Nice

RD400

For sliding gates

EN - Instructions and warnings for installation and use

CONTENTS

GENERAL WARNINGS: SAFETY - INSTALLATION - USE (instructions translated from Italian)

⚠ The following warnings are taken directly from the Regulations and apply, as far as possible, to the product described herein

WARNING **Important safety instructions. Observe all the instructions as improper installation may cause serious damage**

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

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

WARNING **According to the most recent European legislation, the implementation of an automation system must comply with the harmonised standards set forth in the Machinery Directive in force, which allow for declaring the presumed conformity of the automation. On account of this, all operations regarding connection to the mains electricity, as well as product testing, commissioning and maintenance, must be performed exclusively by a qualified and skilled technician!**

- Before proceeding with the product's installation, check that all materials are in good working order and are suitable for 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 control devices of the product. Keep the remote controls out of reach of children

WARNING 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

- Provide a disconnection device (not supplied) in the plant's mains power supply, with a contact opening distance that ensures complete disconnection under the conditions envisaged by Overvoltage Category III
- Handle the product with care during installation, taking care to avoid crushing, knocks, falls or contact with liquids of any kind. Keep the product away from sources of heat and open flames. Failure to observe the above can damage the product and increase the risk of danger or malfunctions. If this should happen, stop installation immediately and contact the Customer Service
- The manufacturer assumes no liability for damage to property, items or persons resulting from non-compliance with the assembly instructions. In such cases the warranty does not cover material defects
- The weighted sound pressure level of the emission A is lower than 70 dB(A)
- Cleaning and maintenance to be carried out by the user must not be effected by unsupervised children
- Before intervening on the system (maintenance, cleaning), always disconnect the product from the mains power supply
- Check the system periodically, in particular all cables, springs and supports to detect possible imbalances, signs of wear or damage. Do not use the product if repairs or adjustments are necessary, since an installation failure or an incorrectly balanced door may cause injury
- The packaging materials of the product must be disposed of in compliance with local regulations
- Keep persons away from the gate when it is moved through the control elements
- When performing a manoeuvre, 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 automation if anyone is working on it; disconnect the power supply before permitting any work to be carried out
- 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.

INSTALLATION PRECAUTIONS

- Prior to installing the drive motor, check that all mechanical components are in good working order and properly balanced, and that the automation moves correctly
- If the gate being automated has a pedestrian door, the system must include a control device inhibiting the operation of the motor when the pedestrian door is open
- Make sure that the controls are kept at a safe distance from moving parts, while allowing a good view of these.
  The manoeuvring assembly of a switch kept manually closed must be located in a position that is visible from the guided part but far from moving parts. It must be installed at a minimum height of 1.5 m
- If the opening movement is controlled by a fire-prevention system, make sure that any windows larger than 200mm are closed by the control elements
- Prevent and avoid any form of trapping between the moving and fixed parts during manoeuvres
- Permanently affix the manual operation label next to the element enabling the manoeuvre itself
- After installing the drive motor, make sure that the mechanism, protective system and all manual manoeuvres operate correctly

1 PRODUCT DESCRIPTION AND INTENDED USE

ROAD (RD400) is an electromechanical gearmotor for the automatic movement of residential sliding gates; it is equipped with an electronic control unit with incorporated receiver for radio remote control.

ROAD operates with electrical power. In the event of a power failure, the gearmotor can be released with an appropriate button in order to move the door manually.

⚠ WARNING! – 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!

2 APPLICATION LIMITS

The data relative to the performances of ROAD appears in Chapter 12 ("Technical specifications") and is the only data that allows for correctly determining whether the product is suitable for its intended use.

In general, ROAD is able to automate gates weighing up to 400 kg or up to 8 m long, according to the data shown in Tables 1 and 2 below. The length of the gate leaf allows for determining the maximum number of cycles per hour and consecutive cycles, while its weight allows for determining the cycle reduction percentage and the maximum allowed speed.

Table 1 - Limits in relation to the gate leaf length

Gate leaf length (m)	Maximum no. of cycles/hour	Maximum no. of consecutive cycles
Up to 5	20	15
5–7	16	12
7–8	14	9

Table 2 - Limits in relation to the gate leaf weight

Leaf weight (kg)	Percentage of cycles
Up to 200	100%
200 – 300	85%
300 – 400	70%

3 INSTALLATION

⚠ Important! Before installing the product, refer to chapters 2 and 13 (Technical specifications).

Fig. 1 shows the contents of the package: check that everything is present and correct.

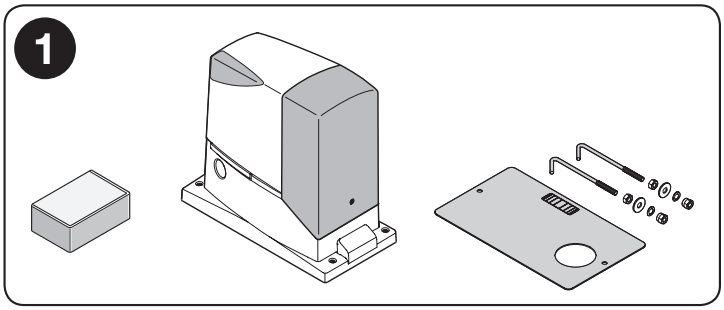
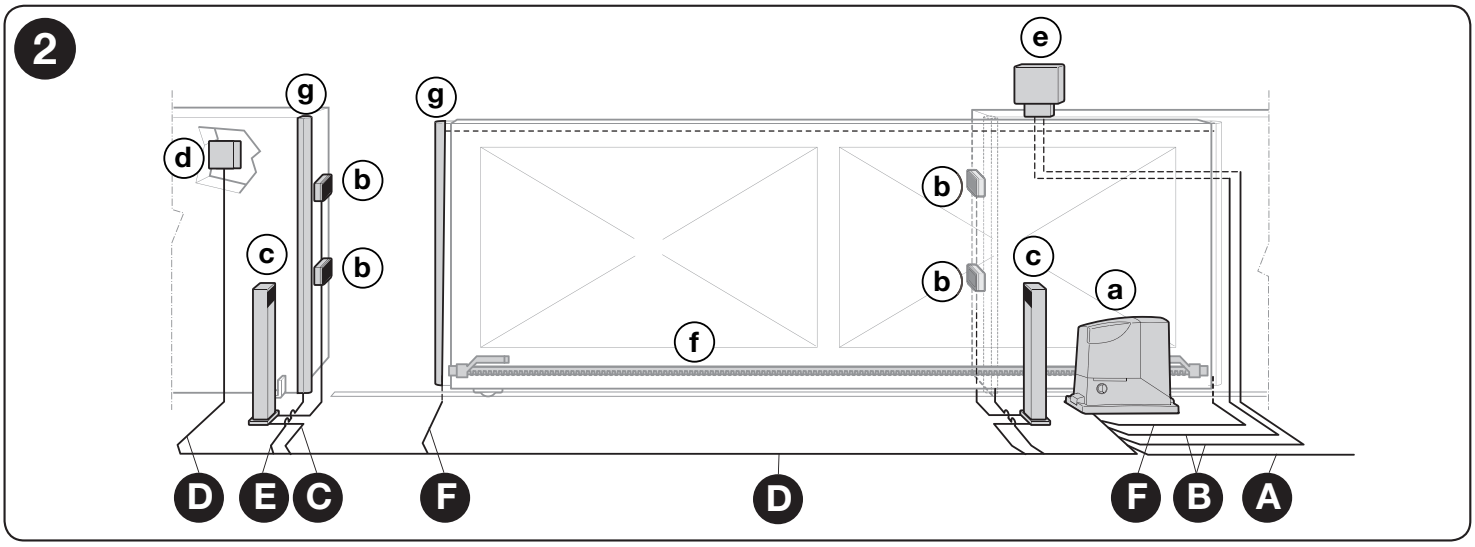


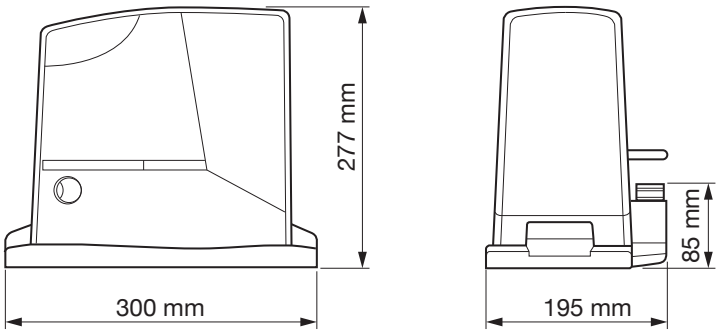
Fig. 2 shows the location of the various components of a typical installation with Nice accessories:

a - gearmotor
b - photocells
c - posts for photocells
d - key selector / digital keypad
e - warning light
f - rack
g - primary sensitive edges



Before installing the system, check the gearmotor's overall dimensions (Fig. 3) and installation measurements (Fig. 4):

3



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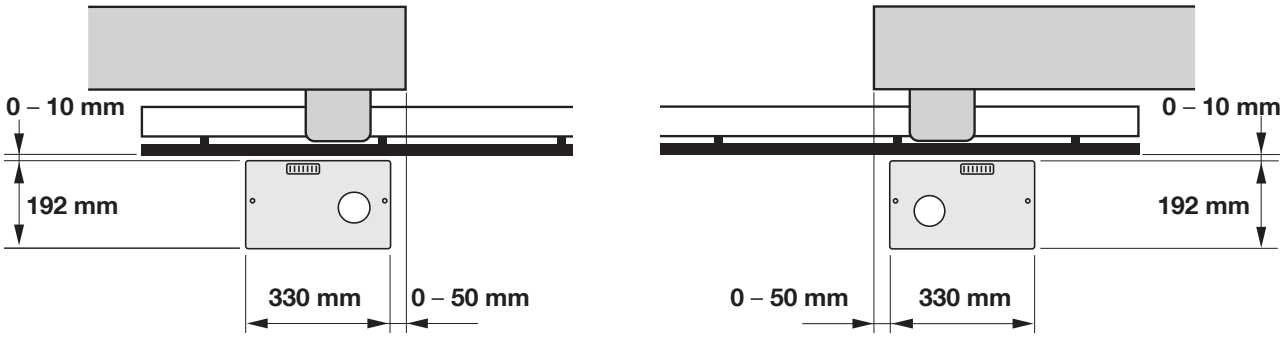
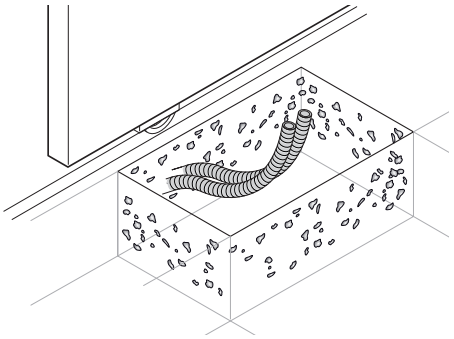
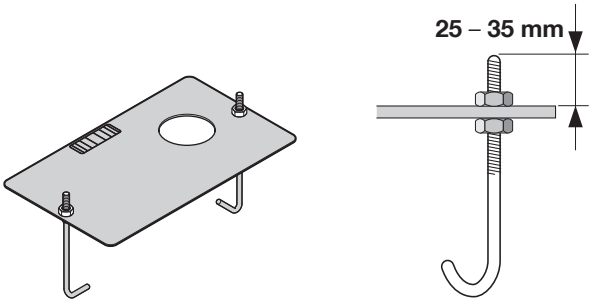
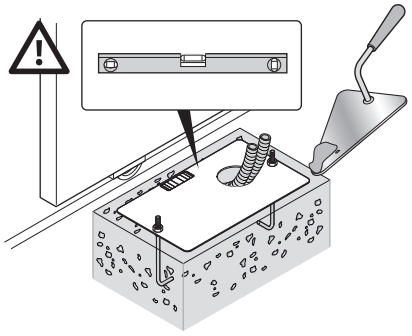
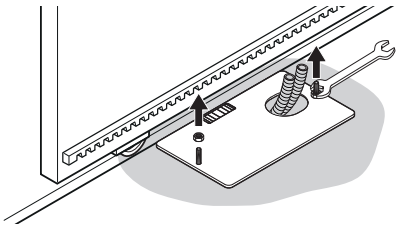


