

Dear Customer,
thank you for purchasing a STAFER S.p.A. product.

This manual contains information about the use of the product. Carefully read the information contained herein and keep this manual for future reference.

The 596.R.EU.00 receiver module is specially designed for controlling a single-phase asynchronous motor with **mechanical limit switches**.

Any other use beyond the field defined by Stafer S.p.A. is prohibited and involves, as well as the failure to comply with instructions provided in this guide, voidance of Stafer S.p.A.'s liability and warranty.

NOTE: This product is compatible with transmitters 595.T.X1.00, 596.T.X5.00, 596.T.X1.00, 595.P.X1 and 595.M.X1.00. Before starting the programming procedure, read the instruction manual of the remote control and locate the UP, STOP, DOWN, PROG buttons. In the following description, the remote control is represented in completely generic terms.

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VIDEO TUTORIAL YouTube

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Package Contents

- ✓ 1 receiver 596.R.EU.00
- ✓ this manual

Disposal

At the end of the product's life cycle, dispose of it in accordance with local regulations, or return it to the retailer when purchasing a new equivalent product. This product may contain substances that are polluting for the environment and dangerous to health; it is forbidden to dispose of the product in domestic waste.



Notes on radio systems

It is advisable to avoid using radio systems in areas with strong interference (for example, near police stations, airports, banks, hospitals). 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 devices operating on the same transmission frequency (433.42 MHz) can interfere with the radio receiver, reducing the system's range and limiting the system's functionality.



Technical specifications

- ✓ Power supply: 120 or 230 Vac, 50/60 Hz
- ✓ Contact rating: 5A at 250 Vac
- ✓ Dimensions: 84 x 40 x 26 mm
- ✓ Weight: 60 g
- ✓ Operating temperature: from -20 to +55 °C
- ✓ Protection grade: Ip20
- ✓ Work time: 120s
- ✓ Radio frequency: 433.42 MHz
- ✓ Radio frequency band: 433.050 - 434.790 Mhz
- ✓ Maximum transmitted ERP: < 10 mW
- ✓ Range (estimate): 100m outdoors, 20m indoors.

01. WARNINGS

01.1 SAFETY WARNINGS

- ✓ Incorrect installation can cause serious injuries.
- ✓ Keep these instructions for future maintenance operations and the 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 and local regulations, and the instructions provided herein.
- ✓ Wiring must comply with current CEI standards. In compliance with the provisions of Italian Ministerial Decree 37/2008, the final electrical system must be installed only by an electrician.
- ✓ Some applications require "man present" operation and can exclude the use of radio commands or require particular safety devices.
- ✓ To prevent potentially dangerous situations, regularly check the operating condition of the rolling shutter.

01.2 INSTALLATION WARNINGS

- ✓ Check that the package is intact and has not been damaged in transit.
- ✓ The product is designed to be installed inside junction boxes. The module does not provide any protection against water and only an essential protection when in contact with solid parts.
- ✓ It is forbidden to install the module in areas that are not adequately protected, and near heat sources.
- ✓ Use command buttons with spring return, do not use switches with maintained position.
- ✓ The command buttons must be visible/near the application, but distant from any moving parts and at a height of at least 1.5m from the floor.
- ✓ Work safely on the product, using appropriate tools.
- ✓ If there are several radio appliances in the same system, make sure they are at least 1.5m apart.
- ✓ Do not install the product near metal surfaces.
- ✓ Do not modify or replace parts without authorization from the Manufacturer. Do not open or puncture the container.
- ✓ It is forbidden and dangerous to tamper with the antenna cable. Replace the product if the antenna cable is damaged.

