

# Era Mat A

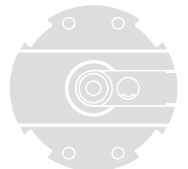
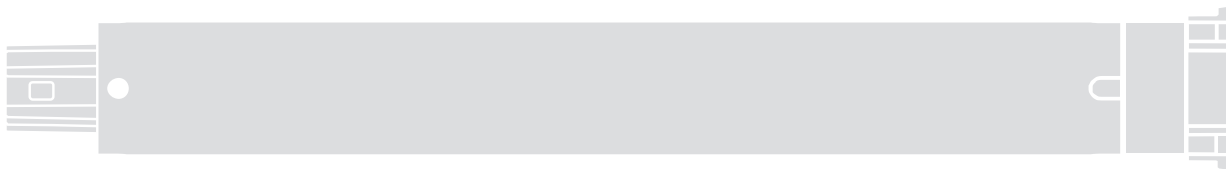
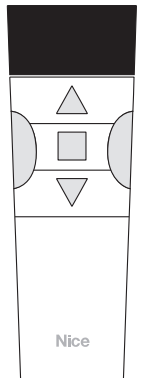
Tubular motor



## NICE GROUP USA

Comprehensive Programming  
manual

Types: E Mat SA, E Mat MA, E Mat LA



**EN - Instructions and warnings for installation and use,**  
with Ergo, Plano, NiceWay and Era MiniWay transmitters

**Nice**



# Complete Manual

**Note for reading this Manual** – Some of the figures referred to in the text are shown at the end of the manual.

## 1 WARNINGS AND GENERAL PRECAUTIONS FOR SAFETY

- **Attention! – Important safety instructions: keep these instructions.**
- **Attention! – It is important to follow these instructions to ensure safety. Therefore, read this manual carefully before beginning work.**

### 1.1 - Installation warnings

- All the product installation, collection, programming and maintenance operations must be carried out exclusively by a skilled and qualified technician, in observance of local laws, standards, regulations and the instructions in this manual.
- Before starting installation, read paragraph 3.1 to make sure the product is a suitable for automating your rolling shutter. If not suitable, do NOT proceed with installation.
- Product installation and maintenance operations must be performed with the automation mechanism disconnected from the power mains. Moreover, before starting to work, put a sign on the a disconnection device that says "ATTENTION! MAINTENANCE IN PROGRESS".
- Before starting installation, remove all electrical cables that are unrelated to the system and deactivate all mechanisms not needed for the motorised operation of the rolling shutter.
- If the product is installed at a height of less than 2.5 m from the floor or from any other support surface, you must protect the moving parts by using a cover to prevent accidental access. To achieve such protection, see the rolling shutter instructions manual; in any case make sure access is possible for maintenance work.
- During installation, handle the product with care: avoid crushing, impact, dropping or contact with liquids of any type; do not drill or apply screws to the exterior; never place the product near sources of heat or expose to naked flames (fig. 1). All these actions could damage the product and cause malfunctions or hazardous situations. In these cases, suspend installation immediately and contact the Nice Service Centre.
- Do not apply screws to the winding roller on the section that is crossed by the motor internally. Such screws could damage the motor.
- Do not dismantle the product except when conforming the operations described in this manual.
- Do not make any changes to any part of the product except those indicated in this manual. The manufacturer declines all liability for damage caused by makeshift modifications to the product.
- If the product is installed in an outdoors environment, you must protect the entire length of the power supply cord with a tube that is indicated for protecting electrical cords.
- If the power supply cord is damaged during installation, the product cannot be used because the cable cannot be substituted and the damage could become a source of danger. In these cases, contact the Nice Service Center.
- When assembling the system, keep persons away from the rolling shutter when it is moving.

### 1.2 - Warnings for use

- This product is not intended to be used by persons (including children) whose physical, sensorial or mental capacities are reduced, or who lack the necessary experience or skill, unless suitable instructions on how to use the product have been given through the mediation of a person who is responsible for their safety, monitoring and the instructions on how to use the product.
- Do not allow children to play with fixed control devices. Keep remote control devices out of reach of children.
- When performing a manoeuvre, keep a check on the automation and keep all people at safety distance until the movement has been complete.
- Do not start automation when jobs are being performed in the vicinity, i.e. window cleaning, maintenance jobs, etc. Disconnect the electrical supply before starting such jobs.
- Remember to frequently check the balance springs and wear and tear of cords (if such mechanisms are present). Do not use the product if it needs to be adjusted or repaired; only contact specialised technical personnel to solve these problems.

## 2 PRODUCT DESCRIPTION AND INTENDED USE

**Era Mat A** is a family of tubular motors intended exclusively for the automation of rolling shutters with or without mechanical blocks at the limit switch points (safety plugs and rigid anti-intrusion springs). **Any other use is absolutely prohibited! The manufacturer is not liable for damage resulting from the any use of the product other than the one specified in this manual.**

Functional characteristics of the product:

- it is powered by the electricity mains;
- it must be installed inside the winding roller; the face that overhangs is fastened to inside of the box with screws and the appropriate support brackets (not included in the package);
- it has a built-in radio receiver and control unit with encoder technology that provides the electronic control of the movement and the precision of the limit switches;
- it is compatible with all the Nice electronic control components (transmitters and climate sensors) that use the NRC radio system;
- it can be controlled by radio or by cable using various optional accessories not included in the package (see fig. 4);
- it can be programmed exclusively via radio, with a portable transmitter (this accessory is not included in the package);
- it can move the rolling shutter up and down; stop it at the upper limit switch, the lower limit switch or at various intermediate positions;
- it has a "obstacle detection" safety system that intervenes when the rolling shutter is being raised or lowered and is blocked suddenly by an obstacle (an object, a person, etc.) or by severe friction due to ice formation, expansion of the materials or other causes. In these cases, the motor immediately stops the current operation;
- it is equipped with a thermal protection system which, in the cases of overheating caused by overuse of the automation (beyond the indicated limits) automatically cuts off the electricity supply and to resets it as soon as the temperature goes back to normal;
- it is available in several versions, each with a certain motor torque (power).

## 3 INSTALLATION OF THE MOTOR AND THE ACCESSORIES

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

- Check the conditions of the product right after unpacking it.
- This product is available in several versions, each with a specific motor torque and each designed to drive rolling shutters of a certain size and weight. Therefore, before installation make sure the parameters of the motor torque, rotation speed and operation time of the present product are suitable to automate your rolling shutter (see the section "Guide to Selection" found in the Nice Product Catalogue – [www.niceforyou.com](http://www.niceforyou.com)). In particular, **do not install the product if its motor torque is greater than that needed to move your rolling shutter.**
- Check the diameter of the winding roller. This must be chosen according to the motor torque, as follows:
  - for motors that are size "S" ( $\varnothing = 35$  mm), the minimum inside diameter of the winding roller must be 40 mm;
  - for motors that are size "M" ( $\varnothing = 45$  mm) and have a torque of up to 35 Nm (included), the minimum inside diameter of the winding roller must be 52 mm;
  - for motors that are size "M" ( $\varnothing = 45$  mm) and have a torque of up to 35 Nm, the minimum inside diameter of the winding roller must be 60 mm;
  - for motors that are size "L" ( $\varnothing = 58$  mm), the minimum inside diameter of the winding roller must be 70 mm.
- In cases of outdoor installation, make sure the motor is adequately protected against atmospheric agents.

Additional limitations on use are contained in chapters 1 and 2 and under the section "Technical characteristics".

### 3.2 - Assembly and installation of the tubular motor

**Attention! - Before starting, carefully read the warnings under sections 1.1 and 3.1. Incorrect installation could cause severe physical injury.**

To assembly and install the motor, see fig. 3. Moreover, consult the Nice product catalogue or go to [www.niceforyou.com](http://www.niceforyou.com) to choose the crown of the limit switch (fig. 3-a), the drag wheel (fig. 3-b) and the motor fastening bracket (fig. 3-f).

### 3.3 - Installation of accessories (optional)

After installing the motor, install the accessories, if required. In order to identify those that are compatible and choose the models desired, see the Nice product catalogue, also viewable at [www.niceforyou.com](http://www.niceforyou.com). Fig. 4 shows the type of accessories that are compatible and their connection to the motor (all of these are options and not included in the package).



## 5.3 - Overview of the transmitters

### 5.3.1 - Compatible transmitters

Consult the Nice product catalogue or go to [www.niceforyou.com](http://www.niceforyou.com) to find the Nice devices compatible with the radio receiver built into the motor.

### 5.3.2 - Transmitter memorization hierarchy

In general a transmitter can be memorized as a FIRST transmitter or a SECOND transmitter (or third, fourth, etc.).

#### A - First transmitter

A transmitter can be memorized as a first transmitter only if in the motor no other transmitter is memorized. For this memorization, follow procedure 5.5 (this memorizes the transmitter in "Mode I").

#### B - Second transmitter (or third, fourth, etc.)

A transmitter can be memorized as a second transmitter (or third, fourth, etc.) only if in the motor the First Transmitter is already memorized. For this memorization, follow one of the procedures given in section 5.10.

### 5.3.3 - Two procedures to memorise the keys of a transmitter

To memorise the keys of a transmitter, two different procedures can be used: "Mode I" and "Mode II".

• **"MODE I"** – This mode automatically transfers all the various commands available in the motor, altogether, to the various keys available on the transmitter without giving the installer the possibility to change the combination of commands with keys. Upon completion of the procedure, each key will be combined with a command according to the following diagram:

- key ▲ (or key 1): will be combined with the command **Raise**
- key ■ (or key 2): will be combined with the command **Stop**
- key ▼ (or key 3): will be combined with the command **Lower**  
(if on the transmitter there is a fourth key .....)
- key 4: will be combined with the command **Stop**

**Note** – If the keys of your transmitter are without symbols and numbers, see **fig. 2** to identify them.

• **"MODE II"** – This mode allows you to manually combine one of the commands available in the motor with one of the transmitter keys, giving the installer the option to choose the command and the key to use. At the end of the procedure, to memorise another key with another command desired, it will be necessary to repeat the procedure once again.

