

Gebrauchsanleitung
Antrieb J4 für Außenjalousie / Raffstore

DE

Installation Guide
J4 motor for exterior Venetian Blinds

EN

Notice d'installation
Moteur J4 pour brise soleil orientable

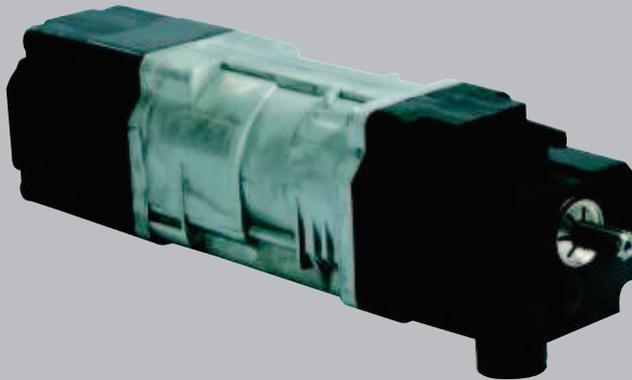
FR

Návod k použití
Pohon J4 pro venkovní žaluzie

CZ

Guida all'installazione
Motore J4 per veneziane da esterno

IT

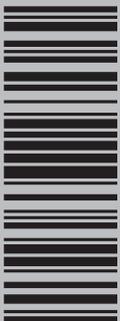


J4
1TN / 2TN

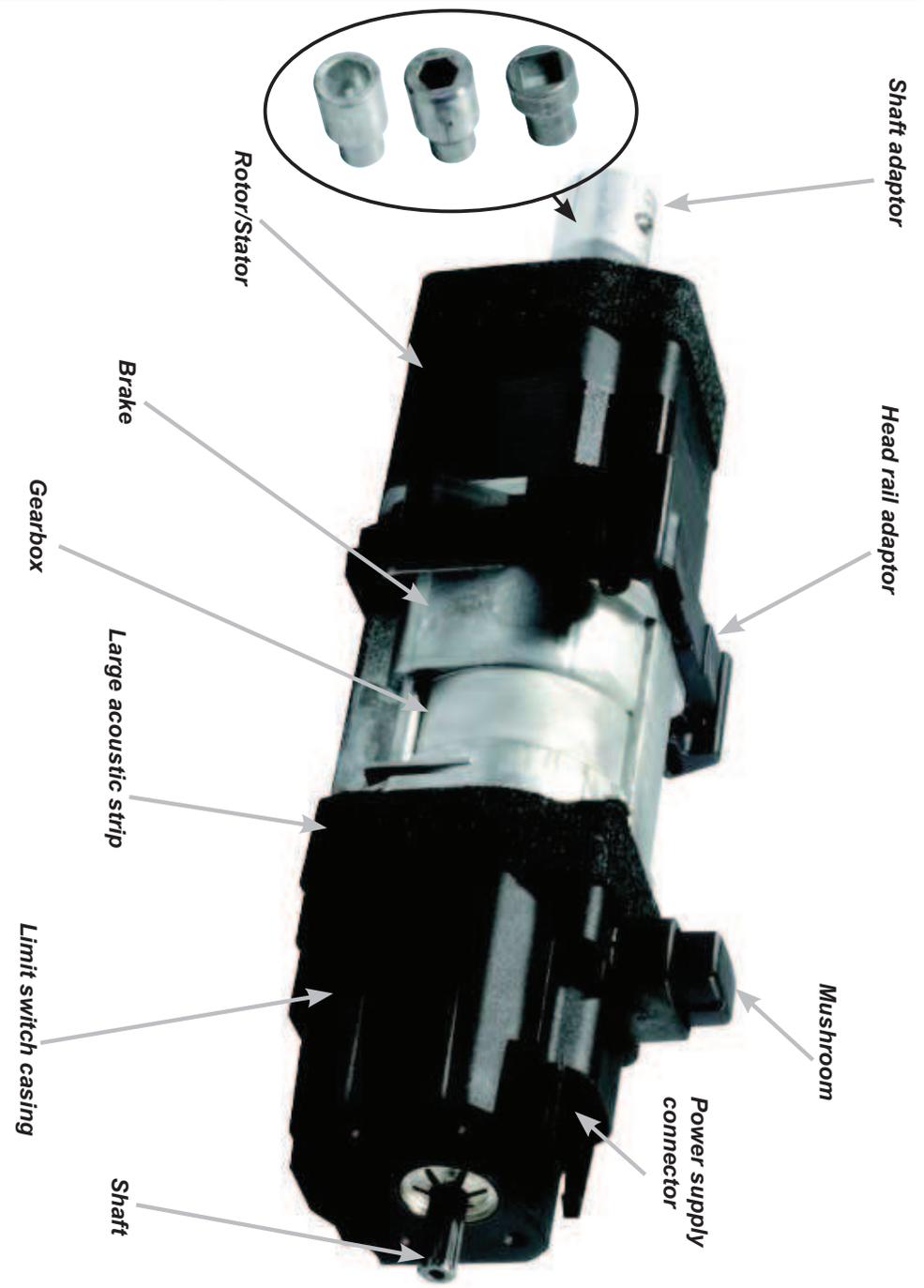
J4
HTM

J4
WT

Ref. 5055337C



1. Glossary



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2. General

Please read this installation guide carefully and in full in order to use the product's functionalities to their full extent. Somfy accepts no responsibility for any faults or damage resulting from failure to adhere to the installation guide (use other than for the intended purpose, incorrect installation, operating error etc.).

