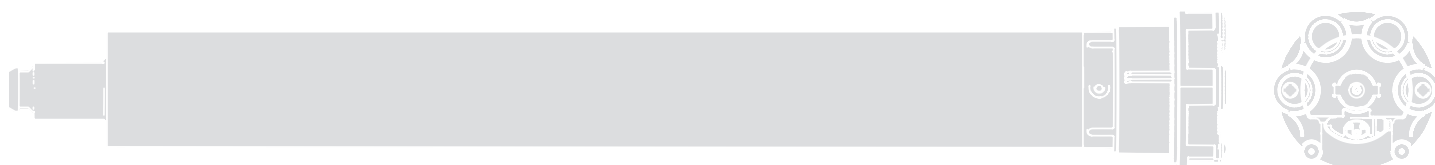


NX STAR MB 534 SH  
NX STAR MB 1020 SH



## Tubular motors

**EN** - Instructions and warnings for installation and use

## 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
- There must be at least 0.4 m between the driven parts and any fixed elements
- The wording on the tubular motors can be covered after assembly
- Motor with **removable** power cable and dedicated connector: if the power cable is damaged, it **must be replaced** by the manufacturer or by the latter's technical assistance service, or by a similarly qualified person, in order to prevent any type of risk
- Be careful with moving roller shutters and keep away from them until they have lowered fully
- Be careful when activating the manual release device, as a raised roller shutter may rapidly drop in case of weak or broken springs
- Do not activate the roller shutter when maintenance activities – such as window cleaning – are being carried out nearby
- Disconnect the roller shutter from the power supply when maintenance activities such as window cleaning are being carried out nearby. Warning for 'roller shutters with automatic control'

### INSTALLATION WARNINGS

- Prior to installing the drive motor, remove any unnecessary cables and disable any appliance not required for motorised operation
- Install the manoeuvring assembly for manual release at a height below 1.8 m  
NOTE: if removable, the manoeuvring assembly must be kept close to the door
- Make sure that the control devices are kept far from moving parts but nonetheless in a visible position  
The manoeuvring assembly of a switch kept manually closed must be located in a position visible from the guided part but far from moving parts. It must be installed at a minimum height of 1.5 m
- The fixed control devices must be installed in a visible position
- For drive motors that allow for accessing unprotected moving parts once they have been installed, such parts must be installed 2.5 m above the floor or other surface from which they can be accessed

## 1 PRODUCT DESCRIPTION AND INTENDED USE

This product is a tubular motor for automating roller shutters (**fig. 2**). **Do not use it for any other purpose! The manufacturer declines all liability for damage resulting from improper use of the product or any other use than that specified in this manual.**

The product has the following functional characteristics:

- it is mains powered (see the motor's nameplate ratings);
- it installs inside the winding roller; the part of the motor that protrudes from the roller (electronic head) mounts to the ceiling or wall with brackets (not included);
- it has a built-in control unit with encoder technology that electronically controls the movement and precision of the limit switches;
- it can be programmed with a wall-mounted button panel or with a TTU programmer (**fig. 5**). These accessories are not included;
- it can be commanded with a cabled wall-mounted push-button panel (**fig. 4**). We recommend the use of a fixed or momentary switch with interlocked push buttons (accessory not included in the package);
- it can move the roller shutter up or down; stop it at the upper limit switch "0", the lower limit switch "1" or at various intermediate positions "H";
- it moves roller shutters of different weights at the same speed;
- the up and down speeds are the same;
- it features acceleration and deceleration, respectively at the beginning and end of the movement;
- it features a security system that detects the presence of an obstacle along the roller shutter's path, immediately blocking the movement in progress and performing a brief inversion of movement. The same system is automatically activated at the end of the Up movement (only if the upper limit switch "0" consists of a box or other mechanical stop), to mitigate the impact of the roller shutter against the housing and loosen the tension exerted by the motor on the canvas, when the roller shutter is stationary at the upper limit switch "0";
- is equipped with a "thermal protection device" which, in case of extended use, protect the motor against excessive overheating by limiting the motor speed to the minimum speed; in this way, the continuous usage time increases, allowing extended use (until the thermal protection device intervenes);
- it is available in a variety of versions, each with a specific motor torque (see the motor nameplate ratings).