**Attention!** - Each automation has its own list of commands that can be memorized in Mode II; in the case of the present motor the list of commands available is given in procedure 5.10.2.

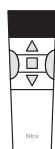
### 5.3.4 - Number of transmitters that can be memorized

You can memorize 30 transmitters, if they are all memorized in "Mode I", or you can memorize 30 single commands (keys), if they are all memorized in "Mode II". The two modes can coexist up to a maximum limit of 30 memorized units.

## 5.4 - Transmitter to be used for programming procedures

- **The programming procedures can be performed exclusively with a Nice transmitter having at least the following keys ▲, ■, ▼.**
- The programming procedures must be performed exclusively with a transmitter memorized in "Mode I" (paragraph 5.5 or 5.10.1).
- If several automation units are controlled by the transmitter you are using to program the system, you must select the "unit" corresponding to the automation you are programming.

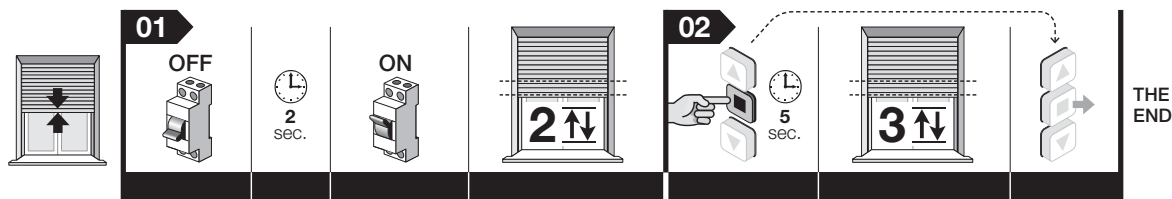
## PROCEDURES



### 5.5 - Memorisation of the **FIRST** transmitter

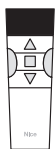
This procedure serves to memorize the First transmitter.

01. Disconnect power supply to the motor; wait two seconds and reconnect the power supply: the motor performs two movements.
02. Keep key ■ pressed and wait for the motor to perform three movements. Upon completion, release the key.



**Note** - After memorization, the raising and lowering direction of the rolling shutter is not yet associated with the ▲ and ▼ respective keys of the transmitter. This combination will occur automatically when adjusting limit switches "0" e "1"; moreover, the rolling shutter will move in the "operator present" mode until the limit switches are adjusted.

## 5.6 - Manual adjustment of upper limit switch height ("0") and lower height ("1")



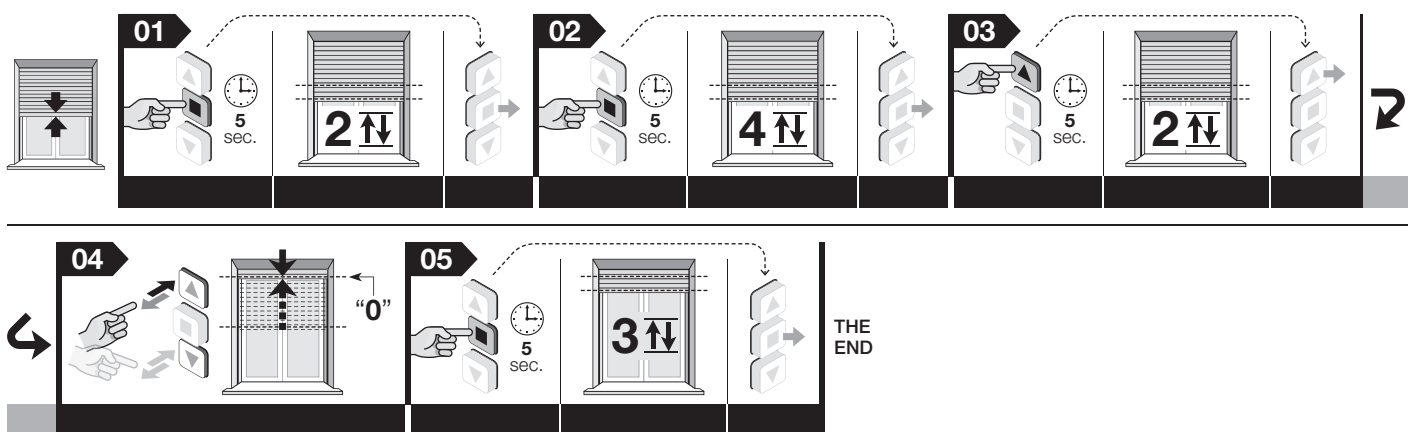
**ATTENTION!** - Adjustment of rolling shutters required without mechanical blocks for the limit switch, but usable also for all other types of rolling shutters.

This procedure overwrites previously adjusted heights with the new heights using the same procedure.

### 5.6.1 - To adjust the UPPER limit switch ("0")

Before starting the procedure, bring the rolling shutter to the midpoint of its stroke.

01. Keep the ■ key pressed and wait for the motor to perform 2 movements. Upon completion, release the key.
02. Keep the ■ key pressed again and wait for the motor to perform 4 movements. Upon completion, release the key.
03. Keep the ▲ key pressed and wait for the motor to perform 2 movements. Upon completion, release the key.
04. **Adjustment of height:** Keep the ▲ (or ▼) key pressed until the shutter reaches the desired "0" height. **Note** – to adjust the height with precision, press the ▲ and ▼ several times consecutively (at each pulse the shutter moves a few millimeters).
05. Keep the ■ key pressed and wait for the motor to perform 3 movements. Upon completion, release the key.

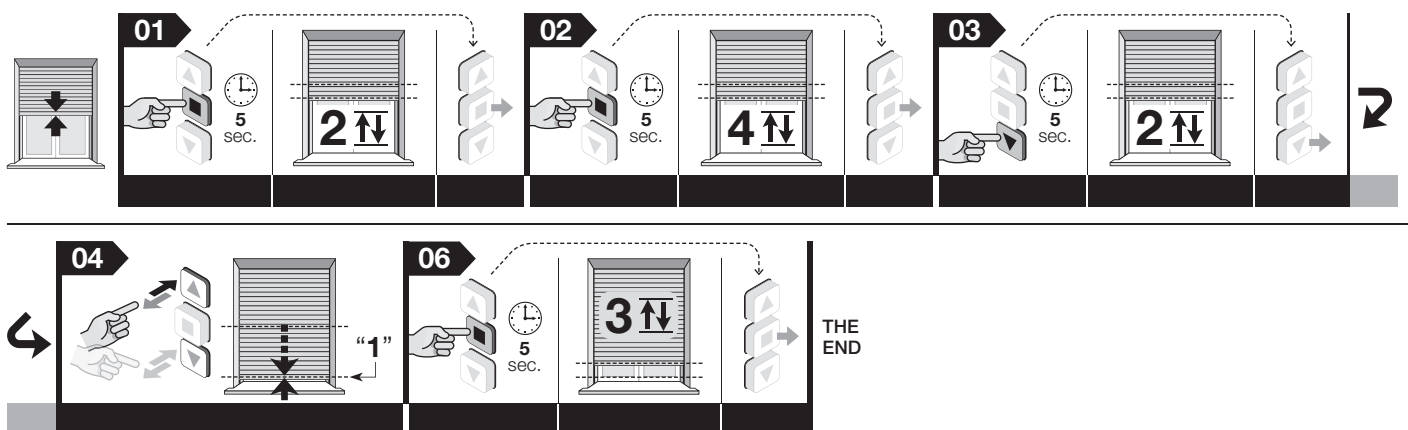


**Note** – During the procedure, at any time you can cancel the programming by keeping the ■ and ▼ keys pressed for 4 seconds. Otherwise, do not press any key and wait 60 seconds for the motor to perform 6 movements.

### 5.6.2 - To adjust the LOWER limit switch ("1")

Before starting the procedure, bring the rolling shutter to the midpoint of its stroke.

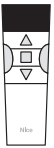
01. Keep the ■ key pressed and wait for the motor to perform 2 movements. Upon completion, release the key.
02. Keep the ■ key pressed again and wait for the motor to perform 4 movements. Upon completion, release the key.
03. Keep the ▼ key pressed and wait for the motor to perform 2 movements. Upon completion, release the key.
04. **Adjustment of height:** Keep the ▼ (or ▲) key pressed until the shutter reaches the desired "1" height. **Note** – to adjust the height with precision, press the ▲ and ▼ several times consecutively (at each pulse the shutter moves a few millimeters).
05. Keep the ■ key pressed and wait for the motor to perform 3 movements. Upon completion, release the key.



**Note** – During the procedure, at any time you can cancel the programming by keeping the ■ and ▼ keys pressed simultaneously for 4 seconds. Otherwise, do not press any key and wait 60 seconds for the motor to perform 6 movements.

**Note** - After the adjustments, the ▲ key will command the Raising motion and the key ▼ key will command the Lowering motion. The shutter will move within the limits constituted by the two limit switch heights.

