

# Nice

CE

TTN3724HS

TTN3724RHS

TTN6024HS

TTN6024RHS



## Swing gate opener

EN - Instructions and warnings for installation and use

Nice



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## GENERAL WARNINGS: SAFETY - INSTALLATION - USE (original instructions in Italian)

**ATTENTION** Important safety instructions. Follow all instructions as improper installation may cause serious damage  
**ATTENTION** Important safety instructions. It is important for you to comply with these instructions for your own and other people's safety. Keep these instructions

- Before commencing the installation, check the "Technical characteristics" (in this manual), in particular whether this product is suitable for automating your guided part. If it is not suitable, DO NOT continue with the installation
- The product cannot be used before it has been commissioned as specified in the chapter on "Testing and commissioning"

**ATTENTION** According to the most recent European legislation, the implementation of an automation system must comply with the harmonised standards provided by the Machinery Directive in force, which enables declaration of the presumed conformity of the automation. Taking this into account, all operations regarding connection to the electricity grid, as well as product testing, commissioning and maintenance, must be performed exclusively by a qualified and skilled technician!

- Before proceeding with the installation of the product, check that all the materials are in good working order and suited to the intended applications
- This product is not intended to be used by persons (including children) whose physical, sensory or mental capacities are reduced, or who lack the necessary experience or skill
- Children must not play with the appliance
- Do not allow children to play with the fixed control devices of the product. Keep the remote controls away from children

**ATTENTION** 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 power supply grid, with a contact opening distance permitting complete disconnection under the conditions dictated 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 assumes no liability for damage to property, items or persons resulting from non-compliance with the assembly instructions. In such cases the warranty for material defects is excluded
- 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 carried out by unsupervised children
- Before working 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, if repairs or adjustments are necessary, since installation failure or an incorrectly balanced automation may cause injury
- The packing materials of the product must be disposed of in compliance with local regulations
- When operating a biased-off switch, make sure that other persons are kept away
- 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

### INSTALLATION WARNINGS

- 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 or door being automated has a pedestrian gate, then the system must include a control device that will inhibit the operation of the motor when the pedestrian gate is open
- Make sure that the control devices are kept far from moving parts but nonetheless in a visible position. Unless a selector is used, the control devices must be installed at a height of at least 1.5 m and must not be accessible
- That windows, having a gap exceeding 200 mm when open, are to be closed using a biased-off switch if the opening movement is controlled by a fire-sensing system
- Ensure that entrapment between the driven part and the surrounding fixed parts due to the opening movement of the driven part is avoided
- Permanently fix the label concerning the manual release adjacent to its actuating member
- After installing the drive motor, make sure that the mechanism, protective system and all manual manoeuvres operate properly

# 1 PRODUCT DESCRIPTION AND INTENDED USE

This product is intended to be used to automate swing gates. **CAUTION! – Any use other than the intended use, and any use in conditions other than those described in this manual, is improper and forbidden!**

The product is an electromechanical gearmotor, available in two versions: TTN3724HS - TTN3724RHS - TTN6024HS - TTN6024RHS. It is equipped with a 24V motor and a worm screw reduction unit.

The gearmotor is powered off the external control unit to which it is connected. **WARNING! – With the gearmotors mod. TTN6024HS and TTN3724HS, only the control unit model MC824H can be used!**

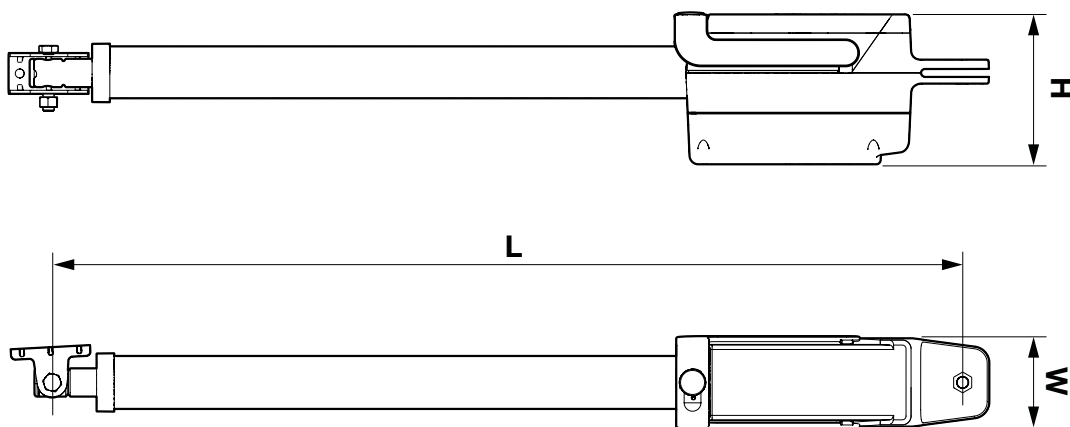
In case of power outage, the gate can be operated manually by disengaging the gearmotor (for gearmotor models TTN3724HS and TTN3724RHS the gate leaf can be moved manually without disengaging the gearmotor).

# 2 APPLICATION LIMITS

**Caution! - The motor must be installed by qualified personnel in compliance with current legislation, standards and regulations, and the directions provided in this manual.**

Before proceeding with the installation:

- Check that the area to which the gearmotor is to be mounted is large enough.

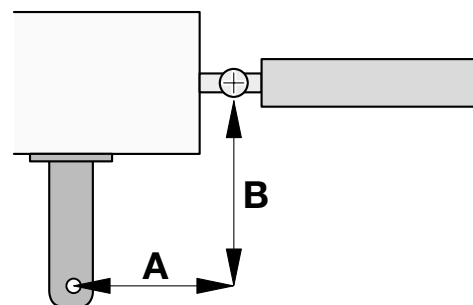


- Check the gate's opening movement and the force exerted by the motor: these depend on the position of the rear bracket.