The J4 motor is designed for the electrical control of exterior Venetian blinds.

2.1. General safety instructions



It is important to follow these instructions for the safety of all persons. Incorrect assembly can lead to serious injury. These safety instructions must be retained.

- The motor, torque and operating time must be adjusted according to the whole installation.
- Only original Somfy accessories should be used (adaptors, brackets, same type of cable, etc.).
- Fitting, testing, commissioning and repair of the installation must only be carried out by qualified personnel.
- Correct operation of the installation is only guaranteed if the installation and assembly have been carried out according to best practices, if the power supply is adequate and if maintenance is carried out.
- The moving parts of the motors must be protected if operating below 2.50 m from ground level.
- The installation must not be used if it shows any signs of damage (for example wear, damaged cables/springs or misadjusted end limits).
- The installation must be protected from all unauthorised use. Take preventive measures to avoid any unwanted operation.
- Children are not permitted to play with the wired controls. Keep the remote control out of the reach of children.
- Disconnect all connected cables from the power supply before working on the installation.
- The permanently installed control points must be visible.
- Do not use the installation if work (cleaning windows for example) is being carried out nearby.
- Comply with the assembly and operating guides, in particular the safety instructions of the manufacturer of the device to be used.

Subject to technical modifications.

2.2. Declaration of conformity

SOMFY hereby declares that the device complies with the applicable directives. A declaration of conformity is available at www.somfy.com/ce.

2.3. Mushroomrooms

2.3.1. General information

The main function of the mushroom is to ensure the safety of the installer and the end user, by protecting the motor and the product on which it is installed.

For J4 1TN and J4 2TN motors, the mushroom must be used as an upper end limit.

For J4 HTM and J4 WT motors, the mushroom can be used as an upper end limit if the installer does not want to adjust this position.

Be sure that during the operation, no slat of the end product exerts radial effort on the mushroom, or the guide tube (if used).

The pulling out of the adjustable extension makes the motor unusable definitively.

2.3.2. Options

1TN / 2TN



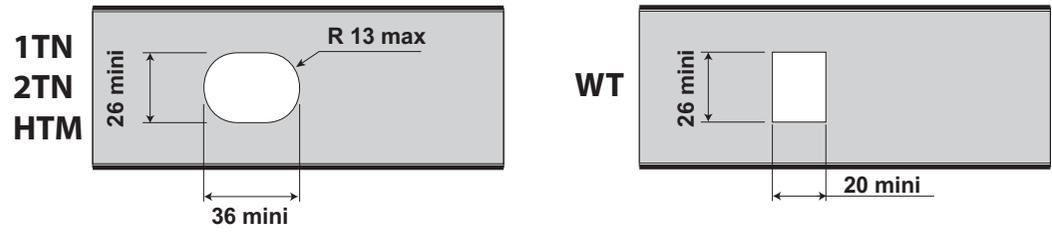
HTM



2.4. Technical data

2.4.1. Cutaway diagram of the head rail

 For detailed technical information, please refer to the appropriate data sheets and interface drawings.



2.4.2. Applicable torque

Maximum applicable torque/motor type	J406	J410	J418	For the J418 motor, the maximum torque on one shaft output is 12N.m
	6 N.m	10 N.m	18 N.m	

2.4.3. Limit switch capacity

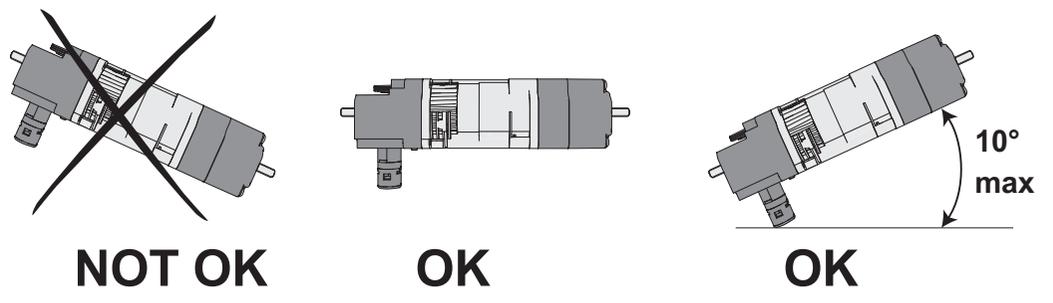
Maximum capacity of the limit switch unit (in turns)	1TN	2TN	HTM	WT	Factory-set capacity of the limit switch unit	1TN	2TN	HTM	WT
	60	60	90	200		60	60	60	120