## 5.7 - Manual height adjustment of upper limit switch ("0") and lower limit switch ("1")



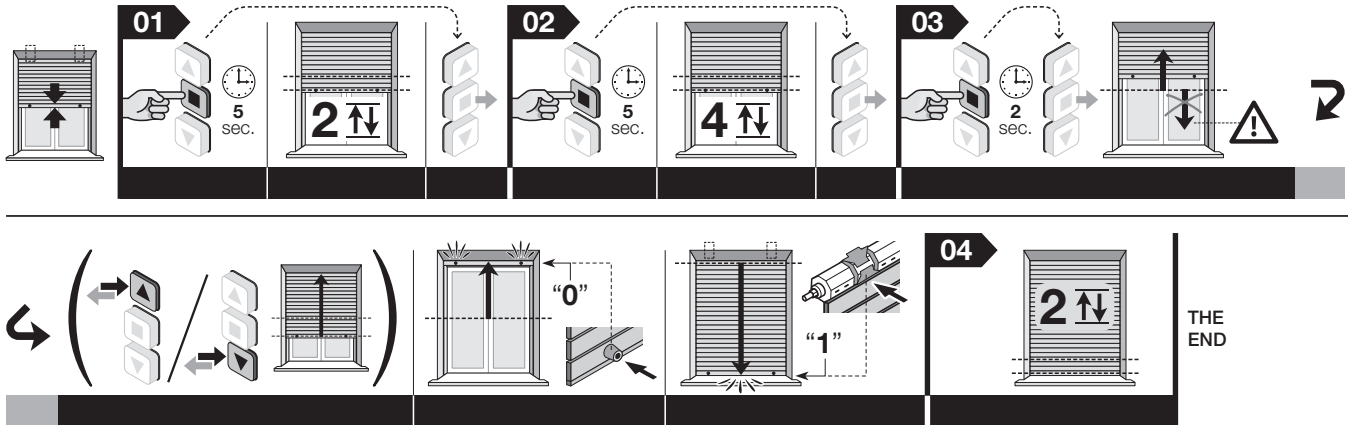
**ATTENTION!** - Programming intended exclusively for the rolling shutters with the mechanical blocks for the limit switch.

This procedure overwrites previously adjusted heights with the new heights using the same procedure.

**Warnings:** - Memorizing the limit switches with this procedure, the two heights are controlled and updated constantly by the "limit switch self-update" function (see paragraph 7.3).

Before starting the procedure, bring the rolling shutter to the midpoint of its stroke.

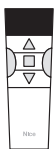
01. Keep the ■ key pressed and wait for the motor to perform 2 movements. Upon completion, release the key.
02. Keep the ■ key pressed again and wait for the motor to perform 4 movements. Upon completion, release the key.
03. Keep the ■ key pressed and wait for the shutter to start **Moving up**. Then, release the key. **Attention!** - If the shutter starts moving in the opposite direction, press the ▼ (or ▲) key to invert the motor rotation direction. Shutter will start moving up and will be stocked automatically by the impact of the safety plugs against the structure (the motor will memorize this height as the UPPER limit switch "0"). Then the shutter will start moving Down and will be stopped automatically by the intervention of the anti-intrusion springs (the motor will memorize this height as the LOWER limit switch "1"). **Note** - In case of need, to promptly stop the motor, press the ■ key (the command also cancels the procedure).
04. Upon completion of these automatic movements, the motor will perform 2 movements and the shutter will remain closed, in it the position "1".



**Note** - During the procedure, at any time you can cancel the programming by keeping the ■ and ▼ keys pressed simultaneously for 4 seconds. Otherwise, do not press any key and wait 60 seconds for the motor to perform 6 movements.

**Note** - After programming, the ▲ key will command the Raise motion and the ▼ key will command the Down motion. The shutter will move within the limits created by the mechanical blocks of the limit switches.

## 5.8 - Semi-automatic programming of Upper limit switch ("0") and Lower limit switch ("1")



**ATTENTION!** - Programming intended exclusively for rolling shutters that **only have** the mechanical block for the Upper limit switch ("0"), or **only** the mechanical block for the Lower limit switch ("1")

Select below the appropriate procedure for your rolling shutter.

### Warnings:

- This procedure overwrites previously adjusted heights with the new heights using this same procedure.
- Memorizing the limit switches with this procedure, the two heights are controlled and updated constantly by the "limit switch self-update" function (see paragraph 7.3).

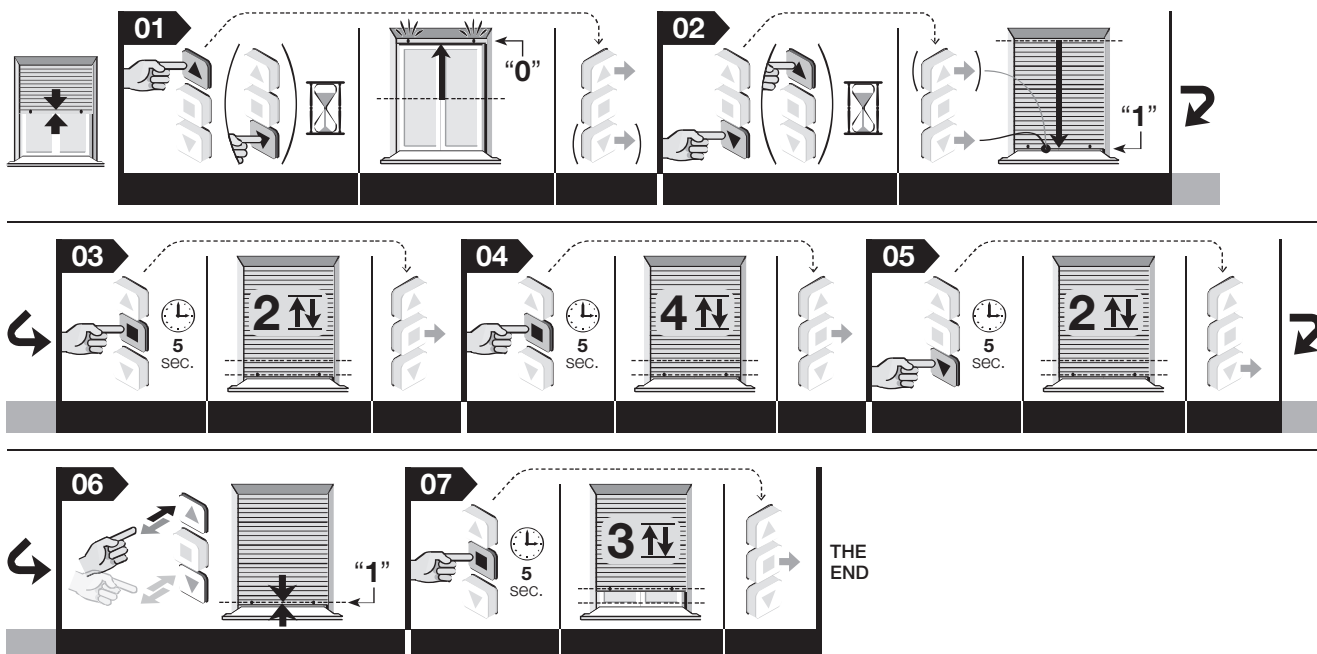


### 5.8.1 - PROCEDURE "A"

Select this procedure if the mechanical block is positioned at the upper limit switch "0"

Before starting the procedure, bring the rolling shutter to the midpoint of its stroke.

01. Run the UP command by keeping the ▲ (or ▼) keys pressed and wait for the rolling shutter to stop automatically as result of the impact of the rigid anti-intrusion springs against the structure (= upper limit switch "0"). Upon completion, release the key.
02. Command a Lower manoeuvre by keeping pressed the ▼ (or ▲) key and release the key when the rolling shutter is about 5 cm from your chosen lower limit switch "1".
03. Keep the ■ key pressed and wait for the motor to perform 2 movements. Upon completion, release the key.
04. Keep the ■ key pressed again and wait for the motor to perform 4 movements. Upon completion, release the key.
05. Keep the ▼ key pressed and wait for the motor to perform 2 movements. Upon completion, release the key.
06. **Fine adjustment of the position:** press the ▼ and ▲ keys several times until the rolling shutter reaches the "1" height you want (at each pulse the rolling shutter moves a few millimetres).
07. Keep the ■ key pressed and wait for the motor to perform 3 movements. Upon completion, release the key.



**Note** – During the procedure, at any time you can cancel the programming by keeping the ■ and ▼ keys pressed simultaneously for 4 seconds. Otherwise, do not press any key and wait 60 seconds for the motor to perform 6 movements.

**Note** - After this programming, the ▲ key will command the Raise manoeuvre and the ▼ key will command the Lower manoeuvre. During the Raising manoeuvre, the rolling shutter will be stopped by the impact of the mechanical blocks against the structure (= upper limit switch "0"), while during the Lowering manoeuvre the rolling shutter will stop at the lower limit switch ("1") established by the installer.



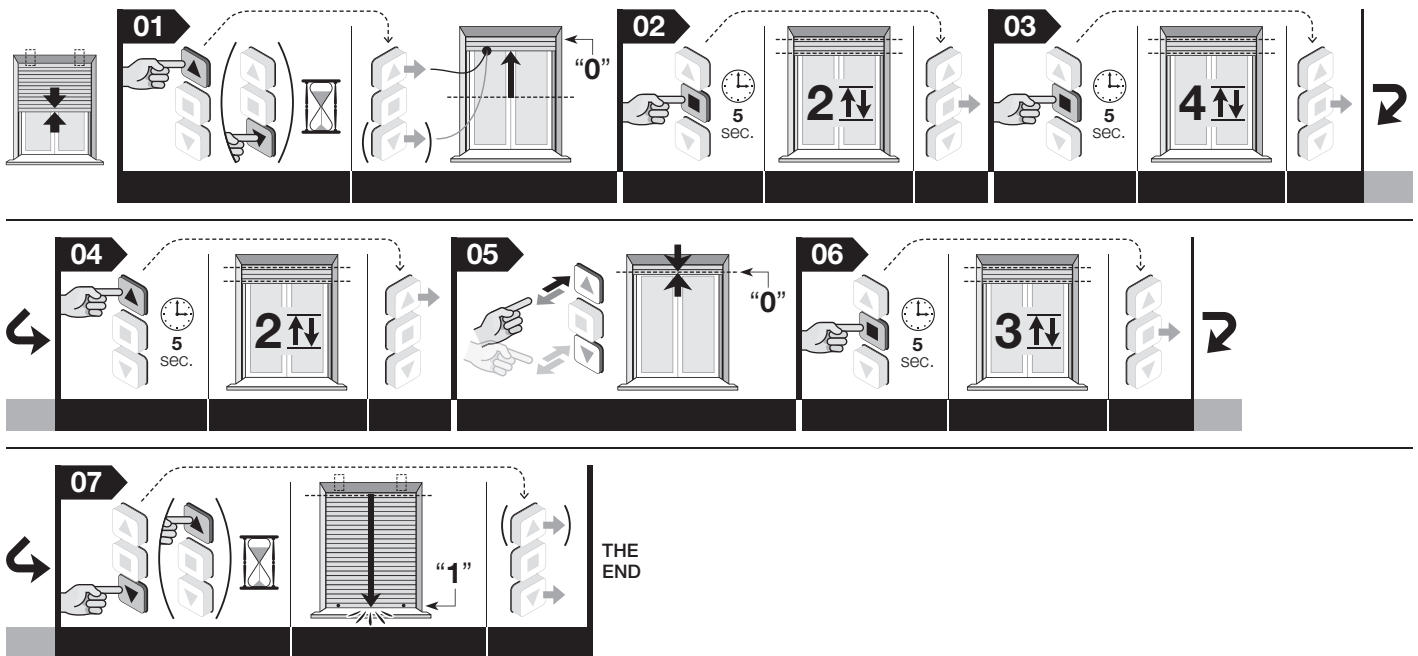
### 5.8.2 - PROCEDURE "B"

Select this procedure if the mechanical block is positioned at the lower limit switch "1"

Before starting the procedure, bring the rolling shutter to the midpoint of its stroke.