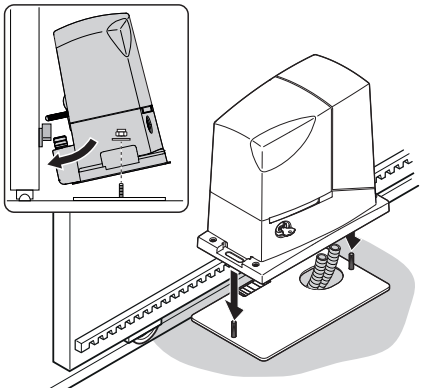
01.	Dig the foundations and arrange the tubes for the electrical cables	
02.	Secure the two anchor bolts to the foundation plate with one nut above and one below the latter. ⚠ **Tighten the lower nut in such a way that the upper thread protrudes by roughly 25/35 mm.**	
03.	Cast the concrete to secure the foundation plate. ⚠ **Before the concrete hardens, make sure the foundation plate is perfectly level and parallel to the gate leaf.**	

04.	Wait for the concrete to harden.
05.	Secure the gearmotor:

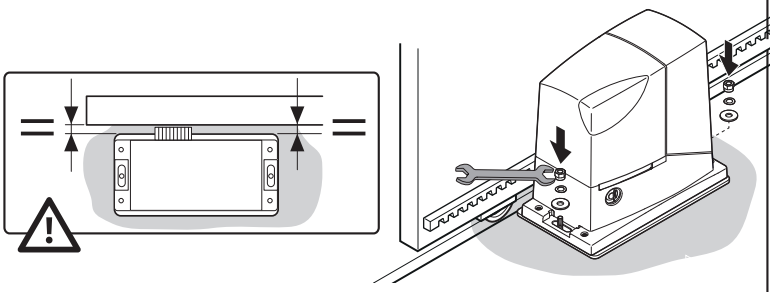
a - remove the top nuts of the anchor bolts



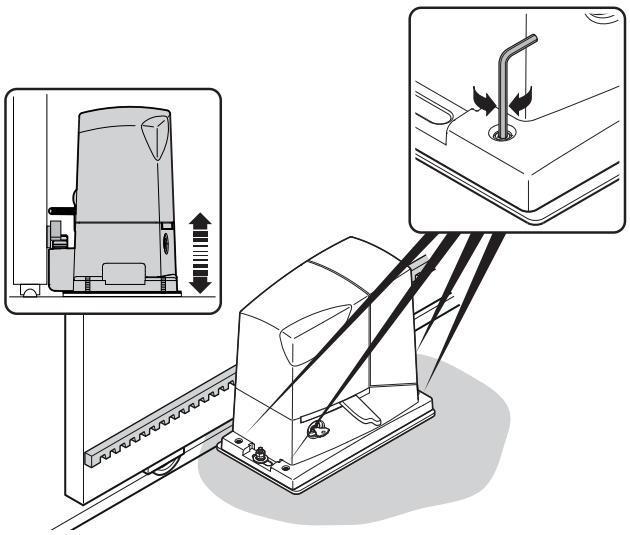
b - place the gearmotor on the anchor bolts: make sure that it lies parallel to the gate leaf



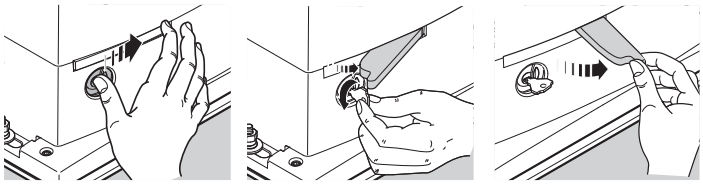
c - insert the washers and nuts provided and tighten them slightly



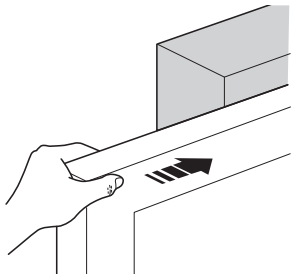
d - adjust the gearmotor's height by tightening the adjuster grub screws: position the pinion at the right height by leaving a gap of 1–2 mm from the rack (this so as to prevent the gate leaf weight from bearing on the gearmotor)



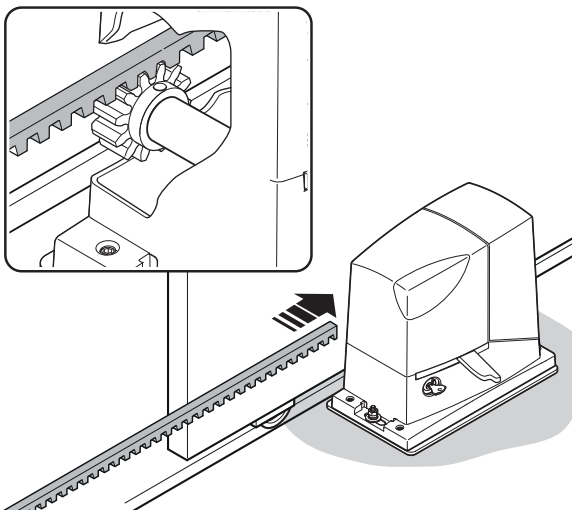
e / f / g - release the gearmotor



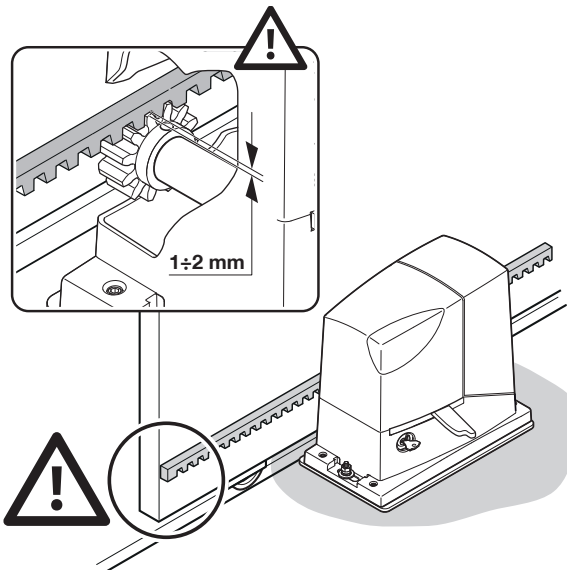
h - manually open the gate leaf fully



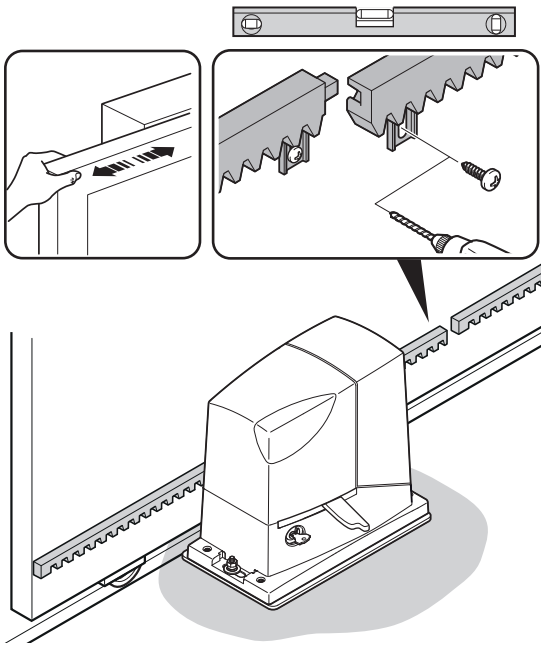
i - place the first section of the rack on the gearmotor's pinion: make sure that it corresponds to the start of the gate leaf and that there is a gap of 1–2 mm between the rack and the pinion (this so as to prevent the gate leaf weight from bearing on the gearmotor)



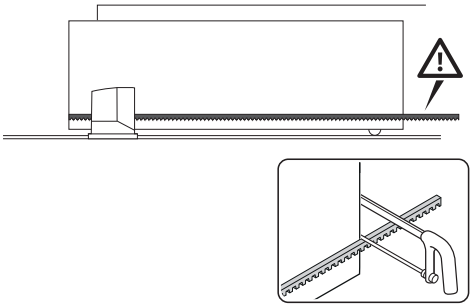
l - secure the rack section



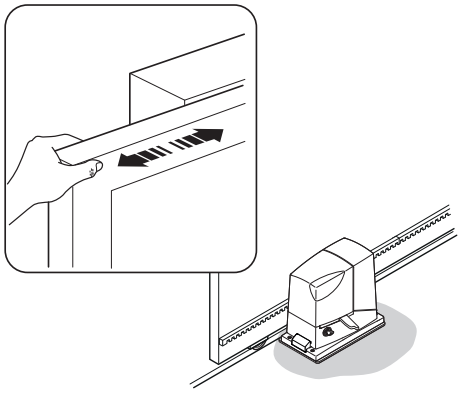
m - slide the gate by hand and, using the pinion as a reference, secure the other sections of the rack

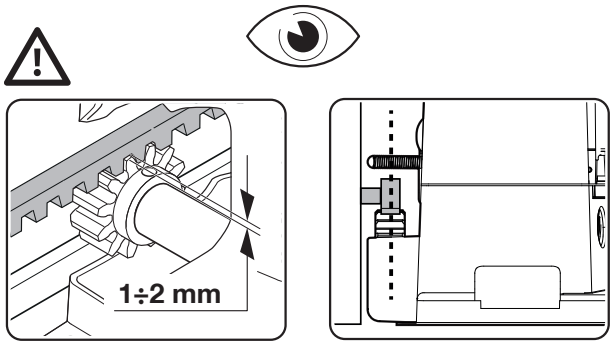


n - cut any excess rack off the end

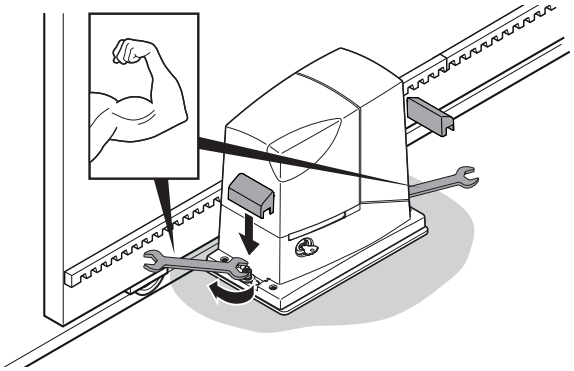


06. Slide the gate open and closed by hand to check that the rack is properly aligned with the pinion.
N.B.: make sure that there is a gap of 1–2 mm between the rack and pinion for the entire length of the gate





07. Strongly tighten the nuts for fixing the gearmotor to the foundation plate and cover the nuts with the relevant caps



08. Secure the OPEN and CLOSE limit switch bracket: perform the same operations for both limit switches

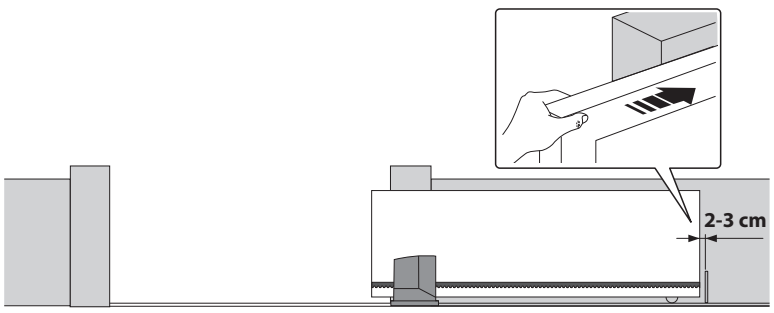
OPEN:

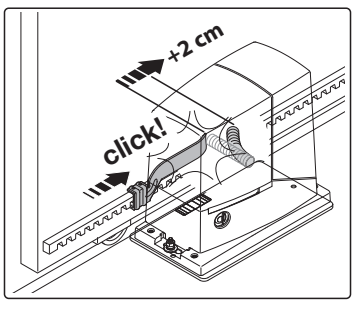
a - slide the gate leaf open by hand, stopping it 2/3 cm before the mechanical stop

