

CE



Tubular Motors



Neoplus ^M_L

Installation and use instructions and warnings

Istruzioni ed avvertenze per l'installazione e l'uso

Instructions et avertissements pour l'installation et l'utilisation

Anweisungen und Hinweise für die Installation und die Bedienung

Instrucciones y advertencias para la instalación y el uso

Instrukcje i ostrzeżenia do instalacji i użytkowania

Aanwijzingen en aanbevelingen voor installatie en gebruik

Warnings

⚠ It is important that you comply with these instructions for your own and other people's safety.

Important safety instructions; save these instructions for future use.

This manual contains important safety provisions; incorrect installation may create serious hazards

The "NEOPLUS" series motors, versions NEOPLUS-M Ø45mm and NEOPLUS-L Ø58mm have been designed for the automation of shutters and awnings; any other use is improper and prohibited. These motors are intended for residential use. Maximum continuous operating time is 4 minutes. When selecting the motor based on the application requirements, the nominal torque and operating time shown in the rating plate must be considered.

The minimum diameter of the tube on which the motor can be installed is 52 mm for NEOPLUS-M in the version with torque up to 35Nm; 60mm for the version with torque up to 35 Nm. The minimum diameter of the tube of NEOPLUS-L is 70mm.

The motor must be installed by qualified personnel in compliance with current safety regulations.

All unnecessary electrical cables must be removed before installation; all mechanisms not required for motorized operation must be disabled. If the motor is installed at a height below 2.5 m, all moving parts of the motor must be protected. For awning applications, the horizontal clearance between the fully open awning and any stationary object must be at least 0.4 m.

1) Product description

The NEOPLUS motors, versions "NEOPLUS-M" Ø45mm; "NEOPLUS-L" Ø58mm, are electric motors equipped with RPM reduction and terminating at one end with a shaft on which the driving wheels can be mounted; see figure 2. The motor must be fitted inside the winding tube, where it can raise or lower the roller shutter or awning. These motors are equipped with an electric limit switch that, when properly programmed, stops the movement of the shutter/awning when it reaches the desired position.

The "NEOPLUS" series motors contain a control unit with incorporated radio receiver which works at a frequency of 433.92 MHz using rolling code technology in order to ensure high security levels. It is possible to memorize up to 30 transmitters for each motor in the ERGO, PLANO and NICEWAY series; see figure 3; that allow the remote control of the motors, or 3 wind and sun radio sensors "VOLO S RADIO" which control the motor depending on the weather conditions.

After each command, the motor is powered for about 150 seconds

The PVC power supply cable supplied with NEOPLUS motors is ideal for internal installation; an insulated tube must be used to protect the cables when installed outside, or the specific 05RN-F type cable can be requested.

The tubular motor must not be subjected to crushing, impacts, falls or contact with any kind of liquid; see figure 1. The application must be visible from the control buttons, which must be positioned away from any moving parts, at a height of at least 1.5 m off the ground. For maintenance and repairs contact a qualified technician.

Keep people away from the shutter when the latter is in motion. If any work, such as window cleaning, is being carried out near the awning, do not operate it; in case of automatic control, disconnect the power supply as well. Do not allow children to play with the controls and keep all radio controls away from their reach. Check the balancing springs (if any) and the wear of cables at frequent intervals.

(modifiable time, see chapter 5.3 "Programming of the operating time"), and the internal electrical limit switches stop the movement in correspondence with the two final positions. Additional functions can be programmed via the transmitters. An acoustic "Beep" guides users through the various phases. It is also possible to control the motors via an external button (using the Step-by-Step function) or "TTBUS" Bus. Optional wind, sun and rain sensors, VOLO, VOLO-S, VOLO-ST, can be connected to the "Climatic sensor" input to automatically control the motors depending on the weather conditions.

Note: the NEOPLUS series tubular motors can alternatively be controlled by other types of transmitters, in addition to the ERGO, PLANO, NICEWAY and VOLO S RADIO type radio transmitters, or in different operation modes, for further information see chapter 5.1 "Available transmitters".

2) Installation

⚠ Incorrect installation may cause serious injury

Proceed as follows to prepare the motor:

1. Position the limit switch crown (E) on the motor (A) until it fits into the corresponding limit switch ring (F); make sure that the two grooves match. Push it into position as shown in Fig. 5.
2. Mount the drive wheel (D) on the motor shaft.
3. On NEOPLUS-M fasten the drive wheel with the snap ring
On NEOPLUS-L fasten the drive wheel with the M12 nut and washer.
4. Fit the assembled motor into the winding roller until the crown (E) is fully inserted.
5. Fasten the drive wheel (D) to the winding roller using the M4x10 screw, so as to prevent the motor from slipping or sliding axially (fig. 6).
6. Finally, secure the motor head to the special support (C) with the spacer (if any), using the clips or split pin (B).

