

SIMPLE MOVE 102

EN

Installation and operation guide



Table of contents

Safety precautions	3	3 Accessories wiring	29
Product description	12	3.1 Photocells (optional)	29
- Contents of the complete kit	12	3.2 Orange light (optional)	29
- Dimensions	13	3.3 Battery (optional)	30
- Scope of application	13	3.4 Independent antenna (optional)	30
- General overview of the installation	13	3.5 Video door phone (optional)	31
- Presentation of the electronic control system	14	3.6 Key switch (optional)	31
Prerequisites for installation	15	3.7 Zone lighting (optional)	31
- Gate inspection	15	3.8 Solar energy power supply (optional)	32
- Stops on the ground	15	4 Advanced parameter settings	33
- Drive unit location	15	4.1 Opening for pedestrian entry	33
- Preliminary electrical system	15	- Operation of opening for pedestrian entry	33
- Required conductors	16	- Activating of opening for pedestrian entry	33
- Vertical setting	17	- Deactivating of opening for pedestrian entry	33
- Concrete foundations	17	4.2 Automatic closing	34
- Tools required for assembly (not provided)	18	- Automatic closing operation	34
1 Assembly	19	- Enabling automatic closing	34
1.1 Screw assembly	19	- Deactivating automatic closing	35
1.2 Drive fastening	19	4.3 Gate opening speed	36
1.3 Toothed bar installation	20	- Scope of application	36
1.4 Mechanical adjustment	22	- Setting slow speed	36
1.5 Drive wiring	23	- Setting slow speed (continued)	37
1.6 Connecting to the 230 V power supply	24	- Returning to standard speed	37
1.7 Earthing of the electronic control system	25	5 Programming the remote controls	38
1.8 Position of the electronic control system antenna	25	55.1 Presentation of the remote controls	38
2 Start-up and standard use	26	- Possibilities for programming the 2-button remote control	38
2.1 Turning the installation on	26	- Possibilities for programming the 4-button remote control	39
2.2 Gate track self-learning	26	- Use of the 3-button remote control	39
2.3 Standby / reactivation of the electronic control system	27	5.2 Adding a remote control	40
2.4 Plugging the holes	27	- 2 or 4-button remote control	40
2.5 Shield assembly	27	- 3-button remote control	40
2.6 Complete opening and closing of the gate	28	5.3 Deleting a remote control	40
2.7 Obstacle detection	28	6 Troubleshooting	41
		6.1 Support	41
		6.2 Replacing the remote control battery	41
		6.3 Deleting of settings	42
		6.4 Diagnostics	43
		7 Technical specifications	44

Please read the safety instructions below very carefully as well as the installation and operation guide before installation and use of this product.



This symbol indicates a risk, the different degrees of which are described below.



DANGER

Indicates a risk which could result in immediate death or serious injury.



WARNING

Indicates a risk which could result in death or serious injury.



CAUTION

Indicates a risk which could result in a minor or moderate injury.



IMPORTANT

Indicates a danger which could result in damage to or destruction of the product.



DANGER

The drive unit must be installed and adjusted by a professional mechanical equipment and home automation installation engineer, in compliance with the regulations of the country, where it is to be used. To meet the requirements of standards EN 13241-1, EN 12445 and EN 12453, the installation engineer must follow the instructions in this guide throughout the installation procedure. Failure to follow these instructions could result in serious injury, e.g. being crushed by the gate.



WARNING

INFORMATION ABOUT RISKS – Important safety instructions. For reasons of personal safety, it is extremely important to follow all the instructions, as incorrect installation can lead to serious injury. Retain these instructions.
The installation engineer must train all users to ensure the drive unit is used in a completely safe manner, in accordance with the operating manual.
The installation and operation guide as well as the safety instructions must be given to the end user. Installation, adjustment and maintenance of the drive unit must be performed by a professional mechanical devices and home automation installation engineer.

1. Important information

This drive unit is compliant with EN 60335-2-103. These instructions are, above all, designed to meet the requirements of the aforementioned standards, thus ensuring the safety of people and property.

WARNING

Any use of this product outside the scope of application described in this guide is prohibited (see the "Scope of application" paragraph in the manual).

The use of any accessories or any components not recommended by Polargos is prohibited because they could pose a threat to users.

Polargos will not be liable for any damages resulting from failure to follow the instructions in this guide.

If there are any doubts when installing the drive unit or to obtain additional information, please visit the website www.polargos.pl.

These instructions may be modified in case of a change to the standards or parameters of the drive unit.

2. Condition of the gate, for which the drive unit is intended

Before installing the drive unit, please check whether:

- the gate is in good technical condition
- the gate is correctly balanced
- the structures supporting the gate are strong enough to allow the robust mounting of the drive unit.
- the gate can be opened and closed manually in a correct manner using a force less than 150 N.

IMPORTANT

Do not pour water onto the drive unit.

Do not install the drive unit where there is a risk of explosion.

3. Electrical installation

DANGER

The installation of the power supply must comply with the standards in force in the country, where the drive unit is to be installed, and must be carried out by qualified personnel.

DANGER

The electrical system must be designed exclusively for the drive unit and equipped with a protection, comprising of the following components:

- a fuse or circuit breaker of 10 A;
- and a differential-type device (30 mA).

Multipolar disconnection of the power supply is to be provided.

It is recommended to install a lightning conductor (mandatory maximum residual voltage of 2 kV).

4. Laying conductors

Cables laid underground must be equipped with a protective sheath with a sufficient diameter to contain the drive conductor and the wiring accessories.

Low-voltage conductors subject to weather conditions must be at least H07RN-F type.

For the cables not laid underground, use a cable grommet that will withstand the weight of passing vehicles.

5. Safety instructions regarding assembly

DANGER

Do not connect the drive unit to a power supply (mains, a battery, or a solar set) until the assembly is complete.

WARNING

Make sure that danger zones (crushing, cutting, trapping) between the driven part and the surrounding fixed elements related to the opening movement of the driven part have been eliminated.

WARNING

Changing any element provided in this kit or using any additional element not recommended in this guide is strictly prohibited.

Monitor the gate opening or closing and keep all people at a safe distance until the assembly is complete.

Do not use adhesives to mount the drive unit.

WARNING

Manual unlocking may result in uncontrolled movement of the gate.
Place the sticker indicating the manual unlocking mechanism near the component used for quick start-up.

IMPORTANT

Install fixed control devices at a height of at least 1.5 m and within sight of the gate but away from moving parts.

After installation, make sure that:

- the mechanism is properly adjusted;
- the manual unlocking mechanism works correctly;
- the drive unit reverses operation direction when the gate encounters a 50-mm obstacle that is halfway up the gate leaf.

WARNING

For gate operation in automatic mode or if the control device is out of sight, photocells must be installed.
The automatic drive unit must operate in at least one direction with no intentional activation by the user.

For gate operation in automatic mode or if the gate opens onto a public road, installation of an orange light may be required in accordance with the regulations in the country, where the drive unit is installed.

6. Clothing recommendations

Take off any jewellery (a bracelet, chain, etc.) during assembly.

When executing any activities as well as drilling and welding operations, wear appropriate protection (special protective glasses, gloves, ear protectors, etc.).

7. Safety instructions regarding operation

WARNING

This drive unit may be used by children aged 8 and over and by persons, whose physical, sensory or mental capacity is impaired, or persons with no experience or knowledge, as long as they are under proper supervision or have received proper instructions on the safe use of the equipment and have been informed about possible hazards. Children should not play with the drive unit. Children are not allowed to perform cleaning and maintenance works, for which the user is responsible.

The sound pressure level of the drive unit is less than or equal to 70 dB (A). The noise emitted by the structure, to which the drive unit will be connected, is not taken into account.

WARNING

Every potential user must be informed by the installation engineer about the rules of using the drive unit in accordance with all the recommendations of this guide. It is essential to make sure that no untrained people can open the gate. The user must monitor the gate opening or closing and keep all people at a safe distance until the operation is complete. Never allow children to play with the gate control devices.

Keep remote controls out of the reach of children.

Do not deliberately prevent the gate from moving.

In the event of a malfunction, disconnect the power, use the emergency unlocking to gain access to the property and contact the POLARGOS technical support department. Do not try to open the gate manually if the drive unit has not been unlocked. No natural obstacles (a branch, a stone, tall grass, etc.) should obstruct the movement of the gate.

8. Safety instructions regarding maintenance

DANGER

The drive unit must be disconnected from any power supply during cleaning and maintenance as well as replacement of the parts.

WARNING

Every month, the following must be checked:

- the installation, in order to discover any signs of wear or damage to the conductors or assembly elements.
- whether the drive unit changes operation direction, when the gate encounters a 50-mm obstacle that is halfway up the gate leaf.

Do not use the drive unit if it needs repairing or adjusting. Gates in poor condition must be repaired, reinforced or even replaced after prior approval of the POLARGOS technical department.

Use only original parts for any maintenance or repair work. Any technical, electronic, or mechanical modifications to the drive unit must be performed with the approval of the POLARGOS assistance department.

If the installation is equipped with photocells and/or an orange light, clean the photocells optical components and the orange light regularly.

9. About batteries



DANGER

Do not leave batteries / plastic batteries within reach of children. Keep them out of reach of children. There is a risk that these components could be swallowed by children or pets. Risk of death! If such a situation does occur, immediately seek medical advice or go to hospital.

