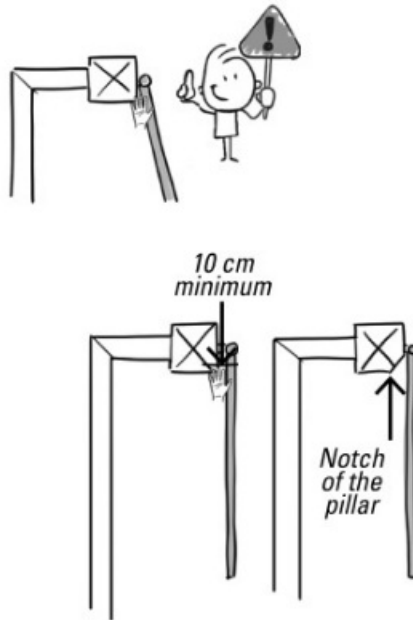
### Shock and crushing Prevention

- Obstacle detection by motor.
- Use of photocells.



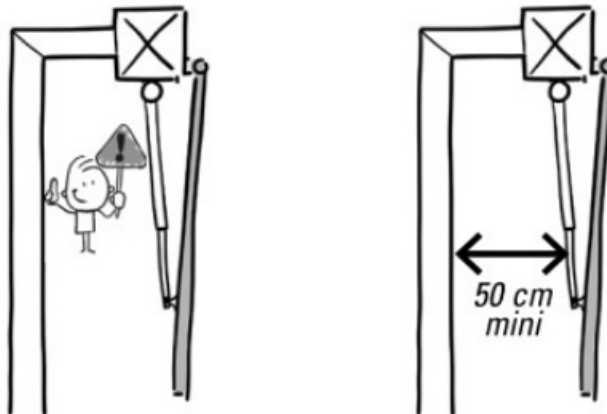
### Risk 2 : Hand crushing Prevention : 1

- Leave a minimum distance of 10 cm between the leaf and the pillar/wall.
- Notch the corner without pillar weakening it.



### Risk 3 : Imprisonment and crushing Prevention :

- Obstacle detection by the motor.
- Leave a minimum distance of 50 cm between the motor arm and the wall (or other fixed part).



### Risk 4 : Crushing of the feet



### Prevention :

- To avoid a danger zone for feet, leave a minimum distance of 12 cm or a maximum of 5 mm between the

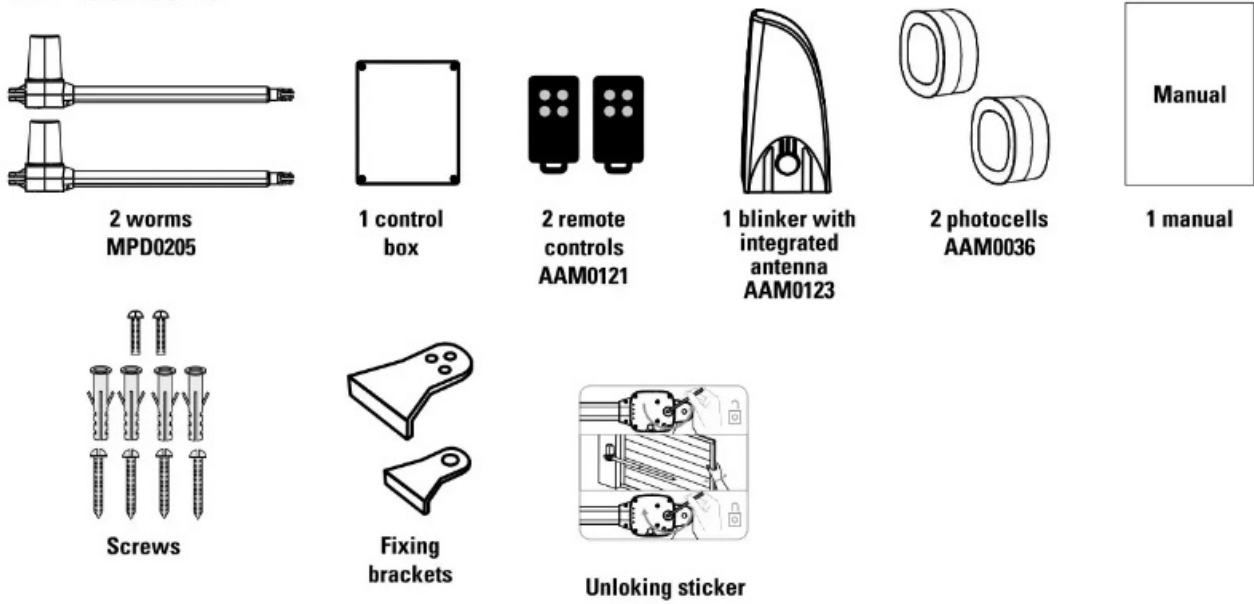
bottom of the leaves and the floor.