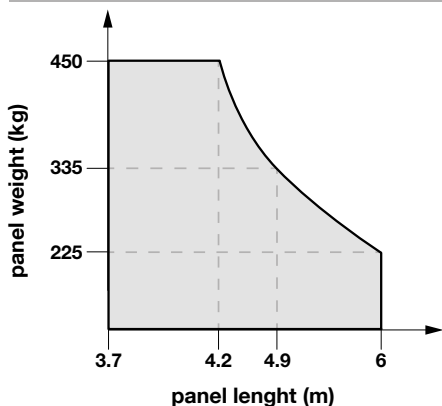
Model	L max (mm)	L min (mm)	Travel (mm)	W (mm)	H (mm)
TTN6024RHS - TTN6024HS	1710	1030	680	105	170
TTN3724RHS - TTN3724HS	1370	860	510		

- Define the maximum opening angle of the gate leaf and the appropriate motor strength for the relevant system.

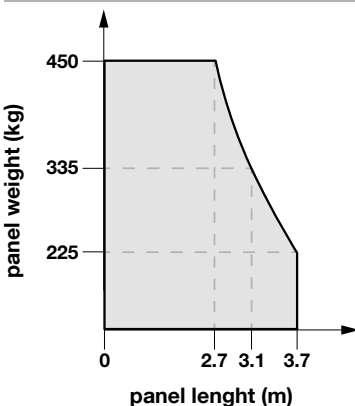
Model	Angle	A (cm)	B (cm)
TTN6024RHS	100°	20	28
TTN6024HS	115°	28	28
TTN3724RHS	110°	18	18
TTN3724HS			



Model TTN6024RHS - TTN6024HS



Model TTN3724RHS - TTN3724HS



### 3 INSTALLATION

**⚠ Important! Before installing the product, refer to chapters 2 and 9 (technical specifications).**

Fig. 1 shows the contents of the package: check the material.

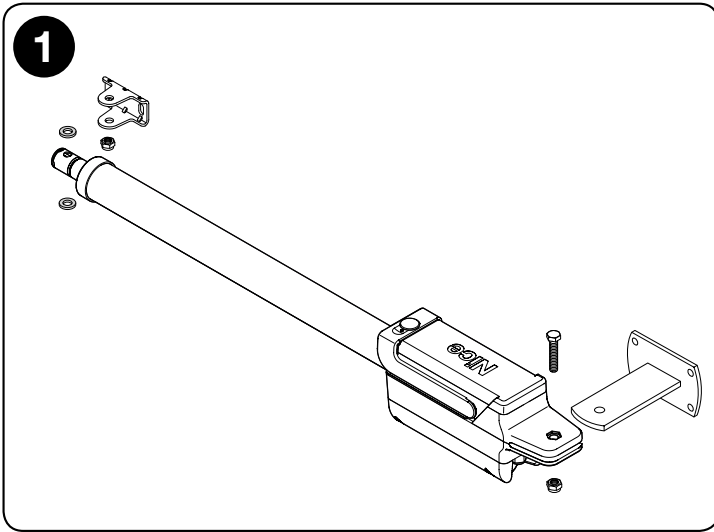
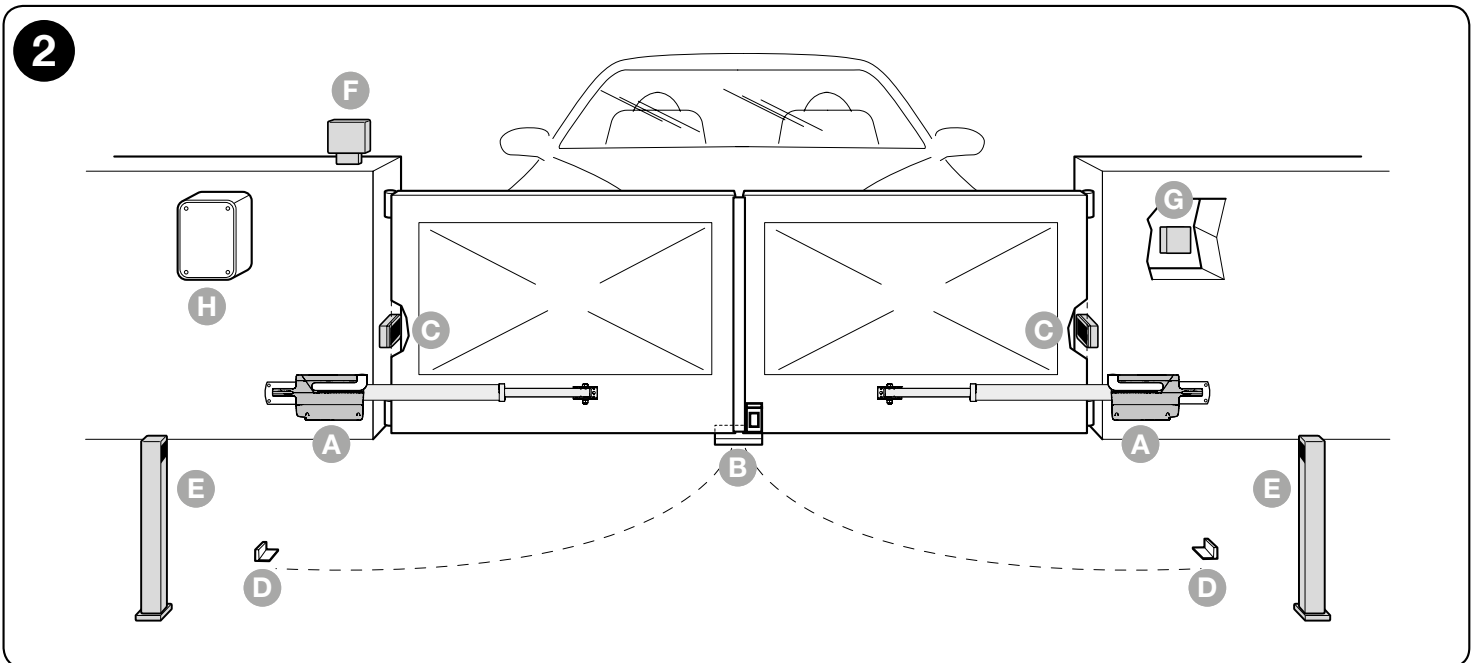


