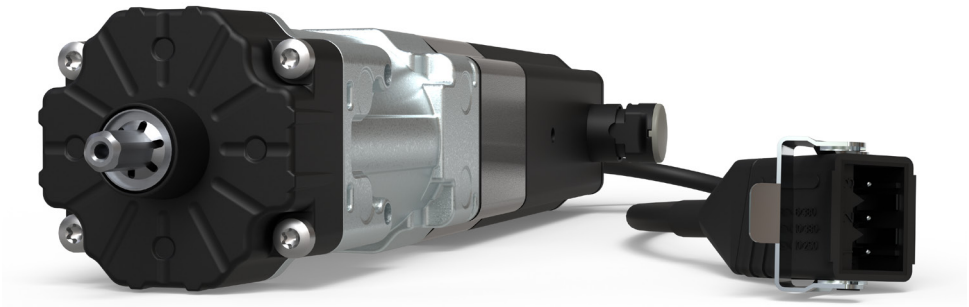


J4S io Protect

EN Instructions

ORIGINAL INSTRUCTIONS

These instructions apply to all **J4S io Protect** drive, the different versions of which are available in the current catalogue.

This complete instruction guide supplements the ***Short installation guide*** supplied with the drive.

Please also comply with the instructions set out in the ***Safety instructions*** document enclosed with this drive.

All guides are available online at **www.somfy.info**.

Complete setting instructions can also be found in **"Help me by Somfy"** application, available on stores :

GENERAL INFORMATION

SAFETY INSTRUCTIONS

DANGER

Indicates a danger which may result in immediate death or serious injury.

WARNING

Indicates a danger which may result in death or serious injury.

PRECAUTION

Indicates a danger which may result in minor or moderate injury.

CAUTION

Indicates a danger which may result in damage to or destruction of the product.

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1. PRIOR INFORMATION

1.1. FIELD OF APPLICATION

The J4 drives are designed to drive all types of Exterior Venetian Blind (EVB).

The J4 drives are designed to motorise all types of:

- Tiltable venetian blinds which bottom lath can be lifted at least by 4 cm when an upward force of 150 N is applied to the bottom lath positioned at 16 cm from the fully extended position.

1.2. LIABILITY

Before installing and using the drive, please read **these instructions carefully.**

In addition to the instructions provided in this guide, please also comply with the instructions provided in the attached ***Safety instructions*** document.

The drive must be installed by a home motorisation and automation professional, in accordance with Somfy's instructions and the applicable regulations in the country of installation.

Any operation of the drive outside the field of application described above is prohibited. Such use, and any failure to comply with the instructions given in this guide and in the attached ***Safety instructions*** document, absolves Somfy of any liability and invalidates the warranty.

After installing the drive, the installer must inform his customers of the operating and maintenance conditions for the drive and must provide them with the operating and maintenance instructions, and the attached ***Safety instructions*** document. Any After-Sales Service operation on the drive must be performed by a home motorisation and automation professional.

Never begin installing without first checking the compatibility of this product with the associated equipment and accessories. If in doubt when installing this product and/or to obtain additional information, contact a Somfy representative or visit the website **www.somfy.com**.

1.3. GENERAL SAFETY INSTRUCTIONS

- Fitting, testing, commissioning and repair of the installation must only be carried out by qualified personnel.
- The installation must be protected from all unauthorised use.
- Comply with the assembly and operating guides, in particular the safety instructions supplied by the manufacturer of the device to be used.
- The drive, torque and operating time must be adjusted in relation to the whole installation.
- Moving parts of the drive must be protected if operating less than 2.50 m from the ground or other level surface.
- Disconnect all connected cables from the power supply before working on the installation.

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1.4. SAFETY INSTRUCTIONS FOR WIRING

WARNING

- *These instructions are mandatory for the home motorisation and automation professional installing the drive.*
- *The drive must be installed by a professionally qualified person (electrical specialist according to DIN VDE 1000-10) for drives and automations in the building services sector in accordance with the Somfy instructions and the applicable regulations in the country of commissioning.*
- *Comply with current standards and legislation in the country of installation. (Respecter la Norme NF C 15-100 pour les installations électriques).*

PRECAUTION

- *Cables routed through a metal wall must be protected and insulated by sleeving or sheathing.*
- *Secure the cables to prevent any contact with moving parts.*
- *If the drive is used outdoors and if the power supply cable is of the H05-VVF type, run the cable in a UV-resistant duct, e.g. trunking.*

CAUTION

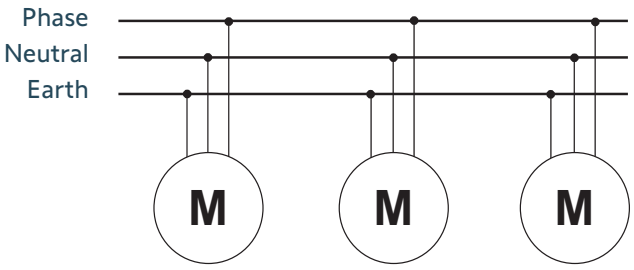
- *Never drop, knock or puncture the drive or immerse it in liquid.*
- *Install an individual control point for each drive.*
- *Leave the drive power supply cable accessible: the product must be easily replaceable.*
- *Always make a loop in the power cable to prevent water from entering the drive.*

1.5. SPECIFIC INSTRUCTIONS

- The environment in which the product is used might reduce the radio range.
- 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.
- Do not use the installation if work (cleaning windows, for example) is being carried out nearby.
- If the mushroom is used to stop the EVB in the upper end limit position, the installer must ensure that the mushroom is present when the complete installation is used for the first time.
- The power supply MUST be connected only after the installation of the drive.
- Do not connect the drive to an isolating transformer.
- Do not use mains disconnection devices in conjunction with a drive.
- Always refer to the control system instructions to do the proper wiring.

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- For control systems using an "automatic running time recognition procedure", please consider the recommendations given by the producer of the controller: the N wire of the controller has to be connected to the N wire of each drive.
- Phases and neutrals of each drive must be connected respectively as shown below:



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2. PRESENTATION OF THE DRIVE

The **J4S io Protect** drive is the newest Somfy EVB solution for motorisation, the improved version of the Somfy io radio drive for external venetian blinds, with new components and a new design.

It allows good integration with customisation (settings) of the drive according to the customer needs and tailor-made accessories, as well as additional tools for professionals with: EMS2, TaHoma pro app, Serv-e-Go, Help me by Somfy.

2.1. PRESENTATION OF THE IMPROVEMENTS

- **Symmetrical shape** that's simplify integration:

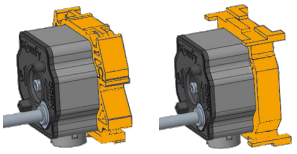


For rails open upwards commonly named **u** shape.



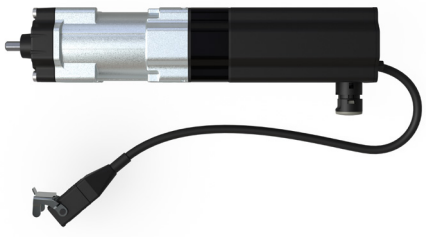
For rails open downwards commonly named **n** shape.

- The J4S io Protect can be integrated in all types of customer systems, thanks to headrail adaptors or compensation rubber plates which align motor axis with application axis.



- **Unremovable power cable** (0,5 m & 0,9 m) with **plug**.

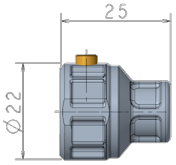




- **Hexagonale driving shaft**.

(A complete range of **shaft adaptors** available as accessory).





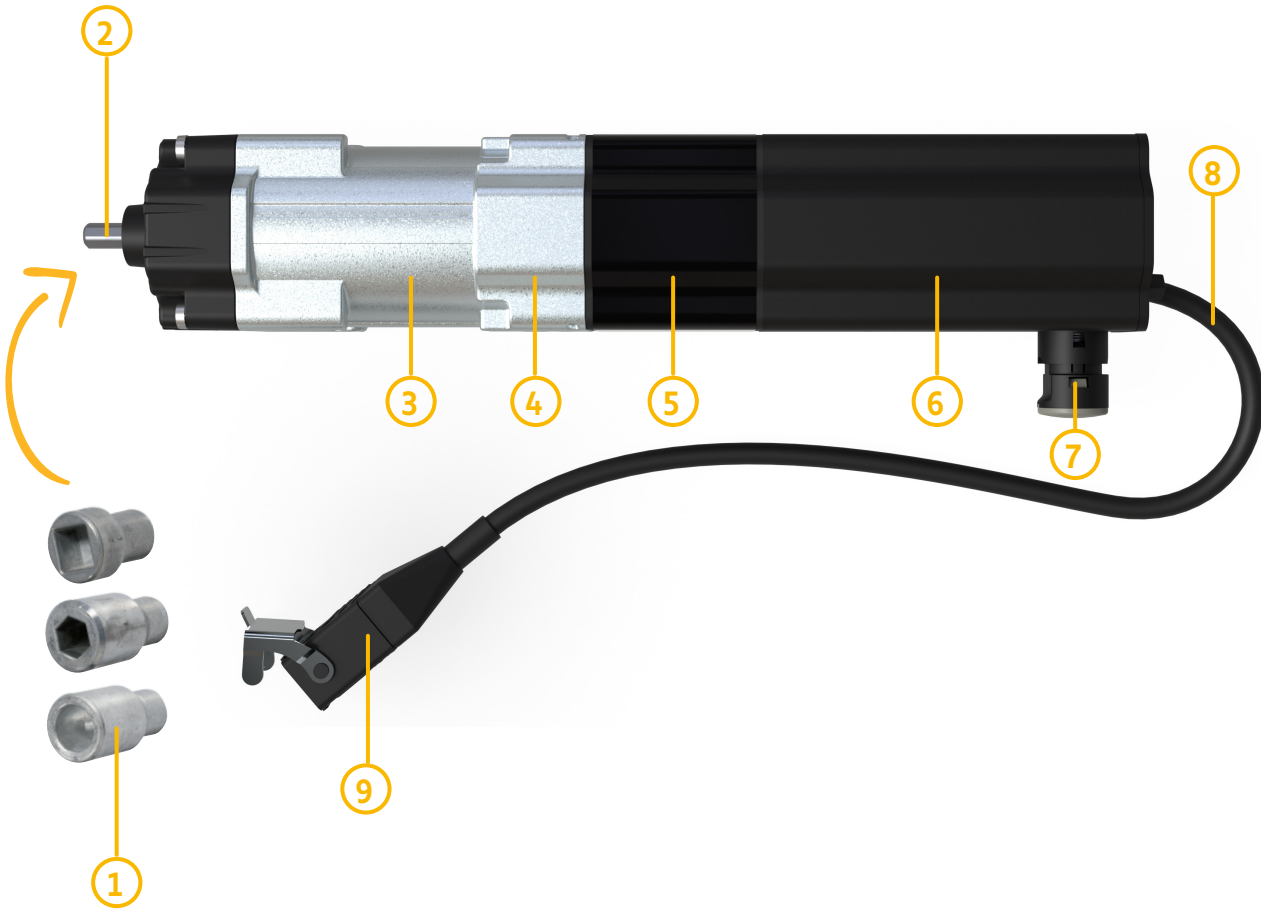
- New **EVB silent brake:**
  quiet tilting thanks to spring brake instead of electromagnetic brake.



