



Garage Door Drive User Instructions

AXORN 65

1 215 007










AXORN 85

1 215 008



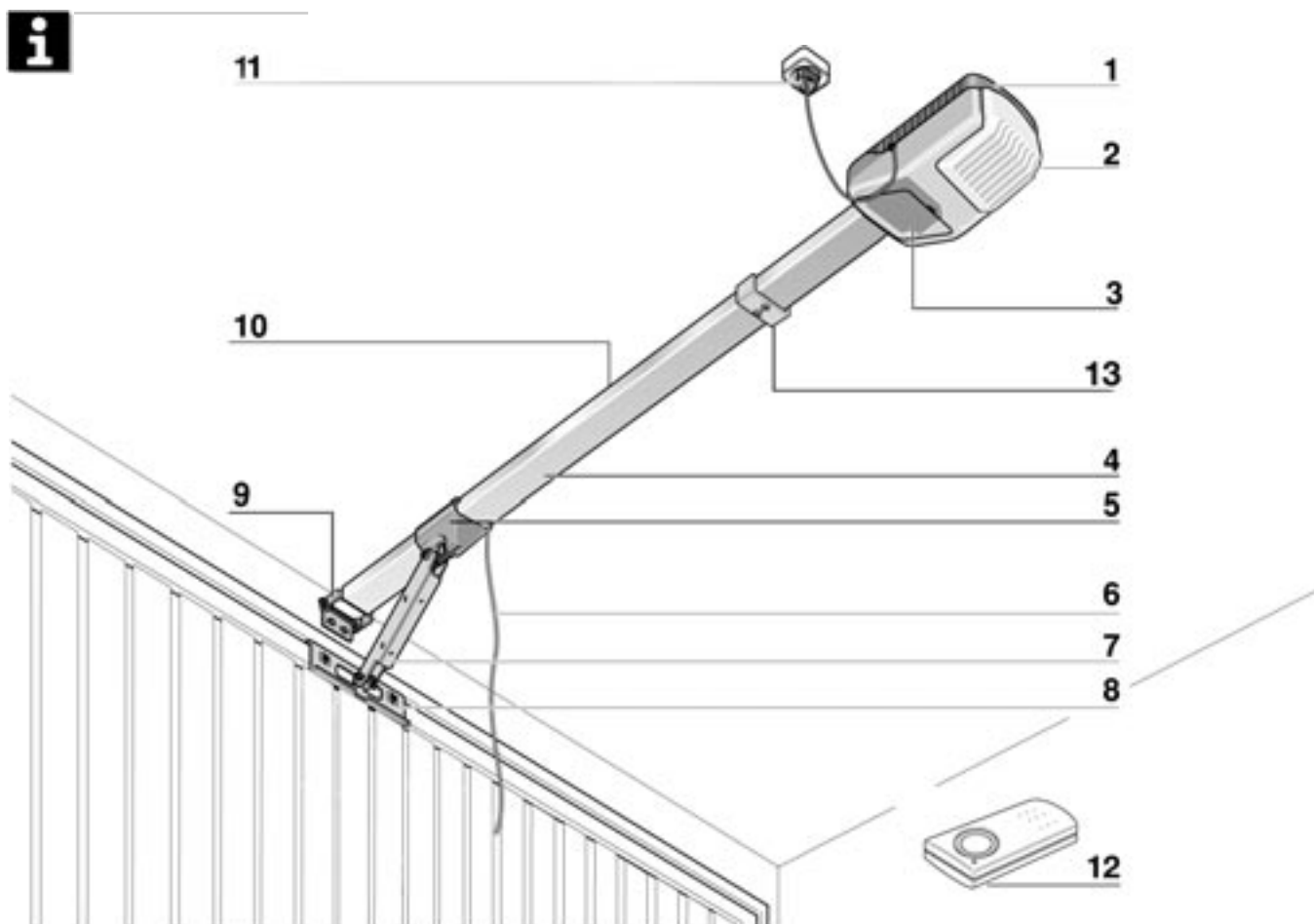
Contents

SOMFY-Garage Door-Drive AXORN 65/85

	Review of Parts	3
	Preparation Prior to Installation	4
	Important for your safety	4
	Check contents of package	5
	Which drive for which door	5
	External emergency release	6
	Mechanical end-stop	6
	Door locking	6
	Installation conditions, example	7
	Installation Instructions	8
	Important advice for safe installation	8
	Pre-assembly of drive unit	8
	Installation	10
	Adjustment Instructions	13
	Commissioning	13
	Adjusting upper and lower end stops	14
	Carrying out a test run	14
	Registering hand transmitter	15
	Test recognition of obstacle	15
	Connections	16
	Accessories	16
	Internal, Code and key button	16
	Light beam, access door, safety contact strip	17
	Operating Instructions	18
	Opening, closing or stopping garage door	18
	Internal emergency release	18
	Additional Information	19
	Correcting Faults	20
	Self remedy	20
	Guarantee	21
	After sales service	21
	Miscellaneous	22
	Technical Information	22
	Accessories	22

In order that you may optimally use the advantages of the garage door drive we request that you read through these user instructions carefully.

Your new SOMFY Garage Door Drive AXORN 65/85



1. Drive housing
2. Drive lighting
3. Electronics connection
4. Running rail
5. Carriage
6. Internal emergency release
7. Guide arm
8. Securing angle for door plate
9. Securing angle / support ceiling
10. Chain with return pulley (covered)
11. Power supply
12. Hand transmitter
13. Mechanical end-stop.



Preparations Prior to Installation

SOMFY Garage Door Drive AXORN 65/85



Important for your safety

Use the garage door exclusively for:

- automatic opening and closure of door
- in private areas
- in accordance with the specification and safety instructions given in this operating instruction



Important Safety Advice

Take care - For the safety of persons it is essential to follow all the following instructions:

- Retain these instructions and pass them on to the next owner. Read the introduction completely before assembly and make particular note of the safety instructions.
- Carry out the work in the recommended sequence and familiarise yourself with the operation
- After commissioning instruct all users on the function and operation of the door drive.
- Open and close the door only when you can see the area covering the entire range of movement of the door and when there are no persons or objects inside this area.
- Only use authorised or recommended fixing elements, original spare parts and accessories.
- Replace damaged cables immediately (only by a qualified electrician).
- Keep the radio transmitter in a safe place so that it cannot be inadvertently used, e.g. by children etc)
- Only install a door drive on a correctly installed and balanced door. Incorrectly installed door can cause injury.
- Before working on the door always disconnect the power supply
- Never get hold of a moving door

Advice for persons wearing a pace maker

The power of the transmitter is within the permitted standards and is almost negligible. To eliminate even the slightest risk we recommend that you do not operate the transmitter close to your body. For your own safety point the handset to the garage door with an outstretched arm before operating.

Safety Devices

Safety devices protect against injury and physical damage.
Never ignore or deliberately by-pass safety devices.

