

USER MANUAL

Ø 45 mm and Ø 55 mm tubular motor with electronic limit switch and integrated radio receiver



Dear customer, thank you for purchasing a STAFER product.

This manual describe the operations for a correct installation of V6RX.E and V7RX.E. Keep this document and download any updated documents from www.stafer.com. The tubular motors with electronic limit switch are suitable to command awnings, roller shutters and screens. The technical characteristics are provided on the label stuck on motor. These devices have not been studied to a continuous working. Any other use is improper and forbidden and it could void manufacturer's warranty. The manufacturer cannot be considered responsible for any damage due to improper, wrong or unreasonable use.

The installation of the product must be done by a qualified technician. At the end of the installation, all manuals must be given to the end user. Keep this manual for future reference. Consult www.stafer.com for any updated documents.

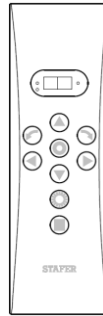
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Compatible STAFER transmitters



Remote control Item 593.T.X1.00 (1 channel)



Remote control Item 594.T.X1.00 (1 channel)
Remote control Item 594.T.X5.00 (10 channels)

Environmental conservation!

Environmental conservation is an everyone's duty!

STAFER uses packaging recyclable materials. Dispose materials on the proper containers, complying with the law in force in your locality.

If you are an installer and you use many motors, please ask for cavaties box packaging to your retailer or to the manufacturer, this is an environmental respectful choice, that limits waste and considerably reduce the packaging materials. This product may have substances that are polluting for the environment and dangerous for the health. At the end of the product life cycle, carefully comply with the waste disposal rules. It is strickly forbidden to dispose the product on the domestic waste.

Notes on radio system

It is advisable **to avoid using radio systems in areas with strong interference** (for example, near police stations, airports, ports, hospital, etc.). A technical inspection is in any case advisable before installing any radio system in order to identify sources of interference.

Radio systems can be used where possible disturbances or malfunctioning of the transmitter or the receiver do not cause a risk factor, or if the risk factor is cancelled by suitable safety systems.

The presence of radio device operating on the same transmission frequency (**433,42 MHz**) can interfere with the radio receiver of the motor and so reduce the range of the system and limit the functionality of the installation.

01. TECHNICAL SPECIFICATIONS

The technical characteristics of the motor are shown in the label applied to the motor tube. Before installing the motor, it is recommended to copy the technical data (including the full name of the product) and store them in a safe place. These data may be useful in the event of subsequent maintenance or technical assistance. The common characteristics of the motors V6RX.E / V7RX.E are:

| | | | | | |
|----------------------------|-----------------|-------------------------|-------------|--------------------------------|--------------|
| Power supply | : 230 Vac.50 Hz | IP insulation | : IP44 | Working frequency | : 433.42 MHz |
| Stand-by consumption | : < 1W | Insulation class | : H | Memorizable transmitters | : 40 |
| Min roller diameter V6RX.E | : 50 x 1.5 mm | Max limit switch turns | : ∞ | Memorizable wind radio sensors | : 4 |
| Min roller diameter V7RX.E | : 60 x 1.5 mm | Continuous working time | : 4 minutes | Memorizable sun radio sensors | : 1 |

02. WARNINGS

02.1 WARNINGS FOR SAFETY

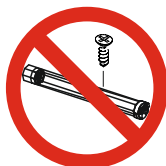
Incorrect installation can cause serious injuries. • Keep these instructions for future maintenance work and disposal of the product. • All the product installation, connection, programming and maintenance operations must be carried out only by a qualified and skilled technician, who must comply with laws, provisions, local regulations and the instructions given in this manual. • The wiring must comply with current IEC standards. • Some applications require hold-to-run operation and can exclude the use of radio controls or require particular safety devices. • To prevent potentially dangerous situations, check the operating condition of the roller shutter/awning regularly.

02.2 WARNINGS FOR THE INSTALLATION

Check that the package is intact and has not been damaged in transit. • A heavy knock and the use of unsuitable tools can cause the damage of the external or internal parts of the motor. • Do not pierce or tamper with the motor in any way. Do not modify or replace parts without the manufacturer's permission. • Do not carry the motor by the power cable. The product may not be used if the power cable is damaged. Do not try to replace the power cable. • Any screws needed to complete the installation must not come into contact with the motor. • The power of the motor must be sufficient for the applied load (check the rated data shown on the motor). • Some stages of programming and/or normal operation make use of the mechanical stops of the roller shutter/awning. It is essential to choose a motor with the most suitable torque for the application, considering the actual traction of the roller shutter/awning, and to avoid motors that are too powerful. • Use winding rollers that are at least 1 mm thick. • Leave 1-2 mm of right/left play on the winding roller. • Check that the shape and size of the drive pulley and adapter crown correspond to the winding roller used. Adapters, supports and sundry accessories related to the motor must be chosen exclusively from the STAFER catalogue. • If the product is installed at a height of less than 2.5 m from the floor or from another support surface, the moving parts must be protected with a cover to prevent accidental access. In any case, ensure access for maintenance work. • The power cable must be positioned in such a way that it does not come into contact with moving parts. • The power cable of the product is suitable for indoor installation only. If installed outside, place the cable in a protective tube. • If there are several radio appliances in the same system, they must not be less than 1.5 m apart. • Do not install the product near metal surfaces. • Position the buttons within sight of the roller shutter/awning but a long way from its moving parts. Position the buttons more than 1.5 m from the floor. • The motors are designed for residential use; the maximum continuous operating time is 4 minutes. • During operation, the motor body becomes very hot, so be careful. • The motor contains a self-resetting thermal cut-out, which stops the motor if it overheats. The motor returns to normal operation when its temperature drops below the safety limit (normally after 5 to 10 minutes). • The motor must be installed so that it cannot come into contact with liquids and in any case in a position protected from atmospheric agents. • The antenna cable carries line voltage. Do not cut the antenna cable as this would be dangerous. If the antenna cable is damaged, replace the product. • For your safety, do not work near the winding roller while the motor is powered.

02.3 WARNINGS FOR USE

The product is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they are supervised or given instructions on how to use the product by a person responsible for their safety. • Before operating the roller shutter/awning, make sure there are no people or objects in the area involved in its movement. Check the automation during movement and keep people at a safe distance, until the movement ends. • Do not allow children to play with the appliance or with the fixed control devices. Also, keep the portable control devices (remote controls) out of the reach of children. • Do not operate the roller shutter/awning when maintenance operations are being carried out (e.g. window cleaning). If the control device is automatic, disconnect the motor from the power line.