Fig. 2 shows the location of the various components of a typical system mounting Nice accessories:

- A** - electromechanical gearmotors
- B** - vertical electric lock
- C** - photocell pair
- D** - mechanical limit switch pair (opening)
- E** - photocell pillars
- F** - flasher
- G** - keyswitch/digital keypad
- H** - control unit

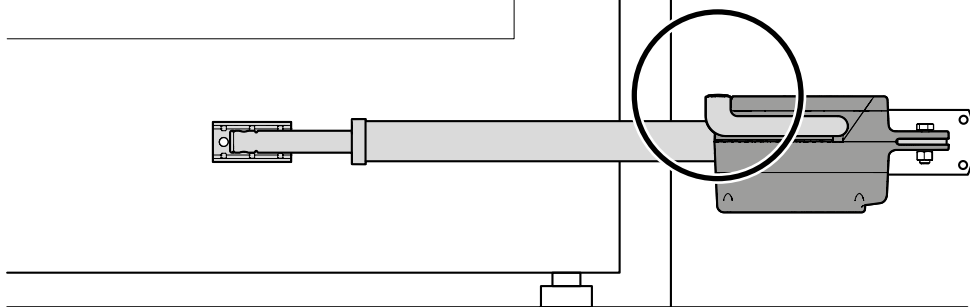
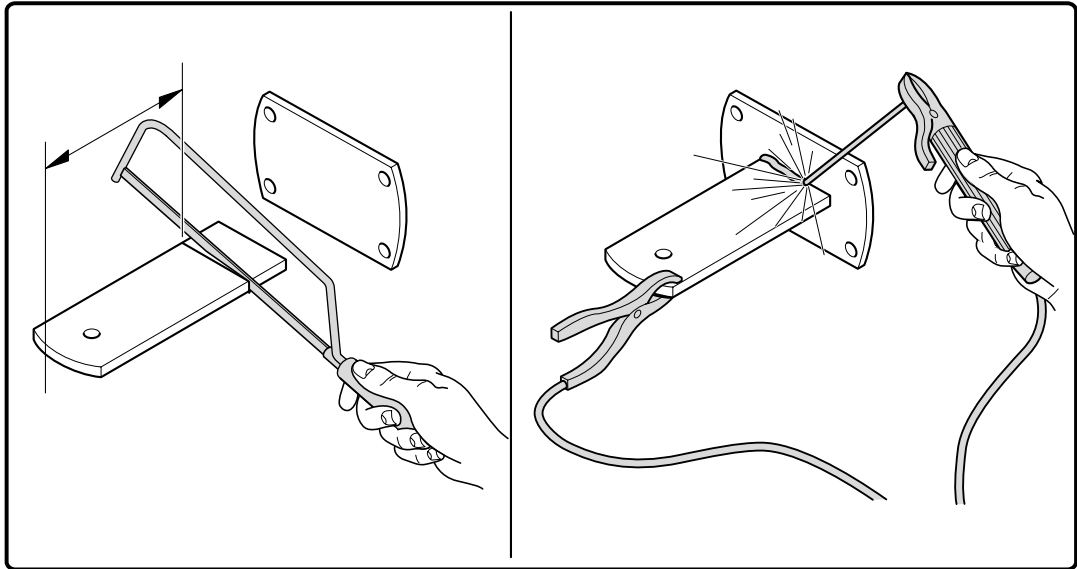
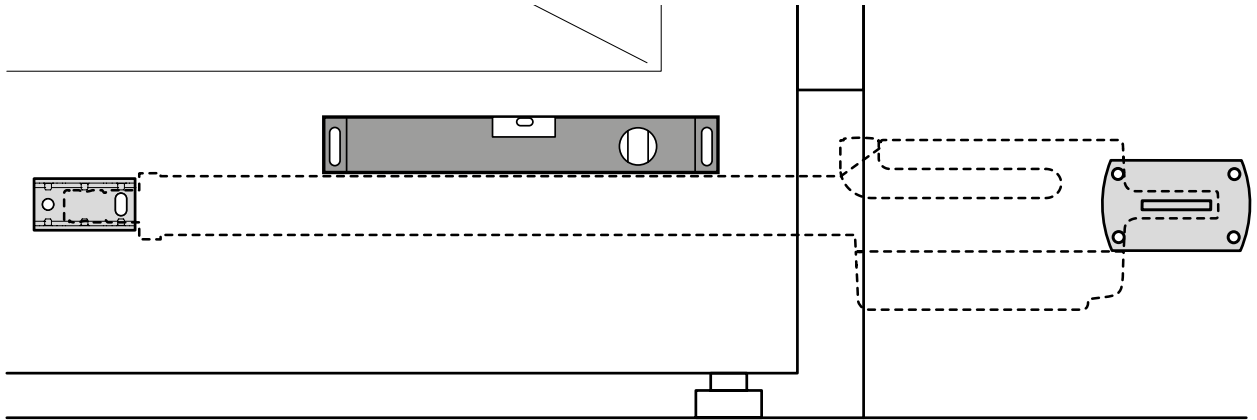
**model TTN3724RHS - TTN6024RHS: MC824HR**  
**model TTN3724HS - TTN6024HS: MC824H**