Automatic sensing of obstacles

If the door hits an obstacle on opening it will stop moving. As the door closes the obstacle is cleared the door runs back up to the upper mechanical stop (reference point) and then up to the programmed upper end stop

- Check the function at least once per month (see chapter on "Commissioning". We also recommend the installation of various safety devices (see "Accessories).

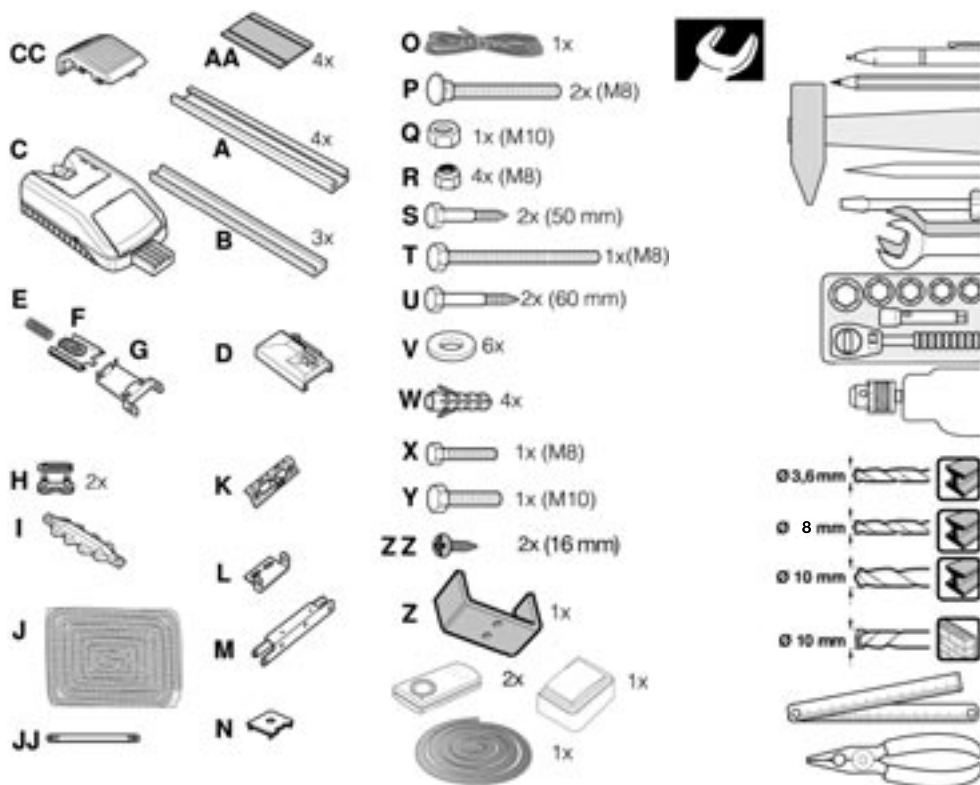


Preparation prior to Installation

SOMFY Garage Door Drive AXORN 65/85



Check contents of package



To avoid interruption during assembly check contents of package and have necessary tools ready
Note: Foam parts AA are used to muffle the sound of the chain.

Power Supply

Is there a 230 volt supply on hand?

■ Length of power cable 1 m.

If not, supply must be installed by a qualified electrician

Which drive for which Garage Door?

AXORN 65/85:

Swing Door

Ceiling sectional door (sectional door fitting available)

Wing Door (Wing Door accessory kit available)

■ Also running direction of the drive must be changed. Information about this can be obtained from your specialist dealer for SOMFY Garage Door Drives or the nearest authorised service agent. (also see User instructions for the winged door).



Preparations prior to Installation

SOMFY Garage Door Drive AXORN 65/85

AXORN 85:

Canopy Door (lifting arm required see accessories)
Side Sectioned Door.

Maximum Door Size

	AXORN 65	AXORN 85
Light doors e.g. steel	up to 7.5 m ₂	up to 12.0 m ₂
Heavy doors e.g. wood	up to 6.0 m ₂	up to 7.5 m ₂

Heights

- Up to 2.3 m for ceiling -sectionalised doors
- Up to 2.5 m for remaining garage doors
- Over 2.5 to 3.2 m with rail extension set, see "Accessories"

Support and Ceiling Stability

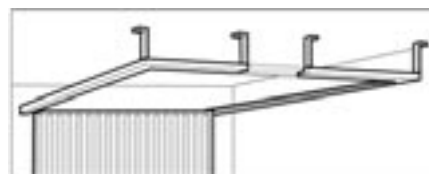
Minimum loading of support and ceiling:

700N for AXORN 65 or 900N for AXORN 85

Beware of ceiling thickness when drilling (concrete ceiling for pre-fabricated garages)!
Required minimum ceiling thickness for dowels and screws: 50 mm. Standard dowels are delivered with the package. Where required use special dowels which are suitable for foundations.

Door Mechanics

Can the door be easily opened and closed by hand? If not then have the door adjusted by skilled mechanics.



External Emergency Release

If there is no second means of entry into the garage an external release mechanism must be fitted (see Accessories). In this way the door can be opened manually in the event of a power failure or fault.

Mechanical End Stop

A secure mechanical end stop is necessary to serve as a reference point for adjusting the upper stop (e.g. re-setting after an obstacle has been sensed).

Door Locking

The garage door drive is self-locking and holds the door closed. Existing locking systems can be automated (see "Accessories"), or removed.

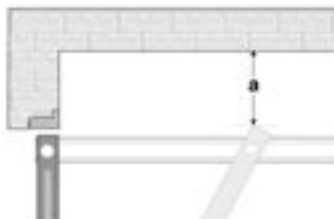


Preparation prior to Installation

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Installation Conditions Example

Where to fit the retaining angle for support /ceiling and the drive head?
(Example of retractable door)



Establish the highest point of door travel "a" (minimum gap from door face to garage ceiling. Depending on the size there are various possibilities for installation. For optimum power transmission the drive should be positioned as close as possible above the highest travel point of the door.

1. Size "a" of 38 mm to 140 mm. Garage door drive to be secured to ceiling. Assembly angled support, ceiling to be fixed to support or ceiling (preferably to support)



For lintel assembly maintain a gap of 15 mm



2. Size "a" greater than 140 mm Assembly angle support / ceiling to be mounted to the support with a 50 mm gap. Garage door drive to be hung from the ceiling (perforated rail required) see "Accessories".



3. Size "a" less than 38 mm. Install assembly angle support / ceiling and garage door drive behind the open garage door to the ceiling .See "Accessories"). Bear in mind the overall length.





