



Ideen bewegen mehr

[www.aat-online.de](http://www.aat-online.de)

## **s-max** sella **D1353 / D1603**

Translation of the original user manual



CE

2019-09 (2.1)

---

EN

---

# AAT service concept

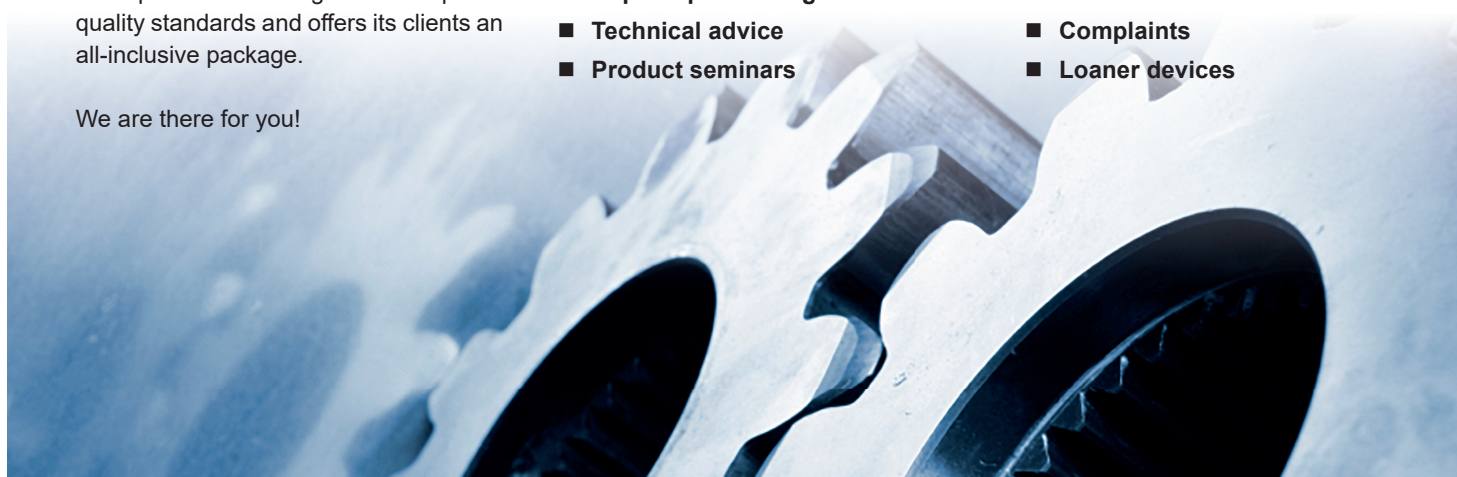
Customer service at its best



With our professional service concept AAT proves once again its superior quality standards and offers its clients an all-inclusive package.

We are there for you!

- Spare parts
- Repairs processing
- Technical advice
- Product seminars
- Show room & exhibition devices
- Re-use
- Complaints
- Loaner devices



## Service and repairs

Phone +49 (0) 74 31 12 95-550  
Phone +49 (0) 74 31 12 95-552  
Fax +49 (0) 74 31 12 95-540  
Email [service@aat-online.de](mailto:service@aat-online.de)

## Assembly Team

Phone +49 (0) 74 31 12 95-555  
Phone +49 (0) 74 31 12 95-557  
Fax +49 (0) 74 31 12 95-558  
Email [anbau@aat-online.de](mailto:anbau@aat-online.de)

## New devices

Phone +49 (0) 74 31 12 95-110  
Phone +49 (0) 74 31 12 95-125  
Fax +49 (0) 74 31 12 95-35  
Email [vertrieb@aat-online.de](mailto:vertrieb@aat-online.de)

## Head office

Phone +49 (0) 74 31 12 95-0  
Email [info@aat-online.de](mailto:info@aat-online.de)  
Web [www.aat-online.de](http://www.aat-online.de)



AAT Alber Antriebstechnik GmbH  
Ehestetter Weg 11 · D-72458 Albstadt  
Phone: +49 (0) 74 31 12 95-0  
Fax: +49 (0) 74 31 12 95 35  
[info@aat-online.de](mailto:info@aat-online.de) · [www.aat-online.de](http://www.aat-online.de)



## CE declaration of conformity

The company AAT Alber Antriebstechnik GmbH hereby declares that the s-max sella complies with the relevant provisions of EC Directive 2006/42/EC, 2007/47/EC and 93/42/EC. If any alteration is made to s-max sella without the prior agreement of AAT Alber Antriebstechnik GmbH, this declaration shall no longer be valid. This statement is valid only for the products with the following article numbers: 300696 and 300693.