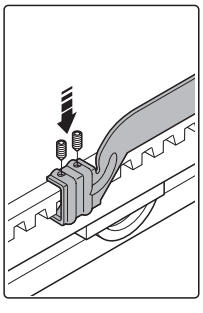
b - slide the limit switch bracket along the rack in the open direction until the limit switch intervenes (a “click” will be heard)

c - after hearing the “click”, move the bracket further forward by 2 cm (minimum)

d - secure the bracket to the rack with the grub screws provided







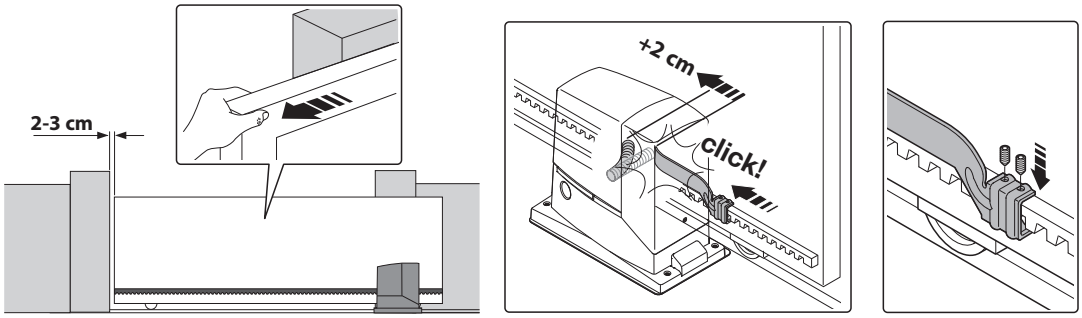
CLOSE:

a - slide the gate leaf closed by hand, stopping it 2/3 cm before the mechanical stop

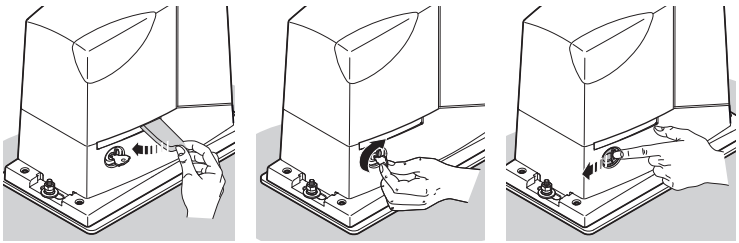
b - slide the limit switch bracket along the rack in the close direction until the limit switch intervenes (a “click” will be heard)

c - after hearing the “click”, move the bracket further forward by 2 cm (minimum)

d - secure the bracket to the rack with the grub screws provided



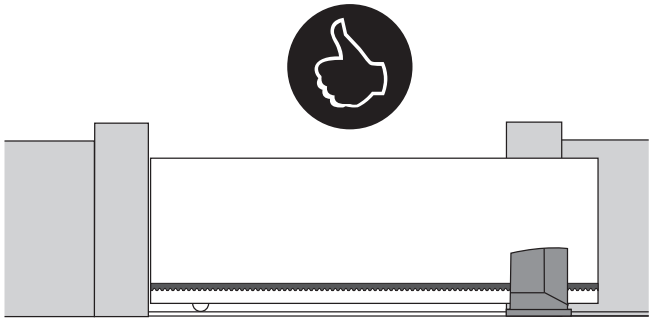
09. Manually lock the gearmotor



Refer to the respective instruction manuals to install the devices belonging to the system.

⚠ IMPORTANT! – The gearmotor is configured (default setting) for right-hand side installation (Fig. 5); to install it on the left-hand side, perform the operations shown in Fig. 6.

5



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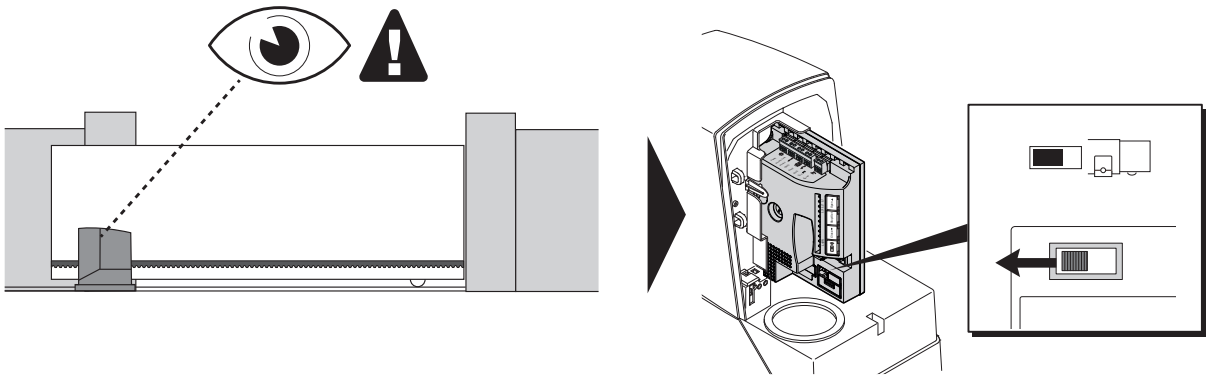


4 ELECTRICAL CONNECTIONS

⚠ WARNING! – All electrical connections must be made with the system disconnected from both the grid and the buffer battery (if any). Incorrect connections can cause damage to the equipment and injury to people.

⚠ WARNING! – The cables used must be suited to the type of installation; for example a type-H03VV-F cable is recommended for indoor environments, and a type-H07RN-F cable for outdoor environments.

Fig. 2 shows the electrical connections in a typical installation; Fig. 7 shows the connections to be made on the control unit.

4.1 - Types of electrical cables

Table 3 - Types of electrical cables (see Fig. 2)

	Connection	Type of cable	Maximum length
A	POWER SUPPLY	1 cable: 3 x 1.5 mm^2	30 m *
B	WARNING LIGHT WITH ANTENNA	1 cable: 2 x 0.5 mm^2 1 type-RG58 shielded cable	20 m 20 m (recommended < 5 m)
C	PHOTOCELLS	1 cable: 2 x 0.25 mm^2 (TX) 1 cable: 2 x 0.25 mm^2 (RX)	30 m 30 m
D	KEY SELECTOR	2 cables: 2 x 0.5 mm^2 **	50 m
E	PRIMARY SENSITIVE EDGES	1 cable: 2 x 0.5 mm^2 ***	30 m
F	MOVABLE EDGES	1 cable: 2 x 0.5 mm^2 ***	30 m ****

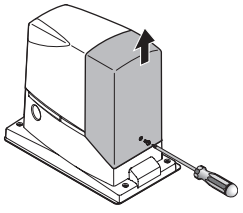
* If the power supply cable is longer than 30 m, a cable with larger gauge is required, e.g. 3 x 2.5 mm^2, and a safety earthing system must be arranged near the automation.
** The two 2 x 0.5 mm^2 cables can be replaced by a single 4 x 0.5 mm^2 cable.
*** If more than one edge is present, refer to Paragraph 8.1 “STOP Input” for the type of connection recommended.
**** Special devices, which enable connection even when the leaf is moving, must be used to connect movable edges to sliding leaves.

4.2 - Electrical cable connections: Fig. 7

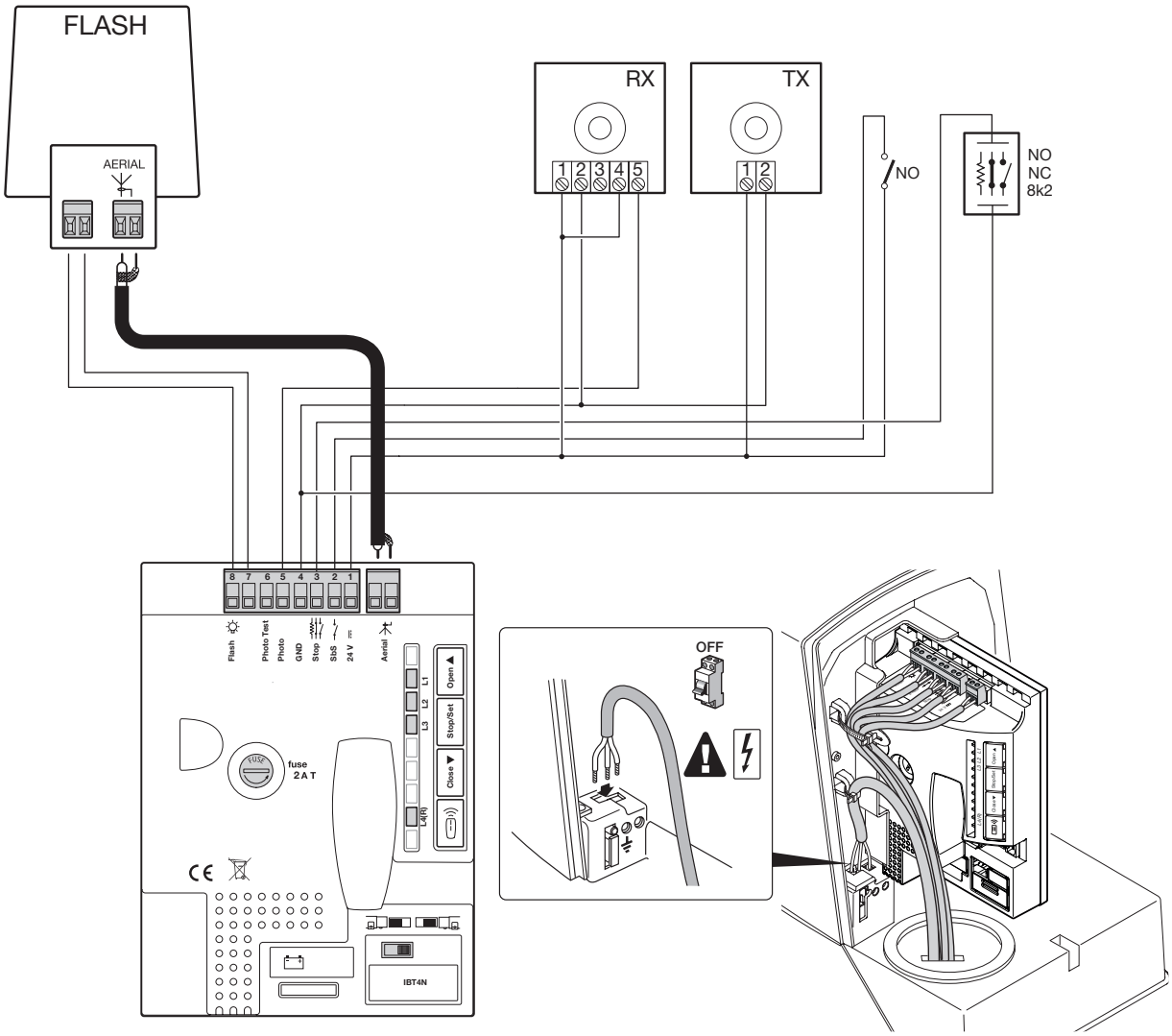
Table 4 - Description of electrical connections

Terminals	Function	Description
	ANTENNA	- connection input for the radio receiver antenna. The antenna is incorporated in the warning light; alternatively an external antenna can be used, or a section of wire already present on the terminal, which functions as an antenna, can be left
1 - 2	STEP-BY-STEP	- input for devices that control the movement; it is possible to connect Normally Open (NO) devices to this input
3 - 4	STOP	- input for the devices that block or even stop the current manoeuvre; Normally Closed (NC) contacts, Normally Open (NO) contacts or fixed-resistance devices can be connected using special arrangements on the input. For further information on the STOP function, see Paragraph 8.1 - STOP input
1 - 5	PHOTO	- input for safety devices such as photocells. They intervene during the closing phase, by reversing the manoeuvre. Normally Closed (NC) contacts can be connected. For further information on the PHOTO function, see Paragraph 8.1 - Photocells
4 - 6	PHOTOTEST	- whenever a manoeuvre is begun, the relative safety devices are all checked and the manoeuvre only starts if the test has a positive outcome. This can only be accomplished using a special type of connections: the “TX” photocells are powered separately with respect to the “RX” receivers. For further information on the connection, see Paragraph 8.1 - Photocells
7 - 8	FLASH	- on this output it is possible to connect a Nice warning light (for the relevant models see Chapter 13 - Technical specifications). During the manoeuvre the light flashes at intervals of 0.5 s

For the electrical connections, proceed as described below and refer to Fig. 7:

01.	Open the cover: loosen the screw and raise the cover 
02.	Feed the power cable through the relevant hole (leave 20/30 cm of free cable) and connect it to the relevant terminal clamp
03.	Run the cables of the equipment to be installed or already present through the provided hole (leave 20/30 cm of free cable) and connect them to their terminal clamps (see fig. 7)
04.	Before closing the cover, programme the system as desired: see Chapter 7
05.	Close the cover with the relevant screw

7



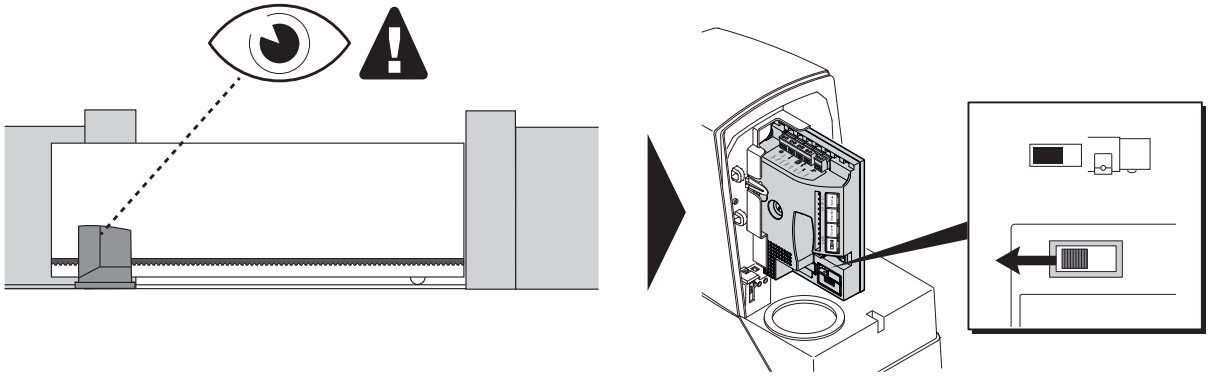
5 STARTING THE AUTOMATION AND CHECKING THE CONNECTIONS

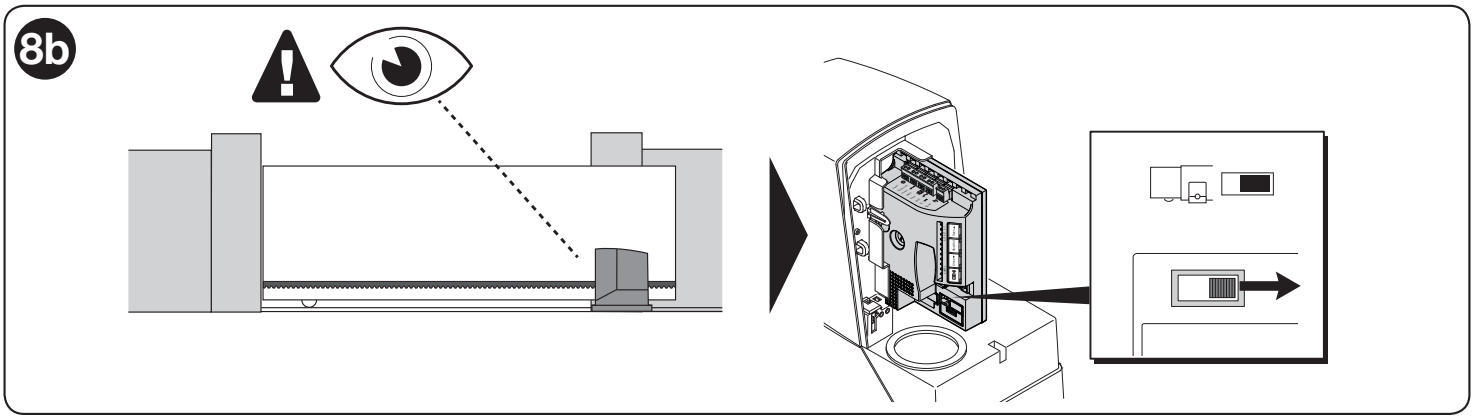
5.1 - Choosing the direction

Choose the direction of the opening manoeuvre depending on the gearmotor's position in relation to the gate leaf: - if the gate must open towards the left, shift the selector to the left (Fig. 8a) - if the gate must open towards the right, shift the selector to the right (Fig. 8b).

⚠ **WARNING! – Do not switch the selector while the motor is moving**

8a

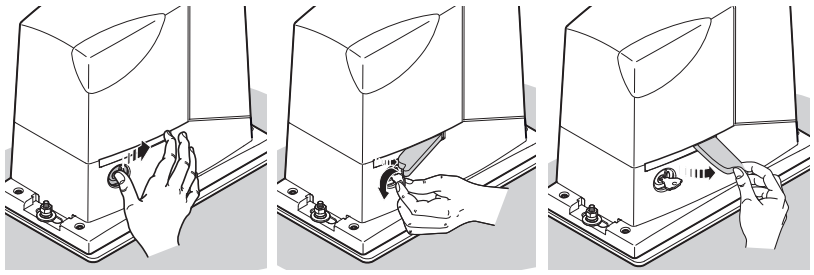
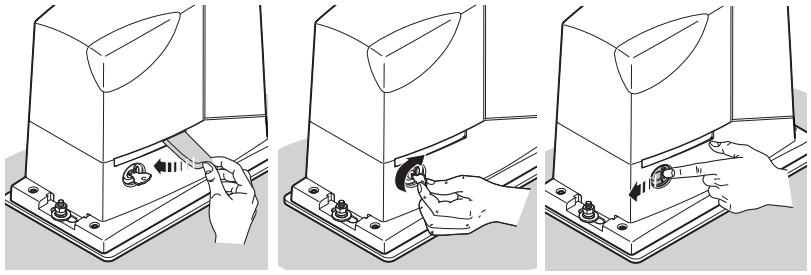
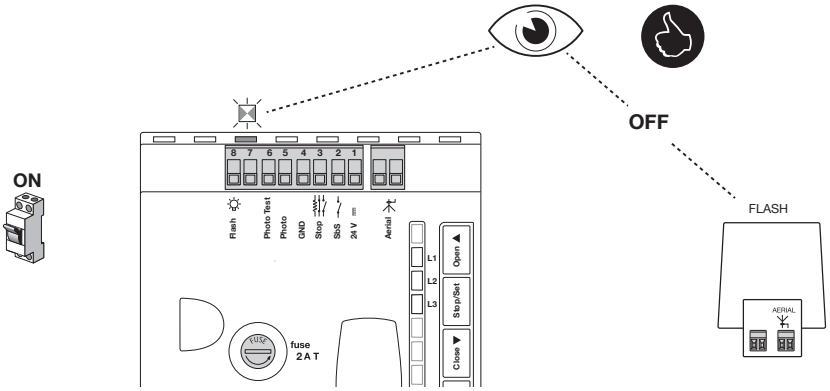




5.2 - Connecting the automation to the mains electricity

⚠ WARNING! – The automation must be connected to the mains electricity by an expert and qualified electrician, in accordance with established laws, standards and local regulations.

Proceed as described below

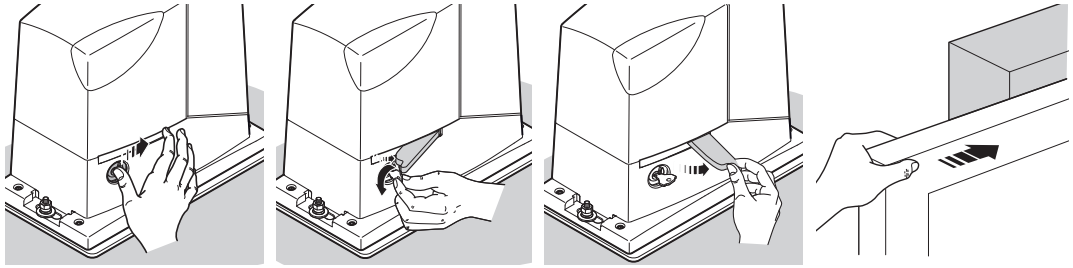
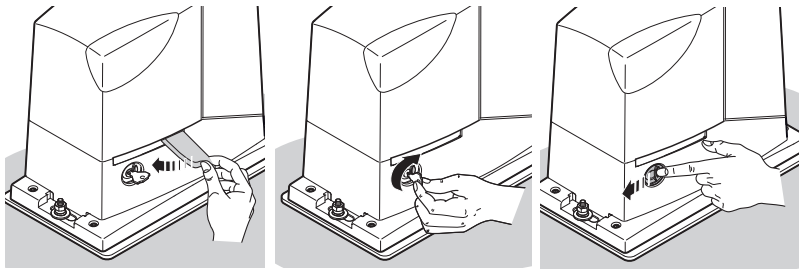
01.	Manually release the gearmotor so that the gate can be opened and closed 
02.	Move the gate leaf to the halfway position of its path
03.	Manually lock the gearmotor 
04.	Power the automation and verify: - that the motor is not moving - that the OK LED (green) flashes regularly at the frequency of one flash per second - that the warning light connected to the FLASH output is off 
⚠	if any of these conditions are not satisfied, proceed as follows (Step 05)
05.	Disconnect the automation from the mains power and check the electrical connections, photocell alignment and fuses. Consult Chapter 10 (Troubleshooting) if necessary

6 TESTING AND COMMISSIONING

These are the most important phases in the automation's arrangement to ensure maximum system safety.
They must be carried out by a qualified and expert technician who must define the necessary tests to verify the solutions adopted to counter any risks present, and check compliance with the laws, regulations and standards: in particular, with all the requirements of the EN 13241-1, EN 12445 and EN 12453 standards.
Any supplementary devices must be tested separately for their efficient operation and correct interaction with ROAD: refer to the respective instruction manuals.

6.1 - Testing

Before running the testing procedure, it is first necessary to have completed the "recognition of the gate opening and closing positions" procedure (Paragraph 7.3).
The testing procedure can also be performed as a periodic check of the automation devices. Each component of the system (sensitive edges, photocells, emergency stop, etc.) requires a specific testing phase; for these devices, observe the procedures given in the respective instruction manuals.
Run the test as follows:

01.	Ensure that all specifications in the "WARNINGS" chapter have been strictly observed
02.	Release the gearmotor and verify whether it is possible to manually move the gate in both directions (open and close) with a force no greater than the value corresponding to the usage limits shown in Table 1 
03.	Lock the gearmotor 
04.	Using the key selector, control button or radio transmitter, test the opening and closing of the gate and make sure that it moves in the intended direction
05.	The test should be carried out several times to verify that the gate moves smoothly, that there are no points of excessive friction and that there are no defects in the assembly or adjustment
06.	Verify the correct operation of each safety device present in the system (photocells, sensitive edges, etc.)
07.	Check the operation of the photocells and any interference with other devices: 1 - insert a cylinder with 5 cm diameter and 30 cm length across the line of sight, first near the TX then near the RX 2 - check that the photocells intervene in any case, switching from the active status to alarm status and vice-versa 3 - check that the photocell's intervention determines the intended response of the control unit: for example, that it causes the movement to invert during the closing manoeuvre 4 - whenever a device intervenes, the OK LED (green) on the control unit must emit 2 quicker flashes to confirm that the control unit recognises the event
08.	If the dangerous situations caused by the gate's movement have been safeguarded by limiting the impact force, the user must measure the impact force according to the EN 12453 standard If the "Speed" adjustment and "Motor Force" control are used to assist the system in reducing the impact force, try to find the adjustments that provide the best results

6.2 - Commissioning

Commissioning can only take place once all the testing phases have terminated successfully (Paragraph 6.1).
Partial or "makeshift" commissioning is forbidden.