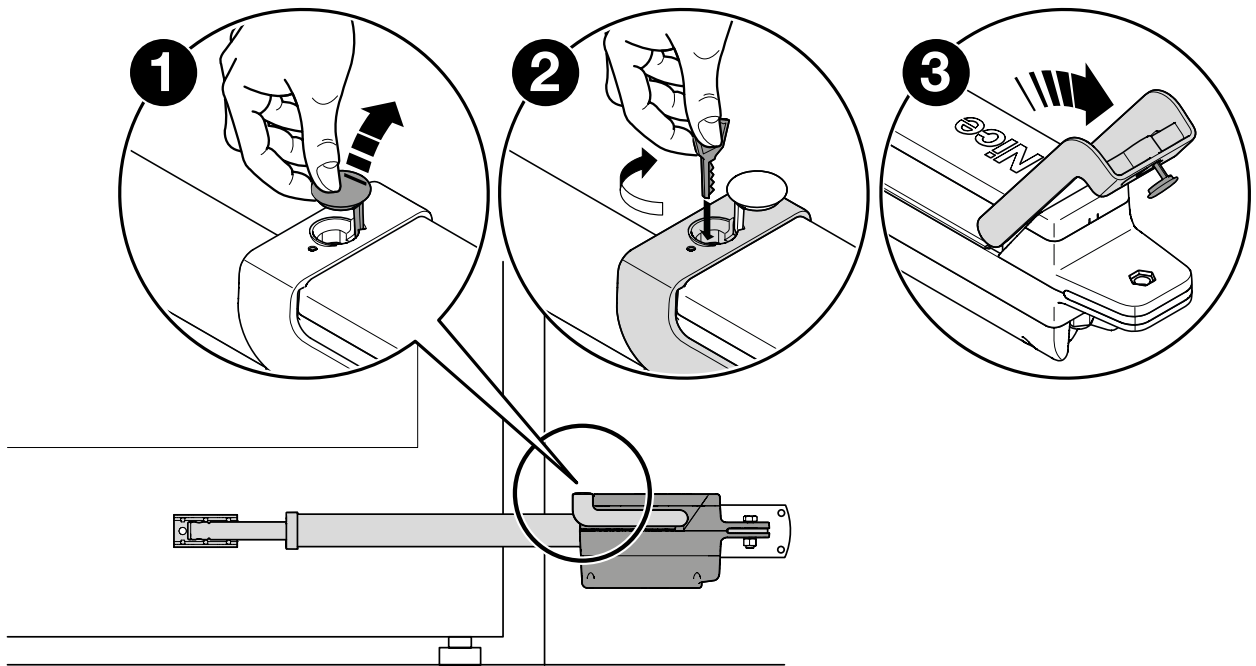
## WARNINGS

- Incorrect installation may cause serious physical injury to those working on or using the system.

01. Identify the front and rear bracket mounting positions
02. Secure the rear bracket with reference to its specified installation positions and check that it lies level
03. Mount the gearmotor to the rear bracket



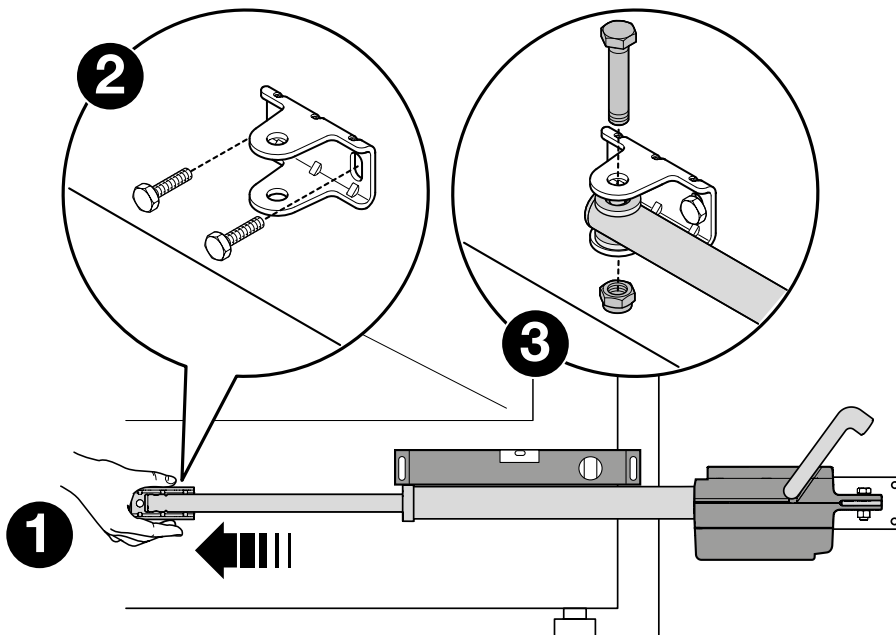
04. Manually release the gearmotor (manual manoeuvre)



05. Pull the rod completely out

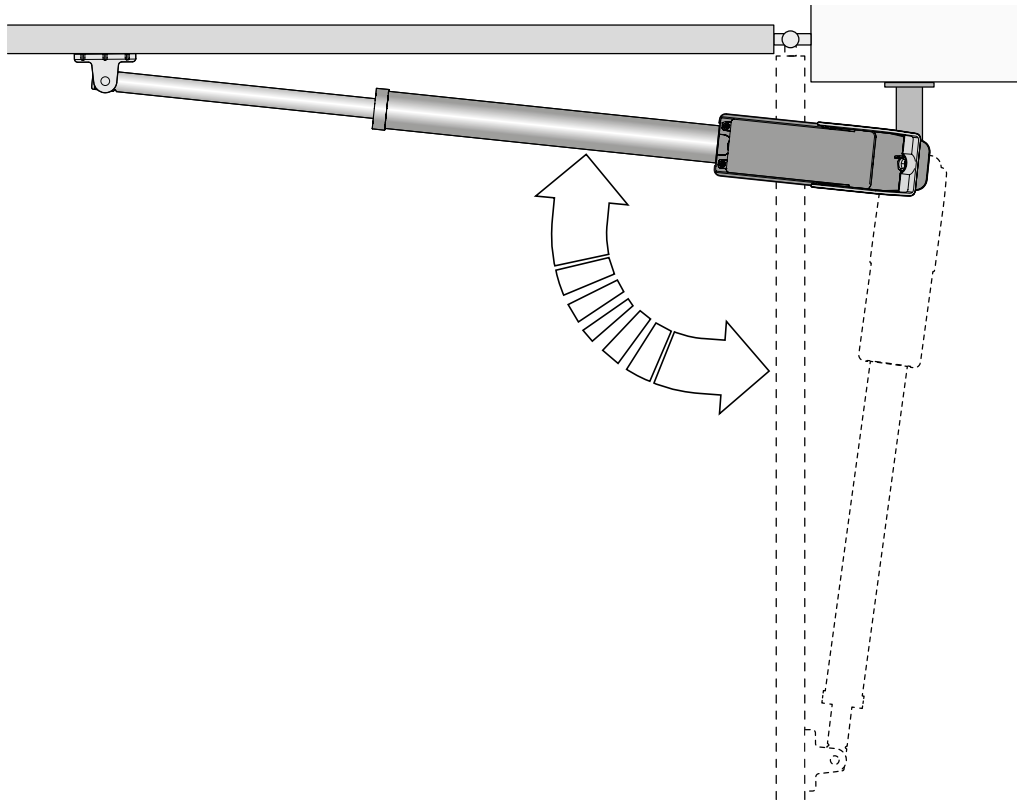
06. Provisionally locate the front bracket onto the gate