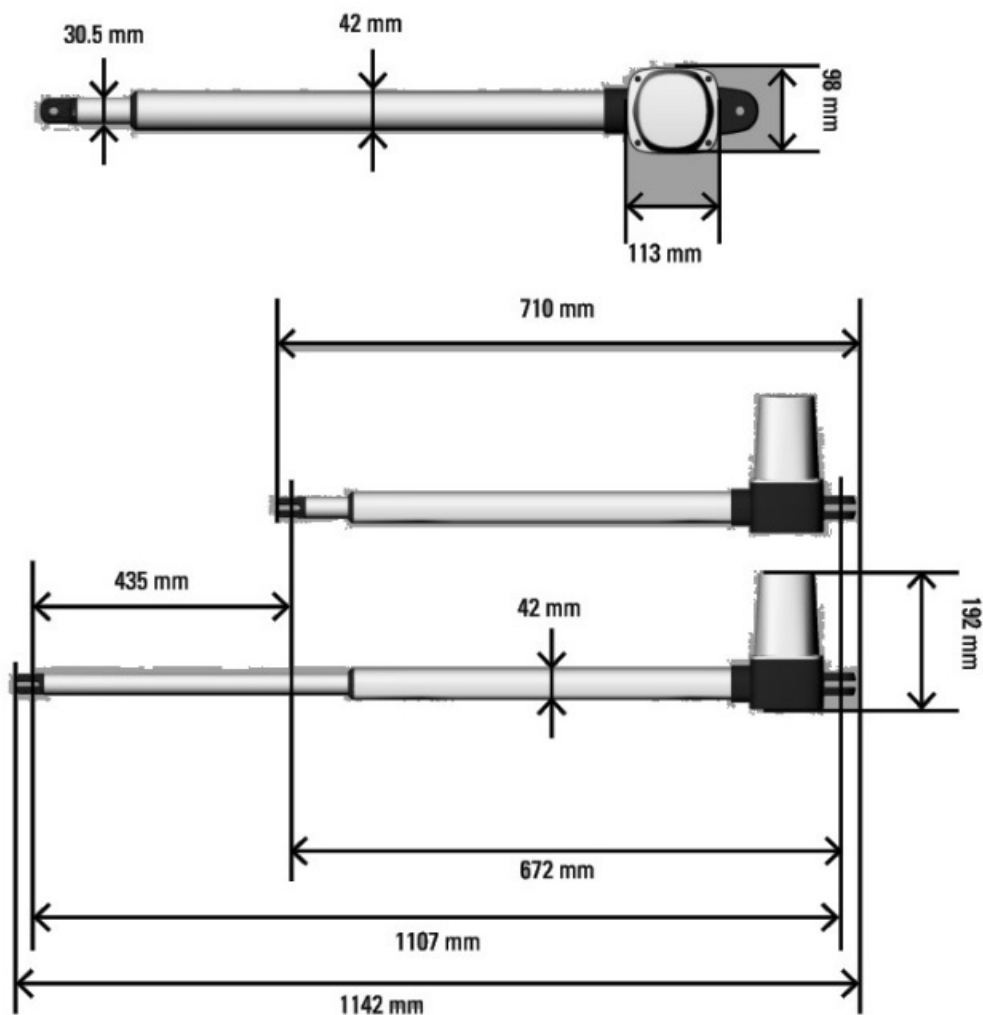
DESCRIPTION

B1- Content

B1- Content

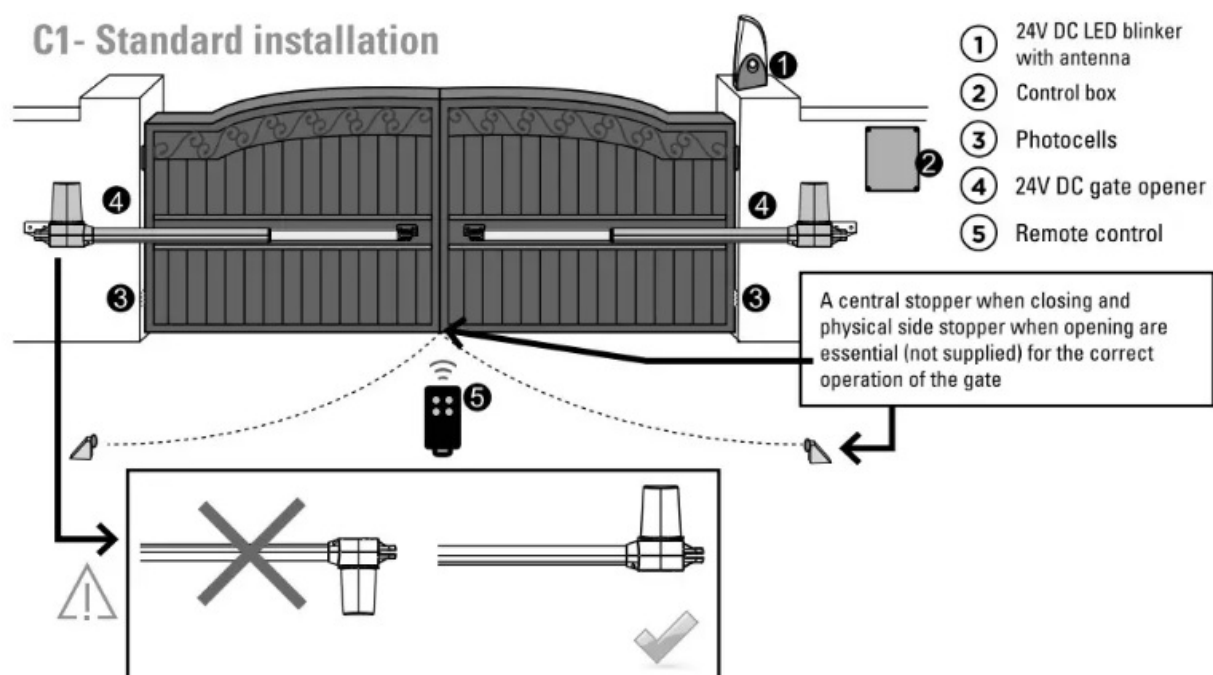


B2- Dimensions



## WIRING / INSTALLING

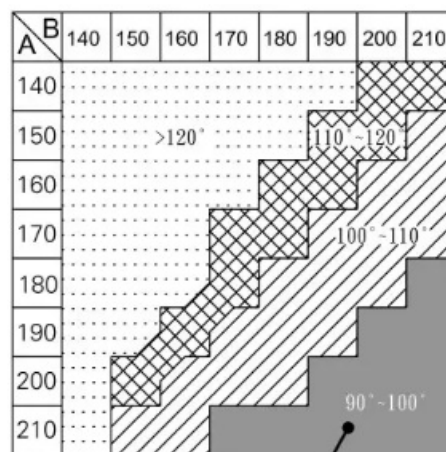
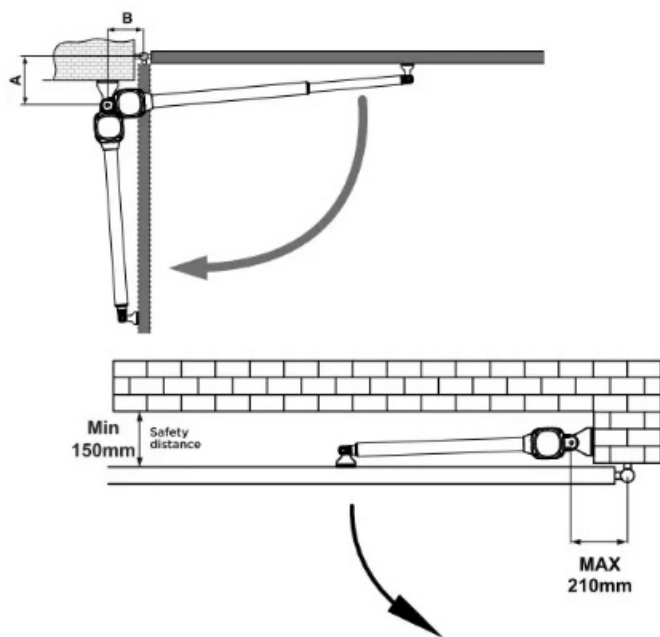
### Standard installation



**C2- Dimension chart** Comply with the measures shown on the chart for proper installation. Adjust the gate structure to fit it for best automation, if necessary. Before proceeding with the installation, be sure that gate moves freely and that:

1. Hinges are properly positioned and greased.
2. No obstacles in the moving area.
3. No frictions between two gate leafs or with the ground while moving

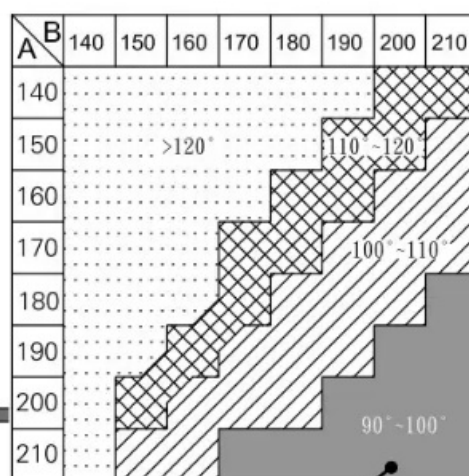
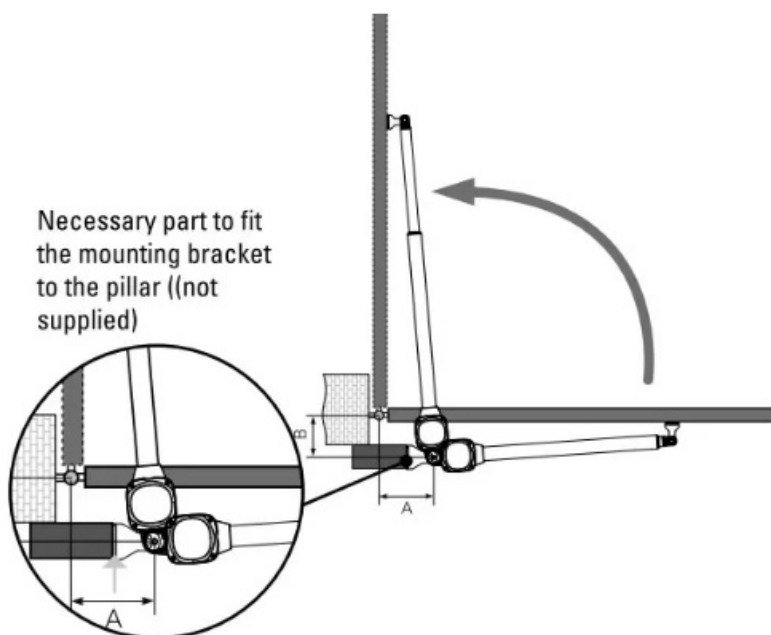
#### inside opening – installation with closed gate