2.4.4. Thermal time

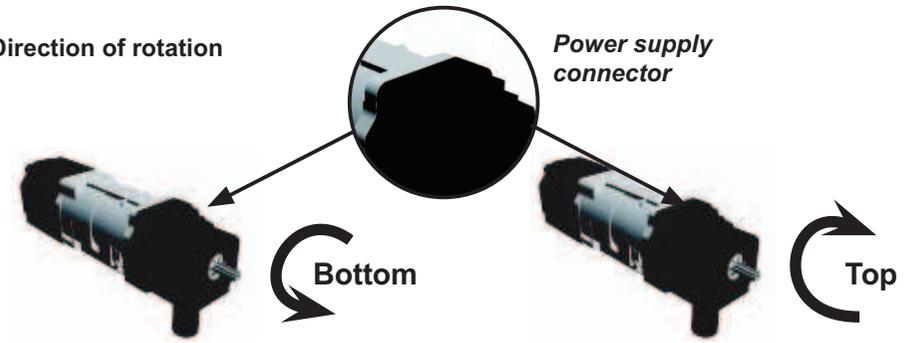
J4 1TN/2TN/HTM/WT motors are protected by a thermal cut-out in the event of a temperature rise caused by **continuous** use, longer than 6 minutes.

2.4.5. Motor angle

The J4 motor is designed to operate in a horizontal position:



2.4.6. Direction of rotation



Power supply	230 V ~ 50 Hz		
Operating temperature	- 20 °C à + 70 °C		
Index protection rating	IP 54		
Safety level	Classe I		
Torque (Nm)	6	10	18
Power (W)	95	110	155

3. Assembly

3.1. 58 x 51 mm or 58 x 56 mm head rail, open at the bottom

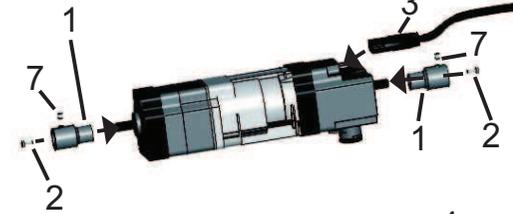
- Fit the 2 adaptors (1) using 2 M3x8 screws (2) on the motor shaft.

Tightening torque = 1.1 N.m

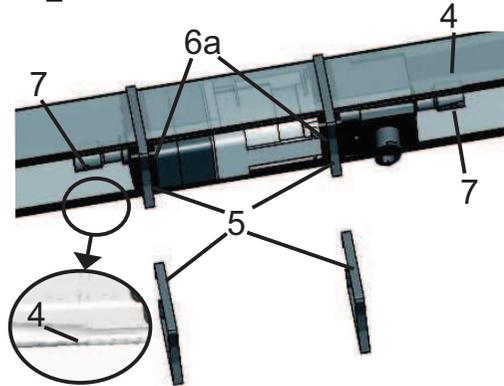
- Connect the power supply cable (3) to the motor.



Ensure that the cable does not hinder the rotating part of the motor or the Venetian mechanism.



- If necessary, Press the edge of the head rail (4) in the area of the motor.
- Using the clips (5), fix the motor in the head rail (4) on top of the small acoustic strips (6a).
- The shaft can be fixed in the adaptor using a grub screw (7).



3.2. 58 x 56 mm head rail, open at the top

3.2.1. Assembly with external clips

- Fit the 2 adaptors (1) using 2 M3x8 screws (2) on the motor shaft.

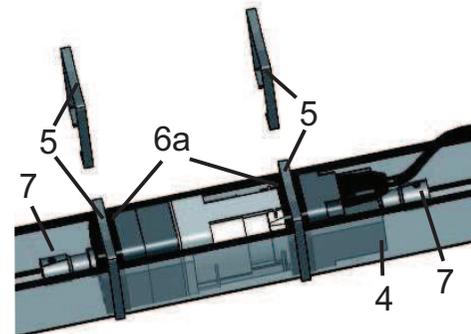
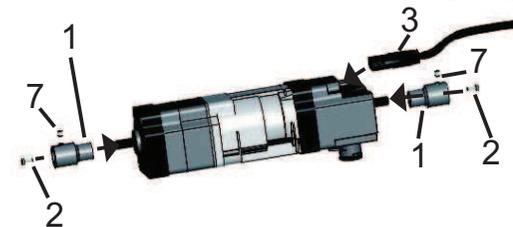
Tightening torque = 1.1 N.m

- Connect the power supply cable (3) to the motor.



Ensure that the cable does not hinder the rotating part of the motor or the Venetian mechanism.

- Insert the motor in the head rail (4).
- Using the clips (5), fix the motor in the head rail (4) on top of the small acoustic strips (6a).
- The shaft can be fixed in the adaptor using a grub screw (7).