01. Command a Raise manoeuvre by keeping pressed the ▲ (or ▼) key and release the key when the rolling shutter is about 5 cm from your chosen upper limit switch "0".
02. Keep the ■ key pressed and wait for the motor to perform 2 movements. Upon completion, release the key.
03. Keep the ■ key pressed again and wait for the motor to perform 4 movements. Upon completion, release the key.
04. Keep the ▲ key pressed and wait for the motor to perform 2 movements. Upon completion, release the key.
05. **Fine adjustment of the position:** press the ▼ and ▲ keys until the rolling shutter reaches the "0" height you want (at each pulse the rolling shutter moves a few millimetres).
06. Keep the ■ key pressed and wait for the motor to perform 3 movements. Upon conclusion, release the key.
07. Command a lowering manoeuvre by keeping the ▼ (or ▲) key pressed and wait for the rolling shutter to stop automatically as result of the impact of the rigid anti-intrusion springs against the structure (= lower limit switch "1"). Upon conclusion, release the key.

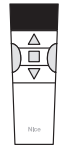




**Note** – During the procedure, at any time you can cancel the programming by keeping the ■ and ▼ keys pressed simultaneously for 4 seconds. Otherwise, do not press any key and wait 60 seconds for the motor to perform 6 movements.

**Note** - After this programming, the ▲ key will command the Raise manoeuvre and the ▼ key will command the Lower manoeuvre. During the Raising manoeuvre, the rolling shutter will be stopped by the impact of the mechanical blocks against the structure (= upper limit switch "0"), while during the Lowering manoeuvre the rolling shutter will stop at the lower limit switch ("1") established by the installer.

## 5.9 - Adjustment of height ("H") for partial opening/closing

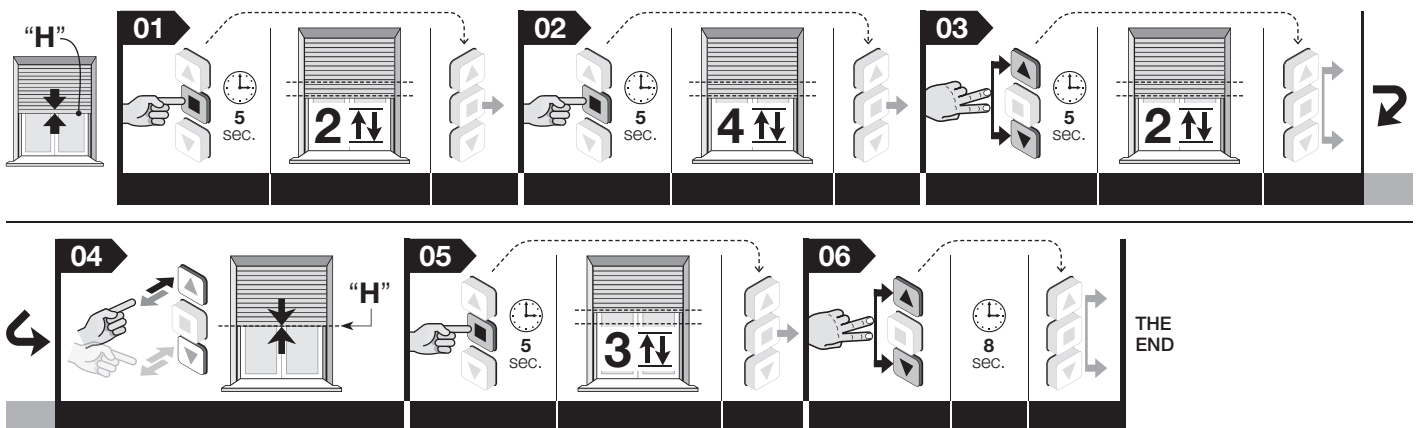


The motor can manage up to 30 partial openings/closings, each called "H height". These heights can be adjusted only after regulating limit switches "0" and "1". The following procedure makes it possible to adjust one "H" height at a time.

**Warnings** – If you want to change the position a given "H" height that is already memorized, repeat the present procedure by pressing at point 06 the key associated with that height.

Before beginning the procedure, bring the rolling shutter to the "H" height you want to memorize.

01. Keep the ■ key pressed and wait for the motor to perform 2 movements. Upon completion, release the key.
02. Keep the ■ key pressed again and wait for the motor to perform 4 movements. Upon conclusion, release the key.
03. Keep the ▲ and ▼ keys pressed simultaneously and wait for the motor to perform two movements. Upon completion, release the keys.
04. **Fine adjustment of the position:** perform key pulsing on the ▲ and ▼ keys until the rolling shutter is brought to the partial height you want (at each pulse the rolling shutter moves a few millimetres).
05. Keep the ■ key pressed and wait for the motor to perform 3 movements. Upon completion, release the key.
06. • **To memorize the FIRST height "H":** on the transmitter you are using for this procedure keep the ▲ and ▼ keys pressed simultaneously and wait for the motor to perform 4 movements. Upon completion, release the keys.  
• **To memorise the NEXT height "H":** on the new unmemorized transmitter keep the desired key pressed and wait for the motor to perform 4 movements. Upon completion, release the key.



**Note** – During the procedure, at any time you can cancel the programming by keeping the ■ and ▼ keys pressed simultaneously for 4 seconds. Otherwise, do not press any key and wait 60 seconds for the motor to perform 6 movements.



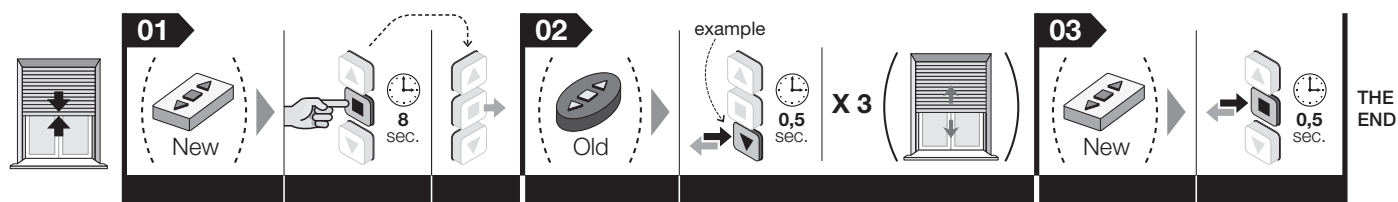
## 5.10 - Memorization of a **SECOND (third, fourth, etc.)** transmitter

To perform this procedure you must have a second transmitter ("old") already memorized

### 5.10.1 - Memorization of a second transmitter in "Mode I"

**Attention!** – This procedure memorizes the new transmitter in "Mode I", regardless of the Mode in which the old transmitter was memorized.

01. (on the new transmitter) Keep pressed the **■** key for 8 seconds and then release it (in this case the motor does not perform any movement).
02. (on the old transmitter) Pulse 3 times on any key, provided it has already been memorized (the motor starts performing the manoeuvre associated with that key).
03. (on the new transmitter) Give for 1 pulse to the **■** key to complete the procedure. **Attention!** – If the motor performs 6 movements, it means that its memory is full.



**Note** – During the procedure, at any time you can cancel the programming by keeping the **■** and **▼** keys pressed simultaneously for 4 seconds. Otherwise, do not press any key and wait 60 seconds for the motor to perform 6 movements.

### 5.10.2 - Memorization of a second transmitter in "Mode II"

**Attention!** – The procedure memorizes a key of the new transmitter in "Mode II", regardless of the memorization Mode of the key you press on the old transmitter.