ideal fitting dimensions

#### Outside opening – installing with open gate (max 90°)

**Warning !** With outside opening, it is imperative to install a blinker on pillar for security reasons. For an external opening, it will be necessary to manufacture a metal part in order to offset the motors, it is then **IMPERATIVE** to respect the dimensions of installation indicated in the table.

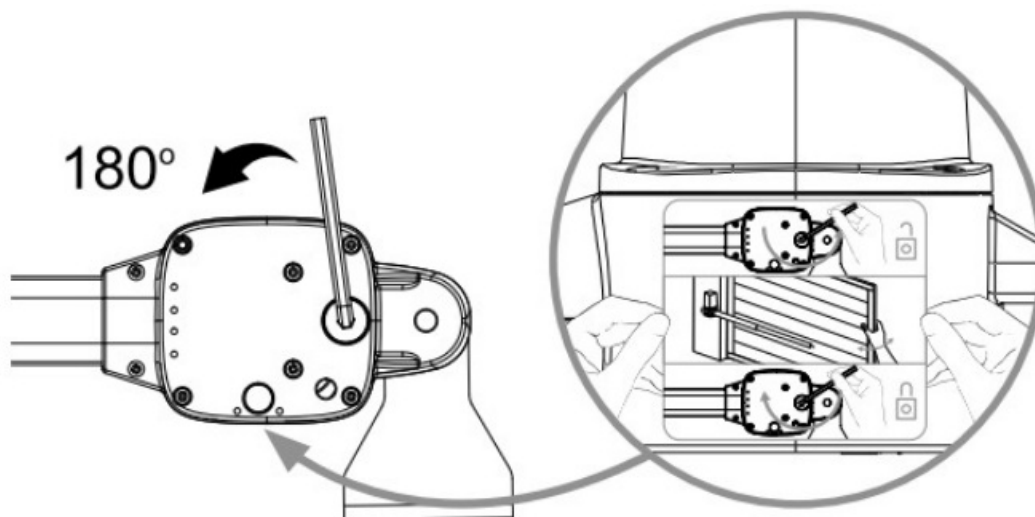


ideal fitting dimensions

#### Emergency release

In case of power failure or to program your automatic gate, you can manually unlock the engines: Under the gate.

Insert the hex wrench for unlocking and then turn anti-clockwise 180 degrees. You can now open the gate by hand. To lock again the engine, insert the hex wrench for locking and then turn clockwise 180 degrees.



Permanently attach the label for the manual disconnection device to the operating element of this device.

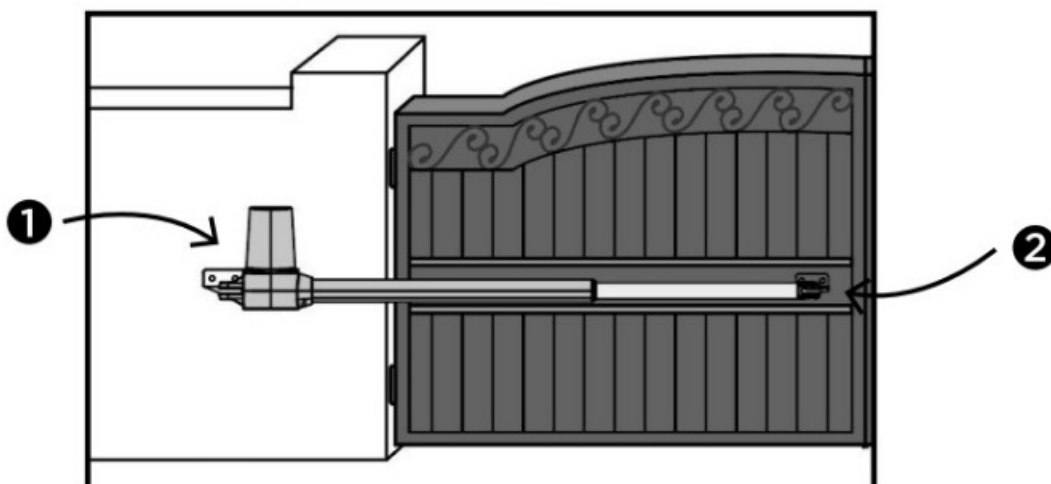
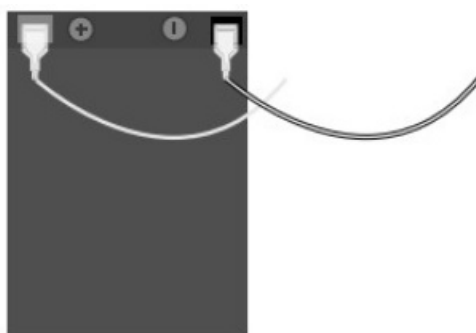
#### C4- Motor fixing

Before placing the arm on the gate, unlock the arm (C3) and take out the tub from the cylinder. Then, retract the

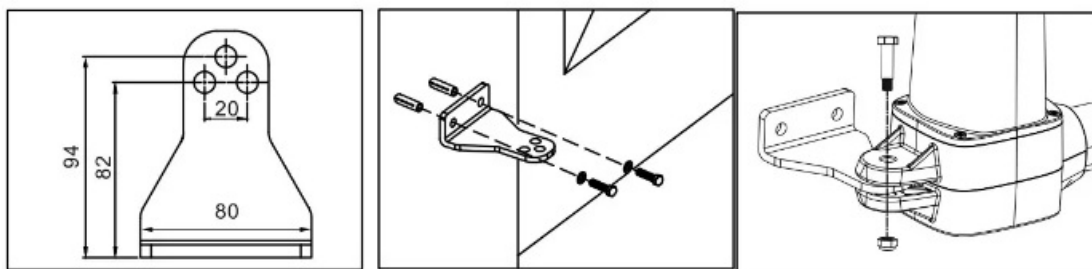


tube by 3 cm (this ensures that the gate is locked when closed).