Installation Instructions

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**Important advice
for safe
installation**



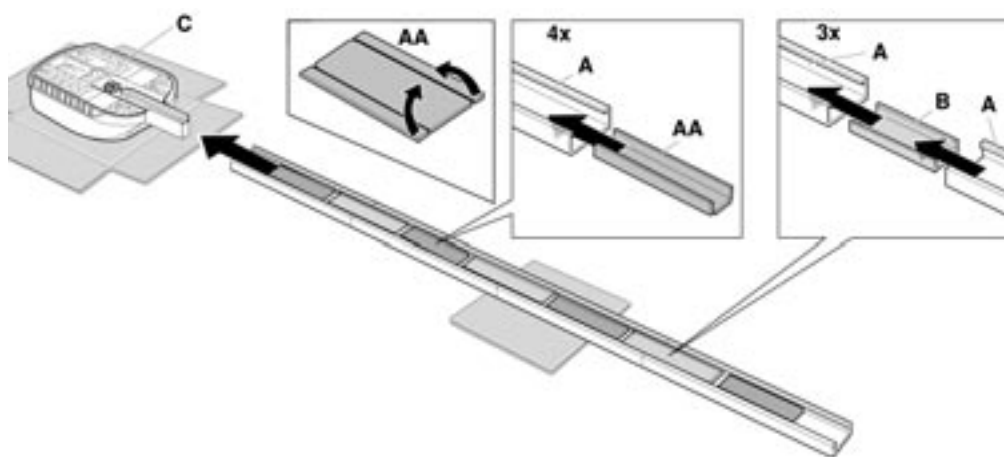
Note: Incorrect assembly can lead to serious injury Please follow all assembly instructions!

Assembly will be easier with the help of an assistant

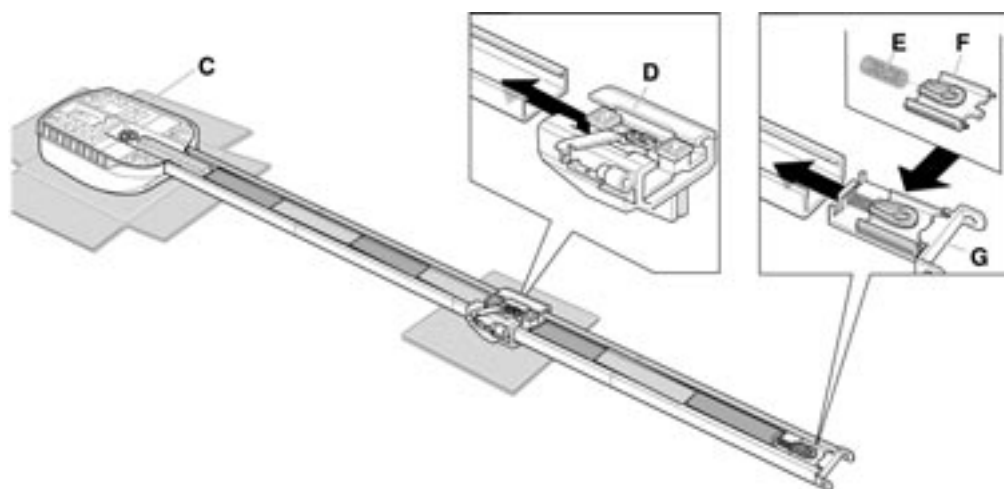
Beware!

■ When drilling overhead wear protective glasses.
To keep out dust cover drive unit before drilling

**Pre assembly of
drive unit**



- Insert rail connectors "B" up to the end stop in the guide rail "A" and assemble guide rail parts
- Bend the white foam insert "AA" at fold to dampen noise.
- Position damper in the middle of the 4 guide rails "A"
- Insert pre assembled guide rail in the drive head "C"

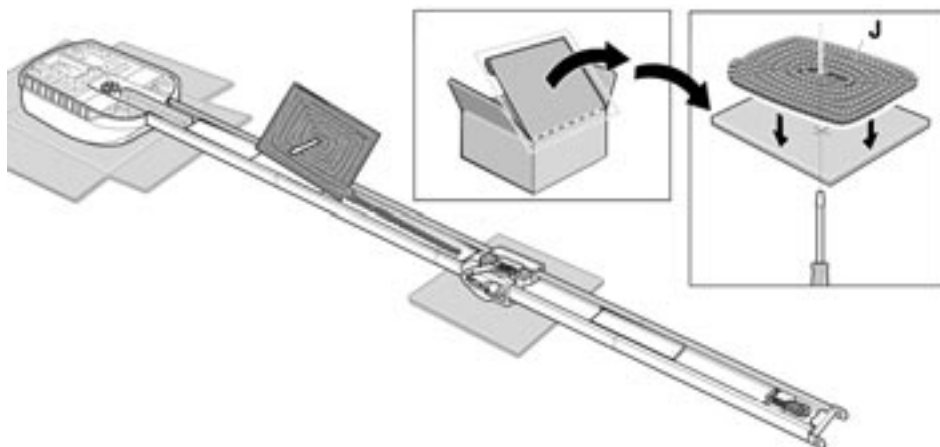


- Push carriage "D" on the running rail with the sloped part towards the motor head
- Assemble leading chain deflectors "E", "F" and "G" and insert on running rail.