3.3. 57 x 51 mm head rail, open at the top

3.3.1. Assembly with external clips

- Fit the 2 adaptors (1) using 2 M3x8 screws (2) on the motor shaft.

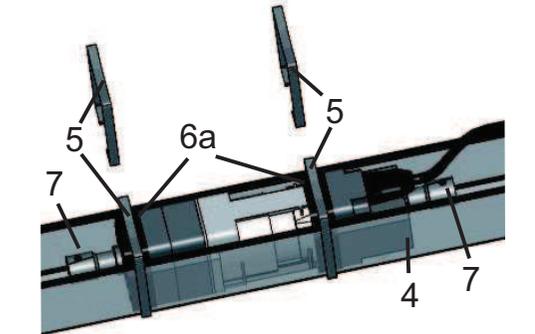
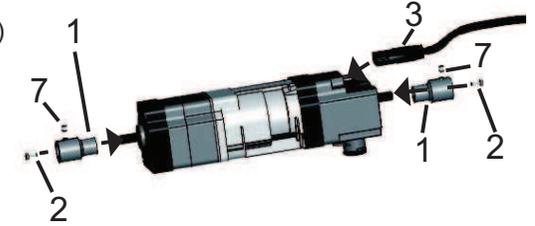
Tightening torque = 1.1 N.m

- Connect the power supply cable (3) to the motor.



Ensure that the cable does not hinder the rotating part of the motor or the Venetian mechanism.

- Insert the motor in the head rail (4).
- Using the clips (5), fix the motor in the head rail (4) on top of the small acoustic strips (6a).
- The shaft can be fixed in the adaptor using a grub screw (7).



3.3.2. Assembly with internal clips

- Fit the 2 adaptors (1) using 2 M3x8 screws (2) on the motor shaft.

Tightening torque = 1.1 N.m

- Connect the power supply cable (3) to the motor.

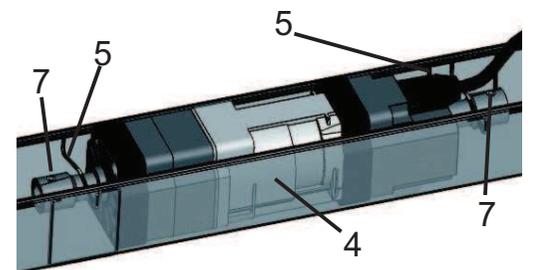
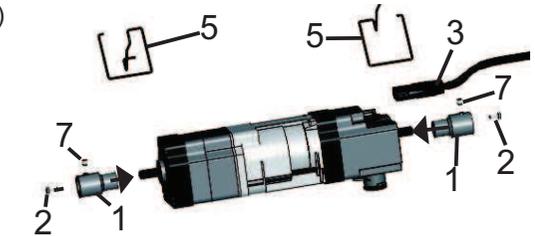


Ensure that the cable does not hinder the rotating part of the motor or the venetian mechanism.

- Insert the motor in the head rail (4).
- Using the clips (5), fix the motor in the head rail (4).
- The shaft can be fixed in the adaptor using a grub screw (7).



Internal clips cannot be used with J418 motors (J4 motors with 18 N.m torque).



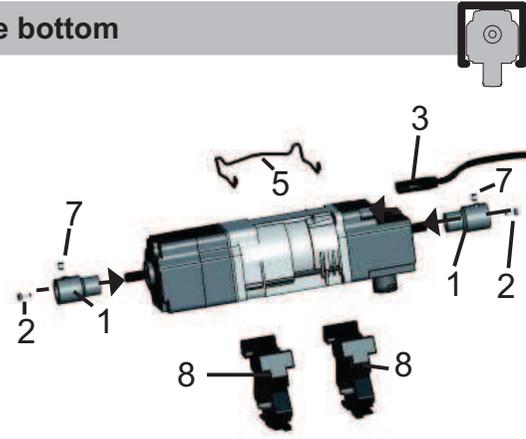
3.4. 78 X 67 mm head rail, open at the bottom

3.4.1. Assembly with J406/J410 motors (6 or 10 N.m torque)

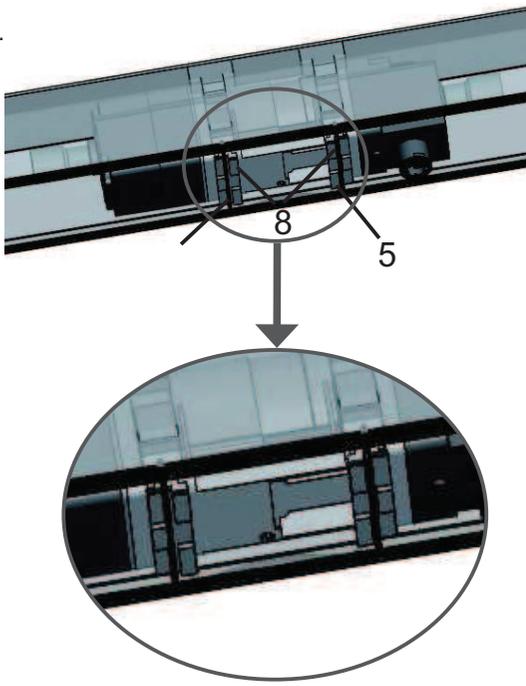
- Fit the 2 adaptors (1) using 2 M3x8 screws (2) on the motor shaft.
☞ **Tightening torque = 1.1 N.m**
- Connect the power supply cable (3) to the motor.