Figure 4

- A:** NEOPLUS tubular motor
- B:** Fastening clips or split pins
- C:** Support and spacer
- D:** Drive wheel
- E:** Limit switch crown
- F:** Limit switch ring

2.1) Electrical connections

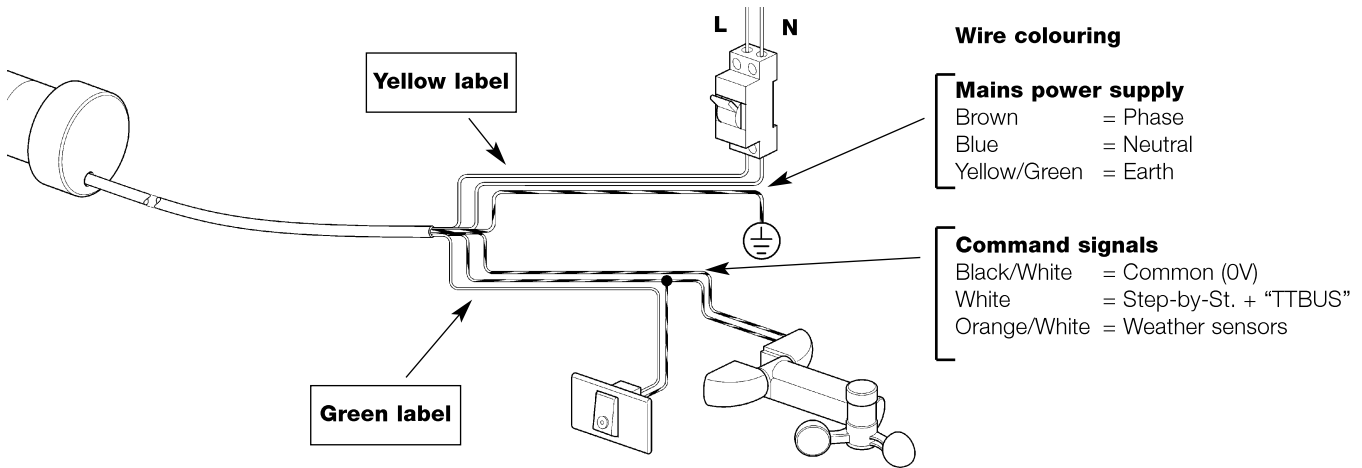
▲ For motor connections, an omnipolar disconnecting device with a 3-mm minimum distance between contacts must be provided for disconnection from the mains power supply (disconnecting switch or plug and socket, etc.).

▲ Carefully follow all the connection instructions. If you have any doubts do not make experiments but consult the relevant technical specifications which are also available on the web site "www.niceforyou.com".

An incorrect connection may be dangerous and cause damage to the system.

The cable used for the electrical connections of the NEOPLUS-M and NEOPLUS-L motors has 6 wires; 3 of the wires (yellow tag) are for the mains power supply and 3 wires (green tag) are for the command signals.

For the electrical connections see the diagram below. The connection devices are not supplied with the product.



2.1.1) Mains power supply (Brown + Blue + Yellow/Green):

The mains power supply must be connected to the following wires: Brown (Phase); Blue (Neutral) and Yellow/Green (Ground).

▲ Do not connect the mains power supply (230V or 120V) to the other wires.

2.1.2) "Step-by-Step" input (White + Black/White):

To manually command the automation system, a simple button can be connected between the White wire (Step-by-Step input) and the Black/White wire (Common). The operating method follows the sequence: up-stop-down-stop.

If the button is kept pressed for more than 3 seconds (but less than 10) an up manoeuvre is always carried out (corresponding to the ▲ button on the transmitters). If the button is kept pressed for more than 10 seconds a down manoeuvre is always carried out (corresponding to the ▼ button) This function can be used to "synchronise" multiple motors to carry out the same manoeuvre, regardless of their operating status.

2.1.3) "TTBUS" input (White + Black/White):

"TTBUS" is a Bus that was developed to control individually motors or control units, up to 255 devices by simply connecting them in parallel with just 2 wires. Further information is contained in the instructions for the remote controls via "TTBUS".

The TTP or TTI programmers can be connected to the TTBUS input making the system management and programming operations easier; for further information, consult the related manuals.

2.1.4) "Weather sensors" input (Orange/White + Black/White):

A simple wind sensor (anemometer) can be connected to the "Weather sensors" input between the Orange/White wire (Weather sensors input) and the Black/White wire (Common); VOLO, or special wind-sun sensors VOLO-S e VOLO-ST; or wind-sun-rain sensor VOLO-SR.

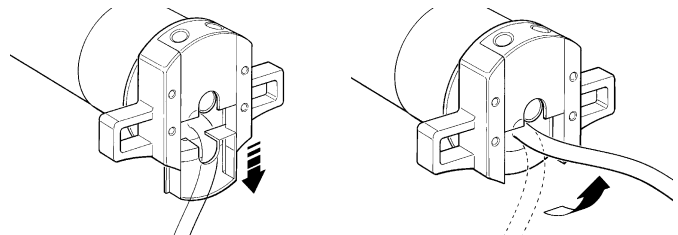
The same sensor can control up to 5 motors or control units, which are all connected in parallel. It is essential that the polarity is respected: on the motors, the Black/White wire is connected to the Black/White wire and the Orange/White wire is connected to the Orange/White wire.