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2.2. TECHNICAL DETAILS

2.2.1. DRIVE COMPONENTS



1	Shaft adaptors	6	Limit switch unit
2	Output shaft	7	Mushroom
3	Gearbox	8	Unremovable power cable
4	Brake	9	Hirshman plug
5	Stator		

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2.2.2. MUSHROOM

The main function of a mushroom is to stop the drive in the upper end limit position of the EVB, when the top slat presses against the mushroom.

The mushroom can therefore be used to set the upper end limit position. In this case, there is no need for the installer to set it. Mushroom extensions can be used between the mushroom and its cap to adjust the end limit:



It is of course possible to set the upper end limit before the slats touch the mushroom; this provides additional safety (see **3.4.4. End limit settings**).

It is important to note that if the motorised product has Z-shaped slats, the upper end limit of the drive must be set. In this case, the mushroom is used to ensure the safety of the motorised product.

CAUTION

- *Make sure that during operation, none of the slats on the motorised product exerts radial force on the mushroom or on a guide tube, if used.*
- *If the adjustable extension is pulled out, this renders the drive permanently unusabled.*

NOTICE

When it is being lowered, if the EVB starts to rise again before it has reached its lower end limit, the drive will immediately stop when the slats press against the mushroom.

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2.2.3. TECHNICAL DATA

Description	J4S io Protect (6 N.m)	J4S io Protect (10 N.m)
Torque	6 N.m	10 N.m
Rated power	90 W	125 W
Rated current	0.5 A	0.7 A
Weight (with adaptors)	1.5 kg	1.9 kg
Noise	48 dB*	50 dB*
Radio frequency	868-870 MHz io-homecontrol® Tri-band two-way	
Frequency bands and maximum power used	868.000 MHz - 868.600 MHz e.r.p.<25 mW 868.700 MHz - 869.200 MHz e.r.p.<25 mW 869.700 MHz - 870.000 MHz e.r.p.<25 mW	
Power supply	230 V ~ 50 Hz	
Standby power consumption	0.405 W	
Operating temperature	-20 °C to +70 °C	
Protection rating	IP 54	
Safety level	Class I	
Type of operation and thermal time	S2, 4 min	
Maximum number of control points and associated sensors	9	

* *Measured in the room, approximately 1 m from the drive (In an adjacent room with drive outside: 25 dB for 6 N.m, 29 dB for 10 N.m).*

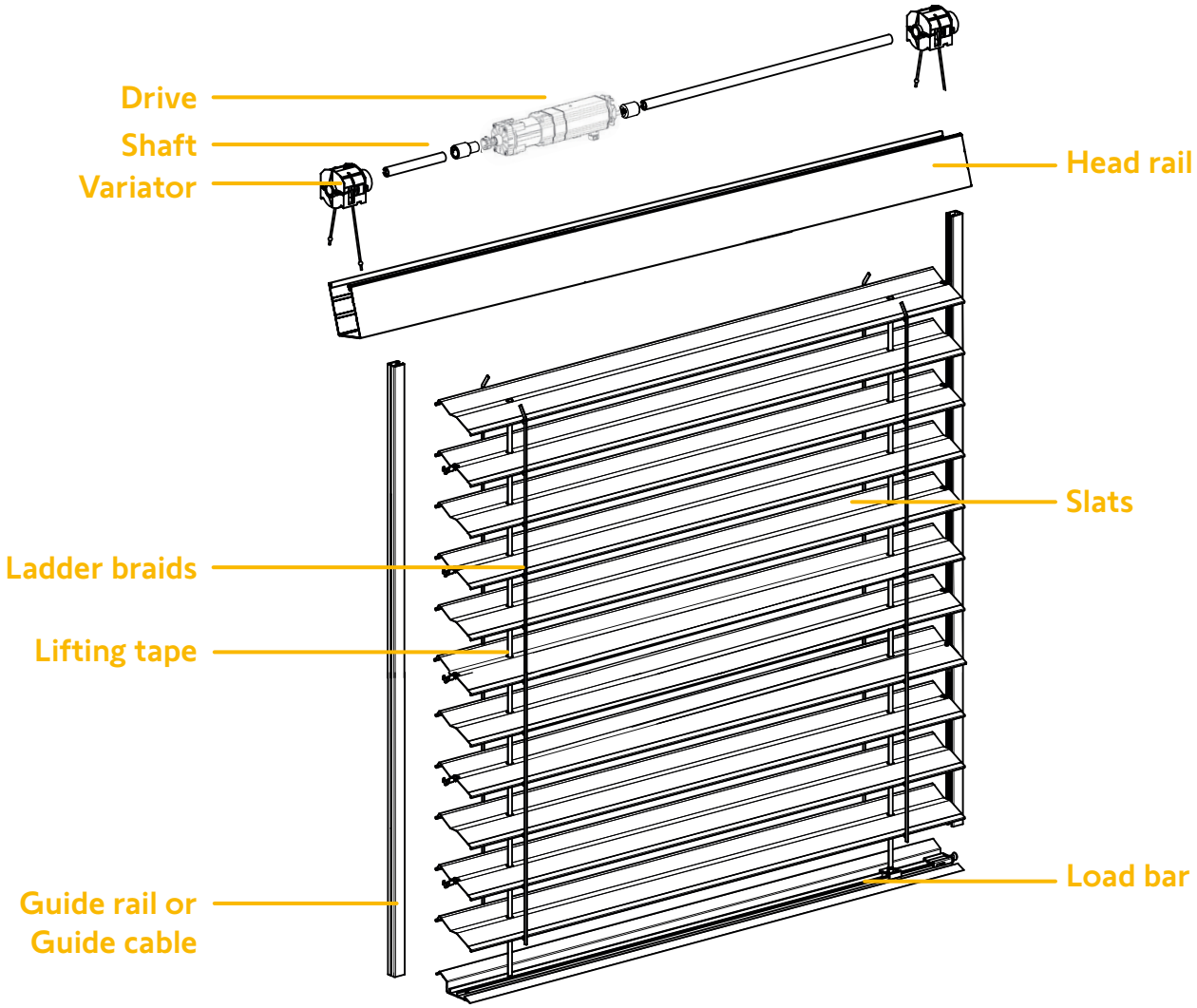
NOTICE

The Somfy connection cable complies with standard H07RNF. Amongst other features, it is UV-resistant and halogen-free.

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2.2.4. DESCRIPTION OF A MOTORISED PRODUCT

(Example for Type 1)



NOTICE

The apron is made up of all of the slats of the Exterior Venetian blind.

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2.2.5. COMPATIBLE EXTERIOR VENETIAN BLINDS

Type 1



Up & Down via lifting tape.
Tilt via ladder braids.
Wind resistance: 65 km/h.

Type 2



Up & Down in guide rail.
Tilt via ladder braids.
Wind resistance: 85 km/h

Type 3



Up & Down & Tilt via lateral guides (chain).
Wind resistance: 110 km/h.

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2.2.6. THE VARIOUS TYPES OF KINEMATICS

There are 4 types of kinematics:

1. Standard kinematics EVB +90° / 0° (For EVB Type 1 and 2)
- Position of the tilting when EVB goes down: +90° = slats are closing outside.
- Position of the tilting when EVB goes up: 0° = slats stay in horizontal position.

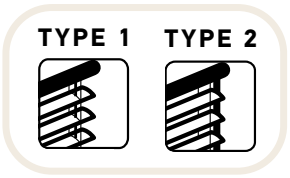
2. Alternative kinematics EVB +90° / -90° (For EVB Type 1 and 2)
- Position of the tilting when EVB goes down: +90° = slats are closing outside.
- Position of the tilting when EVB goes up: -90° = slats are closing inside (reversion).

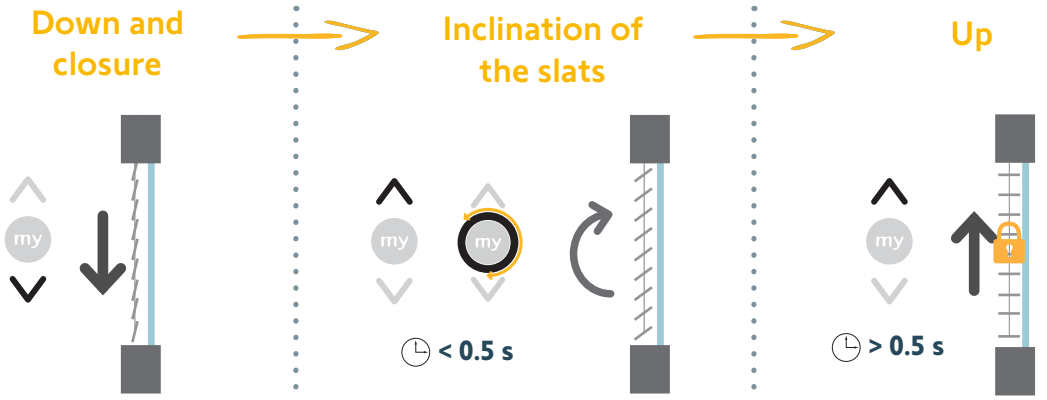
3. WP1: Fixed working position EVB +45° / 0° (Only for EVB Type 3)
- Position of the tilting when EVB goes down: +45° (requires a specific mechanism).
- Position of the tilting when EVB goes up: 0° = slats stay in horizontal position.

4. WP2: Working position On/Off (Only for EVB Type 1)
- Position of the tilting when EVB goes down if the working position is activated: the slats move in the half-open locked position (45°) (requires a specific mechanism). To drive downward direction with complete closing slats (90°) is possible if the working position is deactivated.
- Position of the tilting when EVB goes up: 0° = slats stay in horizontal position.

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1. STANDARD KINEMATICS +90° /0°



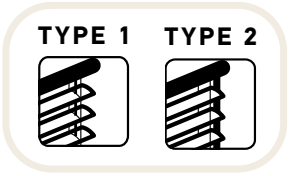


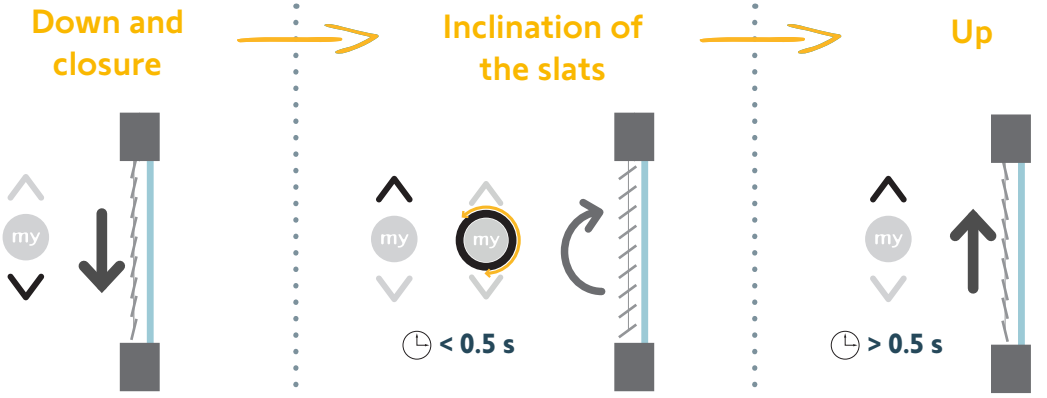
The EVB is lowered to the lower end limit while automatically inclining the slats outwards.