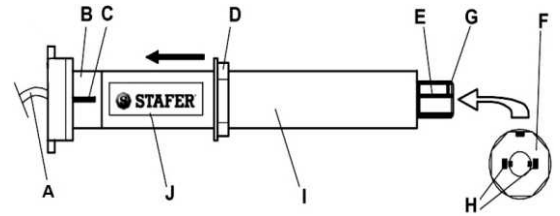


03. CAPACITY TABLES AND MOTOR COMPONENTS

| V6 _{RX.E} | Model | Torque Nm | rpm | Power W |
|--------------------|--------------------------|-----------|-----|---------|
| | V6 _{RX.E} 15/13 | 15 | 13 | 125 |
| | V6 _{RX.E} 27/13 | 27 | 13 | 190 |
| | V6 _{RX.E} 35/13 | 35 | 13 | 230 |
| | V6 _{RX.E} 45/13 | 45 | 13 | 290 |

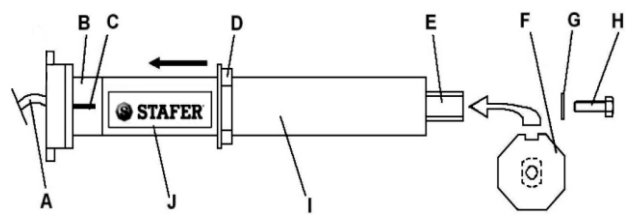
| Model | Torque Nm | rpm | Power W |
|--------------------------|-----------|-----|---------|
| V6 _{RX.E} 8/17 | 8 | 17 | 105 |
| V6 _{RX.E} 12/17 | 12 | 17 | 125 |
| V6 _{RX.E} 22/17 | 22 | 17 | 190 |
| V6 _{RX.E} 28/17 | 28 | 17 | 230 |
| V6 _{RX.E} 38/17 | 38 | 17 | 290 |

A=supply cable / B=base ring / C=insertion key / D=adaptor ring / E=exit pinion
 F=drive pulley / G=hooking tooth / H=hooking clips (to remove the pulley open the clips and pull slightly)
 I=motor body / J=technical data plate

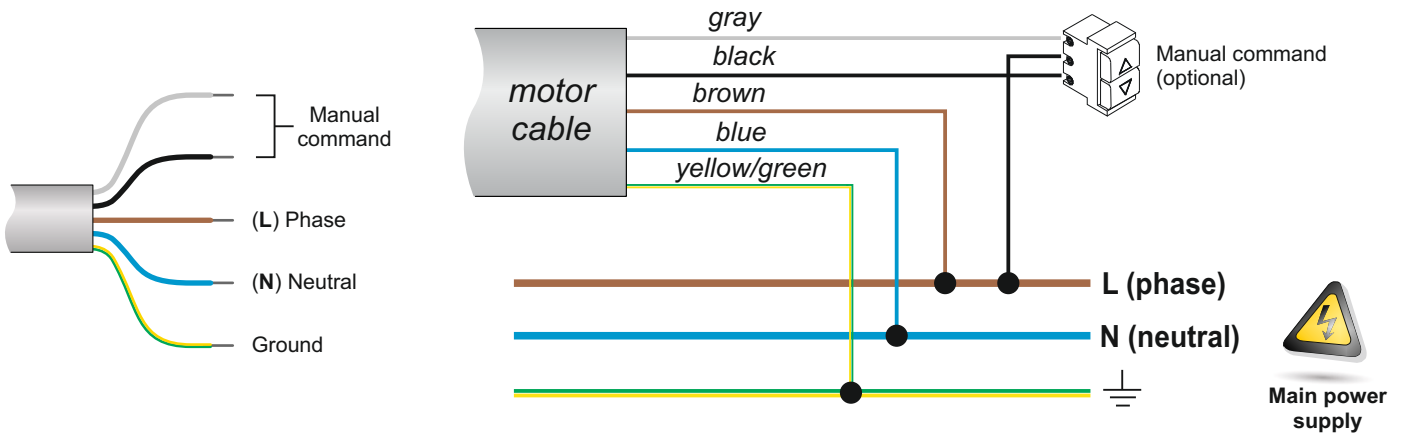


| V7 _{RX.E} | Model | Torque Nm | rpm | Power W |
|--------------------|---------------------------|-----------|-----|---------|
| | V7 _{RX.E} 80/12 | 80 | 12 | 375 |
| | V7 _{RX.E} 100/12 | 100 | 12 | 410 |
| | V7 _{RX.E} 130/9 | 130 | 9 | 410 |

A=supply cable / B=base ring / C=insertion key / D=adaptor ring / E=exit pinion
 F=drive pulley / G=washer / H=blocking screw / I=motor body / J=technical data plate



04. ELECTRICAL CONNECTION



04.1 Warnings

Make connections with power supply disconnected. ● Check that the power supply line doesn't depend from electrical circuits for lighting. ● The supply line must be equipped with a circuit breaker. The installer must fit an isolation device (with 3 mm minimum opening on the contacts) upstream of the system. ● The section of the connecting cables must be proportionate to their length and to the absorption of the load, and in any case not less than 1.5 mm. ● The product doesn't provide any protection against overloads or short circuits. You must provide, on the supply line, an adequate protection to the load, for example a rapid fuse of maximum value 3.15 A. ● You must use buttons with spring return ("hold-to-run" type), do not use buttons with maintained position. ● Command buttons are connected to the main voltage, so they must be properly insulated and protected.

04.2 Power supply

The supply voltage must be applied to the brown (PHASE) and blue (NEUTRAL) wires. Connect the green / yellow wire to the grounding system. The electrical specifications for motor operation are shown in the label applied to the tube of the motor.

04.3 Command buttons

The control buttons are optional if motor is equipped with radio receiver.

The command buttons must be connected to the black and gray wires and they must close on brown wire. **You must use buttons with spring return ("hold to run" type)**, do not use buttons with maintained position. More command buttons can be connected via a parallel connection. The control buttons are subject to the mains voltage and therefore should be properly insulated and protected. In the case where the command buttons are not used, it is necessary to ensure the isolation of black and gray wires.

04.4 Motor connection to a home automation control unit

There are different types of home automation control unit (following H.A.C.U.). Some H.A.C.U. allow you to program the time of closing of the output contacts, while others do not allow it; some H.A.C.U. measure the current consumption of the devices applied to the output contacts, while others do not; some H.A.C.U. work with proprietary protocols, while others work with "standard" protocols (eg KNX, Modbus, ...). Because of the diversity of the characteristics of the H.A.C.U. on market, the motor manufacturer **can not know if the motor is compatible with the installed H.A.C.U.** The control outputs of the H.A.C.U. must be connected to the command inputs of the motor (GREY and BLACK wires), replacing the manual buttons. Consequently, the H.A.C.U. must comply with the rules of operation of the command buttons, depending on whether the command buttons work in PULSE mode (factory setting) or in HOLD TO RUN mode (see section 15 "Logic of commands").

Rules that the H.A.C.U. must comply to control the motors operating with buttons in PULSE mode.