2.2) Cable output direction

(this chapter concerns the NEOPLUS L version only).

If it is necessary to change the cable output direction, simply:

1. Pull the protection outwards.
2. Bend the cable in the required direction.
3. Introduce the protection, making sure that it is securely pushed into its location.



3) Adjusting the limit switches

The NEOPLUS tubular motors feature an electrical limit switch system which interrupts power when the awning or rolling shutter reaches its opening and closing limits. To adjust these limits and adapt them to specific requirements, simply turn the two adjustment screws controlling “up” (stopping at the top) and “down” (stopping at the bottom). To find the adjustment screws, refer to figures 7, 8, 9 or 10 depending on whether the motor is to the left or right and whether it is inside or outside. The limit switches are pre-set to about 3 shaft rotations.

The Step-by-Step input can be used in order to control the movement of the motor (simply join the two wires Black/White and White so that the manoeuvre starts) or use a transmitter after having memorized it as indicated in Table A1 and programmed the direction of the movement as indicated in Table A2.

Warning: the adjustment sequence, first up and then down, refers to motors used for roller shutters (the motor is normally activated when the roller shutter is unrolled); for awnings, (the motor is normally activated with the sheeting rolled-up) the sequence is reversed, adjusting first “down” and then “up”.

“Up” adjustment”:

1. Give the up ▲ adjustment screw a few anti-clockwise (-) turns.
2. Operate the motor so that it rotates in the “Up” direction (▲ on the transmitters)
3. Wait for the motor to stop (when the limit switch ▲ triggers)
4. Within the 150 seconds, which is before the “operating time” lapses, turn the adjustment screw for the UP movement ▲ clockwise (+), until the desired stopping position is reached (if the screw is turned further, the motor will stop in the new position).

“Down” adjustment:

1. Operate the motor so that it rotates in the “Down” direction (▼ on the transmitters).
2. Wait for the motor to stop (when the limit switch triggers ▼).
3. Within the 150 seconds, which is before the “operating time” lapses, turn the adjustment screw for the down movement ▼ clockwise (+), until the desired stopping position is reached (if the screw is turned further, the motor will stop in the new position).

4) Programming

The memorizing phases indicated in Table A1 must be performed before a transmitter can control a NEOPLUS series motor.

WARNING:

- All the memorization sequences are timed, i.e. they must be completed within the programmed time limits.
- For transmitters featuring multiple “units”, choose the unit to which the motor should be associated before proceeding with the memorization process.

- The memorization via radio may be performed on all the receivers that are within the transmitter range; therefore, only that involved in the operation should be switched on.

It is possible to check if the motor already has transmitters memorized; this is done by checking the number of beeps when the motor is switched on.

Control of the memorized transmitters	
2 long beeps	No transmitter memorized
2 short beeps	There are already transmitters memorized

Table “A1”	Memorizing the first transmitter	Example
1.	Connect the motor to the power supply, 2 long beeps will be heard immediately	
2.	Within 5 seconds press and hold down button ■ on the transmitter to be memorized (for approx. 3 seconds)	
3.	Release button ■ when you hear the first of the 3 beeps confirming memorization	

See table A4 for the memorization of additional transmitters.


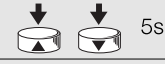

After the transmitter has been memorized the direction of the movement must be programmed. Until the direction of the movement is programmed, every ▲ and ▼, command from the transmitter is signalled by a short beep and two short movements of the motor.

Table “A2”	Programming the direction of movement	Example
1.	Depending on the position of the motor, check if the drive shaft must rotate anticlockwise or clockwise for the Up manoeuvre (this information is necessary for point 4).	
2.	Push and hold button ■ of an already memorized transmitter, a beep is heard. Keep button ■ pushed for approx. 5 seconds until a long beep is heard, then release button ■.	
3.	Press and hold down buttons ▲ and ▼, (for approx. 5 more seconds) until you hear 2 short beeps, then release buttons ▲ and ▼,	
4.	Within 2 seconds, press: <ul style="list-style-type: none"> • button ▲ to program the UP direction anticlockwise, or press • button ▼ to program the UP direction clockwise Release the button when you hear the first of the 3 beeps confirming programming	

After programming the direction of movement, make sure that button ▲ on the transmitter actually commands the opening of the shutter or the drawing back of the awning, and that button ▼, commands the closing of the shutter or the unfolding of the awning.




Warning: if the anemometer triggers, this will cause the motor to carry out a manoeuvre equivalent to the ▲ button.

If the direction you have just programmed is not correct, it is possible to delete the programmed data as described in table "A3", and repeat the sequence detailed in table "A2".

Table "A3"	Deleting the direction of movement	Example
1.	Press and hold down button ■ on a pre-memorized transmitter (for approx. 5 seconds) until you hear a beep, release button ■	
2.	Press and hold down buttons ▲ and ▼, (for approx. 5 more seconds)	
3.	release buttons ▲ and ▼, when you hear the first of 5 beeps, signalling that the programmed direction of movement has been deleted.	