Ensure that the cable does not hinder the rotating part of the motor or the Venetian mechanism.



- Fit the two head rail adaptors (8) on the motor.
- Insert the motor in the head rail (4).
- Using the clip (5), fix the motor in the head rail (4).
- The shaft can be fixed in the adaptor using a grub screw (7).



3.4.2. Assembly with J418 motor (torque = 18 N.m)

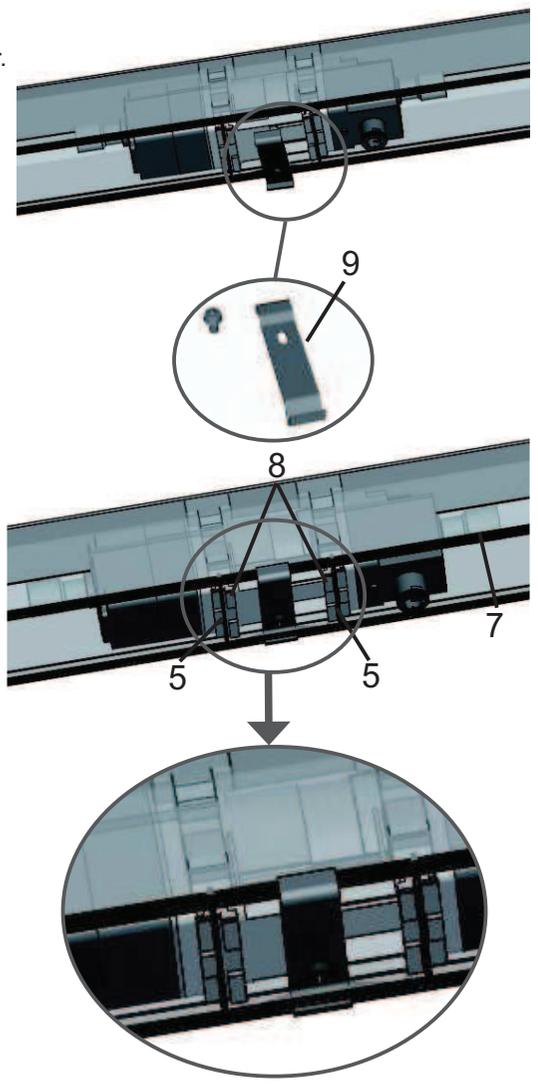
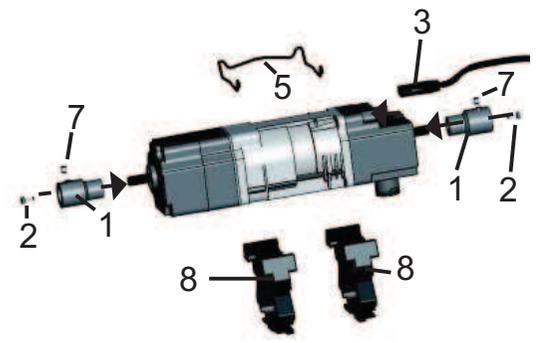
- Fit the 2 adaptors (1) using 2 M3x8 screws (2) on the motor shaft.
☞ **Tightening torque = 1.1 N.m**
- Connect the power supply cable (3) to the motor.



Ensure that the cable does not hinder the rotating part of the motor or the Venetian mechanism.

- Fit the two head rail adaptors (8) on the motor.
- Insert the motor in the head rail (4).
- Using the clip (5), fix the motor in the head rail (4).
- The shaft can be fixed in the adaptor using a grub screw (7).

- Fit the additional bracket (9) on the head rail (4) + motor assembly, as shown on the diagram.
- Fix the bracket (9) on the motor with an M5 x 10 mm screw.
☞ **Tightening torque = 4 N.m aximum**
☞ **The screw must be fully tightened on the bracket (9).**



3.5. 67 X 66 mm head rail, open at the bottom



- Fit the 2 adaptors (1) using 2 M3x8 screws (2) on the motor shaft.

☞ **Tightening torque = 1.1 N.m**

- Connect the power supply cable (3) to the motor.