The slats of the EVB can be oriented by briefly pressing the **Up** button or using the variator, depending on the control point. Tilting possible: 0°<->90°.

The EVB is raised to the upper end limit while automatically inclining the slats to the horizontal position.

2. ALTERNATIVE KINEMATICS +90°/-90°





The EVB is lowered to the lower end limit while automatically inclining the slats outwards.

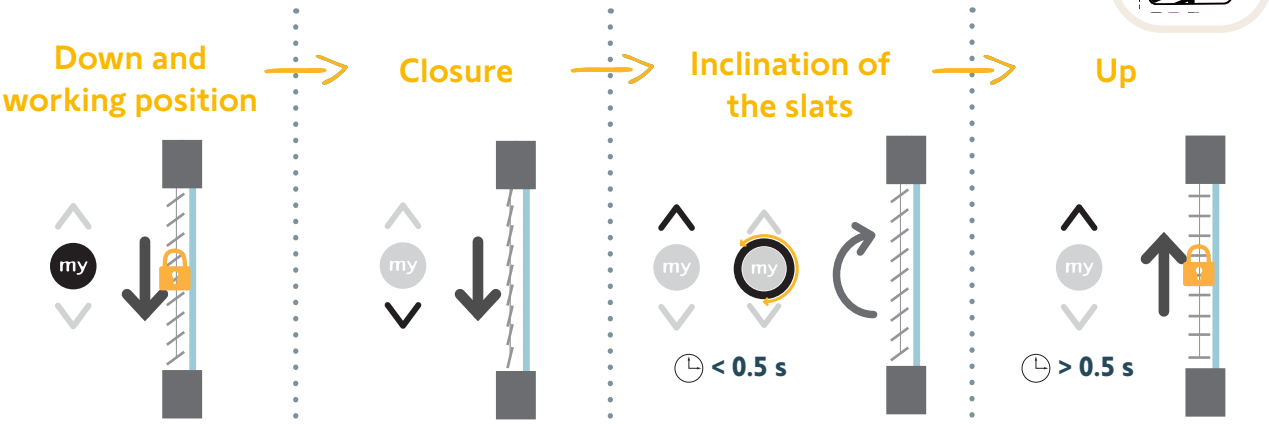
The slats of the EVB can be oriented by briefly pressing the **Up** button or using the variator, depending on the control point. Tilting possible: +90°<->-90°.

The EVB is raised to the upper end limit while automatically inclining the slats inwards.

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3. WP1: FIXED WORKING POSITION +45°/0°

TYPE 3



The EVB is lowered to the working position, at the level of the lower end limit, slats locked (≈ 45°). Locking is activated by an automatic up movement.

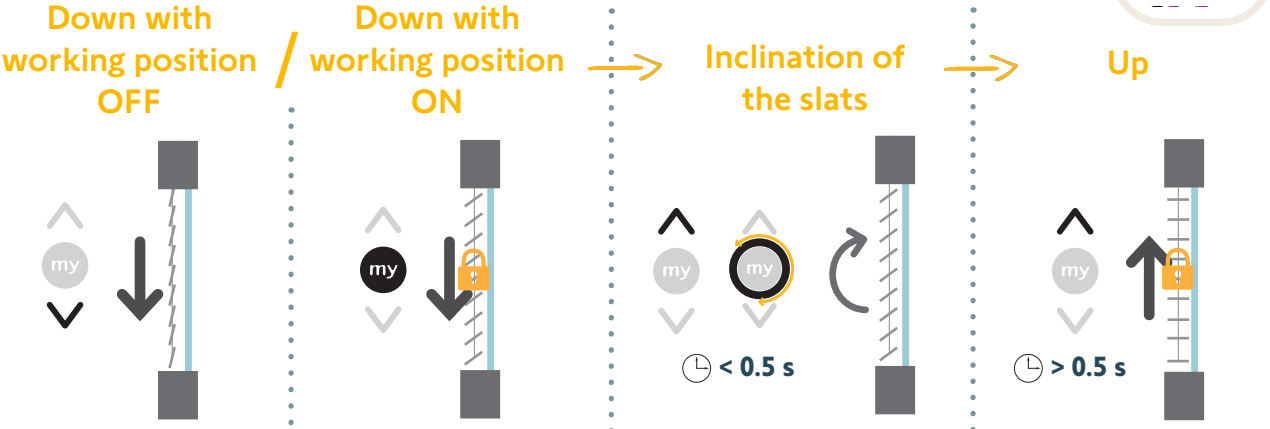
To close the slats outwardly, the working position must be deactivated by pressing **Down**.The product rises, then lowers automatically, with the slats closed.

After having deactivated the working position, the slats of the EVB can be oriented by briefly pressing the **Up** button or using the variator, depending on the control point. Tilting possible: +45°<->0°.

The EVB is raised to the upper end limit while locking the inclination of the slats in the horizontal position.

4. WP2: WORKING POSITION ON/OFF

TYPE 1



To close the slats completely (90°), the working position must be deactivated by pressing **Down**. The EVB is lowered to the lower end limit while automatically inclining the slats outwards.

By pressing **my,** the EVB is lowered to the working position, in the half-open position, slats locked (≈ 45°).

The slats of the EVB can be oriented by briefly pressing the **Up** button or using the variator, depending on the control point. Tilting possible: 0°<->90°.

The EVB is raised to the upper end limit while locking the inclination of the slats in the horizontal position.

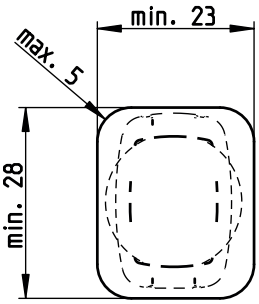
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3. INSTALLATION

3.1. INSTALLATION IN AN EVB

3.1.1. CUTTING THE HEAD RAIL

To assemble a drive in a head rail that is **open at the top**, a cut must be made so that the mushroom and/or its extensions can pass through the head rail. This cut must have the following dimensions (in mm):



3.1.2. ASSEMBLY IN A HEAD RAIL

Details of assembly in each type of head rail are given on a single sheet. The assembly procedure for the desired head rail can therefore be printed out on one page for ease of display.

LIST OF HEAD RAILS:

58 mm x 56 mm head rail, open at the bottom
& 57 mm x 51 mm head rail, open at the bottom p. 18

57 mm x 51 mm head rail, open at the top
& 58 mm x 56 mm head rail, open at the top
Assembly with external clips p. 19

57 mm x 51 mm head rail, open at the top
Assembly with internal clips p. 20

78 mm x 67 mm head rail, open at the bottom p. 21

67 mm x 66 mm head rail, open at the bottom p. 22

CAUTION

***Drive angle**: The J4S io Protect drive is designed to operate in a horizontal position:*



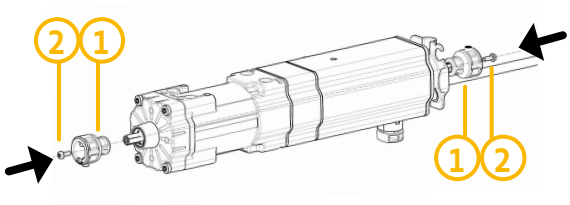
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→ 58 MM X 56 MM HEAD RAIL, OPEN AT THE BOTTOM & 57 MM X 51 MM HEAD RAIL, OPEN AT THE BOTTOM

1

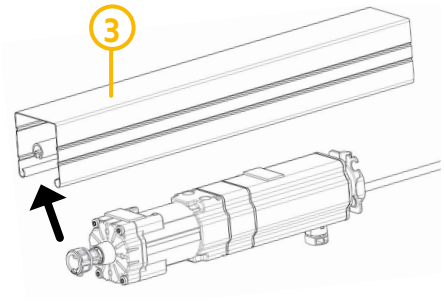
Screw the two adaptors to the drive shaft (1) using two M3x6 screws (2).

Tightening torque = 1.35 N.m ± 20 %



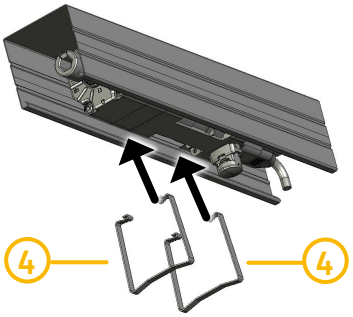
2

Insert the drive in the head rail (3).



3

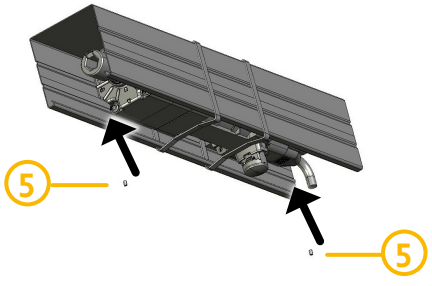
Using the clips (4), fix the drive in the head rail on top of the acoustic strips.



4

The shaft of the EVB can be fixed in the adaptor using a grub screw (5).

Tightening torque = 2 N.m maximum



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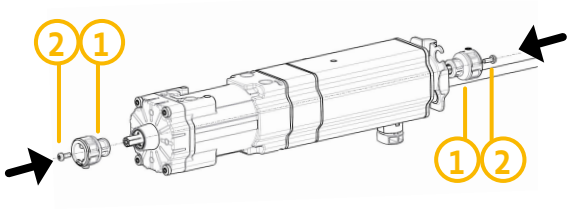
→ 57 MM X 51 MM HEAD RAIL, OPEN AT THE TOP & 58 MM X 56 MM HEAD RAIL, OPEN AT THE TOP

Assembly with external clips

1

Screw the two adaptors to the drive shaft (1) using two M3x6 screws (2).

Tightening torque = 1.35 N.m ± 20 %

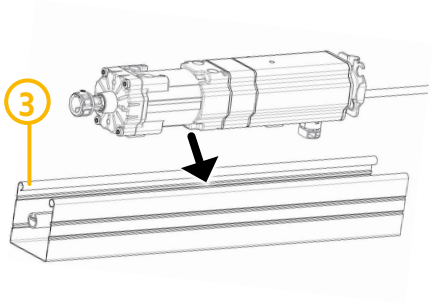


2

Insert the drive in the head rail (3).

