Leggio

LEGGIO300

Gear motor for swing gates

EN - Instructions and warnings for installation

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ENGLISH

Translation of the original instructions in full

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1 - GENERAL SAFETY WARNINGS AND PRECAUTIONS

1.1 GENERAL WARNINGS

WARNING! Important safety instructions. Observe all the instructions as improper installation may cause serious damages.

WARNING! Important safety instructions. It is important to comply with these instructions to ensure personal safety. Store these instructions carefully.

WARNING! Please abide by the following warnings:

- Before commencing the installation, check the "Product technical specifications", in particular whether this product is suitable for automating your guided part. Should it not be suitable, do NOT proceed with the installation.
- The product cannot be used before it has been commissioned as specified in the "Testing and commissioning" chapter.

According to the latest European legislation, an automated device must be constructed in conformity to the harmonised rules specified in the current Machinery Directive, which allow for declaring the presumed conformity of the automation. Consequently, all the operations for connecting the product to the mains electricity, its commissioning and maintenance must be carried out exclusively by a qualified and expert technician.

- Before proceeding with the product's installation, check that all the materials are in good working order and suited to the intended applications.
- The product is not intended for use by persons (including children) with reduced physical, sensory or mental capacities, nor by anyone lacking sufficient experience or familiarity with the product.
- Children must not play with the appliance.
- Do not allow children to play with the product's control devices. Keep the remote controls out of reach of children.

In order to avoid any danger from inadvertent resetting of the thermal cut-off device, this appliance must not be powered through an external switching device, such as a timer, or connected to a supply that is regularly powered or switched off by the circuit.

- The system's power supply network must include a disconnection device (not supplied) with a contact opening gap permitting complete disconnection under the conditions envisaged by Overvoltage Category III.
- Handle the product with care during installation, taking care to avoid crushing, denting or dropping it, or allowing contact with liquids of any kind. Keep the product away from sources of heat and naked flames. Failure to observe the above can damage the product, and increase the risk of danger or malfunction. Should this happen, stop installation immediately and contact Customer Service.
- The manufacturer declines all liability for damages to property, objects or people resulting from failure to observe the assembly instructions. In such cases, the warranty for material defects shall not apply.
- The weighted sound pressure level of the emission A is lower than 70 dB(A).
- Cleaning and maintenance reserved for the user must not be carried out by unsupervised children.
- Before intervening on the system (maintenance, cleaning), always disconnect the product from the mains power supply and from any batteries.
- Inspect the system frequently, in particular the cables, springs and supports to detect any imbalances and signs of wear or damage. Do not use the product if it needs to be repaired or adjusted, because defective installation or incorrect balancing of the automation can lead to injuries.
- The packing materials of the product must be disposed of in compliance with local regulations.
- Keep persons away from the gate when it is manoeuvred using the control elements.
- When operating the gate, keep an eye on the automated mechanism and keep all bystanders at a safe distance until the movement has been completed.
- Do not operate the product if anyone is working nearby; disconnect its power supply before permitting such work to be done.
- If the power cable is damaged, it must be replaced by the manufacturer or by an appointed servicing company or similarly qualified person in order to prevent any form of risk.
- Warning! Transport the product using the relevant hand trolley and the handles on the package to ensure that the operations are conducted safely.

1.2 INSTALLATION WARNINGS

- Prior to installing the drive motor, check that the door is in good working order, correctly balanced and that it opens and closes properly.
- Before installing the drive motor, remove all unnecessary ropes or chains and deactivate any equipment not required for motorised operation, such as locking devices.
- If the gate to be automated is fitted with a pedestrian door, the system must be equipped with a control system that inhibits motor operation when the pedestrian door is open
- Install the manoeuvre device for manual unlocking at less than 1.8 m above the ground. NOTE - If removable, the manoeuvre device must be kept next to the door when removed.
- Make sure that the control elements are kept far from moving parts but nonetheless directly within sight. Unless a selector is used, the control elements must be installed at least 1.5 m above the ground and must not be accessible.

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- If the opening movement is controlled by a fire-sensing system, make sure that any windows larger than 200 mm are closed using the control elements.
- Prevent and avoid any form of entrapment between the moving and fixed parts during the manoeuvres.
- Permanently affix the label concerning the manual manoeuvre near its actuating element.
- After installing the drive motor, make sure that the mechanism, protective system and all manual manoeuvres function properly.
- Doors and vertical gates require an anti-fall function or device
- For drive motors that allow for accessing unprotected moving parts once they have been installed, such parts must be installed at least 2.5 m above the floor or other surface from which they can be accessed.
- Make sure to avoid any entanglements due to the opening movement of the driven part.
- After the installation, make sure that the mechanism is correctly adjusted and that the protection system and the manual release device (if present) work properly.

Battery-operated appliances

- The appliance must be disconnected from the power supply when removing the batteries.
- The batteries must be removed from the appliance prior to its disposal.
- The batteries must be safely disposed of.
- If the batteries are not rechargeable, do not replace them with rechargeable batteries.

Appliances with LED light

- Looking at LED lights from close up and for prolonged periods can cause dazzling. It may temporarily reduce eyesight and cause accidents.
- Avoid looking at LEDs directly.

Appliances with radio device

- For transmitters: 433 MHz: ERP < 10 dBm - 868 MHz: ERP < 14 dBm; for receivers: 433 MHz, 868 MHz.

2 - PRODUCT DESCRIPTION AND INTENDED USE

The devices in the **LEGGIO300** kit and other optional accessories are part of the Nice Home automation system and are designed to automate a swing gate for residential use.
The kit consists of two electromechanical gear motors in direct current at 24 V ⎓; they are equipped with a mechanical release with key that allows the gate to be moved manually in the event of a power failure.
A control unit manages the operation of the entire automation system. The control unit is connected to the photocells via the ECSbus system (a single cable with two electrical conductors).
The control unit can be powered by the mains (230 V~) or by the **SOLEKIT** photovoltaic system from the Nice Home range. When powered by the mains, it can accommodate a backup battery (model **PRS100** - not supplied) which ensures that the automation system can perform certain operations in the hours following a power failure.

⚠ **CAUTION! – Any use other than that specified herein or in environmental conditions other than those stated in this manual is to be considered improper and is strictly forbidden!**

This product complies with the criteria of the 'Standby' regulation. The product enters standby mode 5 minutes after completing one of its main functions when configured, or after 10 minutes if the product has not yet been configured.
Standby mode is set by default to STANDBY ALL with an activation time of 5 minutes.
It also affects other functionalities listed below:
- The ECSbus output will be deactivated. If present, the power supply to the auxiliary output will be disabled;
- accessories connected to the IBT4N connector will always be powered and total consumption will be affected;
- receivers connected to the SMTYPE connector will always be powered and total consumption will be affected.

Please refer to the specific chapters and technical specifications of the accessory.

This product can be equipped with an emergency power supply system that guarantees operation even in the absence of the mains power supply. The emergency power supply is via batteries, which must be kept charged. The battery charging function is one of the main functions of this product; the standby mode will only be activated when the battery charging function is completed. Please refer to the instructions of the emergency power supply system for the maximum time required to fully charge the batteries.

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2.1 PRODUCT USAGE LIMITS

The data relative to the product's performances is included in the " ***TECHNICAL SPECIFICATIONS***" chapter (page 37) and is the only data that allows for properly assessing whether the product is suitable for its intended use.
Check the application limits of **LEGGIO300** and of the accessories to be installed, assessing whether their characteristics are capable of meeting the requirements of the environment and the limitations specified below:
- The weight and length of the swing gate leaf must not exceed the limits indicated in '***Table 22***'.

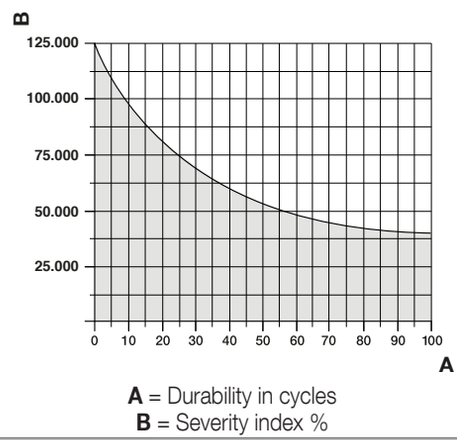
The measurements in '***Table 22***' are indicative and are only for rough estimation. The actual suitability of **LEGGIO300** for automating a specific Swing gate depends on friction and other phenomena, even occasional ones, such as the presence of ice that could hinder the movement of the leaf.
To determine the actual conditions, the force required to move the leaf throughout its path must be measured, to ensure that this value does not exceed half the "rated torque" specified in the "***TECHNICAL SPECIFICATIONS***" chapter (page 37).
A margin of 50% is recommended because adverse weather conditions can increase friction

The '***Table 1***' (page5) shows the estimated 'durability', i.e. the average economic life of the product. The value is strongly influenced by the manoeuvring difficulty index, i.e. the sum of all factors contributing to wear and tear. To estimate this, add together all the difficulty indices of the '***Table 1***'. Check the estimated durability in the graph using the total result.

Example of durability calculation: automation of a gate with a long leaf 1,5 metres with a weight of 220 kg, for example, located in a windy area.
In "***Table 1***" , the 'severity indices' for this type of installation can be obtained: 10% ('Leaf length'), 20% ('Leaf weight') and 15% ('Installation in a windy area'). These indices must be added together to obtain the overall severity index, which in this case is 45%.
The graph shows that the estimated service life is 55.000 cycles.

The control unit is equipped with a manoeuvre limiting device that prevents possible overheating; it is based on the motor load and duration of the cycles, and intervenes when the maximum limit is exceeded.

Table 1

ESTIMATED DURABILITY IN RELATION TO THE MANOEUVRE SEVERITY INDEX		
Severity index %	**LEGGIO300**	**Durability in cycles**
Weight of the leaf (kg)		
< 100	0 %	
< 200	10 %	
< 300	20 %	
Leaf length (m)		
1 ÷ 1,5	0 %	
1,5 ÷ 2,5	10 %	
2,5 ÷ 3,0	20 %	
Other factors contributing to fatigue (to be considered if their probability exceeds 10%)		
Ambient temperature greater than 40°C or below 0°C, or humidity greater than 80%	20 %	
Solid leaf	15 %	
Installation in windy areas	15 %	
Total severity index %:		

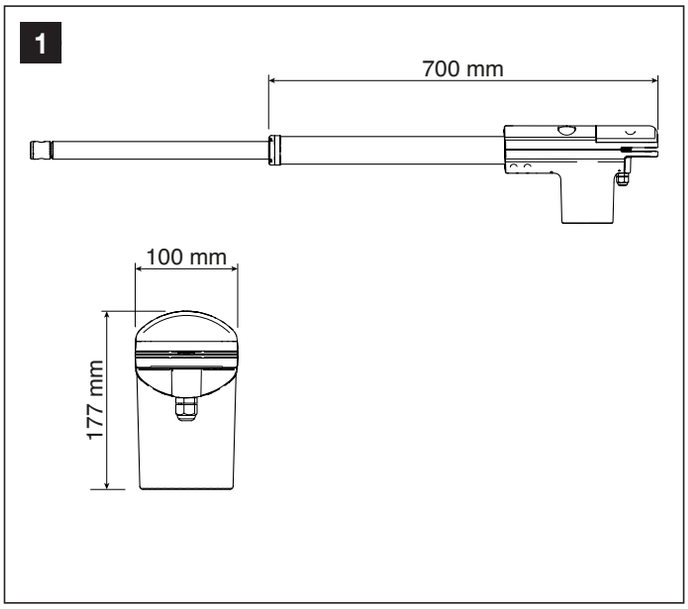
A = Durability in cycles
B = Severity index %

Note: a severity index exceeding 100% implies that the conditions are beyond the limit of acceptability; in this case, a larger-size model is recommended.

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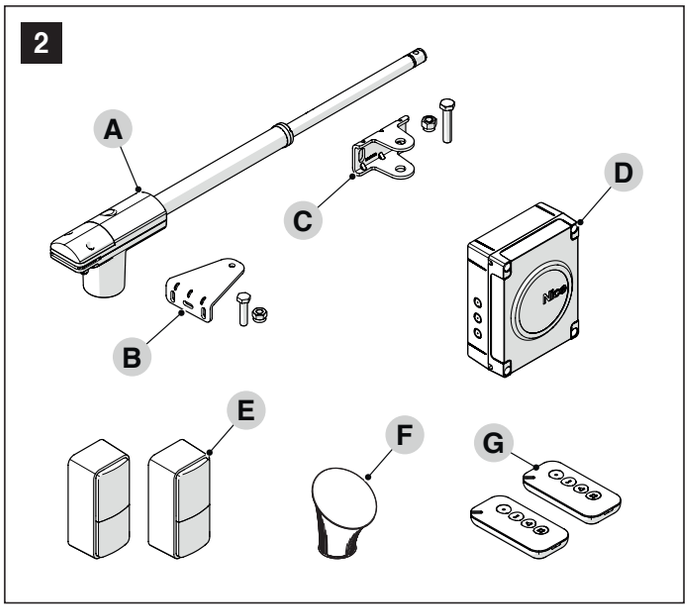
2.2 PRODUCT IDENTIFICATION AND OVERALL DIMENSIONS

The overall dimensions of the product are shown in '***Figure 1***'.



2.3 RECEIPT OF THE PRODUCT

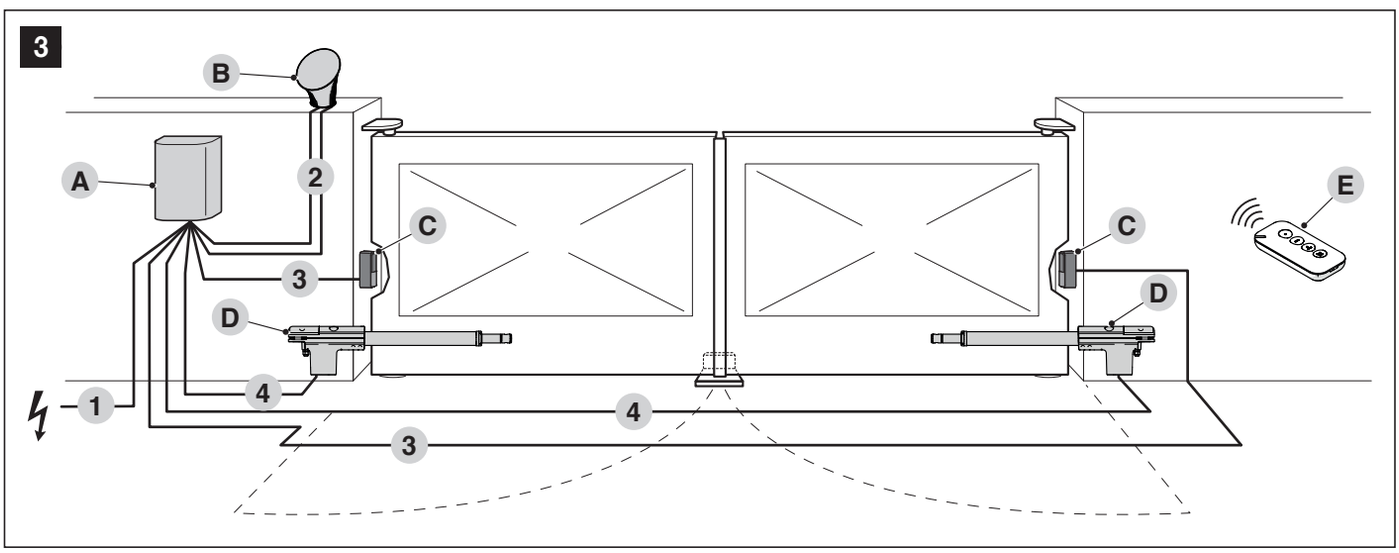
All the components contained in the kit are illustrated and listed below.



A Gear motor **LEGGIO300M**
B Rear gear motor bracket
C Front gear motor bracket
D Control unit
E Photocells (mod. **PH200**)
F Warning light (mod. **FL200**)
G Portable transmitter **MANDI4**

2.4 PRE-INSTALLATION WORKS

The figure shows an example of an automation system, constructed using **Nice** components.



A Control unit **CLB212**
B Warning light with incorporated antenna **FL200**
C Photocells mod. **PH200**
D Gear motor **LEGGIO300M**
E Portable transmitter mod. **MANDI4**

The above components are positioned according to a typical and usual layout. Using the diagram in '***Figure 3***' as a reference, determine the approximate position where each component will be installed in the system.

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Table 2

TECHNICAL SPECIFICATIONS OF ELECTRICAL CABLES	
Identification no.	**Cable characteristics**
1	GEARMOTOR POWER SUPPLY cable 1 cable 3 x 1.5 mm² Maximum length 30 m [**note 1**]
2	WARNING LIGHT cable 1 cable 2 x 0.5 mm² Maximum length 20 m
	ANTENNA cable 1 x RG58-type shielded cable Maximum length 10 m; recommended < 5 m
3	ECSBus cable 1 cable 2 x 0.5 mm² Maximum length 20 m
	STOP INPUT cable 1 cable 2 x 0.5 mm² Maximum length 20 m [**note 2**]
	SbS (Step by Step) cable 1 cable 2 x 0.5 mm² Maximum length 20 m [**note 2**]
4	MOTOR OUTPUT cable M1 and M2 1 cable 3 x 1 mm² Maximum length 10 m
	OPEN INPUT cable 1 cable 2 x 0.5 mm² Maximum length 20 m

Note 1 If the power supply cable is longer than 30 m, a cable with larger cross-sectional area (3 x 2.5 mm²) must be used and a safety earthing system must be installed near the automation.

Note 2 These two cables can be replaced by a single 4 x 0.5 mm² cable.

Before installation, prepare the electrical cables required for your system, referring to '*Figure 3*' and the information in the chapter '*TECHNICAL SPECIFICATIONS*' (page 37).

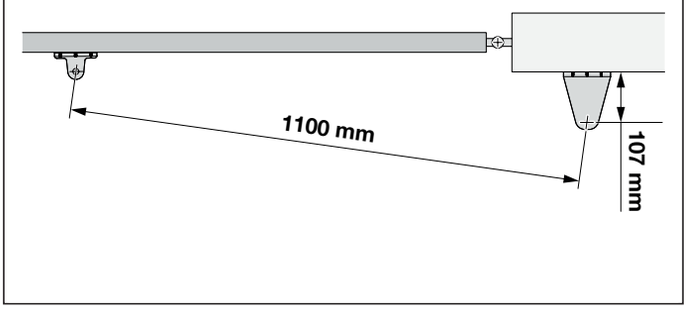
The ECSbus cables must be placed in different conduits from the motor cables.