Note: all the remote controls memorized in the motor will no longer command any movement; a new programming procedure must therefore be carried out (table "A2")

When one or more transmitters have already been memorized, others may be enabled as detailed in table A4:

Table "A4"	Memorizing other transmitters	Example
1.	Press and hold down button ■ on the new transmitter until you hear a beep (after about 5 seconds); then release button ■	New 
2.	Press button ■ of a previously enabled transmitter slowly 3 times button ■	Old 
3.	Press button ■ on the new transmitter again. Release button ■ when you hear the first of 3 beeps, signalling that memorization has been carried out.	New 

Note: If the memory is full (30 transmitters), 6 beeps will indicate that the transmitter cannot be memorized.



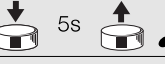
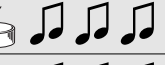
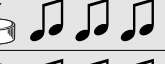



If you need to delete all programming, carry out the procedure in table A5.

The memory can be deleted:

- with a **non-memorized** transmitter starting from point A.
- with a **previously memorized** transmitter starting the procedure from point N. 1

The following can be deleted:

- **only the memorized transmitters**, finishing at point N. 4
- **all** (transmitters, sensors level, operating time...), completing the procedure up to point 6.

Table "A5"	Memory deletion	Example
➤ A.	Switch the motor off, activate the Step-by-Step input (connect the White wire with the Black/White one) and keep it active until the end of the procedure	
B.	Connect the motor to the mains power supply and wait for the initial beeps	
➤ 1.	Press and hold down button ■ on a pre-memorized transmitter (for approx. 5 seconds) until you hear a beep, then release button ■	
2.	Hold down the ▲ button on the transmitter until you hear 3 beeps; Release the ▲ button exactly during the third beep .	
3.	Hold down button ■ on the transmitter until you hear 3 beeps; Release button ■ exactly during the third beep .	
➤ 4.	Hold down the ▼, button on the transmitter until you hear 3 beeps; Release the ▼, button exactly during the third beep .	
5.	To cancel everything : Push buttons ▲ and ▼, within 2 seconds,	
6.	Release button ▲ and ▼, on the first of the 5 beeps that confirm the cancellation.	

5) Additional information

In addition to the ERGO, PLANO, NICEWAY and VOLO S RADIO series transmitters, the NEOPLUS motors also recognise other transmitters produced by Nice (see chapter 5.1 "Available transmitters").

A particular command can also be associated to each transmitter button by means of a specific memorization procedure (see chapter 5.2 "Transmitter programming in Mode I and Mode II").

5.1) Available transmitters

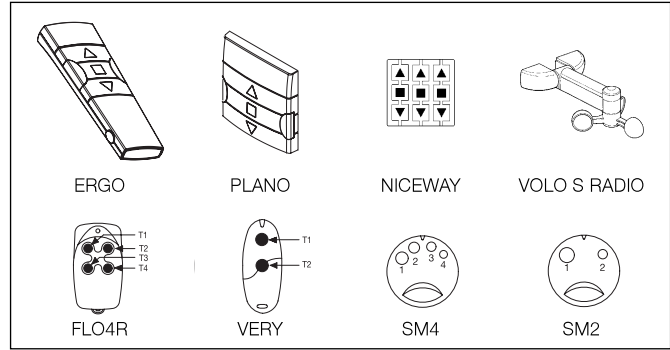
Table A6 indicates the transmitters that can be used with the related coding.

Table "A6"

Coding type		Transmitters
FLOR	Rolling code	ERGO1 - ERGO4 - ERGO6 PLANO1 - PLANO4 - PLANO6 - PLANO TIME VOLO S RADIO NICEWAY (the entire line) FLO1R - FLO2R - FLO4R VERY VR
		SM2 - SM4
SMILO	Rolling code	FLO1 - FLO2 - FLO4 VERY VE
FLO	Fixed code	

Because the coding of the transmitters is different and the motor is unable to recognise them at the same time, the first transmitter memorized determines the type of coding in use and therefore the type of transmitters that can be memorized afterwards.

If it is necessary to change the type of transmitter after the first transmitter has been memorized, all transmitters must be cancelled (see tables "A5" or "A10").



By counting the number of beeps when the motor is switched on, it is possible to verify the type of memorized transmitters.

Type of memorized transmitters

1 short beep	Transmitters with FLO coding
2 short beeps	Transmitters with FLOR coding
3 short beeps	Transmitters with SMILO coding
2 long beeps	No transmitter memorized

5.2) Memorization of the transmitters in Mode I and Mode II

Tables "A1" and "A4" describe the memorization of the transmitters in "Mode I" where a specific command is assigned to each button: button ▲ (1) = "Up"; button ■ (2) = "Stop"; button ▼, (3) = "Down".

The transmitters can also be memorized on "Mode II", which allows greater flexibility in the use of the transmitter buttons. Transmitters can be memorized both in Mode I and Mode II on the same NEOPLUS motor.