01.	Prepare and store (for at least 10 years) the automation's technical file, which must include at least the following: the assembly drawing of the automation, a wiring diagram, risk analysis and relative solutions adopted, the manufacturer's declaration of conformity for all the devices used (for ROAD use the enclosed EC Declaration of Conformity), and a copy of the automation's instructions for use and maintenance schedule
02.	Permanently affix a label or sign to the gate containing instructions on how to manually release the gearmotor
03.	Fill in the declaration of conformity for the automation and hand it to the owner of the latter
04.	Hand to the owner the "User Manual" (pull-out insert)
05.	Prepare and hand to the owner the maintenance schedule of the automation

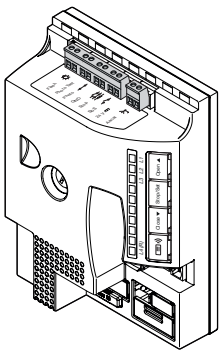
06.	The force adjustment is an important safety factor and must be done with the utmost care by qualified technicians. **Important!** - Adjust the force sufficiently to enable the gate to move as intended; higher force values to those necessary for moving the gate can cause injury to animals and persons or damage to property if the gate collides with an obstacle
07.	Before commissioning the automation, adequately inform the owner in writing regarding the attendant residual risks

7 PROGRAMMING

7.1 - Programming buttons

A number of programmable functions are available on the ROAD control unit; they can be adjusted using 4 buttons on the control unit and are displayed through 4 LEDs: L1, L2, L3, L4(R).
The default settings should satisfy most requirements, but can be modified at any time using the appropriate programming procedure; see Paragraph 7.6.

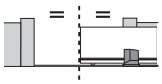
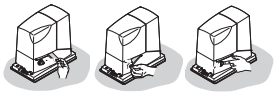
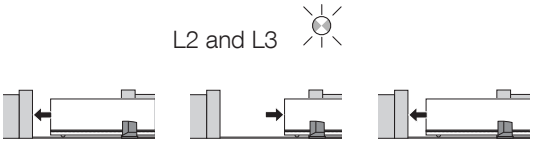
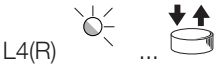
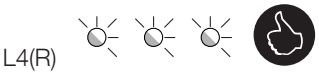
Buttons	Function
Open ▲	The "**OPEN**" button enables the user to control opening of the gate or move the programming point upwards.
Stop / Set	The "**STOP**" button can be used to stop the manoeuvre; if pressed for more than 3 seconds, it allows for entering the programming mode, as described below.
Close ▼	The "**CLOSE**" button enables the user to close the gate or move the programming point downwards.
Radio	The "**RADIO**" button allows for memorising and deleting the transmitters to be used with ROAD.



7.2 - QUICK SET-UP

The "Quick set-up" function allows for speeding up the motor's commissioning. **It only works with an empty memory.**
This procedure allows for detecting and memorising the STOP input configuration, the presence or absence of the connection in "Phototest" mode of the PHOTO input, the opening and closing positions and the transmitter (if present) memorised in Mode 2 with the Step-by-Step control.

Memorisation procedure

Table 6 - Procedure for Quick set-up		
01.	Move the gate leaf to the halfway position of its path	
02.	Lock the gearmotor	
03.	Set the direction in relation to the gearmotor's position with respect to the gate leaf	see Paragraph 5.1
04.	Power the control unit through the mains and wait 10 seconds	
05.	Press and release ▲	
06.	Device recognition phase: LEDs L2 and L3 flash rapidly for the entire duration of the recognition phase and the gate performs the closing, opening and closing manoeuvres	
06.	LED L4(R) flashes once every second: press and release the button of the transmitter to be memorised	
⚠	If the memorisation procedure was successful, LED L4(R) on the control unit will flash 3 times. Repeat the procedure for each transmitter to be memorised. The memorisation phase terminates if no further transmitters are memorised for 10 seconds.	

7.3 - Recognition of the gate opening and closing positions

It is necessary for the control unit to recognise the gate leaf opening and closing positions; during this phase the length of the gate leaf is measured between the closing and opening limit switches, as it is necessary to calculate the slowdown and partial opening points. Besides the positions, the STOP input configuration is detected and memorised in this phase in addition to the presence or absence of the connection in "Phototest" mode of the PHOTO input.

01.	Release the gearmotor and bring the gate to its midway point, then lock the gearmotor again.
02.	Press and hold **CLOSE ▼** and **SET** simultaneously
03.	Release the buttons when the manoeuvre starts (after approx. 3 seconds).
04.	Check that the manoeuvre under way is a closing manoeuvre. If not, press **STOP** and carefully read paragraph 5.1 with the relative figures then repeat the process from Step 01
05.	Wait for the control unit to complete the recognition phase: closing, opening and closing.
06.	Press and release the SbS button to perform a complete opening manoeuvre.
07.	Press and release the SbS button to perform a complete closing manoeuvre.

If the above conditions are not satisfied, immediately disconnect the power supply from the control unit and carefully check the electrical connections. If LEDs L2 and L3 flash at the end of the recognition process, it means that an error has occurred; see Chapters 9 ("Diagnostics") and 10 ("Troubleshooting"). The leaf length recognition phase and the configuration of the STOP and PHOTO inputs can be repeated again at any time, even after the installation (for example, if one of the limit switch arms is shifted): simply repeat the procedure from Step 01.

7.4 - Checking the gate's movement

Once the gate length recognition phase is completed, it is advisable to carry out a few manoeuvres in order to verify that the gate moves properly.

01.	Press the **SbS** button to command an opening manoeuvre; check that gate opens correctly, without any speed variations; the gate must only slow down when it is between 50 and 30 cm from the opening limit switch and stop, as a result of the limit switch, at 2–3 cm from the mechanical opening stop
02.	Press the **SbS** button to command a closing manoeuvre; check that gate closes correctly, without any speed variations; the gate must only slow down when it is between 50 and 30 cm from the closing limit switch and stop, as a result of the limit switch, at 2–3 cm from the mechanical closing stop
03.	During the manoeuvre, check that the warning light flashes at intervals of 0.5 seconds on and 0.5 seconds off.
04.	Open and close the gate several times to make sure that there are no points of excessive friction and that there are no defects in the assembly or adjustments
05.	Check that the ROAD gearmotor, rack and limit switch arms are solid, stable and suitably resistant even during sudden gate acceleration or slowdown movements

7.5 - Incorporated radio receiver

The control unit has an incorporated radio receiver for remote control, which operates at a frequency of 433.92 MHz and is compatible with the following types of transmitters (due to the fact that the type of coding differs, the first transmitter inserted also determines the type of those memorised subsequently – up to 100 transmitters can be memorised):
The following codes are supported: Flor, O-code and Smilo

7.6 - Programming the functions

There are two groups of programming processes:

• Level 1 programming (Paragraph 7.6.1): functions adjustable in ON-OFF mode; in this case, LEDs L1 and L3 indicate a function. With the LED on the function is active, when it is off the function is not active (Table 5).

• Level 2 programming (Paragraph 7.6.3): parameters settable on a scale of values (from 1 to 3). In this case, each LED (L1, L2 and L3) indicates one of the 3 possible set values (Table 7).

7.6.1 - Programming the Level 1 functions (ON-OFF functions)

The programmable functions available on ROAD are subdivided into 2 levels:

Level one: the functions can be adjusted in ON-OFF (active or inactive) mode. In this case, each LED **L1…L3** indicates one function; when lit the function is active, when it is off, the function is not active; see Table 5.

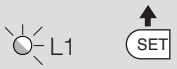
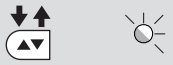
Table 5 - Programmable functions: Level 1

LED	Function	Description
L1	Long/Short slowdown	This function allows for choosing whether to activate long or short slowdown If the function has not been activated, the "short" mode applies
L2	Motor speed	This function allows for selecting the motor's opening and closing speed among 2 levels: "fast" and "slow" If the function has not been activated, the "slow" mode applies
L3	Automatic closing	This function allows for closing the gate automatically after a programmed pause time; the default Pause Time is 30 seconds but can be modified to 15 or 60 seconds (see Table 7) If the function has not been activated, the "semi-automatic" mode applies

During normal operation of ROAD, LEDs **L1, L2** and **L3** are on/off depending on the status of the respective function; for instance, L3 is on when the "Automatic closing" function is active.

7.6.2 - Programming the Level 1 functions (ON-OFF functions)

By default, Level 1 functions are all set to "OFF" but can be modified at any time as described in Table 6. Take care during modification procedures, as there is a maximum time interval of 10 seconds between pressing of different buttons; otherwise the procedure terminates automatically and stores the changes made up to that time.

Table 6 - Procedure for changing the Level 1 functions	
01. Press and hold **Set** for roughly 3 s	
02. Release the **Set** button when LED L1 starts flashing	
03. Press and release the ▲/▼ button to shift the flashing LED to the LED representing the function to be modified	
04. Press and release the **Set** button to change the status of the function (short flashing = OFF; long flashing = ON)	
05. Wait 10 seconds to exit the programming mode after the maximum time interval	
⚠ Steps 03 and 04 can be repeated during the programming phase to set other functions to ON or OFF	

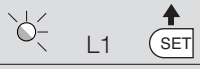
7.6.3 - Level 2 functions (adjustable parameters)

Table 7 - Level 2 functions (adjustable parameters)				
LED	**Parameter**	**Level**	**Value**	**Description**
L1	Motor force	**L1**	Low	Adjusts the sensibility of the motor force control to suit the type of gate. The "High" setting is more suitable for heavier and larger gates
		L2	Medium	
		L3	High	
L2	Function Step-by-Step	**L1**	Open - Stop - Close - Open	Adjusts the sequence of commands associated with the "Step-by-Step" input or the 1st radio command (see Tables 5 and 6)
		L2	Open - Stop - Close - Stop	
		L3	Condominium	
L3	Pause Time	**L1**	15 seconds	Adjusts the pause time, that is, the time that elapses before automatic re-closure. Is effective only if automatic closure is enabled
		L2	30 seconds	
		L3	60 seconds	

Note: the parameters with a grey background are default settings
All the parameters can be adjusted as required without any contraindications; only the adjustment of "motor force" could require special attention:
• Do not use high force values to compensate for points of abnormal friction on the leaf. Excessive force can compromise the operation of the safety system or damage the leaf.
• If the "motor force" control is used to assist the impact force reduction system, measure the force again after each adjustment in compliance with the EN 12453 and EN 12445 standards.
• Wear and weather conditions may affect the gate's movement, therefore periodic force readjustments may be necessary.

7.6.4 - Level 2 programming (adjustable parameters)

The adjustable parameters are set by default as shown in Table 7 with: " " but can be changed at any time as shown in Table 8. Take care during modification procedures, as there is a maximum time interval of 10 seconds between pressing of different buttons; otherwise the procedure terminates automatically and stores the changes made up to that time.

Table 8 - Procedure for changing the Level 2 functions	
01. Press and hold **Set** for roughly 3 s	
02. Release the **Set** button when LED L1 starts flashing	
03. Press and release the ▲/▼ buttons to shift the flashing LED to the LED representing the function to be modified	
04. Keep the **Set** pressed down until Step 06	
05. Wait roughly 3 seconds after which the LED associated with the current level of the parameter to be modified will light up	
06. Press and release the ▲/▼ buttons to shift the LED representing the parameter's value	
07. Release **Set**	

08.	Wait 10 seconds to exit the programming mode after the maximum time interval	 10 s
⚠ Steps 03 and 07 can be repeated during the same programming phase to modify multiple parameters		

7.7 - Transmitter memorisation

Each transmitter to be used in the system must be memorised in the control unit's radio receiver; the transmitters can be memorised in two modes: Mode 1 and Mode 2 (Paragraphs 7.7.1 and 7.7.3).

7.7.1 - Mode 1 transmitter memorisation

In this mode the function of the transmitter buttons is fixed and each button corresponds to the command in the control unit shown in Table 9; a single memorisation phase is carried out for each transmitter, during which all the transmitter buttons are memorised. During this phase it is irrelevant which button is pressed.

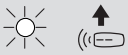
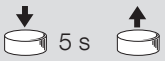
Note - The single-channel transmitters only have button 1, while dual-channel transmitters only have buttons 1 and 2.

Table 9 - Mode 1 memorisation procedure

Button	Command
T1	Step-by-Step
T2	Pedestrian opening
T3	Open
T4	Close

7.7.2 - Mode 1 memorisation procedure

Table 10 - Mode 1 memorisation procedure

01.	Press and hold for at least 5 s the radio button on the control unit	 5 s
02.	Release the button when the LED lights up	
03.	Within 10 seconds press the 1st button on the transmitter to be memorised, holding it down for at least 5 seconds before releasing it	 5 s
⚠	If the memorisation procedure was successful, LED L4(R) on the control unit will flash 3 times. Repeat the procedure for each transmitter to be memorised. The memorisation phase terminates if nothing is memorised for 10 seconds.	

