

Powerturn IS-Mechanism

EN Installation instructions




158635-01

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1 Symbols and means of representation

Important information and technical notes are highlighted to explain correct operation.

Symbol	Meaning
	means "important note"
	means "additional information"
	<p>Symbol for an action: Here you have to do something.</p> <p>▶ If there are several actions to be taken, keep to the given order.</p>

2 Product liability

In accordance with the manufacturer's liability for their products as defined in the German "Produkthaftungsgesetz" (Product Liability Act), the information contained in this brochure (product information and proper use, misuse, product performance, product maintenance, obligations to provide information and instructions) is to be noted and followed. Failure to comply releases the manufacturer from his statutory liability.

3 Safety

3.1 Proper use

The Powerturn integrated closing sequence control has been designed for mechanical control during the closing of double-leaf single-action swing leaf doors. The construction components required are a supplement to the Powerturn drive and must be installed according to these instructions.

The Powerturn integrated closing sequence control

- is designed for use on fire and smoke protection doors.
- may be used on emergency exits.
- must not be used for potentially explosive areas.

Any other use than the proper use, such as permanent manual operation, as well as all changes to the product are impermissible.

Observe the "GEZE Product information for door closers".

3.2 Standards

During installation of the closing sequence control, the applicable standards must be heeded corresponding to Powerdrive.

DIN EN 1158 is also applicable

3.3 Reference documents

- Powerturn installation instructions
- Powerturn wiring diagram

The diagrams are subject to change without notice. Use only the most recent version.

3.4 Safety instructions



The description of the overall installation of the drive is not the subject of these instructions. This information can be found in the Powerturn installation instructions.

All the necessary safety instructions for conversion or extension to a double-leaf version can be found on the following pages.

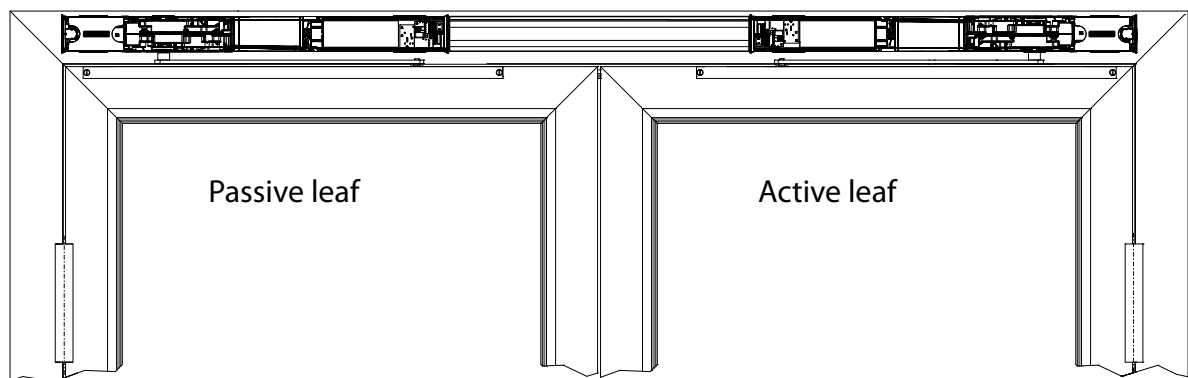
4 Tools and aids

Tool	Size
Drill bits	Ø 2 mm
Open-ended spanner	Size 5.5
Allen key	1.5 mm
Allen key	2.5 mm
Pozidrive screwdriver	

5 Types of installation

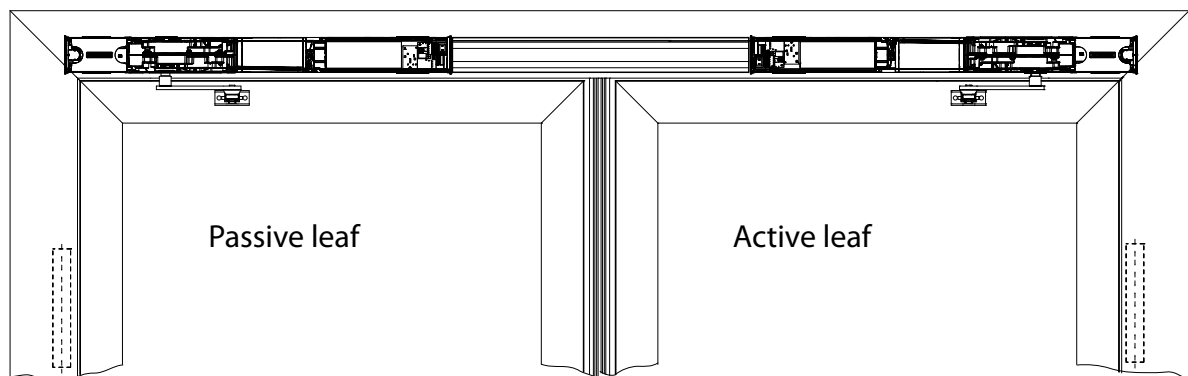
5.1 Type of installation transom installation hinge side

With this type of installation, only roller guide rail and lever can be used. Details about permissible reveal depth, door overlap and installation holes can be found in the Powerturn installation instructions.



5.2 Type of installation transom installation opposite hinge side

With this type of installation, both link arms as well as roller guide rail and lever can be used. Details about permissible reveal depth, door overlap and installation holes can be found in the Powerturn installation instructions.



Door leaf installation with mechanical, integrated closing sequence control is not possible.

6 Product description

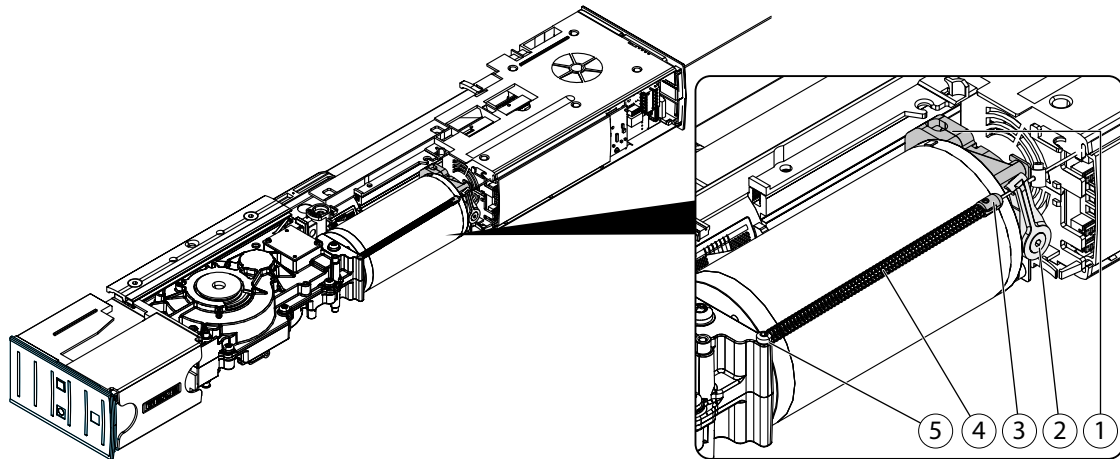
6.1 Ares of application



See Powerturn installation instructions for mechanical and electrical data.