07. Check that the gearmotor is level, then fit and secure the rod to the front bracket

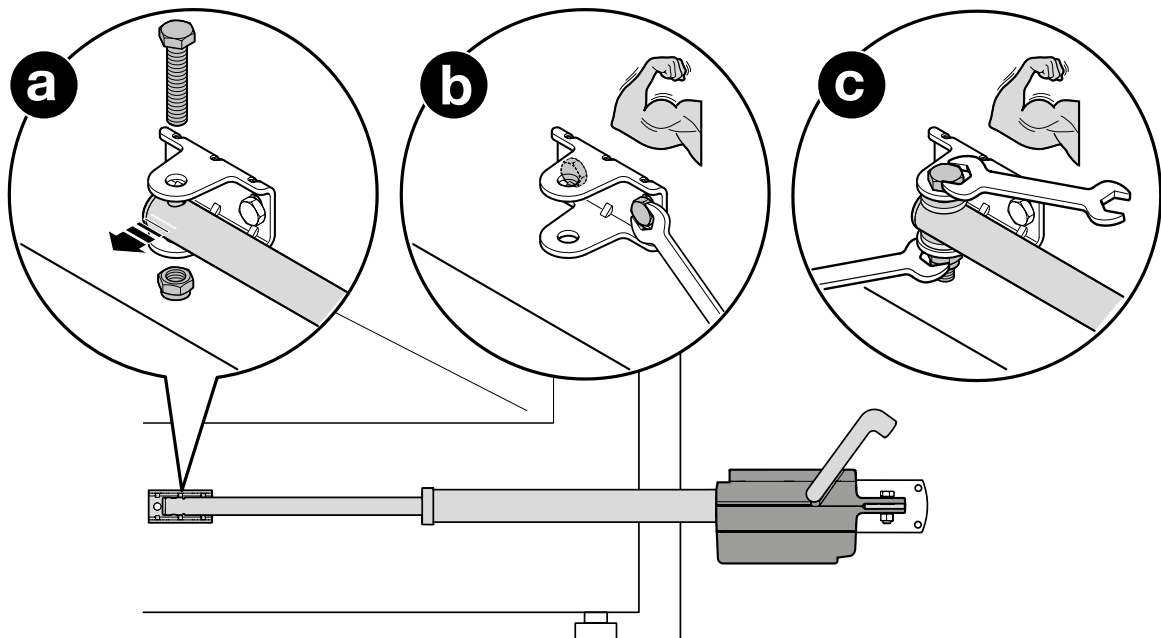




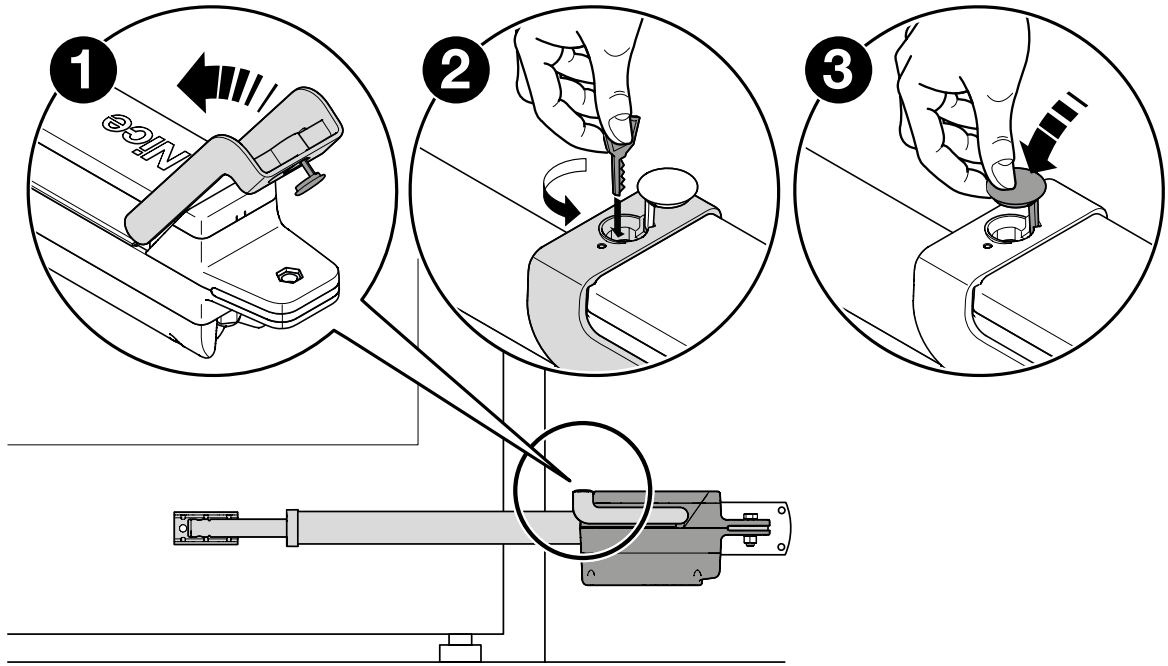
- 08.** Check manually that:
- when the gate is fully open, it halts against its mechanical stops
  - the gate swings freely and without resistance
- Correct any defects



- 09.** **a** - Unhook the rod from the front bracket  
**b** - Mount the latter to the gate permanently  
**c** - Permanently mount the rod to the front bracket



10. Lock the gearmotor



Follow this procedure for both gearmotors.