01.3 USE WARNINGS

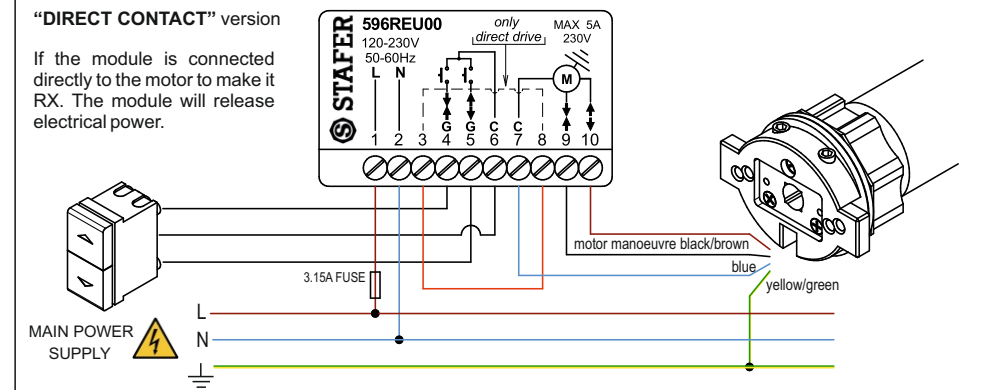
- ✓ The product is not intended to be used by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they are supervised or given instructions about the product way of use by a person responsible for their safety.
- ✓ Before operating the rolling shutter, make sure that people or things are not in the area affected by the movement of the rolling shutter. Check the automation during operation and keep people at a safe distance until the end of operation.
- ✓ Do not allow children to play with the appliance or with the fixed control devices. In addition, keep handheld controllers (remote controls) out of the reach of children.
- ✓ Do not operate the rolling shutter when maintenance operations are being carried out (e.g. window cleaning, etc.). If the control device is automatic, disconnect the motor from the power line.

02. ELECTRICAL CONNECTION

- ✓ Make all connections with the power supply disconnected.
- ✓ Check that the power line does not feed on electrical circuits to be used for lighting.
- ✓ The power line must be equipped with a magnetothermal or differential circuit breaker. Moreover, a category III overvoltage disconnection device must be fitted on the system, i.e. at a distance of at least 3.5 mm between the contacts.
- ✓ The product does not provide for any protection against overloads or short circuits. Provide the supply line with an adequate protection to the load, for example a quick fuse of maximum value 3.5A. Make the connection so that the fuse is inside the junction box where the device is present.
- ✓ It is forbidden to connect more than one motor to the module. If more motors need to be connected, use the appropriate expansion cards.
- ✓ Use command buttons with spring return, do not use switches with maintained position. The buttons are subjected to the mains voltage and, therefore, must be adequately insulated and protected.
- ✓ Always connect the motor with the ground wire (yellow/green).

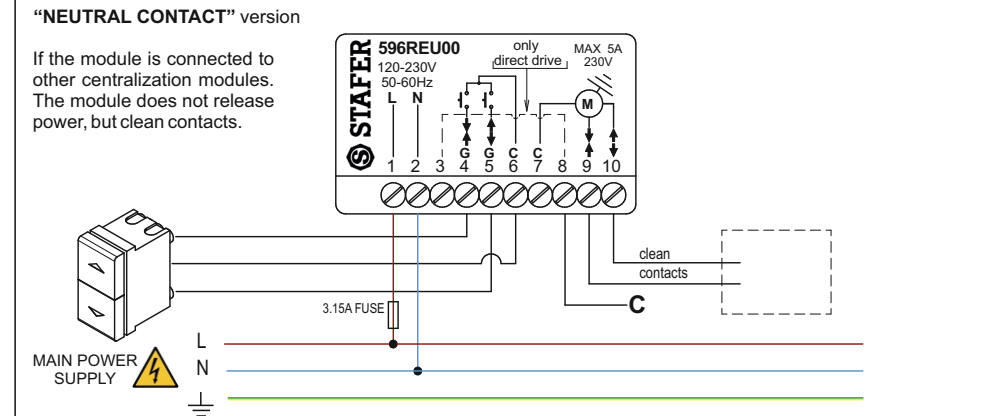
"DIRECT CONTACT" version

If the module is connected directly to the motor to make it RX. The module will release electrical power.



"NEUTRAL CONTACT" version

If the module is connected to other centralization modules. The module does not release power, but clean contacts.



Power supply

The module can be powered at 230 Vac or 120 Vac. Voltage must be applied to terminals 1 and 2.

Motor connection

For the "direct contact" version, the motor windings must be connected to terminals 9 and 10, the common motor wire must be connected to terminal 7. **It is forbidden to connect more than one motor directly to the control unit.** If it is necessary to operate several motors with a control unit, use the dedicated centralization modules.

For the "neutral contact" version, terminals 7,9 and 10 must be connected to the centralization module used. A jumper must be made between 7 and 8, as shown in the diagram.