5.2.1) Mode I

The command associated to the transmitter buttons is fixed in Mode I: button ▲ (1) "Up"; button ■ (2) "Stop"; button ▼, (3) "Down", another button 4 commands the "Stop".

A single memorization phase is performed in Mode I for each transmitter and a single section is occupied in the memory. It is **not important which button is pushed** when memorizing in Mode I.

See tables A1 and A4 to memorize or cancel the transmitters.

Mode I

Button	Command
Button ▲ or 1	Up
Button ■ or 2	Stop
Button ▼ or 3	Down
Button 4	Stop

5.2.2) Mode II

One of the four possible commands can be associated to each of the transmitter buttons in Mode II: 1 = Step-by-Step; 2 = Up-Stop; 3 = Down-Stop, 4 = Stop.

A memorization phase is performed for each button in Mode II, and each occupies a section of the memory.

The button pushed is memorized during memorization in Mode II. A new memorization is necessary if one wishes to assign another command to another button of the same transmitter.

Mode II

N°	Command
1	Step-by-Step (Up-Stop-Down-Stop...),
2	Up-Stop (Up-Stop-Up-Stop...)
3	Down-Stop (Down-Stop-Down-Stop...)
4	Stop

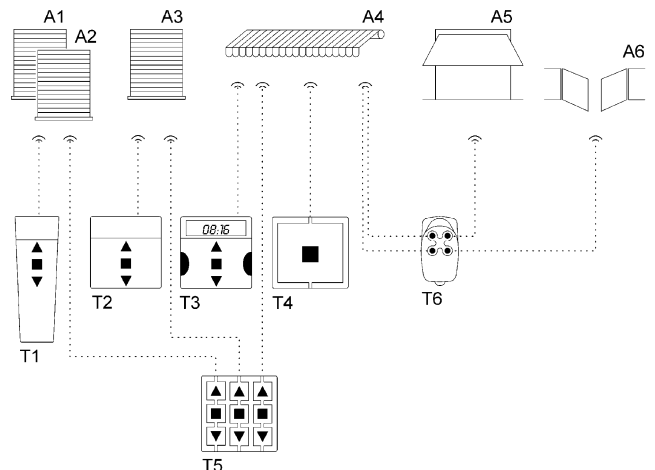
5.2.3) Example of Mode I and Mode II combined memorization

Group commands can be created taking opportune advantage of the Mode I and Mode II memorizations as shown in the diagram.

- The T1 transmitter (Ergo1) memorized in Mode I on A1 and A2 simultaneously commands the Up, Stop or Down of both A1 and A2.
- The T2 transmitter (Plano1) memorized in Mode I on A3 only, commands the Up, Stop or Down of A3 only.
- The T3 transmitter (PlanoTime) memorized in Mode I on A4 only, commands the Up, Stop or Down of A4 only.
- The T4 transmitter (WM001C) memorized in Mode II (Step-by-Step) commands A4 only.
- The T5 transmitter (WM003G) memorized in Mode I to command A1 and A2 with group 1, A3 with group 2 and A4 with group 3; commands the Up, Stop or Down of A1 and A2, A3 or A4.
- The T6 transmitter (Flo4R) memorized in Mode II on A4 (buttons 1 and 3) on A5 (button 2) and on A6 (button 4), commands the Up and Down of A4, or the opening of the garage door A5 or the opening of the automatic gate A6.

WARNING:

- Some functions (movement direction, operating time...) **cannot be** programmed with the transmitter memorized in Mode II if different buttons need to be pushed in this programming phase, such as button ■ and button ▲ for example.
- The "multiple group" commands **cannot be** used with a transmitter memorized in Mode II.



If a transmitter has not yet been memorized, the first can be memorized in Mode II as indicated in table A7.

Table "A7"	Memorizing the first transmitter in mode II	Example
1.	Connect the motor to the mains power supply, 2 beeps are immediately heard	
2.	Within 5 seconds push and hold the transmitter button to be memorized	
3.	Release the button after the 3 beeps	
4.	Within 5 seconds start to push the same transmitter button the same number of times equal to the required command: 1 = "Step-by-Step" 2 = "Up" 3 = "Down" 4 = "Stop"	
5.	After about 3 seconds the same number of beeps as the selected command are heard	
6.	Within 2 seconds push the same transmitter button	
7.	Release the button on the first of the 3 beeps which confirm the memorization.	

If at point 5 the same number of beeps equal to the selected command are not heard, simply do not push any more buttons and wait a few seconds for the programming to finish without memorizing.

After the transmitter has been memorized for the "Step-by-Step" or "Stop" commands, these commands are immediately available for use, **while the movement direction must be programmed** in order to use the "Up" ▲ and "Down" ▼, commands. Until the direction has been programmed, each ▲ and ▼, command from the transmitter is signalled with a beep and two brief movements of the motor. Being that the movement direction cannot be programmed with the transmitter memorized in Mode II, this operation must be performed with a transmitter memorized in Mode I or with the specific TTP or TTI programmers.

When one or more transmitters have already been memorized, others can be memorized in Mode II as indicated in table A8.