The products are marked with  in accordance with the legal guidelines.

The technical documentation is stored for inspection by the responsible authority for at least five years at the above address. A system for market observation is implemented.

Manufacturer's signature:



Martin Kober  
(Managing Director)

The stair climber s-max sella has been successfully tested by TÜV Süd Product Service GmbH in Hanover according to ISO 7176-28.



### WARNING

Failure to observe this user manual, in particular the safety instructions, can lead to defects in the s-max sella and endanger the operator, the occupant or persons in the device's immediate vicinity ! There is an increased risk of injury! In the event of an infringement, claims for warranty and liability are excluded!

The product is state of the art and complies with the associated technical safety requirements. Nevertheless, a low level of residual risks cannot be ruled out. Please observe the safety instructions to this end.

People with visual and reading impairments or intellectual disabilities should print out the user manual available on the website in enlarged letters or have this manual read to them, if necessary. You will also find all safety-relevant changes that have been made to the user manual on our homepage. All versions with details of the production period of the product are obtainable at:

**[www.aat-online.de/de/bda/s-max-sella](http://www.aat-online.de/de/bda/s-max-sella)**



# Inhaltsverzeichnis

<b>1</b>	<b>Symbols and safety instructions</b>	<b>5</b>
<b>2</b>	<b>Explanation of the symbols on the packaging</b>	<b>6</b>
<b>3</b>	<b>Explanation of the symbols on the device</b>	<b>7</b>
<b>4</b>	<b>Product description</b>	<b>8</b>
4.1	Device overview	8
4.2	Indication and intended use	10
4.3	Contraindication	10
4.4	Technical data	11
4.5	Dimensional drawing	12
4.6	Scope of delivery	13
4.7	Accessories	13
<b>5</b>	<b>Assembly</b>	<b>14</b>
5.1	Seat/handle unit	14
5.2	Battery pack	14
5.3	Using armrests	15
5.4	Assemble the head rest (optional accessory)	15
<b>6</b>	<b>Folding and unfolding</b>	<b>16</b>
6.1	Unfolding the seat/handle unit	16
6.2	Folding up the seat/handle unit	16
<b>7</b>	<b>Start-up</b>	<b>17</b>
7.1	Adjusting the handles to the correct height	17
7.2	Turning on the device	18
7.3	Neutral position	18
7.4	Checking the safety brakes	19
7.5	Single step mode	19
7.6	ComfortStep	20
7.7	Check capacity of the batteries	20
<b>8</b>	<b>Operation</b>	<b>21</b>
8.1	Position of the occupant	22
8.2	Drive on level ground / overcoming obstacles	23
8.3	Tilting the stair climbing system	23
8.4	Operation on a slope	24
8.5	Climbing - upstairs	25
8.6	Climbing - downstairs	26
8.7	Laying the device down on the stairs / emergency stop function	27
8.8	Parking	27
8.9	Transportation	28
<b>9</b>	<b>Care and maintenance</b>	<b>28</b>
9.1	Battery pack and charger	29
9.2	Check the lining of the brakes and the climbing feet	31
9.3	Cleaning and disinfection	31
9.4	Replacing fuses	32
9.5	Safety check	33
9.6	Re-use (change of operator)	33
9.7	Disposal	33
9.8	Long-term storage	34
<b>10</b>	<b>Malfunction and trouble shooting</b>	<b>34</b>
<b>11</b>	<b>Warranty and liability</b>	<b>36</b>
<b>12</b>	<b>Corrective actions / product recall</b>	<b>36</b>

# 1 Symbols and safety instructions



## **DANGER – Immediately imminent DANGER**

If not avoided, this will result in death or severe physical injuries!



## **WARNING – Possible imminent DANGER**

If not avoided, this may result in death or severe physical injuries!



## **CAUTION – Possible imminent danger or harmful situation**

If not avoided, this may result in minor bodily injuries or damage to property!