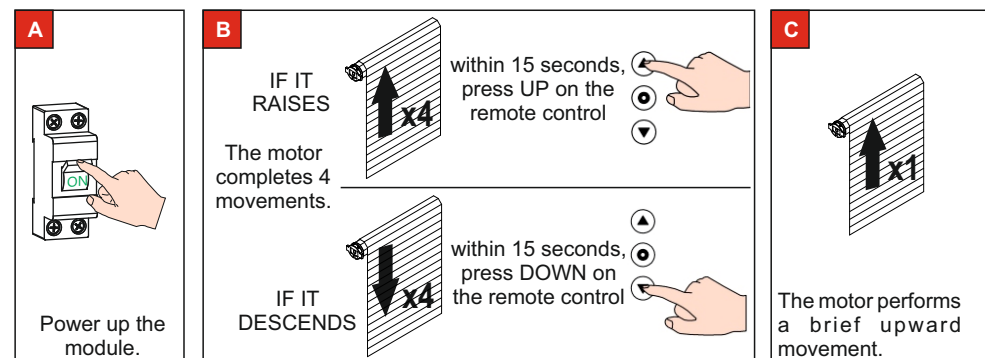
Connection of command buttons (optional)

The command buttons must be connected to terminals 4 and 5, the common wire of the buttons must be connected to terminal 6. **The command buttons are subjected to the main voltage, so they must be properly insulated and protected.** The command buttons must feature **spring returns**, do not use switches with maintained position. Multiple command buttons can be connected via a parallel connection to the control unit. To carry out an up or down manoeuvre, press the relative button for at least 0.5 sec; to stop the manoeuvre, briefly press any of the command buttons.

03. FIRST INSTALLATION

To store the settings of the first remote control.

Warning: before starting the installation procedure, adjust the mechanical limit switches of the motor connected to the module.



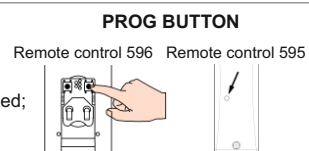
NOTE:

In the event that the installation procedure is not carried out correctly, it is possible to restore the system to factory conditions (see Section 09. Reset to factory values).

04. ADD OR DELETE A RADIO DEVICE

With this procedure, it is possible to store settings for additional remote controls, besides the first one already stored, or a sun/wind anemometer.

01. Bring the motor to the intermediate position.
02. Press for 2 sec. PROG of a remote control already stored. Motor makes 2 upward movements.
03. Within 15 seconds....
 - to add a remote control: press STOP or UP on the remote control to be added;
 - to add an anemometer: turn the impeller by hand a few times.
04. The motor performs 2 movements up: device stored!!



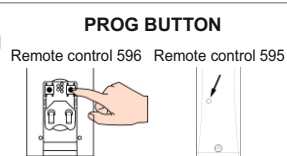
NOTE: point 04. "error" is shown if the radio code is not received in a timely manner.

If there is no functioning remote control, proceed using the wall-mounted button. If there is no wall-mounted button, connect a "flying" button to the wires as indicated in the wiring diagram, in paragraph 6. You can also proceed with a total reset (see paragraph 11) and re-program the module.

01. If possible, bring motor to an intermediate position.
02. Turn off the power, wait a few seconds, then power up again.
03. Within 15 seconds, briefly and quickly press **UP 3 times and DOWN 3 times**. The motor completes 1 **UP/DOWN** movement.
04. Within 15 seconds, briefly press **UP once** and **DOWN once**. After 10 sec. the motor moves 1 **UP/DOWN**.
05. Press **STOP** or **UP** on the new remote control.
06. The motor will confirm with an up/down movement.

With the following procedure, it is possible to delete a remote control. To delete an anemometer, perform function 27 (see anemometer manual).

01. Bring the motor to the intermediate position.
02. Press for 2 sec. **PROG** of the remote control to be deleted. Motor makes 2 upward movements.
03. Within 15 seconds....
 - To delete the remote control already stored: press **DOWN**.
 - To delete an anemometer, perform function 27 (see anemometer manual)
04. The motor performs 1 movement down: device deleted!!