The cables used must be suited to the type of environment of the installation site.

When laying the pipes for routing the electrical cables, take into account that any water deposits in the junction boxes may cause the connection pipes to form condensate inside the control unit, thus damaging the electronic circuits.

Before proceeding with installation, check the dimensions of the gear motor, referring to "*Figure 1*" and the installation dimensions "*Figure 4*".

4



Before proceeding with installation, define the maximum opening angle of the door and the motor force for your system, referring to '*Figure 5*' and the dimensions in '*Table 3*'.

5

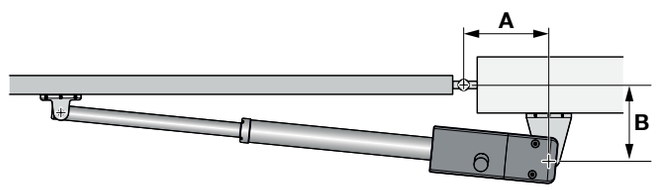


Table 3

MAXIMUM DOOR OPENING AND MOTOR FORCE		
Opening angle	**A**	**B**
90°	95	270
90°	195	200
110°	150	150

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3.1 PRE-INSTALLATION CHECKS

The installation must be carried out by qualified personnel in compliance with the current legislation, standards and regulations, and with the instructions provided in this manual.

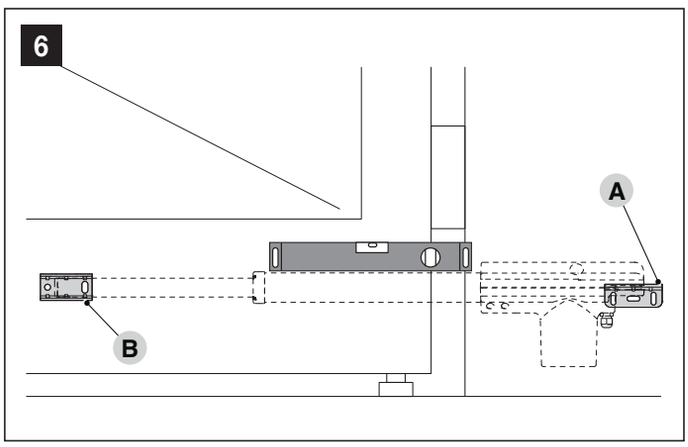
Before proceeding with the product's installation, it is necessary to:
- Check the integrity of the supply
- Check that all the materials are in good working order and suitable for the intended use
- Make sure that the structure of the Swing gate is suitable for being automated
- Make sure that the characteristics of the Swing gate fall within the operating limits specified in the "***Product usage limits***" paragraph (page 5)
- Verify that there are no points of greater friction during the opening and closing movements along the entire path of the Swing gate
- Verify that the area where the gearmotor is installed allows for unlocking the latter and manoeuvring easily and safely
- Verify that there is no risk of derailment of the leaf or that it may come off the guides
- Make sure that the overrun mechanical stops are sturdy enough and that there is no risk of the deformation even when the leaf strikes the mechanical stop vigorously
- Verify that the gate leaf is well balanced: it must not move by itself when left in any position
- Make sure that the area where the gearmotor is fixed is not subject to flooding. If necessary, mount the gearmotor raised from the ground
- Verify that the mounting points of the various devices are protected against impacts and that the mounting surfaces are sufficiently sturdy
- Components must never be immersed in water or other liquids
- Keep the product away from heat sources and open flames and acid, saline or potentially explosive atmospheres; these may damage the product and cause malfunctions or dangerous situations
- Connect the control unit to an electricity supply line equipped with a safety earthing system
- If there is an access door in the gate, or within its range of movement, make sure that it does not obstruct the gate's normal path; install an appropriate interlock system if necessary
- The power line must be protected by an adequate residual-current device
- Mount a device on the electric power line that completely disconnects the automation from the grid. The disconnection device must have contacts with a sufficient gap to ensure complete disconnection, under the Category III overvoltage conditions, in accordance with the installation instructions. Should it be necessary, this device guarantees fast and safe disconnection from the power supply; it must therefore be positioned in view of the automation. If placed in a non-visible location, it must have a system that blocks any accidental on unauthorised reconnection of the power supply, in order to prevent dangerous situations. The disconnection device is not supplied with the product.
- For the system to work properly, mechanical stops (not included in the kit) must be provided on the floor or wall, positioned at the points of maximum opening and closing of the door.

3.2 INSTALLING THE GEARMOTOR

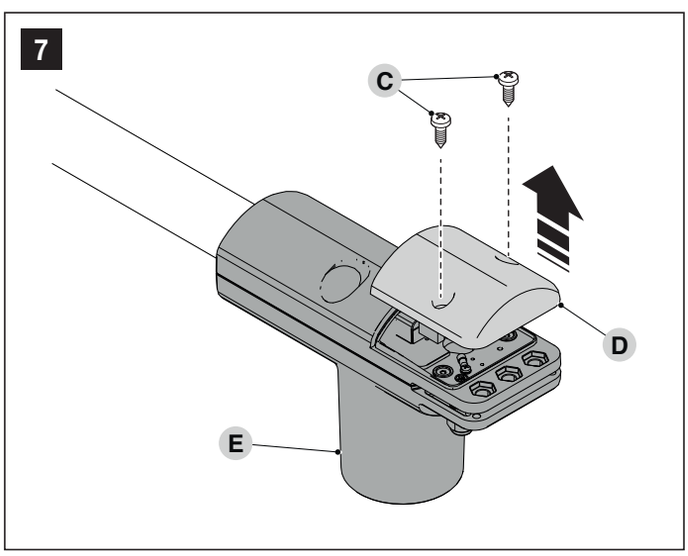
Incorrect installation may cause serious physical injury to the person working on the system or to its future users.

Before starting to assemble the automation, complete the preliminary checks described in the "*Pre-installation checks*" paragraph (page 8) and the "*Product usage limits*" paragraph (page 5).

To install **LEGGIO300**:
1. Check the dimensions of the gear motor (see ("***Figure 1***"))
2. Identify the fixing position of the rear bracket (**A**) and front bracket (**B**)
3. fix the rear bracket (**A**) according to the installation dimensions ("***Figure 6***")

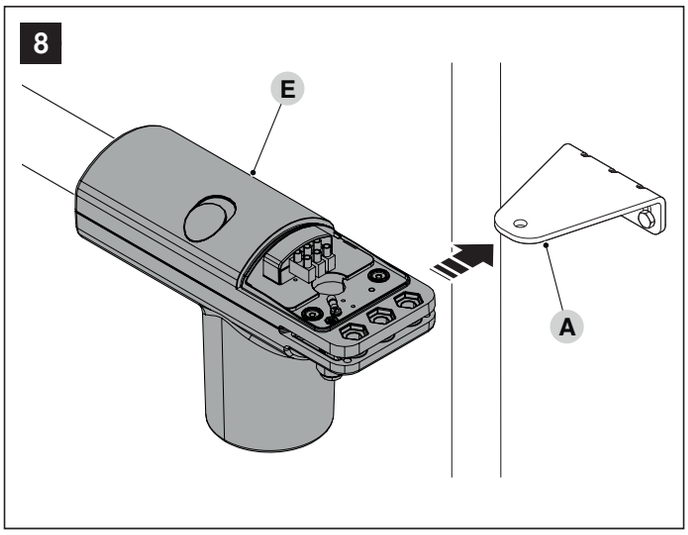


4. unscrew the screws (**C**) of the cover (**D**) of the gear motor (**E**) ("***Figure 7***")

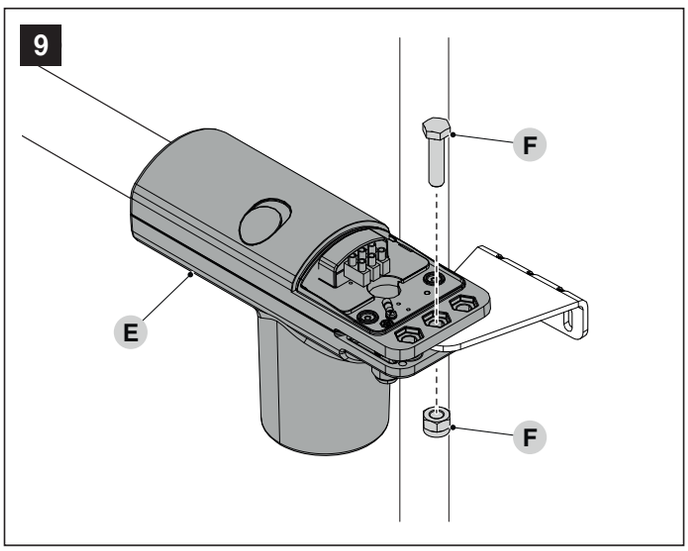


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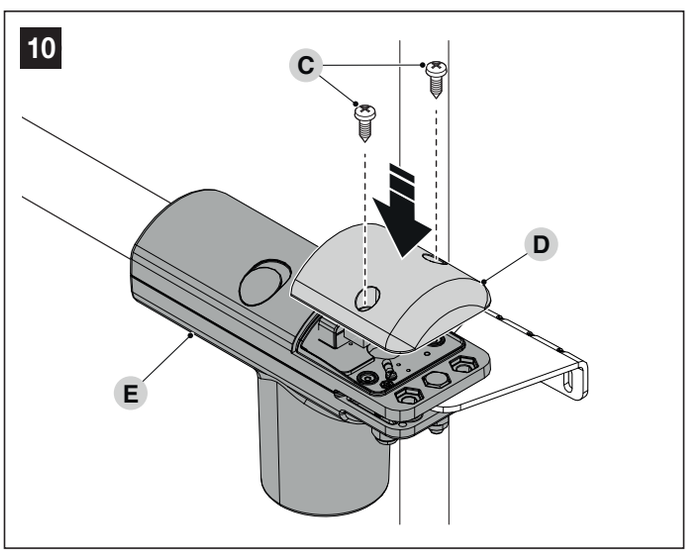
5. fix the gear motor (**E**) on the rear bracket (**A**) ("***Figure 8***")



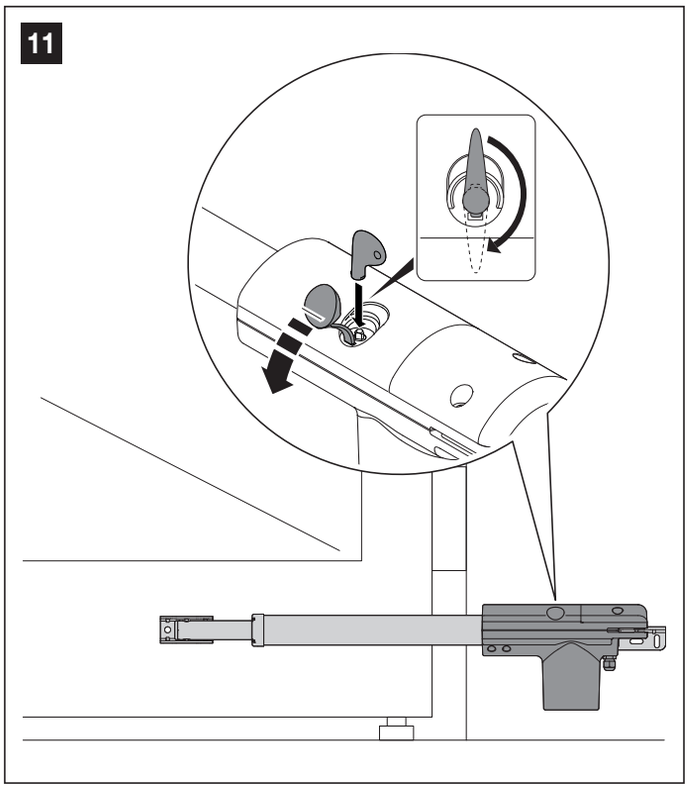
6. screw the gear motor (**E**) with the screw and nut (**F**) of the rear bracket ("***Figure 9***")



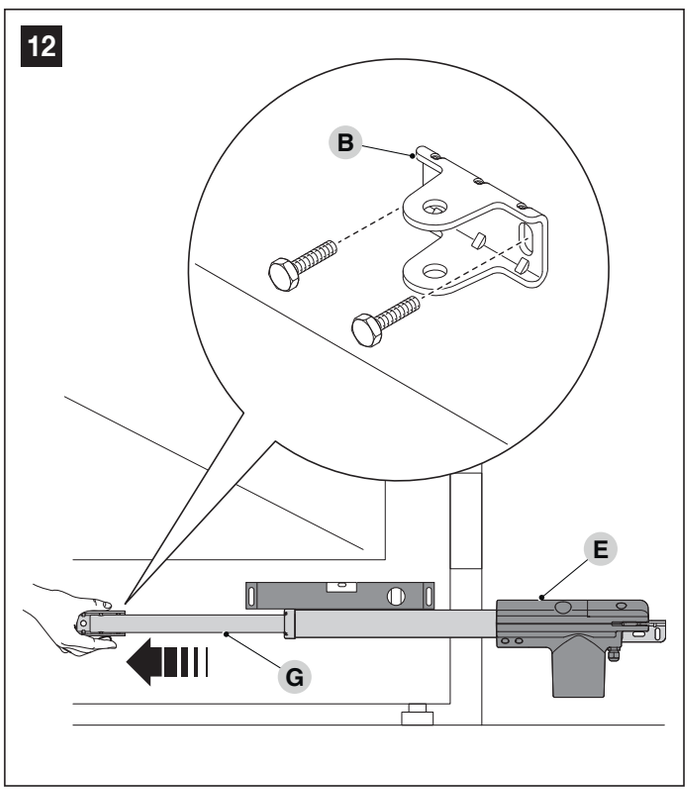
7. screw the cover (**D**) of the gear motor (**E**) back on with the screws (**B**) ("***Figure 10***")



8. unlock the gearmotor manually ("***Figure 11***")



9. completely remove the stem (**G**) from the gear motor and temporarily assemble the front bracket (**B**) to the gate leaf with the screws supplied and check that the gear motor (**E**) is level ("***Figure 12***")

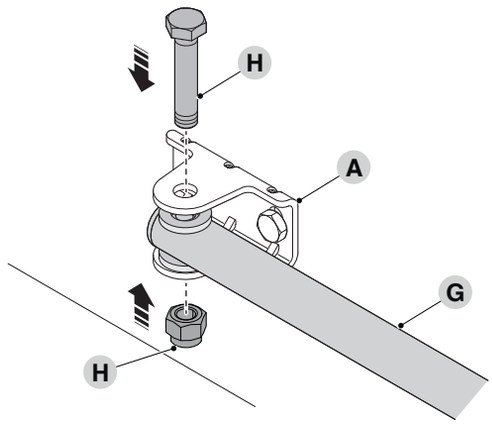


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10. Secure the rod (**G**) to the front bracket (**A**) with the screw and nut (**H**) of the front bracket ("***Figure 13***")

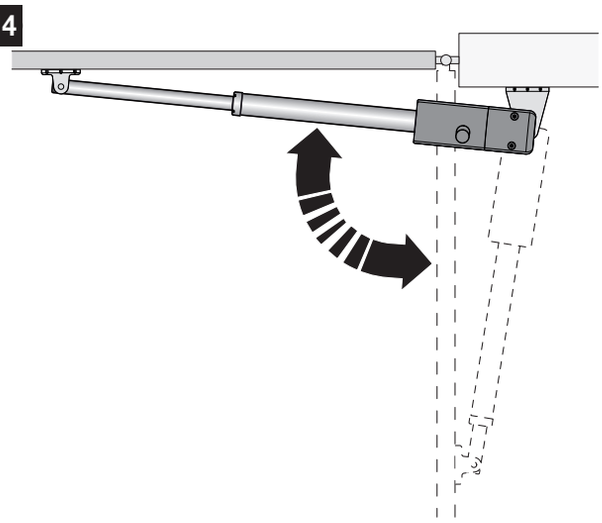
13



11. Manually check that:
- in the fully open position, the gate stops at the mechanical limit switches
- the movement of the gate is smooth and friction-free ("***Figure 14***")

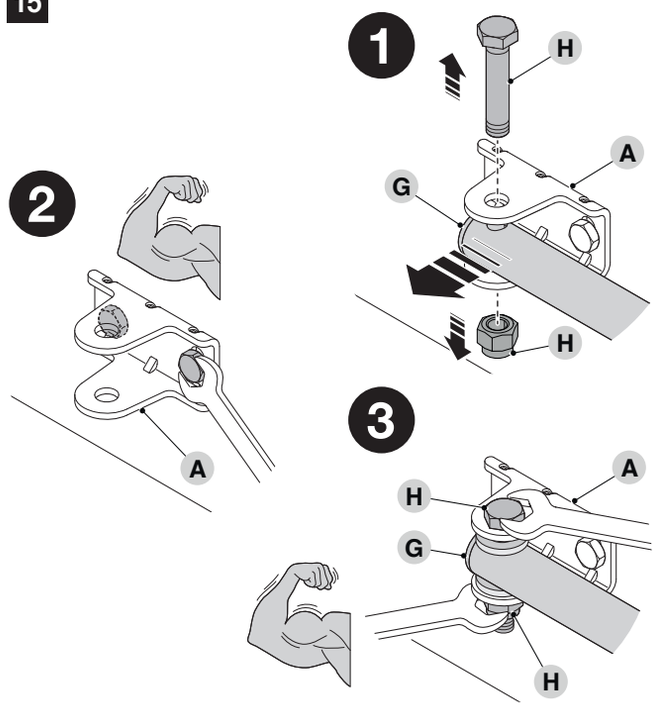
If installation is difficult, take corrective action to ensure that the movement is satisfactory.