- The H.A.C.U. must not measure the current drawn by the command inputs of the motor (which absorb less than 1 mA).
- The H.A.C.U. must be connected to the motor as shown, substituting the command buttons with the outputs of the H.A.C.U..
- To operate the motor, the H.A.C.U. must close contact (up or down) for more than 0.5 seconds (typically using a pulse duration of 1 second).
- To stop the motor, the H.A.C.U. must close contact (up or down) for 0.5 seconds or less (typically using a pulse duration of 0.2 seconds).

Rules that the H.A.C.U. must comply to control the motors operating with buttons in HOLD TO RUN mode.

- The H.A.C.U. must not measure the current drawn by the command inputs of the motor (which absorb less than 1 mA).
- The H.A.C.U. must be connected to the motor as shown, substituting the command buttons with the outputs of the H.A.C.U..
- To allow the conclusion of the entire opening / closing, the H.A.C.U. must be able to close the contact UP / DOWN to the time required for the motor to perform the complete operation.
- To stop the motor, the H.A.C.U. must be able to re-open the contacts UP / DOWN at any time.

At the time of this document printing, specific issues related to the connection between STAFER products and H.A.C.U. are not known (if you follow the rules above). However STAFER disclaims any responsibility concerning the non-compatibility (even partial) with any H.A.C.U.. If the H.A.C.U. uses KNX protocols or similar, contact the vendors of home automation controller informing them of the rules above. Probably the manufacturer of H.A.C.U. can provide appropriate interfaces to connect the motor to the H.A.C.U..

In the case in which the connection between the H.A.C.U. and motor is not possible or there is some problems, it may be convenient to apply to the control outputs of the H.A.C.U. a suitable transmitting device that will be tuned subsequently to the motor to be controlled. For more information, contact your dealer.

05. SOME INFORMATIONS ABOUT MOTOR

STAFER motor adapt its operating principle based on the type of roll-on which you install (roller shutter, awning square bar, awning cassette, awning screen).

ROLLER SHUTTER mode operation

The motor activates the detection properties of an obstacle during the upward phase. If during the rising phase of an obstacle is detected in the vicinity of the lower limit switch, the upward movement is stopped and the engine is operated in bringing down the shutters in the lower end position (the motor interprets the obstacle such as a stationary anti-intrusion). If during the rising phase of an obstacle is detected in other positions, the upward movement is stopped and the engine is operated briefly downhill, in order to release the shutter from the traction to which it is subjected due to the obstacle. If the upper limit has been learned by contact of the caps of the shutter with the upper stop, in appropriate situations the search for the upper stop automatically replenish the possible adjustments of the mechanical shutter so as to automatically recalibrate the limit switches.

AWNING SQUARE BAR mode operation

The motor activates the detection properties of an obstacle during the climb phase only in the vicinity of the upper limit switch. If the upper limit has been learned by contact of the terminal with the square bar, occasionally (each about 30 maneuvers complete closure) the search motor terminal contact with the square bar to compensate automatically for lengthening / shortening of the sheet, keeping in fact the cloth always at the optimal tension.

AWNING CASSETTE mode operation

The motor activates the detection properties of an obstacle during the climb phase only in the vicinity of the upper end, that is, during the closing phase of the box. If the upper limit has been learned by contact of the movable part of the box with the fixed part of the box (condition almost always valid in the cassette awning), at each closing of the box the engine restores the limit switch so as to automatically compensate for elongation / shortening of the fabric, keeping the fabric in fact always the optimal voltage and favoring the proper closure of the cassette.

AWNING SCREEN mode operation

The motor does not activate the properties of the motor to detect an obstacle during the climb phase, but merely move the cloth from the lower end position to the upper end position and vice versa.

06. INSTALLATION PROCEDURE USING COMMAND BUTTONS

We recommend that you read the entire procedure before performing these steps, in such a way as to make the execution of the procedure easier and with less chance of error.



The installation must be performed by a qualified technician. If in doubt contact your supplier.

| | | | | | | | |
|--|---|--|---|--|---|---|---|
| <p>A</p> <p>Supply the motor</p> | <p>B (1)</p> <p>Bring the motor in an intermediate position.</p> | <p>C (2)</p> <p>Press 3 TIMES the button that MOVES THE MOTOR DOWN</p> <p>The motor starts to make short movements uphill</p> <p>Depending on your application decide when to press a button (see below):</p> | | | | | |
| <p>D (3)</p> <table border="1"> <tr> <td data-bbox="432 898 628 1128"> <p>With roller shutter</p> <p>x1 ↑</p> <p>After the 1th movement press a button</p> </td> <td data-bbox="628 898 825 1128"> <p>With square bar awning</p> <p>x2 ↑</p> <p>After the 2th movement press a button</p> </td> <td data-bbox="825 898 1021 1128"> <p>With cassette awning</p> <p>x3 ↑</p> <p>After the 3th movement press a button</p> </td> <td data-bbox="1021 898 1217 1128"> <p>With screen awning</p> <p>x4 ↑</p> <p>After the 4th movement press a button</p> </td> </tr> </table> | | | | <p>With roller shutter</p> <p>x1 ↑</p> <p>After the 1th movement press a button</p> | <p>With square bar awning</p> <p>x2 ↑</p> <p>After the 2th movement press a button</p> | <p>With cassette awning</p> <p>x3 ↑</p> <p>After the 3th movement press a button</p> | <p>With screen awning</p> <p>x4 ↑</p> <p>After the 4th movement press a button</p> |
| <p>With roller shutter</p> <p>x1 ↑</p> <p>After the 1th movement press a button</p> | <p>With square bar awning</p> <p>x2 ↑</p> <p>After the 2th movement press a button</p> | <p>With cassette awning</p> <p>x3 ↑</p> <p>After the 3th movement press a button</p> | <p>With screen awning</p> <p>x4 ↑</p> <p>After the 4th movement press a button</p> | | | | |
| <p>E (4)</p> <p>The motor moves downward.</p> | <p>F</p> <p>stop the motor to the lower end position</p> <p>ATTENTION! with orientable roller shutter must stop the motor when the shutter is lowered and all the slats are fully open. To associate the limit switch shutter closed all see section 13 "THIRD L.S." after completing point K of this page.</p> | | <p>G</p> <p>Wait 10 seconds </p> | | | | |
| <p>H</p> <p>The motor moves upward.</p> | <p>I</p> <p>Upper end by obstacle?</p> <p>NO → → Stop manually → Wait 10 seconds </p> <p>YES → Wait automatic stop (Not for SCREEN) → Wait 10 seconds </p> | | | | | | |
| <p>J</p> <p>The motor moves 1 time downward and 2 times upward.</p> | <p>K (5)</p> <p>Storing a remote control?</p> <p>YES → → Within 15 seconds press STOP of the transmitter → The motor makes a brief upward movement</p> <p>NO → Wait 15 seconds → 2 brief downward movements</p> | | | | | | |

In case you want to make adjustments to the position of the limit with the buttons, proceed as described in section 10 or 11. Sometimes it is possible that, after the procedure, the motor moves in reverse to the pressed button. In that case you can turn the buttons or invert wires gray and black.