7.7.3 - Mode 2 transmitter memorisation

In this mode, each transmitter button can be associated with one of the 4 possible control unit commands shown in Table 11; only one button is memorised for each stage, namely the one that was pressed during the memorisation phase.

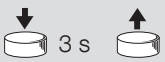
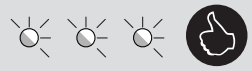
Note - Single-channel transmitters only have button T1, while dual-channel transmitters only buttons T1 and T2.

Table 11 - Commands available in Mode 2

Button	Command
1	Step-by-Step
2	Pedestrian opening
3	Open
4	Close

7.7.4 - Mode 2 memorisation procedure

Table 12 - Mode 2 memorisation procedure

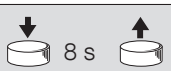
01.	Press and release the radio button on the control unit for a number of times corresponding to the desired command (1...4 - Table 11)	 1...4
02.	Make sure that LED L4(R) on the control unit emits a number of flashes equal to the number of the desired command (1...4)	 1...4
03.	Within 10 seconds press the desired button on the transmitter to be memorised, holding it down for at least 3 seconds before releasing it	 3 s
⚠	If the memorisation procedure was successful, LED L4(R) on the control unit will flash 3 times. Repeat the procedure for each transmitter to be memorised. The memorisation phase terminates if no further transmitters are memorised for 10 seconds.	

7.8 - Transmitter memorisation near the control unit (with two transmitters)

This procedure can be used to memorise a NEW transmitter by using a second (OLD) transmitter, which has already been memorised and works properly, without using the buttons on the control unit, by merely standing close to the control unit.
During the procedure the NEW transmitter is memorised in the same way that the OLD transmitter was memorised (Mode 1 or Mode 2).

⚠ **This procedure can be performed on all the receivers lying within the transmitter's range; therefore, only the device involved in the operation should be powered.**

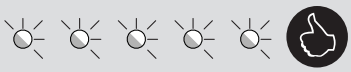
Table 13 - Transmitter memorisation procedure near the control unit

01.	Draw near the control unit with the two transmitters: ⚠ **wait 1 second between one step and the next**.	
02.	Press and hold on the NEW transmitter the button to be memorised for at least 8 seconds then release it	 8 s
03.	On the OLD transmitter press and release the button slowly for 3 times	 1 s 1 s 1 s

04.	On the NEW transmitter press and release the button slowly once	
⚠	Repeat the procedure for each transmitter to be memorised	

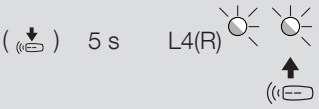
7.9 - Deleting all memorised transmitters from the memory

⚠ **Warning! - This procedure can ONLY be performed if the radio memory has been unlocked.**

Table 14 - Transmitter deletion procedure		
01.	Press and hold the radio button on the control unit up to Step 02	
02.	Wait for LED L4(R) to light up then wait for it to switch off and wait for it to flash 3 times	
03.	Release the button exactly during the 3rd flash	
⚠	If the memorisation procedure was successful, LED L4(R) on the control unit will flash 5 times	

7.10 - Locking / unlocking of the radio memory

⚠ This procedure locks the memory, thus preventing the recognition and deletion of radio transmitters.

Table 15 - Procedure for locking/unlocking the radio memory		
01.	Disconnect the control unit from the power supply	
02.	Press and hold the radio button on the control unit up to Step 03	
03.	Power the control unit again (continue holding the button down)	
04.	After 5 seconds LED L4(R) will emit 2 slow flashes: at this point release the button	
05.	(Within 5 seconds) repeatedly press and release the radio button on the control unit to select one of the following options: - LED off = Deactivation of the memory lock. - LED on = Activation of the memory lock.	
⚠	Five seconds after last pressing the button, LED L4(R) will emit 2 slow flashes to signal the end of the procedure.	

8 FURTHER INFORMATION

8.1 - Adding or removing devices

It is possible to add or remove devices at any time; in particular, various types of devices can be connected to the STOP input, as described in the following paragraphs; for the relevant procedure see Paragraph 7.3 (“Recognition of the gate opening and closing positions”).

STOP input

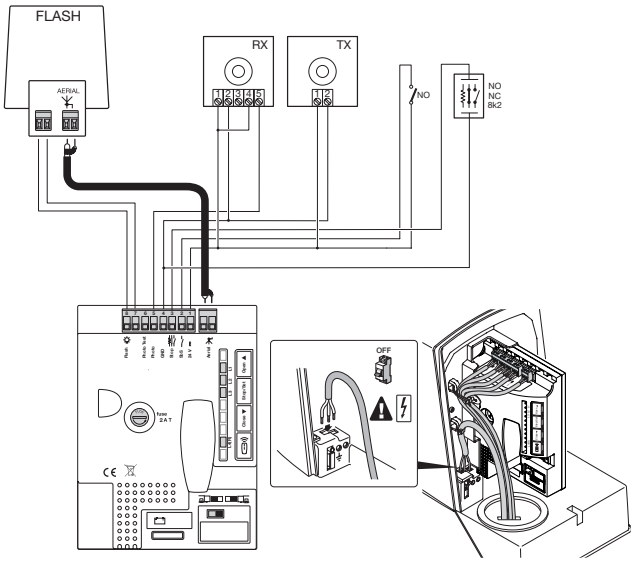
STOP is the input that causes the immediate interruption of the manoeuvre, followed by a brief inversion. Devices with output featuring normally open Normally Open (NO) contact, Normally Closed (NC) contact, as well as devices with 8.2 kΩ fixed resistance output, such as sensitive edges, can be connected to this input.
The control unit recognises the type of device connected to the STOP input during the recognition phase (Paragraph 7.3 “Recognition of the gate opening and closing positions”); subsequently, a STOP command is triggered whenever the device detects any difference from the recognised setting.
Multiple devices, even of different types, can be connected to the STOP input if suitable arrangements are made:
- Multiple NO devices can be connected to each other in parallel without any quantity limit.
- Multiple NC devices can be connected to each other in series without any quantity limit.
- Multiple devices with 8.2 kΩ fixed resistor can be “cascade” connected with a single 8.2 kΩ terminating resistor
- NO and NC combinations can be made by placing the 2 contacts in parallel, taking care to place an 8.2 kΩ resistor in series to the NC contact (this allows for combining 3 devices: NO, NC and 8.2 kΩ).

⚠ If the STOP input is used to connect devices with safety functions, only the devices with 8.2 kΩ fixed resistor guarantee Category 3 safety against faults, in accordance with the EN 13849-1 standard.

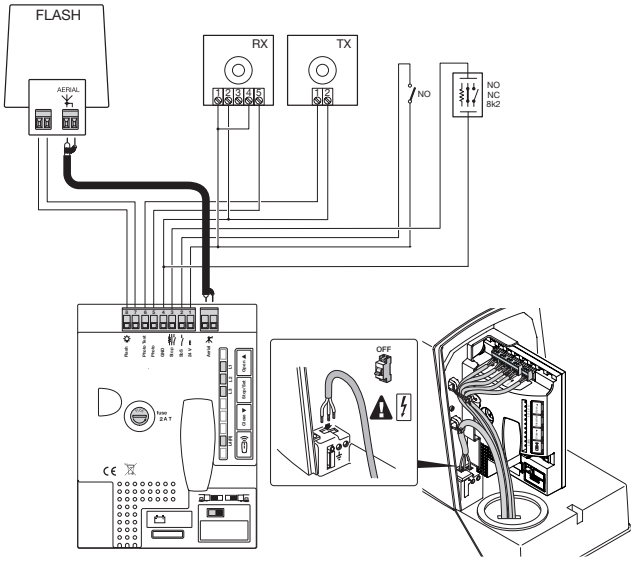
Photocells

The control unit features a “Phototest” function which increases the reliability of the safety devices, enabling it to be classified in Category 2 in accordance with the EN 13849-1 standard regarding the combination of the control unit and safety photocells.
Each time a manoeuvre is started, all safety devices involved are checked and only in the case of positive results will the manoeuvre be started.
Should the test fail (photocell blinded by the sun, cables short-circuited, etc.), the fault is identified and the manoeuvre is disabled.
To add a pair of photocells, connected them as described below.

• Connection without “Phototest” function:
Power the receivers directly from the control unit’s device output (terminals 1 - 4).



• Connection with “Phototest” function:
The photocell transmitters are not powered directly from the devices output, but from the “Phototest” output between terminals 6 - 4. The maximum admissible current on the “Phototest” output is 100 mA.

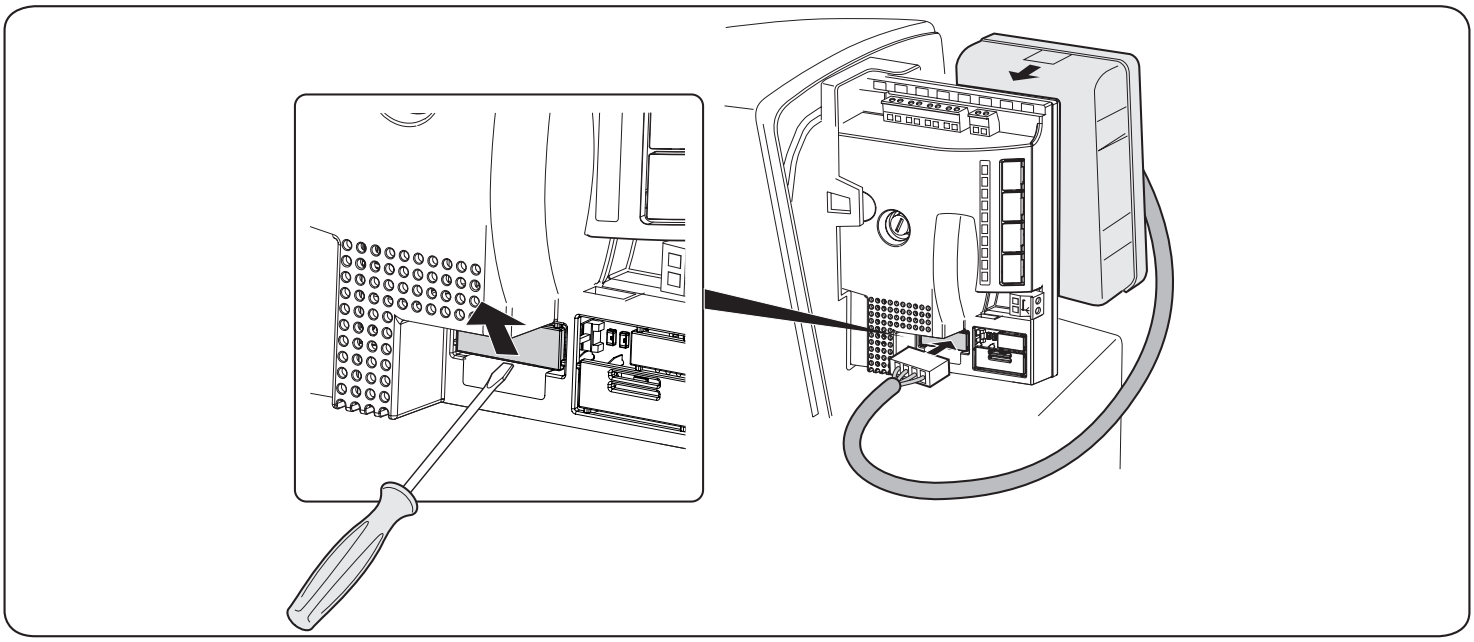


⚠ To use the “Phototest” function, it is necessary to activate the “synchronism” as described in the photocell instruction manual.

8.2 - Buffer battery

ROAD comes with the optional buffer battery accessory model PS124 (1.2 Ah with integrated battery charger). To connect the buffer battery, proceed as shown below.

⚠ WARNING! - The buffer battery should only be connected to the control unit after completing all the installation and programming phases, because the battery is an emergency power supply.