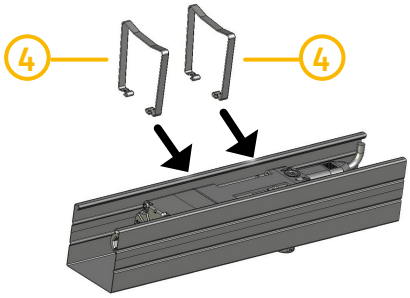
PRECAUTION

Make sure that a cut has been made for the mushroom to pass through the head rail.



3

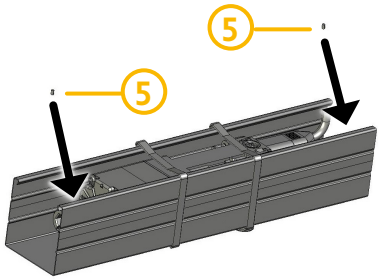
Using the clips (4), fix the drive in the head rail on top of the acoustic strips.



4

The shaft of the EVB can be fixed in the adaptor using a grub screw (5).

Tightening torque = 2 N.m maximum



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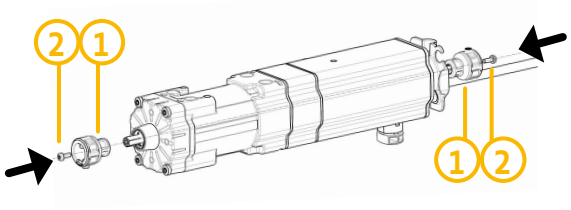
➔ 57 MM X 51 MM HEAD RAIL, OPEN AT THE TOP

Assembly with internal clips

1

Screw the two adaptors to the drive shaft (1) using two M3x6 screws (2).

Tightening torque = 1.35 N.m ± 20 %

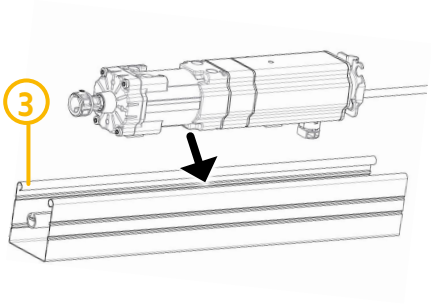


2

Insert the drive in the head rail (3).

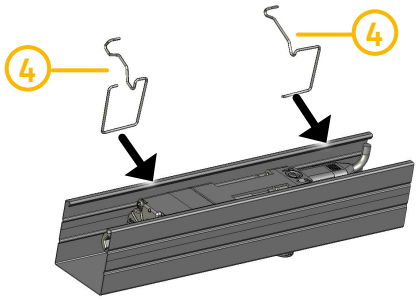
PRECAUTION

Make sure that a cut has been made for the mushroom to pass through the head rail.



3

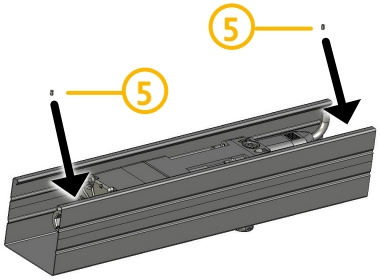
Using the clips (4), fix the drive in the head rail.



4

The shaft of the EVB can be fixed in the adaptor using a grub screw (5).

Tightening torque = 2 N.m maximum



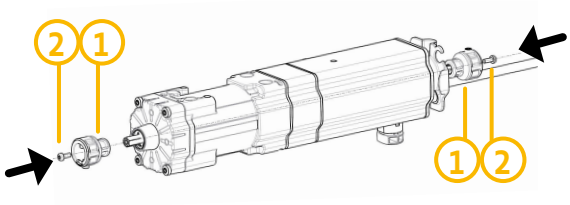
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→ 78 MM X 67 MM HEAD RAIL, OPEN AT THE BOTTOM

1

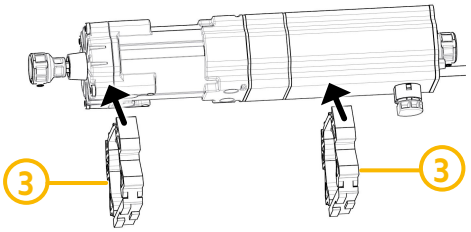
Screw the two adaptors to the drive shaft (1) using two M3x6 screws (2).

Tightening torque = 1.35 N.m ± 20 %



2

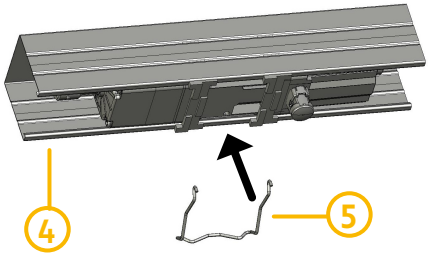
Fit the two head rail adaptors (3) onto the drive.



3

Insert the drive in the head rail (4).

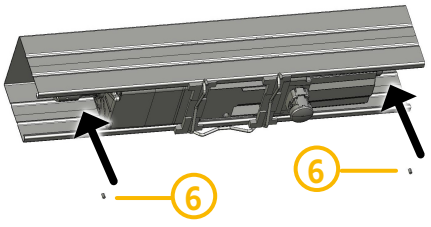
Using the clip (5), fix the drive in the head rail.



4

The shaft of the EVB can be fixed in the adaptor using a grub screw (6).

Tightening torque = 2 N.m maximum



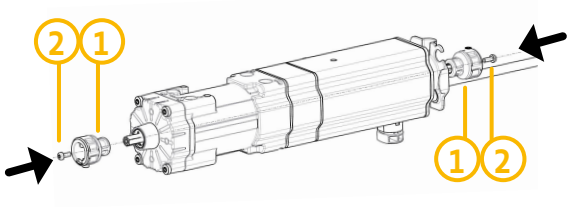
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➔ 67 MM X 66 MM HEAD RAIL, OPEN AT THE BOTTOM

1

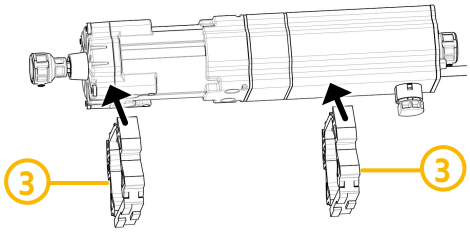
Screw the two adaptors to the drive shaft (1) using two M3x6 screws (2).

Tightening torque = 1.35 N.m ± 20 %



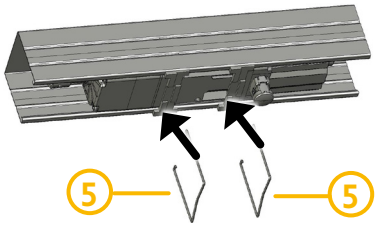
2

Fit the two head rail adaptors (3) onto the drive.



3

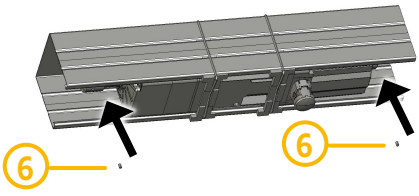
Insert the drive in the head rail (4).
Using the clips (5), fix the drive in the head rail.



4

The shaft of the EVB can be fixed in the adaptor using a grub screw (6).

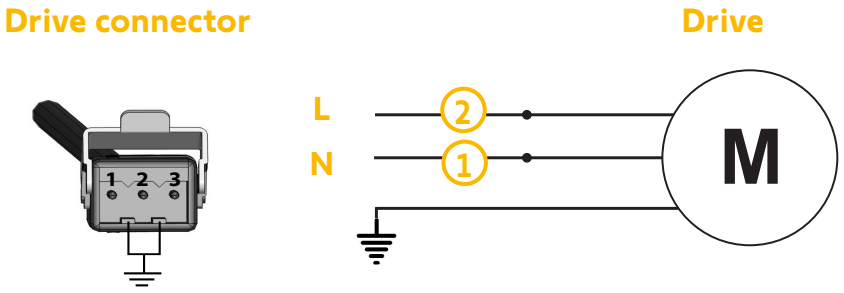
Tightening torque = 2 N.m maximum



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3.2. WIRING THE DRIVE

The diagram and table below explain how to connect the **J4S io Protect** drive:



		230 V ~ 50 Hz
Phase (**L**)	②	Black
Neutral (**N**)	①	Blue
Earth (⏚)		Green-Yellow

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3.3. TECHNICAL SPECIFICATIONS

3.3.1. DEFAULT DIRECTION OF ROTATION

The initial direction of rotation (default) is engraved on the drive housing. It is possible to change the direction of rotation using a Somfy io unidirectional control point (see **section 3.4.2 Checking the direction of rotation of the drive**).

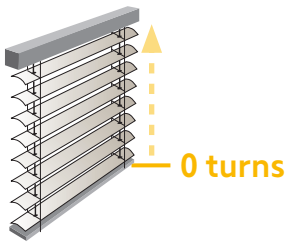


3.3.2. LIMIT SWITCH CAPACITY

The drive is supplied in its lower end limit position. The upper end limit position is pre-set at **120 turns of the drive shaft** above the lower end limit position.

The lower end limit position can be set to a maximum of **200 turns of the drive shaft**. In this case, the upper end limit position will also have to be set.

Lower end limit position



Upper end limit position



3.3.3. THERMAL CUT-OUT

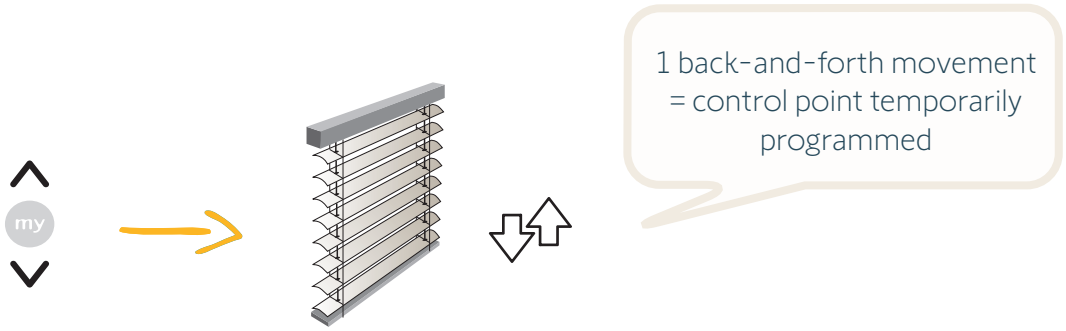
The drive is protected against overheating by a thermal cut-out. In the event of heating caused by prolonged use, the drive will stop for a few minutes.

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3.4. COMMISSIONING THE DRIVE

3.4.1. PREPROGRAMMING THE SOMFY IO UNIDIRECTIONAL CONTROL POINT

Briefly press the **Up** and **Down** buttons simultaneously.
The EVB performs a back-and-forth movement: the Somfy io unidirectional control point is preprogrammed in the drive.



3.4.2. CHECKING THE DRIVE'S DIRECTION OF ROTATION

Press the **Down** *(or **Up**)* button.