Take care that the batteries are not short-circuited, thrown in the fire or recharged. There is a risk of explosion.

10. Recycling and disposal of used equipment

If installed, the battery must be removed from the drive unit before its disposal.



Do not dispose of used remote control batteries or the battery with household waste, unless it is installed. They must be taken to a special recycling collection point in order to recycle them.



Do not dispose the decommissioned drive unit with household waste. Such a drive unit should be transferred to its distributor or local authority's special waste collection points.

11. Regulations

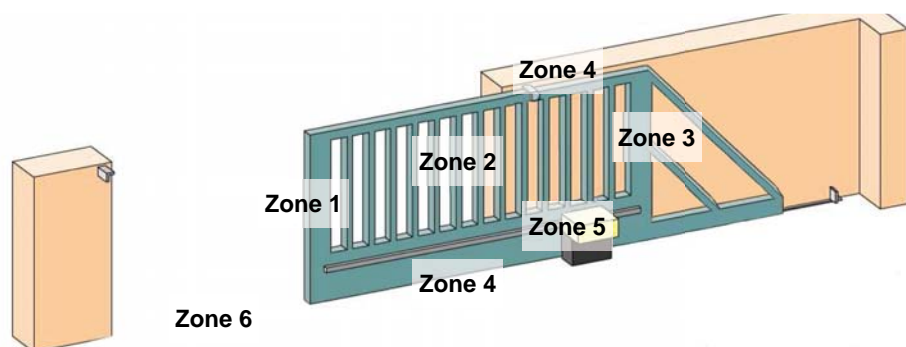


POLARGOS hereby confirms that this product conforms to the basic requirements and other relevant provisions of Directive 1999/5/CE. This Declaration of Conformity can be viewed at www.polargos.pl

This product is approved for use in the European Union and Switzerland.

12. Risk prevention

Identification of danger zones



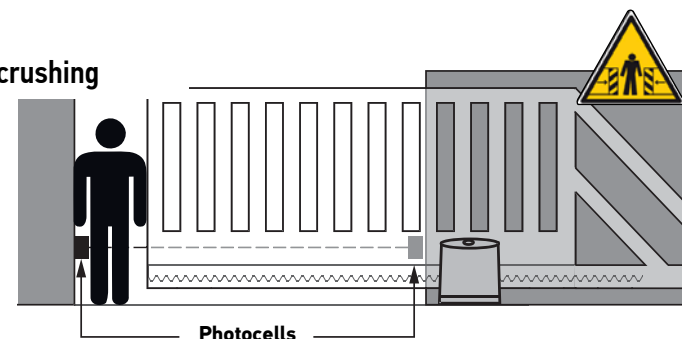
Protective measures to be taken to prevent risks

ZONE 1

Risk of impact and crushing

Solution:

Recommended installation of Photocells.

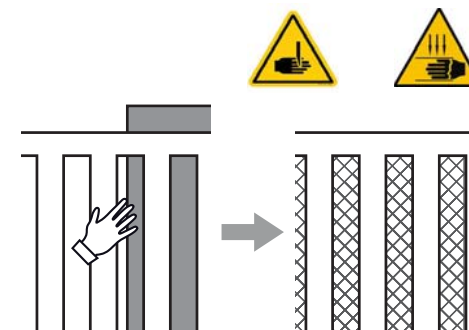


ZONE 2

Risk of trapping and cutting on the surface of the gate blade

Solution:

Detection and removal of the obstacle.



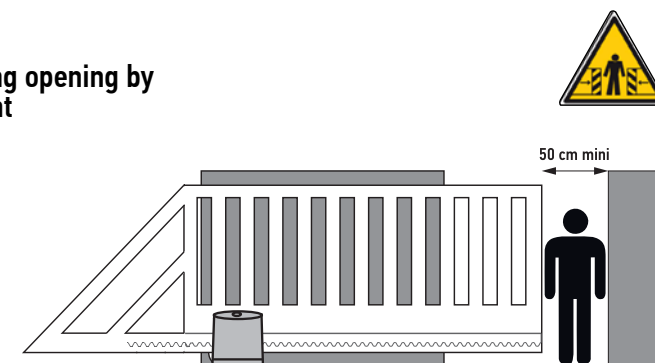
ZONE 3

Risk of crushing during opening by a nearby fixed element

Solution:

Detection and removal of the fixed element

Minimum safety distance between the gate and the fixed parts is 50 cm.

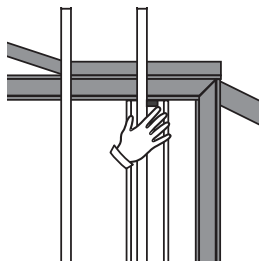


ZONE 4

Risk of trapping and crushing
between the rails and rollers

Solution:

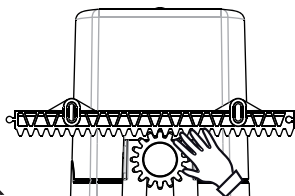
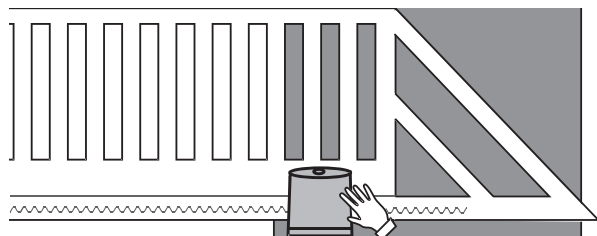
Removal of the obstacles.

**ZONE 5**

Risk of dragging and then crushing at the gear
wheel/toothed bar connection

Solution:

Removal of the obstacles.

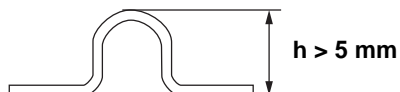
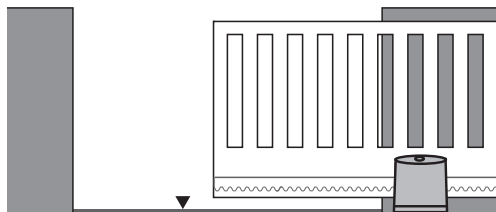
**ZONE 6**

Risk of tripping over the guide rail on the ground.
(For gates with the guide rail on the ground)

Solution:

Check whether the sill and guide rail are visible, whether they are at a height greater than 5 mm, whether or not they are highlighted, and whether or not they are without sharp edges.

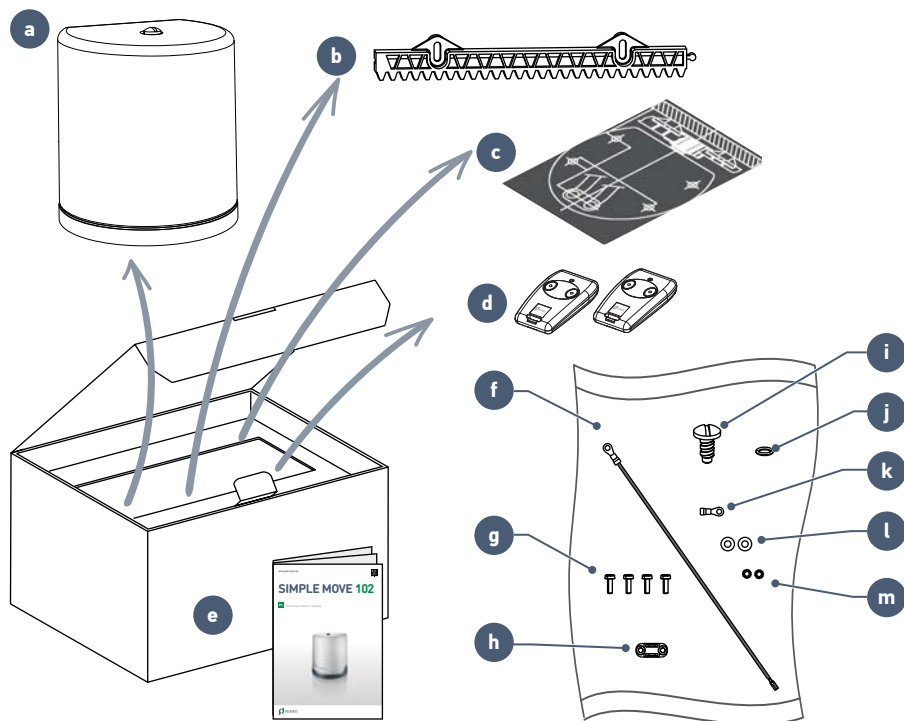
If this is not the case, mark the sections that are placed excessively high and are invisible.