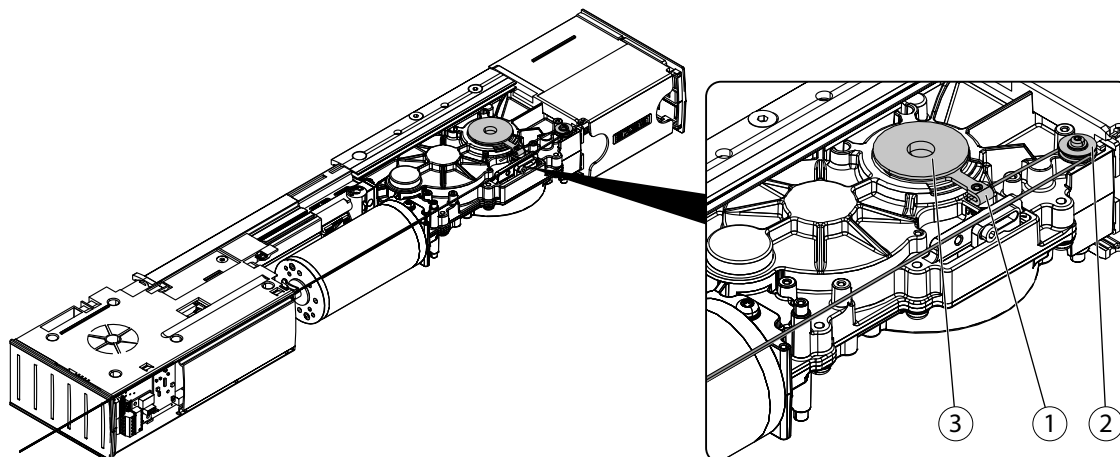
6.2 Drive unit with pre-assembled IS-mechanism

6.2.1 Active leaf drive transom installation hinge side left hand



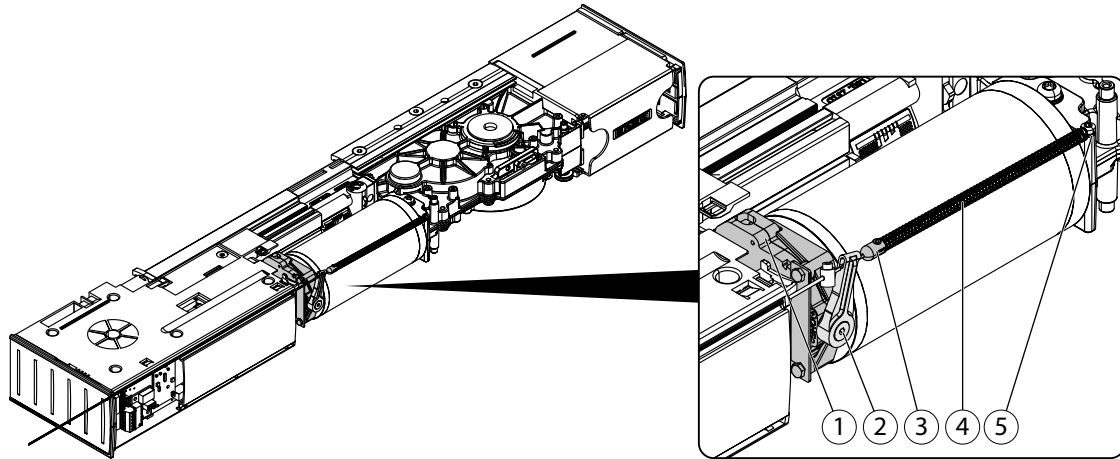
- 1 Brake unit
- 2 Setting lever
- 3 Wire cable tensioner
- 4 Tension spring for tautening the wire cable
- 5 Spring attachment

6.2.2 Fixed leaf drive transom installation hinge side right hand



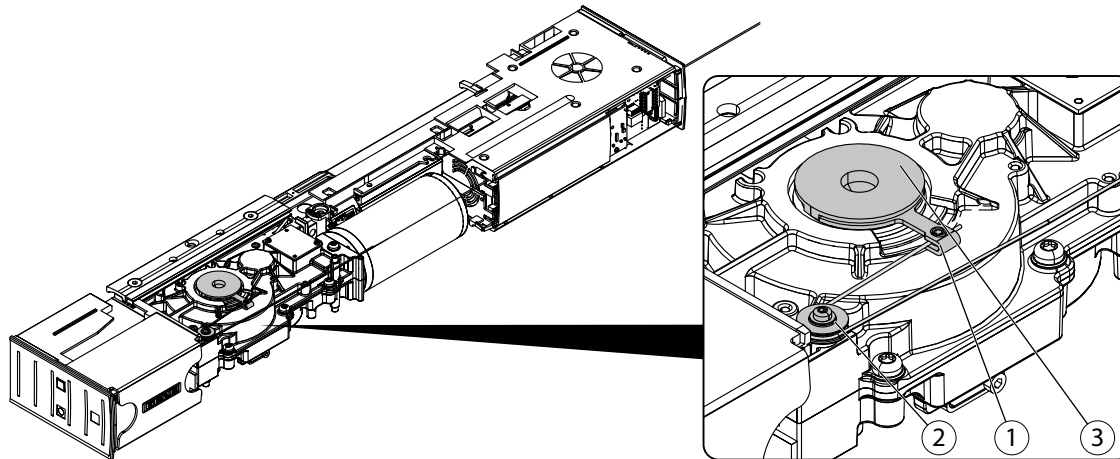
- 1 IS-rocker
- 2 Return pulley
- 3 IS-counterpiece

6.2.3 Active leaf drive transom installation hinge side right hand



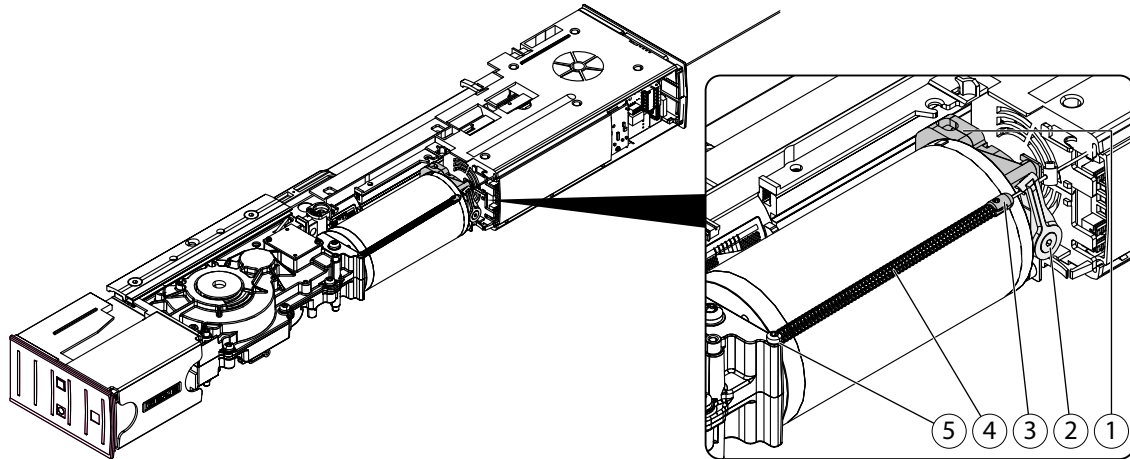
- 1 Brake unit
- 2 Setting lever
- 3 Wire cable tensioner
- 4 Tension spring for tautening the wire cable
- 5 Spring attachment