In case you want to later store a radio control will follow the procedure in paragraph 9.2 .

Notes:

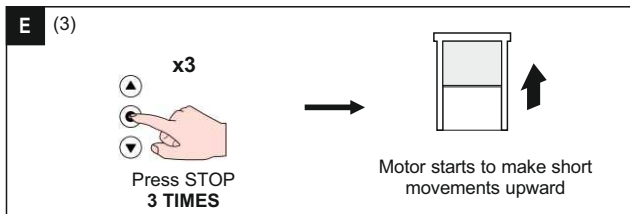
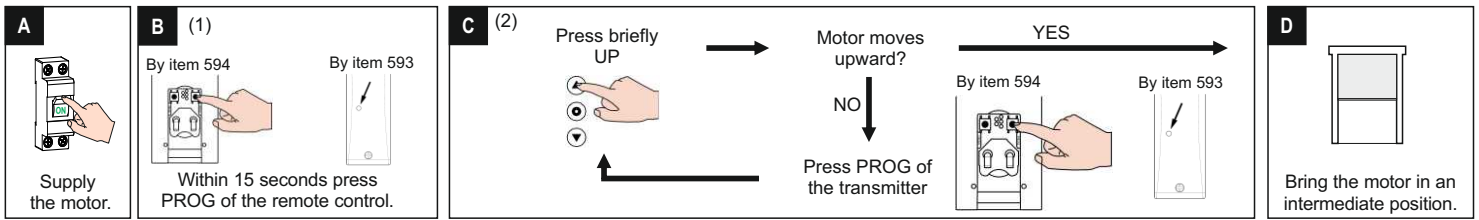
- (1) : the motor is in "hold to run" mode: the motor moves in a certain direction until you release the button.
- (2) : the button must be pressed for 3 or 5 times briefly, about 1 second between each press and the next. If the button is pressed a number other than 3 or 5 times, the motor performs an error message.
- (3) : elapse about 5 seconds between one movement and the next. If no option is selected, the motor makes a short downward movement. In this case, repeat step 07.C.
- (4) : by this time the motor moves in 'impulse' mode: to operate the motor press the button for at least 0.5 seconds; to stop the motor press briefly (less than 0.5 seconds) any button.
- (5) : you can memorize the transmitter even later (see Section 9.2, "Memorization - deletion of a radio device").
- (6) : UP and DOWN buttons must be pressed simultaneously and briefly, about 1 second; during the process of fine tuning, while holding down a button, the motor makes small movements in the selected direction.

07. INSTALLATION PROCEDURE USING A REMOTE CONTROL

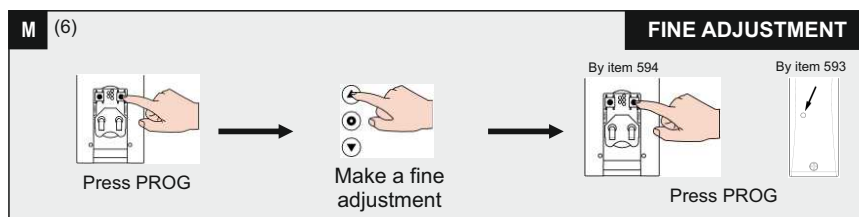
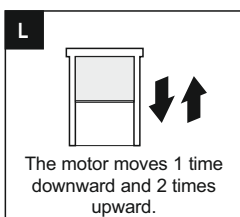
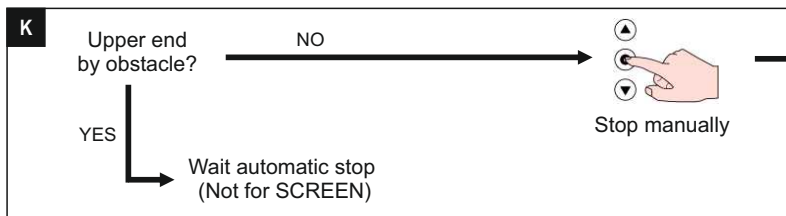
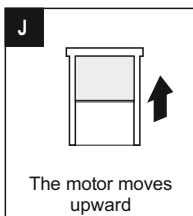
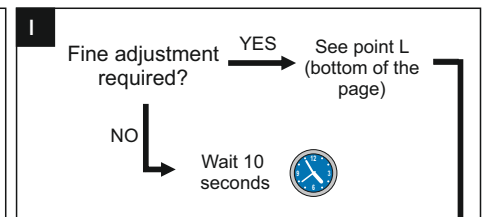
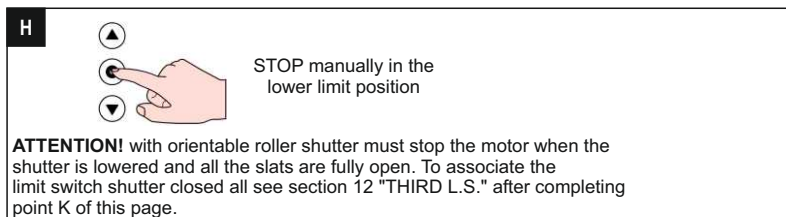
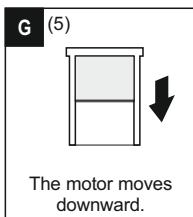
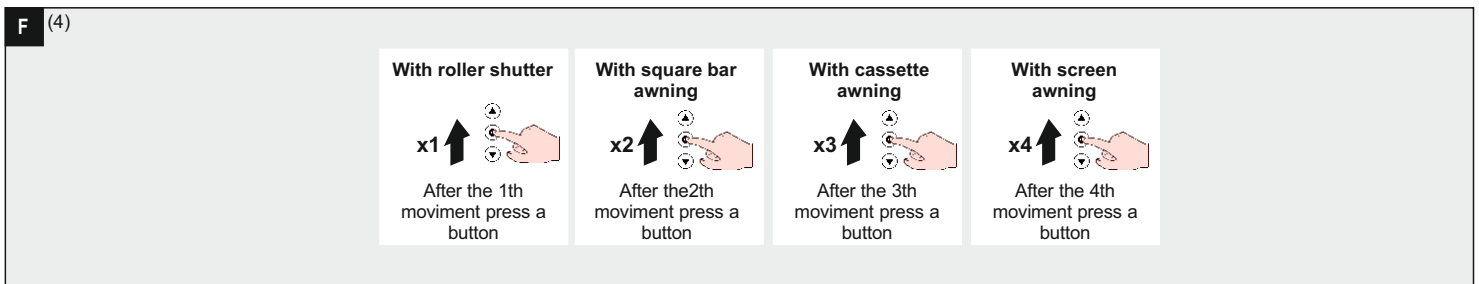
Before starting the programming procedure, read the instruction manual of the transmitter and locate the buttons UP, STOP, DOWN, PROG necessary for the programming of the motor.