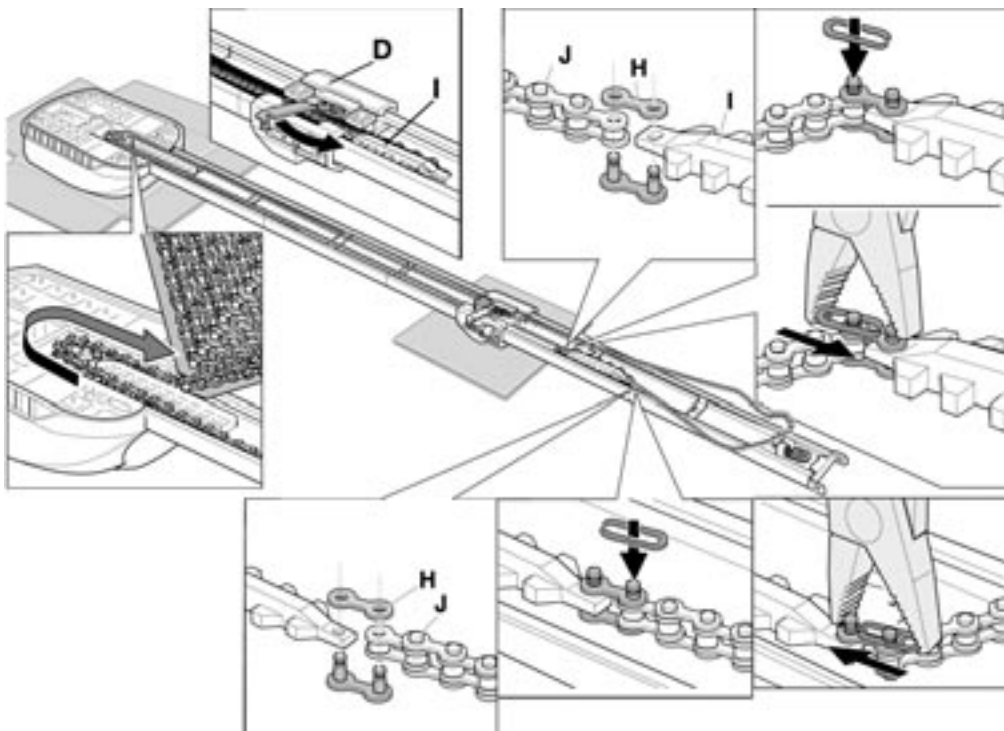


Installation Instructions

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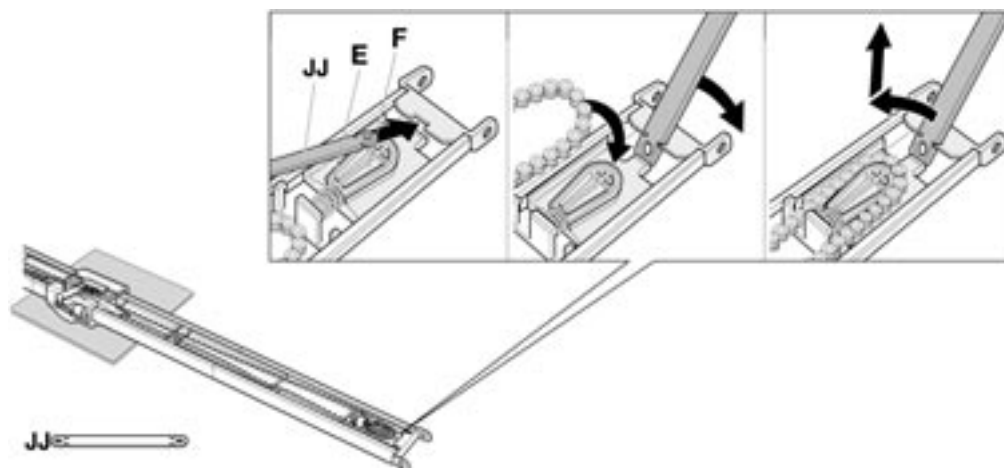


■ To facilitate unwrapping the chain use the cover of the small parts package to work on.



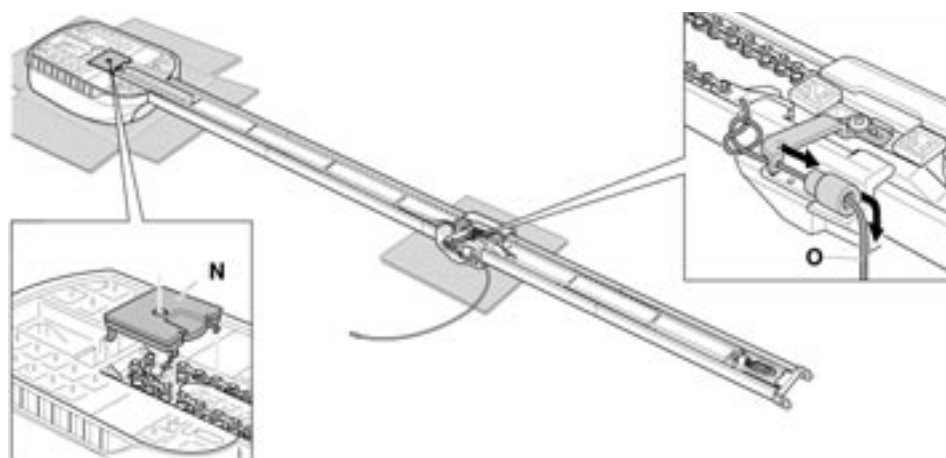
- Unwind chain in guide rail
- Beware! Make sure to thread chain through the carriage "D" on the driver side "I" To do this uncouple the carriage (metal lever must be engaged in the plastic lever)
- Connect the driver "I" with chain "J" on both sides using the chain connector link "H"

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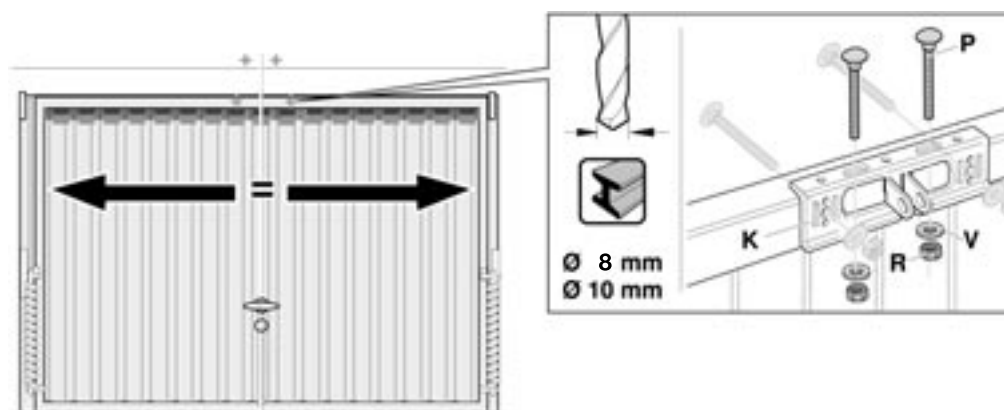
To insert chain in the chain return mechanism the spring "E" must be forcible compressed. Use the adjacent guide arm "JJ" as an aid.

Beware! The chain must be correctly positioned in the guide and must not be twisted.



- Secure emergency release cord "O"
- Fit pinion cover "N"

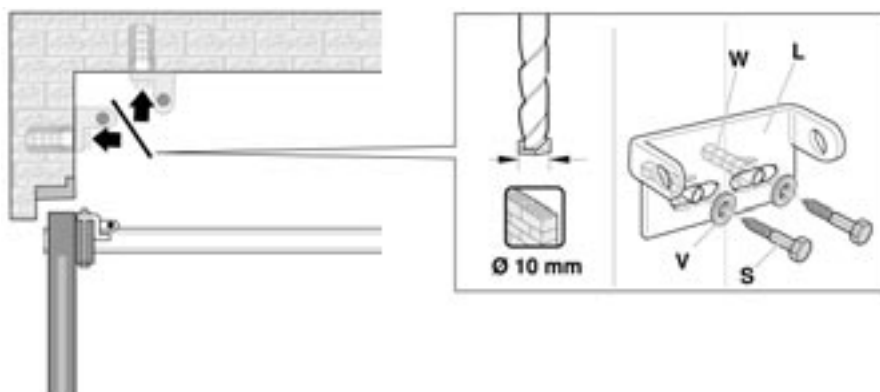
Installation



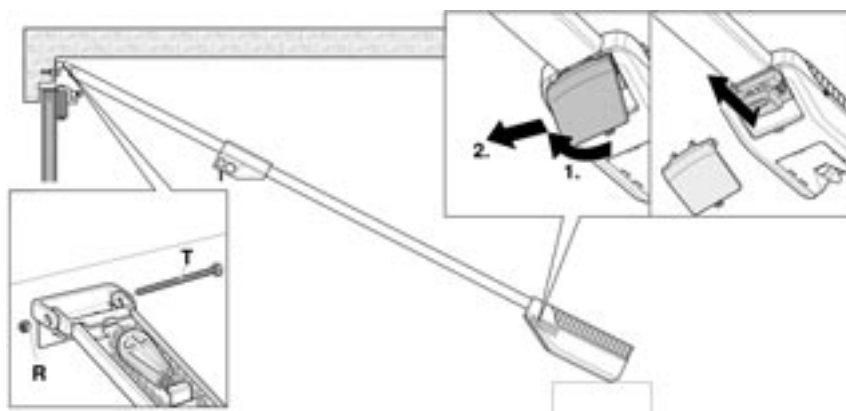
- Fit fixing angle door "K" to door frame
- Insert fixing screws horizontally or vertically