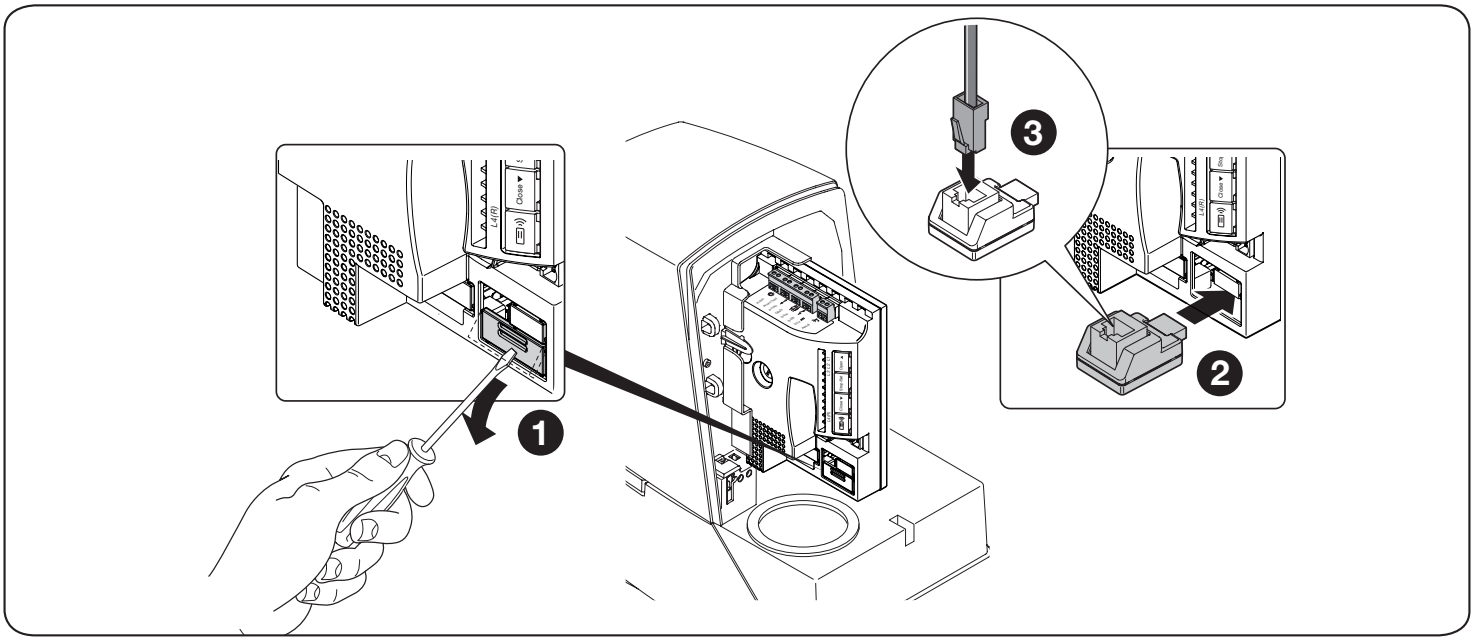
8.3 - Connecting the Oview programmer

It is possible to connect the Oview programming unit to the control unit, via the IBT4N interface through a bus cable with 4 electrical wires inside. This unit enables quick and full programming of the functions, parameter adjustment, updating of the control unit firmware, diagnostics to detect any malfunctions and periodic maintenance.

The Oview allows for operating on the control unit at a maximum distance of roughly 100 m. If several control units are networked with each other in a BusT4 network, by connecting the Oview to one of them, it is possible to view on the display all the networked control units (up to a maximum of 16 units).

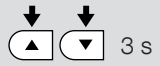
The Oview unit can also be left connected to the control unit during normal operation of the automation, so that the user can send commands using a specific menu.

⚠ Warning! - Before connecting the IBT4N interface, it is necessary to disconnect the control unit from the power supply.



8.4 - Full deletion of the memory

When full deletion of the memory is required, to restore the default settings, perform the following procedure with the motor stationary:

Table 16 - Procedure for fully deleting the memory	
01. Press and hold buttons ▲ and ▼ simultaneously for 3 seconds.	
02. When all the LEDs light up simultaneously, release the buttons.	
03. LEDs L1, L2 and L3 will start flashing at the end of the procedure.	
⚠ After full deletion, the limit switch recognition procedure can be restarted by running the "Quick Set-up" procedure (Paragraph 7.2).	

⚠ **Important - This procedure does not cancel the transmitters.**

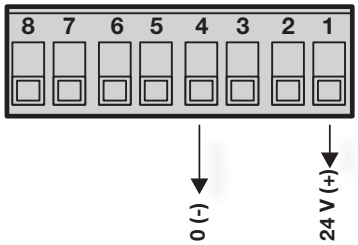
8.5 - Special functions

"Always open" function
This function is a control unit feature that enables the user to command an opening manoeuvre when the "Step-by-Step" command lasts longer than 3 seconds. This is useful, for example, for connecting a timer contact to the "Step-by-Step" input in order to keep the gate open during a specific time bracket. This feature is valid regardless of the "Step-by-Step" input programming (see the "Step-by-Step Function" parameter - Table 11).
"Move anyway" function
In the event that one of the safety devices is not functioning properly or is out of order, it is still possible to command and move the gate in "Man present" mode. For further details, refer to the "USER GUIDE" pull-out insert (final part of the manual)

8.6 - Power for external devices

To power external devices (proximity reader for transponder cards or the backlight of a key selector) it is possible to connect the device to the product's control unit as shown in the adjacent figure.

The power supply voltage is 24 VDC –30% to +50% with a maximum available current of 100 mA.



9 DIAGNOSTICS

The control unit emits special signals showing the operating status or any malfunction.
The OK LED can flash red if an anomaly is detected during normal operation; in particular, it will flash several times followed by a 1-second pause to signal the specific error/anomaly

9.1 - Warning light signals and courtesy light

Table 17 - Warning light signals and courtesy light		
Signal	**Cause**	**Solution**
2 flashes 1-sec pause 2 flashes	Intervention of a photocell	At the start of the manoeuvre, one or more photocells prevent movement; check whether there are any obstacles. This is normal when there is an obstacle hampering the closing movement.
3 flashes 1-sec pause 3 flashes	Intervention of the "Motor Force" limiter	During the movement, the gate experienced excessive friction; identify the cause.
4 flashes 1-sec pause 4 flashes	Triggering of the STOP input	At the start of the manoeuvre or during the movement, the STOP input intervened; identify the cause.
5 flashes 1-sec pause 5 flashes	Internal parameter memorisation error	Wait at least 30 seconds during which the control unit will attempt to restore the function. If the condition persists, delete the memory and rerun the memorisation procedure.
6 flashes 1-sec pause 6 flashes	Maximum number of manoeuvres per hour exceeded	Wait a few minutes until the manoeuvre limiting device drops below the maximum limit.
7 flashes 1-sec pause 7 flashes	Error in the internal electric circuits	Disconnect all the power circuits for a few seconds and then try giving a command again; if the condition persists it means there is a serious fault on the electronic board or the motor cabling: perform the necessary checks and replace components, if necessary.

8 flashes 1-sec pause 8 flashes	Command already present.	Another command is already present. Remove the command present to be able to send other commands.
10 flashes 1-sec pause 10 flashes	Manoeuvre time-out or lack of motor power during the position recognition phase	The time-out denotes that the manoeuvre is too long. Shorten the manoeuvre time by increasing the speed or balancing the gate to reduce the motor's effort. If the motor lacks power check whether the board is properly inserted in its housing

9.2 - Signals of LEDs on the control unit

The control unit contains LEDs that can emit special signals both during normal operation and in case of anomalies.

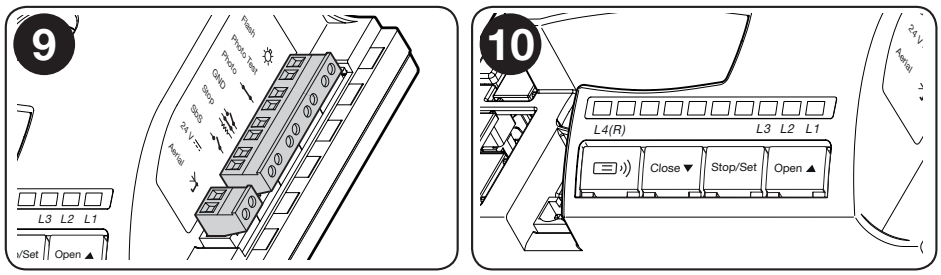


Table 18 - Terminal LEDs (Fig. 9)		
OK LED	**Cause**	**Solution**
Red and green LED off	Fault	Make sure there is power supply; check to see whether the fuses are blown; if necessary, identify the reason for the failure then replace them with others of the same type.
Green or red LED on	Serious fault	Try switching off the control unit for a few seconds; if the condition persists, it means that there is a malfunction and the electronic circuit board has to be replaced.
1 green flash per second	All OK	Normal control unit operation.
2 quick green flashes	Input status variation	This is normal when there is a change in one of the inputs: SbS, STOP, intervention of photocells or the radio transmitter is used.
Series of red flashes separated by a 1-second pause	Various	Same signal on the warning light or courtesy light: see Table 20
STOP LED (red)	**Cause**	**Solution**
OFF	Input intervention STOP	Check the devices connected to the STOP input
On	All OK	STOP input active

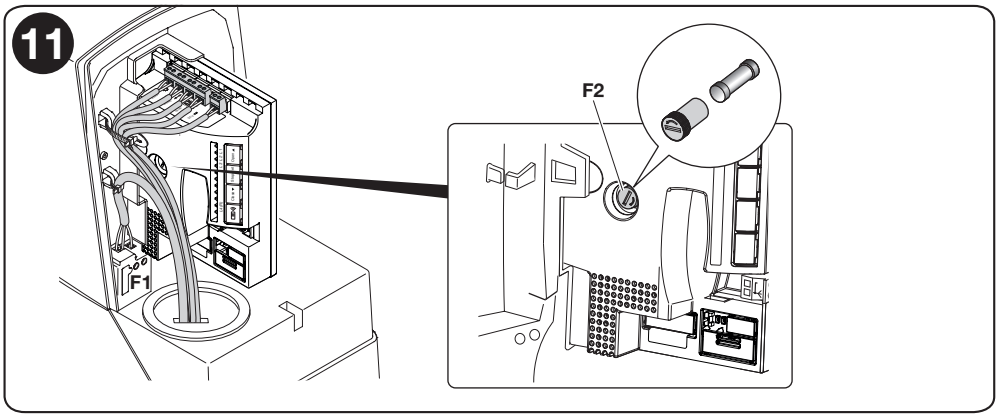
Table 19 - Button LEDs (Fig. 10)	
L1	**Description**
Off	During normal operation it indicates "Short slowdown"
On	During normal operation it indicates "Long slowdown"
Flashes	Function programming in progress
L2	**Description**
OFF	During normal operation it indicates slow "Motor speed"
On	During normal operation it indicates fast "Motor speed"
Flashes	- Function programming in progress - If it flashes together with LEDs L1 and L3, the user must run the recognition phase of the gate opening and closing positions (Paragraph 7.3).
L3	**Description**
OFF	During normal operation the device indicates "Automatic Closing" is inactive.
On	During normal operation the device indicates "Automatic Closing" is active.
Flashes	- Function programming in progress - If it flashes together with LEDs L1 and L2, the user must run the recognition phase of the gate opening and closing positions (Paragraph 7.3).
L4(R) (radio)	**Description**
On	During normal operation it indicates that a radio code not present in the memory has been received.
Flashes	Transmitter programming or deletion under way

10 TROUBLESHOOTING

Table 20 contains useful instructions to help you solve malfunctions or errors that may occur during the installation stage or in case of fault.

Table 20 - Troubleshooting

Problem	Solution
The radio transmitter does not control the gate and the LED on the transmitter does not light up	Check to see if the transmitter batteries are exhausted and replace them if necessary.
The radio transmitter does not control the gate and the LED on the transmitter lights up	- Check whether the transmitter has been memorised correctly in the radio receiver. - Check whether the transmitter emits the radio signal correctly by means of this practical test: push a button and place the LED on the antenna of a normal radio (preferably a cheap one) that is switched on and tuned to 108.5 Mhz FM or as close as possible; a slight crackling sound should be heard.
No manoeuvre starts and the OK LED fails to flash	Check whether the gearmotor is powered at 230 V mains voltage. Check that fuse F2 has not blown; if it has, identify the reason for the fault then replace it with one of the same current rating and characteristics (Fig. 11).
No manoeuvre starts and the warning light is off	Check that the command is actually received. If the command reaches the Step-by-Step input, the OK LED flashes twice indicating that the command has been received.
The manoeuvre does not start and the courtesy light flashes a few times	Count the number of flashes and check them against Table 19.
The manoeuvre starts but it is immediately followed by a brief reverse run	The selected force value may be too low to move the gate: check whether there are any obstacles and, if necessary, select a greater force or check whether the limit switch is blocked.