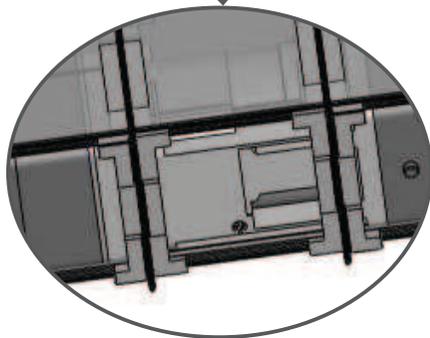
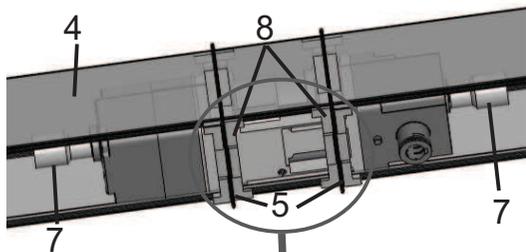
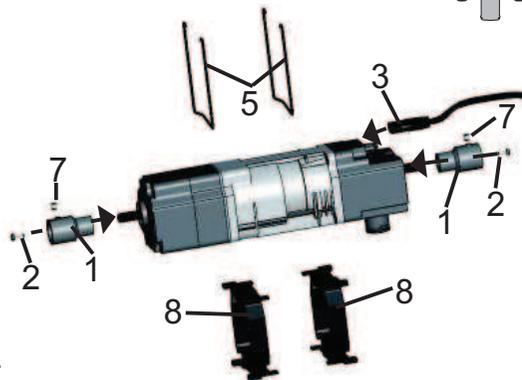


Ensure that the cable does not hinder the rotating part of the motor or the Venetian mechanism.

- Fit the two head rail adaptors (8) on the motor.

- Insert the motor in the head rail (4).

- Using the clips (5), fix the motor in the head rail (4).



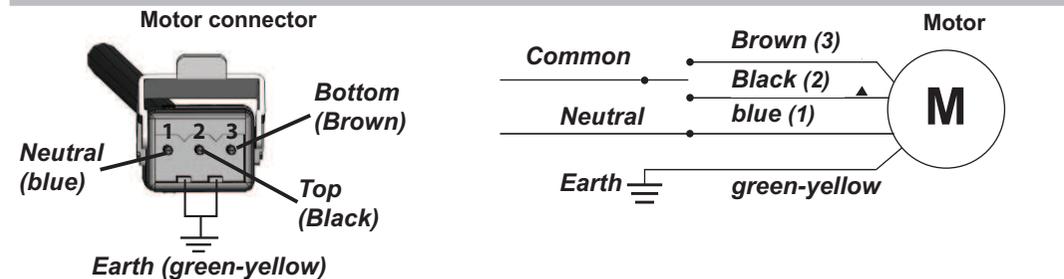
4. Electrical connection



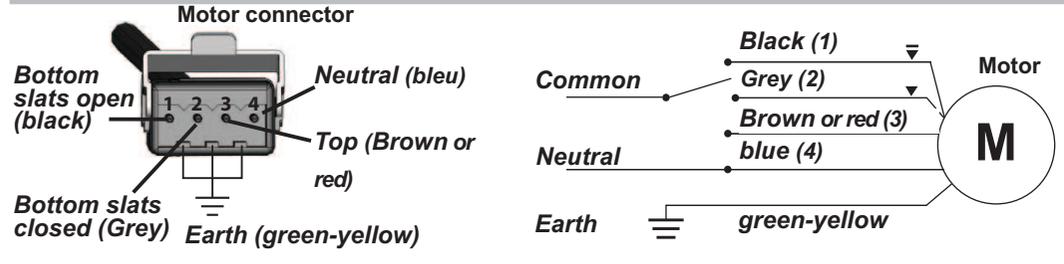
Danger!
 Live electric cables → Danger of electric shock if touched!
 Disconnect all connected cables from the power supply before working on the installation!
 Take preventive measures to avoid any unwanted operation!

This Somfy product must be installed by a technically qualified person, for whom this guide is intended. The professionally qualified person must comply with all the standards and legal provisions in force in the country of use.
 The J4 power supply cable must never be powered while disconnected from the motor.
 A J4 motor must never be supplied without its dedicated cable.

4.1. 1TN / HTM / WT



4.2. 2TN



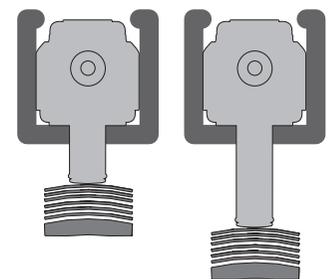
4.3. Spécificités J4 WT

This motor must not be connected to an isolating transformer.
 When you use a switch, a maximum of 3 motors, with a total cable length of 50 m, can be connected in parallel.
 The phases and neutrals must be connected together respectively.
 Do not use more than one switch connected to each motor.
 In case of drive by a controller or any automatism, please refer to the dedicated instructions manual.
 The movement is correctly executed by the motor, only if it received a continuous order for at least 200 ms.
 For commands sent to the motor to be executed correctly, they must be at least 500 ms apart.

5. 1TN/2TN: Setting the end limits

5.1. Upper end limit position

The mushroom is used for the upper end limit position.
 To adjust the height of the mushroom, use the extensions described in section 2.3.