## **NOTE – Manufacturer's information**

### General safety instructions



#### **NOTE**

In the event of visual disability, this user manual can be downloaded at:

**[www.aat-online.de/de/bda/s-max-sella](http://www.aat-online.de/de/bda/s-max-sella)**

Read the user manual prior to start-up and observe the warning notices and safety instructions.

In the event of reading difficulties, training contents must be broadened verbally.

The user manual must be kept in a safe place after reading.

Contains some flammable materials. Keep the device away from sources of ignition.

s-max sella can interfere with highly sensitive electromagnetic fields of other electronic devices (e.g. anti-theft devices).

Stability tests were performed under laboratory conditions. s-max sella can behave differently under real conditions compared to laboratory tests.

Training may only be carried out by the manufacturer, the AAT field staff or the qualified specialist shop.



#### **CAUTION**

External heat sources may cause the surface temperature to rise (e.g. sunlight)!

In such case, surfaces may inflict burns - do not touch!



## WARNING

To avoid being crushed, never reach into rotating/moving parts!



## DANGER

s-max sella must not be operated in the case of severe visual impairment and/or blindness!

Do not exceed the total permissible weight and the maximum person weight, as this may lead to defects or an overloading of the s-max sella!





Do not use in rain, wet, snow or ice as the restricted braking capacity may cause slipping!

Do not use on travellers or escalators as doing so may risk physical injury and/or material damage as a result of crashing or the occupant falling out of the seat!






The operational capability of s-max sella can be influenced by electromagnetic fields ((e.g. by mobile phones, electric generators or high-voltage sources)!

Do not store near medical devices, for example with a life support function, and diagnostic devices, as these may malfunction!

## 2 Explanation of the symbols on the packaging

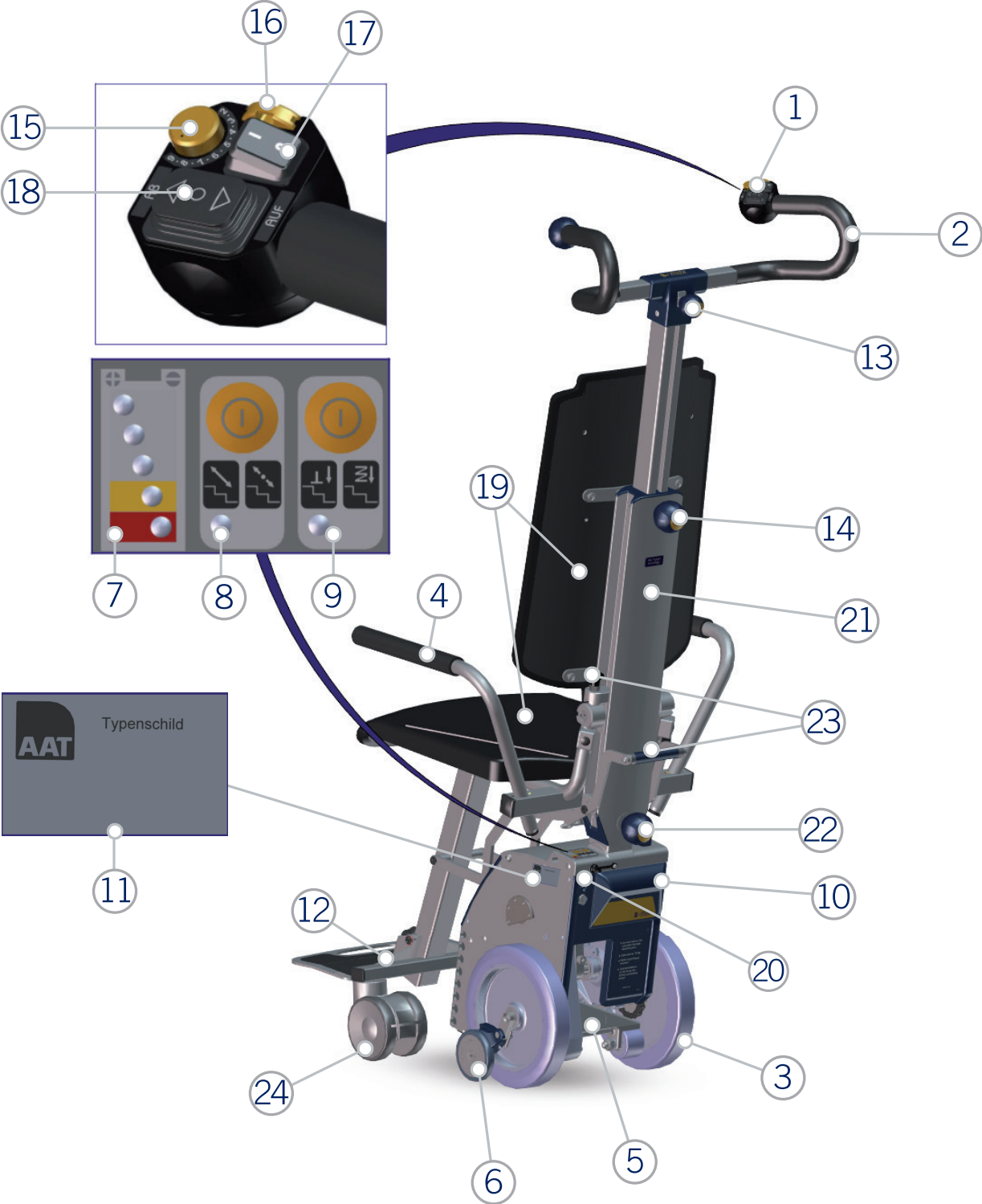
Symbol	Explanation
	<b>Handle with care</b> The packaging including the product must be handled with special care.
	<b>Protect from moisture</b> Protect the packaging including the product from excessively high air humidity. Cover during storage. Carefully cover with a tarpaulin, if necessary.
	<b>Caution fragile</b> Handle the packaging including the product carefully and never allow it to fall.
	<b>This way up</b> The packaging must be stored and transported in such a way that the arrows point upwards at all times. Any failure to comply with this rule, such as rolling or tilting the package, must be avoided.