The installation must be performed by a qualified technician.
This motor is compatible with the remote controls series 594.T.X1.00 / 594.T.X5.00 / 593.T.X1.00
If in doubt contact your supplier.



Depending on your application decide when to press a button (see below):



Notes:

- (1) : do not use the command buttons! From the moment you press PROG of the remote control, the command buttons are inhibited.
- (2) : the motor is in "hold to run" mode: the motor moves in a certain direction until you release the button.
- (3) : the STOP button must be pressed for 3 times briefly, about 1 second between each press and the next. If the button is pressed a number other than 3 or times, the motor performs an error message.
- (4) : Elapse about 5 seconds between one movement and the next. If no option is selected, the motor makes a short downward movement. In this case, repeat step 06.
- (5) : during the process of fine tuning, while holding down a button, the motor makes small movements in the selected direction.

08. ELECTRONIC CONTROL

Depending on the installation you perform, the motor turns on / off a few electronic controls and optimizes its operation on the basis of the selected roller blinds. It is still possible to operate manually on some electronic controls, activating / deactivating / setting them according to the specific needs.

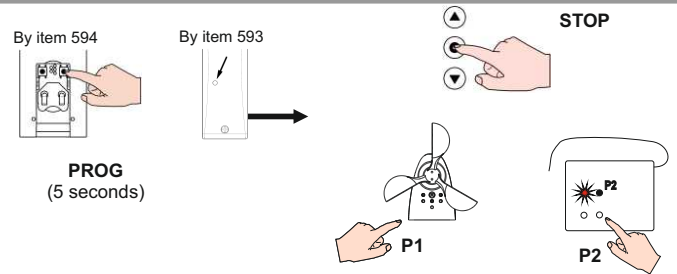
- A = active function, can't be disabled
- N = non active function, can be activated
- = not available function
- Obs = active function, can not be disabled; active only if the upper limit switch has been defined for contact with an obstacle

| UPWARD OBSTACLE DETECTION | DOWNWARD OBSTACLE DETECTION | AUTOMATIC RUN RESTORE | NO STRESS FABRIC | ORIENTATION |
|--|--|--|--|---|
| As soon as an obstacle is detected the motor makes an automatic downward movement to free the structure from traction. During this movement, the manual controls are disabled. | As soon as an obstruction is detected the motor makes an automatic upward movement to allow removal of the obstacle. During this movement, the manual controls are disabled. | In the case in which the upper limit switch is defined for contact with an obstacle, the motor, in suitable circumstances, performs some automatic movements to re-calibrate the limit switches. | Specific function for the cassette awning. When the cassette closes, a very short downward movement is performed in such a way as to reduce the tension that affects the fabric. | This function allows you to move in small steps the roller blind. This function is specially developed for Orientable roller blinds, but you can activate it also for other applications. |
| Roller shutter: A Square bar: A Cassette: A Screen: - | Roller shutter: A Square bar: - Cassette: - Screen: - | Roller shutter: Obs Square bar: Obs Cassette: Obs Screen: - | Roller shutter: - Square bar: - Cassette: N Screen: - See paragraph 17 | Roller shutter: N Square bar: N Cassette: N Screen: N See paragraph 18 |

09. MEMORIZATION / DELETION OF A RADIO DEVICE

09.1 USING AN HAND-HELD TRANSMITTER (Only if there is already a radio transmitter stored)

- Bring the motor in the intermediate position.
- Press and hold PROG of a remote control already memorized for about 5 sec. The motor makes 2 small upward movements
- Within 15 seconds, to store/delete:
 - a remote control: press **STOP** in the remote control to store/delete
 - a sun-wind sensor: press **P1** on the sensor to store/delete
 - a rain sensor: press **P2** on the sensor to store/delete
- 1 movement upward: device stored!!
1 movement downward: device deleted!!
2 movements downward: error!!

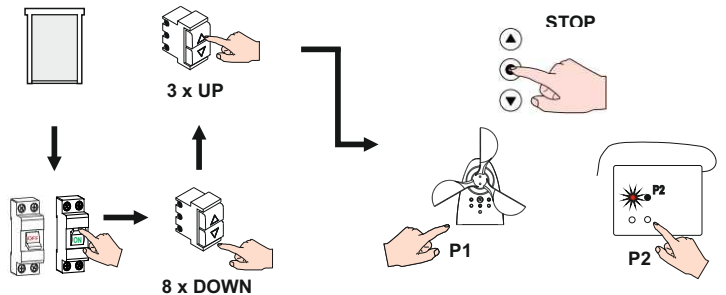


Notes:

- point 3: in a battery powered sensor you may need to hold the button up to 10 seconds.
- point 4: is reported "error" if the radio code does not prevent in time, if the memory is full, if you try to delete the only remote control in memory, if you try to store more than one sun sensor or more than 4 wind sensors.

09.2 USING COMMAND BUTTONS (If there is no remote control stored)

- Bring the motor in the intermediate position.
- Switch OFF power supply, wait 2 seconds and switch ON power supply.
- Within 15 seconds press **DOWN 8** times.
The motor makes 3 small upward movements.
- Within 15 seconds press **UP 3** times.
The motor makes 2 small upward movements.
- Within 15 seconds, to store/delete:
 - a transmitter: press **STOP** in the transmitter to store/delete
 - a sun-wind sensor: press **P1** on the sensor to store/delete
 - a rain sensor: press **P2** on the sensor to store/delete
- 1 movement upward: device stored!!
1 movement downward: device deleted!!
2 movements downward: error!!



Notes:

- point 5: in a battery powered sensor you may need to hold the button up to 10 seconds.
- point 6: is reported "error" if the radio code does not prevent in time, if the memory is full, if you try to delete the only transmitter in memory, if you try to store more than one sun sensor or more than 4 wind sensors.

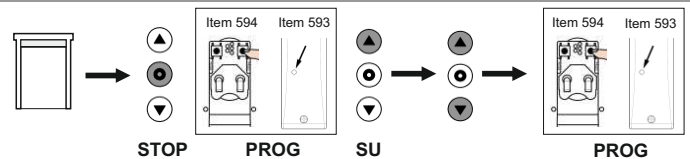
10. FINE ADJUSTMENT OF UPPER LIMIT SWITCH

ATTENTION:

The modification of the upper limit switch is not possible if the upper limit switch has been learned by contact with an obstacle

10.1 USING A REMOTE CONTROL

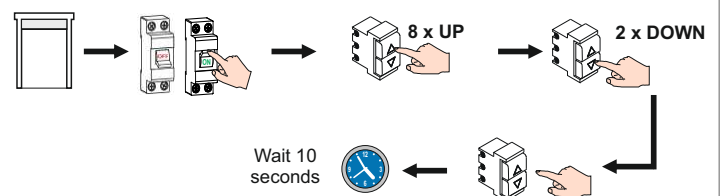
- Bring the motor to the upper position.
- Press in sequence the **STOP**, **PROG**, **UP** buttons (*).
The motor makes 1 small downward movement.
- Press **UP** and **DOWN** for set the new upper limit switch.
- Press **PROG**. The motor makes 1 small downward/upward movement. Limit switch memorized!