SIMPLE MOVE 102 for POLARGOS

Product description

Contents of the SIMPLE MOVE set



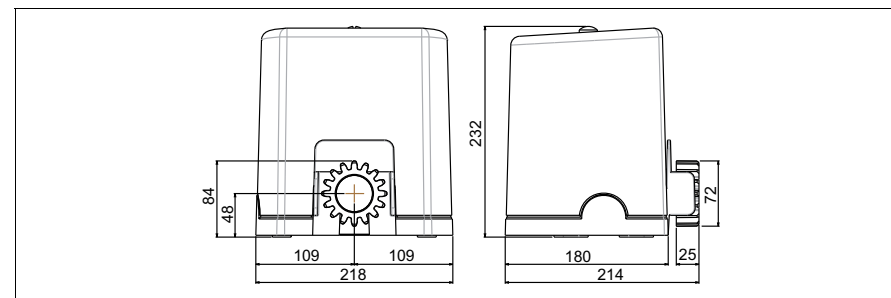
Mark	Name	Qty
a	Drive	x 1
b	Toothed bar base rack 33 cm x 20 mm	x 13
c	Assembly template	x 1
d	Remote control with 2 buttons	x 2
e	Installation and operation guide	x 1

You will also need:

Mark	Name	Qty
n	Nuts M10, galvanized	x 8
o	Flat washers 10.5x22x2, galvanized	x 8
p	Double-thread screw 10x15 mm	x 4
r	Pin 10x60 S12	x 4

Mark	Name	Qty
f	Earth cable	x 1
g	Self-tapping screw	x 4
h	Cable clamp	x 1
i	Shield screw	x 1
j	Round gasket	x 1
k	Insulated round terminal	x 1
l	Small flat washer	x 2
m	Star washer	x 2

Dimensions

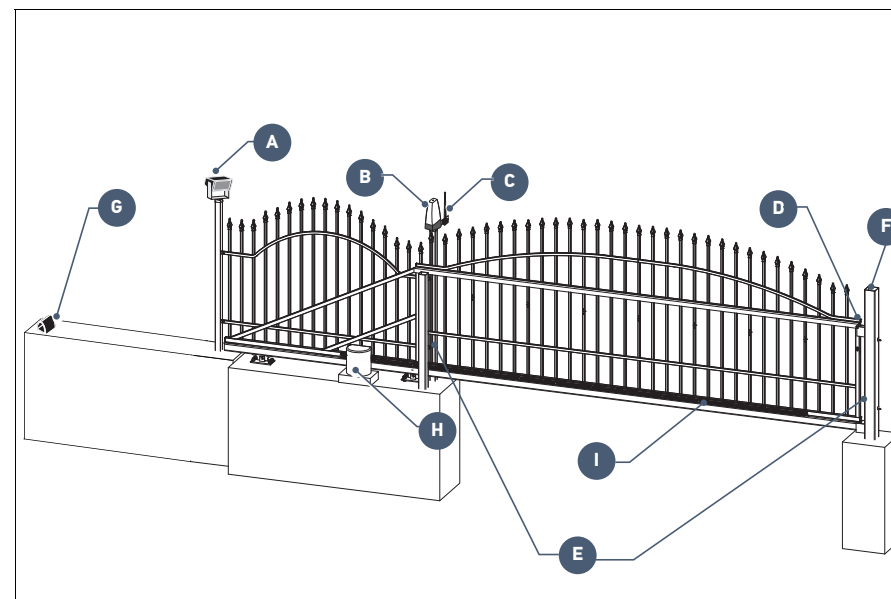


Scope of application

This product is designed as the drive unit of a cantilever gate:

- with a max. length of 6 m and a max. weight of 400 kg
- made of PVC, wood, or metal
- in residential properties..

General view of the installation

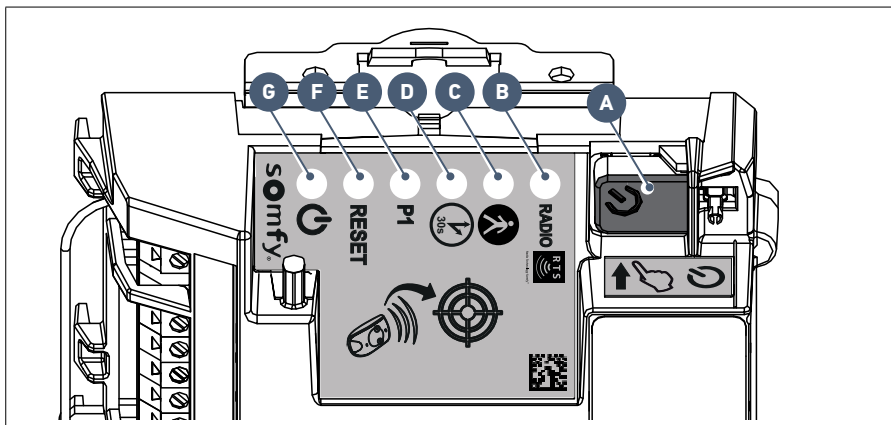


Mark	Name
A	Zone lighting*
B	Orange light*
C	Antenna*
D	Safety edge*
E	Photocells*

Mark	Name
F	Closing stop
G	Opening stop*
H	Drive
I	Toothed bar

*optional accessories

► Presentation of the electronic control system



Mark	Name	Function
A	Button	Self-teaching launch Electronic control system launch
B	Indicator light RADIO	Lights up each time the electronic control system receives a command via radio
C	Indicator light	Lights up during activation/deactivation of the opening for pedestrian entry
D	Indicator light	On automatic closing of the gate is activated
		Off automatic closing of the gate is not activated
		Flashing the "automatic closing" setting is selected
E	Indicator light P1	Off the gate operates at standard speed
		Slowly flashing the gate operates at low speed
		Flashing the gate "speed" setting is selected
F	Indicator light RESET	On only settings or the settings and the radio control points are deleted
		Flashing the settings and radio control points deletion function is selected
G	Indicator light	On the drive unit is functioning correctly – the electronic control system is reactivated
		Off the drive unit is functioning correctly – the electronic control system is on standby
		Flashing see diagnostics page 32

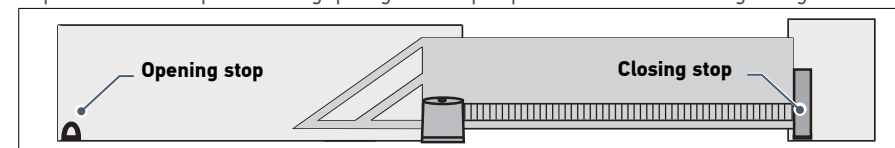
► Preliminary requirements for assembly

► Gate inspection

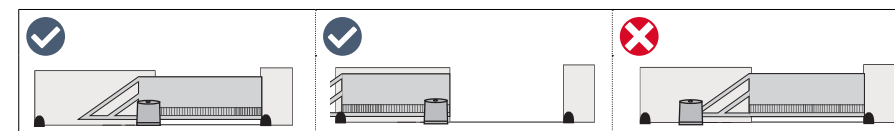
- The gate must be in good technical condition, free from mechanical damage.
- The gate must be in a horizontal position during the whole movement cycle and it must open and close without the necessity of using excessive power. Check whether the gate is perpendicular to the ground and whether there are no obstructions that could prevent proper gate movement.

► Stops on the ground

The gate movement track must be limited by stops firmly fixed to the ground. The stops limit its extreme position during opening while the post performs this function during closing.



► Positioning the drive



► Preliminary electrical system

Required cables

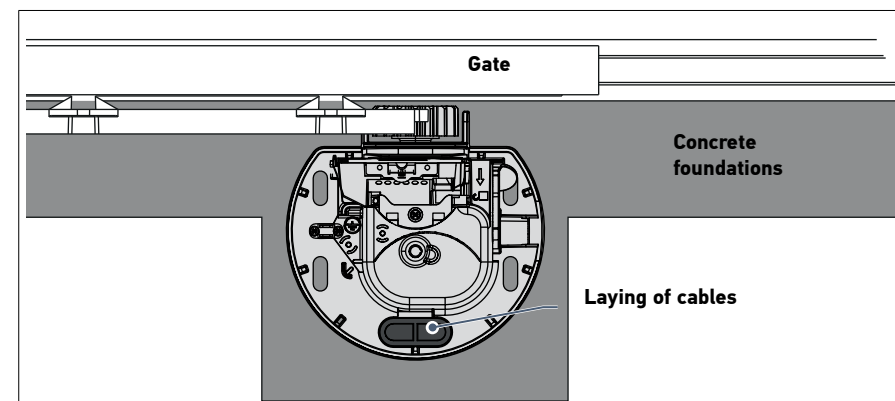
- Mains supply: 3 x 1.5 mm² or 3 x 2.5 mm² conductor for outdoor use (type H07RN-F minimum)
- Photocell connection: 2 x 0.75 mm² conductor
- Other accessories: see page 16

Laying cables

- The cables laid underground must be equipped with a protective sheath with a sufficient diameter to contain all the cables.
- Connect the power supply of 230 V as close to the location of the drive unit assembly as possible.

! The supply cable must be laid in accordance with the electrical standards in force in the country of use.