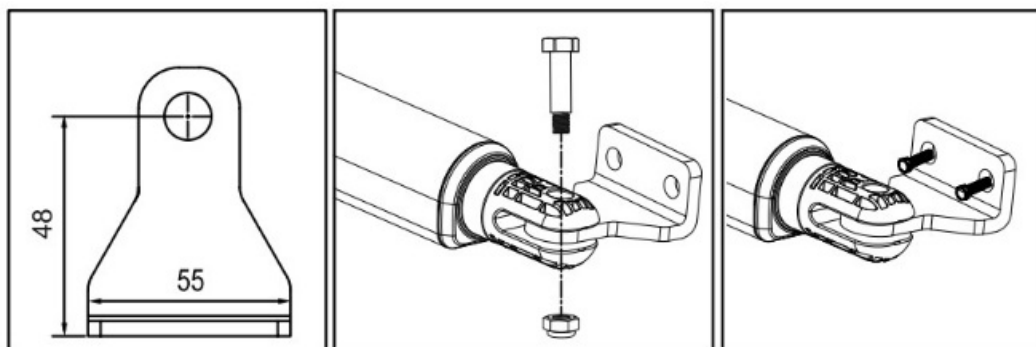
**Tip** If you have problems unlocking your motor, you can use a battery. Simply connect the white and yellow motor wires, one way or the other following the polarity to operate the motors.



1. Fix the first bracket to the pillar. Position the automation in the bracket, then place the screw and nut.

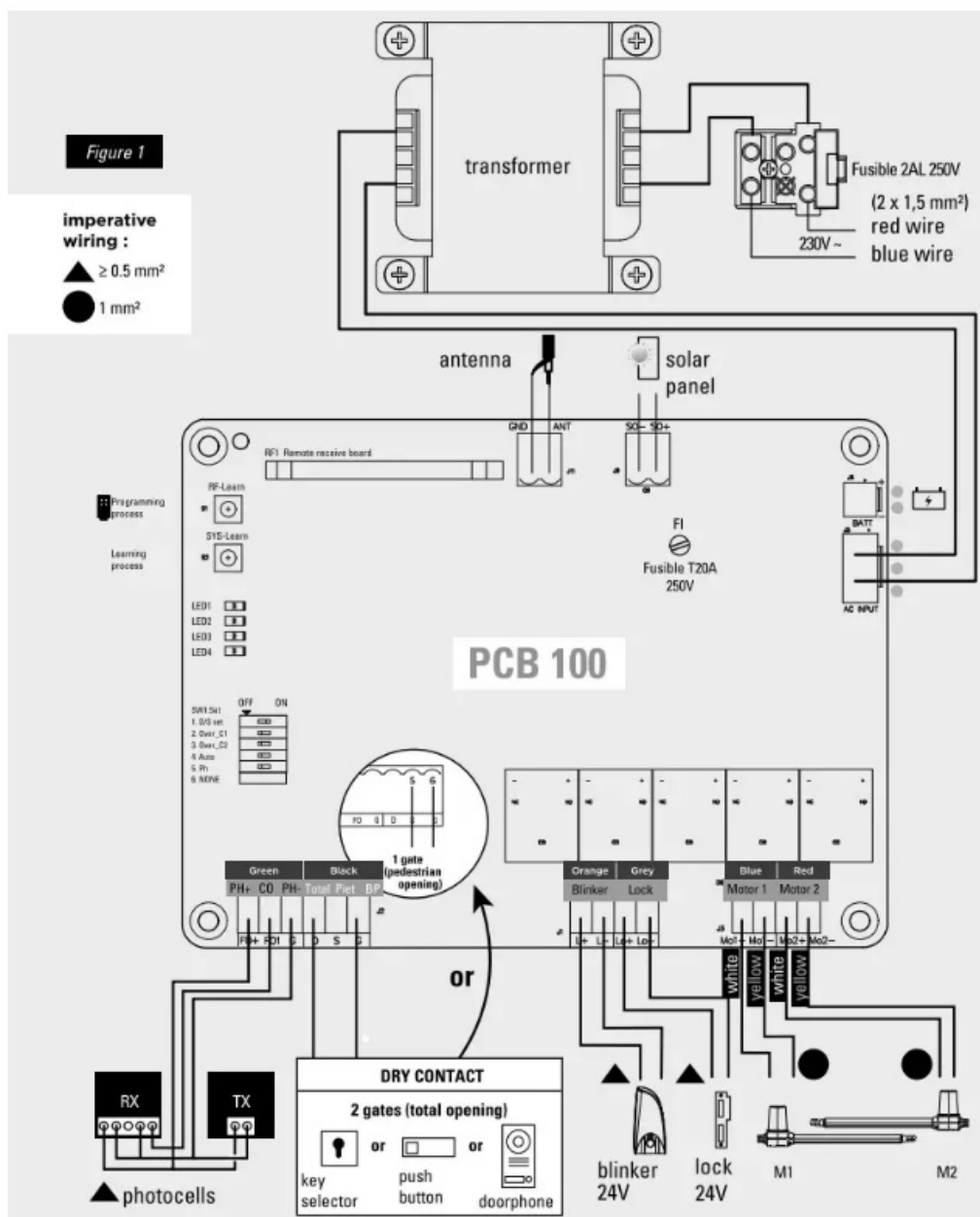


2. Assemble the second bracket with the other side of the automation and screw the bracket to the closed gate.



Make sure arms are fixed in horizontal position especially in those positions: 1) Gate in « CLOSE » position 2) Gate in « OPEN » position 3) Gate at « 45° angle » position Prior to weld the bracket on the gate leaf (if necessary), cover the gate opener to prevent damages from sparks.

### Wiring diagram



## Installing

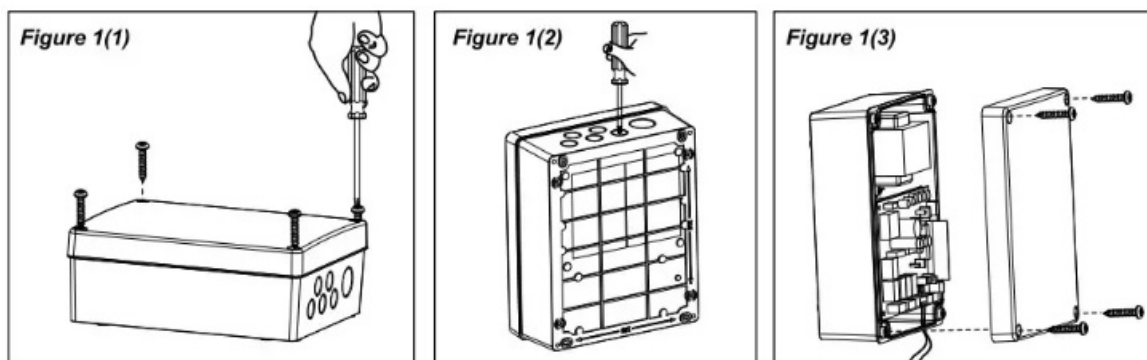
Prepare all the wires of the accessories beforehand and connect the wires to the gear motors and accessories on the PCB as shown in Figure 1. All of the wiring connections of the accessories are not requested to distinguish the positive (+) and the negative (-) polarity.

**Control box BEFORE INSTALLATION** Decide the installation position of the control box first, it is suggested to be installed near the gate and should be protected from possible damage. Be aware of the motor cable length before deciding the installation position of the control box.