Table "A8"	Memorization of additional transmitters in Mode II	Example
1.	Push and hold the button to be memorized of the new transmitter (approx. 5 seconds) until a beep is heard; then release the button	New
2.	Within 5 seconds push and hold the button of an old and already memorized transmitter (approx. 5 seconds) until 2 beeps are heard; then release the button	Old
3.	Within 5 seconds start to push the same button of the old transmitter the same number of times equal to the required command: 1 = "Step-by-Step" 2 = "Up" 3 = "Down" 4 = "Stop"	Old
4.	After about 3 seconds the same number of beeps as the selected command are heard.	
5.	Within 2 seconds push the same button of the new transmitter	New
6.	Release the button on the first of the 3 beeps which confirm the memorization.	

If at point 5 the same number of beeps equal to the selected command are not heard, simply do not push any more buttons and wait a few seconds for the programming to finish without memorizing.

Note: if the memory is full (30 transmitters), 6 beeps are heard and the transmitter cannot be memorized.

A new transmitter can easily be memorized with the same characteristics as that of the old one by following the procedure in table A9.

The "new" transmitter will inherit the characteristics of the old one, i.e. if the old transmitter was memorized in Mode 1, the new one will also function in Mode 1, if the old transmitter was memorized in Mode II then the button of the new transmitter will be associated to the same command as that of the old one.

Table "A9"	Memorizing other transmitters	Example
1.	Press and hold down the pre-memorized button of the new transmitter (for approx. 3 seconds) then release the button	New
2.	Press and hold down the pre-memorized button of the old transmitter (for approx. 3 seconds) then release the button	Old
3.	Press and hold down the pre-memorized button of the new transmitter (for approx. 3 seconds) then release the button	New
4.	Press and hold down the pre-memorized button of the old transmitter (for approx. 3 seconds) then release the button	Old
5.	The memorization of the new transmitter is confirmed with 3 beeps	

Note: If the memory is full (30 transmitters), 6 beeps will indicate that the transmitter cannot be memorized.

If the programming has to be cancelled and only one transmitter **memorized in Mode II** is available, the procedure in table A10 can be followed; (for cancellation with a transmitter that has not been memorized or has been memorized in Mode I, see table A5).

The following can be deleted:
























- only the transmitter transmitters, finishing at point N. 5
- all data (transmitters, wind level), completing the procedure up to point 6.


Table "A10"	Cancellation of the memory with transmitter memorized in Mode II	Example
1.	Push and release a button memorized in Mode II (it doesn't matter if the motor starts to move, the motor should stop at point 2)	
2.	Push and hold the same transmitter button (approx. 5 seconds) until a beep is heard and then release the button	
3.	Keep the same transmitter button pushed until 3 beeps are heard and release the button during the third beep.	
4.	Keep the same transmitter button pushed until 3 beeps are heard and release the button during the third beep.	
5.	Keep the same transmitter button pushed until 3 beeps are heard and release the button during the third beep.	
6.	To cancel everything: Within 2 seconds, push the same transmitter button and release the button on the first of the 5 beeps that confirm the cancellation.	

5.3) Programming of the operating time

The "Operating Time" is the maximum time in which the control unit controls the motor until it reaches the Up or Down limit switch; the factory setting or after the memory has been cancelled is approximately 150 seconds. The operating time can be modified from a minimum of 4 to a maximum of 240 seconds if required. The programming procedure is performed in "self-recognition", being the measurement of the time necessary to perform a complete manoeuvre.

The most demanding manoeuvre for the motor must be measured (which is obviously slower), this is normally re-winding and starting with the motor in correspondence with a limit switch. The operating time should ideally be programmed with a few extra seconds to that of the time actually necessary for the manoeuvre (see point 5).

Table "A11"	Programming of the operating time	Example
1.	Keep button  of a memorized transmitter pushed (approx. 5 seconds) until a beep is heard; then release button 	 5s  
2.	Push button  again (approx. 5 seconds) until 4 beeps are heard; then release button 	 5s    
3.	Push button  (or button ) to start the manoeuvre and to start the time count	 /   
4.	Wait for the motor to complete the manoeuvre up to the limit switch	
5.	Wait a few more seconds, then push and release button  to stop the time count; the new operating time is confirmed with 3 beeps	   

Note: to reset the factory operating time settings (150 seconds), push button  at point 3, programming is confirmed with 3 beeps.


























The wind protection is activated if a "VOLO" series wind sensor is connected to the "sensors" input, this being the automatic retraction of the awning in the presence of wind which is over the programmed level. If the level is exceeded for more than 3 seconds, a command the same as button  is activated and all movements are blocked until the wind level drops below the programmed level for at least 1 minute. There is a choice of 5 intervention levels: 1=5Km/h, 2=10Km/h, 3=15Km/h, 4=30Km/h and 5=45Km/h. (the level is factory set at No. 3).