(* the button must be pressed briefly (less than 0.5 sec) and in rapid succession (max 1 seconds between each press and the next).

10.2 USING COMMAND BUTTONS

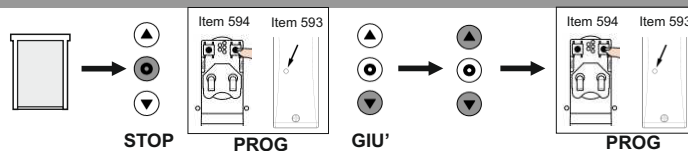
- Bring the motor to the upper position.
- Switch OFF power supply, wait 2 seconds and switch ON power supply.
- Within 15 seconds press **UP 8** times.
The motor makes 3 small downward movement.
- Within 15 seconds press briefly **DOWN 2** times.
The motor makes 1 small upward movement.
- Press **UP** and **DOWN** for set the new upper limit switch.
- Wait 10 seconds.
The motor makes 1 small downward/upward movement. Limit switch memorized!



11. FINE ADJUSTMENT OF LOWER LIMIT SWITCH

11.1 USING A REMOTE CONTROL

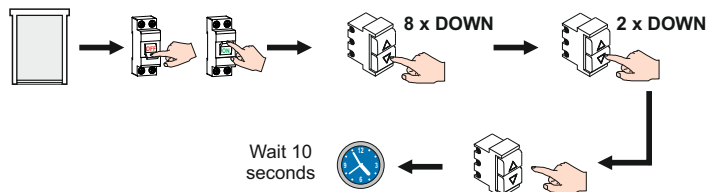
01. Bring the motor to the lower position.
02. Press in sequence the **STOP**, **PROG**, **DOWN** buttons (*)
The motor makes 1 small upward movement.
03. Press **UP** and **DOWN** for set the new downer limit switch.
04. Press **PROG**. The motor makes 1 small downward/upward movement. Limit switch memorized!



(*) the button must be pressed briefly and in rapid succession (max 2 seconds between each press and the next).

11.2 USING COMMAND BUTTONS

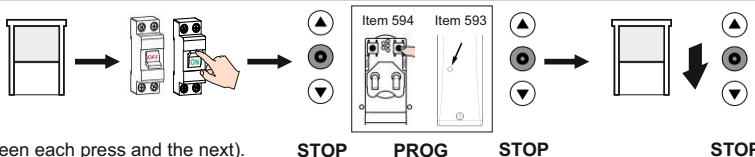
01. Bring the motor to the lower position.
02. Switch OFF power supply, wait 2 seconds and switch ON power supply.
03. Within 15 seconds press **DOWN** 8 times. The motor makes 3 small upward movements.
04. Within 15 seconds press **DOWN** 2 times. The motor makes 1 small downward movements.
05. Press **UP** and **DOWN** for set the new downer limit switch.
06. Wait 10 seconds.
The motor makes 1 small downward/upward movement. Limit switch memorized!



12. MODIFY BOTH THE LIMIT SWITCHES

ATTENTION: this function is only possible via transmitter already stored. Please read all the procedure before you begin.
This procedure can change the limit also if it is not completed. For this reason, in case of interruption of the procedure is necessary completely repeat the same.

01. Bring the motor in the intermediate position.
02. Switch OFF power supply, wait 2 seconds and switch ON power supply.
03. Within 15 seconds, press in sequence the **STOP**, **PROG**, **UP** buttons (*).
The motor makes 1 small downward/upward movement than goes downhill.
04. Press **STOP** to the desired position. Follow as described in **section 7 point I**.



(*) the button must be pressed briefly and in rapid succession (max 2 seconds between each press and the next).

13. INTERMEDIATE LIMIT SWITCH (THIRD LIMIT SWITCH)

In the case of type shutter with ORIENTED slats, the INTERMEDIATE LIMIT SWITCH must correspond to the total closing of the shutter with slats closed.

13.1 USING A REMOTE CONTROL ITEM 594

To memorize the preferred position:

01. Bring the motor in the preferred position (with ORIENTED slats completely close the shutter and the slats).
02. Press simultaneously **STOP** and **THIRD L.S.** for 5 seconds.
03. The motor makes small movements. Limit switch memorized!

To recall the preferred position:

01. Press **THIRD LIMIT SWITCH**

13.2 USING A REMOTE CONTROL ITEM 593

To memorize the preferred position:

01. Bring the motor in the preferred position (with ORIENTED slats completely close the shutter and the slats).
02. Press briefly 6 times **STOP**, then **DOWN** for 5 seconds.
03. The motor makes small movements. Limit switch memorized!

To recall the preferred position:

01. Press briefly 3 times **STOP** and wait 2 seconds.

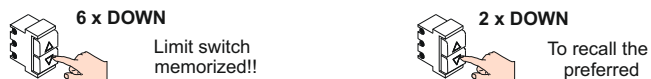
13.2 USING COMMAND BUTTONS

To memorize the preferred position:

01. Bring the motor in the preferred position (with ORIENTED slats completely close the shutter and the slats).
02. Press briefly and quickly **DOWN** 6 times. The motor makes 1 small downward/upward movement.

To recall the preferred position:

01. Press briefly and quickly **DOWN** 2 times.



14. WIND, SUN AND RAIN SENSORS

The sensors generate automatic manoeuvres without notice of any source of danger. The installer must inform the end user and possibly integrate the installation with adequate security systems.

In some situations (eg loss of motor voltage or sensor, failure of motor or sensor, radio interference...) it is possible that the command sent from the sensor is not detected by the motor. The sensor must therefore not be understood as a safety device which ensures the integrity of the roller blind in every condition, but a means to limit the probability that the roller blind can be damaged by adverse weather conditions.

14.1 COMPATIBLE SENSORS

The motors V6.RX-E and V7.RX-E have built-in radio receiver and require the use of radio sensors. Use 593.K.XS.00 sensor (sun-wind sensor) or 593.K.XB.00 sensor (sun-wind sensor with battery) or 593.K.SP.R0 (rain sensor). When the sensor detects the presence of wind, a "wind alarm" message is sent and tuned motors move in upward direction and manual controls are disabled until the end of the alarm. When the sensor detects the presence of the sun, it sends a "presence of sun" message and the tuned motors move in downward direction. When the sensor detects the absence of the sun, a "sun absent" message is sent: the tuned motors move in upward direction.