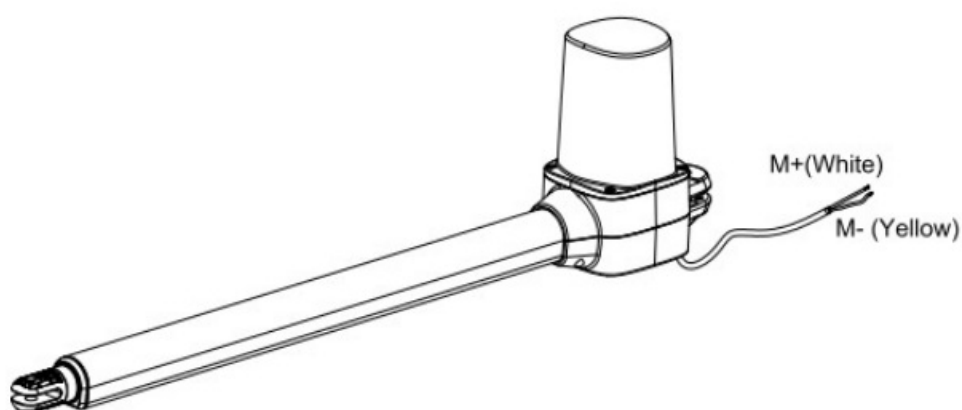
## PRE-INSTALLATION

1. Remove the cover by unscrewing the four screws on the cover. See Figure 1(1).
2. Use a screwdriver to puncture the holes beneath the bottom of the control box. See Figure 1(2).
3. Fix and secure your electronic box on the wall.
4. Connect the wires of the various devices to be connected to the PCB board (devices described on the following pages)
5. Seal the holes of cable entries

6. Close the box by tightening the 4 screws. (See Figure 1(3))

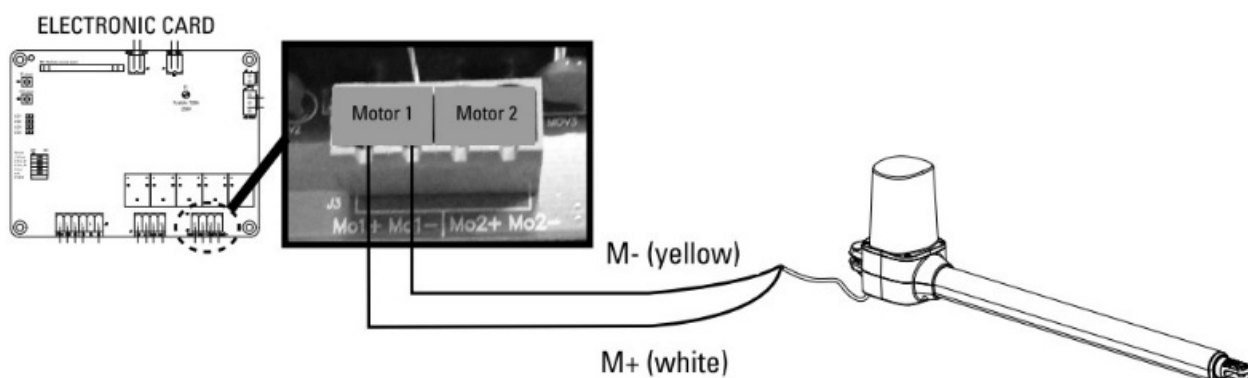


## Motor MOTOR – WIRE CONNECTION

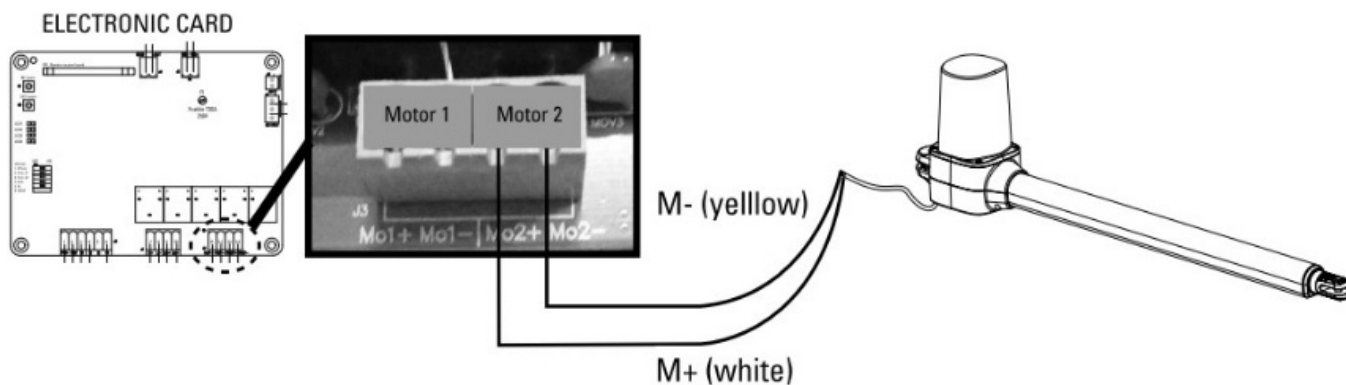


Avoid tension in the cable during open and close phase. For gates opened outward: M1 Motor : Connect the motor wire (Yellow -) to the terminals Mo1 + and (White +) to the terminals Mo1-. (motor opening in first) M2 Motor : Connect the motor wire (Yellow -) to the terminals Mo2 + and (White +) to the terminals Mo2 -.