## 2 INSTALLATION OF THE MOTOR AND THE ACCESSORIES

### 2.1 - Preliminary checks before installation and limitations on use

- Check the condition of the product right after unpacking it.
- Make sure that the torque, the rotation speed and time of operation of this motor are suitable for automating your roller shutter. In particular, **do not install the motor if its torque is greater than that needed to move your roller shutter**. To choose the right motor to the technical features of your roller shutter refer to the "Guide to Selection" section, in the "Nice Screen" catalogue, – also available on the [www.niceforyou.com](http://www.niceforyou.com) website.
- Check the diameter of the winding roller. This must be chosen according to the motor torque, as follows:
  - For motors of size "M" ( $\varnothing = 45 \text{ mm}$ ), the minimum inside diameter of the winding roller must be 52 mm.
- Additional limitations on use are listed in chapters 1 and 2 and in the technical characteristics on the nameplate.

### 2.2 - Assembling and installing the tubular motor

**Caution! – Read the safety warnings before proceeding. Incorrect installation could cause severe physical injury.**

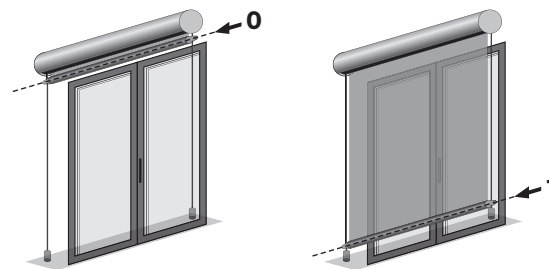
To assemble and install the motor, refer to **fig. 3** (the accessories shown in **fig. 3** are not included in the package). To select the limit switch gear wheel (**fig. 3-a**), drive wheel (**fig. 3-b**), motor bracket (**fig. 3-f**), or to select supplementary cables (of different lengths), refer to the "Nice Screen" catalogue, which is also available on [www.niceforyou.com](http://www.niceforyou.com).

### 2.3 - Installing a wall-mounted push-button panel

Install a push-button command panel on the wall, observing the following warnings:

- for correct use of the automated system you need to install a **push button panel with 2 buttons**: one for Up and one for Down;
- to use the automation, once installation has been completed you can use a push-button panel with any mechanical operation of the buttons, **except for the operation that allows you to simultaneously press the two buttons**;
- for the control of a single motor, only a single push-button panel can be installed;
- for the control of more than one motor connected in parallel (max. 8) only a single push-button panel can be installed;
- for the confidentiality of the automated system, it is recommended that you install the push button panel in a place not accessible to unauthorized persons;
- install the push button panel in a place from where you can see the roller shutter;
- install the push button panel away from the moving parts of the roller shutter;

2



Position "0" = UPPER limit switch  
Position "1" = LOWER limit switch

- install the push button panel on the side of the roller shutter where there is the electrical cable from the motor and the power cable from the electricity mains (**fig. 3-i**);
- install the push button panel at a height of at least 1.5 m from the floor.

## 3 ELECTRICAL CONNECTIONS AND FIRST POWER UP

### 3.1 - Connecting the motor to the power supply and a push button control panel

To connect the motor to the power supply and a push button control panel (\*), refer to **fig. 4**. The connection cable has four wires:

CABLE "A" (refer to <b>fig. 4</b> )		
Wire	Colour	Connection
A1	Brown	Electric phase of up/down.
A2	Black	Electric phase of up/down.
A3	Blue	Common (usually connected to Neutral).
A4	Yellow-Green	Earth (equipotential protection connection).

(\* **Note** – Since the subsequent motor installation and programming operations must be done with the "TTU" Programmer (**fig. 5**), it is recommended that you make the final connection of the push button panel only after these operations.

#### WARNINGS:

- Incorrect connections can cause faults or hazards; therefore ensure that the instructions in this paragraph are strictly observed.
- The electrical connections must be made only after installing the motor and the compatible accessories required.
- The motor must be powered by a permanent connection to the mains.
- The power cable is connected to the motor via a connector; this is removable (**fig. 3-h**) and allows the replacement of the cable (refer to the "Nice Screen" product catalogue, also available on the website [www.niceforyou.com](http://www.niceforyou.com)).

### 3.2 - Installation of the protective devices inside the electricity power network

In accordance with the electrical installation regulations, the network that powers the motor needs to have a protection device against short-circuits and a disconnection device from the mains (the two devices are not present in the package). **Caution! – The disconnection device must have an opening distance between contacts, that allows complete disconnection of the power supply, under the conditions laid down in the overvoltage category III.**

The disconnection device must be placed in a position that is visible from the automated system and, if it is not visible, there must be a system for preventing accidental or unauthorized reconnection with the power grid so as to avoid any possible hazard.