01. (on the new transmitter) Keep pressed for 8 seconds the key you want to memorize (e.g.: **■** key), then release it (in this case the motor does not perform any movement).
02. (on the old transmitter) Keep pressed the key **■** and wait for the motor to perform 4 movements. Upon completion, release the key.
03. (on the old transmitter) Briefly press the **■** key a certain number of times depending on the and you want to memorize:

1 pulse = Step-by-step command

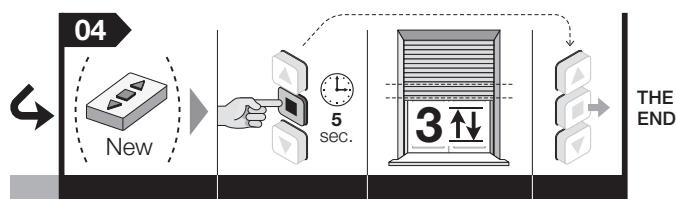
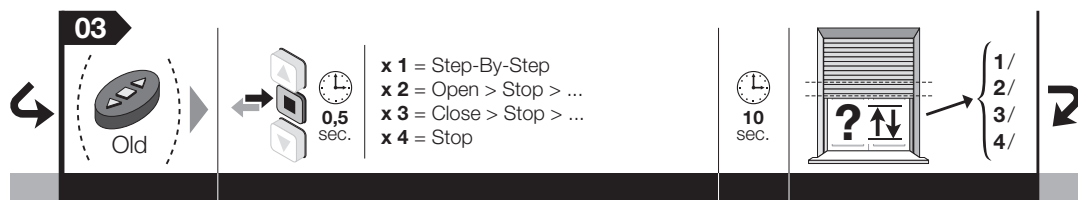
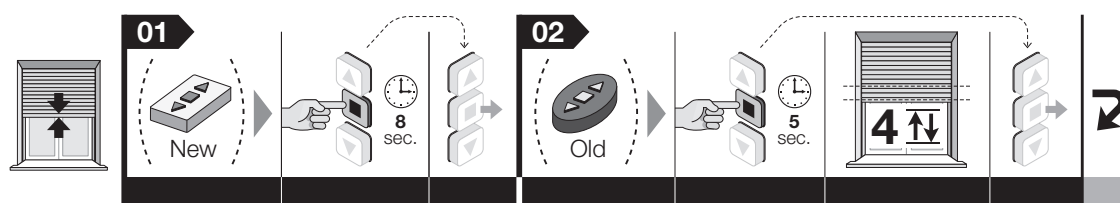
2 pulses = Open > Stop > Open > Stop > command...

3 pulses = Close > Stop > Close > Stop > command...

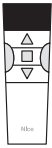
4 pulses = Stop command

After about 10 seconds, the motor performs a number of movements equal to the number impulses given with the transmitter.

04. (on the new transmitter) Keep pressed the same key at point 01 and wait for the motor to perform 3 movements. Upon completion, release the key. **Attention!** – If the motor performs 6 movements, it means that its memory is full.



**Note** – During the procedure, at any time you can cancel the programming by keeping the **■** and **▼** keys pressed simultaneously for 4 seconds. Otherwise, do not press any key and wait 60 seconds for the motor to perform 6 movements.



## 5.11 - Adjustment of motor sensitivity to obstacles ("Obstacle detection" function)

The motor has an "Obstacle detection" which intervenes when the movement of the rolling shutter during raising or lowering is blocked suddenly by an obstacle (an object, a person, etc.) or by severe friction due to ice formation, expansion of the materials or other causes. In these cases, the motor immediately stops the manoeuvre in progress and performs a brief inversion of the motion.

The following procedure makes it possible to adjust sensitivity to the obstacle, i.e. the force that the motor must exert on the obstacle to free the rolling shutter so that function intervenes only in the presence of *actual obstacles*, and ignores small friction events caused, for example, by the four sliding of the slats in the tracks.

**Attention!** – If the set level frequently stops the rolling shutter for no good reason, it is recommended to change that level. If the trouble persists, it is recommended to deactivate the function by setting level 4.

**01.** Keep the ■ and ▲ keys pressed simultaneously and wait for the motor to perform 2 movements. Upon completion, release the keys.

**02.** Briefly press the ▲ key a few times, depending on the level you want to set for motor sensitivity:

**1 pulse** = standard sensitivity (*factory setting*)

**2 pulses** = minimum sensitivity for detection of obstacle (*motor stops when it encounters a maximum strain*)

**3 pulses** = medium sensitivity for detection of obstacle (*the motor stops when it encounters a medium strain*)

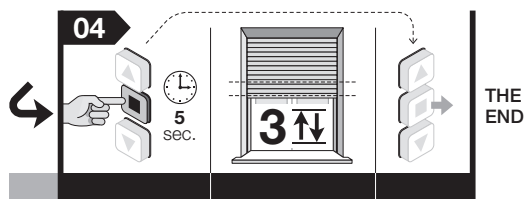
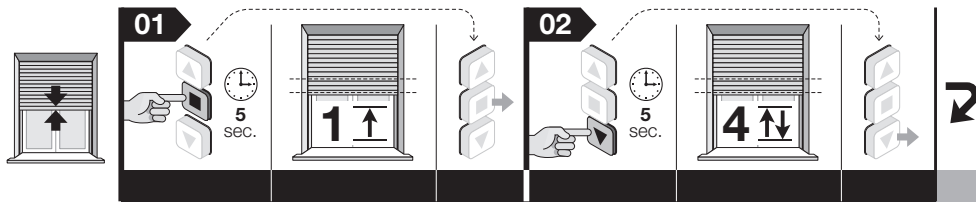
**4 pulses** = maximum sensitivity for detection of obstacles (*the motor stops when it encounters a minimum strain*)

**5 pulses** = function deactivated (*motor exerts its maximum force to overcome the obstacle*)

After about 10 seconds, the motor performs the number of movements indicated by the level number selected. **Note** - *If this does not occur, cancel the procedure.*

*This way, the adjustment is completed without changing the factory setting.*

**03.** Keep the ■ key pressed and wait for the motor to perform 3 movements. Upon completion, release the key.



**Note** – During the procedure, at any time you can cancel the programming by keeping the ■ and ▼ keys pressed simultaneously for 4 seconds. Otherwise, do not press any key and wait 60 seconds for the motor to perform 6 movements.



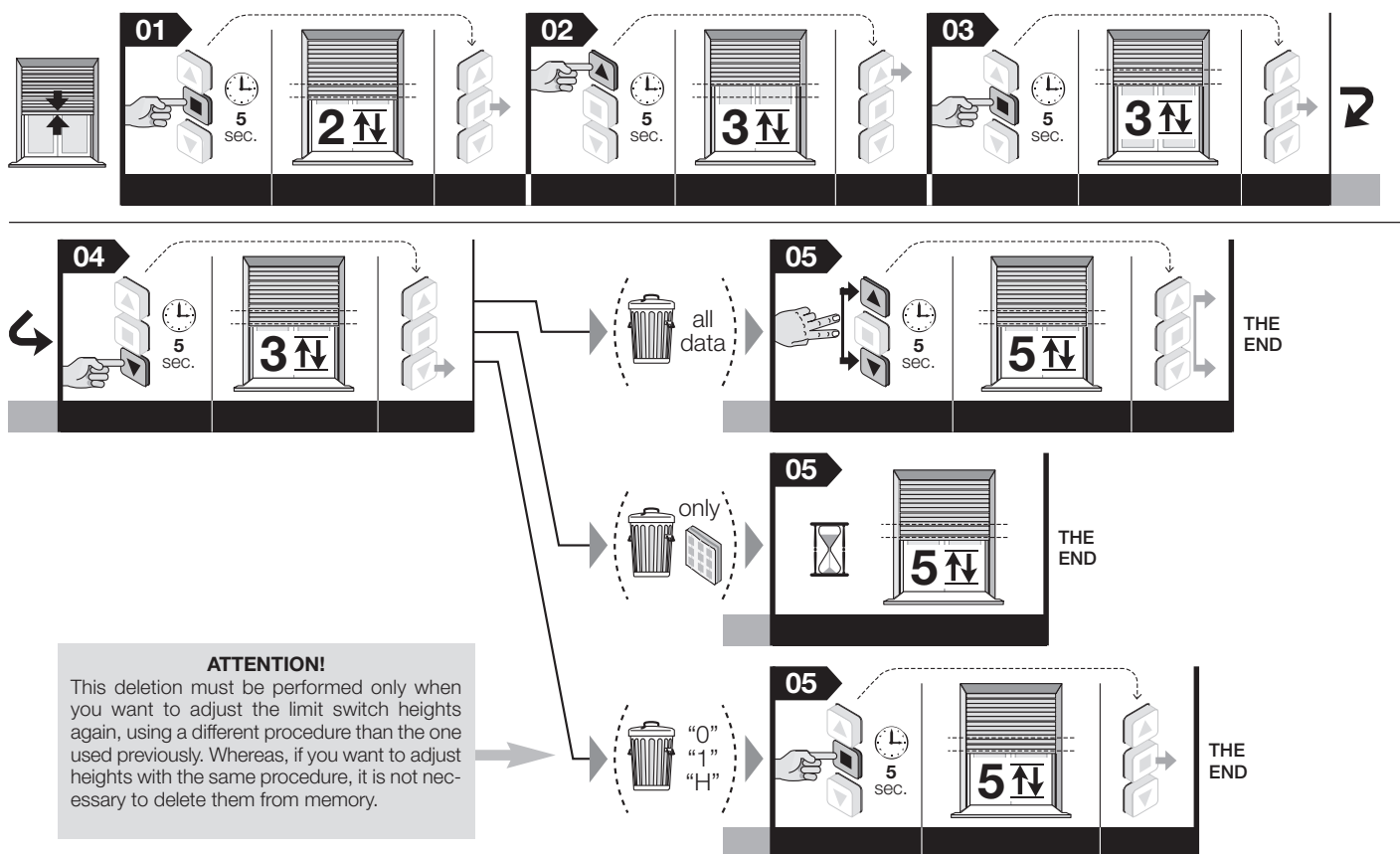
## 5.12 - Total or partial deletion of memory

This procedure allows you to choose under point 05 the data that you want to delete.