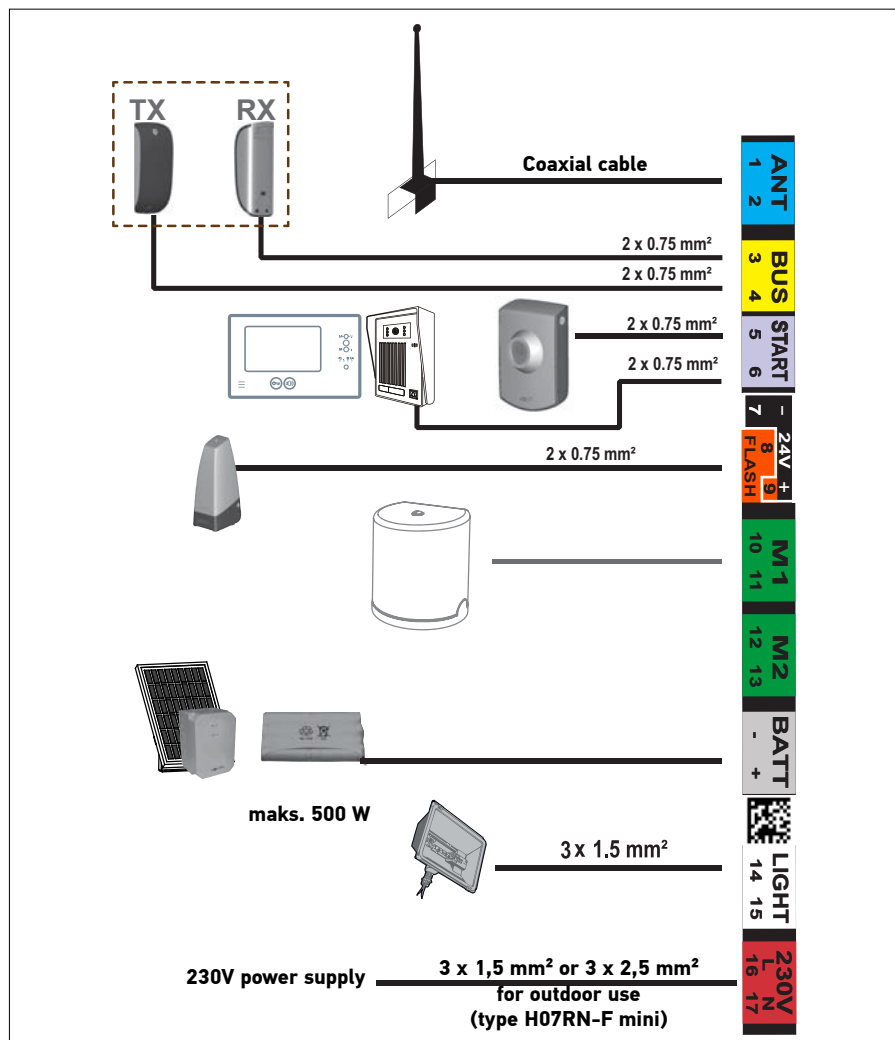
i If the cables cannot be laid underground, use a cable grommet which will withstand the weight of vehicles.



► Required cables



The wiring details are provided in the "ACCESSORIES WIRING" section on pages from 21 to 32.

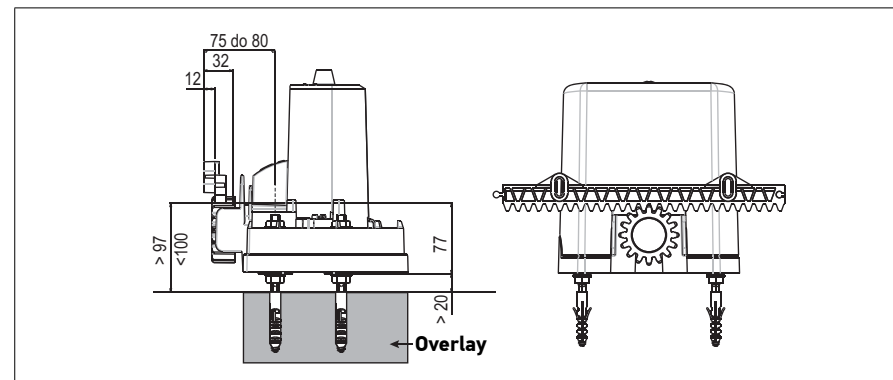


To connect several accessories to the START terminal, a cable with a 0.3 mm² cross section may be used (example: telephone cable) instead of a cable with a cross section of 0.75 mm².

► Vertical setting

The drive unit should be located slightly above the ground (more than 20 mm).

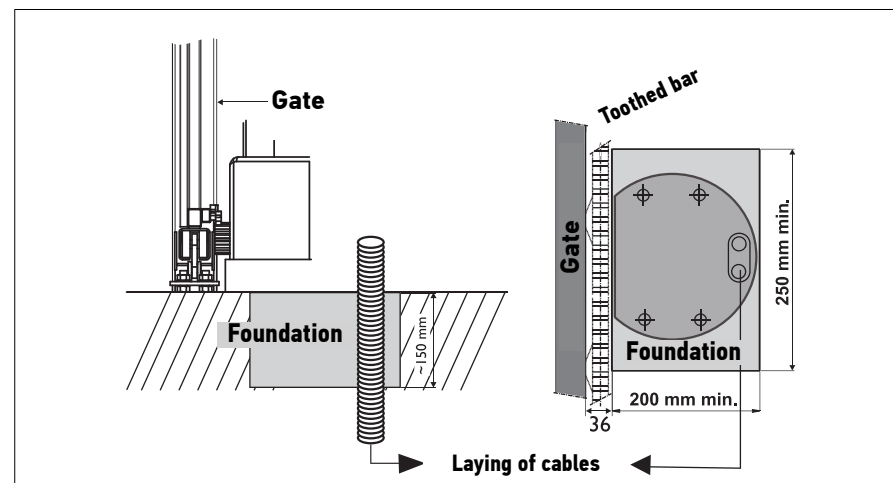
Choose a suitable position for the toothed bar. If necessary, create a concrete overlay. It is necessary to take into account the position of the gate carriages.



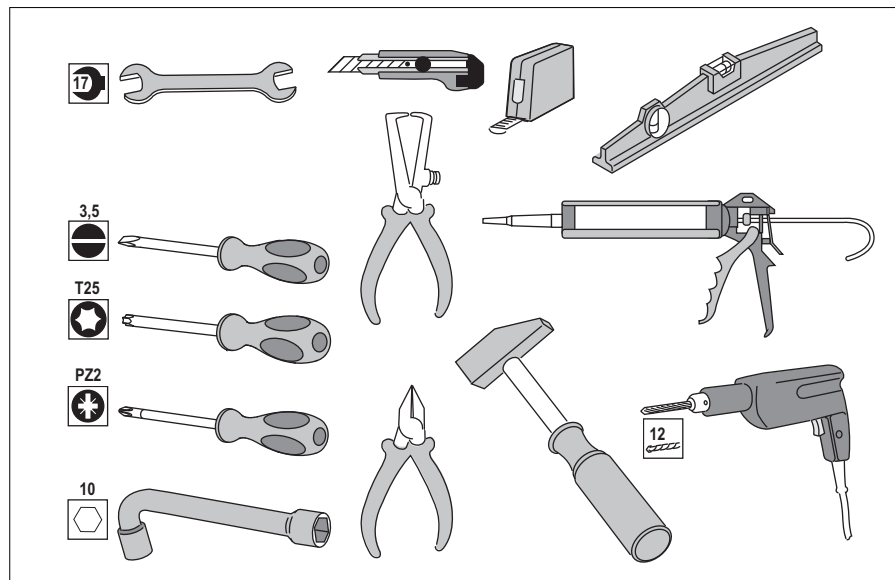
► Concrete foundations



The concrete foundations on which the drive will be installed must comply with the dimensions indicated in the diagrams below.



► *Tools required for assembly (not provided)*



1 ASSEMBLY

► *The sequence of stages*

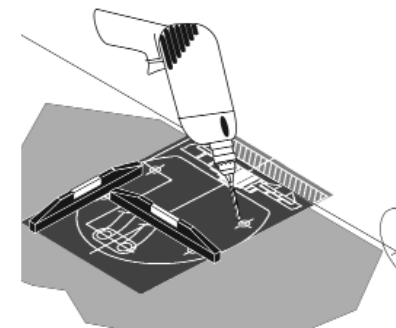
- Screw assembly
- Fixing the Drive
- Toothed bar assembly
- Mechanical adjustment

1.1 Screw assembly

1. Place the assembly template on the ground (the template is printed on cardboard) and drill holes using a drill (Ø 12 mm) suitable for the ground type. **r**
2. Insert the pins (12x60 S12). Tighten the double-thread screws (M10x15). **p**

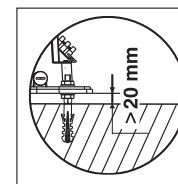


Apply a small amount of grease to the screws before screwing them into the pins.



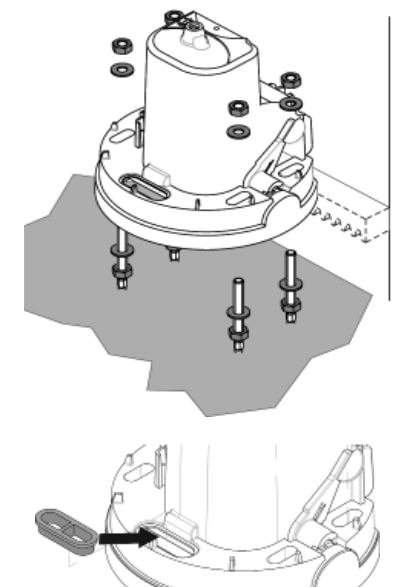
1.2 Fixing the Drive

1. Screw in 4 nuts (M10, galvanized) **n** and put 4 washers (flat, Ø10 5x22x2, galvanized). **o**
2. Remove the cover from the drive. **a**
3. Place the drive onto the screws: the flange (drive basis) must be at a maximum height of 25 mm above the ground. The recommended distance is between 20 and 25 mm.