Installation Instructions

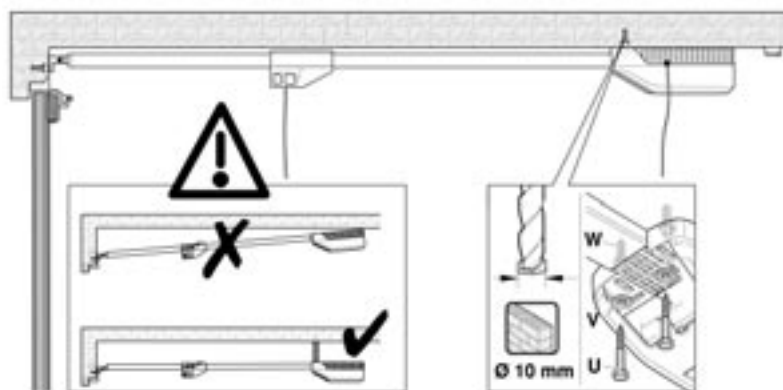
SOMFY Garage Door Drive AXORN 65/85



- Depending on the site conditions fix retaining angle "L" to the ceiling or support (see installation conditions). Hole depth 5.3 cm.

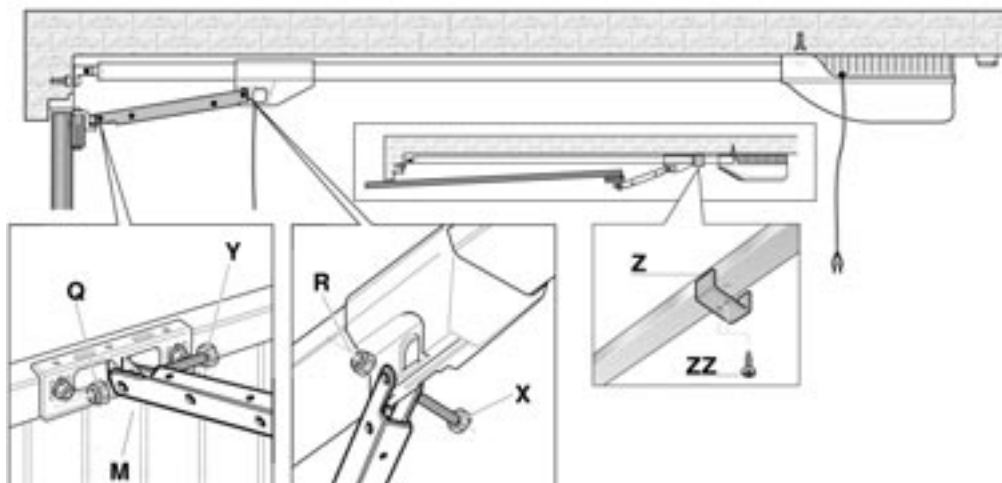


- Remove cover and remove black box (control unit)
- Connect door drive to retaining angle
- Slacken screw. The screw may have play since the nut is self locking.

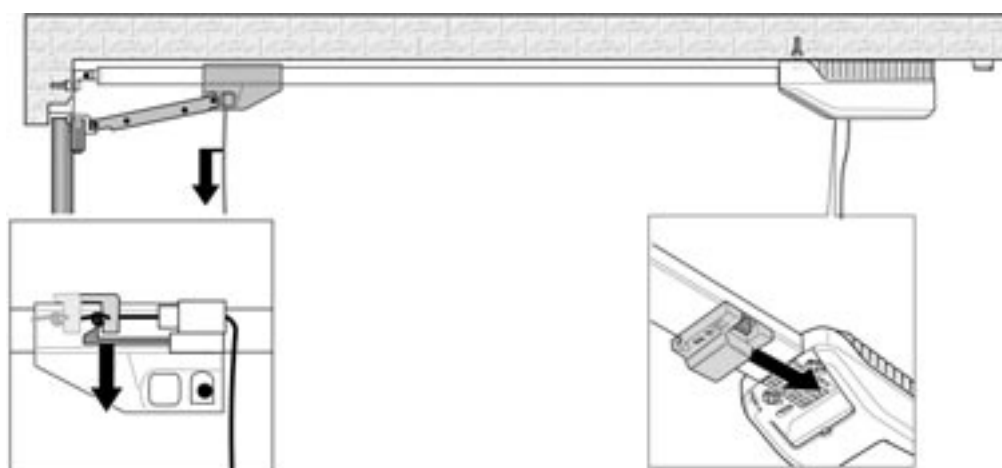


- Secure drive head to ceiling, hole depth 5.3 cm.

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- Fasten guide arm to the retaining angle door cover (using "Q", "Y") and to the carriage. Screws have play as nuts are self-locking.
- For doors without a fixed mechanical end stop proceed as follows:
- When drilling overhead wear protective glasses.
- Completely open door. When the door is fully open the end stop is directly behind the carriage. Mark off holes and drill using a 3.6 Ø steel drill. Install end stop angle using self-tapping screws "ZZ".
- Test door movement manually. The carriage must be released to do this.
- Open and close garage door.



- Prepare to couple in the drive unit by pressing the plastic lever downwards. The release is defeated as soon as the metal lever is disengaged. Finally manually put the door in the door closed position. i.e. couple the carriage to the driver.
- Insert black box into drive head.



Adjustment Instructions

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Commissioning

Risk of Injury

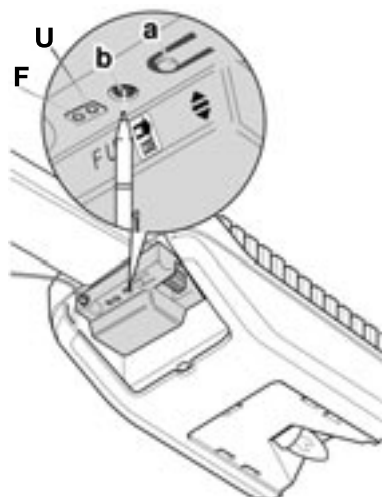
During commissioning and adjustment ensure that persons and objects remain outside the range of movement of the door.

Advice:

Permanent light can heat up the cover of the drive lighting unit

Therefore carry out commissioning without the cover.

- Connect to power supply, drive light is permanently on.
- Check whether the driver is engaged in the chain; garage door must not be able to be moved manually.