Table "A12"	Changing the wind protection intervention level	Example
1.	Keep button  of a memorized transmitter pushed (approx. 5 seconds) until a beep is heard; then release button 	 5s  
2.	Slowly push button  the same number of times equal to that of the desired level (1, 2, 3, 4 or 5)	 X1= 5 Km/h X2= 10 Km/h X3= 15 Km/h X4= 30 Km/h X5= 45 Km/h
3.	Shortly afterwards a number of beeps is heard equal to the desired level	 X1= 5 Km/h X2= 10 Km/h X3= 15 Km/h X4= 30 Km/h X5= 45 Km/h
4.	Push and release button  to confirm	

If at point 3 the same number of beeps equal to the required level are not heard, simply do not push any more buttons and wait a few seconds to finish without the level being changed.

The "sun" automation system is activated if a "VOLO-S" series sun sensor is connected to the "sensors" input, this being the automatic lowering of the awning in the presence of sun which is over the programmed level. If the level is exceeded for more than 2 minutes, a command the same as button  is activated; subsequently, if the sun drops below the programmed level for 15 minutes, a command the same as button  is activated. The sun automation system can be deactivated with the transmitter by sending a "Sun OFF" command and can be reactivated afterwards with the "Sun ON" command. The  or  movement commands, which override the automation commands, can be sent even with the "Sun" automation active. The "wind" protection always overrides the "sun" automation.

There is a choice of 5 "sun" intervention levels: 1=5Klux, 2=10Klux, 3=15Klux, 4=30Klux and 5=45Klux. (the level is factory set at No. 3).

Table "A13"	Changing the "sun" automation intervention level	Example
1.	Keep button  of a memorized transmitter pushed (approx. 5 seconds) until a beep is heard; then release button 	 5s  
2.	Slowly push button  the same number of times as the desired level (1, 2, 3, 4 or 5)	 X1= 5 Klux X2= 10 Klux X3= 15 Klux X4= 30 Klux X5= 45 Klux
3.	Shortly afterwards a number of beeps is heard equal to the desired level	 X1= 5 Klux X2= 10 Klux X3= 15 Klux X4= 30 Klux X5= 45 Klux
4.	Push and release button  to confirm	

If at point 3 the same number of beeps equal to the desired level are not heard, simply do not push any more buttons and wait a few seconds to finish without the level being changed.

When the motor is switched on, no beep is emitted and the Step-by-Step input does not command any movement.

Make sure the motor is powered at the correct mains voltage; if the power supply is correct there is probably a serious fault and the motor needs to be repaired by the customer service department.

The motor does not move after a command is given.

- If it has been working up until then, it may be that the thermal protection device has cut-in, therefore wait a few minutes for the motor to cool.
- Make sure that the limit switches have been correctly adjusted, try giving the adjustment screw a few turns clockwise (+).
- Check if the "Step-by-Step" input is functioning by joining the White and Black/White wires together for a second.
- Make sure that there is at least one memorized transmitter, checking that the motor emits short beeps when switched on.
- Make sure that the transmitter and motor are communicating, keeping button ■ (2) of a transmitter (memorized or not) pushed for at least 5 seconds, if a beep is heard this means that the motor is receiving the signal from the transmitter therefore go on to the last control; otherwise perform the next control.
- Check the correct emission of the transmitter radio signals with the following empirical test: push a button and rest the LED against the aerial of a normal household radio (ideally inexpensive) that is switched on and tuned in at 108.5 Mhz FM or as close as possible; a low sound should be heard with crackling pulses.
- Check, by slowly pushing one at a time, all of the transmitter buttons, if none of them command a movement of the motor, this means that the transmitter is not memorized.

After a radio command, a short beep is heard and the motor performs a slight back and forward movement.

In order to command the motor with a remote control, you need to program the movement direction following the procedure described in table "A2".

It is not possible to program the direction following the procedure in table A2.

The direction can only be programmed with the transmitters memorized in Mode I, make sure a beep is heard when the ▲ or ▼, are pushed and the motor performs a slight back and forward movement; whereas only a short beep is heard when button ■ is pushed.

It is not possible to program the operating time following the procedure in table A11.

The operating time can only be programmed with the transmitters memorized in Mode I, check that the 3 buttons perform the following commands: button ▲ = Up, button ■ = Stop, button ▼ = Down.

After a radio command, 6 beeps are heard and the manoeuvre does not start.

The radio control unit is unsynchronised, repeat the transmitter memorization process.

After a command, 10 Beeps sound and then the manoeuvre begins.

The auto-diagnosis of the memorized parameters has revealed a fault (TTBUS address, wind and sun levels, directions are incorrect). Check and repeat programming if necessary.

The motor is stationary, but sometime it is necessary to perform the Step-by-Step command twice in order to move it.

The programmed operating time is too long in relation to the effective duration of the manoeuvre. The motor is already stationary in correspondence with a limit switch, but the control unit considers that the motor is still moving. In this case the first command is considered as a Stop and the second as a movement command. The operating time must be correctly programmed (see chapter 5.3).