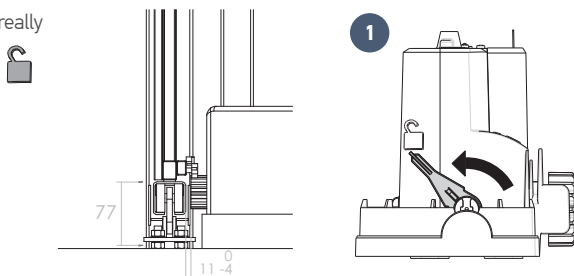
Use a spirit level to check if the drive is positioned correctly.

4. After the drive is set at the correct height from the ground, attach it using washers (flat, Ø10 5x22x2, galvanized) **o** and 4 nuts (M10, galvanized). **n**
5. Insert the cable grommet **h** that has been drilled through in the hole provided for the supply cable.

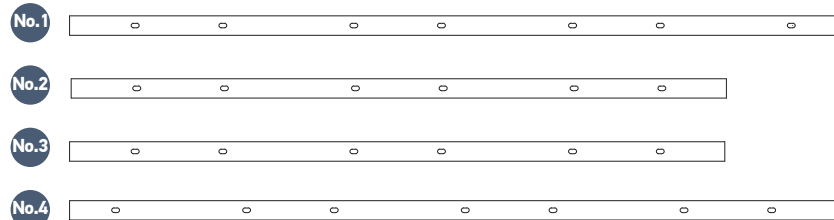


1.3 Toothed bar assembly

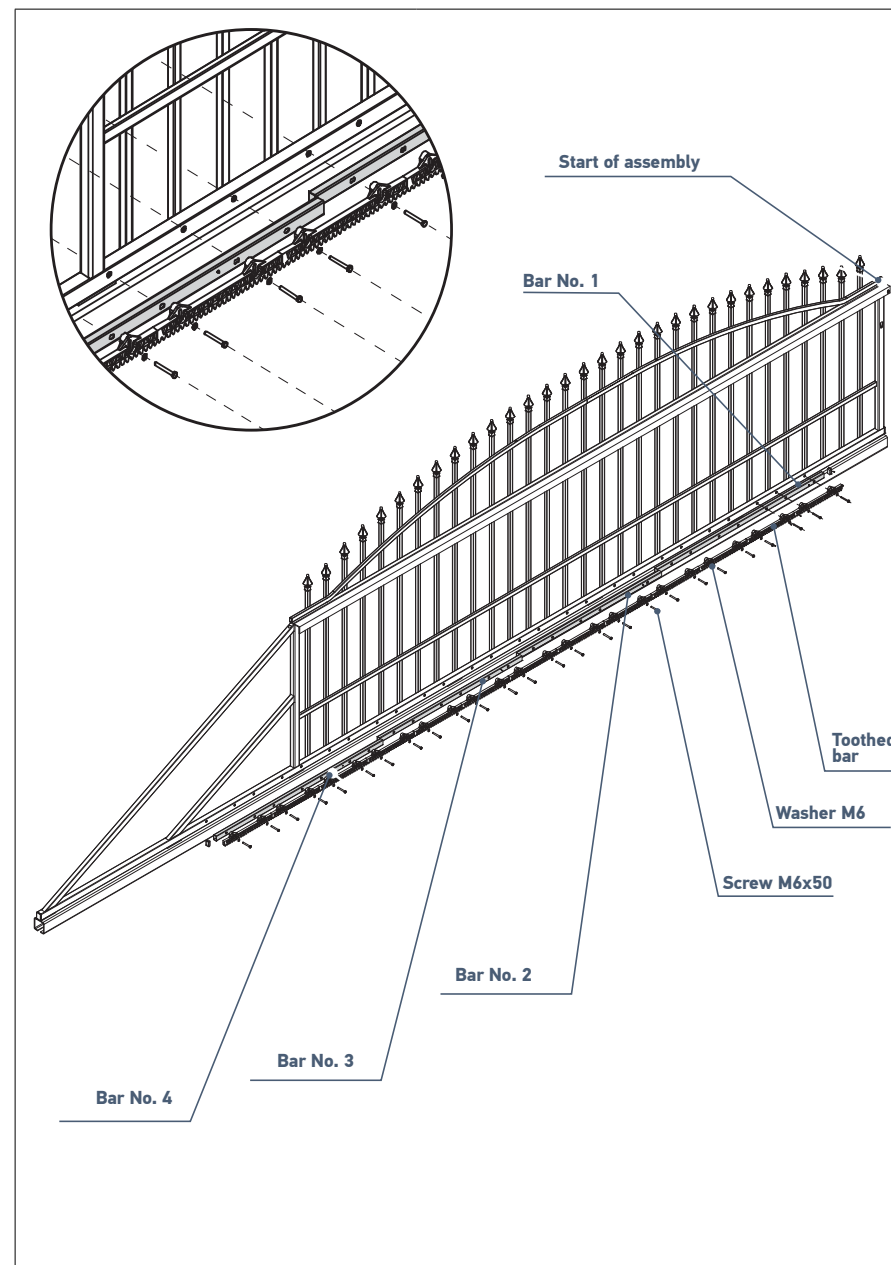
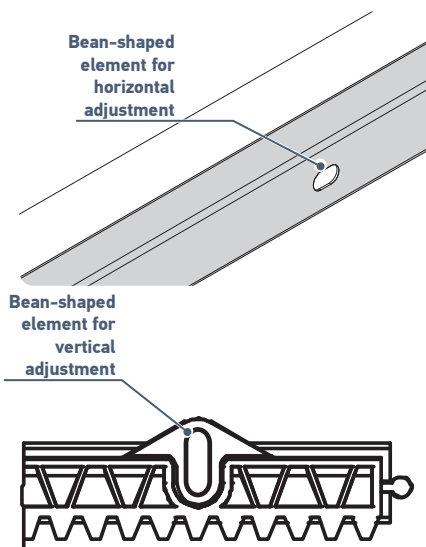
1. Check whether the drive is really unlocked when the lever is in the position.



2. Insert the pins (12x60 S12). Tighten the double-thread screws (M10x15).



3. Assembly of the bars should start from the lock side.
4. Insert bar No. 1 at a suitable distance from the lock side.
5. Fix the toothed bar to bar No. 1 **b** and fasten using screws M6x50. Fasten the first bar in such a way as to feel slight resistance.
6. Level the bar. The bars No. 1 – No. 4 have bean-shaped elements for horizontal adjustment; the toothed bars can be adjusted vertically.
7. Fasten the rest of the toothed bars to the bar No. 1. The last toothed bar on the bar No. 1 will connect the bars No. 2 and No. 1.
8. Fasten the subsequent bars and toothed bars as shown above.
9. Once the bars are fastened, check whether everything is level or not; if not, correct this.




1.4 Mechanical adjustment

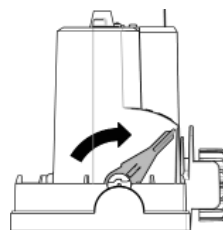
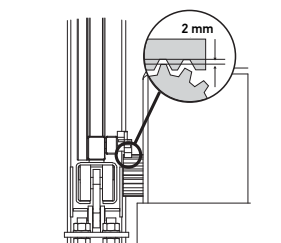
Adjust the height of the drive and/or the toothed bar in order to obtain a clearance of approx. 2 mm between the bar and the gear wheel. This setting is important because it helps to avoid premature wear of the gear wheel and the toothed bar; the gear wheel should not bear the weight of the gate.

Check whether:

- the drive unit is located at the correct height;
- the gate moves properly: the gate should move without difficulty along its track;
- the gear wheel is driven all the time when the gate moves along its track;
- the set consisting of the toothed bar and the gear wheel does not change its position substantially along the entire length of the gate track.

If these conditions are not met:

1. Adjust the height and set the drive at a suitable level using the 4 nuts  located under the drive.
2. If necessary, adjust the position of the toothed bar and tighten up the drive nuts.
3. Close the gate.
4. Lock the drive.



Never lock the drive when the gate is in motion.

1.5 Drive wiring

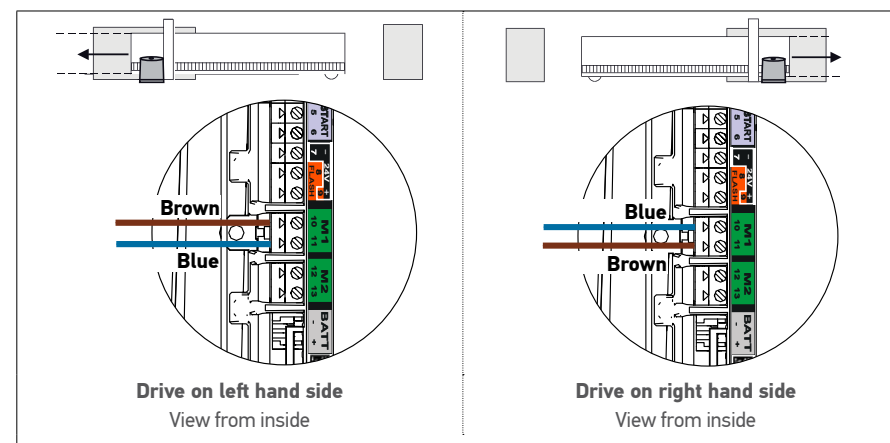


For safety reasons, these activities must be carried out only with the power supply disconnected.