CASE 1	The EVB lowers *(or rises)*. The direction of rotation is correct.	Go to the next section.
CASE 2	The EVB rises *(or lowers)*. The direction of rotation is incorrect.	To reverse the direction of rotation, press the **my** button until the EVB begins to move.

NOTICE
If the direction of rotation is reversed, the factory pre-set lower end limit becomes the upper end limit. In this case, the lower end limit has to be set manually.

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3.4.3. KINEMATICS ADJUSTMENT

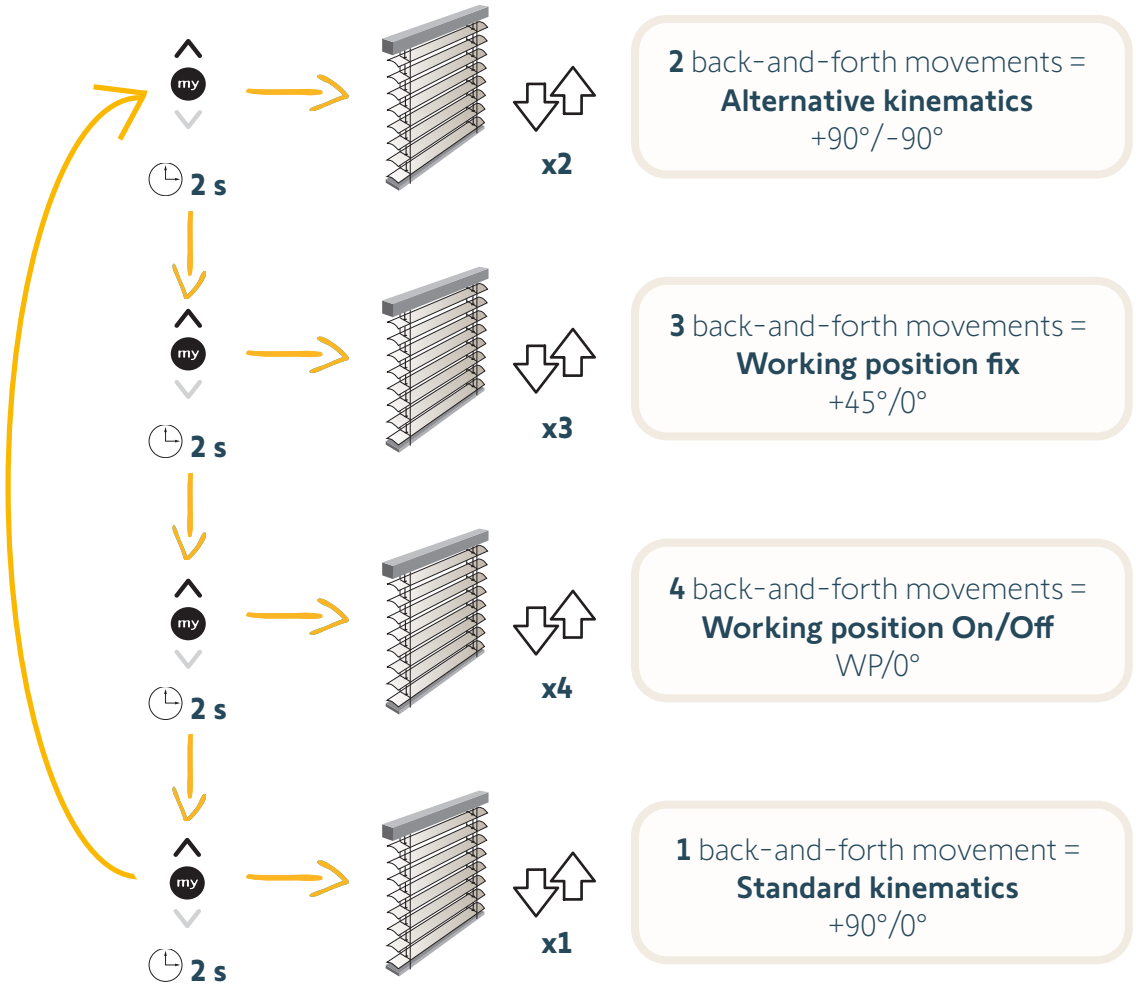
CAUTION

The kinematics must be adjusted before recording definitively the control point.

First, check the type of kinematics already set:

- Simultaneously press the **Up** and **my** buttons for **2 seconds**: the number of back and forth movements indicates what type of kinematics is registered (See illustration below).
- If the type of kinematics registered corresponds to the motorised product: proceed to the next chapter.

If the type of kinematics is not correct, perform this action again to change the type of kinematics, until you reach the type of kinematics corresponding to the motorised product.



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3.4.4.END LIMIT SETTINGS

The upper end limit can be set in three different ways:

- **Automatic**: The upper end limit is set automatically when the motorised product reaches the mushroom.
- **Semi-automatic**: the motorised product reaches the mushroom and sets the upper end limit about 6 mm below it.
- **Manual**: the upper end limit is set manually to the desired position.

The down end limit is pre-set but it can be manually set to the desired position.

NOTICE

The manual mode is mandatory with Z-shaped slats.

➔ AUTOMATIC END LIMIT SETTINGS

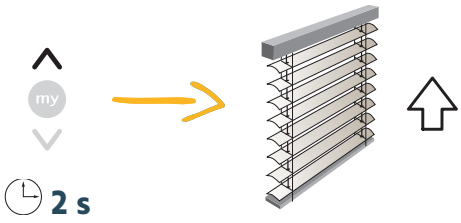
CAUTION

Ensure that the drive has been assembled in an EVB in the lower end position, with slats closed.

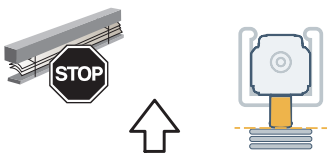
NOTICE

- *When leaving the factory, the drive is supplied in the lower end limit position with 120 turns to the upper end limit.*
- ***This procedure is only possible if the upper end limit has not yet been set and before entering into setting mode.***

Press and hold the **Up** button for 2 seconds. The EVB turns in the up direction until it stops on the mushroom.



The upper end limit is programmed below the mushroom.



Stop on mushroom
=
Upper end limit programmed below the mushroom

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➔ SEMI-AUTOMATIC END LIMIT SETTINGS

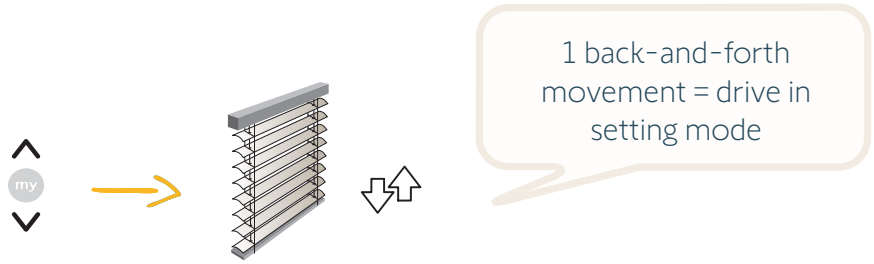
CAUTION

Ensure that the drive has been assembled in an EVB in the lower end position, with slats closed.

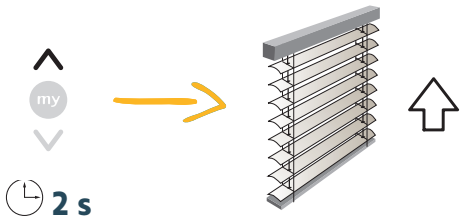
NOTICE

- *When leaving the factory, the drive is supplied in the lower end limit position with 120 turns to the upper end limit.*
- ***This procedure is only possible if the upper end limits have not yet been set.***

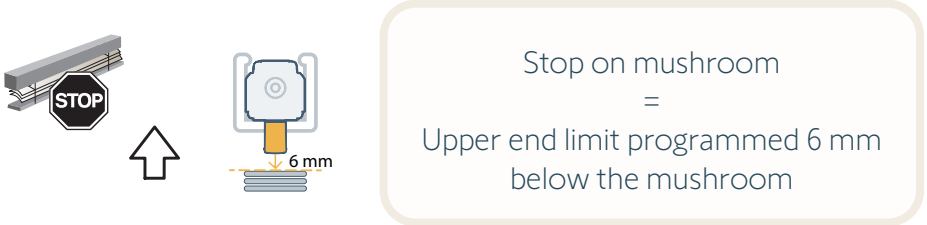
To enter into setting mode, press and hold the **Up** and **Down** buttons simultaneously until the EVB performs a back-and-forth movement.



Press and hold the **Up** button for 2 seconds. The EVB turns in the up direction until it stops on the mushroom.



The upper end limit is programmed **6 mm** below the mushroom.



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➔ MANUAL UPPER END LIMIT SETTINGS

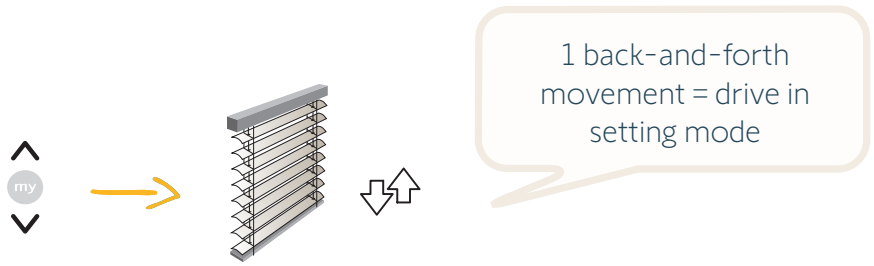
CAUTION

Ensure that the drive has been assembled in an EVB in the lower end position, with slats closed.

NOTICE

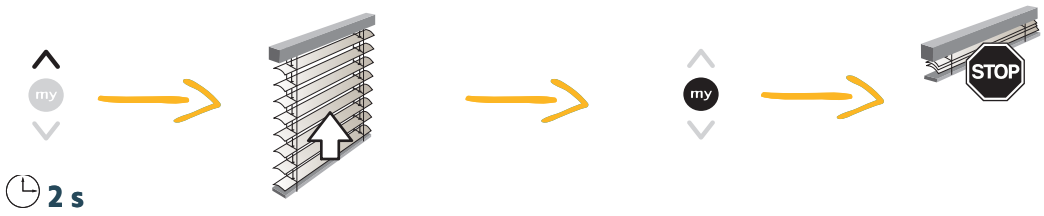
When leaving the factory, the drive is supplied in the lower end limit position with 120 turns to the upper end limit.

To enter into setting mode, press and hold the **Up** and **Down** buttons simultaneously until the EVB performs a back-and-forth movement.

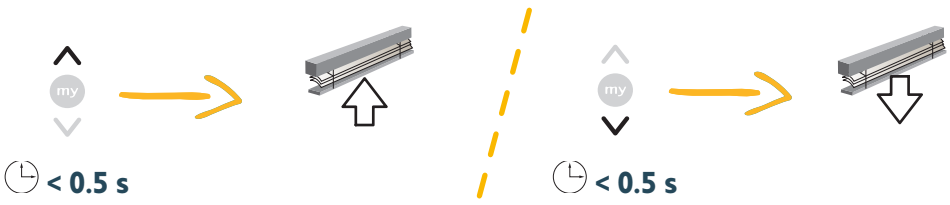


Press and hold the **Up** button for 2 seconds. The EVB turns in the up direction.