3.3 - Mapping the Up and Down movements to their respective command buttons (▲ and ▼)

After completing the connections, supply power to the motor and carry out some movements (\*) to verify if the Up and Down movements of the roller shutter are correctly matched to their respective symbols ▲ and ▼ found on the command buttons. If not, change the connections on the push button panel by reversing the Brown and Black wires.

(\*) **Note** – When the Up and Down limit switches have not yet been programmed, the roller shutter will never stop automatically but will interrupt its movement only when the control button is released.

4 PROGRAMMING AND ADJUSTMENTS

4.1 - General warnings about performing the procedures

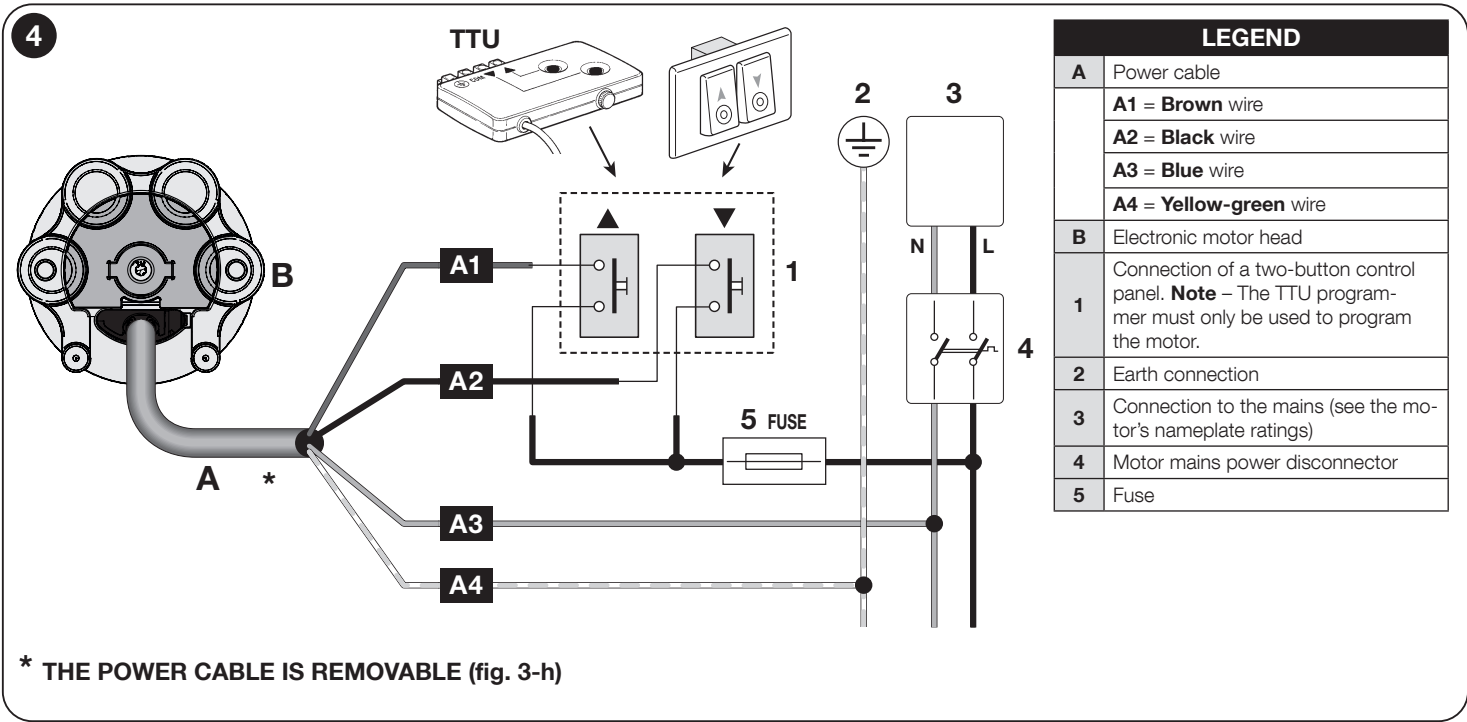
- All the programming and adjustment operations must be carried out with the Nice TTU programmer (Fig. 5). Alternatively you can also use a two-button push button panel, as long as this allows you to press the two buttons at the same time and allows the buttons to return to their previous position, when they are released.
- The limit switch must be adjusted after installing the motor in the roller shutter and connecting it to the power supply.
- Before starting any programming, move the roller shutter to an intermediate position, away from the Up and Down limit switches.
- Scrupulously comply with the time limits indicated in the procedures.
- During programming the motor performs a certain number of **brief movements**, as a "response" to the command sent by the installer. Count these movements regardless of their direction. The movements are indicated in the procedures with a number followed by the symbol  $\updownarrow$ .
- The electronic system that controls the roller shutter's movement at all times can automatically stop the motor when the roller shutter reaches a certain position (or "height") programmed by the installer. The positions are shown in fig. 6 as follows:  
**position "0"** = UPPER limit switch (roller shutter completely retracted);  
**position "1"** = LOWER limit switch (roller shutter completely extended).