**\*For deletion with unmemorized new remote refer to section 5.12.2**

### 5.12.1 - Procedure performed with a transmitter memorized in "Mode I"

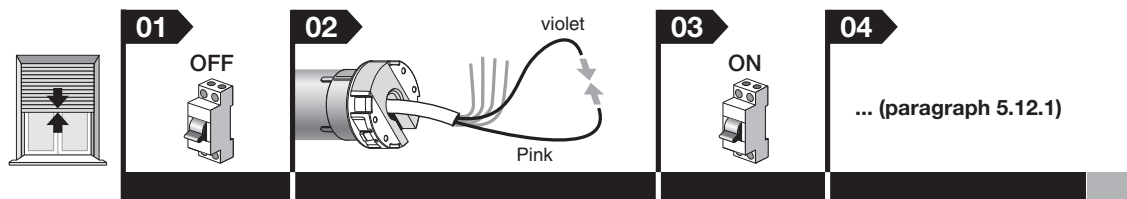
01. Keep the **■** key pressed and wait for the motor to perform 2 movements. Upon completion, release the key.
02. Keep the **▲** key pressed and wait for the motor to perform 3 movements. Upon completion, release the key.
03. Keep the **■** key and wait for the motor to perform 3 movements. Upon completion, release the key.
04. Keep the **▼** key pressed and wait for the motor to perform 3 movements. Upon completion, release the key.
05. • **To cancel the entire memory:** Keep the **▲** and **▼** keys pressed and wait for the motor to perform five movements. Upon completion, release the keys.  
 • **To delete only the memorized transmitters:** do not press any key and wait until the motor performs five movements.  
 • **To delete only the limit switch heights and intermediate heights:** **ATTENTION!** - This deletion must be performed only when you want to adjust the limit switch heights again, using a different procedure than the one used previously. Keep the **■** key pressed and wait for the motor to perform 5 movements. Upon completion, release the key.



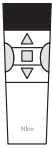
**Note** – When performing the procedure, at any time you can cancel it by keeping the **■** and **▼** keys pressed simultaneously for 4 seconds. Otherwise, do not press any key and wait 60 seconds for the motor to perform 6 movements.

### \*5.12.2 - Procedure performed with an unmemorized transmitter\*

01. Disconnect power supply from motor.
02. Connect the Violet and Pink wires to each other.
03. Disconnect power supply from motor.
04. Lastly, perform at the procedure indicated in paragraph 5.12.1.



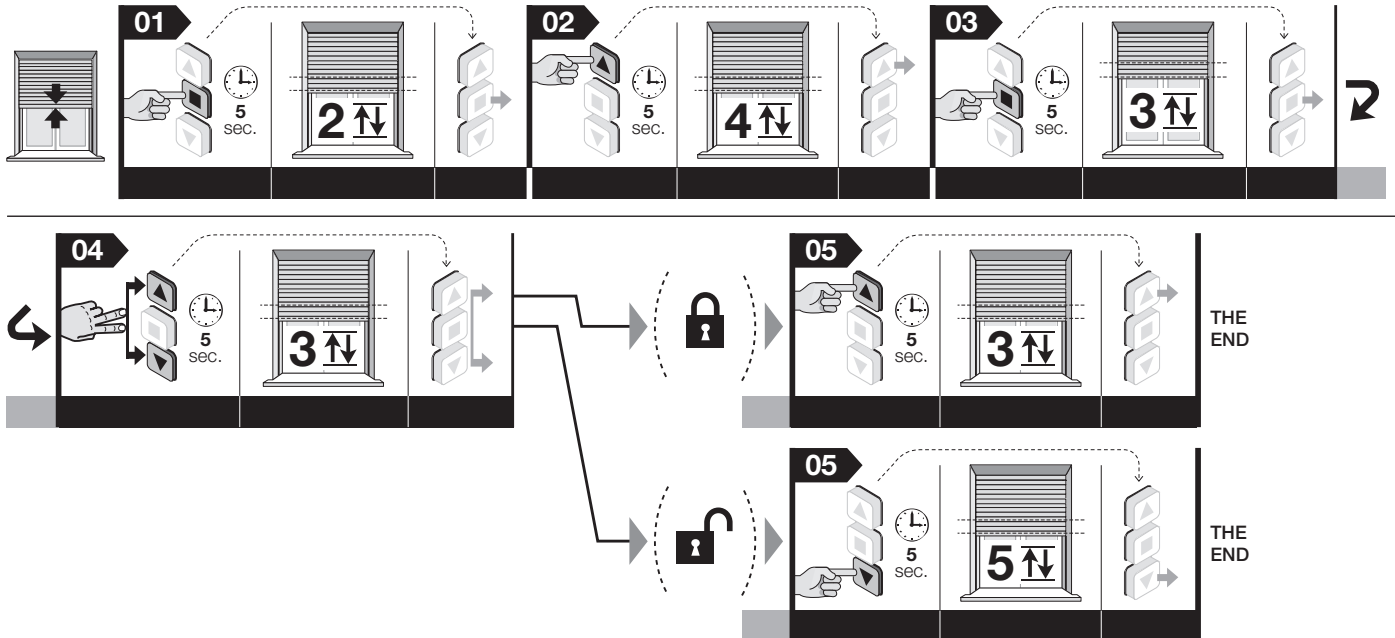
**Note** – When performing the procedure, at any time you can cancel it by keeping the **■** and **▼** keys pressed simultaneously for 4 seconds. Otherwise, do not press any key and wait 60 seconds for the motor to perform 6 movements.



## 5.13 - Locking and unlocking the memory

This procedure allows you to lock or unlock the memory to prevent accidental memorization of other transmitters not included in the system.

01. Keep the **■** key pressed and wait for the motor to perform 2 movements. Upon completion, release the key.
02. Keep the **▲** key pressed and wait for the motor to perform 4 movements. Upon completion, release the key.
03. Keep the **■** key pressed and wait for the motor to perform 3 movements. Upon completion, release the key.
04. Keep the **▲** and **▼** keys pressed simultaneously and wait for the motor to perform 3 movements. Upon completion, release the keys.
05. • **To lock the memory:** keep the **▲** key pressed and wait for the motor to perform 3 movements. Upon completion, release the key.  
• **To unlock the memory:** keep the **▼** key pressed and wait for the motor to perform 5 movements. Upon completion, release the key.



**Note** – When performing the procedure, at any time you can cancel it by keeping the **■** and **▼** keys pressed simultaneously for 4 seconds. Otherwise, do not press any key and wait 60 seconds for the motor to perform 6 movements.

## 6 OPTIONAL ACCESSORIES

### 6.1 - Control pushbutton strip (wall-mounted)

#### 6.1.1 - Installation of the pushbutton strip

This accessory can be used as an alternative to the radio transmitter to send, by wire, the controls to the motor when using the automation.

##### Installation warnings:

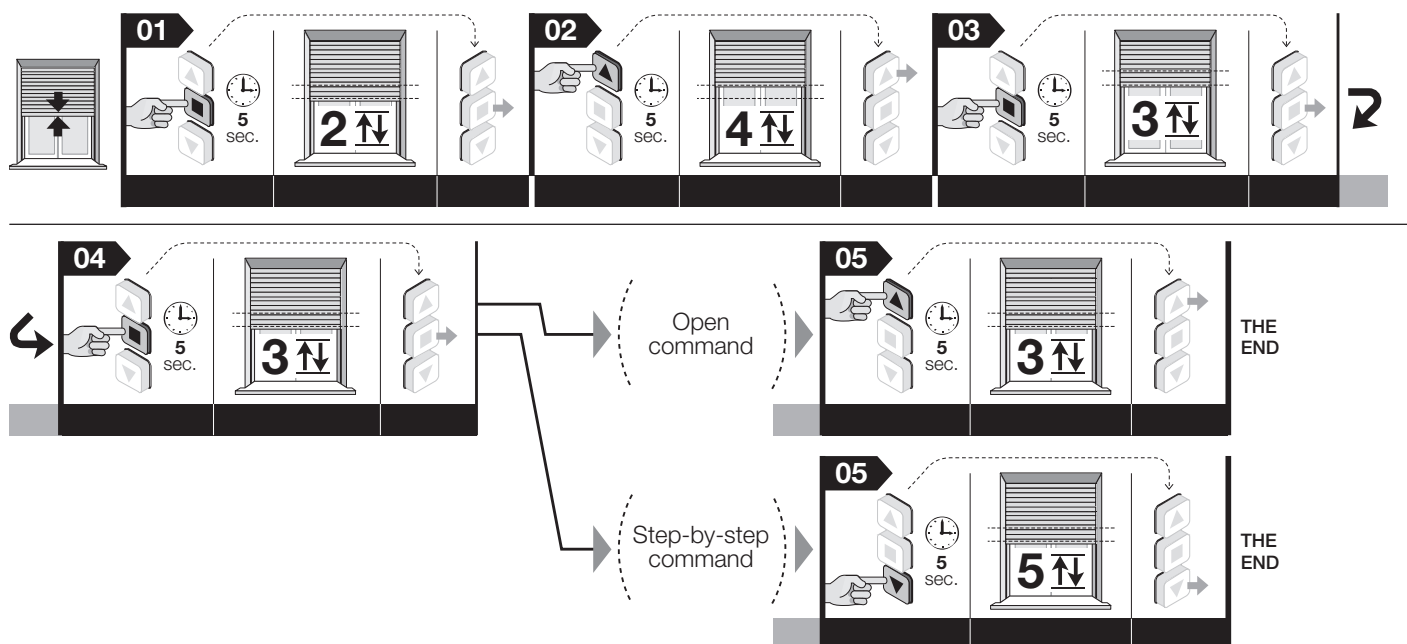
- It is recommended to use an unstable pushbutton strip with interlocked pushbuttons.
- The mechanical operation of the push buttons must be exclusively of the “with operator present” type: in other words, and they are released, they must return to their initial position. **Note** - When the limit switches are already adjusted, all you need to do is simply press the pushbutton with one pulse to activate the movement of the rolling shutter which will terminate automatically when it reaches the limits which you have adjusted.
- You can choose models with one or two pushbuttons according to your needs: the model with two push buttons activates the *Raise* and *Lower* input; the model with one pushbutton can activate the *TBus / Open / Step-to-step* (the type of input is selected with the procedure described in paragraph 6.1.2 - B).
- The pushbutton strip must be positioned as follows:
  - in a place that is not accessible to outsiders/strangers;
  - allowing you to see the rolling shutter but far from its moving parts;
  - on the side of the rolling shutter where there is the electrical cord from the motor and the power cord from the electrical mains (**fig. 3-h**);
  - at a height no less than 1.5 m from the floor/ground.