14



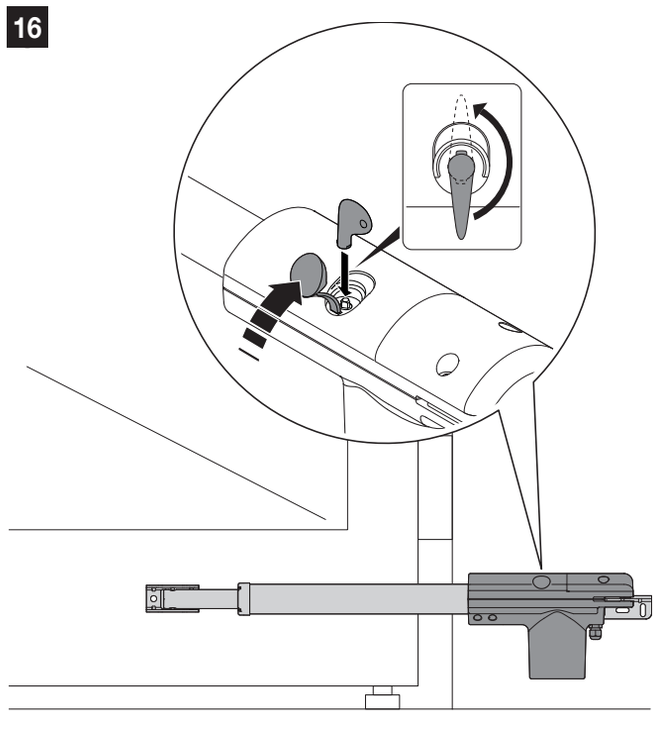
12. Once you are satisfied with the positioning:
1 - release the rod (**F**) from the front bracket (**G**)
2 - secure the front bracket (**G**) to the leaf with the screws supplied
3 - Secure the stem (**F**) to the front bracket (**G**) with the screw and nut (**H**) ("***Figure 15***")

15



13. Manually lock the gear motor ("***Figure 16***").

16



Repeat the installation procedure for the remaining gear motor.

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3.3 INSTALLING THE CONTROL UNIT

Incorrect installation may cause serious physical injury to the person working on the system or to its future users.

Before starting to assemble the automation, complete the preliminary checks described in the "*Pre-installation checks*" paragraph (page 8) and the "*Product usage limits*" paragraph (page 5).

All electrical connections must be made with the system disconnected from the mains electricity and with the emergency power supply (if present in the automation) disconnected.

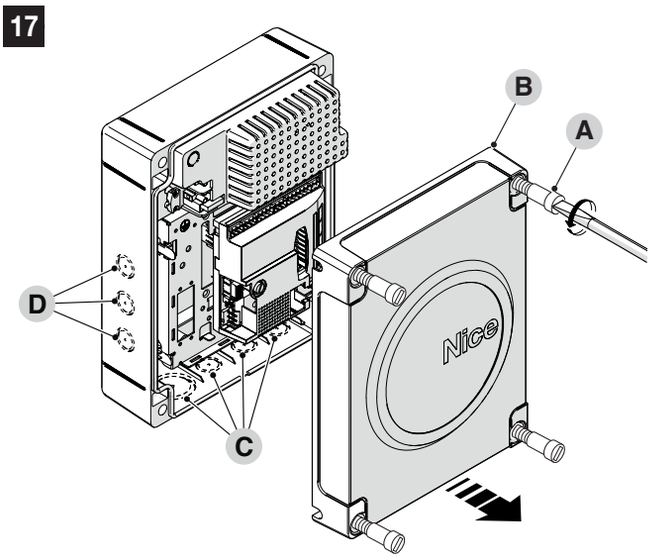
Secure the control unit to an unmovable, vertical, flat surface adequately protected against possible impacts. The lower part of the control unit must be at least 40 cm above the ground.

To secure the control unit ('***Figure 17***' and '***Figure 18***'):

1. loosen the screws (**A**) and remove the cover (**B**) of the control unit
2. identify the pre-cut holes (**C**) located along the lower side of the box and perforate the ones used to pass the electrical cables

The side cable entry (D) can only be used if the control unit is installed indoors, in a protected environment.

17

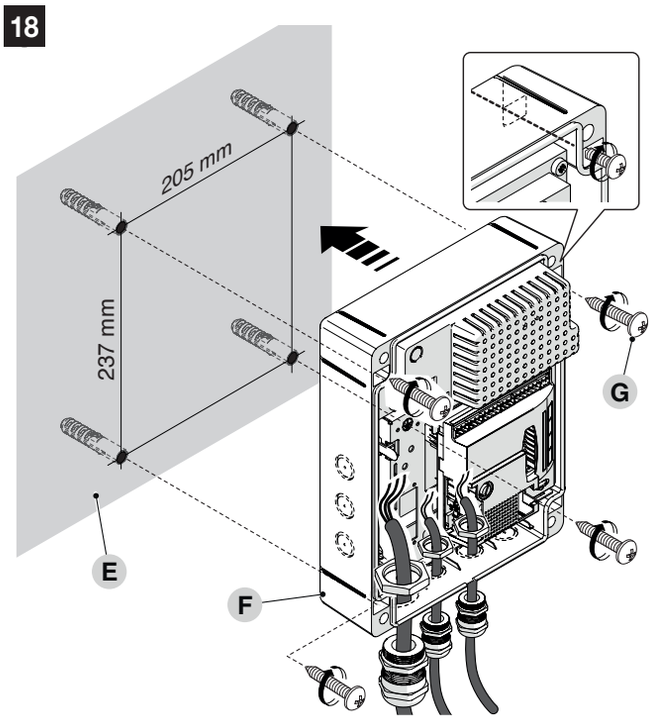


3. drill the wall (**E**) by observing the measurements shown in the figure and arrange suitable wall plugs (not supplied)
4. position the box (**F**) and fasten it with the screws (**G**) (not supplied)
5. arrange cable glands for passing the connecting cables
6. make the electrical connections by operating as described in the "***ELECTRICAL CONNECTIONS***" chapter.

To install any other devices used on the automated system, refer to the respective instruction manuals.

7. after making the electrical connections, put the cover (**B**) back on and tighten the screws (**A**).

18



Once the gear motor and control unit have been installed, the accessories provided with the system can be installed: for the installation of photocells mod. PH200, see chapter ***Photocell assembly PH200***; for the installation of the flashing light mod. FL200 see chapter ***Fitting the flashing indicator FL200***.

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3.4 PHOTOCELL ASSEMBLY PH200

All electrical connections must be made with the system disconnected from the mains electricity and with the emergency power supply (if present in the automation) disconnected.

The connection operations must only be carried out by qualified personnel.

Position each photocell 40/60 cm from the ground; position them on opposite sides of the area to be protected and as close as possible to the door (maximum distance = 15 cm).

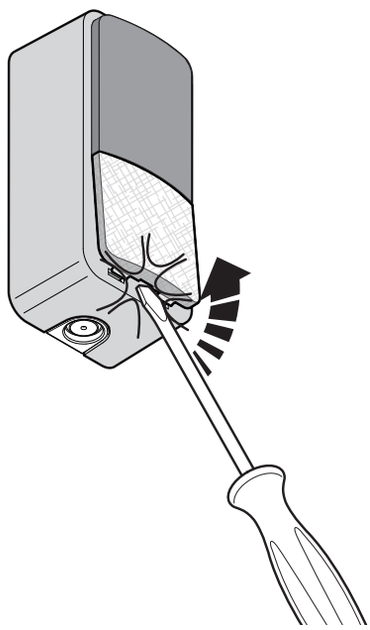
A cable conduit must be present at the fixing point.

Point the transmitter TX towards the centre of the receiver RX (maximum misalignment: 5°).

To install:

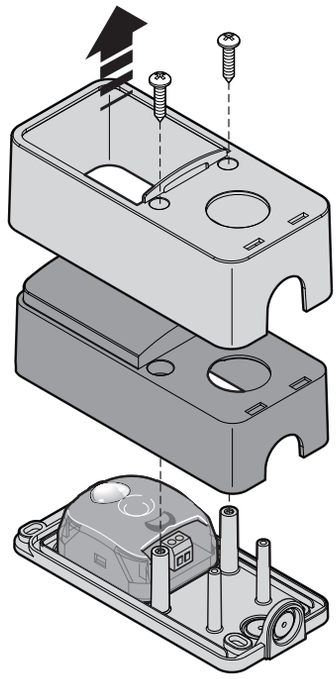
1. remove the front glass ("***Figure 19***")

19



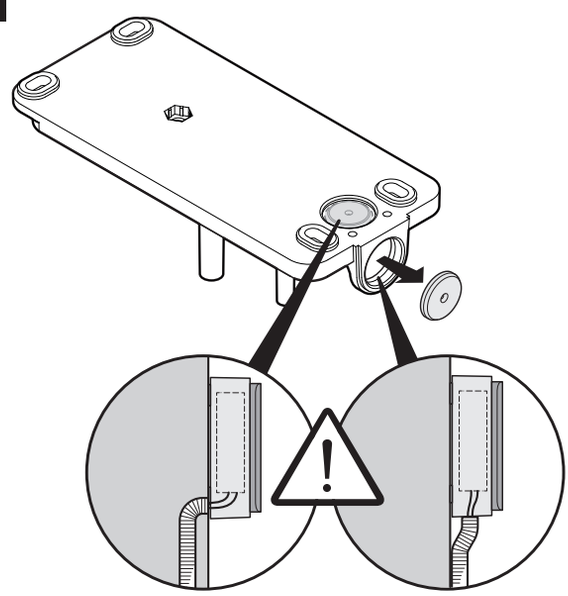
2. remove the upper shell and then the inner shell of the photocell ("***Figure 20***")

20



3. drill the lower shell at the point where the cables are to pass through ("***Figure 21***")

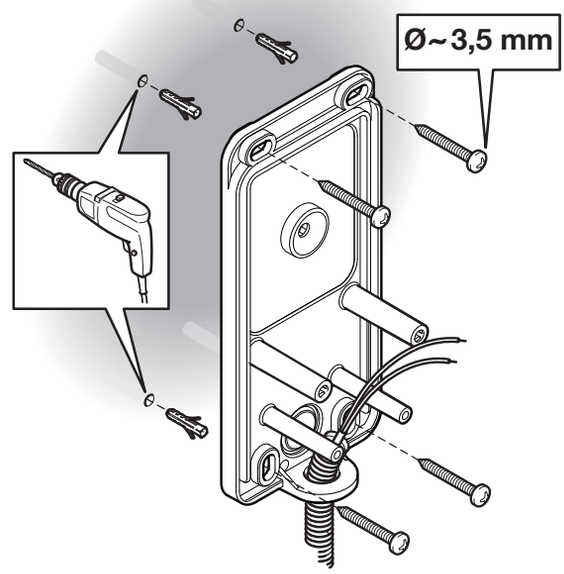
21



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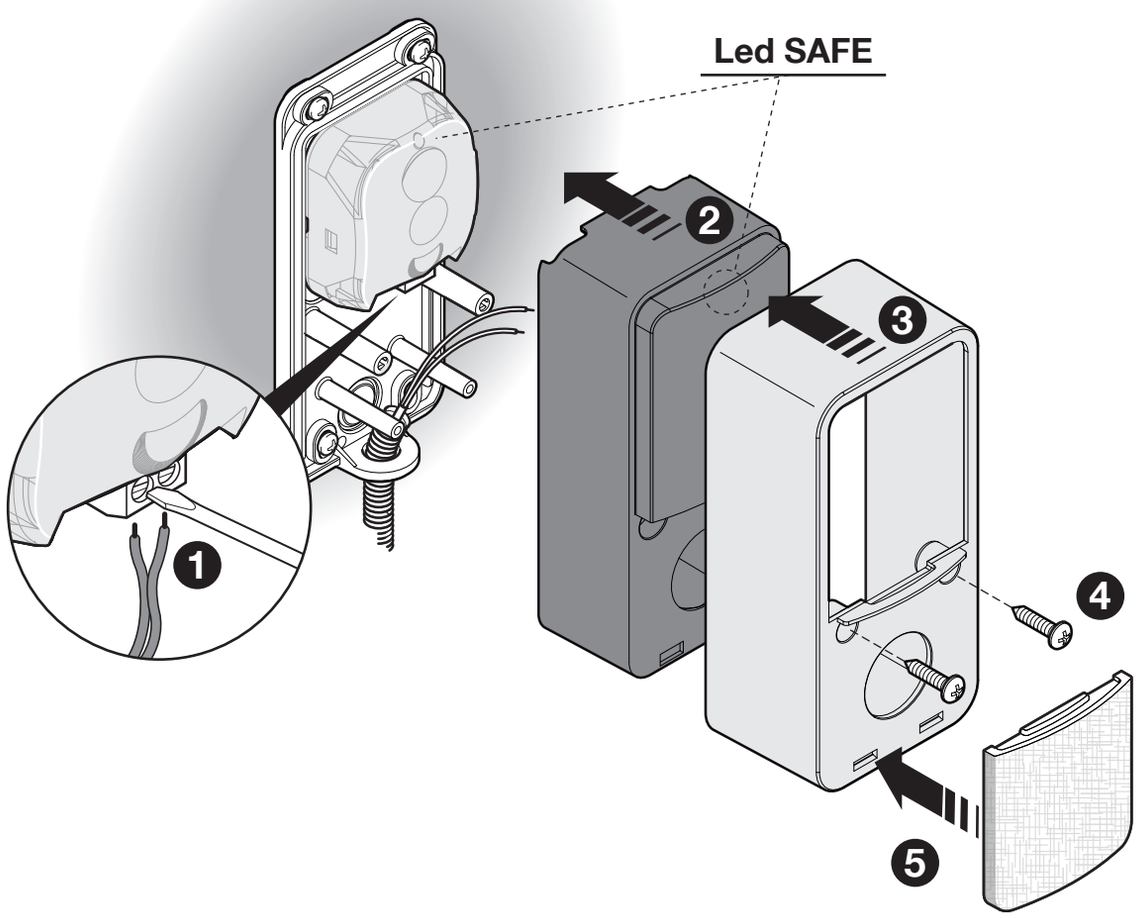
4. position the lower shell where the cable passage tube arrives and mark the drilling points
5. drill the wall with a hammer drill using a 5 mm drill bit. Insert the 5 mm wall plugs into the holes
6. Pass the electrical cables through the holes and secure the lower shell with screws ("***Figure 22***")

22



7. Connect the electrical cable to the appropriate terminals on both the TX and RX (1) ("***Figure 23***"). Make the electrical connections according to the required function and '***Figure 30***'.
8. Reposition the inner shell (2), then the upper shell (3), securing it with the two screws (4). Finally, insert the cover and press gently to close it ("***Figure 23***")

23



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3.5 FITTING THE FLASHING INDICATOR FL200

The flashing light must be positioned near the door and must be easily visible. It can be fixed to either a horizontal or vertical surface.

No polarity needs to be observed when connecting to the Flash terminal; however, when connecting the shielded antenna cable, the cable and braid must be connected as shown in the figure below (06.) and in ("***Figure 30***")

1. To install, follow the instructions in the ("***Figure 24***"):



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4.1 PRELIMINARY CHECKS

All electrical connections must be made with the system disconnected from the mains electricity and with the emergency power supply (if present in the automation) disconnected.

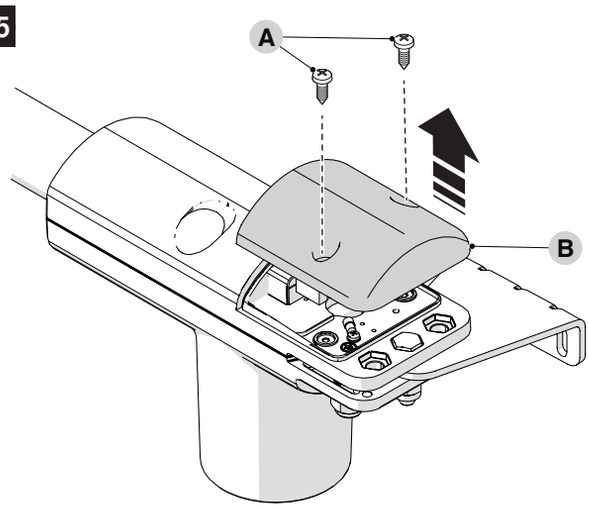
The connection operations must only be carried out by qualified personnel.

Check that all electrical cables to be used are of the suitable type

To make the electrical connections:

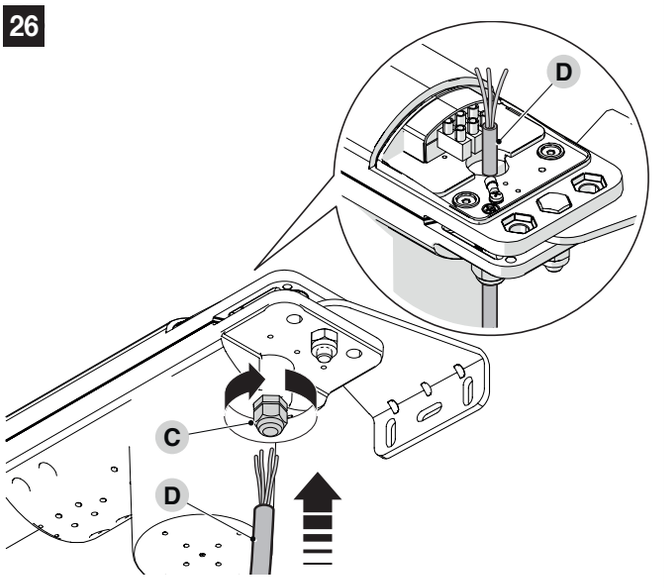
1. remove the screws (**A**) and remove the cover (**B**) from the gear motor ("***Figure 25***")

25



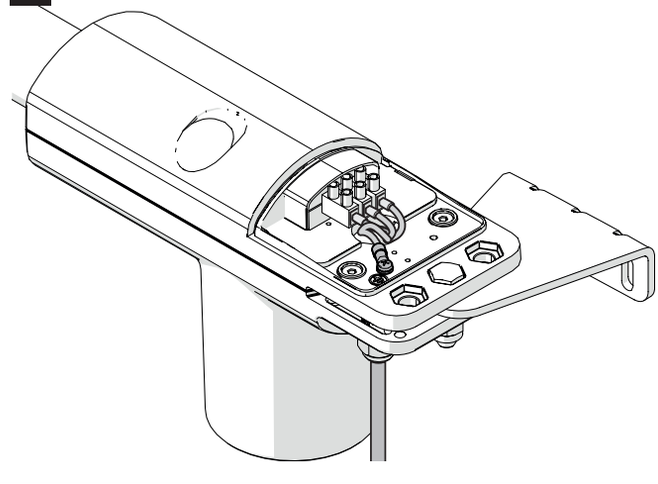
2. loosen the cable gland (**C**) and insert the connection cable (**D**) ("***Figure 26***")

26



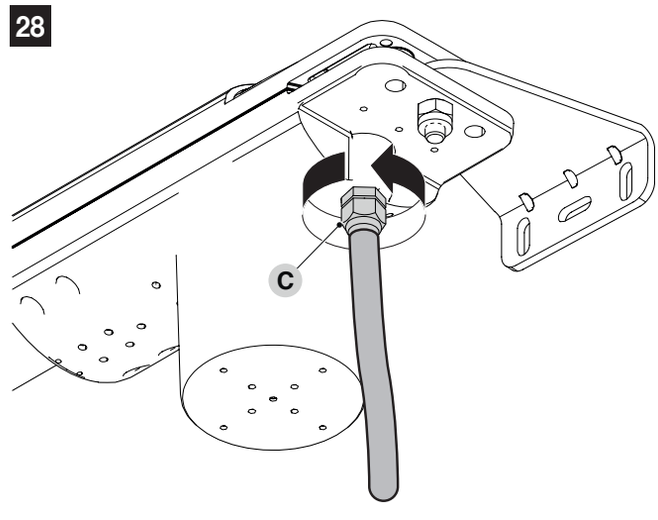
3. connect the various cables and the earth cable to the appropriate eyelet ("***Figure 27***")

27



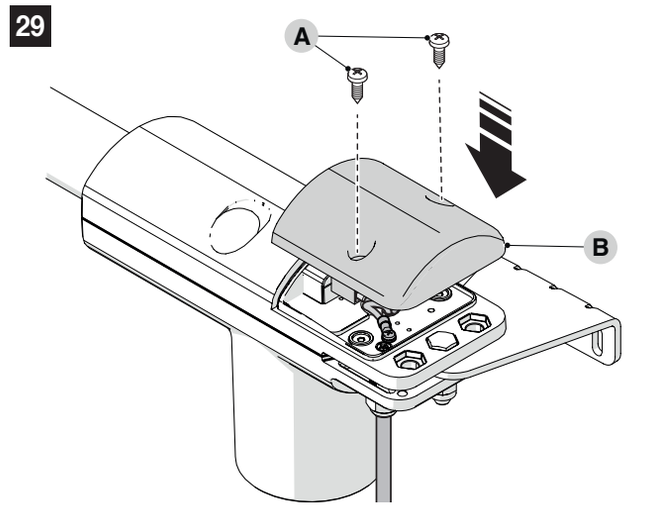
4. once the connections have been made, tighten the cable gland (**C**) ("***Figure 28***")

28



5. replace the cover (**B**) and tighten the screws (**A**) ("***Figure 29***")

29



6. connect the various devices in the kit and any other components required for the system (optional and not included in the package) to the terminals on the control unit ("***Figure 30***"). No polarity needs to be observed for any of the accessories, except for the shielded antenna cable, which must be connected as indicated.