4.1.1 - Report messages given by the motor

The motor repeats the report message on the status of the installation by performing some movements when a manoeuvre is commanded. To understand the significance of these movements read Table A.

TABLE A – Movement signals

No. of MOVEMENTS	Meaning
0 movements (START & STOP)	= 2 limit switches programmed.
1 movement (START & STOP)	= 1 limit switch programmed.
2 movements (START & STOP)	= no limit switch programmed.



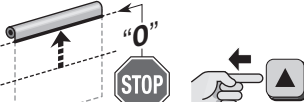
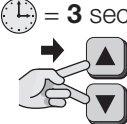
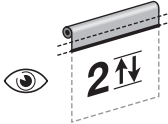
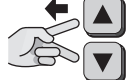




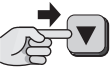

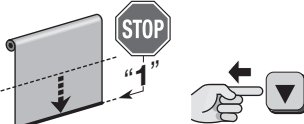
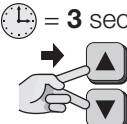
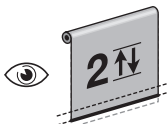

## A.1 - MANUAL programming of the UP ("0") and DOWN ("1") limit switches

### NOTES AND WARNINGS

- This procedure is obligatory only for roller shutters without a mechanical stop.
- Programme the UP limit switch (0) FIRST.
- the down limit switch (1) is NOT memorised if it is within 120° with respect to the UP limit switch (0)
- After programming the limit switches, the ▲ key will command the **Up** manoeuvre and the ▼ switch will command the **Down** manoeuvre. The movement of the roller shutter will be limited by limit switches (Upper "0" and Lower "1") programmed by the installer.

1			2			→ 3
<b>Command an UP manoeuvre</b> → 						
Hold down the button ... ( <b>Note</b> - if the movement is <u>interrupted briefly 2 times</u> this means that no limit switch positions have been memorised).	... count 2 START & STOP movements ...	... release the button as soon as the roller shutter reaches <b>position "0"</b> (UP limit switch).	Hold down both buttons...	count 2 movements;	release the buttons	

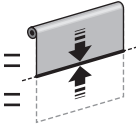
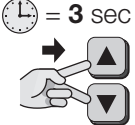
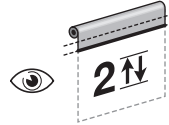
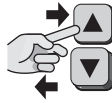
  

3			4			fine
<b>Command a DOWN manoeuvre</b> → 						
Hold down the button ... ( <b>Note</b> - if the movement is <u>interrupted briefly 1 time</u> this means that only one limit switch position has been memorised).	... count 1 START & STOP movement ...	release the button as soon as the roller shutter reaches <b>position "1"</b> (DOWN limit switch).	Hold down both buttons...	count 2 movements;	release the buttons	

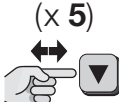

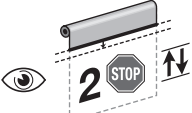

## A.2 - TOTAL memory deletion

### NOTES AND WARNINGS

- If during the execution of the procedure you choose the option "5 presses = clear ALL MEMORY", the system restores the factory settings by clearing the "0" and "1" limit switch heights and all other data stored in the memory of the motor.
- If during the execution of the procedure you choose the option "5 presses = clear ALL MEMORY", subsequently, during the use of the automated system, when you command an Up or Down manoeuvre the roller shutter first performs **2 movements (START & STOP)** (= no limit switch is programmed) and then continues the commanded manoeuvre.

1		2		→ 3
				
• If you want to delete <b>all the memory of the motor</b> , move the roller shutter to a half-way position.		Hold down both buttons...	count 2 movements;	<b>immediately</b> release only button ▼; button ▲ must remain pressed.

3		4		fine
				
Press and release the key.		After about 3 seconds the movement is <b>briefly interrupted 2 times</b> ;	also release button ▲.	