By default, the drive is wired for installation on the left-hand side of the gate (looking from inside).

In order to install the drive on right hand side of the gate, interchange the cables connected to terminals 9 and 10 of the electronic control system (green label M1).



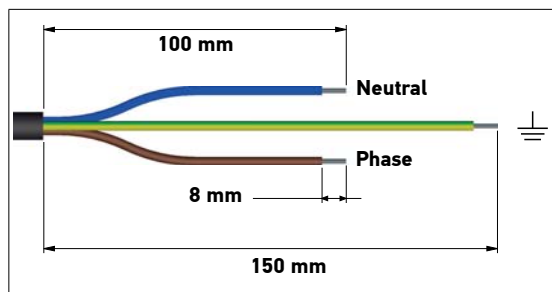
Do not connect any cable to terminal M2.

1.6 Connecting to the 230 V power supply

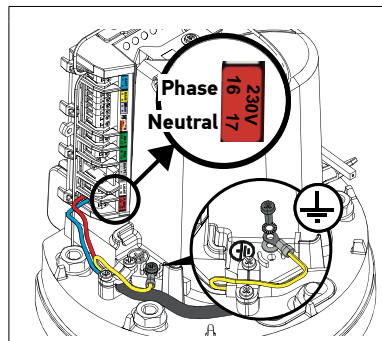


- For safety reasons, these activities must be carried out only with the power supply disconnected.
- Use 3 x 1.5 mm² or 3 x 2.5 mm² cable for outdoor use (type H07RN-F mini).
- The cable clamp supplied must be used. For all low-voltage cables, check whether they can withstand a force of 100 N or are in accordance with the provisions in force in the country of use. Check whether the cables have not moved when this force has been applied.

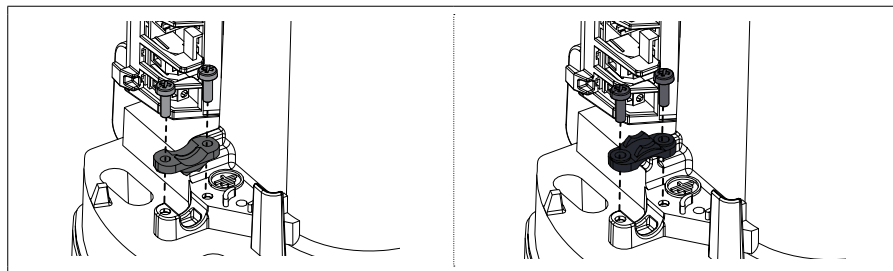
- Strip the cable at a distance of 150 mm.
- Cut the live and neutral cable to a length of 100 mm.
- Strip the covering to 3 cables to a length of 8 mm.
- Crimp the provided terminal **p** on the earth cable (yellow and green).
- Connect the cables as shown in the table:



Conductor colour	Type	Terminal	Comments
Blue	Neutral	17	
Brown/Black/Red	Live	16	
Yellow and green	Earth		Tighten a flat washer l , the power supply earth terminal crimped in step 4 and a star washer m using a screw g .



- Tighten the supplied cable clamp.



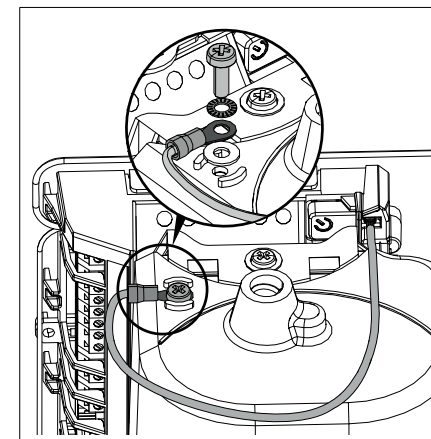
For a 3x1.5 mm² cable

For a 3x2.5 mm² cable

1.7 Earthing of the electronic control system

► If the supplied conductor is not pre-installed

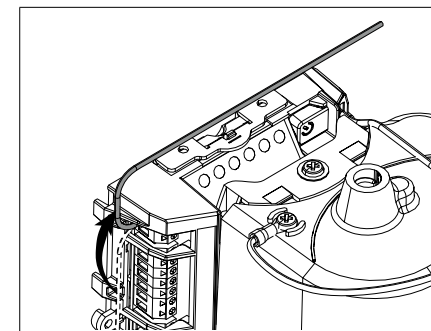
- Connect the supplied earth cable **f** to the top right of the electronic control system.
- Fit a flat washer **l**, the earth cable terminal **f** and a star washer **m** using a screw **g** to the top of the drive.



1.8 Position of the electronic control system antenna

► If the supplied antenna is not factory-installed

Position the antenna onto the drive shield.




2 START-UP AND STANDARD USE

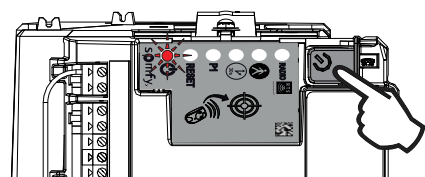
2.1 Switching the installation on


1. The  indicator flashes (twice).
The power supply of the drive is ON and waiting for self-learning.
2. If the indicator light  remains unlit or the number of flashes is different than expected: see diagnostics on page 43.


2.2 Gate track self-learning

Preliminary requirements – before starting self-learning, check whether:

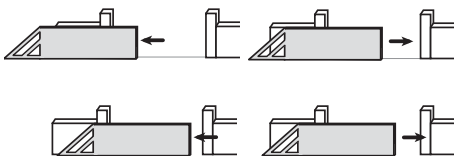
- The installation is switched on: the indicator light  flashes (twice).
- The gate is at its mid-point.
- The drive is locked.



Press the  button on the electronic control system.


- The gate opens, closes, opens partially and closes again.
- The indicator light  emits a continuous light.


Self-learning has been successfully completed and the drive is operational.





 If the indicator light  flashes (twice), begin the self-learning process again.

The gate must be closed once self-learning is complete.


 If the gate is open, see the IMPORTANT box below.


 **IMPORTANT:**
If the gate is open once self-learning is complete:

1. Delete the settings (see page 42).
2. Switch the drive off.
3. Replace the cables connected to terminals 9 and 10 (green label M1) of the electronic control system (see "Drive wiring", page 12).
4. Unlock the drive.
5. Position the gate at its mid-point.
6. Lock the drive.
7. Switch the drive on.
8. Start the self-learning process again.


 During the self-learning process, pressing button 1 on the remote control or the  button on the electronic control system stops the gate and the self-learning process.

2.3 Standby / reactivation of the electronic control system

 Once the self-learning process is complete, the electronic module automatically switches to standby after 5 minutes of inactivity to save energy.
In standby mode, all the indicator lights are off.

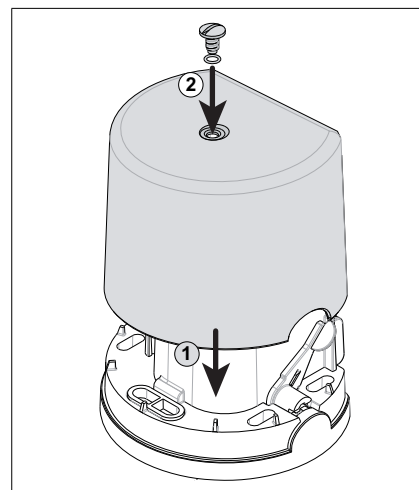
To check whether the drive is switched on or to check/modify the settings, press the  button for 2 seconds to reactivate the electronic module.



2.4 Plugging the holes

 You are strongly advised to plug all the holes to avoid short circuits caused by insects.

Once all the cables are laid, plug all the holes (oblong holes, cable feed holes) using silicone.

2.5 Shield assembly

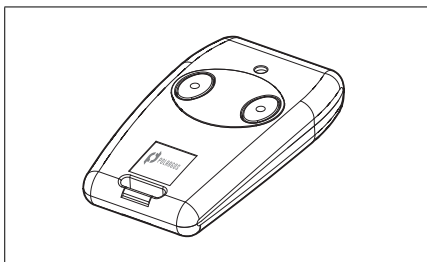


1. Place the shield on the drive flange (base).
2. Mount the gasket  to ensure the tight fitting of the drive unit and then the shield screw .
3. Tighten the shield.

2.6 Complete opening and closing of the gate



The remote controls supplied in the set are not programmed.
The remote control must be programmed.
See point 5.2



2.7 Obstacle detection

If an obstacle is detected (an abnormal force on the drive unit):

- **During opening of the gate:** the gate stops.
- **During closing of the gate:** the gate stops and reopens.

3 WIRING OF ACCESSORIES



For safety reasons, carry out these activities only with the power supply disconnected.

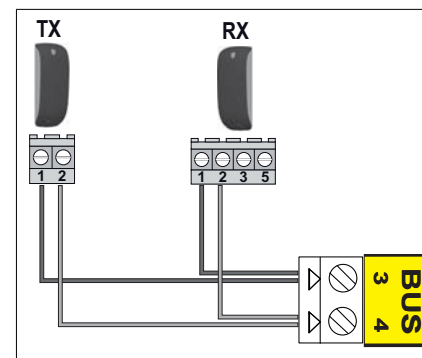


You are advised to perform self-learning of the gate track before connecting the accessories (photocells, orange light, etc.)