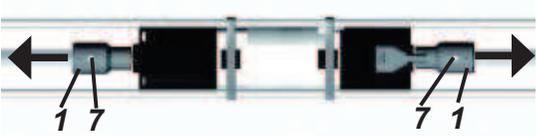


5.2. Lower end limit (1TN)/lower end limit no. 2 (2TN) position

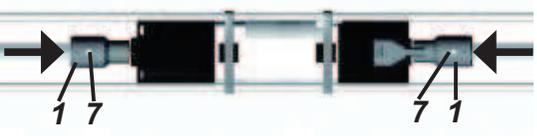
The lower end limit position cannot be adjusted on the motor. The motor is supplied ex. factory in the lower end limit position.

To change the lower end limit position on the exterior Venetian blind, use the following procedure:

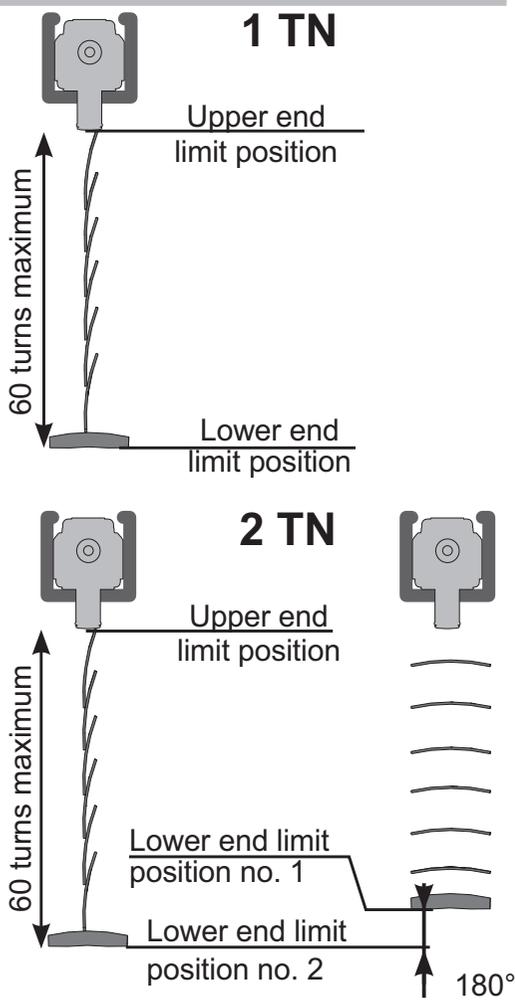
- If necessary, loosen the grub screws (7), then disconnect the drive shafts from the motor shaft adaptors (1).



- Rotate the motor downwards until it stops in the lower end limit position.
- Position the exterior Venetian blind in the required lower end limit (1TN)/lower end limit no. 2 (2TN) position.
- Connect the drive shafts to the motor shaft adaptors (1), then, if necessary, fully tighten the screws (7).



The lower end limit position is now set.



6. HTM : Setting the end limits



Briefly press the limit setting button until it locks (do not keep it held in). Only press the setting button for the corresponding direction (lower end limit = white button, upper end limit = black button). Never press both setting buttons at the same time. Risk of damaging the motor (interlock mechanism)



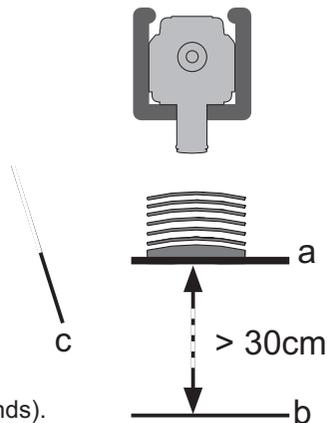
Factory setting: The motor is supplied in lower end limit position with 60 turns to the upper end limit.



The 2 end limit position setting operations described below are independent.

6.1. Upper end limit

- Move the exterior Venetian blind to at least 30 cm (b) below the required upper end limit (a).
- Press the black setting button (c) until it locks.
- Move the exterior Venetian blind to the required upper end limit position (momentary mode is possible).
- Now move the exterior Venetian blind downwards until you hear the button unlock (approximately 2 turns/4 seconds).

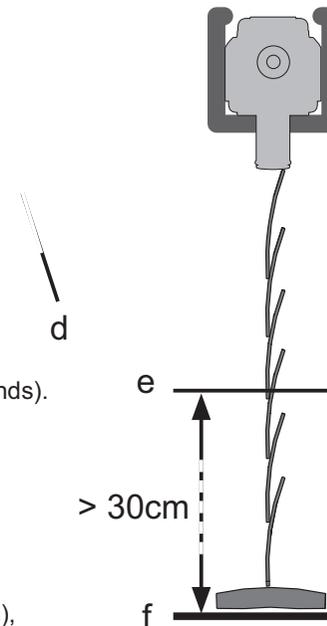


⇒ The upper end limit is now set.