## 5 WARNINGS FOR NORMAL OPERATION OF THE AUTOMATION

### 5.1 - Maximum continuous cycle (“thermal protection” function)

The motor is designed for residential use, in other words, for intermittent service. In case of extended use, the system limits the motor speed (to the minimum speed) to protect the motor against excessive overheating; in this way, the continuous usage time increases, allowing extended use until the thermal protection device intervenes.

#### What to do if... (troubleshooting guide)

**❑ Powering an electrical phase, the motor does not move:**

After excluding the possibility that thermal protection is active, in which case it is sufficient to wait for the motor to cool down, make sure the mains voltage corresponds to the values indicated in the “technical data” chapter of this manual by measuring the voltage between the “common” wire and the electrical phase wire supplied with current. If the problem is still present, disconnect the power cord from the motor (**fig. 4-i**) and connect it again.

**❑ When an Up command is sent, the motor does not start:**

This can happen if the roller shutter is near the Upper limit switch (“0”). In this case you must lower the roller shutter a little bit and give the Raise command again.

**❑ Interruption of the roller shutter’s movement:**

After giving a command to the roller shutter, if the latter stops anywhere along its course without any apparent reason, we suggest checking the device or deactivating the obstacle detection function.

#### Disposal of the product

As in installation, also at the end of product lifetime, the disassembly and scrapping operations must be performed by qualified personnel.

This product comprises various types of materials: some may be recycled 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 pollutant or hazardous substances which, if disposed of into the environment, may cause serious damage to the environment or physical health.

As indicated by the symbol on the left, disposal of this product in domestic waste is strictly prohibited. Separate the waste into categories for disposal, according to the methods envisaged by current legislation in your area, or return the product to the retailer when purchasing a new version.

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



The packing materials of the product must be disposed of in compliance with local regulations.

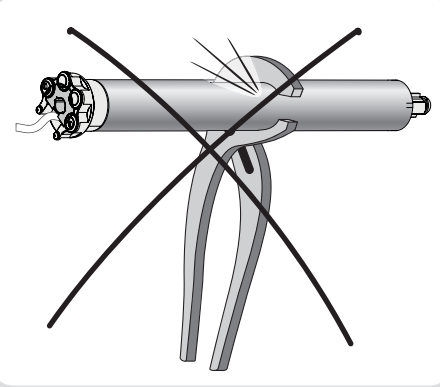
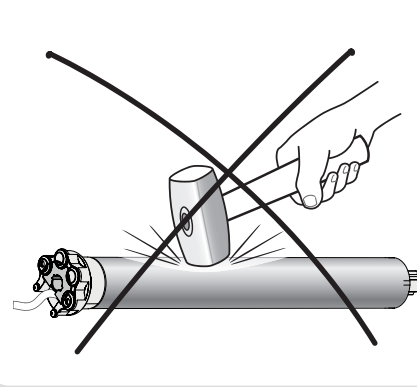
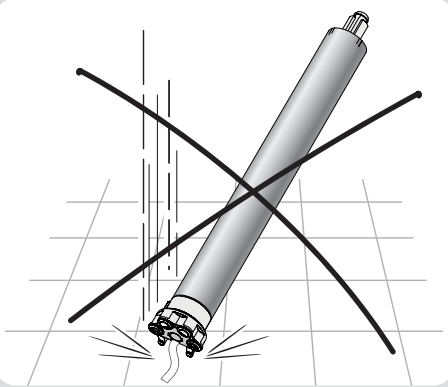
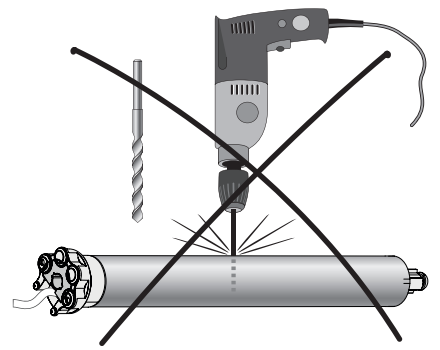
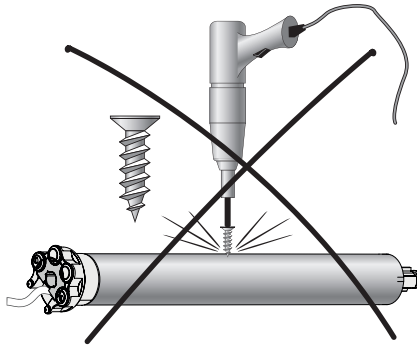
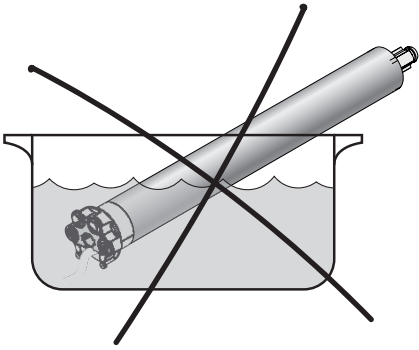
#### Technical Characteristics