### 3 Explanation of the symbols on the device

Symbol	Explanation
	<p><b>CE mark</b> The product complies with the relevant provisions of EC Directives 2006/42/EC, 2007/47/EC und 93/42/EC</p>
	<p><b>SN</b> Product serial number e. g. D1353XXXXXX / D1603XXXXXX</p>
 www.aat-online.de	<p><b>Note on the user manual</b> The user manual must be observed</p>
	<p><b>Electrical voltage / V = Volt</b></p>
	<p><b>Inspection plate for technical safety testing (see Chapter 8.6)</b> Provides information on the due date of the next technical safety test</p>

4 Product description

4.1 Device overview





### **Manufacturer information:**

For a simplified assignment of the individual components, the numbers listed here are cited in full for the first time in the following chapters.

- ① Control unit
  - ② Handle, adjustable
  - ③ Main wheel
  - ④ Armrests (can be folded away)
  - ⑤ Climbers and climbing feet
  - ⑥ Safety brake
  - ⑦ Battery display
  - ⑧ Single step switch
  - ⑨ ComfortStep
  - ⑩ Battery pack and battery latch
  - ⑪ Type label with serial number
  - ⑫ Foot support(height-adjustable)
  - ⑬ Fixing knob for transverse adjustment
  - ⑭ Fixing knob for height adjustment
  - ⑮ Speed control
  - ⑯ Safety chip
  - ⑰ ON/OFF switch
  - ⑱ UP/DOWN switch
  - ⑲ Seat/handle unit
  - ⑳ Charging socket with locking flap
  - ㉑ Standpipe
  - ㉒ Fixing knob for standpipe
  - ㉓ Release button and lever (for folding in the seat/handle unit)
  - ㉔ Steering rollers
- LED lighting for illuminating the stairs - underside of climbing unit (no figure)

## 4.2 Indication and intended use

With the stair climber s-max sella you can transport one person with limited mobility safely and effortlessly up and down stairs. You can conquer nearly all kinds of stairs and spiral stairs, whether they are inside or outside. Driving on slopes is also possible.

The stair climber is developed to be operated by one person. This person must be trained and physically and mentally capable of safely operating the s-max sella! They must have sufficient vision capability! Minors below the age of 16 are not allowed to operate the s-max sella! Minors of at least 16 years are allowed to operate the s-max sella, but only under supervision. Please bear in mind that the use of a stair climber can entail a greater degree of risk and requires more skills than those required to operate a wheelchair.

The life expectancy of the s-max sella depends on the intensity of the application and is approx. 5 years under normal use. This statement implies compliance with all prescribed maintenance and service specifications. The life expectancy can also be exceeded with careful handling. However, this life expectancy can also be shortened due to overuse and improper handling.