## 6.1.2 - Connecting the pushbutton strip

**A - Pushbutton strip with 2 push buttons (wires to use: violet + orange + pink):** to connect this accessory, see **fig.**

**B - Pushbutton strip with 1 push buttons (wires to use: violet + pink):** to connect this accessory, see **fig. 4**. After connection is completed, follow the procedure below assign the desired command to the pushbutton: **Open** or **Step-by-step** (use a transmitter memorized in "Mode I").

01. Keep the **■** key pressed and wait for the motor to perform 2 movements. Upon completion, release the key.
02. Keep the **▲** key pressed and wait for the motor to perform 4 movements. Upon completion, release the key.
03. Keep the **■** key pressed and wait for the motor to perform 3 movements. Upon completion, release the key.
04. Keep the **■** key pressed and wait for the motor to perform 3 movements. Upon completion, release the key.
05. • **To assign the Open command to a pushbutton:** keep the **▲** key pressed and wait for the motor to perform 3 movements.  
• **To assign the Step-By-Step command to a pushbutton:** keep the **▼** key pressed and wait for the motor to perform 5 movements. Upon completion, release the key.



**Note** – When performing the procedure, at any time you can cancel it by keeping the **■** and **▼** keys pressed simultaneously for 4 seconds. Otherwise, do not press any key and wait 60 seconds for the motor to perform 6 movements.

## 6.2 - Climate sensors for wind, sun, rain

(Wires to use to connect the sensors by wire: orange + pink – Some models are connected exclusively via radio). These accessories autonomously command the movements of the rolling shutters according to the atmospheric conditions detected outdoors. In any case, a manual command sent by the user always has priority over the command sent by the accessory. The manual commands do not deactivate the operation of the accessory unless the rolling shutter is closed completely (position "1"). Up to five tubular motors can be connected to one accessory, respecting the polarity of the signals (connect the white-black wires of all the motors to each other and connect that white-orange wires of all motors to reach other).

**WARNING** – The climate sensors must not be considered state devices that can eliminate failures in the rolling shutter caused by the effective rain or strong winds; it is fact a mere electrical blackout would make the automatic movement of the rolling shutter and possible. Consequently, these sensors must be considered components of an automation device for protecting the rolling shutter. Nice declines all liability for any material damages that occur due to atmospheric events not detected by the sensors.

### 6.2.1 - Definitions and conventions

- **Manual "Sun On" command** = enables the reception, by the motor, of automatic commands transmitted by the "Sun" sensor if present in the installation. When reception is enabled, the user can send manual commands at any time: these overwrite the automatic operation of the automation.
- **Manual "Sun Off" command** = enables the reception, by the motor, of automatic commands transmitted by the "Sun" sensor if present in the installation. When the reception is disabled, the automation operates exclusively with the manual commands sent by the user. The "Wind" and "Rain" sensors cannot be disabled because they protect the automation from these atmospheric phenomena.
- **"Over-threshold" Intensity of sun/wind** = condition in which the atmospheric phenomenon corresponds to the high values exceeding the selected threshold.
- **"Over-threshold" intensity of sun/wind** = a condition in which the atmospheric phenomenon reaches the low values below the selected threshold.
- **"Wind protection"** = a condition in which the system inhibits all the shutter opening commands because of the overthreshold wind intensity.
- **"Presence of rain"** = a condition in which the system detects the presence of rain, with respect to the previous condition of "absence of rain".
- **"Manual command"** = Raise, Lower or Stop command sent by the user by means of a transmitter.

### 6.2.2 - Behaviour of motor in each single weather conditions

- **Sun:** when the intensity of the sun is over threshold, if the rolling shutter is at a point between the "0" limit switch and a partial "H" height, the motor brings the shutter to the nearest partial "H" height (if one is memorized). On the contrary, if the shutter is in other positions, the motor does not move it. When the sun is under threshold, the motor is not moved to the shutter.
- **Rain:** when there is rain, the system commands closure up the shutter. This condition prevails over the sun sensor.
- **Wind:** when the intensity of the wind is over threshold, this system commands closure of the shutter. This condition prevails over the Rain and Sun sensor.

#### Generalities:

- The automatic operation of the motor by means of the commands received by the climate sensors does not block the manual commands sent by the user of the shutter.
- "Rain present" and "wind over threshold" conditions inhibit the operation of the sun sensor.
- The manual command "Sun-ON" enables ("Sun-OFF" disables) only the operation of the Sun sensor.
- The manual commands Raise, Stop, Lower and Partial Opening sent by the user to the motor do not deactivate the operation of the Sun Wind or Rain sensors unless the command completely closes the shutter.
- When the shutter is completely closed, no climate sensor is able to open it in automatic mode.

## 6.3 - Adjustment of "Wind" climate sensor

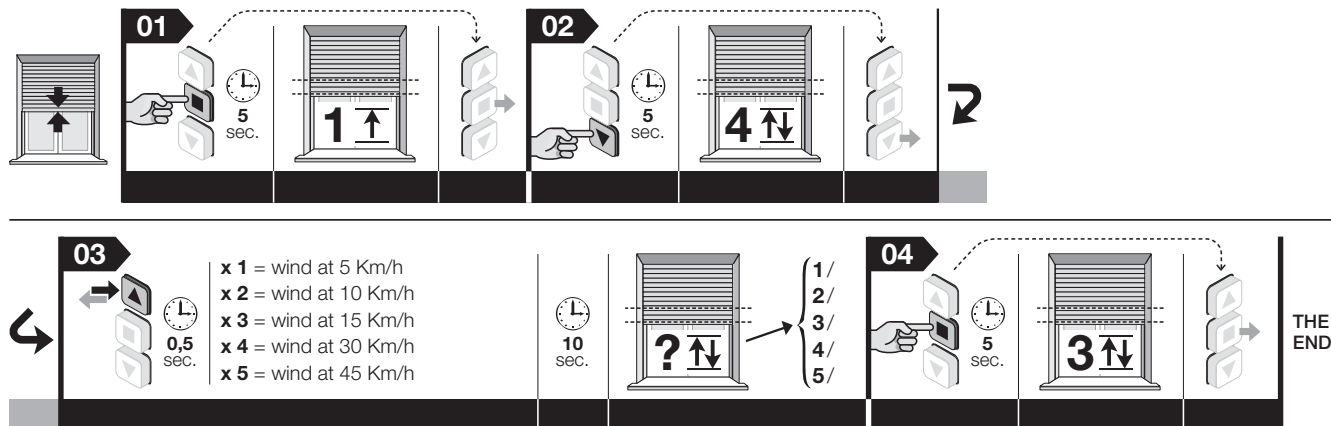
At the factory, the intervention threshold is set at level 3 and to change it you must take the following steps.

01. Keep the **■** key pressed and wait for the motor to perform one movement. Upon completion, release the key.
02. Keep the **▼** key pressed and wait for the motor to perform 4 movements. Upon completion, release the key.
03. Briefly press the **▲** key a few times, depending on the level you want to set for wind threshold:

- 1 press = wind at 5 Km/h
- 2 presses = wind at 10 Km/h
- 3 presses = wind at 15 Km/h (*factory settings*)
- 4 presses = wind at 30 Km/h
- 5 presses = wind at 45 Km/h

After about 10 seconds, the motor performs the number of movements indicated by the level number selected. **Note** - If this does not occur, cancel the procedure. This way, the adjustment is completed without changing the factory setting.

04. Keep the **■** key pressed and wait for the motor to perform 3 movements. Upon completion, release the key.



**Note** – When performing the procedure, at any time you can cancel it by keeping the **■** and **▼** keys pressed simultaneously for 4 seconds. Otherwise, do not press any key and wait 60 seconds for the motor to perform 6 movements.

**Note** – If you use a sensor equipped with a "trimmer", you must read the sensor instructions and adjust the threshold directly on the sensor.

## 6.4 - Adjustment of "Sun" climate sensor

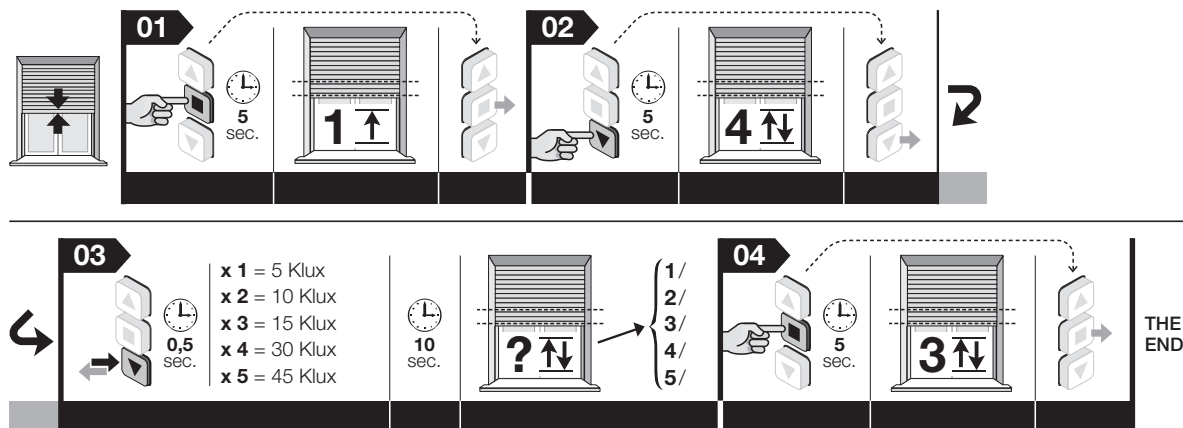
At the factory, the intervention threshold is set at level 3 and to change it you must take the following steps.