6.2.4 Fixed leaf drive transom installation hinge side left hand



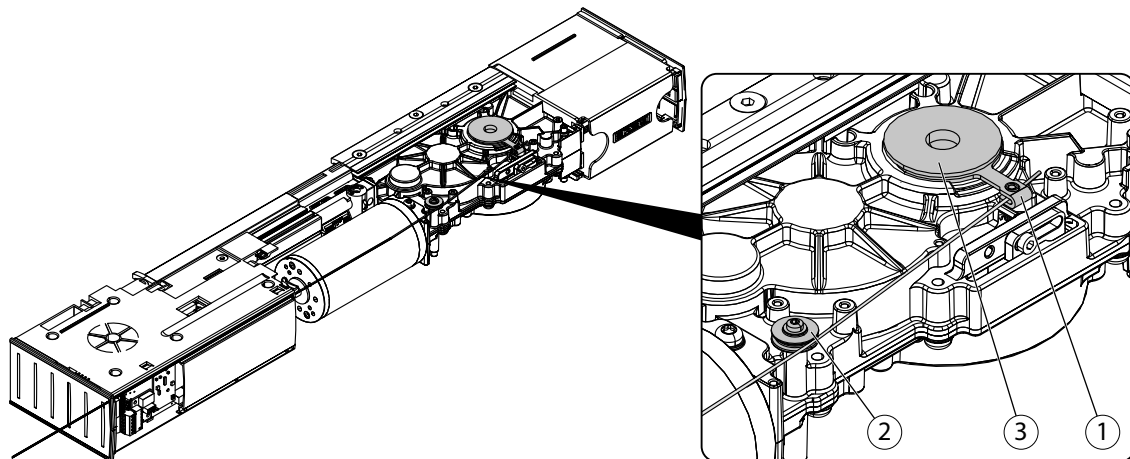
- 1 IS-rocker
- 2 Return pulley
- 3 IS-counterpiece

6.2.5 Active leaf drive transom installation opposite hinge side right hand



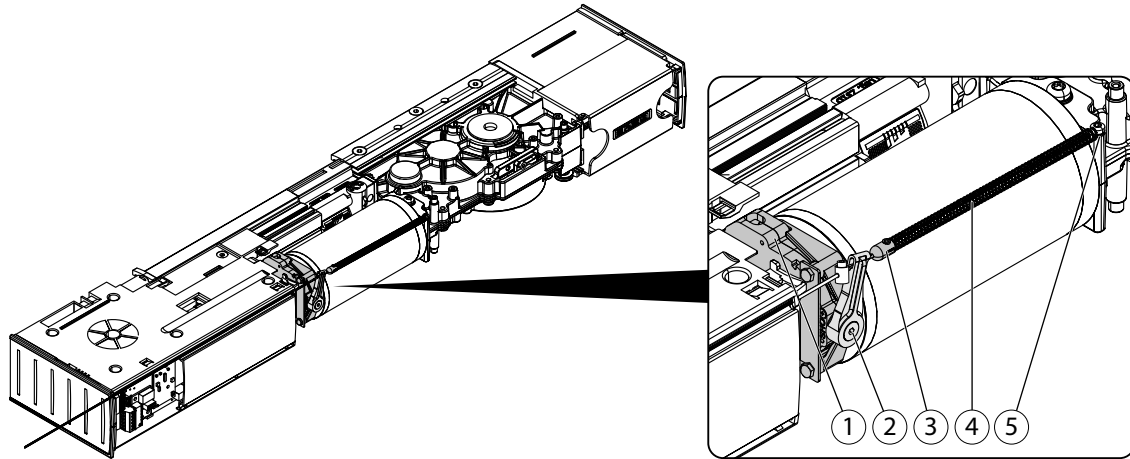
- 1 Brake unit
- 2 Setting lever
- 3 Wire cable tensioner
- 4 Tension spring for tautening the wire cable
- 5 Spring attachment

6.2.6 Fixed leaf drive transom installation opposite hinge side left hand



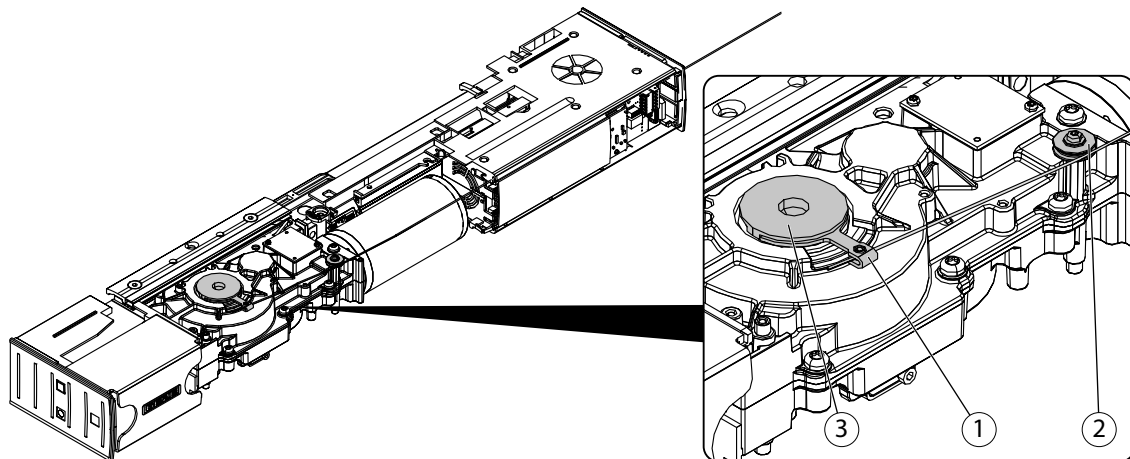
- 1 IS-rocker
- 2 Wire cable guide roller
- 3 IS-counterpiece

6.2.7 Active leaf drive transom installation opposite hinge side left hand



- 1 Brake unit
- 2 Setting lever
- 3 Wire cable tensioner
- 4 Tension spring for tautening the wire cable
- 5 Spring attachment