Note: When the motor is turned upside down (mushroom upwards), the locking and unlocking of the buttons can be seen.

6.2. Lower end limit

- Move the exterior Venetian blind to at least 30 cm (e) above the required lower end limit (f).
- Press the white setting button (d) until it locks.
- Move the exterior Venetian blind to the required lower end limit position (momentary mode is possible).
- Now move the exterior Venetian blind upwards until you hear the button unlock (approximately 2 turns/4 seconds).



⇒ The lower end limit is now set.

Note: When the motor is turned upside down (mushroom upwards), the locking and unlocking of the buttons can be seen.

6.3. Test

- Perform a complete cycle, to check that the following settings are correct:
 - ^ **Upper end limit position**
 - ⇒ **Lower end limit position**
 - ⇒ **Stop on mushroom, by resting against the mushroom during an upward movement.**

7. WT : Setting the end limits

By default (factory setting) the motor is supplied in lower end limit position with 120 turns to the upper end limit position.

7.1. Switching to end limit setting mode

- Connect the WT setting tool - Ref. 9013142.
- Position the exterior Venetian blind in-between the preset end limit positions.
- Press the  button on the WT setting tool simultaneously for at least 5 seconds.

The exterior Venetian blind makes a brief movement wards.



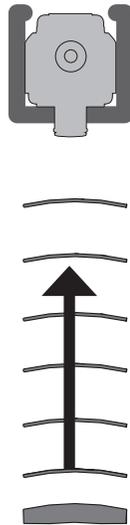
i If you do not have the WT setting tool, you can perform this operation by pressing the ▲ and ▼ buttons on a non-locking double pushbutton.

7.2. Setting the upper end limit position

- Move the exterior Venetian blind upwards by pressing the ▲ button.
 - The exterior Venetian blind moves upwards, stops briefly (0.2 seconds) and then continues to move up. This brief stop indicates that the J4 WT motor is in end limit setting mode.*
- Continue to press the ▲ button until the required upper end limit position is reached.
- Store the upper end limit position by pressing the ▼ button.
 - The exterior Venetian blind moves downwards, stops briefly (0.2 seconds) and then continues to move down. This brief stop indicates that the J4 WT motor is no longer in end limit setting mode and has stored the upper end limit position.*
- To set an end limit position again, go back to step 7.1.

During this setting operation, if the exterior Venetian blind moves up until it rests against the mushroom, the upper end limit position is automatically stored at approximately 5 mm below the position of the mushroom.

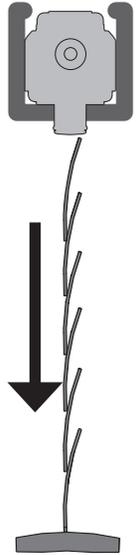
Note: You can exit this mode during the setting operation by briefly pressing the  button on the WT setting tool.



7.3. Setting the lower end limit position

- Perform step 7.1.
- Move the exterior Venetian blind downwards by pressing the ▼ button.
 - The exterior Venetian blind moves downwards, stops briefly (0.2 seconds) and then continues to move down. This brief stop indicates that the J4 WT motor is in end limit setting mode.*
- Continue to press the ▼ button until the required lower end limit position is reached.
- Store the lower end limit position by pressing the ▲ button.
 - The exterior Venetian blind moves upwards, stops briefly (0.2 seconds) and then continues to move up. This brief stop indicates that the J4 WT motor is no longer in end limit setting mode and has stored the lower end limit position.*
- To set an end limit position again, go back to step 7.1.

Note: You can exit this mode during the setting operation by briefly pressing the  button on the WT setting tool.



7.4. Setting the end limit positions without the WT setting tool

- Position the exterior Venetian blind in-between the preset end limit positions.
- Briefly press the ▼ button.
- Wait for at least 5 seconds, then press the mushroom  and the ▲ button on the control point simultaneously, for at least 5 seconds.
- The exterior Venetian blind makes a brief movement upwards.
- Carry out the procedure described in section 7.2 to set the upper end limit position.
- Carry out the procedure described in section 7.3 to set the lower end limit position.

7.5. Return to factory mode

- Connect the WT setting tool - Ref. 9013142.



Ensure that the exterior Venetian blind is at least 30 cm below the stop on the mushroom position.

- Press the  button on the WT setting tool for 15 seconds.

☞ **The motor briefly rotates twice.**

☞ **The current position of the Venetian blind is stored as the lower position.**

☞ **The upper end limit position is stored at 120 turns above the lower end limit position.**



If you do not have the WT setting tool, you can perform this operation by pressing the ▲ and ▼ buttons on a non-locking double pushbutton.

7.6. Troubleshooting

The motor does not operate. Check:

- That the motor wiring is correct
- That the motor has not undergone a thermal cutout
 - ☞ **If it has, wait for the motor to cool down**
- That the appropriate cable has been used
- That the motor used is definitely a J4 WT motor (read the label)