Operating Elements for Electronic Unit

F Lighting diode, lights on receipt of a signal

U Lighting diode, lights up at pre - set voltage

a Operating Key

b Programming Key

End Position of Garage Door Setting/ Alteration

Procedure involves adjustment of the upper and lower end stops as well as a test run. Adjustment procedure must be carried out in the recommended sequence and is complete when the drive light goes out. Only then can the handsset signal be received.



Adjustment Instructions

SOMFY Garage Door Drive AXORN 65/85



Beware!

There must be a fixed end stop to limit the door travel (upper stop, otherwise the drive can run on during adjustment and the door mechanism may be damaged).

Advice:

Press program key lightly (e.g. with a biro)

In order to interrupt the adjustment procedure disconnect power plug. After the plug has been re-inserted adjustment can begin again. Minimum gap between upper and lower end stops is 30 cm. A smaller gap cannot be programmed.

1. Adjust upper end stop

■ Press the program key (b) for at least 2 seconds (biro) until the drive light goes out. (If the drive light flashes the key was not pressed long enough). In this case withdraw plug and re-insert. Start setting procedure from beginning)

■ Press operating key (a) briefly (1 second). Door drive runs in the "Door Open" direction until the mechanical end stop and from there 5 cm back. It is possible to correct this position by:

■ Press operating key and hold down until the required position is reached. On the next press the drive will run in the opposite direction. When the desired position is reached:

■ The program key (b) must be pressed again for 2 secs until the drive light goes out. Drive light goes out for 2 seconds and then lights up again, the upper end position is now stored.

2. Adjust lower end stop

■ Press operating key (a) and hold down until the garage door is closed. Also the lower end stop can be altered via the operating key as required, see above. To protect the door mechanism adjust end stop to prevent door being pushed with excessive force.

■ Press program key (b) for 2 secs until the drive light goes out. The drive light will go out for 2 seconds and come on again. The lower end stop is then stored.

■ Briefly press operating key (a) and wait until the door is completely open

3. Carry out test run

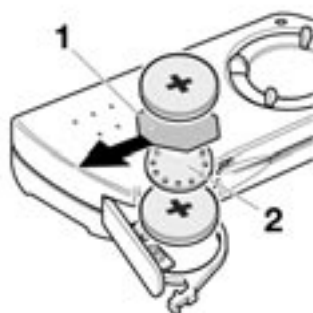
■ Press operating key again and wait until the door is completely closed. The drive light goes out and the adjustment procedure is complete.

If the test run is not successfully completed repeat entire procedure.

The test run is only complete if it has not been interrupted. During the test run the garage door drive operates at full force and senses the required forces for opening and closes. At every successful run the force is automatically re-adjusted (This is important since, for example, in winter if the garage door runs more sluggishly).

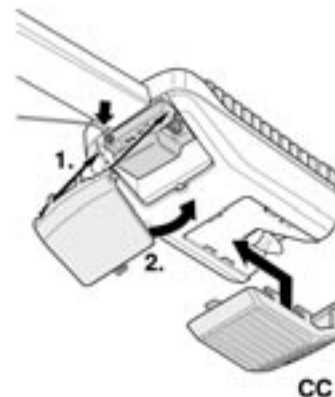
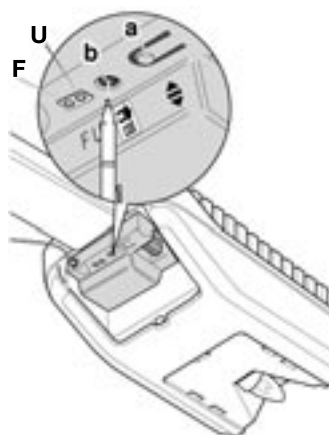
SOMFY Garage Door Drive AXORN 65/85

Register hand transmitter to Garage Door



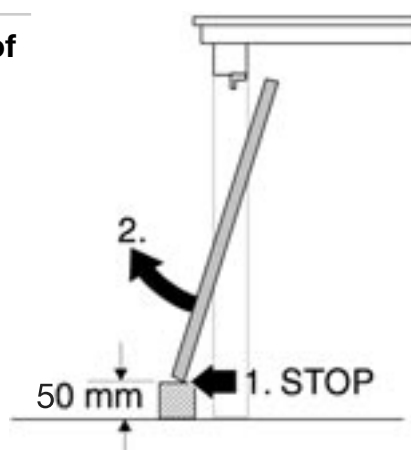
As a protection against discharge two 3 volt battery cells are separated by insulating paper (1). Remove paper on commissioning. Take care that the contact sheet (2) remains between the batteries.

Seven different handsets can be programmed. When an eighth is tried the drive light signals for 1 second instead of the usual flashing to indicate that the memory is full.



- Briefly press program key (ca 1 second) the drive light will flash (If the light is permanent the program key was pressed too long. In this case remove plug and re-connect it. Carry out another test run and register hand set)
 - Press key on handset for at least 2 seconds. The drive light will go out and then flash again.
 - Press key on handset once again. The drive light will go out and come on shortly afterwards - the registration process is complete.
- Lighting diode F in the electronic insert indicates that a signal is being received from the handset.
- Replace cover for electronic insert and drive lighting.

Test Recognition of Obstacle



On commissioning and then monthly:

- Place a suitable object 50 mm high (block of wood) in the path of the door. Door close movement
- Door Drive Start

On reaching the obstacle the door stops, runs up to the upper mechanical end stop (reference point) and then back to the upper programmed end stop. Drive light flashes in 1 sec. intervals. When door drive re-starts it stops flashing. If not contact your authorised dealer.

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Accessories

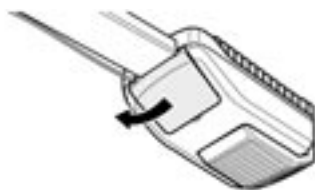


Risk of Injury

Before connecting parts withdraw plug from power supply

Beware!

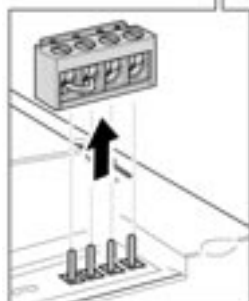
Only fit original accessories according to instructions. Do not apply external voltage to floating contacts.