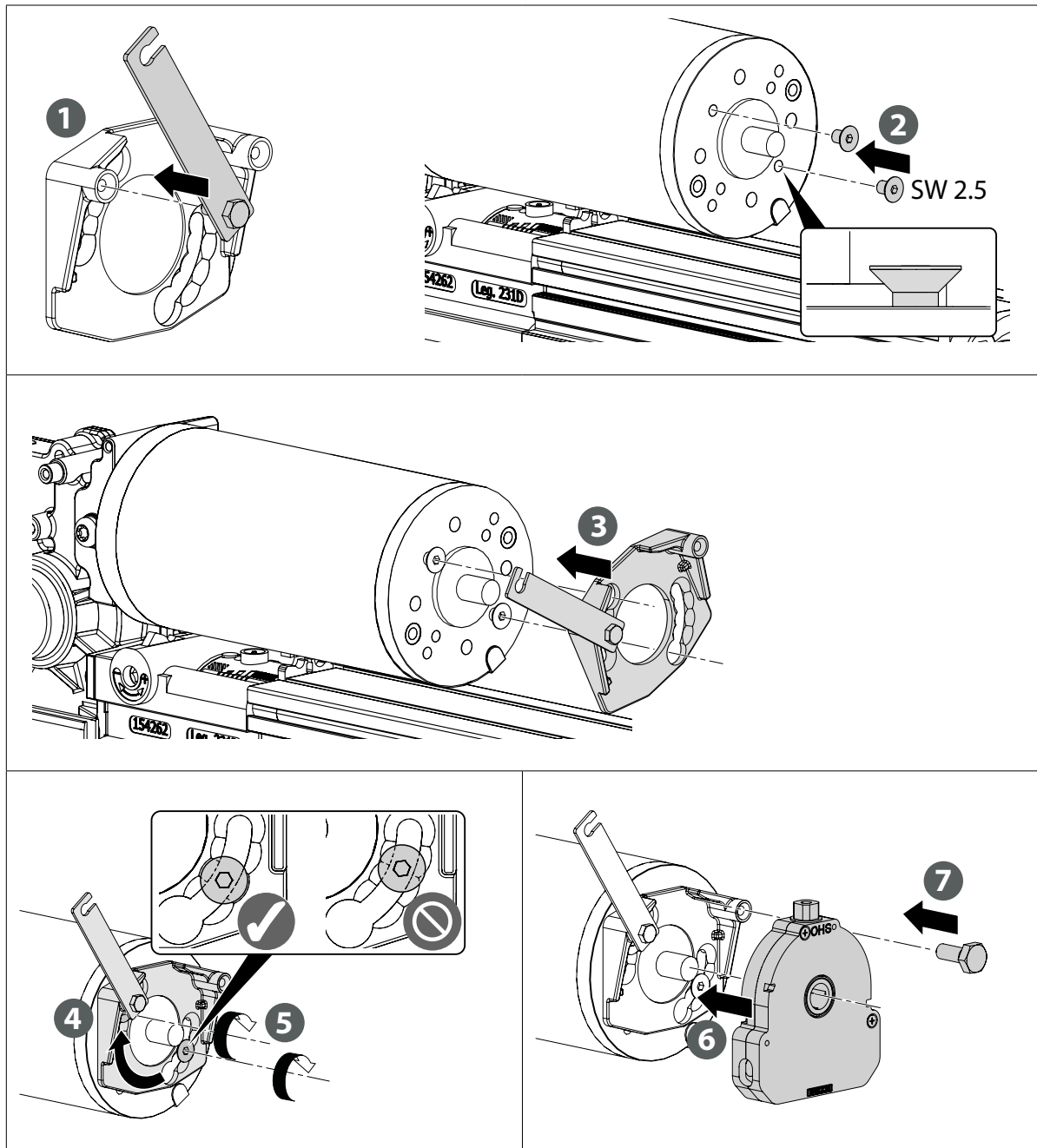
6.2.8 Fixed leaf drive transom installation opposite hinge side right hand

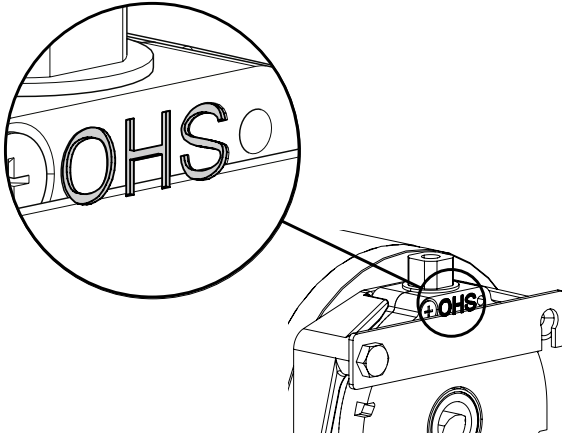
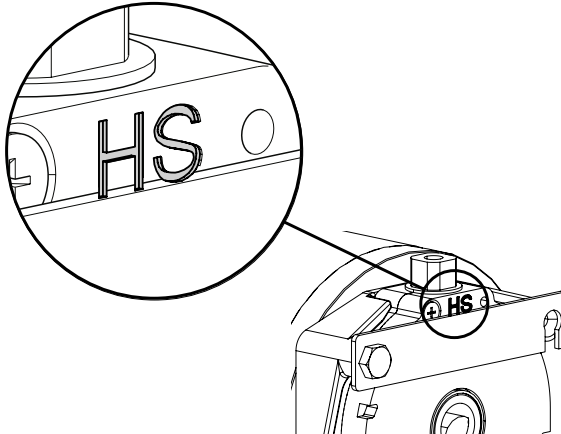
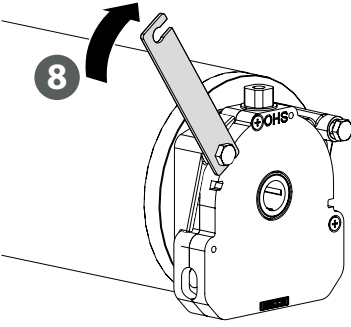
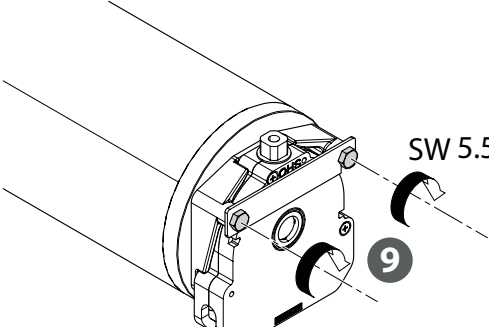
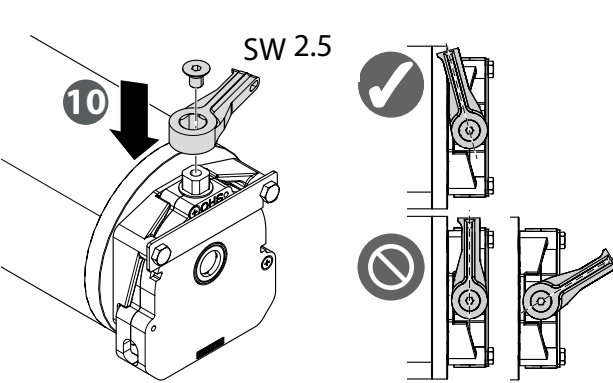
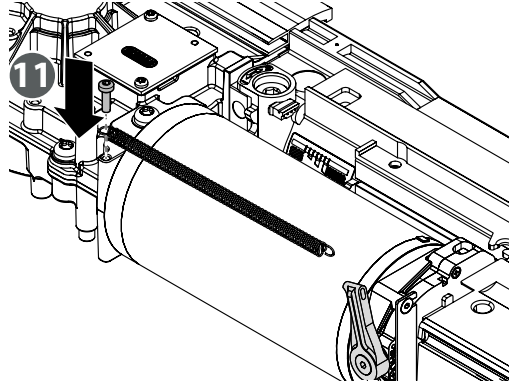