05. SUN/WIND ANEMOMETER OPERATION LOGIC

If the radio wind sensor measures a wind speed higher than the set threshold, the wind sensor sends a "wind alarm" message: the 596.R.EU.00 modules tuned to it carry out an ascent manoeuvre and inhibit manual commands until the situation of danger remains.

05.1 RADIO TEST

As soon as a sun/wind radio anemometer is stored in the module, a communication check is automatically activated between the anemometer and the module. If communication fails for more than 60 minutes, the motor performs an ascent manoeuvre to protect the awning. This automatic manoeuvre is performed every 60 minutes until radio communication is restored. The radio test function cannot be deactivated.

06. SUN SENSOR OPERATION LOGIC

If the sun sensor measures brightness above the set threshold for at least 2.5 minutes, the sensor sends the "sun present" message and the 596.R.EU.00 modules tuned to it perform a descent manoeuvre. If the sun sensor measures brightness lower than the set threshold for at least 18 minutes (this time can be different, based upon the sensor used), it sends the "no sun" message and the 596.R.EU.00 modules tuned to it perform an ascent manoeuvre.

The "sun function" can be activated/deactivated by the transmitter or button (see the transmitter manual under the "sun function" item). If the "sun function" is inactive, 596.R.EU.00 will ignore the commands sent by the radio sensor concerning the sun sensor.

07. ORIENTATION FUNCTION

This function can be useful, for example, in the movement of sun blinds. With remote control Item 596.T.X ... the **ORIENT LEFT** and **ORIENT RIGHT** functions of the remote control will command short movements that will allow the easy orientation of the sun blinds. Even with remote control Item 595.T.X1.00, it is possible to command short movements. Briefly press STOP twice, and then hold down UP or DOWN. The command can also be given via any wall-mounted buttons connected to the module; to use the function, briefly press a button (less than 0.5 sec), then press it again and keep it pressed until reaching the desired orientation. To adjust the stroke, follow the instructions below.

7.1 How to adjust the orientation function with remote control Item 596

01. Bring the motor to the intermediate position.
02. Briefly press **MENU** on the remote control, the display will show --.
03. Press 7 times on **DOWN**. "07" appears on the display.
04. Press **STOP**. The motor shows the current value (from 1 to 5 movements).
05. Press **UP** as many times as the setting you want (from 1 to 5).
06. After 5 seconds, the motor signals the new setting (from 1 to 5 movements).
07. Press **MENU** to exit.

7.2 How to adjust the orientation function with remote control Item 595

01. Bring the motor to the intermediate position.
02. Press quickly **PROG 3** times (red led on).
03. Press 7 times on **DOWN**.
04. Press **STOP**. The motor shows the current value (from 1 to 5 movements).
05. Press **UP** as many times as the setting you want (from 1 to 5).
06. After 5 seconds, the motor signals the new setting (from 1 to 5 movements).
07. Press quickly **PROG 3** times to exit (red led off)

7.3 How to adjust the orientation function via the wall-mounted button

01. Bring the motor to the intermediate position.
02. Turn off the power, wait a few seconds, then power up again.
03. Within 15 seconds, briefly and quickly press **UP 3 times** and **DOWN 3 times**. The motor completes 1 **UP/DOWN** movement.
04. Within 15 seconds, briefly press **DOWN 7 times**. After 10 seconds the motor performs a number of movements equal to the current setting (from 1 to 5 movements).
05. Press **UP** as many times as the setting you want (from 1 to 5).
06. The motor shows the new setting (from 1 to 5 movements)
07. Wait 5 seconds to exit the MENU.

No. of movements	1	2	3	4	5
Orientation movement duration	inactive	50 msec	100 msec	150 msec	200 msec

NOTE:

- ✓ If you try to set an orientation time value greater than 05, the value is rejected and the motor completes 4 short movements.
- ✓ If the orientation time function is set to level 1 (inactive), when the command is sent via the transmitter (or command buttons), no motor movement will be performed.

7.4 How to activate the orientation function

Using remote control Item 596

Use the buttons dedicated to left and right orientation (the ones with curved arrow).

Using remote control Item 595

Briefly and quickly press STOP twice, then hold down UP or DOWN until you reach the desired position.

Using the command buttons

Briefly press a button (less than 0.5 seconds), then immediately press it again and hold it to the desired position.