**Refer to the technical characteristics stated on the motor’s nameplate.**

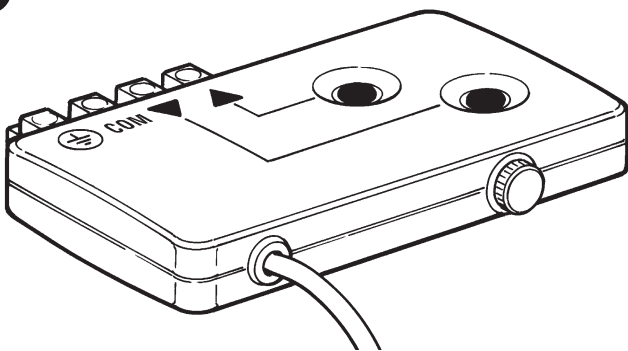
**Note:** • All technical specifications stated herein refer to an ambient temperature of 20° C (± 5° C). • Nice S.p.A. reserves the right to apply modifications to products at any time deemed necessary, maintaining the same intended use and functionality.

# Appendix

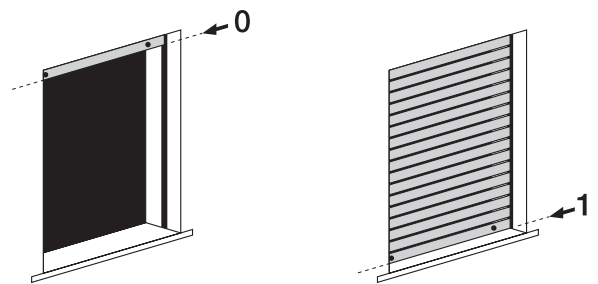
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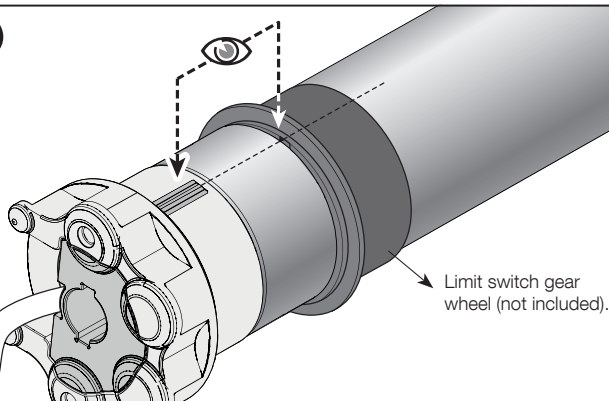


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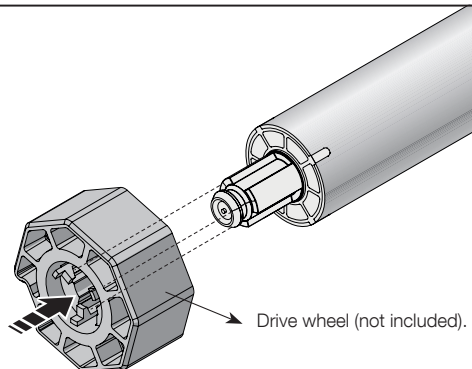