- 1 IS-rocker
- 2 Wire cable guide roller
- 3 IS-counterpiece

7 Installing the integrated closing sequence mechanism

7.1 Installing the IS-mechanism of the active leaf drive



Transom installation opposite hinge side Installation position brake unit Opposite Hinge Side (OHS)	Transom installation hinge side Installation position brake unit Hinge Side (HS)
	
	
	

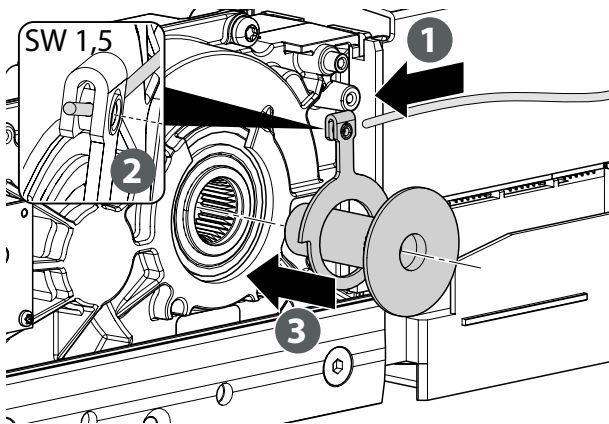
- ▶ During installation of the setting lever, heed the adjustment of the IS-mechanism as set out in chapter 6.2.
- ▶ The spring is always installed on the same side as the setting lever. See chapter 6.2 for details on adjusting the IS-mechanism.

7.2 Installing the IS-mechanism of the fixed leaf drive

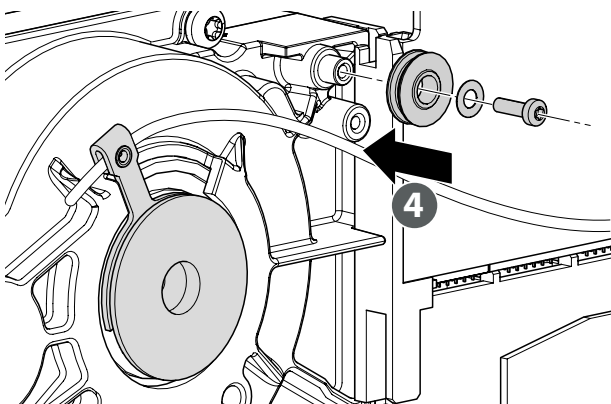
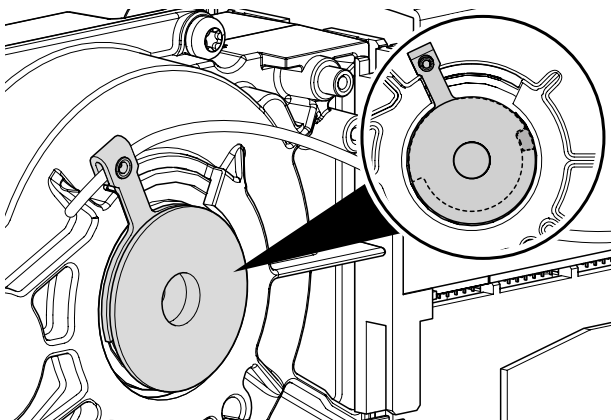
Transom installation hinge side

- ! **Damage to the IS-rocker by the IC counterpiece.**
 - ▶ When the IS-mechanism has been pre-assembled, only put the fixed leaf drives into electrical commissioning when the drivers have been installed on the door using roller lever or link arm.

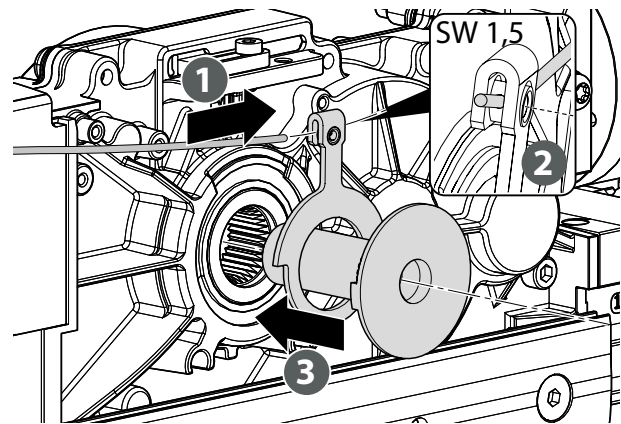
Left-hand



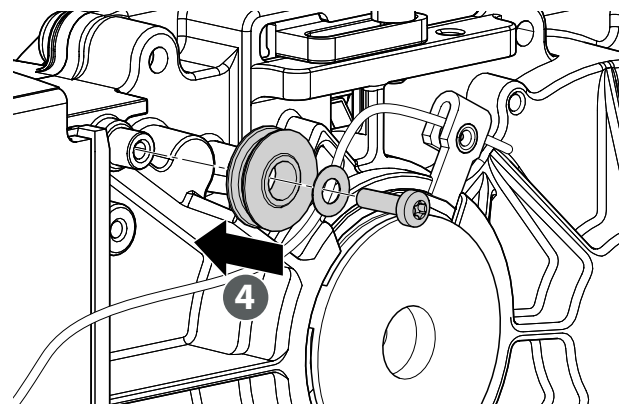
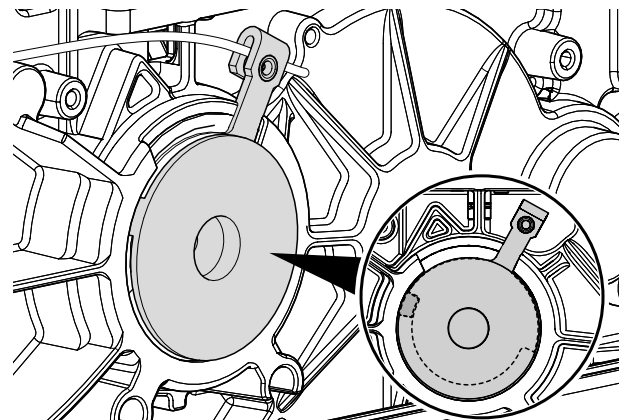
Position of IS-rocker and counterpiece after insertion (drive not yet installed on the door):