**3.1 - Manually releasing the gearmotor (manual manoeuvre)**

01.	Raise the rubber cap
02.	Fit the provided wrench and rotate it CW by 90°

Follow this procedure for both gearmotors.

**3.2 - Manually locking the gearmotor (manual manoeuvre)**

01.	Move the gate to the halfway open position by hand
02.	Raise the rubber cap
03.	Fit the provided wrench and rotate it CCW by 90°

Follow this procedure for both gearmotors.

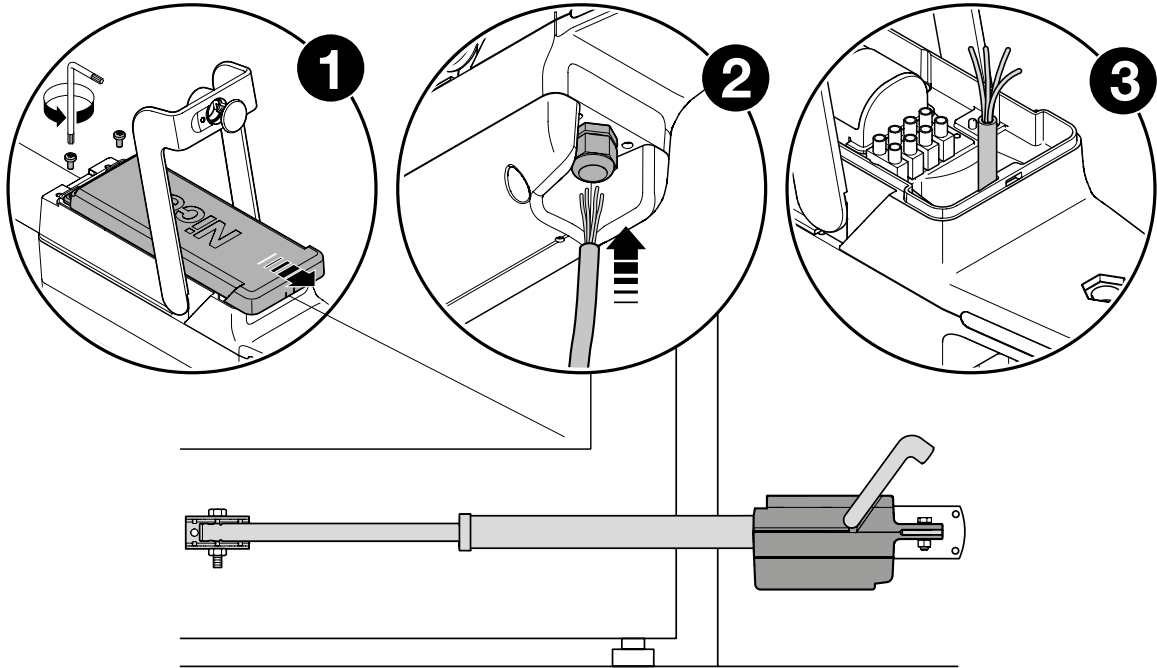
## 4 ELECTRICAL CONNECTIONS

### CAUTION!

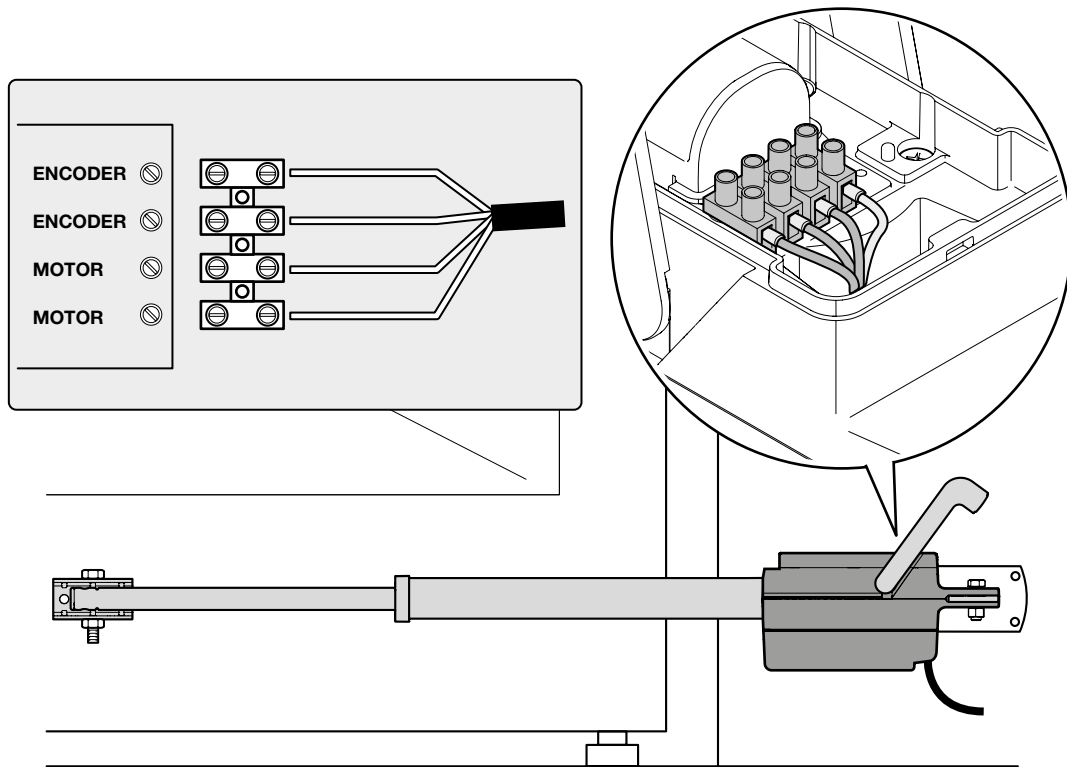
- Incorrect connections can cause faults or hazards; therefore ensure that the specified connections are strictly observed.
- Hook up the unit with the electrical power shut off.