When the sensor detects the presence of rain, it sends the message "presence of rain": the tuned motors move in upward or downward direction depending on the rain sensor setup. Each motor can store up to 4 wind sensors and only one sun sensor.

For more information, please refer to the instruction manual of the sensors.

15. LOGIC OF THE COMMAND BUTTONS

It's possible to choose whether the command buttons should work in **IMPULSE** logic or in **HOLD TO RUN** logic.

IMPULSE logic: this is the default mode at the factory. The motor moves in upward or downward direction if the relative contact (wire gray or black) is closed on phase for at least 0.5 sec, the motor will stop if it is closed briefly (less than 0.5 sec) any of the two contacts.

HOLD TO RUN logic: the motor moves in upward or downward direction if the relative contact (wire gray or black) is closed on phase for at least 0.5 sec, the motor stops as soon as the contact opens. The factory sets the motor to work in **IMPULSE** logic. To change this setting follow the terms of sections 15.1 or 15.2.

15.1 USING A REMOTE CONTROL ITEM 594

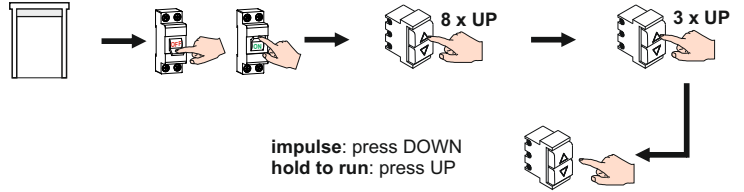
01. Select the correct radio channel and bring the motor on the intermediate position.
02. Press **MENU** for about 5 seconds. **rs** appears on the display.
03. Press 1 time **PREV** and 8 times **NEXT**. **18** appears on the display
04. Press 1 time **STOP**. The receiver signals the current value.
Hold to run: ▲ 1 (1 short upward movement)
Pulse: ▼ 1 (1 short descent movement)
05. Press **PREV** for logic «pulse» (**Of** appears on the display) or **NEXT** for logic «hold to run» (**On** appears on the display). Factory set is **Of**.
06. Press 1 time **STOP**. The receiver signal the new value.
Hold to run: ▲ 1 - **Pulse:** ▼ 1

15.2 USING A REMOTE CONTROL ITEM 593

01. Bring the motor to the intermediate position.
02. While press **STOP** also press **PROG** for about 1 sec., until the LED lights up.
03. Press once **UP** and 8 times **DOWN**.
04. Press 1 time **STOP**. The receiver signals the current value.
Hold to run: ▲ 1 (1 short upward movement)
Pulse: ▼ 1 (1 short descent movement)
05. Press **DOWN** for logic «pulse» or **UP** for logic «hold to run»
06. Press 1 time **STOP**. The receiver signal the new value.
Hold to run: ▲ 1 - **Pulse:** ▼ 1

15.3 USING COMMAND BUTTONS

01. Bring the motor to the upper position.
02. Switch OFF power supply, wait 2 seconds and switch ON power supply.
03. Within 15 seconds press quickly UP 8 times.
The motor makes 3 small downward movements.
04. Within 15 seconds press quickly UP 3 times.
The motor shows the current setting: 1 UP = HOLD TO RUN, 1 DOWN = IMPULSE.
05. To select «impulse»: press briefly DOWN.
To select «hold to run»: press briefly UP.
06. The receiver signal the new value.
Hold to run: ▲ 1 - Impulse: ▼ 1



16. TEST RADIO function FOR SUN-WIND SENSOR

As soon as the motor stores a wind radio sensor or a sun / wind radio sensor, automatically activates a communication control between the radio sensor and itself. If communication is lost for more than 60 minutes, the motor performs an upward movement to protect the blind. This manoeuvre is performed automatically every 60 minutes until the restoration of radio communication. The factory recommends to keep active the "radio test" in order to identify in good time any malfunction of the sensor radio. For set this function read section 16.1 or 16.2.

16.1 USING A RADIO CONTROL ITEM 594

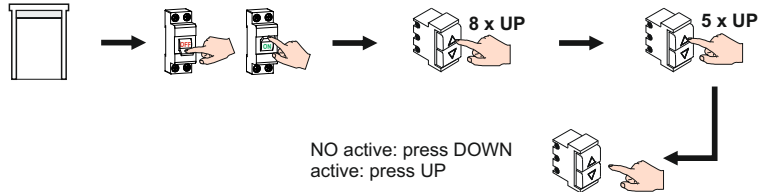
- Only available with 593.K.XS.00 and 593.K.XB.00.
01. Select the correct radio channel and bring the motor on the intermediate position.
 02. Press **MENU** for about 5 seconds. **rS** appears on the display.
 03. Press 1 **TIME PREV** and 7 times **NEXT**. 17 appears on the display.
 04. Press 1 time **STOP**. The receiver signals the current value.
Function active: ▲ 1 (1 short upward movement)
Function not active: ▼ 1 (1 short descent movement)
 05. Press **PREV** to disable the function (**Of** appears on the display) or **NEXT** to enable the function (**On** appears on the display).
Factory set is On.
 06. Press 1 time **STOP**. The motor shows the new setting.
Function active: ▲ 1 - Function not active: ▼ 1

16.2 USING A RADIO CONTROL ITEM 593

- Only available with 593.K.XS.00 and 593.K.XB.00.
01. Bring the motor on the intermediate position.
 02. While press **STOP** also press **PROG** for about 1 sec., until the LED lights up.
 03. Press 1 **TIME UP** and 7 times **DOWN**.
 04. Press 1 time **STOP**. The receiver signals the current value.
Function active: ▲ 1 (1 short upward movement)
Function not active: ▼ 1 (1 short descent movement)
 05. Press **DOWN** to disable the function or **UP** to enable the function.
 06. Press 1 time **STOP**. The motor shows the new setting.
Function active: ▲ 1 - Function not active: ▼ 1

16.3 USING COMMAND BUTTONS

01. Bring the motor to the upper position.
02. Switch OFF power supply, wait 2 seconds and switch ON power supply.
03. Within 15 seconds press quickly UP 8 times.
The motor makes 3 small downward movements.
04. Within 15 seconds press quickly UP 5 times.
The motor shows the current setting: 1 UP = ACTIVE, 1 DOWN = NO ACTIVE.
05. To select «active»: press briefly UP.
To select «no active»: press briefly DOWN.
06. The motor shows the new setting.
Function active: ▲ 1 - Function not active: ▼ 1



17. NO STRESS FABRIC

This is a specific function available only in "Cassette awning" application. The factory set this function to "Off". If the function is enabled, after the cassette closing, the motor makes a short downward movement, in such a way as to reduce the tensile stresses on the fabric when the cassette is closed. The duration of the movement can be set (see Table 02). To modify this parameter see section 18.1 or 18.2.