- Remove cover for electronic insert



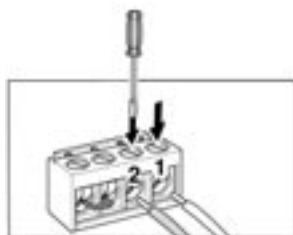
- Remove clamp strip to secure cable



Internal, Code and Key Button

Beware! Install button:

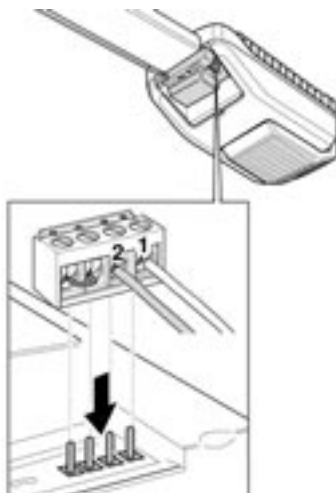
- Within sight of door
- Away from moving parts
- At a height of at least 1.5 m



On connections 1 and 2

- Open connector (small screwdriver)
- Insert cable, tighten

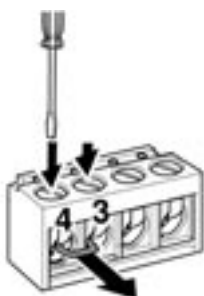
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- Engage connecting strip
- Plug in to supply. Check function

If several keys are used these must be connected in parallel

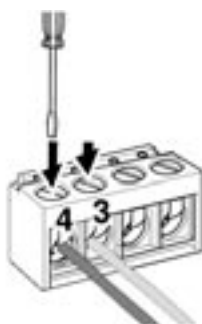
Light Beam
Access door contact
Safety contact strip



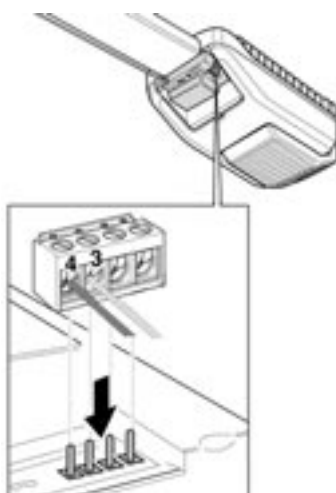
Obtain safety accessories from a reputable dealer

To connection 3 and 4:

- Open connection (small screwdriver)
- Remove bridging wire



- Insert cable, tighten



- Apply connecting strip
- Insert plug to supply. Test function

If several safety devices are used they must be connected in series.



Operating Instructions

SOMFY Garage Door Drive AXORN 65/85



**Garagenter öffnen,
schließen oder
stoppen**

Risk of Injury

Only open and close the door if no person or obstacle is within the range of movement of the door.

During a power failure or fault on the door drive open the door only by using the internal or external emergency release mechanism. If, after operating the emergency release the door is still difficult to operate call in a garage door specialist.

Beware!

Do not expose handset to high temperatures (e.g. direct sunlight in vehicle)

- Point hand set towards garage door and press keys 1-2 or
- Operate button (e.g. Key button)

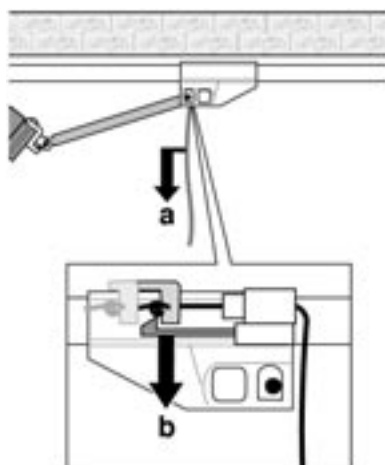
The drive light comes on for 60 seconds after opening or closing the door.

Operating Sequence

Open - Stop - Close - Stop - Open - Stop - Close - Stop etc

**Internal
Emergency
Release**

In case of emergency or loss of power the door can be uncoupled from the drive and can be opened manually from the inside.



Risk of Injury

In the event of a power failure the open garage door can drop down because the springs are weak or broken or the door is not sufficiently balanced.

- Release door drive by pulling cord (a) The lever engages and the door can be opened manually
- Prepare door drive for coupling up by pushing plastic lever (b) downwards. Finally move door to out position Couple click, click

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Zusätzliche Informationen

Regular Testing

Once per month carry out the following function checks:

- Obstacle recognition (see chapter "Commissioning")
- Check function of all additionally installed accessories (particularly safety devices)
- Check entire equipment for mechanical condition and functionality (wear, damage to springs and fixing elements) as well as electrical parts. During repair and adjustment work on the door mechanism do not use packing since faulty packing or incorrect balancing of the door can cause injury.

Replace Battery in Handset

Beware!

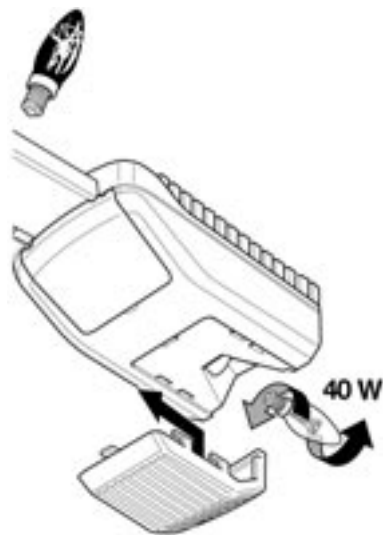
Danger due to unskilled replacement of battery. Replace only with similar type battery.

Only use non-leak batteries

Danger to environment with run down batteries!

Do not throw used batteries in household rubbish bins. Ensure that they are disposed of in an environmentally safe manner. Read manufacturer's instructions.

- Replace used batteries with two new 3 volt battery cells



Replacing lamps

Risk of Injury

Remove plug before exchanging lamp:

- Remove cover or drive light
- Replace lamp with new (max 40 W, E14 fitting)
- Replace cover, engage
- Insert plug

What happens if the power supply is interrupted?

Drive light lights up for 1 second after the power has been re-established. On the next operating impulse the door runs up to the upper mechanical end stop (reference point) and then back to the programmed upper end stop. If after this the drive light is on permanently carry out the commissioning once again.

SOMFY Garage Door Drive AXORN 65/85



Self Remedy

Fault	Possible Cause	Help
Visible signs: Light stays on after inserting plug and/or during commissioning	Adjust end position and / or test run not completed	Adjust end position close and / or carry out test
Drive light flashes (one second intervals)	Obstacle in way (e.g. set off by light beam / access door contact)	Remove obstacle, Open / close garage door
Drive light flashes (three second OFF/ one second ON)	Door drive senses internal fault during self-test.	Remove plug. Press operating and program keys together and insert plug. Re-adjust end position and carry out test run. Programmed handset will not be deleted. If fault remains contact authorised dealer agent.
Drive light does not light up	Lamp defective	Replace
Door drive does not work when operating hand set	Handset battery flat / incorrectly fitted.	Check battery. Replace if necessary
	Code not yet registered in receiver	Register handset
	Door mechanism damaged	Check door mechanism. Commission by specialist
Door drive does not fully open or close door	Unfavourable external conditions (e.g. heavy rain) have increased weight of door. Door drive recognises situation as an obstacle	Withdraw plug. Press operating and program keys together and insert plug. Re-adjust end position and test. Registered handsets are not deleted. If fault persists contact authorised dealer agent.
	No power supply (Lighting diode "U" does not light)	Have it checked by specialist whether there is a power supply to plug.



Fault Finding

SOMFY Garage Door Drive AXORN 65/85

Guarantee

We offer a two year guarantee on new equipment and a five year guarantee when fitted by a specialist company.

Within the guarantee period we remove all functional faults on the equipment which are proved to be the result of faulty design or materials. Other claims are not recognised.

The guarantee period is terminated if anyone has tampered with the equipment who has not been authorised by us to do so.