01. Remove the gearmotor's cover (a)

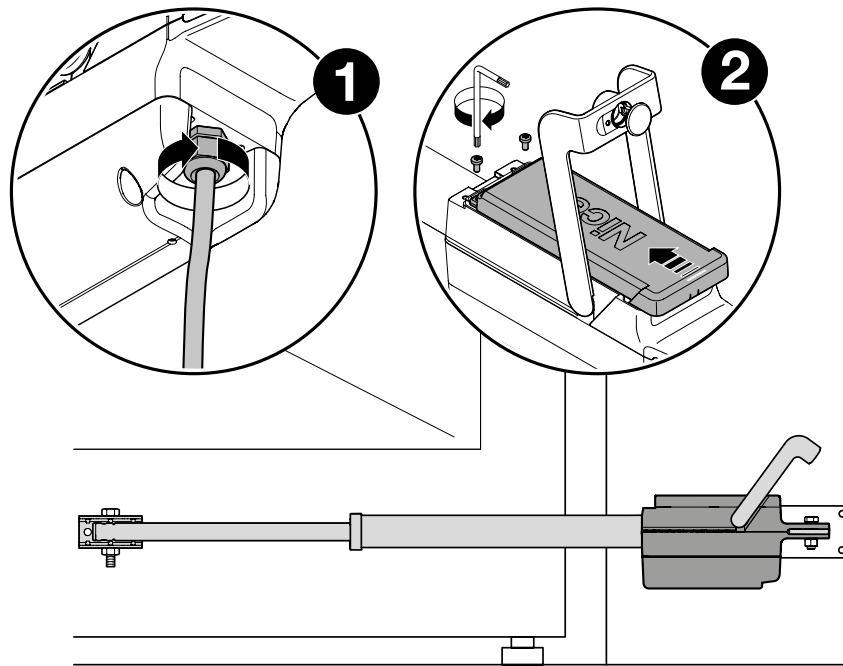
02. Loosen the cable clamp (b) and run the cable through it (c)



03. Hook up the cables and connect the earth cable to its eyebolt



04. Tighten down the cable clamp and put the cover back on



## 5 AUTOMATION TESTING

These are the most important stages in the automation's construction in order to ensure maximum safety. Testing can also be adopted as a method for periodically checking that all the various devices in the system are functioning correctly.

**Testing of the entire system must be performed by qualified and experienced personnel** who must establish which tests to conduct on the basis of the risks involved, and verify the compliance of the system with applicable regulations, legislation and standards, in particular with all the provisions of EN12445 which establishes the test methods for automation systems for gates.

### 5.1 - Testing

Each component of the system, (safety edges, photocells, emergency stop, etc.) requires a specific testing phase. To do so, follow the procedures given in the instruction manuals.

Run the test as follows:

01.	Ensure that the instructions outlined in this manual and in particular in chapter 1 have been observed in full.
02.	Manually release the gearmotor
03.	Make sure you can move the door manually both during opening and closing with a force of max. 390 N (40 kg approx.).
04.	Manually lock the gearmotor
05.	Hook up the electrical power supply
06.	Use the control or stop devices to test the opening, closing and stopping of the gate and that it behaves as intended.
07.	Check the operation of all safety devices, and check that the gate performs as it should.
08.	Activate a closing manoeuvre and check impact force of the door against the mechanical stop. If necessary, reduce the pressure for better adjustment
09.	If the dangerous situations caused by the movement of the gate have been made safe by limiting the impact force, the user must measure the impact force according to EN12445.

**Note** – The gearmotor's torque cannot be adjusted directly: this adjustment is done by the control unit.

### 5.2 - Commissioning

Commissioning may only be done when all the gearmotor tests specified in par. 5.1, and those of the other equipment, have been passed: to commission the unit, refer to the control unit manual.

**IMPORTANT - It is not permissible to execute partial commissioning or to enable use of the system in makeshift conditions.**

## 6 OPTIONAL ACCESSORIES

The following optional accessories are available:

ACCESSORIES
PLA10
PLA11
PS324

Refer to the user manuals of the various individual products.

## 7 MAINTENANCE

To ensure that the level of safety of the installation is maintained and that the system remains reliable and operational, it must be serviced regularly in observance of the safety regulations given in this manual and established legislation.

The gearmotor must be serviced no later than 6 months after commissioning.

<b>01.</b>	Disconnect all power supplies
<b>02.</b>	Check for any deterioration in automation system components, paying special attention to erosion or oxidation of its structural parts. Replace any parts which are below the required standard.
<b>03.</b>	Check that all screw fasteners are fully tightened down
<b>04.</b>	Check the wear of all moving parts and replace any worn components
<b>05.</b>	Connect the power supplies up again, and run all the tests and checks described in Chapter 4

For the other equipment in the system, refer to its user manuals.

### EU Declaration of Conformity (N. 605/TITAN) and declaration of incorporation of “partly completed machinery”

**Revision:** 0 - **Language:** EN - **Name of manufacturer:** NICE S.p.A. - **Address:** Via Pezza Alta N°13, 31046 Rustignè di Oderzo (TV) Italy - **Person authorised to draw up the technical documentation:** NICE S.p.A. - **Type of product:** Electromechanical gearmotor - **Model/Type:** TTN3724HS, TTN3724RHS, TTN6024HS, TTN6024RHS - **Accessories:** -

The undersigned, Roberto Griffa, in the role of Chief Executive Officer, declares under his sole responsibility, that the product specified above conforms to the provisions of the following directives:

- Directive 2014/30/EU (EMC): EN 61000-6-2:2005 - EN 61000-6-3:2007+A1:2011

The product also complies with the following directives according to the requirements envisaged for “partly completed machinery” (Annex II, part 1, section B):

- Directive 2006/42/EC OF THE EUROPEAN PARLIAMENT AND COUNCIL of 17 May 2006 related to machinery, and which amends the directive 95/16/EC (recast).