Note If using the flashing light antenna, remove the wire (connected to the antenna terminal at the factory) and connect the shielded cable type RG58.

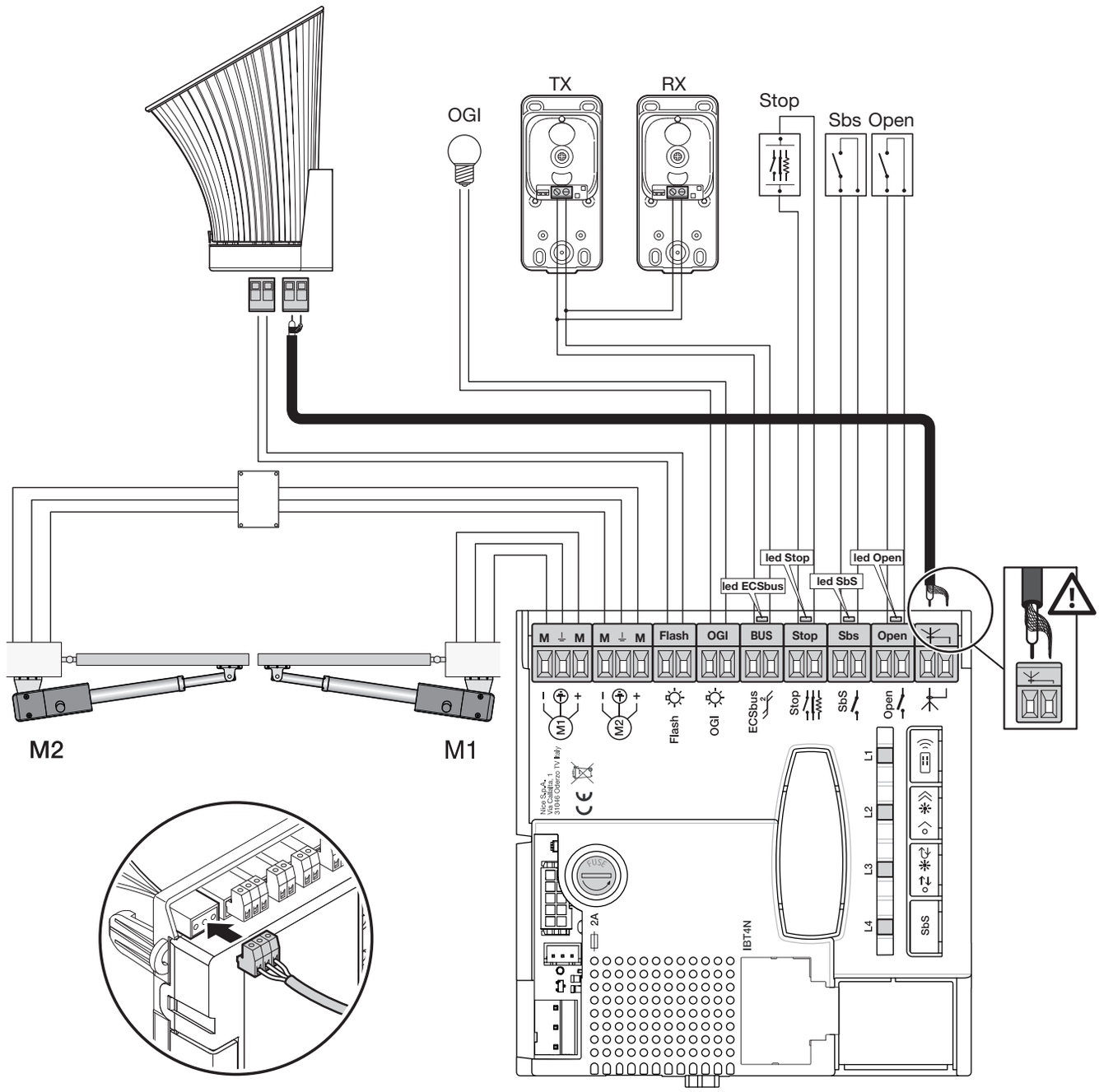
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4.2 WIRING DIAGRAM AND DESCRIPTION OF CONNECTIONS

4.2.1 Wiring diagram

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4.2.2 Description of connections

The meaning of the codes/wording stamped on the electronic board near the relative terminals is described below.

Table 4

ELECTRICAL CONNECTIONS			
Terminals	**Function**	**Description**	**Cable type**
L - N - ⏚	120/230/250 V ~ 50/60 Hz POWER SUPPLY	Mains power supply	3 x 1.5 mm²
M M	Motor 1	Connection of motor M1 [**note 1**]	3 x 1.5 mm²
M M	Motor 2	Connection of motor M2	3 x 1.5 mm²
Flash	Warning light output	Connection for LED signal lights (model FL200)	2 x 0.5 mm²
OGI	OGI output / Electric lock	Connection of the 24 V ⎓ max 5 W Open Gate Indicator or 12 V ⎓ max 15 VA Electric Lock (see the "***PROGRAMMING***" chapter)	OGI: 2 x 0.5 mm² Electric lock: 2 x 1 mm²
ECSbus	Communication bus	One output with a maximum load of 12 ECSBus units (1 ECSBus units is equivalent to the consumption of a pair of photocells [**note 2**]	2 x 0.5 mm²
Stop	STOP input	For normally open contacts and/or for constant resistance 8,2 kΩ, or normally closed contacts with self-learning of the 'normal' state (a change from the stored state causes the Stop command) (see chapter '***PROGRAMMING***')	2 x 0.5 mm²
Sbs	STEP-STEP input	For normally open contacts (closing the contact causes the two doors to open with the open-stop-close-stop sequence)	1 x 0.5 mm²
Open	OPEN input	For normally open contacts (closing the contact causes the two doors to open with the open-stop sequence)	1 x 0.5 mm²
	Antenna	Radio receiver antenna connection	RG58-type shielded cable

Note 1 Not used for single-leaf gates (the control unit automatically recognises whether there is only one motor installed).

Note 2 Only devices that use the same technology can be connected to the ECSbus terminal.

4.2.3 Connection to the power supply

For testing and programming the automation, use the cable provided, inserting the plug into an electrical socket. If the socket is located far from the automation, an extension cable can be used at this stage.
For testing and commissioning the automation system (final connection), the control unit must be permanently connected to the mains power supply, replacing the supplied cable with a cable of suitable length. For connection, see paragraph ***Operations for connection***.

The final connection of the system to the mains or the replacement of the supplied cable MUST be carried out exclusively by a qualified electrician, in compliance with the safety regulations in force in the area and the following instructions.

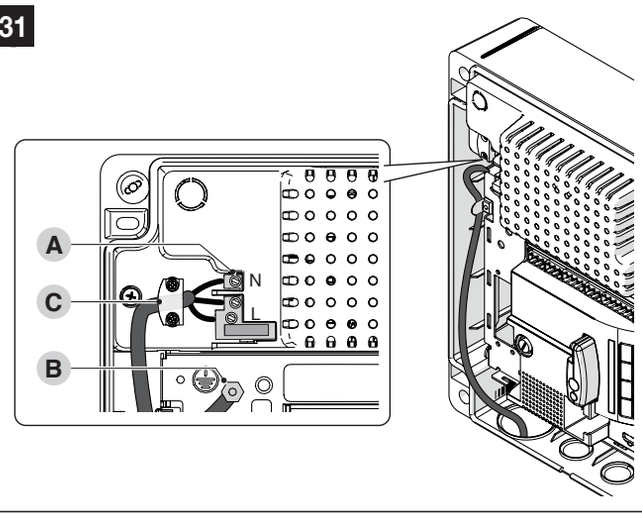
For outdoor installation, the entire cable must be protected with a protective tube; alternatively, the cable can be replaced with a H07RN-F type cable.
A device must be provided within the power supply line to ensure that the automation system is completely disconnected from the mains. The disconnecting device must have contacts with an opening distance sufficient to allow complete disconnection under the conditions specified in overvoltage category III, in accordance with the installation rules. If necessary, this device guarantees quick and safe disconnection of the power supply; therefore, it must be positioned within sight of the automation system. If, on the other hand, it is located in a non-visible position, it must have a system that prevents accidental or unauthorised reconnection of the power supply, in order to avoid any danger.

4.2.4 Operations for connection

To make the electrical connections ('***Figure 30***'):

1. remove the terminals from their housings
2. connect the various devices to the appropriate terminals according to the diagram in "***Figure 30***"
3. put the terminals back into their housings.
4. connect the power supply cable to points (**A**) and (**B**) and secure it with the cable clamp (**C**) ("***Figure 31***").

31

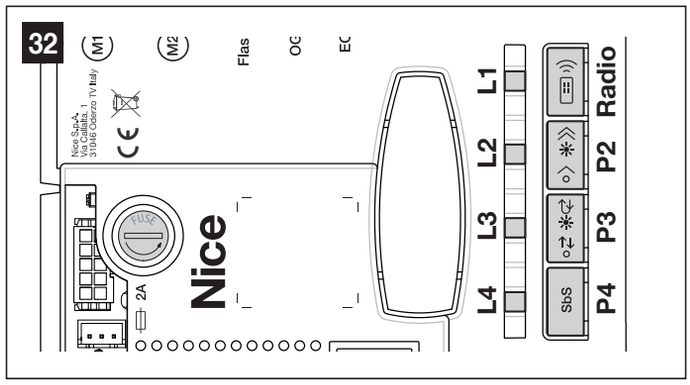


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5.1 USING THE PROGRAMMING BUTTONS

The control unit has four programming buttons: **[Radio ⌨)]**, **[▷ ✳)]**, **[↻ ✳↻]** and **[SbS]** ("***Figure 32***") which can be used both to control the unit during the test phases and to program the available functions.



Their operating status is indicated by the four **LEDs 'L1', 'L2', 'L3' and 'L4'** on the control unit (LED on = function active; LED off = function not active).

The procedures have a limit time for being performed. Before starting, it is necessary to understand the entire process.

The symbols used in the various programming/deletion procedures with the internal radio module are listed in the '***Table 7***'.

[Radio ⌨)] Button for storing or deleting radio controls

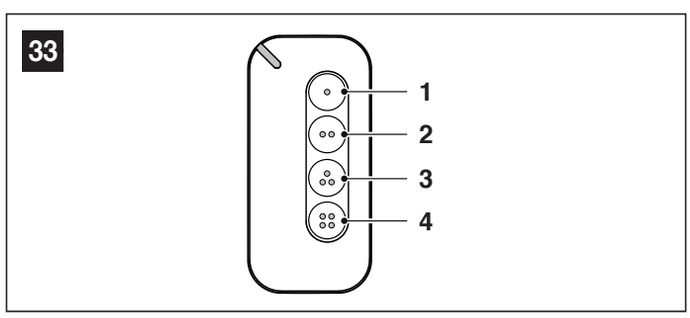
[▷ ✳)] Button for selecting the manoeuvre speed (slow/fast)

[↻ ✳↻] Button to select the operating cycle (semi-automatic/automatic)

[SbS] Button for automation movement command (SbS)

5.1.1 Procedure for memorising transmitter buttons

The radio remote controls can be memorised in 2 ways: in "standard" mode (or Mode 1) and in "custom" mode (or Mode 2).



5.1.1.1 STANDARD memorisation (Mode 1: all buttons)

Procedures of this kind allow for simultaneously memorising, during their execution, **all the buttons** on the transmitter. The system automatically associates each button with a pre-defined command, according to the following scheme:

Table 5

TRANSMITTER FUNCTION PAIRINGS	
Command	**Button**
Step-by-Step	Will be paired with button 1
Partial Open	Will be paired with button 2
OPEN	Will be paired with button 3
CLOSE	Will be paired with button 4
Courtesy light	It will be combined with the 2 and 4 buttons pressed together

5.1.1.2 CUSTOM memorisation (Mode 2: one button only)

Procedures of this type allow for memorising – during their execution – **a single button** among those present on the transmitter.
The installer decides which button to associate with the command on the basis of the automation's needs.

Table 6

EXTENDED MODE II		
No.	**Command**	**Description**
1	**Step-by-Step**	"SbS" (Step-by-Step) command
2	**Partial open 1**	"Partial opening 1" command
3	**Open**	"Open" command
4	**Close**	"Close" command
5	**Stop**	Stops the manoeuvre
6	**Condominium Step-by-Step**	Command in condominium mode
7	**High priority Step-by-Step**	Commands also with the automation locked or the commands enabled
8	**Partial open 2**	Partial open (the door opens up to the position set through Partial Open 2)
9	**Partial open 3**	Partial open (the door opens up to the position set through Partial Open 3)
10	**Opens and locks the automation**	Triggers an opening manoeuvre and, once this terminates, locks the automation; the control unit will not accept any command other than "High-priority Step-by-Step", "Unlock" and "Unlock and close"
11	**Closes and locks the automation**	Triggers a closing manoeuvre and, once this terminates, locks the automation; the control unit will not accept any command other than "High-priority Step-by-Step", "Unlock" and "Unlock and open"
12	**Lock automation**	Triggers the stoppage of the manoeuvre and locks the automation; the control unit will not accept any command other than "High-priority Step-by-Step", "Unlock", "Unlock and close" and "Unlock and open"
13	**Release automation**	Triggers unlocking of the automation and restores normal operation

PLEASE NOTE: for further details relative to the functions linked to the extractable and integrated radio receivers, consult the website www.niceforyou.com.

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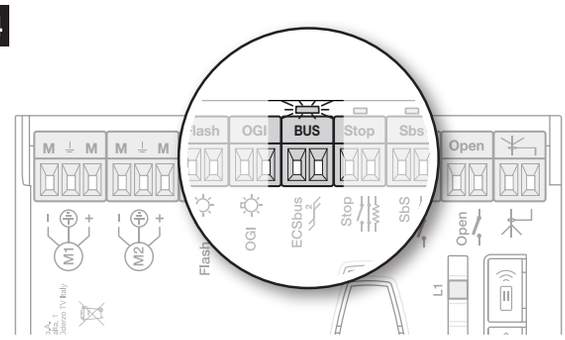
Table 7

KEY TO THE SYMBOLS USED IN THE MANUAL	
Description	**Symbol**
LED 'L1' steady	
LED 'L1' flashing slowly	
LED 'L1' flashing rapidly	
LED 'L1' flashing slowly	
LED 'L1' off	
Disconnect power supply / Restore power supply (remove fuse F2 and the battery pack – if present)	OFF ON
Wait ...	
Perform the operation within 5 seconds	>5 sec <
Press and hold the radio button on the control unit	
Press and release the radio button on the control unit	
Release the radio button on the control unit	
Press and release the desired transmitter button	
Hold down the desired transmitter button	
Release the desired transmitter button	
Observe when LED 'L1' emits signals	

5.2 INITIAL CHECKS

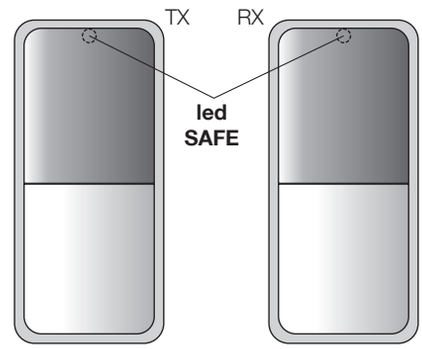
1. on the control unit ("***Figure 34***") check that the **'ECSbus'** LED flashes regularly (approximately once per second)

34



2. on the **Tx** and **Rx** photocells ("***Figure 35***") check that the LED **'SAFE'** flashes: the type of flashing is not important as it depends on other factors; however, it is important that the LED is not always off or always on

35



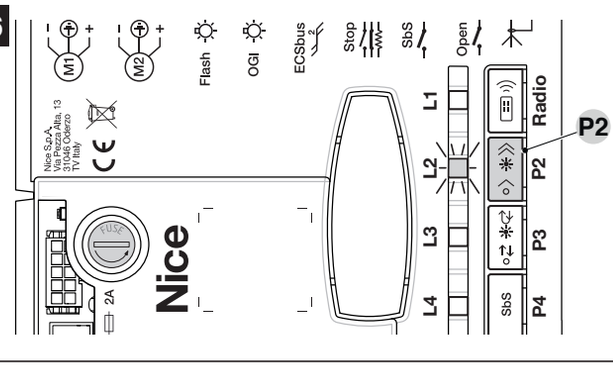
3. if all these checks are not correct, disconnect the power supply to the control unit and check the cable connections already made. Further useful information can be found in chapters ***FURTHER INFORMATION*** e ***TROUBLESHOOTING GUIDE***.