3.1 Photocells (optional)



It is not possible to wire a second set of photocells in the case of this drive unit.



► Assembly

After wiring the photocells:

- switch the drive on;
- start the gate opening or closing procedure.

The photocells will be recognised by the electronic control system once this movement is complete.

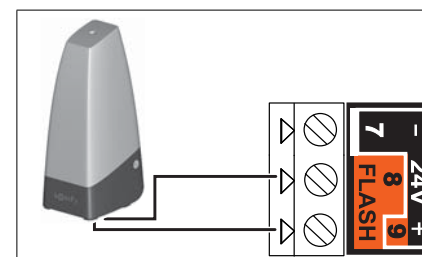
► Operation with photocells

If the photocells are blocked when closing the gate, the gate will stop and reopen.

3.2 Orange light (optional)



10 W - 24 V bulb MAXIMUM – The use of a bulb with power greater than 10 W- 24 V can cause the drive unit to malfunction..



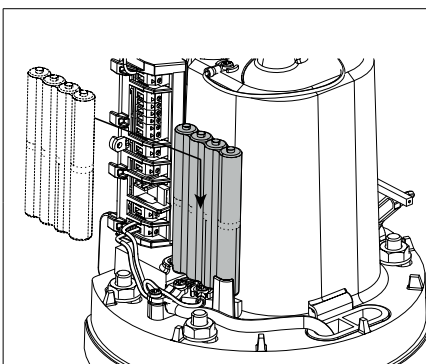
► Operation of the orange light

The orange light flashes while the gate is moving.

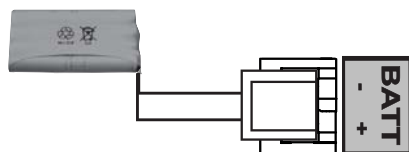
3.3 Battery (optional)

! This element is not compatible with solar energy supply systems.

i To ensure optimum battery life, disconnect the power supply from the gate three times a year and run several cycles with the battery operated drive.



The backup battery ensures the operation of the gate in the event of an electrical supply failure.
The indicator light  flashes (1 pulse) when the drive is battery-operated.

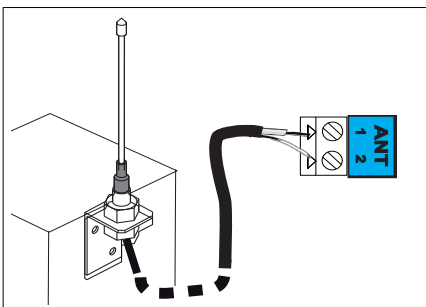


Technical data of the battery:

- Operating time: 10 cycles in continuous mode or 24 hours if the gate is in good technical condition (depending on the battery charge and external conditions).
- Optimum charging time for the battery before use: 48 hours.
- Service life: 3 years.

i To lengthen the length of time of the battery operation, the wire control systems are disconnected; the gate is controlled with remote controls and radio transmitters only.

3.4 Independent antenna (optional)

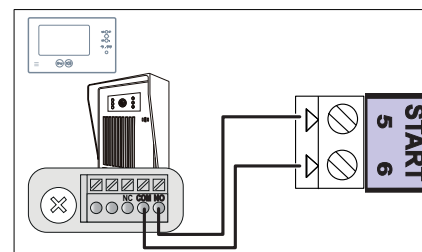


i An independent antenna with a longer range can replace the wire antenna.
Place it on the post top and check to see if it is exposed.

Connect the antenna to the electronic module terminals 1 and 2 (blue label „ANT“):

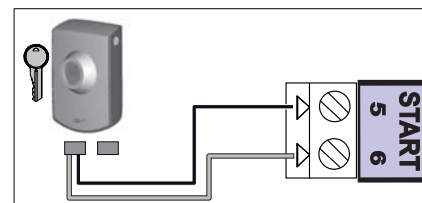
- cable core to terminal 1
- earthing strap to terminal 2

3.5 Video door phone (optional)



! This element is not compatible with a solar energy supply system.

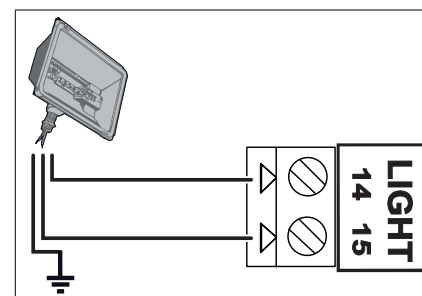
3.6 Key switch (optional)



! This element is not compatible with a solar energy supply system.

3.7 Zone lighting (optional)

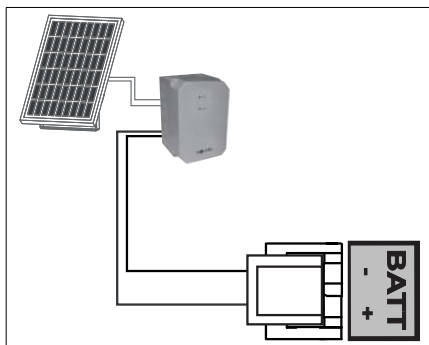
! This element is not compatible with a solar energy supply system.
Use only halogen or incandescent bulbs for the zone lighting, 500 W maximum.



3.8 Solar energy supply (optional)



Never connect the drive unit to a power supply of 230 V when it is already connected to a solar energy source because this can lead to damage to the electronic module of the drive.



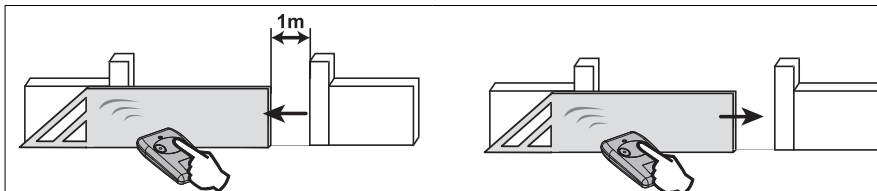
When the drive unit operates using a solar energy power supply:

- the gate can be controlled by means of remote controls and radio transmitters only (wire control is inactive),
- protecting wired accessories (photocells, the orange light) are still active.

4 ADVANCED PARAMETER SETTINGS

4.1 Opening for pedestrian entry

► Operation of opening to enable pedestrian entry



Pressing the remote control button programmed to open for pedestrian entry causes opening of the gate to a width of about 1 metre. Pressing it again causes the gate to close.

► Activation of opening for pedestrian entry



Button number 1 on 2- or 4-button remote controls cannot be programmed to control opening for pedestrian entry. See "Programming the remote controls", pages 38-40, for more information.

1

- Press and hold the button of the electronic control system for 2 seconds.
The indicator light comes on.

2

- Place the remote control on the electronic control system target.

3

- Press **button 2** on the remote control (less than 0.5 second). The **RADIO** and indicator lights come on then go out. The opening for pedestrian entry is activated on this button.



Move away from the electronic control system to test the opening for pedestrian entry.

► Deactivation of opening for pedestrian entry

Repeat the "Activation of opening for pedestrian entry" procedure using the button, for which the opening of pedestrian entry must be deactivated. **The indicator light comes on then goes out. Opening for pedestrian entry is deactivated on this button.**

4.2 Automatic closing

► Automatic closing function

Press button 1 on the remote control to open the gate.

The gate closes again after 30 seconds or 5 seconds if the photocells detect an obstacle.

Automatic closing can be interrupted by pressing button 1 on the remote control. In order to close the gate, press button 1 on the remote control again.

► Activating automatic closing



The automatic closing can be activated only if the photocells are connected and recognised by the drive's electronic control system.

1

- Press and hold the button of the electronic control system for 2 seconds.
The indicator light comes on.

2

- Place the remote control on the electronic control system target.

3

- Keep **button 1** of the remote control pressed until the indicator light starts flashing.

4

- Keep **button 2** of the remote control pressed until the indicator light goes out and then lights up and emits a continuous light.

5

- After releasing **button 2**, the indicator light flashes; press **button 1** on the remote control 3 times.

6

7

The indicator light remains lit.
Automatic closing is activated.

► Deactivating automatic closing

1

- Press and hold the button of the electronic control system for 2 seconds.
The indicator light comes on.

2

- Place the remote control on the electronic control system target.

3

- Keep **button 1** of the remote control pressed until the indicator light starts flashing.

4

- Press **button 2** on the remote control.
The indicator light flashes.

5

- Press **button 1** on the remote control 3 times.

6

The indicator light is off.
Automatic closing is deactivated.

4.3 Gate speed



A speed not suitable for the weight of the gate could cause serious injury to the users, for example by being crushed. To meet the requirements of the standard EN 12453, it is essential to comply with the scope of the application's limitations.



By default, the gate operates at standard speed.

► Scope of the application

Set the gate speed in accordance with the table below:

Gate weight	Standard speed	Slow speed
0 do <100 kg	✓	✓
100 do <200 kg	✓	✓
200 do <300 kg	✓ + strip sensor*	✓
300 do <400 kg	✓ + strip sensor*	✓

*Installation of a passive strip sensor on the gate is mandatory.

► Setting slow speed

1

- Press and hold the button of the electronic control system for 2 seconds. **The indicator light comes on.**

2

- Place the remote control on the electronic control system target.