| N° of movements | Setting |
|-----------------|---------------------|
| 1 | Function not active |
| 2 | 10 msec |
| 3 | 20 msec |
| 4 | 30 msec |
| 5 | 40 msec |

Tab. 02 - No stress fabric

17.1 USING A REMOTE CONTROL ITEM 594

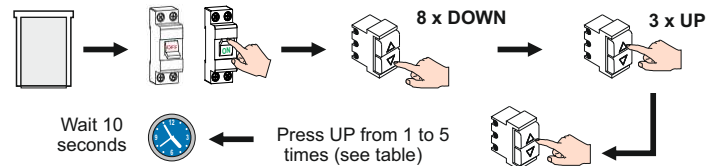
01. Bring the motor in an intermediate position
02. Press **MENU** for about 5 sec, until «rS» appears on display
03. Press 1 time **PREV** and 1 time **NEXT**. «11» appears on display.
04. Press **STOP**. The motor signals the current value (1 to 5 movements)
05. Press **NEXT** the number of times equal to the desired setting (1 to 5)
06. Press **STOP**. The motor signals the new value (1 to 5 movements).

17.2 USING A REMOTE CONTROL ITEM 593

01. Bring the motor in an intermediate position
02. While press **STOP** also press **PROG** for about 1 sec., until the LED lights up.
03. Press 1 time **UP** and 1 time **DOWN**.
04. Press **STOP**. The motor signals the current value (1 to 5 movements)
05. Press **DOWN** the number of times equal to the desired setting (1 to 5).
06. Press **STOP**. The motor signals the new value (1 to 5 movements).

17.3 USING COMMAND BUTTONS

01. Bring the motor in the lower position
02. Disconnect power supply, wait a few seconds; connect power supply.
03. Within 15 seconds, press **DOWN 8** times (briefly and quickly).
The motor performs 3 downward movements.
04. Within 15 seconds, press **UP 3** times (briefly and quickly).
The motor signals current setting (from 1 to 5 movements).
05. Press **UP**, briefly and quickly, the number of times equal to the desired setting (from 1 to 5)
06. Wait 10 seconds.
The motor signals new setting (from 1 to 5 movements).



18. ORIENTATION

This function allows you to move the motor with small steps. Function useful for situations in which the roller blind is composed of orientable elements. The function is active for application Orientable roller shutter (set to level 3), while inactive (but activable) for other supported applications. If the function is active: by jiggling the motor with the control buttons (only with IMPULSE logic), quickly press a button and immediately press the same button while holding it down; by jiggling the motor using the transmitter refer to the manual of the transmitter to the section "Functions associated with the transmitter buttons". You can set the duration of the movements of orientation (see Tab. 04). The factory sets the function at 1 (000 msec = inactive). To modify this parameter see 18.1 or 18.2.

| N° of movements | Setting |
|-----------------|---------------------|
| 1 | Not active function |
| 2 | 50 msec |
| 3 | 100 msec |
| 4 | 150 msec |
| 5 | 200 msec |

Tab. 04 - Duration of orientation

18.1 HOW TO SET THE TILTING FUNCTION USING A 594 TRANSMITTER

01. Bring the motor in an intermediate position
02. Press MENU for about 5 sec, until «rS» appears on display
03. Press 1 time PREV / 2 times NEXT. «12» appears on display
04. Press STOP. The motor signals the current value (1 to 5 movements)
05. Press NEXT the number of times equal to the desired setting (1 to 5)
06. Press STOP. The motor signals the new value (1 to 5 movements).

To orient:

01. Press ORIENTATION button on transmitter.

18.2 HOW TO SET THE TILTING FUNCTION USING A 593 TRANSMITTER

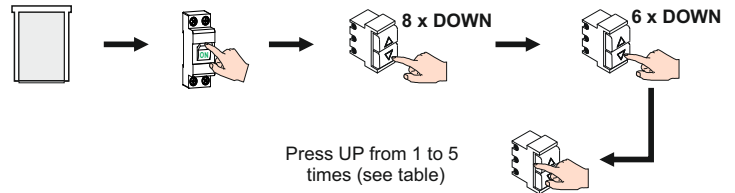
01. Bring the motor in an intermediate position
02. While press STOP also press PROG for about 1 sec., until the LED lights up.
03. Press 1 time UP and 2 times DOWN.
04. Press STOP. The motor signals the current value (1 to 5 movements).
05. Press DOWN the number of times equal to the desired setting (1 to 5)
06. Press STOP. The motor signals the new value (1 to 5 movements).

To orient:

01. Press briefly twice STOP than press UP or DOWN.

18.3 HOW TO SET THE TILTING FUNCTION USING COMMAND BUTTONS

01. Bring the motor in the lower position
02. Disconnect power supply, wait a few seconds; connect power supply.
03. Within 15 seconds, press DOWN 8 times (briefly and quickly). The motor performs 3 downward movements.
04. Within 15 seconds, press DOWN 6 times (briefly and quickly). The motor signals current setting (from 1 to 5 movements).
05. Press UP, briefly and quickly, the number of times equal to the desired setting (from 1 to 5)
06. The motor signals new setting (from 1 to 5 movements).



19. RESET

19.1 USING A RADIO CONTROL ITEM 594

01. Bring the motor in an intermediate position.
02. Press MENU for about 5 sec, until «rS» appears on display
03. Press 2 time PREV / 9 times NEXT. «29» appears on display
04. Press STOP. The display flashes, the motor performs 8 movements. Wait until the motor stops.
05. Press together PREV and NEXT for about 2 seconds until the motor indicates that the reset was performed (1 moving up / down).
06. Reinstall the motor (see section 6 or 7 of this manual).

19.2 USING A RADIO CONTROL ITEM 593

01. Bring the motor in an intermediate position.
02. While press STOP also press PROG for about 1 sec., until the LED lights up.
03. Press 2 times UP and 9 times DOWN.
04. Press STOP. The display flashes, the motor performs 8 movements. Wait until the motor stops.
05. Press together UP and DOWN for about 2 seconds until the motor indicates that the reset was performed (1 moving up / down).
06. Reinstall the motor (see section 6 or 7 of this manual).

19.3 USING COMMAND BUTTONS

01. If possible, bring the motor to the intermediate position.
02. Disconnect the power supply.
03. Connect as on the diagram.
04. Connect the power supply. Wait 30 seconds, the motor makes a signal: «Radio code deleted». If you want to delete also the limit switch wait, otherwise go to point 6.
05. After 15 seconds, the motor makes another signal: «Limit switch deleted».
06. Disconnect the power supply.
07. Restore the connections (see diagram on section 4).
08. Reinstall the module (see section 5 or 6).



DECLARATION OF CONFORMITY 'SIMPLIFIED

The manufacturer STAFER s.p.a. declares that the product complies with the directive 2014/53/UE, 2014/35/UE, 2014/30/UE.



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