5.3 STORING CONNECTED DEVICES

After the initial checks, the control panel must recognise the devices connected to terminals **ECSbus** and **Stop**:

1. on the control unit ("***Figure 36***") press and hold the **'P2'** button for at least 3 seconds and then release it

36

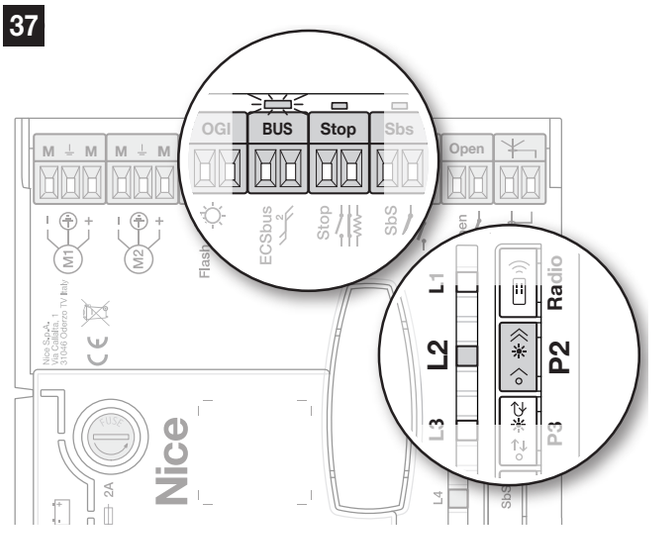


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2. wait a few seconds for the control unit to finish learning the devices
3. on the control unit ("***Figure 37***") at the end of the learning process, the **'Stop'** LED must remain lit and the **'L2'** LED must light up. The ECSbus LED must flash once per second. If the **'L2'** LED flashes = error (see chapter ***TROUBLESHOOTING GUIDE***.

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5.4 MOTOR TYPE SELECTION

1. The control unit is equipped with a selector (**A**) ("***Figure 38***") that allows you to specify the type of motor connected to the control unit (see "***Table 8***").

Take great care when setting the selector according to the motor type as specified in *Table 8*.

The motor selector must be set before activating the learning of the mechanical stop positions; any configuration not shown in the table is not permitted.

If it is necessary to change the selector configuration following a change in motor type, the opening and closing angles of the gate leaves must be memorised again (see chapter "*Storing the opening and closing angles of the gate leaves*".

38

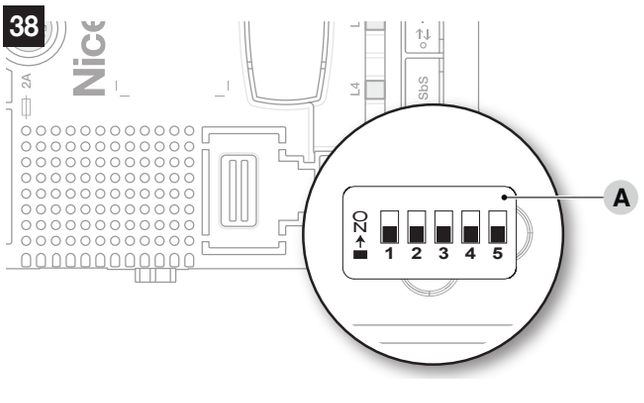


Table 8

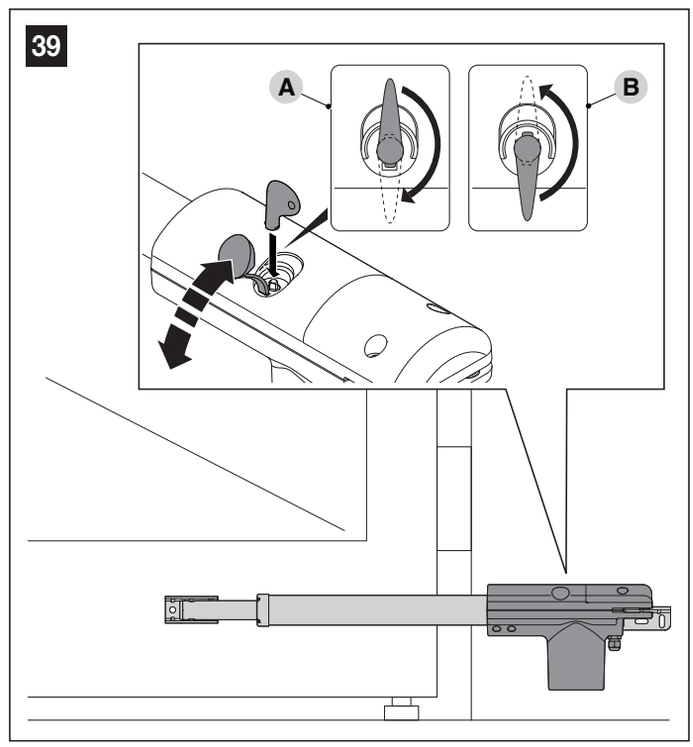
SELECTING THE MOTOR TYPE	
Motor type	**Motor selector**
RIVA 200	
ARIA 200	
ARIA 400	
MAESTRO 200	
MAESTRO 300	
IN 100	
LEGGIO 300	

5.5 STORING THE OPENING AND CLOSING ANGLES OF THE GATE LEAVES

Once the motor type has been selected, the control unit must be allowed to recognise the opening angles of the leaves. During this phase, the opening angle of the leaves is detected from the mechanical closing stop to the mechanical opening stop. Fixed and sufficiently robust mechanical stops must be present.

1. Manually unlock the gear motors **(A)** and move the leaves halfway so that they are free to move in opening and closing; then lock **(B)** the motors ("***Figure 39***")

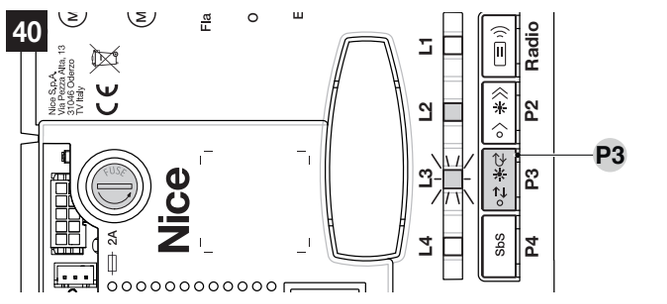
39



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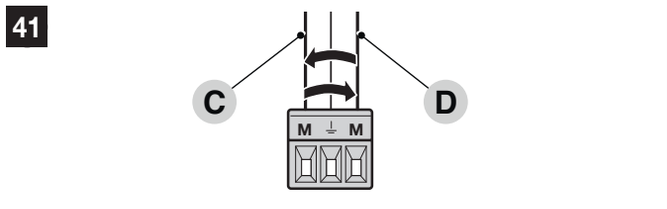
2. On the control unit ("***Figure 40***") press and hold the **'P3'** button for at least 3 seconds; release the button when the motor starts moving. Wait for the control unit to complete the memorisation phase: motor M1 closes until mechanical stop, motor M2 closes until mechanical stop, motor M2 and motor M1 open until mechanical stop in opening; M1 and M2 close completely.

40



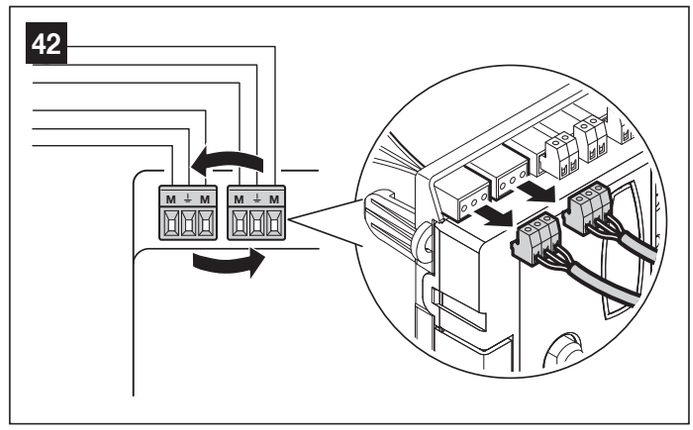
If the first movement of one or both doors is not a closing movement, press and release the 'P3' button on the control unit ("*Figure 40*") to stop the memorisation phase and reverse the polarity of the motor(s) that performed the opening, reversing the two blue (C) and brown (D) wires ("*Figure 41*").

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If the first motor to move during closing is NOT M1, press and release the 'P3' button on the control unit ("*Figure 40*") to stop the memorisation phase and reverse the motor terminals on the control unit ("*Figure 42*").

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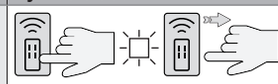
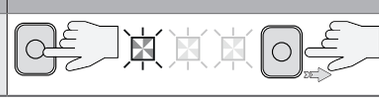


5.6 MEMORISATION OF A RADIO COMMAND

5.6.1 Memorisation in "Mode 1"

The control unit has a built-in radio receiver for transmitters **MANDI4**: before continuing, you must memorise the first transmitter in 'Mode 1'.
During the procedure indicated in '***Table 9***', the receiver stores all the buttons on the transmitter, automatically assigning command 1 of the receiver to the 1st button, command 2 to the 2nd button, and so on.
The memorisation will ultimately occupy a single memory location and the command associated with each button will depend on the "List of commands" present on the automation's control unit.

Table 9

MEMORISATION IN MODE 1	
Description	**Symbols used**
Press and hold the 'Radio' button on the control panel and wait for the 'L1' LED to light up. Release the 'Radio' button	
On the transmitter being memorised	
Press and hold any button for 3 seconds. If the memory is successful, the L1 LED flashes 3 times. (*1)	

(*1) - If there are other transmitters to be memorised, repeat the sequence on the transmitter within 10 seconds. The procedure ends automatically when this time has elapsed.

English

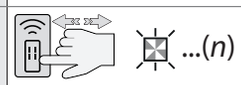
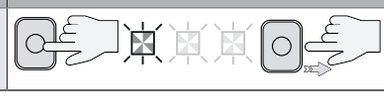
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5.6.2 Memorisation in “Mode 2”

During the procedure indicated in ‘***Table 10***’, the receiver stores only one button from those on the transmitter, assigning the function chosen by the installer.
To memorise further buttons, repeat the procedure from the beginning for each button to be memorised.
The memory will occupy a single memory location and the command of the memorised button will be the one chosen by the installer in the ‘Command list’ of the automation control unit (see ‘***Table 6***’).

Before proceeding, you must clear the memory of the transmitter to be stored.

Table 10

MEMORISATION IN MODE 2 (AND EXTENDED MODE 2)	
Description	**Symbols used**
Select the command you wish to store from those listed in the ‘*Table 6*’ and note down the identification number (n).	
Press and release the ‘Radio’ button a number of times equal to the number (n) that identifies the selected command. The ‘L1’ LED flashes the same number of times.	
On the transmitter being memorised	
Hold down the button you want to memorise for 2 seconds. If the memorisation is successful, the ‘L1’ LED on the control unit flashes 3 times. (*2)	

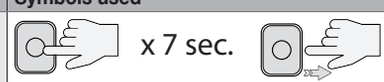
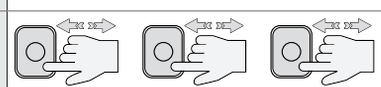
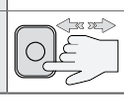
(*2) - If there are other transmitters to which you want to store the same command, repeat the sequence on the button of each additional transmitter within 10 seconds. The procedure ends automatically when this time expires.

5.6.3 Memorising a new transmitter “near the receiver”.

During the procedure indicated in ‘***Table 11***’, a new transmitter receives the same radio settings as a transmitter already stored in the control unit. The procedure does not entail any direct action on the “Radio” button of the control unit, only the presence of the transmitter within the receiver’s reception range.

Wait 1 seconds between each step.

Table 11

MEMORISING A NEW TRANSMITTER “NEAR THE RECEIVER”	
Description	**Symbols used**
On the new transmitter, press and hold the button you want to store. Wait 7 seconds and then release it.	
On the transmitter already memorised press slowly and release 3 times the memorised button to be copied.	
On the new transmitter, press and hold the same button pressed at the start of the procedure for 5 seconds. (*2)	

(*2) - If there are other transmitters to which you want to store the same command, repeat the sequence on the button of each additional transmitter within 10 seconds. The procedure ends automatically when this time expires.

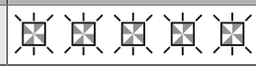
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5.7 DELETING A RADIO COMMAND

5.7.1 Deleting a single command associated with a button from the receiver's memory

During the procedure indicated in '***Table 12***', you can delete a command associated with a button

Table 12

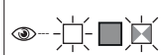
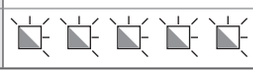
DELETING A SINGLE BUTTON FROM THE RECEIVER'S MEMORY	
Description	**Symbols used**
Press and hold the 'Radio' button on the control panel until the procedure is complete.	
On the transmitter to be deleted	
When 'L1' lights up, press and hold the (*4) key you wish to delete and release it after the 'L1' LED on the control panel has flashed 5 times (deletion successful).	

(*4) - If the transmitter is memorised in "Mode 1" (see "***Memorisation in "Mode 1"***"), any button can be pressed. If the transmitter is memorised in "Mode 2" (see "***Memorisation in "Mode 2"***"), the entire procedure must be repeated for each memorised button that must be deleted.

5.7.2 Deleting the receiver's memory (fully)

In a Unidirectional system, the code deletion procedures involve the receiver alone. In a Bidirectional system, it will instead be necessary to delete the pairing also on the radio remote control.
To perform this procedure, consult the instruction manual of the relevant transmitter.

Table 13

FULL DELETION OF THE RECEIVER'S MEMORY.		
Description	**Symbols used**	
Press and hold the 'Radio' button on the control panel and wait for the 'L1' LED to turn on and off. After a few seconds, it will start flashing.		
Deletion modes		
To delete the memory of the receiver, release the 'Radio' button exactly at the 3rd flash. Check that the 'L1' LED flashes very quickly.		
Wait for the 'L1' LED on the control unit to flash 5 slowly. (Deletion successful).		

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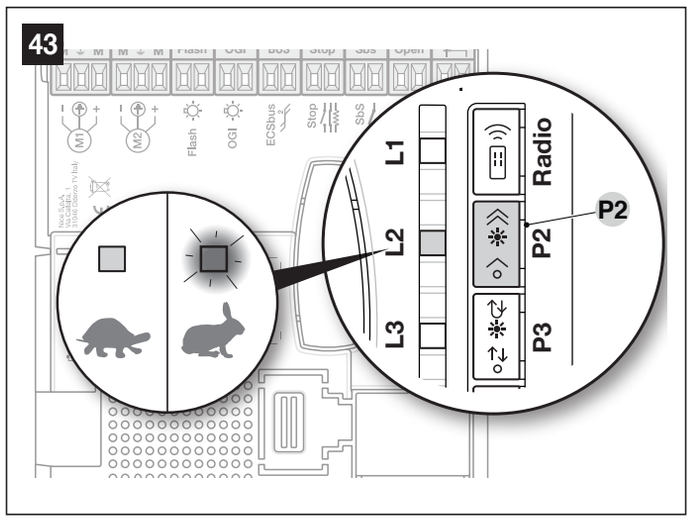
5.8 BASIC SETTINGS

5.8.1 Selecting the gate leaf operating speed

The speed of the gate leaf opening and closing can be 'slow' or 'fast' (the type selected is indicated by the LED '**L2**' being on or off ("***Figure 43***"):

- LED '**L2**' off = '**slow**' operating speed has been selected
- LED '**L2**' on = '**fast**' operating speed has been selected.

1. Press and release the '**P2**' button several times until the LED '**L2**' remains on or off ("***Figure 43***").

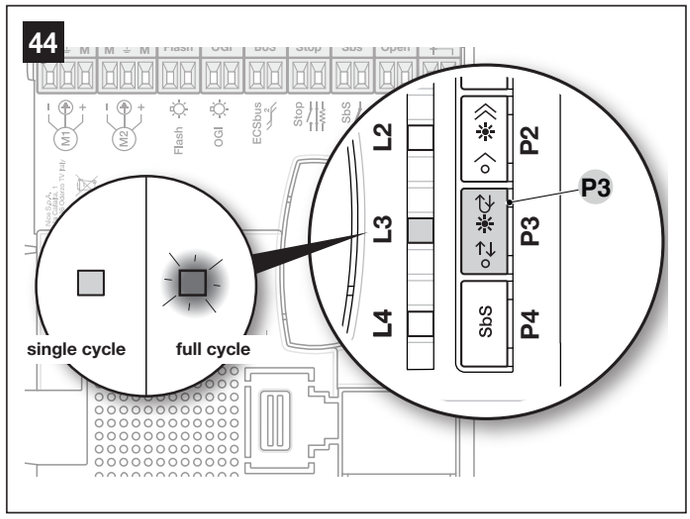


5.8.2 Selecting the operating cycle of the gate leaf operation

The 'opening-closing' cycle of the gate leaves can be of the '**single cycle** (semi-automatic)' or '**complete cycle** (automatic)' type (the type selected is indicated by the '**L3**' LED on the control unit being on or off ("***Figure 44***"):

- LED '**L3**' off = '**single cycle** (semi-automatic)' operation has been selected (with a first command, the gate opens and remains open until
- the next command, which will cause it to close)
- LED '**L3**' on = '**full cycle** (automatic)' mode has been selected (with a single command, the gate opens and closes automatically after a programmed 'pause time'. To adjust the cycle, see paragraph ***Adjustment and verification of parameters***.

1. Press and release the '**P3**' button several times until the '**L3**' LED remains on or off ("***Figure 44***").



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6 - TESTING AND COMMISSIONING

WARNING! – Testing and commissioning of the automation system must be carried out by qualified and experienced personnel who are responsible for establishing the tests to be carried out in accordance with the risks present and for verifying compliance with the provisions of laws, regulations and standards, and in particular all the requirements of standards EN 13241-1 and EN 12453 which establish the test methods for the verification of automatic gate systems.