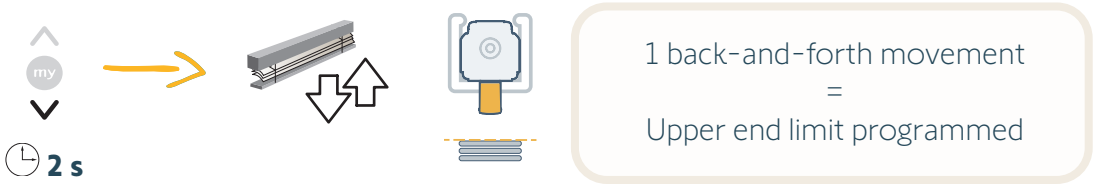
Briefly press the **my** button to stop the EVB at the desired upper end limit position.



If necessary, **briefly** press the **Up** or **Down** button to adjust the end limit position (**< 0.5 s each press**).



Press and hold the **Down** button for 2 seconds. The EVB performs a back-and-forth movement. The upper end limit is programmed.



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→ MANUAL DOWN END LIMIT SETTINGS

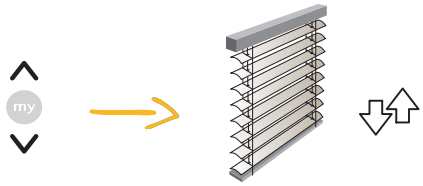
CAUTION

Ensure that the drive has been assembled in an EVB in the lower end position, with slats closed.

NOTICE

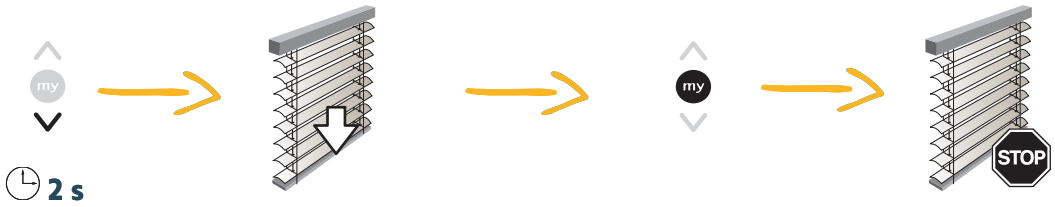
When leaving the factory, the drive is supplied in the lower end limit position with 120 turns to the upper end limit.

To enter into setting mode, press and hold the **Up** and **Down** buttons simultaneously until the EVB performs a back-and-forth movement.

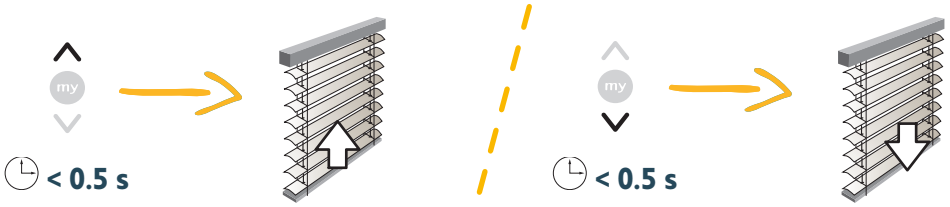


Press and hold the **Down** button for 2 seconds. The EVB turns in the down direction.

Briefly press the **my** button to stop the EVB at the desired down end limit position.



If necessary, **briefly** press the **Up** or **Down** button to adjust the end limit position (**< 0.5 s each press**).



Press and hold the **Up** button for 2 seconds. The EVB performs a back-and-forth movement. The down end limit is programmed.



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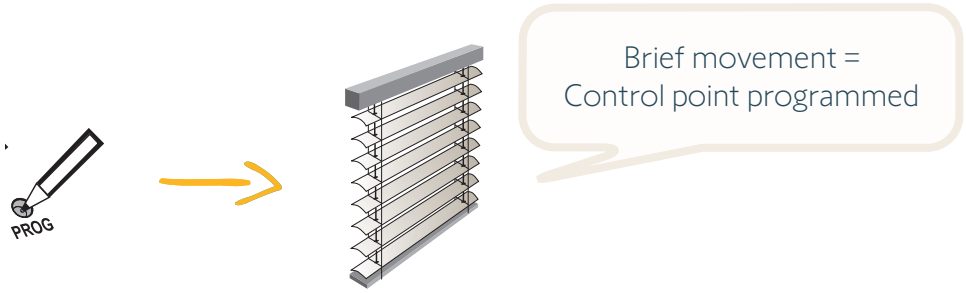
3.4.5.PROGRAMMING THE FIRST SOMFY IO UNIDIRECTIONAL CONTROL POINT

NOTICE

If a multi-channel control point is used: first select the channel that will control the drive.

➔ USING A PREPROGRAMMED SOMFY IO UNIDIRECTIONAL CONTROL POINT

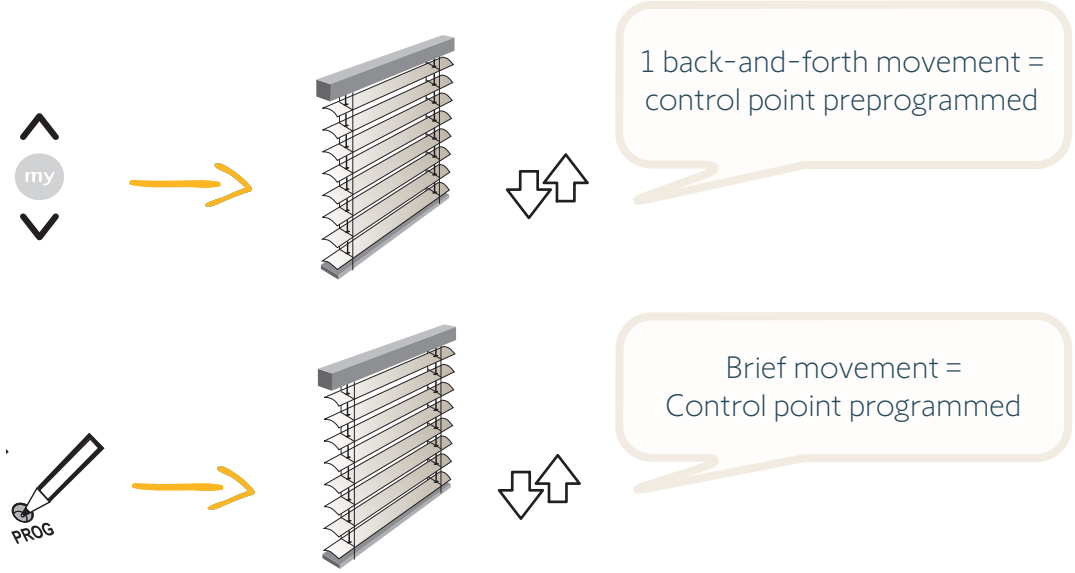
Briefly press the **PROG** button on the control point: the EVB moves briefly; the control point is programmed.



➔ AFTER A SIMPLE POWER CUT

Simultaneously press the **Up** and **Down** buttons of the new control point until the EVB begins to move.

Briefly press the **PROG** button on the control point: the EVB moves briefly; the control point is programmed.



NOTICE

To program a Somfy two-way io control point, refer to the guide for the control point.

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3.5. MODIFYING THE BASIC SETTINGS

3.5.1. IDENTIFYING THE SETTINGS ALREADY MADE

Supply power to the drive.

CASE 1	The drive makes a back-and-forth movement: the end limits are set and no control point is programmed.	⇨	Return to section ***3.4.1***
CASE 2	The drive does not make a back-and-forth movement and does not react when the **Up** or **Down** buttons are pressed: the end limits are not set and no control point is programmed.		Return to section ***3.4***
CASE 3	The drive does not make a back-and-forth movement when the **Up** or **Down** buttons are pressed: the end limits are set and the control point is programmed.		Continue to the next step.

CAUTION

Power must only be supplied to one motorised product at a time.

3.5.2. TILTING TRAVEL SETTING

CAUTION

The tilting travel setting is important for the precision of the desired slat orientation.

NOTICE

By default, the tilting travel corresponds to a 180° drive shaft rotation on all kinematics apart from the +90°/-90° kinematics, on which the rotation is 270°.

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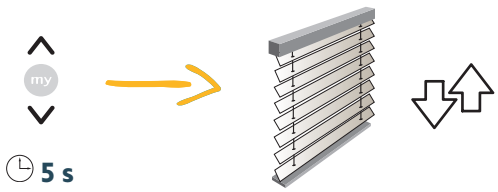
What is the tilting travel ?

The tilting travel is the total angle necessary for the EVB to switch from a "slats closed" position to a "slats fully open" position.

The "slats fully open" position is reached when the inclination of the slats does not move and the EVB makes an initial movement upwards.

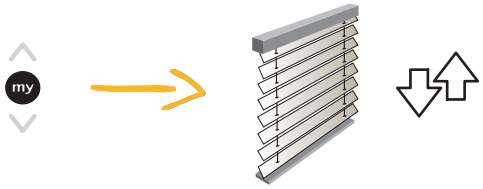
Press the **Down** button until the lower end limit position is reached.

Simultaneously press and hold the **Up** and **Down** buttons for 5 seconds: the EVB makes a brief movement.

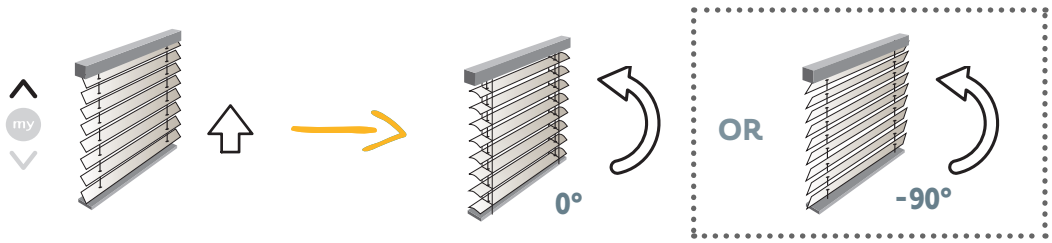


1 back-and-forth movement = Setting mode activated

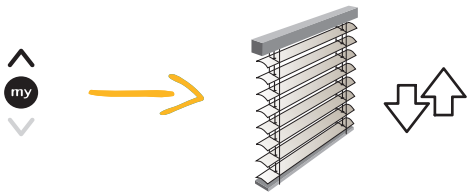
Press the **my** button: the EVB makes a brief movement.



Briefly press the **Up** button several times to move the slats from the closed position to the maximum open position.



Simultaneously press the **Up** and **my** buttons until the EVB begins to move.