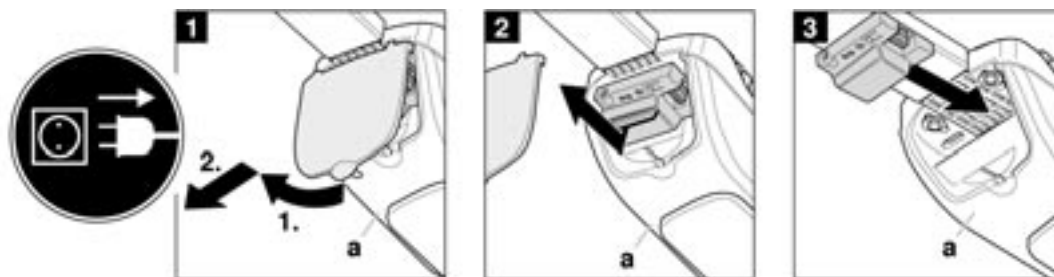
After Sales Service

Faults in the 230 volt range may only be attended to by a qualified electrician or service dealer. When faults re-occur or other faults arise contact your supplier. The electronic insert may be removed and sent to the supplier for diagnosis.

Beware!



- Cover (a) may only be removed by a qualified person in accordance with VDE 0100 (Risk of Electric Shock) Otherwise the guarantee is invalid.
- Fit or remove electronic insert with power off (withdraw plug)
- Insert electronic unit with firm even pressure up to end stop
- The electronic insert must lie up against the cover.





Miscellaneous

SOMFY Garage Door Drive AXORN 65/85



Technical Information



SOMFY hereby declares that this product conforms to essential requirements and other relevant regulations of Directive 1999/5EC. The statement of conformity can be obtained from internet address: www.somfy.com, Clause CE.

Dieses Produkt entspricht folgenden Normen:
EN 550 14
EN 550 14 – 2
EN 610 00 – 3 – 2/- 3
EN 603 35 – 1
E VDE 07 00 Teil 95:1998

<i>Allgemein</i>	<i>AXORN 65</i>	<i>AXORN 85</i>
Weight Temperature Range Pressure-/ Tension Soft Start/Stop	ca. 14 kg – 20 °C to +50 °C up to 500 N variable ¹⁾ yes	ca. 15 kg – 20 °C bis +50 °C up to 700 N variable ¹⁾ yes
Dimensions Install length Stroke length	3,30 m 2,50 m ²⁾	3,30 m 2,50 m ²⁾
Electrical supply Supply Max. power Stand by consumption Type of protection lamps	230 V/50 Hz ~ ca. 300 W less than 5 W IP 20 max. 40 W (fitting E14) 230 V/50 Hz ~	230 V/50 Hz ~ ca. 350 W less than 5 W IP 20 max. 40 W (fitting E14) 230 V/50 Hz ~
Remote control Radio frequency	UKW 434,42 MHz	UKW 434,42 MHz

Key: ¹⁾ Self registering

²⁾ 3,2 m with rail extension



Accessories

Can be obtained from a specialist dealer. Further information will be supplied to you by the SOMFY Door Drive dealer

<i>Safety Accessories</i>	<i>SOMFY-Order-Nr.</i>	<i>Comment</i>
External Emergency Release ■ For Swing/Sectional and tip doors with grip ■ For all types of doors with and without grip (Emergency release lock)	9 000 018 9 000 032	If there is no second means of ingress to the garage an external emergency release must be fitted. Thus the door can be opened manually from the outside in the event of a power failure/fault
Side door contact	9 000 007	Door drive is prevented from moving due to access door being open.
Floor locking	9 000 003	
Lock set without latch	9 000 019	
Side door lock	9 000 004	
Light beam unit	9 000 025	When light beam is interrupted door stops immediately. In the door closed direction the obstacle is released.
Safety contact strip	on request	Contact stops door immediately. In the door closed direction the obstacle is released.



Miscellaneous

SOMFY Garage Door Drive AXORN 65/85



Accessories

<i>Accessory for high op. comfort</i>	<i>SOMFY-Order-Nr.</i>	<i>Comment</i>
<i>Key over / under ledge</i>	9 000 021	
<i>Internal key</i>	9 000 008	
<i>Code Key</i>	9 000 028	
<i>1 x ch handset 434.42</i>	1 840 003	
<i>2 x ch. handset 434.42</i>	1 840 008	
<i>4 x ch. Handset 434.42</i>	1 840 007	
<i>Accessory for special conditions</i>	<i>SOMFY-Order-Nr.</i>	<i>Comment</i>
<i>Ceiling unit (angled)</i>	9 000 034	<i>For hang up to max. 270 mm</i>
<i>Perforated rail to suspend door drive</i>	9 000 001	<i>Total length 1m for hang up to 400 mm</i>
<i>Ceiling unit (telescopic)</i>	9 000 042	<i>Hang up to max. 1500 mm</i>
<i>Guide arm extension</i>	9 000 006	<i>Used with broad upright (up to max 400 mm) if the arm sits on the upright.</i>
<i>Extension rod</i>	9 000 005	<i>Required if gap is smaller between the door top edge and ceiling and if the door drive is positioned directly behind (up to max 2.5 m)</i>
<i>Winged door kit</i>	9 000 009	<i>Door wing width 1.5 m per wing. See "Which drive for which door"</i>
<i>Sectioned door kit</i>	9 000 016	<i>For door segment 300 - 500 mm high</i>
<i>Fixing strap</i>	9 000 040	<i>To strengthen upper sectioned door segments</i>
<i>Curved guide arm</i>	9 000 023	<i>For sectioned doors if the retaining and fixing rail are not necessary on the door segment.</i>
<i>Lift arm</i>	9 000 015	<i>For canopy door with vertical running rails</i>
<i>Rail extension set</i>	9 009 047	<i>By a max of 700 mm</i>

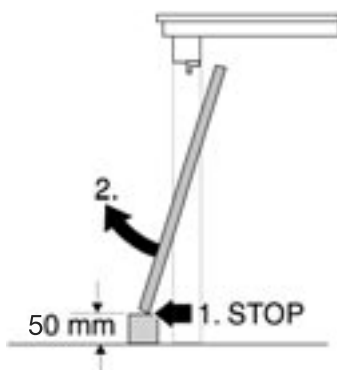


Miscellaneous

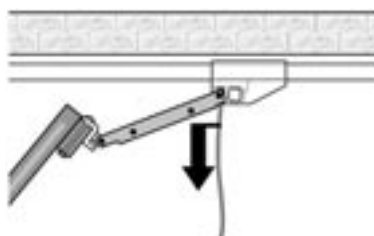
SOMFY Garage Door Drive AXORN 65/85



Open and close the door only when you can see the area covering the entire range of movement of the door and when there are no persons inside this area.



Check monthly that the drive operates in reverse if the door is touching an object 50 mm high positioned on the ground. If this is not the case contact your authorised dealer.



In cases of emergency and in the event of a power failure the door can be uncoupled from the drive unit and may be operated internally by hand.