6.1 TESTING

To run the test:

1. verify that all the instructions stated in the "***GENERAL SAFETY WARNINGS AND PRECAUTIONS***" chapter (page 3) have been strictly observed
2. Using the transmitter, carry out opening, closing and stopping tests on the gate, ensuring that the movement corresponds to what is expected. It is recommended to carry out several tests in order to assess the smoothness of the gate and check for any assembly or adjustment defects, as well as the presence of particular points of friction
3. to check the operation of the photocells and ensure that there is no interference with other devices, pass a cylinder (5 cm diameter, 30 cm length) on the optical axis, first near the **"TX"** photocell then near **"RX"** photocell and, lastly, at the mid-point between the two and verify that in all these cases the device is triggered, switching from the active to the alarm status and vice-versa; make sure that it triggers the intended action in the control unit; for example, that it triggers the reversal of movement during the closing manoeuvre.
4. Check, one by one, that all safety devices on the system are working properly (photocells, sensitive edges, etc.). If a device is activated, the '**ECSbus**' LED on the control unit flashes longer to confirm that it has been recognised
5. measure the impact force in accordance with EN 12453 and, if the 'motor force' control is used as an aid to the system for reducing the impact force, test and find the setting that gives the best results.

6.2 COMMISSIONING

Commissioning can only be performed after all testing phases have been successfully completed.

Before commissioning the automation, ensure that the owner is properly informed of all residual risks and hazards.

The gate cannot be commissioned partially or under "temporary" conditions.

To commission the automation:

1. compile the automation's technical file, which must include the following documents: overall drawing of the automation, wiring diagram, risk assessment and relative solutions adopted, the manufacturer's declaration of conformity for all devices used and the declaration of conformity compiled by the installer
2. affix a permanent label or sign near the gate specifying the operations for unlocking the gate and manoeuvring it manually
3. affix a data plate on the gate specifying at least the following data: type of automation, name and address of the manufacturer (responsible for commissioning), serial number, year of manufacture and CE mark
4. compile the declaration of conformity of the automation and hand it to the owner of the automation
5. compile the User Manual of the automation and hand it to the owner of the automation
6. compile and provide the owner with the automation's "Maintenance schedule", containing the maintenance instructions for all the automation's devices.

For all the above-mentioned documentation, Nice – through its technical assistance service – provides the following: instruction manuals and guides.

English

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7.1 ADDING OR REMOVING DEVICES

Devices can be added or removed from an automated system at any time. In particular, various types of devices can be connected to '**ECSbus**' and the '**STOP**' input, as indicated in the following paragraphs.

After adding or removing devices, it is necessary to relearn the devices as described in the section '*Learning of other devices*' and repeat the test as indicated in the paragraph '*Testing*'.

7.1.1 STOP input

STOP is the input that causes the immediate interruption of the manoeuvre, followed by a brief inversion. Devices with output featuring normally open "NO" contacts and devices with normally closed "NC" contacts, as well as devices with 8.2 kΩ fixed resistor output, such as sensitive edges, can be connected to this input.
During the device learning phase, the control unit recognises the type of device connected to the STOP input and later, during normal use of the automation, the control unit commands a STOP when it senses a change with respect to the acquired situation.
Multiple devices, even of different types, can be connected to the STOP input if suitable arrangements are made:

- Any number of NO devices can be connected to each other in parallel.
- Any number of NC devices can be connected to each other in series.
- Two devices with 8.2 kΩ fixed resistor output can be connected in parallel; if there are more than 2 devices then they must all be connected in cascade, with a single 8.2 kΩ terminating resistor.
- It is possible to combine two NO and NC contacts by placing them in parallel, while also mounting a 8.2 kΩ resistor in series with the NC contact (this also allows for combining 3 devices: NA, NC and 8.2 kΩ).

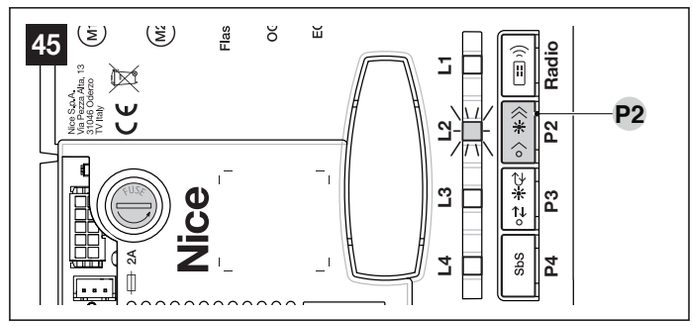
If the STOP input is used to connect devices with safety functions, only the devices with 8.2 kΩ constant resistance guarantee Category 3 safety against faults in accordance with the EN 954-1 standard.

7.1.2 Learning of other devices

ECSbus is a technology that allows compatible devices to be connected with only two conductors, which carry both the power supply and the communication signals. All devices are connected in parallel on the same 2 ECSbus conductors without the need to observe any polarity; each device is recognised individually because it is assigned a unique address during installation.
The following can be connected to ECSbus, for example: photocells, safety devices, control buttons, indicator lights, etc. The control unit recognises all connected devices one by one through a special learning phase and is able to detect all possible faults with extreme reliability.
For this reason, every time a device connected to ECSbus is added or removed, the learning phase must be performed in the control unit.

To do this:

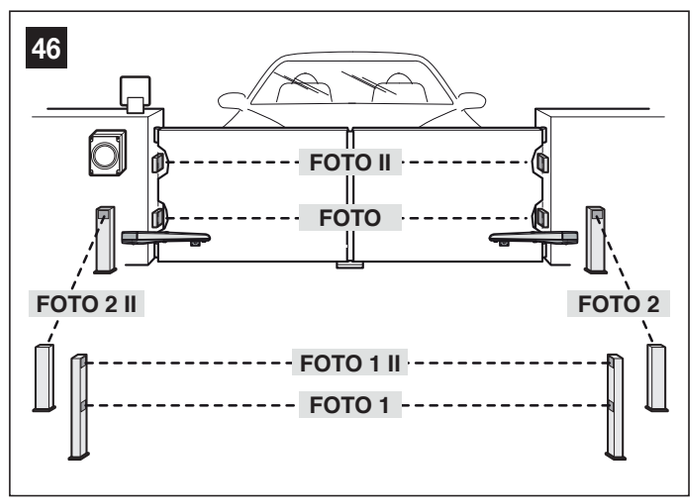
1. Press and hold the [▷ ✳)] button "**P2**" ("***Figure 45***") for at least 3 seconds and release the button
2. wait a few seconds until the control unit has completed the device learning phase
3. At the end of this phase, the '**L2**' LED must turn off. If it flashes, it means that the procedure was not successful. In this case, refer to chapter ***TROUBLESHOOTING GUIDE***.



7.1.3 Optional photocells

Additional photocells can be installed at any time in addition to those already supplied. In an automatic system for 2 leaf gates, they can be positioned as shown in ("***Figure 46***").
For the photocells to be recognised correctly by the control unit, they must be addressed using the appropriate electrical jumpers. The addressing operation must be performed on both TX and RX (by setting the electrical jumpers in the same way) and checking that there are no other pairs of photocells with the same address. The photocells must be addressed so that they can be correctly recognised among the other ECSbus devices and so that they can be assigned their function.
To do this:

1. Open the photocell housing
2. identify the position in which they are installed based on the ("***Figure 46***") and set the jumper according to ***Table 14***. Unused jumpers must be stored in the compartment provided so that they can be reused in the future ("***Figure 47***")
3. perform the learning phase as indicated in paragraph ***Learning of other devices***.



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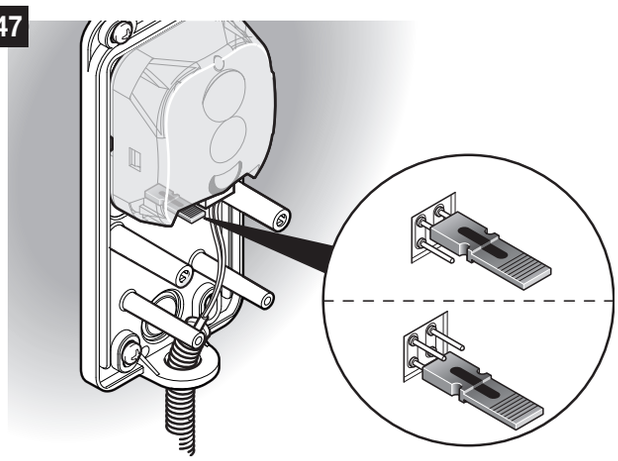
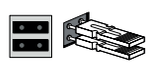
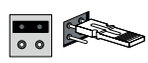
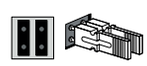
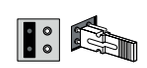
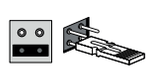
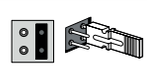
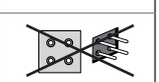


Table 14

PHOTOCELL ADDRESSES	
Photocell	**Position of the jumpers**
FOTO (PHOTO) **External photocell h = 50 activated during the closing phase (stops and reverses the gate's movement)**	
FOTO II (PHOTO II) **External photocell h = 100 activated during the closing phase (stops and reverses the gate's movement)**	
FOTO 1 (PHOTO 1) **Internal photocell h = 50 with intervention both during closing (stops and reverses movement when the photocell is disengaged) and during opening (stops and restarts when the photocell is disengaged)**	
FOTO 1 II (PHOTO 1 II) **Internal photocell h = 100 with intervention both during closing (stops and reverses movement when the photocell is disengaged) and during opening (stops and restarts when the photocell is disengaged)**	
FOTO 2 (PHOTO 2) **Internal photocell triggered during the opening phase (stops and reverses the gate's movement)**	
FOTO 2 II (PHOTO 2 II) **Internal photocell triggered during the opening phase (stops and reverses the gate's movement)**	
FOTO 3 (PHOTO 3) **CONFIGURATION NOT ALLOWED**	

7.2 ADVANCED ADJUSTMENTS

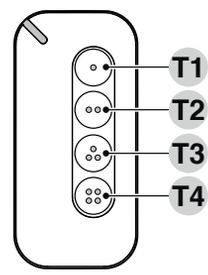
7.2.1 Adjustment and verification of parameters

The transmitter can be used to adjust certain operating parameters of the control unit:

- **Pause time**: time the gate remains open before automatic reclosing (if the 'automatic closing' function is set)
- **Motor force**: maximum force applied by the motor to move the gate; exceeding this value is detected by the control unit as the presence of an obstacle that brakes the leaf and, as a result, reverses the direction of movement
- **SbS function**: sequence of leaf movements associated with each 'Step by Step' command (SbS)
- **OGI function** (Open Gate Indicator): output to which a signal lamp can be connected 24V maximum 4W
- **Pedestrian opening**: partial opening mode of the leaves, for pedestrian passage
- **Open input configuration**: allows you to program the operation of the Open input as described in ***Table 4***
- **Motor discharge 1 and 2 during closing**: adjusts the duration of the 'short reversal' of the motors after the closing manoeuvre has been performed, in order to reduce the final residual force
- **Motor discharge 1 and 2 during opening**: adjusts the duration of the 'short reversal' of the motors after the opening manoeuvre has been performed, in order to reduce the residual final force.

The adjustment can be made with any transmitter stored in Mode 1 (such as those supplied, see paragraph ***Memorisation in "Mode 1"***). If no transmitter is stored in Mode 1, you can store one to carry out the programming and then delete it (see paragraph ***Deleting a radio command***).

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All parameters can be adjusted as desired, except for the 'motor force' adjustment, which requires special attention:

- do not use high force values to compensate for abnormal friction points on the gate: excessive force may compromise the operation of the safety system or damage the gate itself.
- if the 'motor force' control is used as an aid to the system to reduce the impact force, after each adjustment, repeat the force measurement as required by the standard EN 12453
- Weather conditions can affect the movement of the gate, so we recommend periodically readjusting the settings.

English

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Customising the parameters

Before proceeding, check in ***Table 15*** the parameter to be modified and the action to be performed.
Once you have identified the parameter you want to modify and the value to set it to, follow the commands to be given via the remote control in sequence in the table row.

Table 15

CUSTOMISING THE PARAMETERS

Parameter	Sequence for entering edit mode		Button	Command to modify the parameter	Number of flashes of the flashing light	Set value
Pause time	Press T1 and T2 simultaneously for at least 5 seconds and then release them	Within 3 seconds, press...	T1	once	1	10 seconds
				twice	2	**20 seconds** *
				three times	3	40 seconds
				four times	4	60 seconds
Pedestrian opening			T2	once	1	Half door opening 1
				twice	2	**Full door opening 1** *
				three times	3	Opening to 1/4 of both doors
				four times	4	Half opening of both doors
Motor force			T3	once	1	Low
				twice	2	**Medium low** *
				three times	3	Medium high
				four times	4	High
Step by Step (SbS) function			T4	once	1	Open - Stop - Close - Stop
				twice	2	**Open - Stop - Close - Open** *
				three times	3	Open - Close - Open - Close
				four times	4	Open only
Open input configuration	Press T1 and T3 simultaneously for at least 5 seconds and then release them		T1	once	1	**Opening (Open - Stop)** *
				twice	2	Pedestrian opening (Step - Step)
OGI (Open Gate Indicator) function			T2	once	1	**OGI** *
				twice	2	Courtesy light
				three times	3	Electric lock
				four times	4	Presence function
Motor discharge 1 and 2 when closing			T3	once	1	**None** *
				twice	2	0,1 seconds (minimum)
				three times	3	0,2 seconds
				four times	4	0,3 seconds
				five times	5	0,4 seconds (average)
				six times	6	0,5 seconds
				seven times	7	0,6 seconds
				eight times	8	0,7 seconds (maximum)
Motor discharge 1 and 2 on opening			T4	once	1	**None** *
				twice	2	0,1 seconds (minimum)
				three times	3	0,2 seconds
				four times	4	0,3 seconds
				five times	5	0,4 seconds (average)
				six times	6	0,5 seconds
				seven times	7	0,6 seconds
				eight times	8	0,7 seconds (maximum)
Standby all	Press T1 and T4 simultaneously for at least 5 seconds and then release them		T1	once	1	Standby off
				twice	2	Standby in 60 seconds
				three times	3	Standby in 120 seconds
				four times	4	**Standby in 300 seconds** *

***** Factory setting.

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Checking the set values

Before proceeding, check in ***Table 16*** the parameter to be modified and the action to be performed.

Once you have identified the parameter you want to modify and the value to set it to, follow the commands to be given via the remote control in sequence in the table row.

Table 16

CHECKING THE SET VALUES						
Parameter	**Sequence for entering the display**				**Counting the flashes of the flashing light**	**Set value**
Pause time	Press T1 and T2 simultaneously for at least 5 seconds and then release them	Within 3 seconds, press	T1	… and hold it down until the flashing light starts flashing. Count the flashes per second and compare the result on the right.	1	10 seconds
					2	**20 seconds** *
					3	40 seconds
					4	60 seconds
Pedestrian opening			T2		1	Gate opening at 0,7 m
					2	**Total door opening 1 m** *
					3	Half gate opening
					4	Gate opening at 3/4
Motor force			T3		1	Low
					2	**Medium low** *
					3	Medium high
					4	High
Step by Step (SbS) function			T4		1	Open - Stop - Close - Stop
					2	**Open - Stop - Close - Open** *
					3	Open - Close - Open - Close
					4	Open only
Configuration and Open input	Press T1 and T3 simultaneously for at least 5 seconds and then release them		T1		1	**Opening (Open - Stop)** *
					2	Pedestrian opening (Step - Step)
OGI (Open Gate Indicator) function			T2		1	**OGI** *
					2	Courtesy light
					3	Electric lock
					4	Presence function (see paragraph ‘ ***Presence function***’
Motor discharge 1 and 2 when closing			T3		1	**None** *
					2	0,1 seconds (minimum)
					3	0,2 seconds
					4	0,3 seconds
					5	0,4 seconds (average)
					6	0,5 seconds
					7	0,6 seconds
					8	0,7 seconds (maximum)
Motor discharge 1 and 2 on opening			T4		1	**None** *
					2	0,1 seconds (minimum)
					3	0,2 seconds
					4	0,3 seconds
					5	0,4 seconds (average)
					6	0,5 seconds
					7	0,6 seconds
					8	0,7 seconds (maximum)
Standby	Press T1 and T4 simultaneously for at least 5 seconds and then release them		T1		1	Standby off
					2	Standby in 60 seconds
					3	Standby in 120 seconds
					4	**Standby in 300 seconds** *

***** Factory setting.

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7.2.2 Presence function

If the light modules **LM100** (not supplied) are connected to this output, this function works as follows:

- **with gate closed**: when an opaque object interrupts the transmission (infrared) of the photocells, the courtesy light comes on for 5 seconds; after this time, if the transmission is still interrupted, the courtesy light comes on for another 5 seconds; if, on the other hand, the photocell does not detect any presence, the courtesy light goes off
- **with gate in motion** (opening and closing manoeuvre): the courtesy light is always on.

At the end of the opening or closing manoeuvre or when the gate is stationary, the courtesy light remains on for an additional 5 seconds, then turns off and resumes the behaviour of the gate when it is closed.

7.2.3 "Move anyway" function

This function can be used to operate the automation even one or more some safety devices fail to work properly or are out of order. The automation can be controlled in "**hold-to-run**" mode by proceeding as follows:

1. send a command to operate the door, using a transmitter or key selector, etc. If everything functions properly, the door will move normally, otherwise proceed with point 2
2. within 3 seconds, press the control again and hold it down
3. after roughly 2 seconds, the door will complete the requested manoeuvre in "**hold-to-run**" mode, in other words, it will continue to move so long as the control is held down.

When the safety devices fail to work, the flashing indicator will flash a few times to signal the type of problem. To verify the type of anomaly, consult the "*Signalling through warning light*" chapter (page 33).

7.3 CONNECTING AND INSTALLING THE EMERGENCY POWER SUPPLY

This product can be equipped with an emergency power supply system that ensures operation even in the absence of mains power. The emergency power supply is through batteries that must be kept in the charged state. The battery charging function is one of the main functions of this product; the Standby Mode will be activated only when the battery charging function is completed.
Check the instructions of the emergency power system for the maximum time required for the batteries to be fully charged.
This product complies with standby regulations when connected to the battery pack PRS100. The product can recognize the charge level of the PRS100 and will recharge it correctly, avoiding entering low power mode if the battery charge level is below 80%.