3

- Keep **button 1** of the remote control pressed until the indicator light starts flashing.

4

- Press **button 1** on the remote control once.

5

The indicator light P1 flashes.

► Setting slow speed (continued)

6

- Keep **button 2** of the remote control pressed until the indicator light **P1** starts slowly flashing. **Slow speed is selected.**

7

- Press **button 1** on the remote control 2 times. The indicator light **P1** flashes slowly. **Slow speed is selected.**

► Returning to standard speed

1

- Press and hold the button of the electronic control system for 2 seconds. **The indicator light comes on.**

2

- Place the remote control on the electronic control system target.

3

- Keep **button 1** of the remote control pressed until the indicator light starts flashing.

4

- Press **button 1** on the remote control once. **The indicator light P1 flashes.**

5

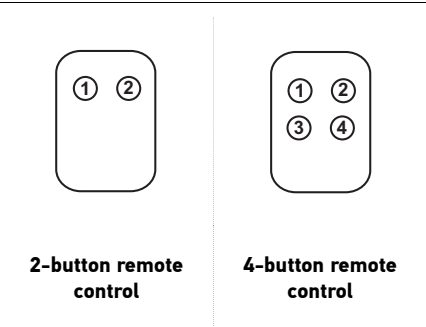
- Press **button 2** on the remote control once. **The indicator light P1 goes out for 5 seconds, and then flashes.**

6

- Press **button 1** on the remote control 2 times. The indicator light **P1** is off. **Standard speed is selected.**

5 PROGRAMMING THE REMOTE CONTROLS

5.1 Programming the remote controls



Depending on the choice of settings, the Somfy RTS remote controls can control:

- full opening of the gate
- opening of the gate for pedestrian entry
- other Somfy RTS devices (example: garage door drive, roller shutter, etc.)

Up to 16 control points for one drive (remote controls, other radio control points) can be saved in the memory.
A remote control that controls the opening for pedestrian entry and the full opening of the gate count as 2 control points.
If a 17th control point is saved in the memory, the first saved point will be deleted automatically.

If you wish to programme the opening for pedestrian entry, it must be programmed on the button following the one used to open the gate fully (e.g.: complete opening controlled by button 2, opening for pedestrian entry controlled by button 3).
It is not possible to programme the opening for pedestrian entry on button 1 of the remote controls.

Possibilities for programming a 2-button remote control

	Button 1	Button 2
Possibility 1	Complete opening	Opening for pedestrian entry or other Somfy RTS automatic mechanism
Possibility 2	Other Somfy RTS device	Complete opening

Possibilities for programming a 4-button remote control

	Button 1	Button 2	Button 3	Button 4
Possibility 1	Complete opening	Opening for pedestrian entry or other Somfy RTS automatic mechanism	Other Somfy RTS automatic mechanism	Other Somfy RTS automatic mechanism
Possibility 2	Other Somfy RTS automatic mechanism	Complete opening	Opening for pedestrian entry or other Somfy RTS automatic mechanism	Other Somfy RTS automatic mechanism
Possibility 3	Other Somfy RTS automatic mechanism	Other Somfy RTS automatic mechanism	Complete opening	Opening for pedestrian entry or other Somfy RTS automatic mechanism
Possibility 4	Other Somfy RTS automatic mechanism	Other Somfy RTS automatic mechanism	Other Somfy RTS automatic mechanism	Complete opening

Use of the 3-button remote control

The diagram shows a vertical 3-button remote control. The top button is labeled 'Opening', the middle button is labeled 'Stop', and the bottom button is labeled 'Closing'.

- To open the gate completely, press the “Up” button on the remote control.
- To stop the gate while it is moving, press the central button on the remote control.
- To close the gate, press the “Down” button on the remote control.

The 3-button remote control cannot be used to change the drive settings.

5.2 Adding a remote control

► 2 or 4-button remote control

1

• Press and hold the button of the electronic control system for 2 seconds.
The indicator light comes on.

2

• Place the new remote control to be programmed on the electronic control system target.

3

• Briefly press the button to be programmed on the remote control. The "RADIO" indicator light will come on and then go out when you release the button on the remote control.
Complete opening has been programmed on this button.

► 3-button remote control

1

• Press and hold the button of the electronic control system for 2 seconds.
The indicator light comes on.

2

• Place the remote control on the electronic control system target.

3

• Briefly press the button to be programmed on the remote control. The "RADIO" indicator light will come on and then go out when you release the button on the remote control.
The remote control has been saved in the memory.

5.3 Deleting a remote control

See "Deleting of settings" page 42.

6 TROUBLESHOOTING



The drive unit must be disconnected from any power supply during cleaning and maintenance and when parts are replaced.

6.1 Assistance

Despite the huge care taken in the design of our products and the creation of our guides, you may encounter difficulties during the assembly of your automatic mechanism or have some doubts. In this case, please do not hesitate to contact us; our specialists will answer all your questions.

6.2 Replacing the remote control's battery



► The battery life is usually 2 years.

1

2

3

4

5

6

7



WARNING: Observe the polarity (+/-) of the batteries; they must not be recharged or thrown into fire or water. They must not be exposed to high temperatures. Used batteries must not be opened or mixed with batteries of another type or used batteries (this can result in an explosion, electrolyte leakages and damage of different types). Keep out of the reach of children.

6.3 Deletion of settings

When are settings to be deleted?

- **After self-learning**, if you change the position of an opening stop, in the case of modification of the drive wiring, or if you add a strip sensor to the gate.
- If the gate opens at random due to normal wear and tear.

<p>1</p> <p>• Press and hold the button of the electronic control system for 2 seconds. The indicator light comes on.</p>	<p>2</p> <p>• Place the programmed remote control on the target.</p>	<p>3</p> <p>• Keep button 1 of the remote control pressed until the indicator light starts flashing.</p>	<p>4</p> <p>• Press button 1 on the remote control twice.</p>	<p>5</p> <p>The indicator light "RESET" flashes.</p>
<p>In order to delete settings*</p> <p>6</p> <p>• Keep button 2 of the remote control pressed until the indicator light RESET comes on.</p>		<p>In order to delete settings* and the remote controls/control points saved in the memory</p> <p>6</p> <p>• Keep button 2 of the remote control pressed until all the indicator lights come on.</p>		
<p>7</p> <p>The indicator light flashes twice (see page 26 to run a self-learning procedure).</p>				

*Gate track, deactivation of the settings.

6.4 Diagnostics

Diagnostics		Troubleshooting
The drive does not respond to commands from the remote control	Limited operating range of the remote control.	<ul style="list-style-type: none"> • Check the battery of the remote control (See "Replacing the remote control's battery" – page 41) • Check the electronic module antenna (cable, position – see page 25). • Check whether any external element is causing radio wave interferences (overhead line pole, reinforced brickwork, etc.). If this is the case, fit an external antenna.
	Unsaved remote control in the memory	Save the remote control in the memory (see page 40).
	Unlocked drive	Lock the drive.
The indicator light of the electronic module does not emit any light	The electronic control system is on standby	Press , for 2 seconds to reactivate the electronic control system.
	No power supply for the electronic control system.	<ul style="list-style-type: none"> • Check the mains supply. • Check the supply conductor.
The indicator light of the electronic module is flashing:		
1 flash	Operation mode with the emergency battery supply.	Check the mains supply.
2 flashes	The drive unit is awaiting the gate track self-learning.	Restart the gate track self-learning (see page 26).
3 flashes	Photocells failure	<ul style="list-style-type: none"> • Check, whether there are any obstacles between the photocells. • Check the photocells' settings. • Check the photocell conductors (see page 29).
4 flashes	Short circuit at the output "START" (terminals 5-6) of the electronic module.	Check accessories connected to the output "START" of the electronic module.
5 flashes	Thermal protection of the drive is on.	Allow the drive to cool down for several dozen minutes.
6 flashes	Short circuit at the output "BUS" (terminals 3-4) of the electronic module.	Check accessories connected to the output "BUS" of the electronic module.
	Short circuit at the output "24 V" (terminals 7-9) of the electronic module.)	Check accessories connected to the output "24 V" of the electronic module.
	Short circuit within the orange light (terminals 8-9) of the electronic module.	Check the cable of the orange light (see page 29).
	Short circuit within the drive unit	Check the cables of the drive unit (see page 29).

7 TECHNICAL DATA

Power supply	230 V-50 Hz / 24 V (with solar power)
Drive type	24 V
Drive power	120 W
Maximum energy consumption (including zone lighting)	600 W
Energy consumption in standby mode	3,5 W
Maximum number of working cycles daily	20 cycles daily 10 cycles daily with solar power
Opening time	16 s for a gate of 150 kg/3m
Automatic obstacle detection	According to EN 12 453
Operating temperature	Between -20°C and +60°C
Thermal shield	Yes
Protection level	IP 44
Built-in radio wave receiver	Yes
Remote controls	
• Radio frequency	433,42 MHz, < 10 mW
• Range of operational use	~30 m
• Number of memory settings	16
Possible connections:	
• Orange light output	Flashing, up to 24 V, 10 W
• Lighting output	Maximum 500 W at 230 V AC (only halogen or bulb)
• Accessory supply output	Max 24 Vdc / 15 W
• Emergency battery input	Yes
• Photocell input	Yes
• Dry contact control input	Yes (does not work with solar power or a battery)



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