08. WORK TIME FUNCTION

It is the relay closing time when a manoeuvre is commanded. The factory-set time is 120 sec. It can range from 5 sec. to 240 sec. To change the time, follow the instructions.

8.1 How to adjust the work time function with remote control

In the case of multichannel, select the correct radio channel first.

01. Bring the motor to the intermediate position.
02. **With remote control 596:** briefly press **MENU**. Display shows: --.
03. **With remote control 595:** press quickly 3 times on **PROG** (red led on).
04. **With remote control 596:** press 8 times on **DOWN**. 08 appears on the display. Press **STOP**. The motor signals up/down
 - With remote control 595:** press 8 times on **DOWN**. Press **STOP**. The motor signals up/down.
05. Press UP. The motor moves to indicate the current value. Hundreds, tens, units. Ex: 120 sec. = 1 UP movement + 2 UP movements + long movement.
 - To set, press **UP** for the desired number of times and confirm each number by pressing **DOWN**.
 - Ex.: 015 sec. = once DOWN, once UP, once DOWN, 5 times UP, once DOWN.
 - Ex.: 130 sec. = once UP, once DOWN, 3 times UP, once DOWN, once DOWN.
06. After 2 seconds, the motor replicates the number of selected movements. If they do not match, repeat the operation within 5 seconds.
07. With remote control 596 press **MENU** to exit. With remote control 595 press 3 times on **PROG** (led off) to exit.

8.2 How to adjust the work time function with button

01. Bring the motor to the intermediate position.
02. Turn off the power, wait a few seconds, then power up again.
03. Within 15 seconds, briefly and quickly press **UP 3 times and DOWN 3 times**. The motor completes 1 up/down movement.
04. Within 15 seconds, briefly and quickly press **DOWN 8** times. After 10 sec the motor shows: up/down.
05. Briefly press UP once. The motor moves to indicate the current value. Hundreds, tens, units. Ex: 120 sec. = 1 UP movement + 2 UP movements + long movement.
 - To set, press UP for the desired number of times and confirm each number by pressing DOWN.
 - Ex.: 15 sec. = once UP, once DOWN, 5 times UP, once DOWN
 - Ex.: 130 sec. = once UP, once DOWN, 3 times UP, once DOWN, once DOWN.
06. After 2 seconds, the motor replicates the number of selected movements. If they do not match, repeat the operation within 5 seconds.
07. At the end, wait 5 seconds to exit the menu.

09. BUTTON LOGIC FUNCTION

The command buttons can work in PULSE logic or in MAN PRESENT logic.

PULSE: to move the motor, press a button for at least 0.5 seconds, to stop the motor, briefly press (less than 0.5 seconds) one of the two buttons.

MAN PRESENT: to move the motor, press a button for at least 0.5 seconds, release the button to stop the motor.

The factory sets the motor to work in PULSE logic. To modify this parameter, follow the instructions provided below.

9.1 How to adjust the button logic function with remote control

01. Bring the motor to the intermediate position.
02. **With remote control 596:** briefly press **MENU**. Display shows: --.
03. **With remote control 595:** press quickly 3 times on **PROG** (red led on).
04. **With remote control 596:** press 4 times on DOWN. "04" appears on the display.
05. **With remote control 595:** press 4 times on DOWN.04.
04. Press **STOP**. The motor moves to indicate the current value: 1 UP = man present, 1 DOWN = pulse.
05. Within 5 seconds, as needed:
 - To select "Pulse": briefly press DOWN.
 - To select "Man present": briefly press UP.
06. After 2 seconds the motor indicates: 1 UP = man present, 1 DOWN = pulse. If they do not match, repeat the operation within 5 seconds.
06. With remote control 596 press **MENU** to exit. With remote control 595 press 3 times on **PROG** to exit (red led off).

9.2 How to adjust the button logic function using a wall-mounted button (if any)

01. Bring the motor to the intermediate position.
02. Turn off the power, wait a few seconds, then power up again.
03. Within 15 seconds, briefly and quickly press UP 3 times and DOWN 3 times. The motor completes 1 up/down movement.
04. Within 15 seconds, briefly and quickly press DOWN 4 times. After 10 sec the motor shows: up/down.
05. Briefly press UP once. The motor shows: 1 UP = man present, 1 DOWN = pulse.
06. Within 5 seconds, as needed:
 - To select "Pulse": briefly press DOWN.
 - To select "Man present": briefly press UP.
07. After 2 seconds the motor indicates: 1 UP = man present, 1 DOWN = pulse. Wait 5 seconds to exit the menu.