WARNING

It is possible to use the previous backup battery pack PR100 by using a specific adapter cable (CABLA11) and disabling the standby mode for proper operation. In this case, the average power consumption will be increased.

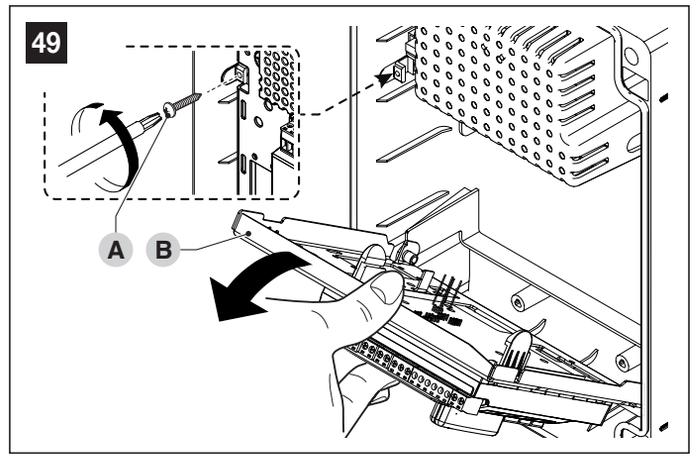
The electrical connection of the battery to the control unit must be made only after completing all the installation and programming stages, as the battery is an emergency power supply.

Before installing a back-up battery, disconnect the power supply to the control unit.

Before installing and connecting the back-up battery:

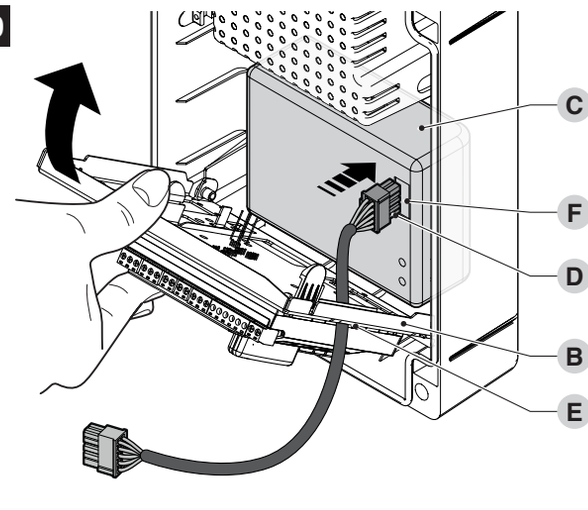
1. remove the cover of the control unit's containment box
2. loosen the screw (**A**) and turn the panel (**B**)

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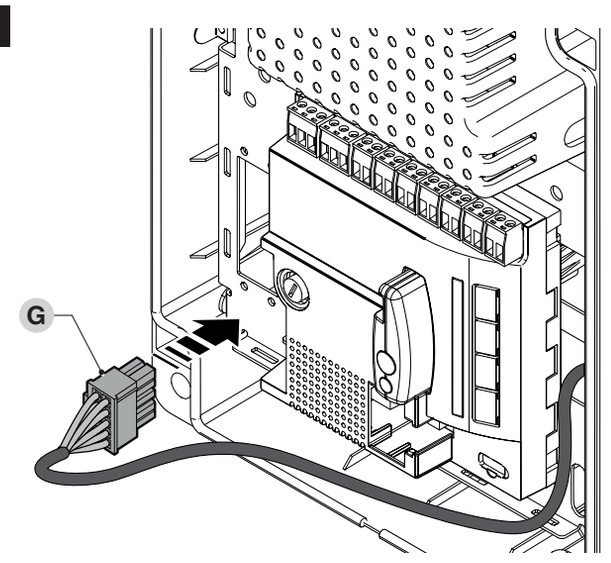
3. position the battery (**C**)
4. insert the connector (**D**) through the opening (**E**) and connect it to the slot (**F**)
5. close the panel (**B**)

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6. insert the connector (**G**) into the dedicated socket

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7. put the cover of the control unit's containment box back on.

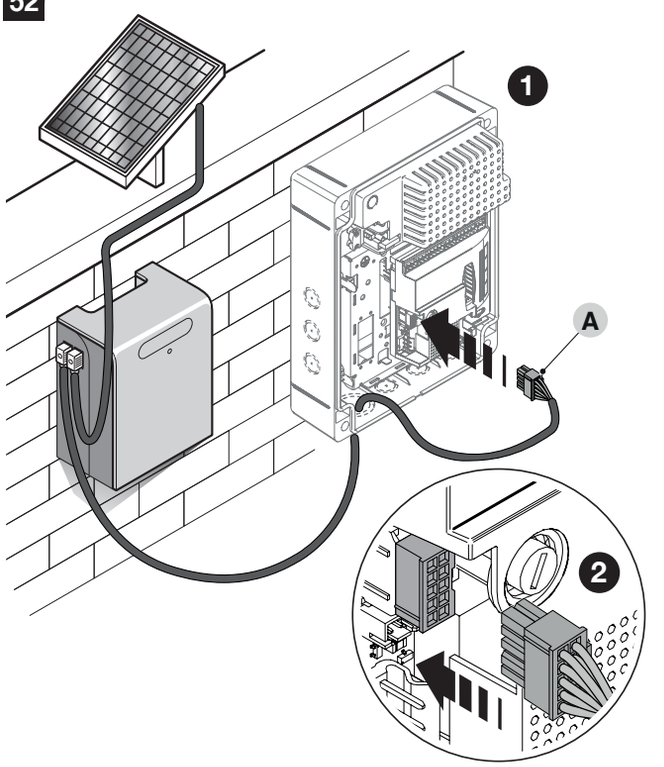
At this stage, the control unit can be powered again.

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7.4 CONNECTING THE SOLEKIT SYSTEM

The control unit is designed to be powered by the photovoltaic power system “Solekit” (solar panel and 24 V battery). To connect the Solekit accumulator to the control unit, use the same connector normally used for the backup battery (**A**).

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When the automation is powered through the “Solekit” system, IT MUST NOT BE POWERED through the mains electricity at the same time.

The ‘Solekit’ system can only be used if the ‘All stand-by’ function is active (ON) in the control unit.

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8.1 TROUBLESHOOTING

The table below contains useful instructions to resolve any malfunctions or errors that may occur during installation or in case of a fault.

Table 17

TROUBLESHOOTING	
Problems	**Recommended checks**
The radio transmitter does not control the automation and the LED on the transmitter fails to light up	Check whether the transmitter batteries are exhausted and replace them if necessary.
The radio transmitter does not control the automation but the LED on the transmitter lights up	Check whether the transmitter has been memorised correctly in the radio receiver.
No manoeuvre is commanded and the "OK" LED fails to flash	Check that the gearmotor is being powered with the mains voltage Check whether fuses **F1** and **F2** are blown; if they are, identify the cause of the failure then replace the fuses with others having the same current rating and characteristics.
No manoeuvre starts and the warning light is off	Check that the command is actually received. If the command reaches the SbS input, the "**OK**" LED must light up; if instead the radio transmitter is used, the "**OK**" LED must emit two quick flashes.
No manoeuvre starts and the warning light flashes a few times	Make sure that the Stop input is active (Stop LED on). If this is not the case, check the device connected to the Stop input. Count the number of flashes and check according to the information in '***Table 21***'.
The manoeuvre starts but is immediately followed by a reverse run	The selected force could be too low for this type of automation. Check whether there are any obstacles and increase the force if necessary. Check whether a safety device connected to the Stop input has tripped.
The manoeuvre is completed correctly but the warning light does not work	Make sure that there is voltage on the warning light's FLASH terminal during the manoeuvre (being intermittent, the voltage value is not significant: roughly 10–30 V⎓); if there is voltage, the problem is due to the lamp, which must be replaced with one having the same characteristics; if there is no voltage, there may have been an overload on the FLASH output. Check that the cable has not short-circuited.

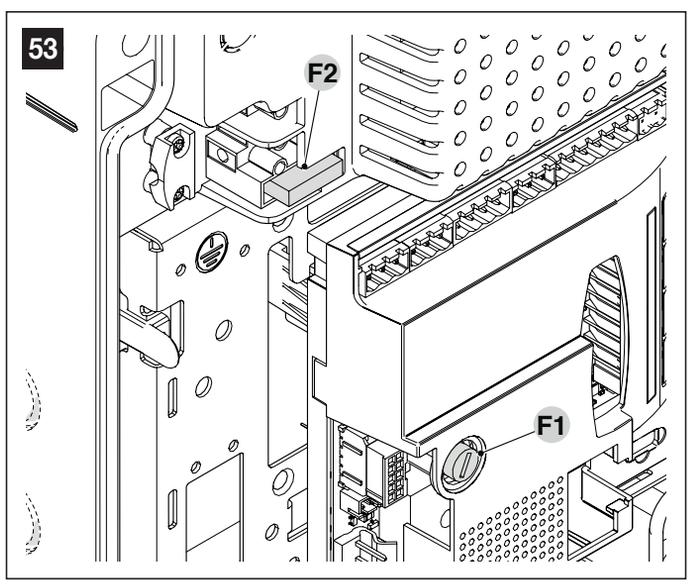


Table 18

CHARACTERISTICS OF FUSES F1 AND F2	
F1	Control unit fuse = 2 A delayed
F2	Mains power supply fuse = 1.6 A delayed

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8.2 SIGNALLING THROUGH WARNING LIGHT

If a warning light is connected to the FLASH output (**A**) on the control unit, the light will flash once every 1 second while the manoeuvre is being performed.
If there are any anomalies, the flashing light will flash twice in quick succession, separated by a 1-second pause. The cause and possible solution for each type of anomaly reported by the flashing light are described in '***54***'.

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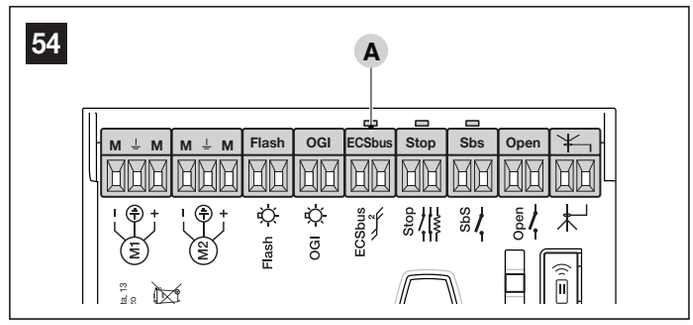


Table 19

SIGNALS FROM THE FLASHING LIGHT CONNECTED TO THE FLASH OUTPUT ('*FIGURE 54*')		
Flashes	**Anomaly**	**Possible solution**
1 short red flash 1-second pause 1 flash	**ECSbus system error**	The check of the devices connected to the ECSbus system, which is performed at the start of the manoeuvre, does not correspond to the devices stored during the learning phase. There may be disconnected or faulty devices, so check and replace them. If changes have been made, the devices must be relearned.
2 short red flashes 1-second pause 2 flashes	**Intervention of a photocell**	One or more photocells do not consent to the movement or have caused the latter to reverse. Check for any obstacles.
3 short red flashes 1-second pause 3 flashes	**Intervention of the "Obstacle Detection" function through the force limiter**	During the gate's movement, the motors encountered more resistance. Verify the cause and increase the motor force if necessary.
4 short red flashes 1-second pause 4 flashes	**Intervention of the STOP input**	At the start of the manoeuvre or during the movement itself, the devices connected to the STOP input intervened. Identify the cause.
5 short red flashes 1-second pause 5 flashes	**Error in the internal parameters of the control unit**	Wait at least 30 seconds then try giving a command and disconnect the power supply if necessary. If the condition persists, there may be a serious malfunction and the electronic board needs to be replaced.
6 short red flashes 1-second pause 6 flashes	**The maximum limit for consecutive manoeuvres or manoeuvres per hour has been exceeded**	Wait for a few minutes until the manoeuvre limiting device drops to under the maximum limit.
7 short red flashes 1-second pause 7 flashes	**Electric circuit anomaly**	Wait at least 30 seconds then try giving a command and disconnect the power supply if necessary. If the condition persists, there may be a serious malfunction and the electronic board needs to be replaced.
8 short red flashes 1-second pause 8 flashes	**A command that prevents other commands from being executed is already present**	Check the type of the "always present" command (for example, it could be a command from a clock on the AUX input).
9 short red flashes 1-second pause 9 flashes	**The automation was stopped by a "Stop automation" command**	Unlock the automation mechanism by giving the "Unlock automation" command.
10 short red flashes 1-second pause 10 flashes	**Motor selector configuration not allowed**	Check the motor type selector setting.

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8.3 SIGNALS ON THE CONTROL UNIT

The control unit has LEDs '**L1-L4**' located on the keys ("***Figure 55***"). Each of these LEDs can emit specific signals, both during normal operation and in the event of a fault. The cause and possible solution for each type of fault are described in "***Table 20*** .

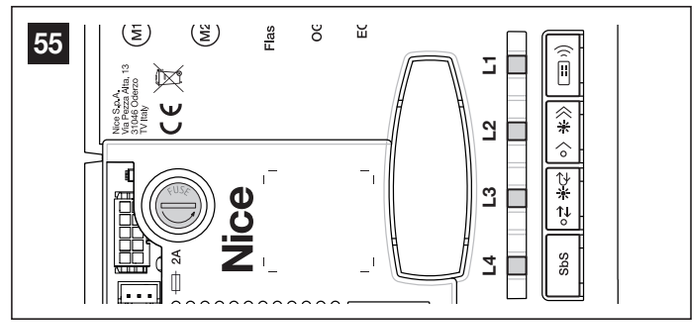


Table 20

TERMINAL LEDS ON THE CONTROL UNIT		
Status	**Meaning**	**Possible solution**
ECSbus LED		
OFF	Anomaly	Check for the presence of power; check that the fuses are not blown; if necessary, identify the cause of the fault then replace them with fuses having the same specifications.
On	Serious anomaly	There is a serious anomaly; try switching off the control unit for a few seconds; if the condition persists, it means that there is a fault and the electronic circuit board must be replaced.
1 flash per second, green color	Everything normal	Normal control unit operation.
1 long flash of the green LED	The status of the inputs has changed	This is normal when there is a change in one of the inputs: SBS, STOP, OPEN, CLOSE, the photocells intervene or the radio transmitter is used.
1 green flash every 5 seconds	Automation in standby mode	Everything is normal; when the control unit receives a command, it resumes normal operation (after a short delay).
Series of red flashes separated by a 1-second pause	Various	Refer to the information in '***Table 19***'.
Fast flashing of the red LED	ECSbus short circuit	To activate the ECSbus power supply, simply give a command (e.g. with the transmitter).
STOP LED		
OFF	Intervention of the STOP input	Check the devices connected to the STOP input.
On	Everything normal	STOP input active.
SbS LED		
OFF	Everything normal	SbS input not active.
On	Intervention of the SbS input	This is normal if the device connected to the SbS input is actually active.
OPEN LED		
OFF	Everything normal	OPEN input not active.
On	Intervention of the OPEN input	This is normal if the device connected to the OPEN input is actually active.
L1 LED		
OFF *	All OK	No storage in progress.
On	Storage in Mode 1	This is normal during storage in Mode 1, which lasts for a maximum of 10 seconds.
Series of fast flashes (from 1 to 4)	Storage in Mode 2	This is normal during storage in Mode 2, which lasts for a maximum of 10 seconds.
5 fast flashes	Deletion OK	Deletion of a transmitter successful.
3 slow flashes	Memory OK	Memory successful.
5 slow flashes	Deletion OK	Deletion of all transmitters successful.
L2 LED		
OFF *	All OK	'Slow' speed selected.
On	All OK	'Fast' speed selected.
1 flash per second	The learning phase has not been performed or there are errors in the data stored in memory	Perform the position learning phase again (see chapter ***Storing connected devices***).
2 flashes per second	Device learning phase in progress	Indicates that the search for connected devices is in progress (lasts a few seconds at most).

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TERMINAL LEDS ON THE CONTROL UNIT		
Status	**Meaning**	**Possible solution**
L3 LED		
OFF *	All OK	Cycle operation.
On	All OK	Complete cycle operation.
1 flash per second	The opening and closing angles have not been learned	Perform the opening and closing angle learning phase.
2 flashes per second	Opening and closing angle learning phase in progress	Wait for the angle learning phase to end.
LED L4		
OFF	All OK	SbS button not pressed.
On	All OK	Sbs button pressed.

***** Off or in 'Standby' mode.

8.4 PHOTOCELL SIGNALS

The **SAFE** LED is present on the **PH200** photocells ("***Figure 56***"). which allows you to check their operating status at any time. The cause and possible solution for each type of fault are described in the ***Table 21*** .

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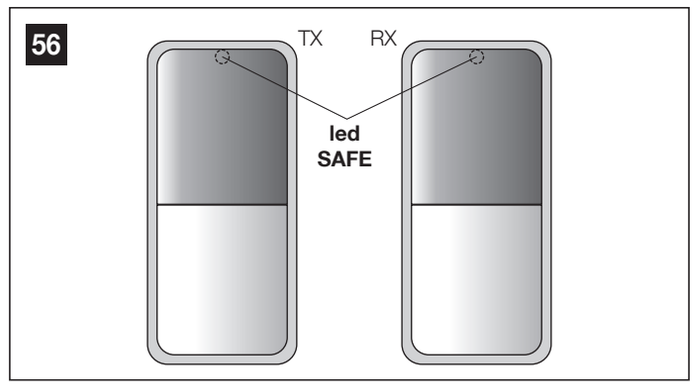


Table 21

SAFE LED		
Status	**Meaning**	**Possible solution**
OFF	The photocell is not powered or is faulty	Check that there is a voltage of approximately 8-12 Vdc at the photocell terminals; if the voltage is correct, the photocell is probably faulty.
3 fast flashes and 1 second pause	Device not recognised by the control unit	Repeat the learning procedure on the control unit. Check that all pairs of photocells on the ECSbus have different addresses (see photocell instruction manual).
1 very slow flash	The RX is receiving an excellent signal	Normal operation.
1 slow flashing	The RX is receiving a good signal	Normal operation.
1 fast flashing	The RX is receiving a poor signal	Normal operation, but check the TX-RX alignment and that the glass plates are clean.
1 very fast flashing	The RX receives a very poor signal	It is at the limit of normal operation, check the TX-RX alignment and that the glass plates are clean.
Always on	The RX does not receive any signal	Check for any obstacles between the TX and RX. Check that the LED on the TX is flashing slowly. Check the TX-RX alignment.