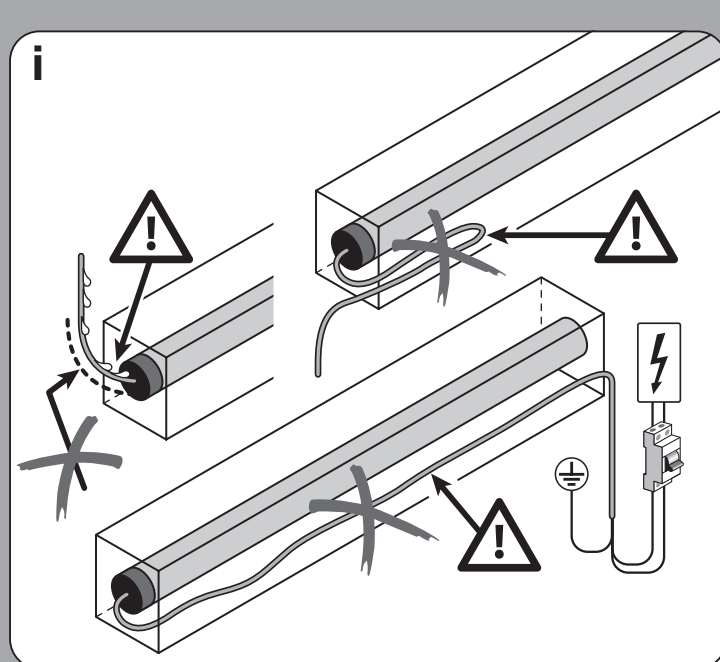
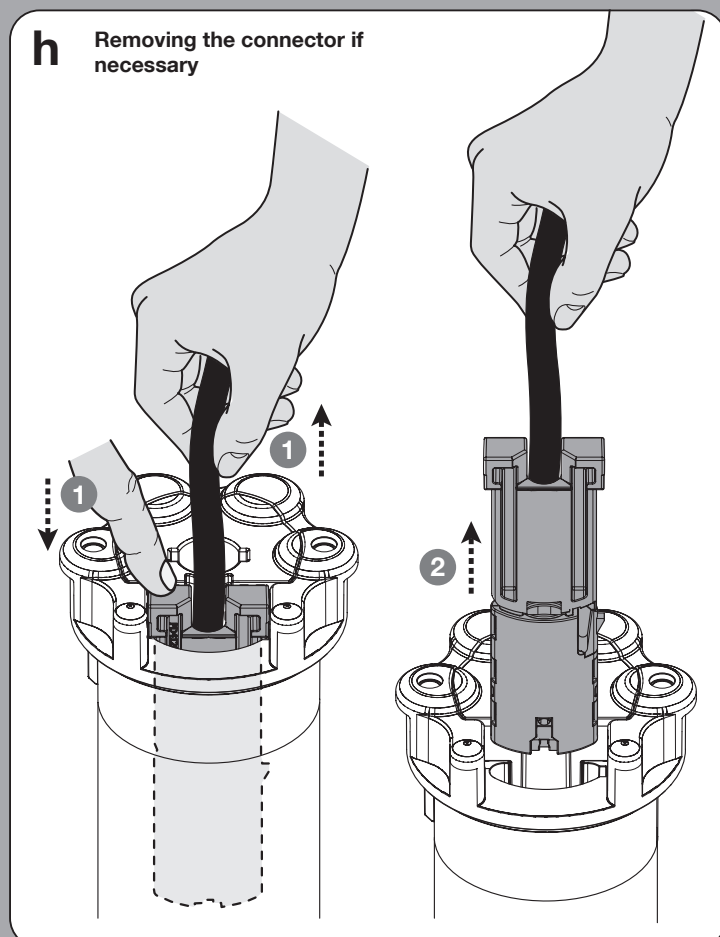
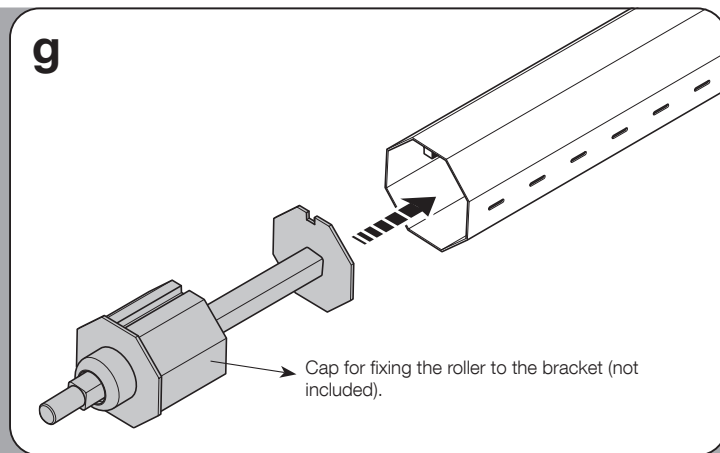
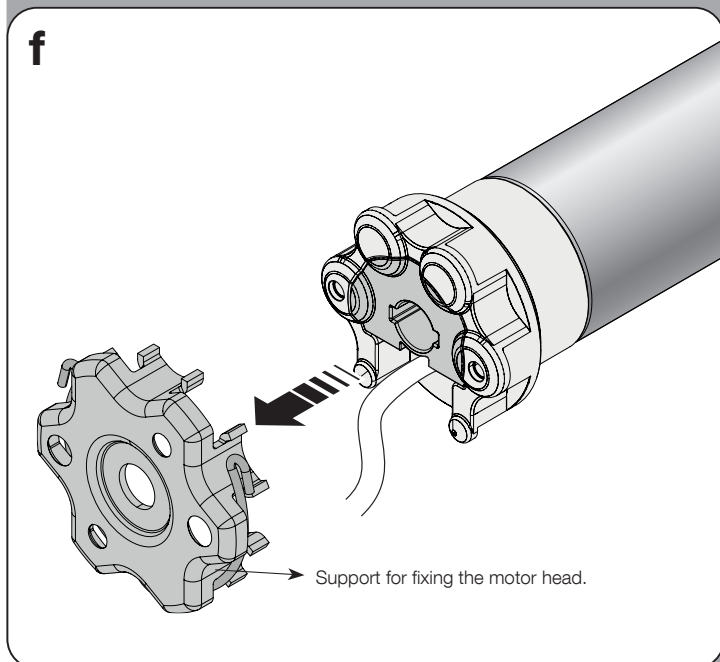
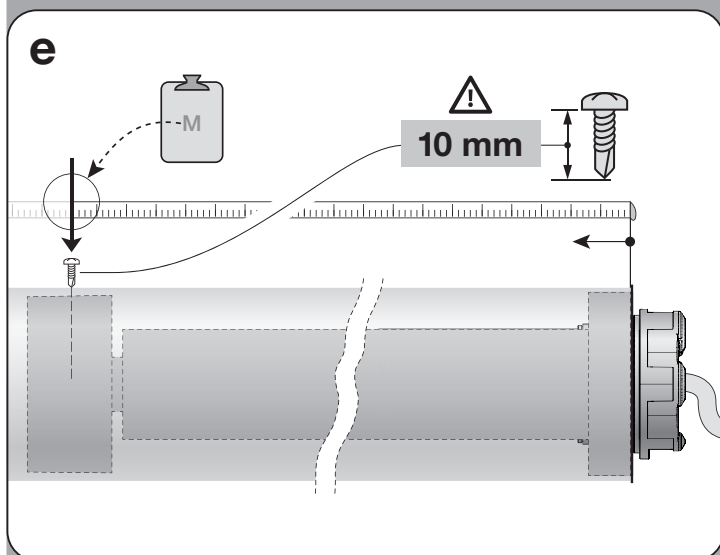