1 back-and-forth movement = Tilting travel programmed

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3.5.3. HORIZONTAL SLAT POSITION SETTING

CAUTION

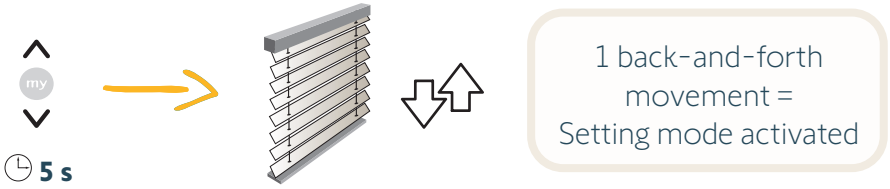
The tilting travel setting must be performed before performing this setting.

NOTICE

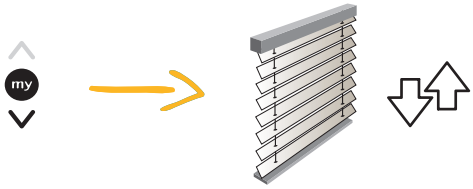
This adjustment is required only with an EVB with a +90°/-90° kinematics paired with a sunlight sensor.

Press the **Down** button until the lower end limit position is reached.

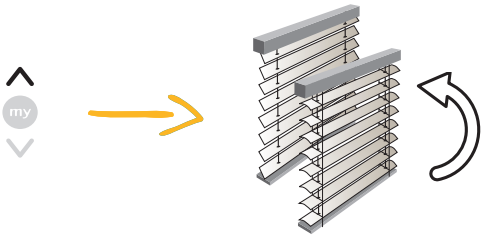
Simultaneously press and hold the **Up** and **Down** buttons for 5 seconds: the EVB makes a brief movement.



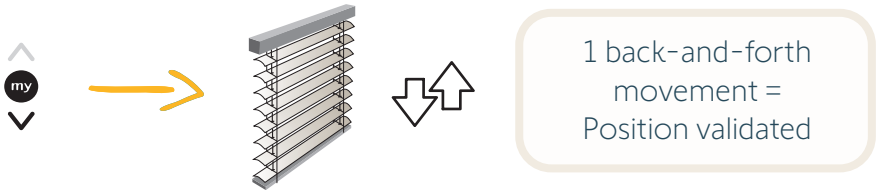
Simultaneously press and hold the **my** and **Down** buttons: the EVB makes a brief movement.



Briefly press the **Up** button several times to move the slats to the horizontal position.



Simultaneously press the **my** and **Down** buttons until the EVB begins to move: the horizontal slat position is validated.



NOTICE

This setting can be made before programming the first Somfy io unidirectional control point.

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3.5.4. END LIMITS READJUSTMENT

NOTICE

*These settings can also be made using **EMS2** setting tool or **TaHoma Pro** application.*

CAUTION

At least 3 drive shaft turns are necessary between the lower end limit and the upper end limit for Standard kinematics, Alternative kinematics and Fixed working position, and at least 6 drive shaft turns for Working position On/Off.

RESETTING THE UPPER END LIMIT:

Refer to section **3.4.4 → Manual upper end limit settings**

RESETTING THE LOWER END LIMIT:

Refer to section **3.4.4 → Manual down end limit settings**

NOTICE

In the event of a mains power failure (> 10 min.) while the settings are being performed, the EVB's current position is programmed as the lower end limit, unless it is locked.

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3.5.5. WORKING POSITION

→ SETTING THE WORKING POSITION

By default, the **J4S io Protect** drive is set to operate in an EVB with a standard +90°/0° kinematics.

A different operating mode can be chosen. There are two ways of changing modes:

- To adjust the kinematics before entering into setting mode and therefore before setting the end limits: refer to **3.4.3. Kinematics adjustment**.
- This setting can also be made using the **EMS2** setting tool or **TaHoma pro** application.

CAUTION

*For EVBs with a working position, the favourite position **my** should only be programmed in the lower end limit position, with the slats oriented at an angle within the tiling travel.*

NOTICE

This step is essential for an optimal view of the products' status in the case where the products are depicted by a pictogram on the control interface.

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3.5.6. ACTIVATION OF ADVANCED FUNCTIONS

NOTICE

*These functions can also be activated using the **EMS2** setting tool or **TaHoma pro** application.*

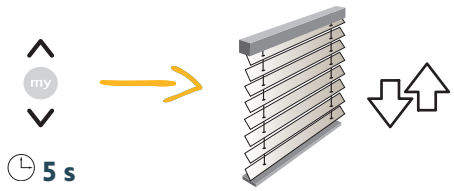
→ ADJUSTING THE OBSTACLE DETECTION

NOTICE

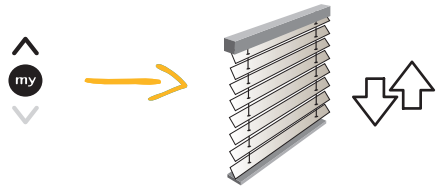
- *Obstacle detection only works in up movement.*
- *The drive automatically adapts to the motorised product during the first full cycle, from the down end limit to the upper end limit (the end limits must be set before).*
- *If priority is given to the wind sensor order: deactivate the obstacle detection function.*
- *If priority is given to the obstacle detection function: set the low/high sensitivity level according to the type of EVB.*

By default, obstacle detection is set to **low** sensitivity but it can be adjusted to high sensitivity or deactivated.

To enter obstacle detection adjustment mode, simultaneously press and hold the **Up** and **Down** buttons for at least 5 seconds: the EVB makes a brief movement.

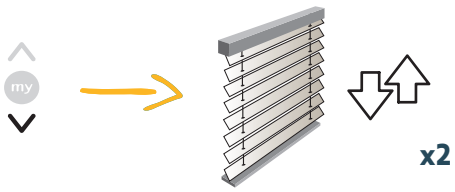


Simultaneously press and hold the **Up** and **my** buttons: the EVB makes a brief movement.

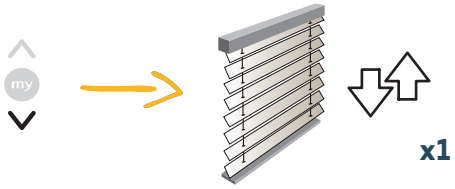


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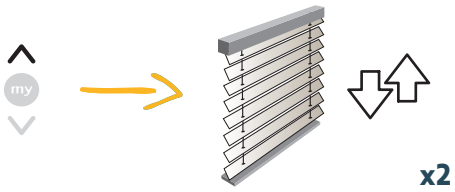
To select the obstacle detection level, press the **Up** button to increase the level or the **Down** button to reduce the level until detection is deactivated.



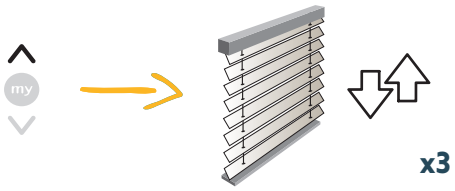
2 back-and-forth movements = function activated with low sensitivity



1 single back-and-forth movement = function deactivated

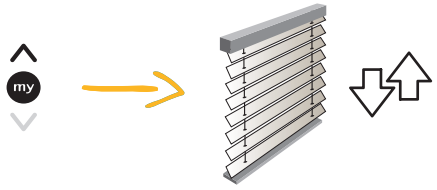


2 back-and-forth movements = function activated with low sensitivity



3 back-and-forth movements = function activated with high sensitivity

Simultaneously press and hold the **Up** and **my** buttons: the EVB makes a brief movement.



1 back-and-forth movement = setting validated

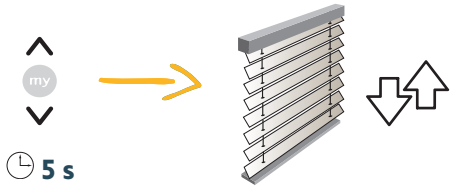
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→ AUTOMATIC READJUSTMENT

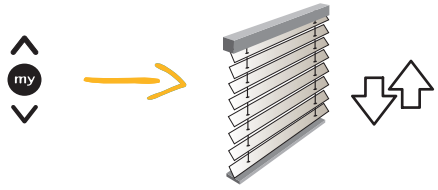
CAUTION

Risk of product breakage: make sure that the EVB's mushroom is properly configured to stop the slats when being raised.

To enter automatic readjustment function setting, simultaneously press and hold the **Up** and **Down** buttons for at least 5 seconds: the EVB makes a brief movement.

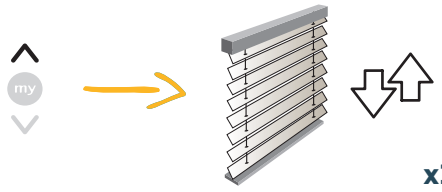


Simultaneously press the **Up**, **my** and **Down** buttons: the EVB makes a brief movement.

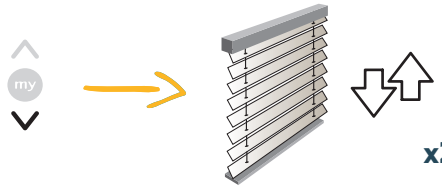


To **activate** the automatic readjustment function, press the **Up** button.

To **deactivate** it, press the **Down** button.

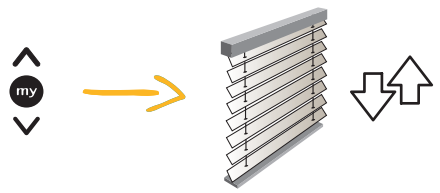


1 single back-and-forth movement = function activated



2 back-and-forth movements = function deactivated

To validate the setting: simultaneously press the **Up**, **my** and **Down** buttons.



1 back-and-forth movement = setting validated

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3.6. TIPS & RECOMMENDATIONS

3.6.1. RESETTING THE DRIVE

Resetting deletes all programmed control points, sensors and end limit settings and resets the drive's direction of rotation and the favourite **my** position.

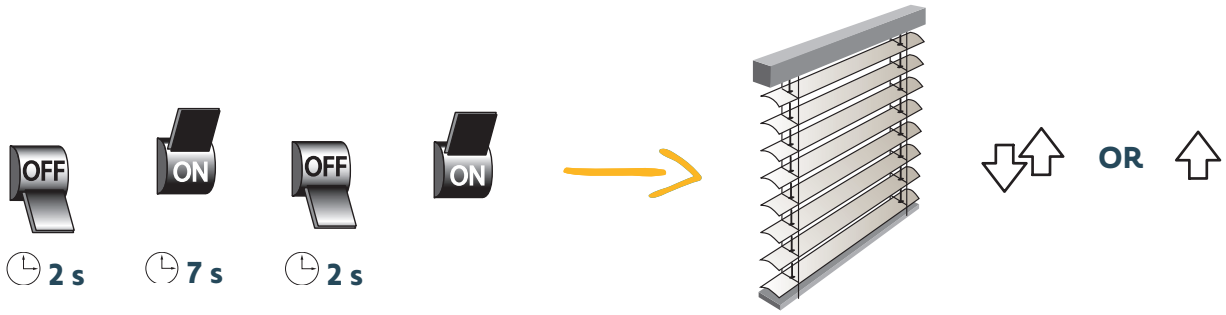
CAUTION

Ensure that the EVB is at least 30 cm below the mushroom.