10. UP/DOWN MOVEMENT REVERSE OPERATION

This function can be useful, for example, if a remote control has been stored with RX.3 motors, incorrectly associating the direction of rotation (if UP is pressed, the blind goes down, and vice versa). To avoid resetting the entire system, simply proceed by reversing the rotation following the instructions below.

10.1 How to invert the movement using a remote control

01. Bring the motor to the intermediate position.
02. **With remote control 596:** briefly press **MENU**. Display shows: --.
03. **With remote control 595:** press quickly 3 times on **PROG** (red led on).
04. **With remote control 596:** press 5 times on **DOWN**. "05" appears on the display.
05. **With remote control 595:** press 5 times on **DOWN**.
04. Press **STOP**. The motor shows: up/down.
05. Within 5 seconds, press UP to reverse the rotation.
06. After 2 seconds the motor signals "up".
07. With remote control 596 press **MENU** to exit. With remote control 595 press 3 times on **PROG** to exit (red led off).

10.2 How to invert the movement using a wall-mounted button (if any)

01. Bring the motor to the intermediate position.
02. Turn off the power, wait a few seconds, then power up again.
03. Within 15 seconds, briefly and quickly press **UP 3 times and DOWN 3 times**.
04. Within 15 seconds, briefly press **DOWN 5 times**. After 10 sec the motor completes 1 **UP/DOWN** movement.
05. Press UP. The direction of rotation has been reversed.
06. Wait 5 seconds to exit the MENU.

11. FACTORY VALUE RESET

This procedure restores the factory settings of the receiving device.

11.1 How to perform a reset from a stored remote control

- ✓ Make sure that this radio channel controls **only the device you want to reset**.

01. In the case of multichannel, select the channel associated to the remote control to be reset.
02. **With remote control 596:** briefly press **MENU**. Display shows: --.
03. **With remote control 595:** press quickly 3 times on **PROG** (red led on).
04. **With remote control 596:** press twice on **UP** and 9 times on **DOWN**. "29" appears on the display.
05. **With remote control 595:** press twice on **UP** and 9 times on **DOWN**.
04. Press STOP. The motor performs 6 movements.
05. When the motor is stopped, press UP twice.
 - The motor signals that the reset has been carried out with a double movement.
06. With remote control 596 press **MENU** to exit. With remote control 595 press 3 times on **PROG** to exit (led off).
07. Install the motor again (see section 3 of this manual).

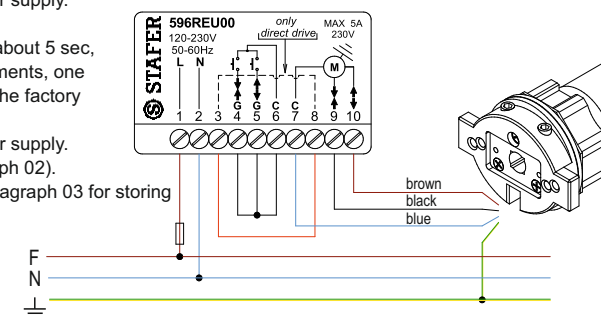
11.2 How to perform a reset from a wall-mounted button (if any)

01. Bring the motor to the intermediate position.
02. Turn off the power, wait a few seconds, then power up again.
03. Within 15 seconds, briefly and quickly press **UP 3 times and DOWN 3 times**. The motor moves up/down.
04. Within 15 seconds, briefly and quickly press **UP twice and DOWN 9 times**. The motor performs 6 movements.
05. At the end of the movements, briefly press **UP twice**.
06. The motor signals that the reset has been carried out with a double movement.

11.3 How to perform a reset by electrical cables

This procedure must be carried out by qualified technical personnel.

01. Disconnect the module from the power supply.
02. Connect as shown.
03. Power up the module again and wait about 5 sec, until the motor makes two brief movements, one opposite to the other, to indicate that the factory conditions have been restored.
04. Disconnect the module from the power supply.
05. Restore the connections (see paragraph 02).
06. Follow the instructions provided in paragraph 03 for storing the first radio code.



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