Right-hand



Position of IS-rocker and counterpiece after insertion (drive not yet installed on the door):

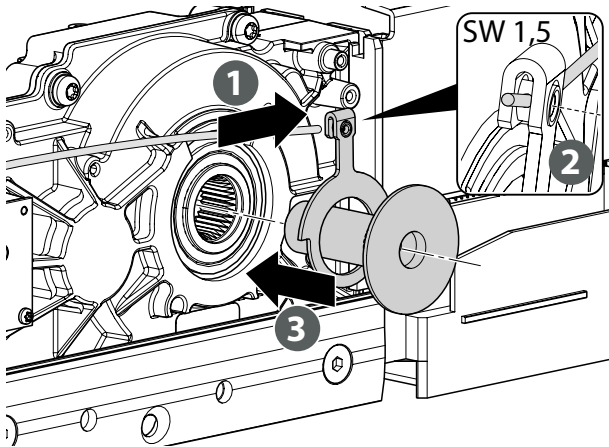


IS-rocker must be able to rotate easily on the IS-rocker shoulder.
The curved end of the IS-rocker is facing the gear

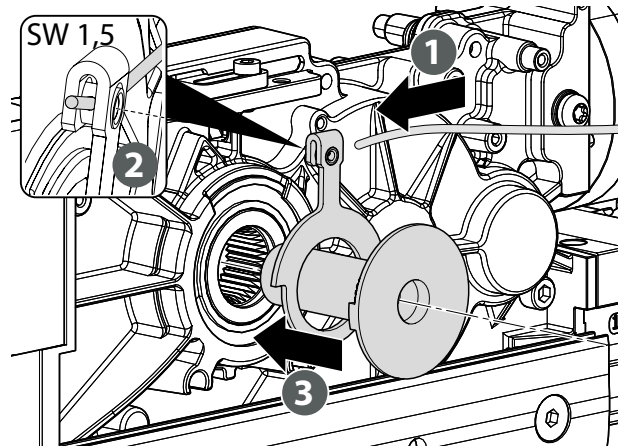
Transom installation opposite hinge side

- ! Damage to the IS-rocker by the IS-counterpiece.
 - ▶ When the IS-mechanism has been pre-assembled, only put the fixed leaf drives into electrical commissioning when the drivers have been installed on the door using roller lever or link arm.

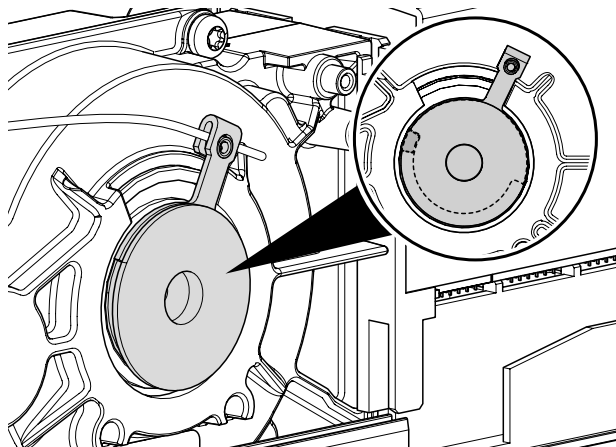
Right-hand



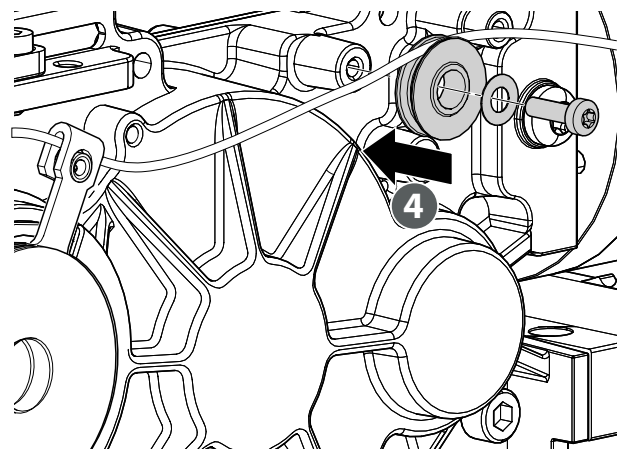
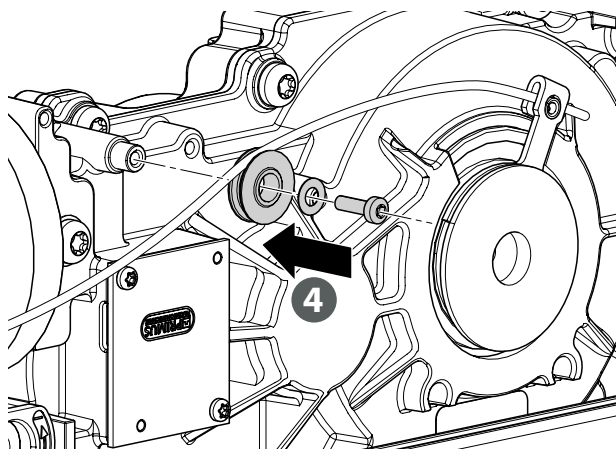
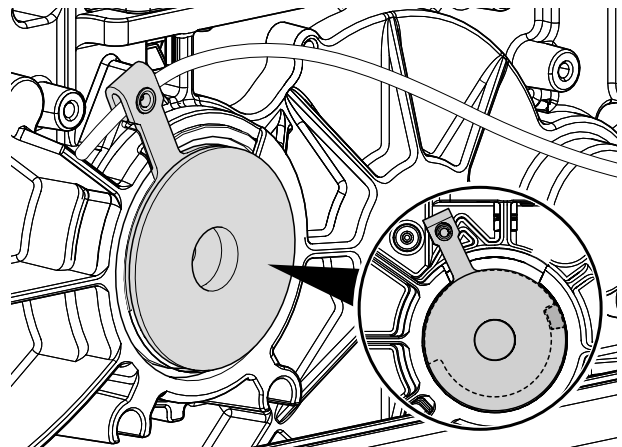
Left-hand



Position of IS-rocker and counterpart after insertion (drive not yet installed on the door):



Position of IS-rocker and counterpart after insertion (drive not yet installed on the door):

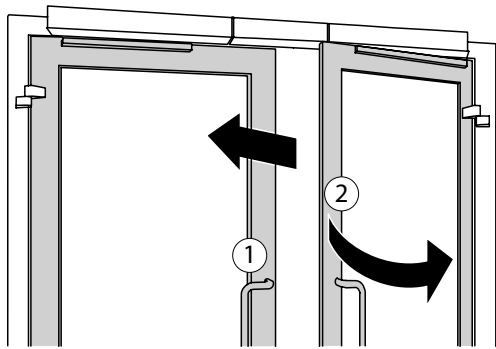


IS-rocker must be able to rotate easily on the IS-rocker shoulder.
The curved end of the IS-rocker is facing the gear.