This user manual is an all-purpose manual for the devices D1353 and D1603. The stair climbers only differ in the technical data. You can see which version you have by checking the serial number. All chapters listed apply to both versions of the s-max sella.

## 4.3 Contraindication

The s-max sella may not be used if:

- the operator has not received training/instruction for the product!
- the operator is younger than 16 years old!
- the operator is a minor of at least 16 years, but there is no supervision!
- the operator is physically and mentally unable to safely use the s-max sella!
- more than one person needs to be transported at the same time!
- the person to be transported cannot sit independently!
- the operator does not have sufficient visual capacity!
- the braking effect is impaired due to rain, wet conditions, snow or ice!
- the required braking effect (on one side or both sides) is not guaranteed!
- escalators or travellators must be negotiated!
- medical devices, for example with a life support function, and diagnostic devices, are nearby!
- the intended use is contradicted!

## 4.4 Technical data



**WARNING** - The approved total weight may not be exceeded because it can lead to malfunction or cause an overload of the s-max sella!



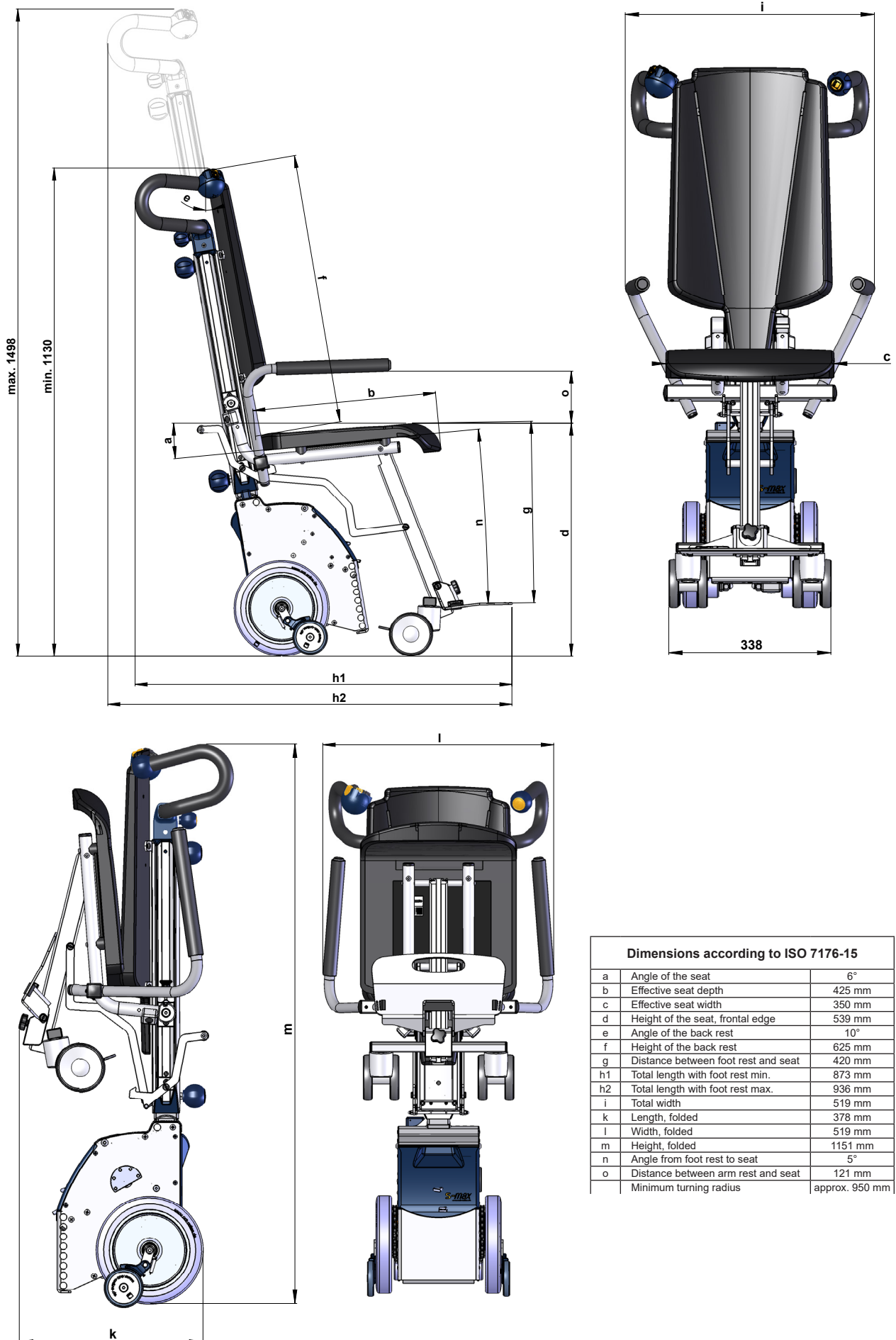
**NOTE** - Observe the technical data.