## M1 MOTOR CONNECTION (first opening motor)

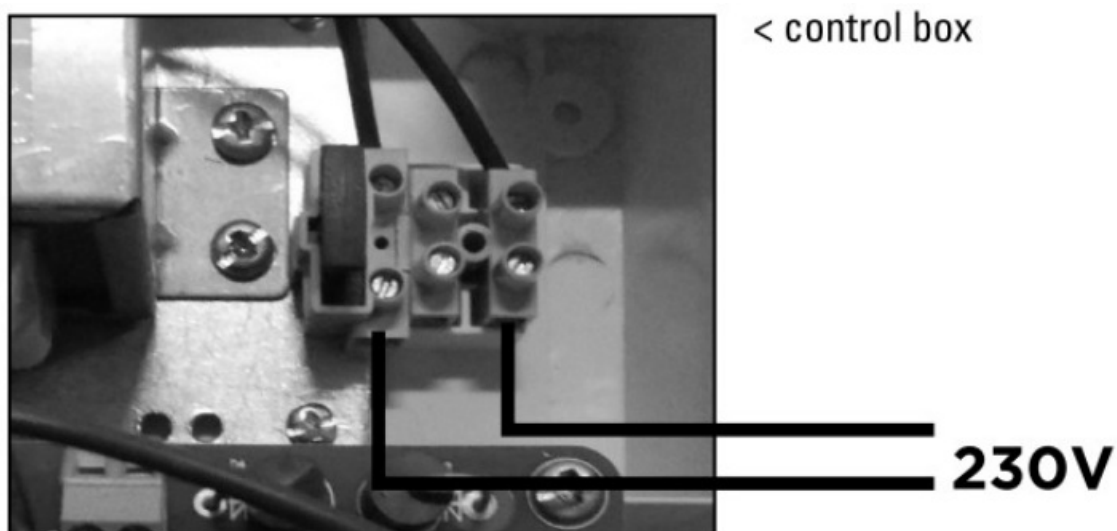


## M2 MOTOR CONNECTION (second opening motor)



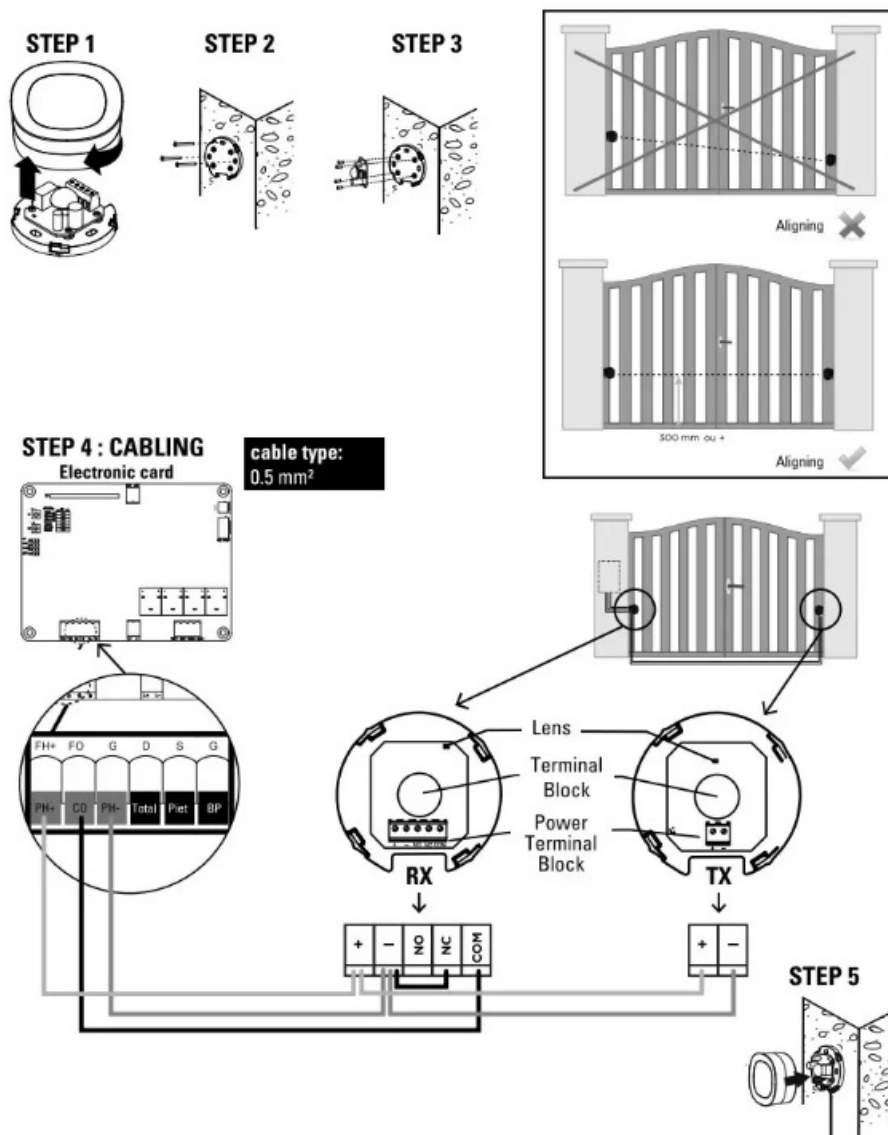
### Electric Lock (option)

Connect the two wires from the electric lock (24V) to the terminal Lo + and Lo- on the PCB. Wiring to 230V power supply



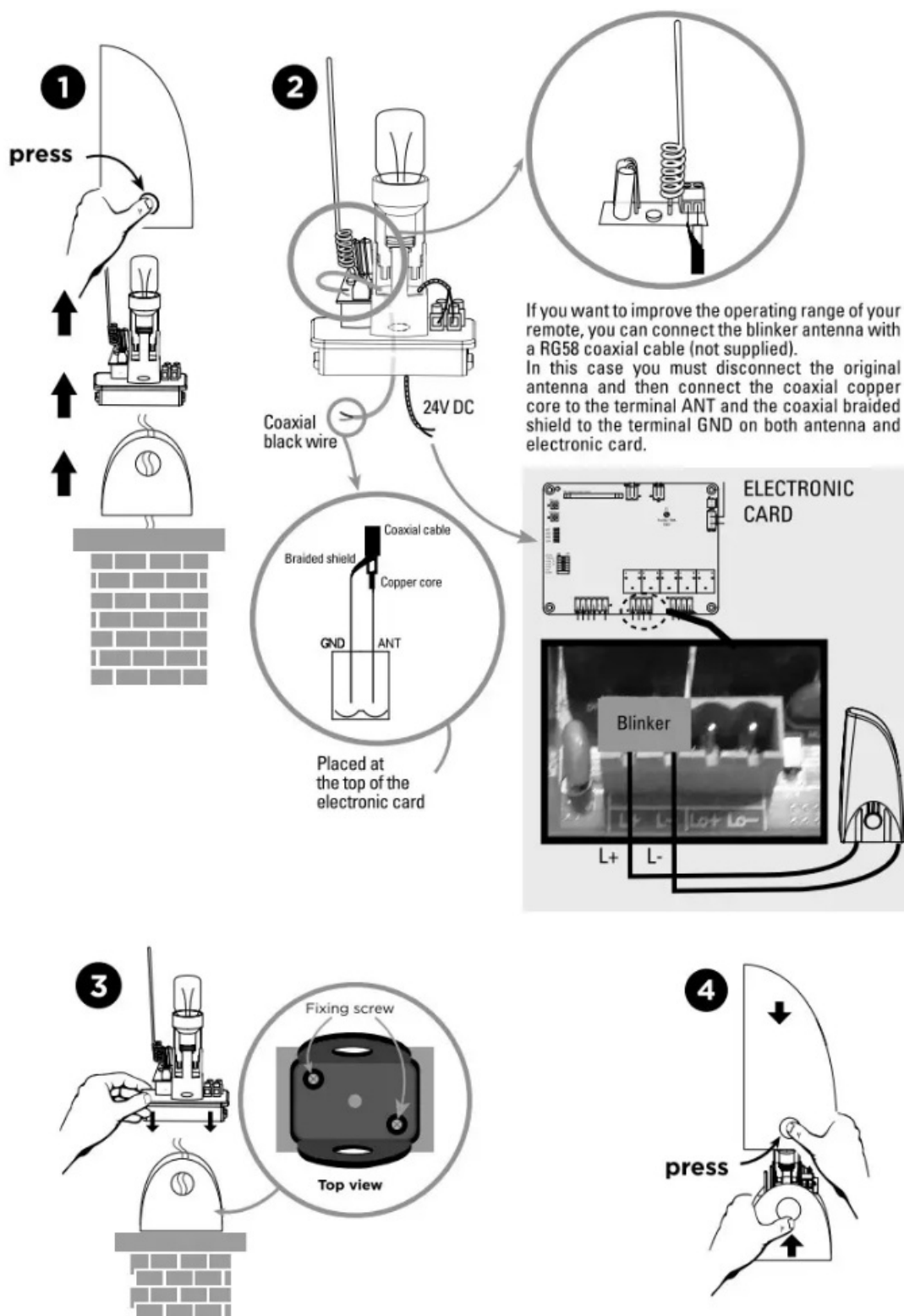
### Photocells

The photocells are safety devices for control automatic gates. Consist of one transmitter and one receiver based in waterproof covers; it is triggered while breaking the path of the beams. If an obstacle is detected, the gate stops and opens again slightly allowing the obstacle to be released safely.



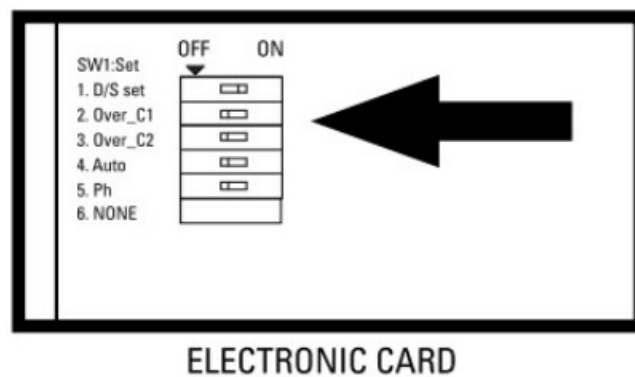
## Blinker

Remove any packaging before connecting.