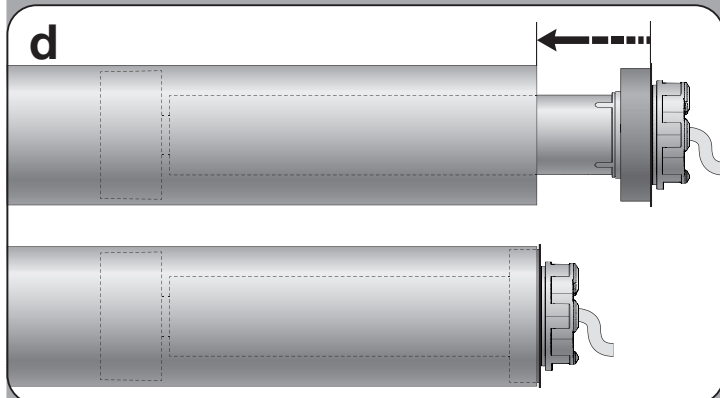
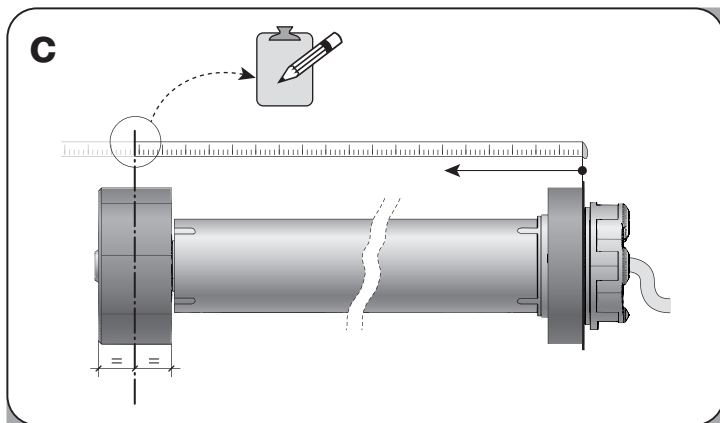
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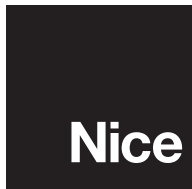


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