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9 - PRODUCT MAINTENANCE

The automation must be subjected to maintenance work on a regular basis in order to guarantee it lasts.

Maintenance must be carried out strictly in compliance with the safety provisions provided in this manual and in accordance with the laws and regulations in force.

To carry out maintenance on the gearmotor:

1. schedule maintenance interventions within maximum 6 months or after maximum 3.000 manoeuvres from the previous maintenance intervention
2. disconnect all power supplies, including any back-up batteries
3. check for any deterioration in the materials making up the automation, with special emphasis on erosion or oxidation of the structural parts; replace any parts that are not to standard
4. check the state of wear of moving parts: pinion, rack and all gate leaf components; replace any worn parts
5. connect the power supplies again and run all the tests and checks described in the "***Testing***" paragraph (page 25).

10 - PRODUCT DISPOSAL

This product is an integral part of the operator and must therefore be disposed of with it.

As with the installation, only qualified personnel must dismantle the product at the end of its life.
This product is composed of different types of materials. Some of these materials can be recycled; others must be disposed of. Please enquire about the recycling or disposal systems in place in your local area for this type of product.

WARNING

Some parts of the product may contain polluting or dangerous substances. If not disposed of correctly, these substances may have a damaging effect on the environment and human health.

As indicated by the symbol shown here, this product must not been disposed of with household waste. Separate the waste for disposal and recycling, following the methods stipulated by local regulations, or return the product to the seller when purchasing a new product.



WARNING

Local regulations may impose heavy penalties if this product is not disposed of in compliance with the law.

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11 - TECHNICAL SPECIFICATIONS

All technical specifications stated in this section refer to an ambient temperature of 20°C (± 5°C). Nice S.p.A. reserves the right to apply modifications to the product at any time when deemed necessary, without altering its functions and intended use.

Table 22

GEARMOTOR TECHNICAL SPECIFICATIONS	
Description	**LEGGIO300**
Product type	Electromechanical gear motor for automatic gates and doors
Technology used	24 V ⎓ motor, helical gear reducer; mechanical release
Maximum force	1800 N
Minimum force	300 N
No-load speed	14 mm/s
Speed at nominal torque	17 mm/s
Operating limits	Its structural characteristics make it suitable for weights up to 300 kg or leaf lengths up to 3 metres.
Maximum power consumption (W)	120
Operating temperature (min/max °C)	-20°C ... +55°C
Protection rating	IP54
Dimensions (mm)	700 x 100 x 177
Weight (kg)	5.5

Table 23

TECHNICAL CHARACTERISTICS OF THE CONTROL UNIT	
Description	**Technical specification**
Mains power supply	230 V~ ±10% 50 - 60 Hz; fuse: 1A type T
Maximum power input	170 W
Emergency power supply	Pre-set for PRS100 buffer batteries and Solekit solar kit
Maximum motor current	3 A (with “level 6” amperometric device intervention)
Stand-By mode	Factory-set to automatic after 5 minutes from the end of main functions
Standby all (W)*	< 0,25
Warning light output	for 24 V ⎓ warning lights, maximum power 25 W (the voltage may vary between 16 V and 33 V⎓)
OGI/electric lock output	for 24 V ⎓ lamps, maximum power 5 W (the voltage may vary between 16 V and 33 V ⎓) or for 12 V ~ electric locks, 15 VA
STOP input	for NC contacts or 8.2 kΩ fixed resistor +/– 25%
Work time	measured automatically
Pause time	settable
Discharge time	settable
Leaf opening delay	settable
Leaf closing delay	measured automatically
Max length of cables	power supply: 30 m
	Solekit solar kit power supply: 3 m
	motors: 10 m
	other inputs/outputs: 30 m
	warning light: 10 m
	OGI: 30 m
	electric lock: 10 m
	antenna: 20 m (**recommended below 3 m**)
Operating temperature	From -20 to 55 °C
Protection rating	IP 54 (with container intact)
Dimensions (mm)	310 x 232 x H 122
Weight (kg)	4,1

* In the calculation of power consumption in Standby Mode, the energy consumption of accessories has not been considered. Please refer to the respective instructions for the consumption of these accessories such as external receivers or devices connected to the power outputs, if present.

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Table 24

INCORPORATED RADIO RECEIVER TECHNICAL SPECIFICATIONS	
Description	**Technical specification**
Product type	4-channel receiver for incorporated radio remote control
Frequency	433.92 MHz
Encoding	Digital rolling code 72-bit Opera type
Transmitter compatibility	Supported protocols: O-Code
Memorisable transmitters	Up to 90 if memorised in Mode 1
Input impedance	52 Ω
Sensitivity	Better than 0,5 µV
Transmitter range	From 100 to 150 m. This range can vary if there are obstacles and electromagnetic disturbances, and depends on the position of the receiving antenna
Outputs	-
Operating temperature (min/max °C)	-20°C ... +55°C

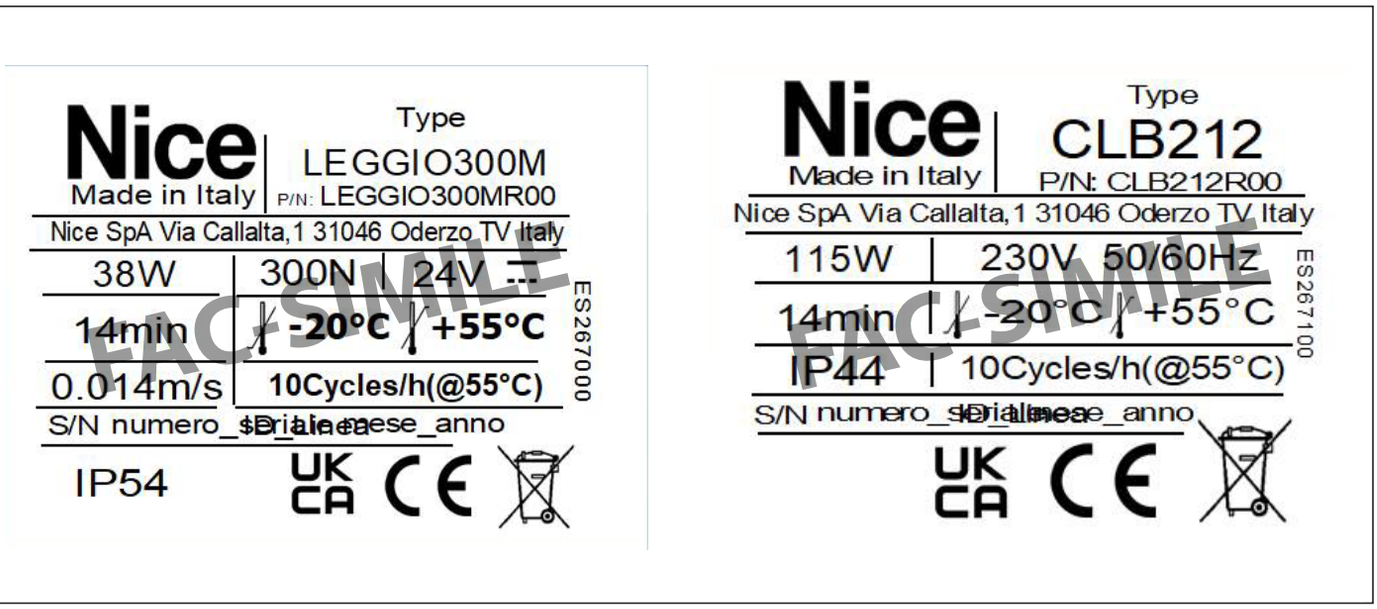
Table 25

TECHNICAL CHARACTERISTICS OF THE FL200 WARMING LIGHT	
Description	**Technical specification**
Product type	Flashing warning light for gate and door automations with **Nice Home** The device incorporates a receiving antenna.
Technology used	Signal light with white led, controlled by the automation control units of the **Nice Home** line
Power supply	The device must only be connected to the “Flash” and “Antenna” terminals on the **Nice Home** automation control panels
Assembly	Horizontal or vertical plane by means of fixing bracket (supplied)
Operating temperature (min/max °C)	-20°C ... +55°C
Protection rating	IP45
Dimensions	126 x 126 x 172
Weight (g)	300

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EU Declaration of Conformity and declaration of incorporation of “partly completed machinery”

Nice S.p.A. manufacturer of this equipment declares that it conforms to Directive 2014/53/EU (RED) and Directive 2006/42/EC (Machinery) according to Annex II, Part 1, Section B. The instruction manual and the complete text of the EU Declaration of Conformity can be found at: www.niceforyou.com; under ‘support’ and ‘download’.



Note: The labels shown are a copy of the product label updated as of the publication date of this manual.

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Before using the automation system for the first time, ask the installer to explain the origin of residual risks and take a few minutes and read this instructions manual and related warnings handed to you by the installer. Keep the manual for consultation when in doubt and ensure supply to new owners of the automation.

WARNING!

Your automation is a machine that faithfully executes commands imparted by the user. Negligence and improper use may lead to dangerous situations:

- do not manoeuvre the gate if there are people, animals or objects within its range of operation
- it is strictly forbidden to touch parts of the automation while it is moving
- the photocells should not be regarded as actual safety devices but only as auxiliary safety devices. They are designed using highly reliable technology, but in extreme conditions may be subject to malfunctions or potential faults, and in certain cases these faults might not be immediately evident
- periodically check that the photocells work properly.

IT IS STRICTLY FORBIDDEN to transit while the automation is closing! Transit is allowed only if the automation is fully open and stationary.

CHILDREN

An automation system guarantees a high degree of safety. With its detection systems, it can control and guarantee the gate's movement in the presence of people or objects. It is nonetheless advisable to forbid children from playing near the automation and not to leave remote controls near them to prevent any unwanted activation of the system. The automation is not a toy!

The product is not intended for use by persons, including children, with limited physical, sensory or mental capacities, or who lack experience or knowledge, unless supervised or trained in the use of the product by a person responsible for their safety.

Anomalies: if the automation shows any signs of anomalous behaviour, disconnect the power supply to the system and manually unlock the motor (see instructions at the end of the chapter) to manoeuvre the automation manually. Do not attempt any repairs personally, but contact your trusted installer.

Do not modify the system or the programming and adjustment parameters of the control unit: your installer is exclusively responsible for these operations.

Failure or lack of power supply: while waiting for the installer to intervene or the electricity to be restored, if the system is not equipped with emergency power supplies, the automation can nonetheless be used by manually unlocking the motor (see the instructions at the end of the chapter) and moving the automation manually.

Safety devices out of order: the automation can also be used when one or more safety devices are defective or out of order. The automation can be controlled in "**Hold-to-run**" mode in the following way:

1. send a command to operate the automation using a transmitter or key selector, etc. If everything works normally, the automation will move regularly, otherwise the warning light will flash a few times and the manoeuvre will not start (the number of flashes depends on the reason for which the manoeuvre cannot start)
2. in this case, within 3 seconds press the control again and hold it down
3. after roughly 2 seconds, the automation will complete the requested manoeuvre in "**Hold-to-run**" mode, in other words, it will continue to move so long as the control is held down.

If the safety devices are out of order, have the system repaired as soon as possible by a qualified technician.

The test, periodic maintenance and any repairs must be documented by the person carrying out the work and the documents must be stored by the owner of the automation. The only interventions the user may carry out periodically include cleaning of the photocell glass components (use a soft and slightly damp cloth) and removing any leaves or stones that may obstruct the automation.

Before carrying out any maintenance operations, the user of the automation must manually unlock the motor to prevent anyone from accidentally triggering the automation's movement (see the instructions at the end of the chapter).

Maintenance: in order to ensure constant levels of safety and the longest useful life for the automation, routine maintenance must be carried out (at least every 6 months).

Only qualified personnel is authorised to carry out checks, maintenance operations and repairs.

Disposal: at the end of its useful life, the automation must be dismantled by qualified personnel and the materials must be recycled or disposed of in compliance with the local regulations in force.

Replacing the remote control battery: if your remote control appears to be working poorly after some time, or stops working altogether, it may simply depend on flat batteries (depending on how much the device is used, the batteries may last from several months to over a year). You will notice this by the fact that the indicator light signalling the transmission fails to light up, is weak or lights up only for a short time. Before contacting the installer, try replacing the battery with that of another transmitter that works properly: if the anomaly is resolved, simply replace the flat battery with one of the same type.

Keep the new and used batteries out of reach of children.

Do not swallow the batteries. Risk of chemical burns or even death.

When inserting the new battery, be careful to respect the polarity.

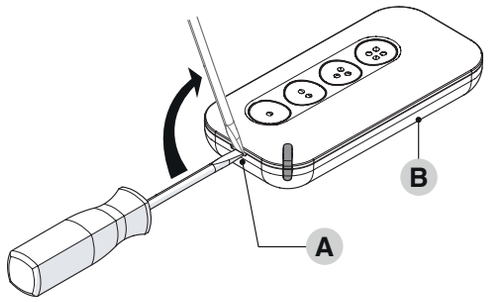
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Replacing the transmitter battery

To change the battery:

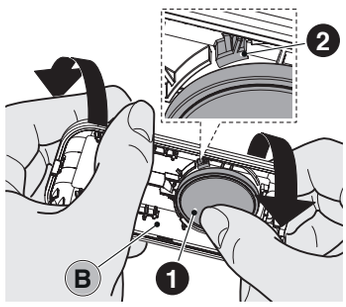
1. insert a screwdriver (or similar object) through hole (**A**) to unlock the casing (**B**) so that it can be removed

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2. press the battery in point (1) and twist the case (**B**) to release the battery from the clip holding it (2) so that it can be removed

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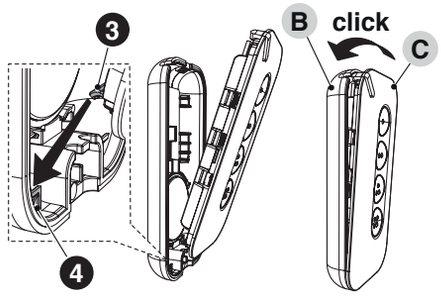


3. replace the battery with another of the same type

When inserting the new battery, be careful to respect the polarity.

4. reassemble the remote control by slotting the protruding parts (3) into their housings (4) and closing the front (C) so that it snaps onto the case (B).

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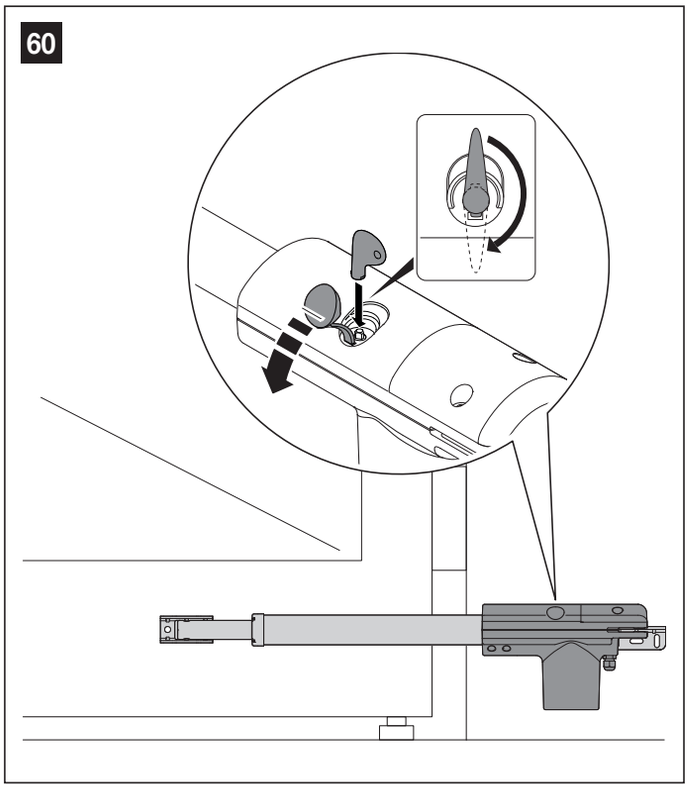
Manually unlocking and locking the gearmotor

The gate can only be unlocked once the leaf has come to a standstill.

The gearmotor is equipped with a mechanical unlocking system that allows for opening and closing the gate manually.
These manual operations should only be performed in case of a power outage, malfunctions or during the installation phases.
To unlock the device:

1. Unlock the gear motor with the key provided ("***Figure 60***")

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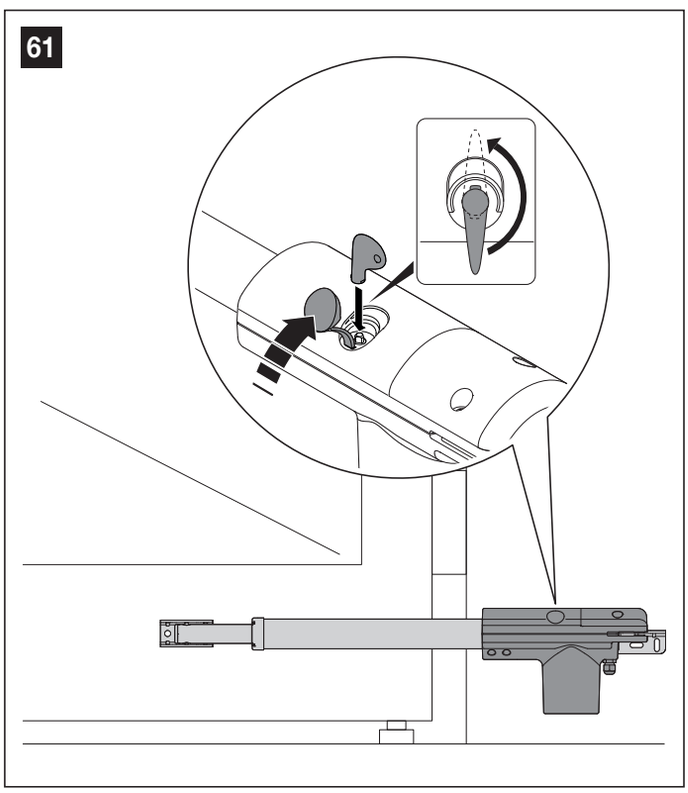


2. At this point, the automation can be moved manually to the desired position.

To lock the device:

1. lock the gear motor with the key provided ("***Figure 61***")

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