## SETTING/USING

D1- Single/double gate setting (dip switch 1)

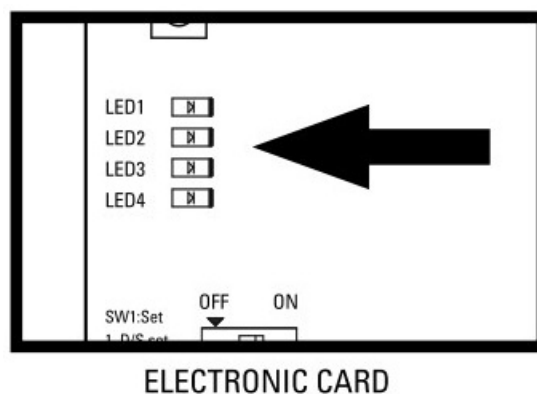


Switch settings: «on right position, «off left position. DIP SWITCH 1 D/S set: ON = double gate operation OFF = single gate operation (connection on 11 and 12)

## D2- Power setting (dip switch 2 et 3)

DIP SWITCH (OVER C1)	DIP SWITCH (OVER C2)	CURRENT (AMP)
DIP switch 2 OFF	Dip switch 3 OFF	5A
DIP switch 2 OFF	Dip switch 3 ON	4A
DIP switch 2 ON	Dip switch 3 OFF	3A
DIP switch 2 ON	Dip switch 3 ON	2A

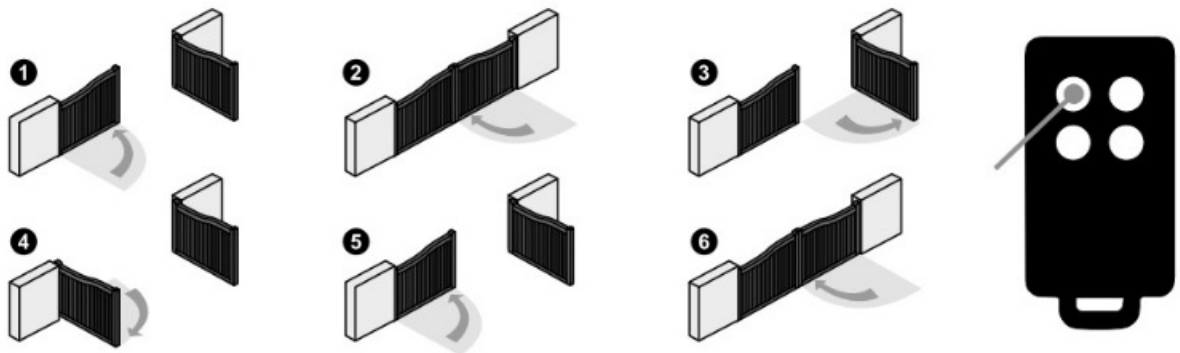
- **D3- Gate auto-close adjustment (dip switch 4) DIP SWITCH 4 «ON »:** Active automatic closing in 30 seconds. Simultaneously pressing the two remotes' top keys (opened or closed gate) will turn OFF the automatic mode (the blinker will flash 3 times as confirmation). Repeat the operation to turn ON the automatic mode (the blinker will flash 3 times as confirmation). Note in case of automatic closing, photocells are required. «OFF »: Automatic closing OFF (caution it will still be possible to turn ON with the remote)
- **D4- Photocell adjustment (dip switch 5) DIP SWITCHES:** ON: Photocells ON. When the photocells detect an obstacle while the gate is closing, the gate stops and opens for 2 seconds. If the gate auto-close is adjusted, and the photocells detect an obstacle when the gate is totally opened, then the closing time will be reset. OFF: No detection by the photocells, the photocells will not control the opening of the gate.
- **D5- Dephasing of the leaves (dip switch 6) ':**
- **DIP SWITCH 6:** ON:: Dephasing in closing/opening of 8 seconds. OFF: Dephasing in closing/opening of 3 seconds.
- **D6- Deceleration speed** The speed is 70% output of the full speed (no adjustment possible).
- **D7- LED indication**



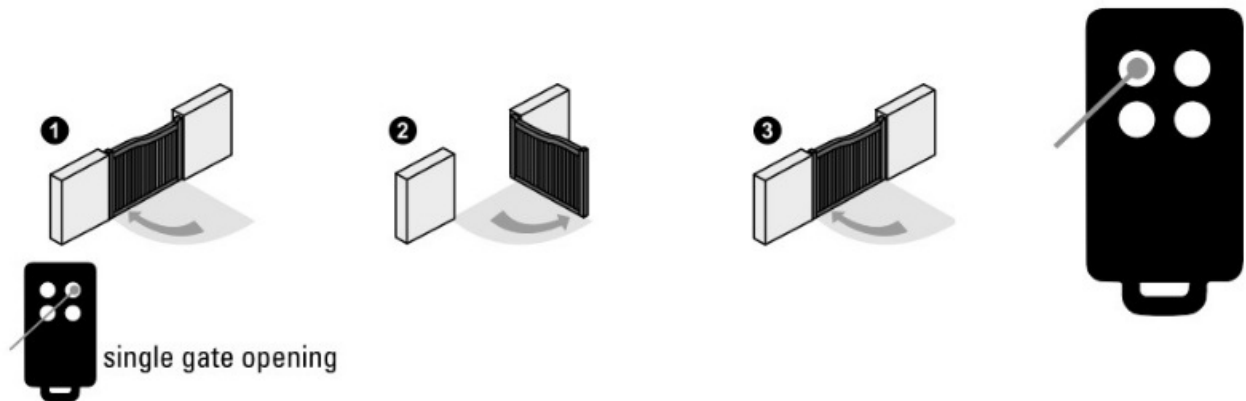
- **LED 1 RF indicator: radio frequency** LED1 will be on when remote controls are activated.
- **LED 2 System learning:** LED 2 blinks twice per second during normal operation and once per second during

learning. Static LED2 means incorrect programming.

- **LED 3 Photocells:** LED 3 will be on when photocells are not aligned. bLED 4 will be on if the switch of the transmitter, key selector, or push button is activated.
- **D8- Remote controls learning process** Press the “RF-learn” button for 2 seconds, and the LED1 will be on; then press the transmitter top left button. The LED1 will blink twice and stay on for 10 seconds then be off. And the remote memorize has been completed.
- **D9- System learning process for double leaf gate** The remote control memory storing operation must be over before starting the final system learning process. Let your gate totally open then lock them (part C3) Press «SYS-learn» (until the LED2 light begins to flash once every second, instead of twice every second as it normally would), then press the upper-left key for a double gate. The system learning process will be as follows, step by step:



After step 6, the system learning process is complete. You can use it with the remote control: double gate full opening pedestrian opening (single gate) The LED2 light will remain ON until the system learning process is not over. Check the wiring connection and repeat the step. **D10- System learning process for single leaf gate** Switch 1 OFF. Open the leaf totally. Press «SYS-learn» (until the LED2 light begins to flash once every second, instead of twice every second as it normally would), then press the upper-right key for a single gate. The system learning process will be as follows, step by step:



<b>Motor</b>	<b>24V DC motor with manual release</b>
Gear type	Worm gear
Stroke length	435mm
Power supply	24V DC
Maximum gate weight / Maximum gate length	150 kg / 1,6 m per leaf
Operating Temperature	-20°C~+50°C
Dimension	710 mm x 98 mm x 192 mm
<b>Blinker</b>	
<b>Antenna included</b>	<b>YES (coaxial cable not supplied)</b>
Bulb	LED E14 24V 1W (supplied)
Power cable	2x 1 mm <sup>2</sup> (not supplied)
Bulb connection	Unpolarized at the electronic card connection.
Screws	included
Do not supply 230V	
Operating temperature	-20°C~+50°C
Dimensions	74 x 167 x 59 mm

## Remote controls

<b>Channels</b>	<b>4</b>
Frequency - Maximum transmitted power	433.92 MHz - power < 10mW
Power supply	1 battery lithium CR2032 included
Security	rolling code technology

## Photocells

<b>Detection Method</b>	<b>Infrared Beam</b>
Sensing Range	MAX~10m
Input Voltage	12~24V AC/DC
Response Time	<100ms
Operation Indicator	RX: Red LED On (beam broken) / Off (beam aligned) TX : Red LED On
Dimensions	63 x 63 x 30 mm
Output Method	Relay Output

## MAINTENANCE

**F1- Motor** Conduct the following operations at least every 6 months. If in high intensity of use, shorten the period in between.

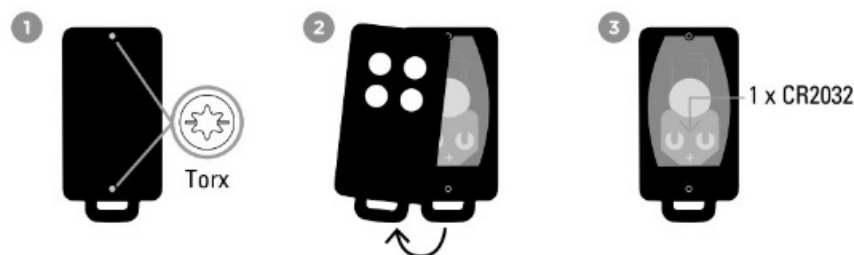
### Disconnect the power supply:

1. Clean and lubricate the screws, the pins, and the hinge with grease.
2. Check the fastening points are properly tightened.
3. Make sure the wire connections are in good condition.

### Connect the power supply:

1. Check the power adjustments.
2. Check the function of the manual release.
3. Check the function of photocells or other safety device.

## F2- Remote control

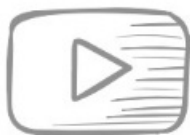


## TECHNICAL ASSISTANCE

### Troubleshooting

Problem	Solutions
Overheated Back-up Batteries	Check the wiring connection of the batteries.
The gate doesn't move when pressing the button of the transmitter	1. Check if LED1 is "ON" once press the transmitter. 2. Check if the voltage of the batteries is above 25V. 3. Check if LED2 is "ON" and blinks accordingly. 4. Make sure all the wiring connections are firmly connected to the terminals on the PCB. 5. Make sure the fuse is workable, on the panel and power socket.
The transmitting distance is too short	Make sure the connecting terminals of the Antenna is firm. Check the battery on the transmitter.
The Flashing light does not work	Unscrew and screw in the bulb. Check if the wiring connection of the flashing light is correct.
The leaves suddenly stop during moving. The leaves do not move or only move toward one direction.	1. Check if the gate can be moved freely and no obstacles in between. 2. Make sure the wiring connection of the gear motors is firm. 3. Make sure the safety beam are operating properly if installed. 4. Cut off the power of the engine. Release the motor and make sure the gate can move freely.
The master gate closes to the end first and the slave gate stops, which the opening or closing sequence is not being operated properly.	1. Check if the gate can be moved freely and no obstacles in between. 2. Make sure the wiring connection of the gear motors is firm. 3. Make sure the fuse is workable. 4. Make sure the safety beam are operating properly if installed. 5. Cut off the power of the engine. Release the motor and make sure the gate can move freely.
The gear motors do not run and the relay is noisy when operating the gate opening and closing.	Check the condition fuse.
No remote control connection	1. Check LED1 is blinking when pressing the remote control key. 2. Check RF1 receiver is ok. 3. To check that the remote control is associated when the remote control is pressed, LED 1 and LED 4 must light up. 4. If the LED flashes for 1 second when the remote control is pressed, the battery must be changed. 5. Remove and replace the plug-in receiver.
4 steps instead of 6 when teaching	Reverse polarity on all motors.

## G2- Tutos



[https://www.youtube.com/playlist?list=PLhdc503NdLNZL\\_IPdBdLh34hrIYLYmiNj](https://www.youtube.com/playlist?list=PLhdc503NdLNZL_IPdBdLh34hrIYLYmiNj)

## G3- Online chat Any questions?

For an individual answer, use our online chat on our website [www.scs-sentinel.com](http://www.scs-sentinel.com)

## WARRANTY



SCS Sentinel grants to this product a longer warranty period, beyond the legal time, as a sign of quality and reliability. The ice will be required as proof of purchase date. Please keep it during the warranty period. Carefully keep the barcode and the proof of purchase, which will be necessary to claim a warranty.

### Are never covered by our warranty

- Damage resulting from the consequences of a bad installation (bad wiring, reverse polarity ..).
- Damage resulting from improper use of the device (use in contradiction with the manual) or its modification.
- Damage resulting from the consequences of the use of components not from SCS SENTINEL.
- Damage due to lack of maintenance, and physical shock.
- Damage due to weather: hail, lightning, strong wind, etc.
- Returns are made without a copy of the invoice or receipt.

## WARNINGS

Don't throw batteries or out-of-order products with the household waste (garbage). The dangerous substances that they are likely to include may harm health or the environment. Make your retailer take back these products or use the selective collection of garbage proposed by your city. Do not ingest battery, Chemical Burn Hazard. This product contains a button-cell battery. If the button cell battery is swallowed, it can cause severe internal burns in just 2 hours and can lead to death. Keep new and used batteries away from children. If the battery compartment does not close securely, stop using the product and keep it away from children. If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention. Do not clean the remote control with abrasive or corrosive substances. Use a simple cloth. Do not allow children to play with the product or packaging. When replacing the battery, use a battery with the same characteristics as the one supplied with the product. Remove the batteries from the equipment if it is not to be used for a prolonged period, except in emergencies. Batteries must not be exposed to excessive heat or thrown into a fire.

## DECLARATION OF CONFORMITY

SCS Sentinel hereby declares that this product s in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU and Directive 2006/42/EC. The Declaration of Conformity can be found at: [www.scs-sentinel.com/downloads](http://www.scs-sentinel.com/downloads) All the information on:



[www.scs-sentinel.com](http://www.scs-sentinel.com)



<https://www.youtube.com/c/Scs-laboutique> 110, rue Pierre-Gilles de Gennes 49300 Cholet – France

## Documents / Resources

	<p><a href="#">scs sentinel MVE0100 OpenGate 1 Automation Kit For Swing Gate</a> [pdf] Instruction Manual MVE0100, MVE0100 OpenGate 1 Automation Kit For Swing Gate, OpenGate 1 Automation Kit For Swing Gate, Automation Kit For Swing Gate, Swing Gate, Gate</p>
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## References

- [User Manual](#)

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