Power supply cable and connector (this chapter is intended for technical assistance personnel only)

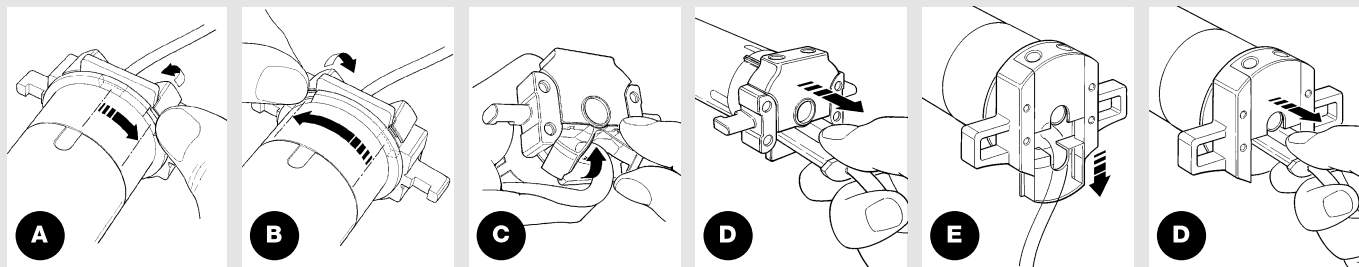
⚠ If the power cable is possibly damaged it must be replaced with an identical one from the manufacturer or the technical assistance service.

Replacement of the NEOPLUS M power cable.

1. Turn the ring nut until the bevel coincides with one of the connecting teeth, and then disconnect (Fig. A).
2. Repeat the same operation for the other tooth (Fig. B)
3. Bend the cable inwards and remove the protection by turning it carefully outwards (Fig. C)
4. Pull out the connector (Fig. D)

Replacement of the NEOPLUS L power cable.

1. Pull the protection outwards (Fig. E)
2. Pull out the connector (Fig. F)



7) Technical specifications of the NEOPLUS-M en NEOPLUS-L tubular motors

Supply voltage and frequency, Current and power, Torque and Speed	: See the technical data on the label attached to each model
Motor diameter	: NEOPLUS-M =45mm; NEOPLUS-L =58mm
Nominal operating time	: Maximum 4 minutes
Protection class	: IP 44
Working temperature	: -20÷55 °C
Length of connection cable	: 3 m
Wind sensor (anemometer) levels	: Approx. 15 or 5, 10, 30 or 45 km/h with VOLO OR VOLO-S anemometer
Sun sensor (anemometer) levels	: Approx. 15 or 5, 10, 30 or 45 Klux with VOLO-S anemometer
Signal voltage (step-by-step, sensors)	: Approx. 24Vdc
Length of signal cables (step-by-step, sensors)	: max. 30m if near other cables, otherwise 100m
Radio receiver frequency	: 433.92 MHz
Radio receiver coding	: FLO (fixed code), FLOR (rolling code) SMIL0 (rolling code)
No. of transmitters that can be memorized	: 30, including a maximum of 3 VOLO-S-Radio climatic sensors
Range of ERGO and PLANO transmitters	: Estimated 150 m in the open and 20 m inside buildings *

* The capacity of the transmitters is strongly influenced by other devices with continuous transmissions which operate at the same frequency. These include alarms, headphones, etc... which interfere with the receiver.

Nice S.p.a. reserves the right to modify its products at any time it deems necessary.

EC Declaration of Conformity

EC Declaration of Conformity according to the directives 73/23/EEC; 89/336/EEC and 1999/5/EC

Number: 190/NEOPLUS-M Revision: 1

The undersigned Lauro Buoro, managing director, declares under his sole responsibility that the following product:

Manufacturer's name: NICE s.p.a.
Address: Via Pezza Alta 13, 31046 Z.I. Rustignè, Oderzo (TV) Italy
Type: Tubular gearmotor for roller shutters, awnings and sun screens with emergency manoeuvre and incorporated control unit and radio receiver
Models: NEOPLUS-M; NEOPLUS-L
Accessories: ERGO; PLANO; NICEWAY; VOLO-S-Radio series radio control devices
 VOLO; VOLO-S; VOLO-ST anemometers

Satisfies the essential requirements of the following Directives, as amended by the directive 93/68/EEC of the European Council of 22nd July 1993:

- 73/23/EEC; DIRECTIVE 73/23/EEC OF THE EUROPEAN COUNCIL of 19th February 1973 for the harmonization of the legislation of member States regarding electrical equipment designed to be used within certain voltage limits.
According to the following harmonised standards: EN 60335-1; EN 60335-2-97
- 89/336/EEC; DIRECTIVE 89/336/EEC OF THE EUROPEAN COUNCIL of 3rd May 1989, for the harmonization of the legislations of member States regarding electromagnetic compatibility.
According to the following standards: ETSI EN 300 220-3; ETSI EN 301 489-1; ETSI EN 301 498-3.

Furthermore, the product complies with the essential requisites specified in article 3 of the following EC directive, for the use the products have been manufactured for:

- 1999/5/EC; DIRECTIVE 1999/5/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9th March 1999 concerning radio equipment and telecommunications terminal equipment and mutual recognition of their conformity.

Oderzo, 25th March 2005

Lauro Buoro
(Managing Director)