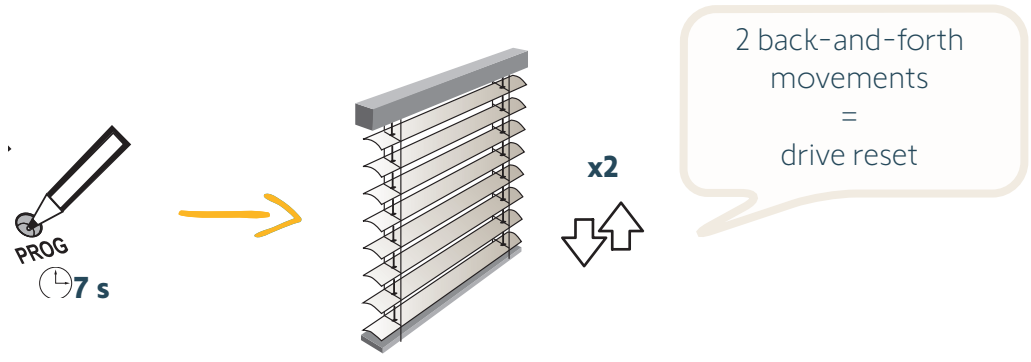
NOTICE

***Tip**: if possible, put the EVB in the lower end limit position before resetting the drive. If you do this, there will be no need to re-set the lower end limit*

Leave the drive's power on for at least **15 seconds**, then perform a double cutout, as shown below:



Press and hold the **PROG** button on the local Somfy io control point for **7 seconds**:



NOTICE

The current position of the EVB is stored as the lower end limit position, unless the lower end limit position has been locked by the manufacturer.

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3.6.2. TROUBLESHOOTING TABLE

Observations	Possible causes	Solutions
The EVB does not operate.	The drive is wired incorrectly.	Check the wiring and modify as required.
	The overheating protection on the drive has been activated.	Wait for the drive to cool down.
	The cable used is not compliant.	Check the cable and make sure that it has 3 conductors.
	The control point battery is low.	Check the battery and replace it as required.
	The control point is not compatible.	Check the compatibility and replace the control point as required.
	The Somfy io control point being used is not programmed.	Use a programmed control point or program this control point.
The EVB stops too soon.	The end limits are incorrectly programmed.	Re-set the end limits.
The EVB does not respond when the lower end limit is set.	The lower end limit has been locked by the manufacturer and can not be re-set.	Do not attempt to set the lower end limit.Mechanically disconnect the drive, unwind the apron to the lower end limit, then reassemble the drive.
The EVB is blocked in its upper end limit position.	The drive was reset when the EVB was very close to the mushroom.	Re-set the lower end limit.
The EVB's slats do not incline easily.	The control point is not appropriate.	Pair a new control point with dedicated Mode 3 to use with EVB.
The EVB's slats do not orient easily.	The tilting travel is incorrectly programmed.	Re-set the tilting travel.

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Observations	Possible causes	Solutions
The **my** position is not appropriate.	The tilting travel is incorrectly programmed.	Re-programme the tilting travel, then the **my** position.
One of the EVBs controlled by a building controller is no longer synchronised.	The EVB met an obstacle when rising and reversed to relieve the stress.	Lower the EVB to the lower end limit to resynchronise the drive with the controller.

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3.6.3. FAQ

→ EVEN THOUGH A SUNLIGHT SENSOR IS PRESENT, WHEN THERE IS LITTLE SUNLIGHT, WHY DOESN'T MY EVB ORIENT ITS SLATS HORIZONTALLY?

- If the sunlight sensor is not paired / programmed, then it must be paired / programmed as indicated in the sensor's instruction manual.
- If the sunlight sensor is already paired / programmed, the tilting travel and the horizontal slat position must be re-set.
- If the favourite position **my** is deleted, then it must be reprogrammed.

→ WHY DOES MY EVB, EQUIPPED WITH A WIND SENSOR, REGULARLY (HOURLY) RAISE UP TO THE UPPER END LIMIT POSITION?

The sensor's battery may be weak. Check the battery and replace it if necessary.

→ DURING PROGRAMMING OR PAIRING, WHY DO ONE OR MORE EVBS NOT REACT AS DESCRIBED IN THE MANUAL?

The programming / pairing operation was not performed correctly. Perform a double cutout and repeat the programming / pairing procedure from the very beginning.

→ I WANT TO ADD/DELETE A SOMFY IO SENSOR OR CONTROL POINT. HOW CAN I DO IT?

To add or remove an automated control function on the drive, refer directly to this automated system's instruction manual.

→ WHY HAS THE UPPER END LIMIT OF MY EVB CHANGED SLIGHTLY?

When the EVB rises, the lifting tapes can wind up more efficiently as the blind is used over time, which results in the upper end limit position changing. To overcome this, activate the automatic readjustment function.

However, if the change is due to incorrect stacking of the ladders, this function will not compensate for it.

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4. USE AND MAINTENANCE

NOTICE

This drive does not require any maintenance operation.

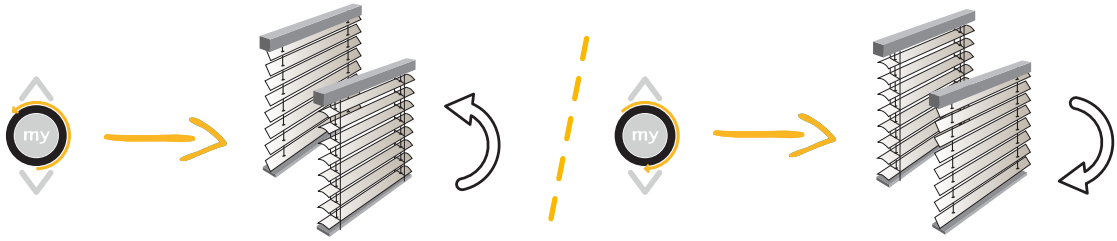
4.1. UP AND DOWN BUTTONS

4.1.1. USING A CONTROL POINT WITH A VARIATOR

Pressing and holding the **Up** or **Down** button causes the EVB to move up or down completely.

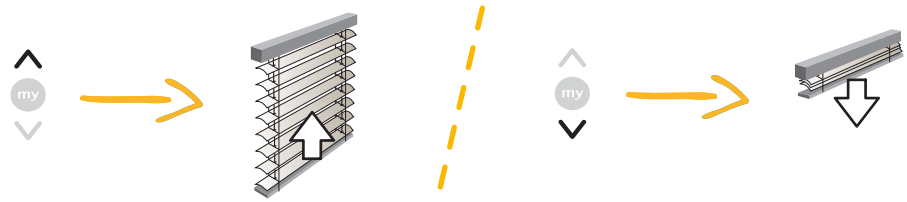


A **rotation** of the **Variator** results in the orientation of the EVB's slats.

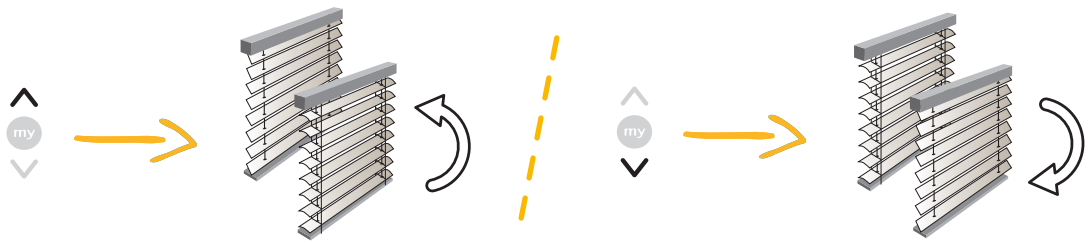


4.1.1. USING A CONTROL POINT WITHOUT A VARIATOR

Pressing and holding the **Up** or **Down** button causes the EVB to move up or down completely.



A **brief press** on the **Up** or **Down** button results in the orientation of the EVB's slats.



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4.2. STOP FUNCTION

While the EVB is moving, **briefly** press the **my** button to stop the EVB.

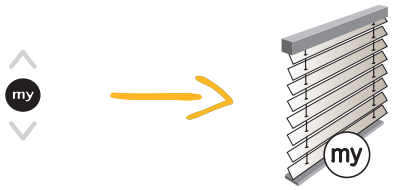


4.3. FAVOURITE POSITION

NOTICE

An intermediate position called "favourite position (my)" is preprogrammed in the drive, between the upper and lower end limit positions. This favourite position is factory pre-set at 600 ms from the lower end limit position. It corresponds to the slats lowered position, partially-open position.

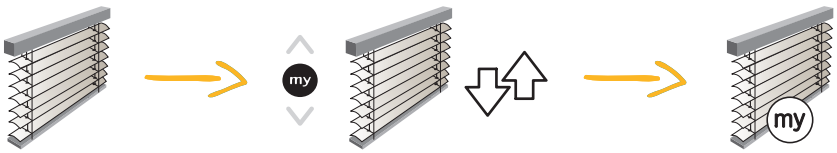
When the EVB is stopped, **briefly** press the **my** button. The EVB begins to move to the position then stops and inclines the slats to the previously programmed angle.



→ MODIFICATION OF THE FAVOURITE POSITION (MY)

Put the EVB in the new desired favourite position (**my**).

Press the **my** button until the EVB begins to move: the new favourite (**my**) position is programmed.

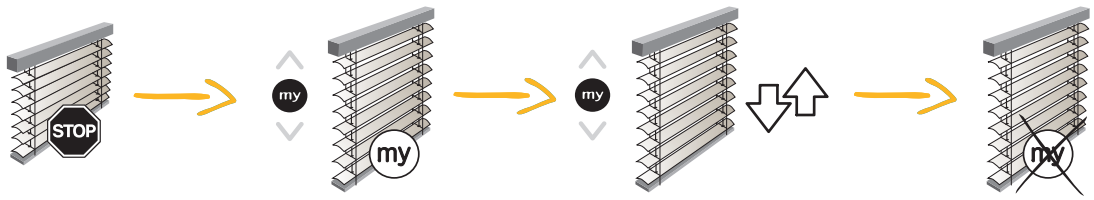


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→ DELETING THE FAVOURITE POSITION (MY)

When the EVB is stopped, **briefly** press the **my** button: the EVB starts to move and goes to the favourite position.

Press and hold the **my** button again, until the EVB begins to move: the favourite position is deleted.



CE SOMFY ACTIVITES SA, 74300 CLUSES FRANCE as manufacturer hereby declares that the drive covered by these instructions when marked for input voltage 230V~50Hz and used as intended according to these instructions, is in compliance with the essential requirements of the applicable European Directives and in particular of the Machinery Directive 2006/42/EC and EMC Directive 2014/30/EU. The full text of the EU declaration of conformity is available at www.somfy.com/ce. Philippe Geoffroy, Approval manager, acting on behalf of Activity director, Cluses, 06/2024.

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