7.3 Connecting the IS-mechanism of active and passive leaf

► Install the drives and levers. See the Powerturn installation instructions for details of drive installation.

Connection of the active and fixed leaf drive:

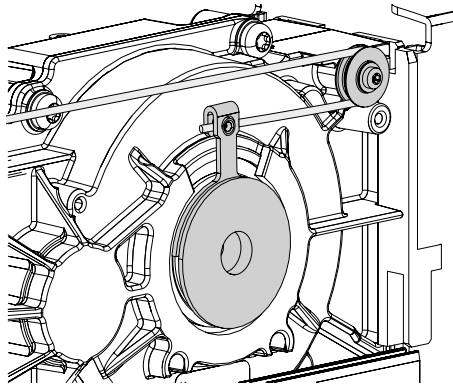


Passive leaf (1)

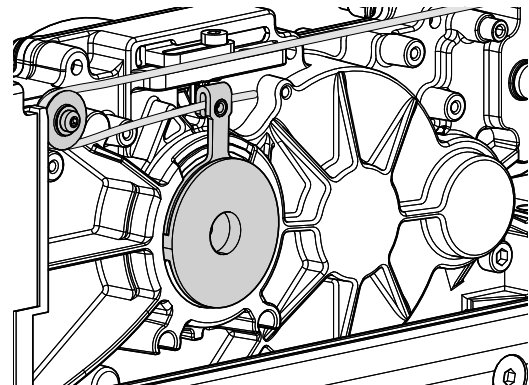
Active leaf (2)

For wire cable connection see chapter 6.2 "Drive unit with pre-assembled IS-mechanism".

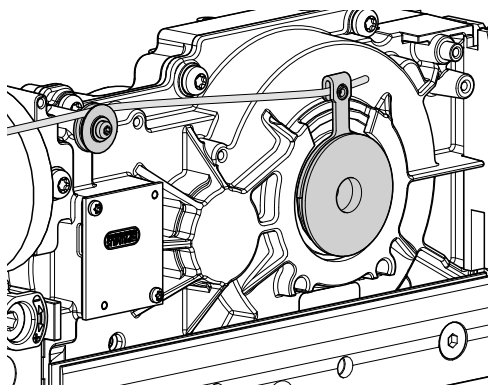
Route of wire cable fixed leaf drive hinge side
Left-hand:



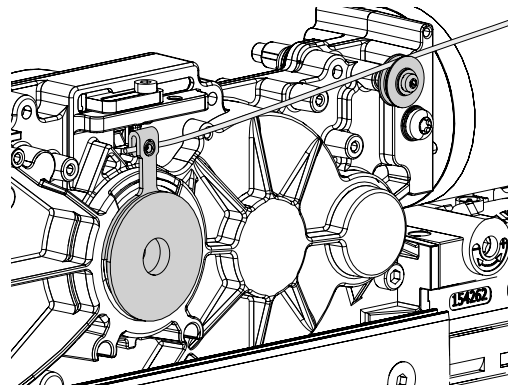
Route of wire cable fixed leaf drive hinge side
Right-hand:



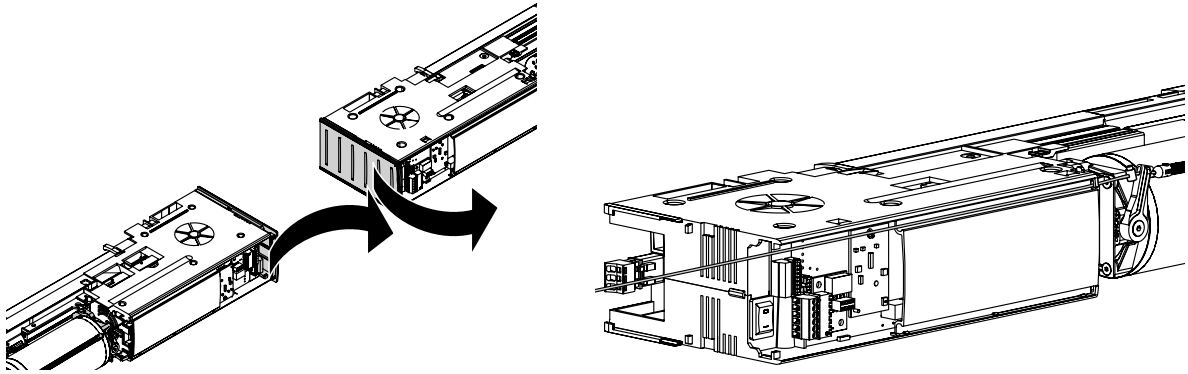
Route of wire cable fixed leaf drive opposite hinge side
Left-hand:



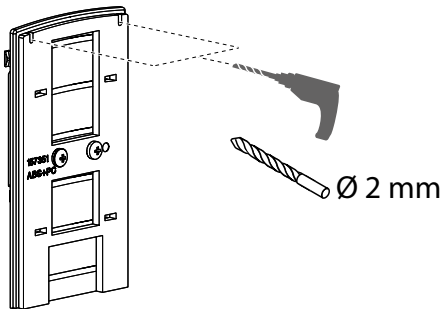
Route of wire cable fixed leaf drive opposite hinge side
Right-hand:



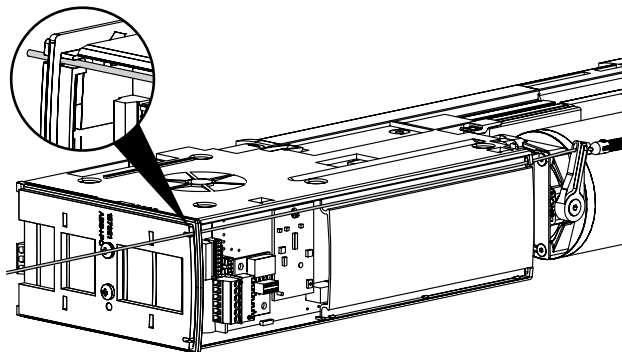
► With continuous cover, remove the side parts.