11 PRODUCT DISPOSAL

This product constitutes an integral part of the automation and, therefore, must be disposed of together with it.
Similarly to the installation phase, once the product reaches the end of its useful life, the disassembly and scrapping operations must be performed by qualified personnel.
This product is made of various types of materials, some of which can be recycled while others must be scrapped. Seek information on the recycling and disposal systems envisaged by local regulations in your area for this product category.

⚠ WARNING! - Some parts of the product may contain polluting or hazardous substances which, if released into the environment, constitute serious environmental and health risks.

As indicated by the adjacent symbol, the product may not be disposed of together with domestic waste. Sort the materials for disposal, according to the methods envisaged by current legislation in your area, or return the product to the retailer when purchasing an equivalent product.

⚠ WARNING! - Local regulations may envisage the application of heavy fines in the event of improper disposal of this product.

12 MAINTENANCE

To ensure constant safety levels a long service life, the system must be serviced regularly: at least every 6 months or after maximum 10,000 movements since the last service.

⚠ WARNING! – Maintenance operations must be performed in strict compliance with the safety precautions provided in this manual and according to applicable legislation and standards.

01.	OFF	Disconnect the power supply to the gearmotor and check the state of deterioration of all the automation's constituent materials: pay special attention to erosion and oxidation of structural components. Replace any parts that are not to standard
02.		Check the state of wear of moving parts: pinion, rack and all parts of the gate leaf; replace any worn components if necessary
03.	ON	Power the gearmotor and run all the tests and checks indicated in Paragraph 6.1 - Testing

13 TECHNICAL SPECIFICATIONS

All technical specifications stated herein refer to an ambient temperature of 20°C (± 5°C). • Nice S.p.A. reserves the right to modify its products at any time deemed necessary, while nonetheless maintaining the same intended use and functionality.

ROAD (RD400)	
Product type	Electromechanical gearmotor for the automatic movement of sliding gates for residential use, inclusive of electronic control unit
Pinion	Z: 15; Module: 4; Pitch: 12.5 mm; Primitive diameter: 60 mm
Maximum inrush torque	12 Nm; corresponding to the capacity to move a leaf with a static friction of up to 400 N
Nominal torque	5 Nm; corresponding to the capacity to keep a leaf moving with a dynamic friction of up to 167 N
Speed (no load)	0.25 m/s; the control unit allows for programming speeds of: 0.13 m/s or 0.25 m/s
Nominal torque speed	0.16 m/s
Maximum frequency of operating cycles	50 cycles per day (the control unit limits the cycles to the maximum specified in Tables 1 and 2)
Maximum continuous operating time	9 minutes (the control unit limits continuous operation to the maximum values given in Tables 1 and 2)
RD400 power supply RD400/V1 power supply	230 V~ (+10% +15%) 50/60 Hz 120 V ~ (+10% +15%) 50/60 Hz
Fuses	F1: 1 A Type T (250 V) - F2: 2 A Type T (250V)
Maximum power input	210 W (1.1 A)
Insulation class	1 (a safety earthing system is required)
Warning light output	For 1 ELDC flashing LED
STOP input	For normally closed, normally open or 8.2 kΩ fixed resistance contacts; with self-recognition (any variation from the memorised status triggers the “STOP” command)
Step-by-Step input	For normally open contacts (closing of the contact triggers the Step-by-Step command)
Radio ANTENNA input	52 Ω for RG58 or similar type cable
Radio receiver	Incorporated
Programmable functions	3 ON-OFF functions and 3 adjustable functions (see Tables 13 and 15)
Auto-recognition functions	Self-recognition of the type of “STOP” Self-recognition of the gate opening and closing positions and calculation of the slowdown and partial opening points
Operating temperature	–20°C ... +55°C
Protection rating	IP 44
Dimensions and weight	330 mm x 195 mm x h 277 mm; 8 kg

RADIO RECEIVER	
Product type	4-channel receiver for incorporated radio remote control
Frequency	433.92 MHz
Coding	52-bit FLOR-type digital rolling code 64-bit SMILO-type digital rolling code
Transmitter compatibility *	Supported protocols: Flor, O-Code, Smilo
Memorisable transmitters	Up to 100 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 or electromagnetic disturbances, and depends on the position of the receiving antenna
Outputs	For the commands see Tables 4 and 5
Operating temperature	–20°C ... +55°C
* the first transmitter that is inserted also determines the type of those introduced subsequently.	

EU Declaration of Conformity (No. 297/ROAD400) and declaration of incorporation of “partly-completed machinery”

Note - The contents of this declaration correspond to that stated in the official document filed in the offices of Nice S.p.A. and, in particular, the latest version thereof available prior to the printing of this manual. The text herein has been re-edited for editorial purposes. A copy of the original declaration can be requested from Nice S.p.A. (TV) Italy.

Revision: **9** Language: **EN**

Manufacturer’s name:	NICE S.p.A.
Address:	Via Pezza Alta 13, 31046 Rustignè di Oderzo (TV), Italy
Subject authorised to draw up the technical documentation:	NICE S.p.A.
Product type:	Electromechanical gearmotor with incorporated control unit
Model / Type:	RD400, RD400/V1
Accessories:	ELDC, EPMA

The undersigned, Roberto Griffa, as Chief Executive Officer, hereby declares under his own responsibility that the product identified above complies with the provisions of the following directives:

Directive 2014/53/EU (RED)
- Health and safety (Art. 3(1)(a)): EN 62479:2010
- Electrical safety (Art. 3(1)(a)): EN 60950-1:2006+A11:2009+A12:2011+A1:2010+A2:2013
- Electromagnetic compatibility (Art. 3(1)(b)): EN 301 489-1 V2.2.0:2017, EN 301 489-3 V2.1.1:2017
- Radio spectrum (Art. 3(2)): EN 300 220-2 V3.1.1:2017

In addition, the product conforms to the following directive in accordance with the provisions applicable to “partly-completed machinery” (Annex II, Part 1, Section B):

Directive 2006/42/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 17 May 2006 regarding machinery and amending Directive 95/16/EC (recast).

- It is hereby declared that the relevant technical documentation has been compiled in accordance with Annex VII, Part B, of Directive 2006/42/EC and that the following essential requirements have been applied and fulfilled: 1.1.1- 1.1.2- 1.1.3- 1.2.1-1.2.6- 1.5.1-1.5.2- 1.5.5- 1.5.6- 1.5.7- 1.5.8- 1.5.10- 1.5.11
- The manufacturer undertakes to transmit, in response to a reasoned request by the national authorities, relevant information on the “partly-completed machinery”, without prejudice to the intellectual property rights of the manufacturer of the “partly-completed machinery”.
- If the “partly-completed machinery” is commissioned in a European country with an official language other than the language used in this declaration, the importer must include a translation to accompany this declaration.
- The “partly-completed machinery” must not be commissioned until the final machine in which it is to be incorporated is declared to conform to the provisions of Directive 2006/42/EC, if applicable.

The product also complies with the following standards:
EN 60335-1:2012+A11:2014, EN 62233:2008
EN 60335-2-103:2015, EN 61000-6-2:2005, EN 61000-6-3:2007+A1:2011

Place and Date: Oderzo, 12 July 2017

Mr **Roberto Griffa** (Chief Executive Officer)

USER GUIDE (to be handed to the end user)

⚠ This user guide should be stored and handed to all users of the automation.

WARNINGS

• Monitor the gate while it is moving and keep at a safe distance until it is fully open or closed; do not transit through it until the gate is fully open and stationary.

• Do not let children play near the gate or with its controls.

• Keep the transmitters away from children.

• Suspend the use of the automation immediately as soon as you notice any abnormal operation (noises or jolting movements); failure to follow this warning may cause serious danger and accidents.

• Do not touch moving parts.

• Regular checks must be carried out by qualified personnel according to the maintenance plan.

• Maintenance or repairs must only be carried out by qualified technical personnel.

• Send a command with the safety devices disabled:

If the safety devices do not work properly or are out of order, the gate can still be operated.

01. Command the gate with the transmitter. If the safety devices give the enable signal, the gate opens normally; otherwise, reattempt within 3 seconds and keep the control activated.

02. After approximately 2 seconds the gate will start moving in the “man present” mode, i.e. so long as the control is kept pressed the gate will keep moving; as soon as the control is released the gate will stop.

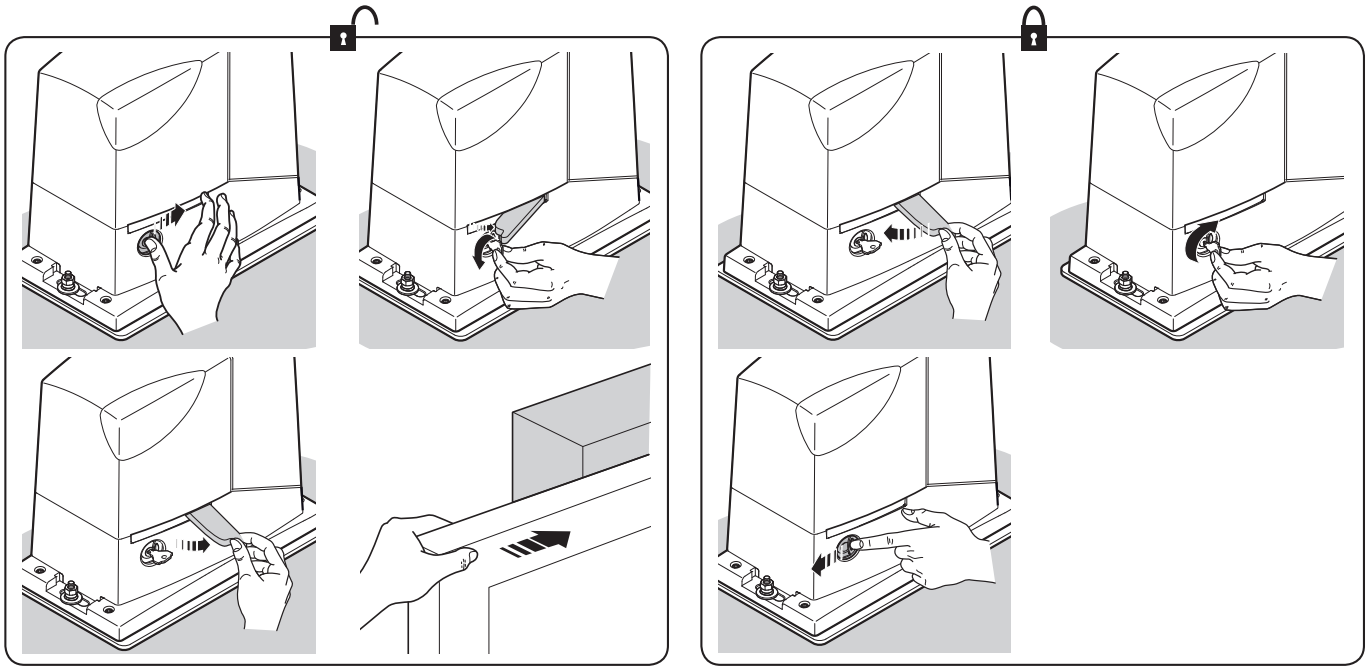
If the safety devices are out of order, arrange to repair the automation as soon as possible.

Unlocking and locking the gearmotor (manual manoeuvre)

The gearmotor is equipped with a mechanical system that allows for opening and closing the gate manually.

Manual operation must be performed in the case of a power outage or in the event of anomalies affecting the system.

In the event of a gearmotor fault, it is still possible to try release the motor to check whether the fault lies in the unlocking mechanism.



Maintenance operations admissable to the user

The operations that the user must carry out periodically are listed below:

• Cleaning of the surfaces of the devices: use a slightly damp (not wet) cloth. Do not use substances containing alcohol, benzene, thinners or other flammable substances; the use of these substances may damage the devices and cause fires or electric shocks.

• Removal of leaves and stones: disconnect the power supply before proceeding, so as to prevent anyone from moving the gate. If a buffer battery is fitted, disconnect it.

IDV0615A00EN_18-04-18_RD400

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