01. Keep the **■** key pressed and wait for the motor to perform one movement. Upon completion, release the key.
02. Keep the **▼** key pressed and wait for the motor to perform 4 movements. Upon completion, release the key.
03. Briefly press the **▼** key a few times, depending on the level you want to set for the intervention threshold:

- 1 press = 5 Klux
- 2 presses = 10 Klux
- 3 presses = 15 Klux (*factory setting*)
- 4 presses = 30 Klux
- 5 presses = 45 Klux

After about 10 seconds, the motor performs the number of movements indicated by the level number selected. **Note** - If this does not occur, cancel the procedure. This way, the adjustment is completed without changing the factory setting.

04. Keep the **■** key pressed and wait for the motor to perform 3 movements. Upon completion, release the key.



**Note** – When performing the procedure, at any time you can cancel it by keeping the **■** and **▼** keys pressed simultaneously for 4 seconds. Otherwise, do not press any key and wait 60 seconds for the motor to perform 6 movements.

**Note** – If you use a sensor equipped with a "trimmer", you must read the sensor instructions and adjust the threshold directly on the sensor.

## 6.6 - Pair of photocells

**(Wires to use: Violet+ Pink).** This accessory makes it possible to detect an obstacle accidentally present along the stroke of the rolling shutter. detection of the obstacle immediately stops the Lowering manoeuvre of the shutter. For further information, refer to the instruction manual for the photocells.

**Attention!** - Before connecting the photocells, you must memorize at least the **first transmitter** (paragraph 5.5).

## 6.7 - Resistive sensitive edge

**(Wires to use: orange + pink.** This accessory, with a constant resistance value of 8.2 K, makes it possible to detect the presence of an accidental obstacle along the shutter closing trajectory. Considering the heights of the two limit switches and an "R" position that approximately 5 cm from the lower limit switch "1", the system will behave as follows: **a)** if the obstacle is detected in the space between the "0" limit switch and the "R" height, the system stops the motor and commands a brief inversion of motion; **b)** if the obstacle is detected in the space between the "1" limit switch and the "R" height (a space of approximately 5 cm), the system will behave in the mode selected by the installer with the following procedure (the available options can be found at point 05 of the procedure). Then, after installing and connecting the sensitive edge, perform the following procedure.

**01.** Bring the rolling shutter to **5 cm** from limit switch "1".

**02.** Keep the **■** key pressed and wait for the motor to perform 2 movements. Upon completion, release the key.

**03.** Keep the **■** key pressed again and wait for the motor to perform 4 movements. Upon completion, release the key.

**04.** Keep the **▲** and **■** keys pressed simultaneously and wait for the motor to perform 2 movements. Upon completion, release the keys.

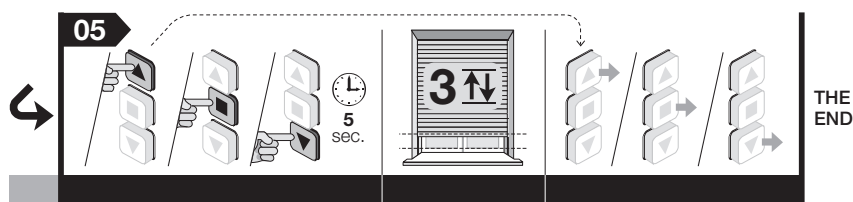
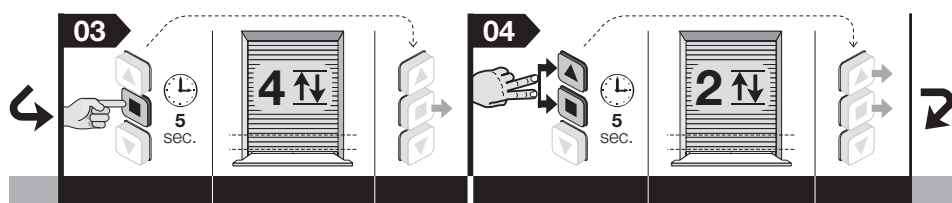
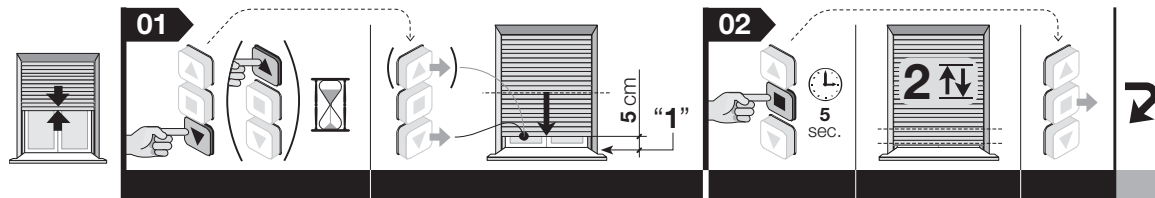
**05.** Then select the behaviour that you want to assign to the motor:

- After the edge intervention, the motor continues to descend until reaching the memorized limit switch (**key ▲**).

- After the edge intervention the motor stops and does not perform the brief conversion of motion (**key ■**).

- After the edge intervention, the motor stops and the system moves the position of the limit switch "1", placing it right before the edge intervention position (**note - a few manoeuvres to set the optimal bout you may be required**) (**key ▼**).

Then she the key combined with the selected behaviour pressed and wait for the motor to perform 3 movements. Upon completion, release the key.



**Note** – When performing the procedure, at any time you can cancel it by keeping the **■** and **▼** keys pressed simultaneously for 4 seconds. Otherwise, do not press any key and wait 60 seconds for the motor to perform 6 movements.

To delete the setting you have selected and reconfigure the input for a climate sensor, you must delete the positions of limit switches "0" and "1" (paragraph 5.12).



## 7 WARNINGS FOR DAILY USE OF THE AUTOMATION

### 7.1 - "Obstacle detection" function

The "obstacle detection" function described in Chapter 2 is activated automatically when programming the limit switches. Subsequently it is possible to adjust the sensitivity to the obstacle (paragraph 5.11), or the force that a motor must exert against the obstacle to free the shutter.

If this function blocks in the movement of the shutter frequently, for no good reason, it is recommended to deactivate the function (paragraph 5.11).

### 7.2 - Maximum continuous work cycle

In general the motors of the "Era" line were designed for residential use and therefore for discontinuous use. For a guarantee a maximum operation time of four minutes and in cases of overheating (e.g. caused by continuous prolonged operation) a "thermal protector" for safety intervenes to cut out the power supply and reset kits when the temperature returns to normal.

### 7.3 - "Limit switch self-update" function

The limit switches adjusted by the impact of the mechanical blocks (safety plugs and a rigid anti-intrusion springs) are verified by the "limit switch self-update" function every time the shutter performs a manoeuvre and bumps into its limit switch. This allows the function of measuring the new limit switch values and updating the existing ones, thereby recovering any slack that may have occurred throughout time due to wear and/or thermal shock to which the slats and motor springs are subjected. The constant update of the heights allows the rolling shutter to always reach the limit switch with maximum precision.

This function is not activated when the stroke of the shutter lasts for less than 2.5 seconds and does not reach the limit switch.

### 7.4 - Commanding partial opening/closing of shutter ("H" height)

In general, to command the partial opening/closing of the shutter, press the key associated with the partial height during programming (for more information, read point 06 of procedure 5.9). If the transmitter has only three keys and only one "H" height is memorized, simultaneously press keys ▲ and ▼ to recall this height.

## 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 characteristics of this manual by measuring the electricity between the "common" wire and the electrical phase wire supplied with current. Finally, try to supply the opposite electrical phase.
- When sending a Raise command, the motor does not start:**  
This can happen if the shutter is near the Upper limit switch ("0"). In this case you must lower the shutter a short bit and give the Raise command again.
- The system operates in the emergency condition with an operator present:**
  - Check to see if the motor has undergone a significant thermal or mechanical shock.
  - Make sure each part of the motor is still in good condition.
  - Perform the deletion procedure (paragraph 5.12) and adjust the limit switches again.
- Involuntary stopping of shutter motion (false obstacle):**  
After sending the command to the shutter, if the shutter stops during the stroke at a certain point for no good reason (slight friction), it is recommended to:
  - adjust the level of sensitivity to the obstacle (paragraph 5.11), by increasing the force. If this does not solve the problem,
  - adjust the limit switches with the manual procedure (paragraph 5.6) and set the sensitivity level (paragraph 5.11) to level 4.

## Disposal of the product

As in installation operations, disposal operations must be performed by qualified personnel at the end of the product's lifespan.

The product is made of various types of materials: some of them may be recycled, while others cannot. Find out about recycling and disposal systems in use in your area for this product category. **Attention!** - some parts of the product may contain polluting or hazardous substances which, if released into the environment, can cause serious damage to the environment or to human health. As indicated by the symbol appearing here, the product may not be disposed of with other household wastes. Separate the waste into categories for disposal, according to the methods established by current legislation in your area, or return the product to the retailer when purchasing a new version. **Attention!** - local regulations may incur heavy fines if the product is disposed of inappropriately.



The product's packaging materials must be disposed of in full compliance with local regulations.

## Technical specifications

**Power supply voltage:** see data on rating plate

**Power drawn in Stand-by mode:** 0,5 W

**Resolution of the encoder:** 2,7°

**Continuous operation time:** 4 minutes

**Operating temperature:** -20 °C

**Protection level:** IP 44

### Notes:

- All technical specifications stated in this section refer to an ambient temperature of 20°C (± 5°C).

- Nice reserves the right to apply modifications to products at any time when deemed necessary, maintaining the same intended use and functionality.

## CE declaration of conformity

Nice S.p.A. hereby declares that the products: **E Mat SA(...)**, **E Mat MA(...)** conform to the essential requisites and other pertinent provisions laid down by directives **1999/5/EC**, **2006/95/EC**, **2004/108/EC**. The CE declaration of conformity can be consulted and printed at [www.nice-service.com](http://www.nice-service.com) all are requested from Nice S.p.A.

**Luigi Paro**  
(Managing Director)