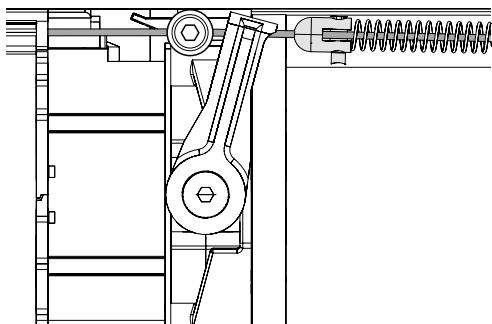
► Drill passageways in side parts for divided cover:



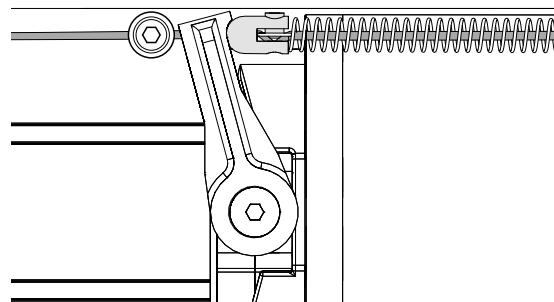
Route of wire cable near the control:



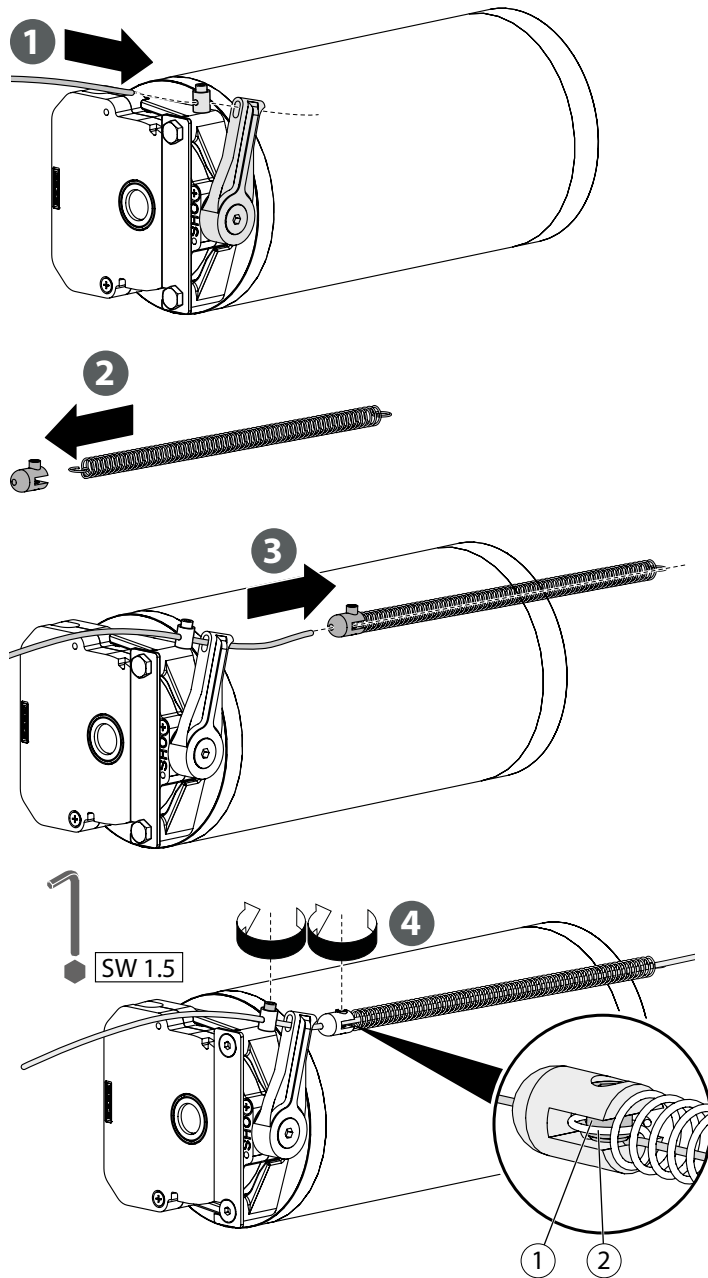
Position of setting lever with the brake closed:



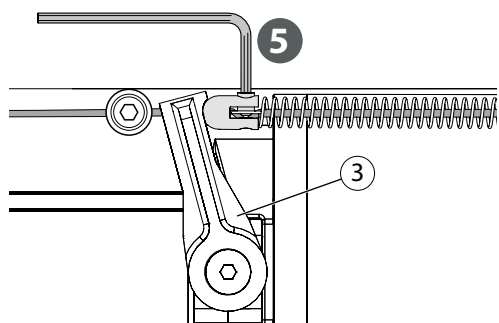
Position of setting lever with the brake opened:



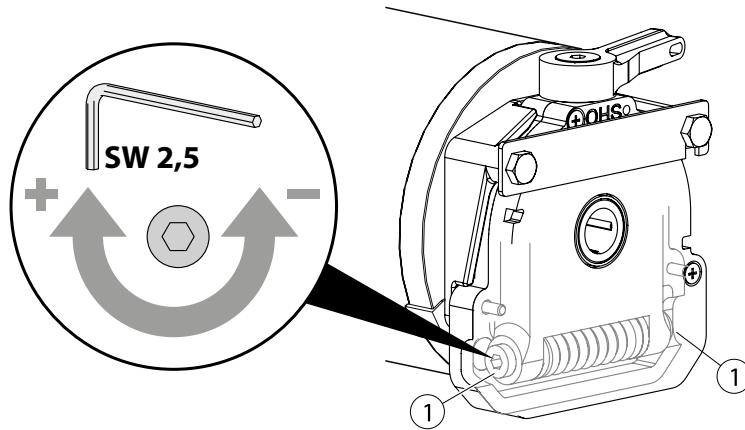
Attach the wire cable and spring on the wire cable tensioner



Setscrew (1), tension spring (2)

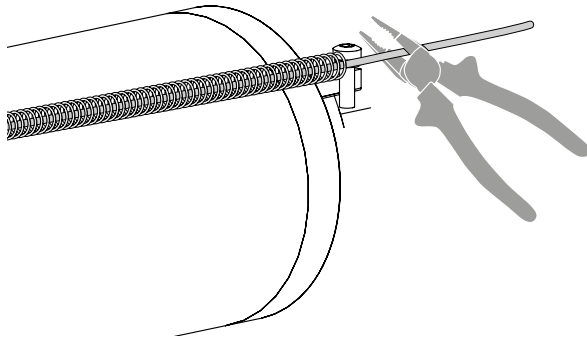


Position of the setting lever (3) = brake opened, active leaf closing.

Set the retaining action of the integrated closing brake

The correct setting of the entire IS-mechanism has been achieved when, with the brake closed and fixed leaf closed, the setting lever takes up the position as designated for the open brake.

- ! The wire cable must be tensioned both with opened and closed integrated closing brake between the fixed and active leaf drive.



8 Function check

- ▶ Open the active and passive leaves up to the waiting position.
- ▶ Release the passive and active leaves.

The passive leaf must start the closing movement immediately.

The active leaf must remain in position until the brake is opened by the IS-mechanism on the passive leaf.

The active leaf closes.

Further test requirements: see national/international standards and regulations.

9 Commissioning

See Powerturn installation instructions and wiring diagram for electrical connection, spring force setting and teaching process.

10 Service and after-sales service maintenance

- The maintenance work on the closing sequence control must be carried out by an expert during the maintenance cycle of the Powerturn drive.
- See Powerturn installation instructions for maintenance instructions.

11 Troubleshooting

For troubleshooting and fault elimination see the fault table in the wiring diagram, "Fault messages" section.

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