- It is hereby declared that the pertinent technical documentation has been compiled in compliance with appendix VII B of directive 2006/42/EC and that the following essential requirements have been observed: 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 to the national authorities, in response to a motivated request, all information regarding the “partly completed machinery”, while maintaining full rights to the related intellectual property.

- Should the “partly completed machinery” be put into service in a European country with an official language other than that used in this declaration, the importer is obliged to arrange for the relative translation to accompany this declaration.

- The “partly completed machinery” must not be used until the final machine in which it is incorporated is in turn declared as compliant, if applicable, with the provisions of directive 2006/42/EC.

The product also complies with the following standards:

EN 60335-1:2002 + A1:2004 + A11:2004 + A12:2006 + A2:2006 + A13:2008 + A14:2010 + A15:2011  
EN 60335-2-103:2003+A11:2009  
EN 62233:2008

Place and Date:  
Oderzo, 11/05/2017

Ing. **Roberto Griffa**  
(Chief Executive Officer)



## 8 DISPOSAL OF THE PRODUCT

**This product is an integral part of the automation and must be scrapped with it.**

Similarly to the installation operations, also at the end of this product's working life the dismantling and scrapping operations must be performed by qualified personnel.

This product is made up of different types of material, some of which can be recycled while others must be disposed of. Seek information on the recycling and disposal systems envisaged by the local regulations in your area for this product category.

**⚠ CAUTION! – some parts of the product may contain polluting or hazardous substances which, if disposed of into the environment, constitute serious environmental and health risks.**



As indicated by the symbol, the product may not be disposed of as 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.

**⚠ CAUTION! – Local legislation may envisage serious fines in the event of abusive disposal of this product.**

## 9 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 products at any time when deemed necessary, while maintaining the same intended use and functionality.

MODEL		TTN3724HS	TTN6024HS	TTN3724RHS	TTN6024RHS
Motor voltage	[V]	24	24	24	24
Frequency		==	==	==	==
Max gate length	[m]	3,7	6	3,7	6
Max gate weight	[kg]	450			
Protection rating	IP	54			
Operating temperature	[°C]	-20 ... +55	-20 ... +55	-20 ... +55	-20 ... +55
Speed	[cm/s]	3,2	2,7	3,2	2,7
Stroke	[mm]	510	680	510	680
Nominal absorption	[A]	1,5	1,5	1,5	1,5
Maximum absorption	[A]	6	7	6	7
Rated power input	[W]	40			
Maximum power input	[W]	150		170	
Nominal force	[N]	150	150	150	150
Maximum force	[N]	1900			
Work cycles	(cycles/h)	continuous cycle	continuous cycle	continuous cycle	continuous cycle
Control unit		MC824H	MC824H	MC824HR	MC824HR
Motor weight	[kg]	8	9	8	9
Dimensions	[mm]	910 x 105 x 170 h	1080 x 105 x 170 h	910 x 105 x 170 h	1080 x 105 x 170 h

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

**WARNINGS**

- Keep at a safe distance from the moving gate until it is completely open or closed; do not transit through the gate until it is completely open and has come to a standstill.
- Do not let children play near the gate or with its commands.
- Keep the transmitters away from children.
- Suspend the use of the automation immediately as soon as you notice something abnormal in the operation (noises or jolting movements); failure to follow this warning may cause serious danger and accidents.
- Do not touch moving parts.
- Regular maintenance 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, that is, so long as the control is kept activated the gate will keep moving; as soon as the control is released the gate will stop.

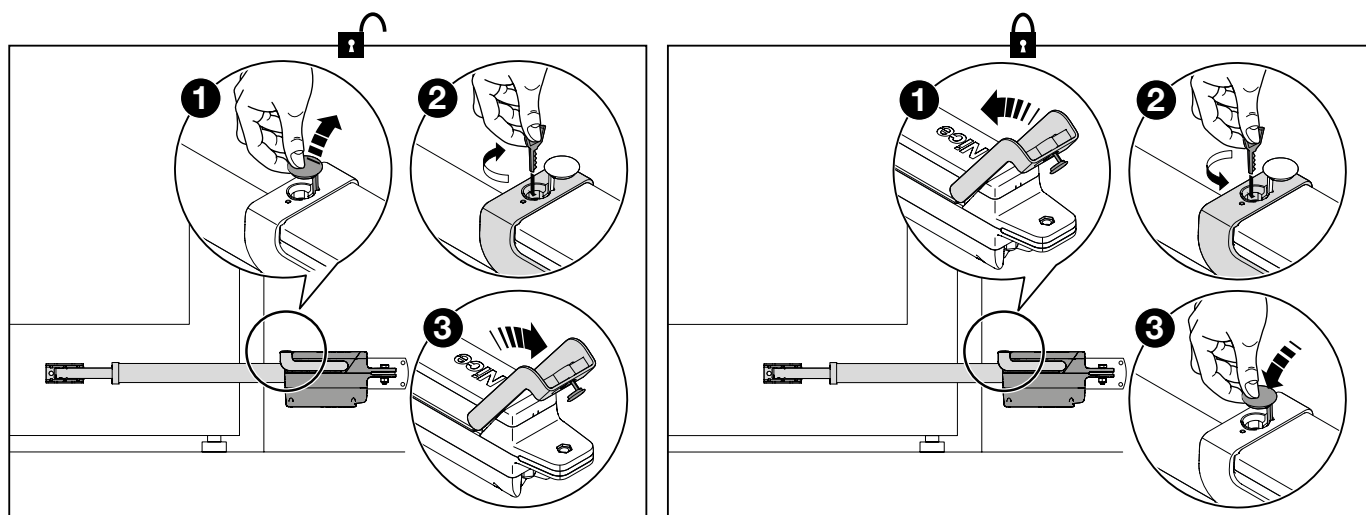
If the safety devices are out of order, arrange to repair the automation as soon as possible.

**Releasing  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 release mechanism.



**User-admissible maintenance operations**

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 back-up battery is fitted, disconnect it.**



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