Technology	s-max sella D1353	s-max sella D1603
Measurements	Height = min. 1150 mm - max. 1550 mm Width: Handle = 495 mm, Climbing unit = 320 mm, Total = 520 mm, Depth: Handle = 212 mm, Total = 890 mm	Height = min. 1150 mm - max. 1550 mm Width: Handle = 495 mm, Climbing unit = 338 mm, Total = 520 mm, Depth: Handle = 212 mm, Total = 890 mm
Weight	Climbing unit = 15.8 kg Handles/seating unit = 14.8 kg Battery pack = 3.0 kg, Charger = 0.2 kg Both arm rests = 1.2 kg Total weight = 35.0 kg	Climbing unit = 16.9 kg Handles/seating unit = 14.8 kg Battery pack = 3.0 kg, Charger = 0.2 kg Both arm rests = 1.2 kg Total weight = 36.1 kg
Total weight approved	170 kg	195 kg
Max. weight of the person	135 kg	160 kg
Climbing speed, steps / min. <sup>1)</sup>	5 - 20, continuously adjustable	8 - 23, continuously adjustable
Range with one charge of the batteries - with an average load of 75 kg	approx. 26 floors (approx. 390 steps)	approx. 20 floors (approx. 300 steps)
Range with one charge of the batteries - with a max. weight of 135 / 160 kg	approx. 11 floors (approx. 165 steps)	approx. 9 floors (approx. 135 steps)
Maximum height of step	220   235 mm (extended climbing height)	
Minimum height of step <sup>2)</sup>	140 mm	
Necessary step width	596 mm (straight stairs)	
Minimum platform size	1350 x 1350 mm (U-shaped stairs)	
Minimum radius of spiral staircases	1350 mm	
Maximum gradient of the stairs	60.3°	
Batteries	2 x 12 V / 5 Ah (gas-proof)	
Direct current motor	24 V / 275 W	
Operating force UP/DOWN switch	3-8 N	
Direct operating force	max. 350 N whilst climbing upstairs / downwards (Chapter 7.6)	
Noise information	< 70 dB	
Storing/operating temperature: device	0° C up to +60° C / -30° C up to +50° C	
Storing/operating temperature: batteries	0° C up to +60° C / -30° C up to +50° C	
Vibration information	The weighted RMS value of acceleration the upper body is exposed to lies typically below 2.5 m/s <sup>2</sup> .	
Type label with serial number	Left on the power unit and the rear side of the user manual	
IP protection class	IPX4 protection class: Protection against splash water from all sides	
Classification according to ISO 7176-28:2012	Type C (table 1 of annex A)	

1) The climbing speed as well as the range with one charge of the batteries is reduced if the ComfortStep is activated. The range also depends on the weight of the person seated.

2) Never use the stair climber to climb stairs with too little depth because it is no longer possible for the main wheels to touch the steps safely.

## 4.5 Dimensional drawing



**Dimensions according to ISO 7176-15**

a	Angle of the seat	6°
b	Effective seat depth	425 mm
c	Effective seat width	350 mm
d	Height of the seat, frontal edge	539 mm
e	Angle of the back rest	10°
f	Height of the back rest	625 mm
g	Distance between foot rest and seat	420 mm
h1	Total length with foot rest min.	873 mm
h2	Total length with foot rest max.	936 mm
i	Total width	519 mm
k	Length, folded	378 mm
l	Width, folded	519 mm
m	Height, folded	1151 mm
n	Angle from foot rest to seat	5°
o	Distance between arm rest and seat	121 mm
	Minimum turning radius	approx. 950 mm

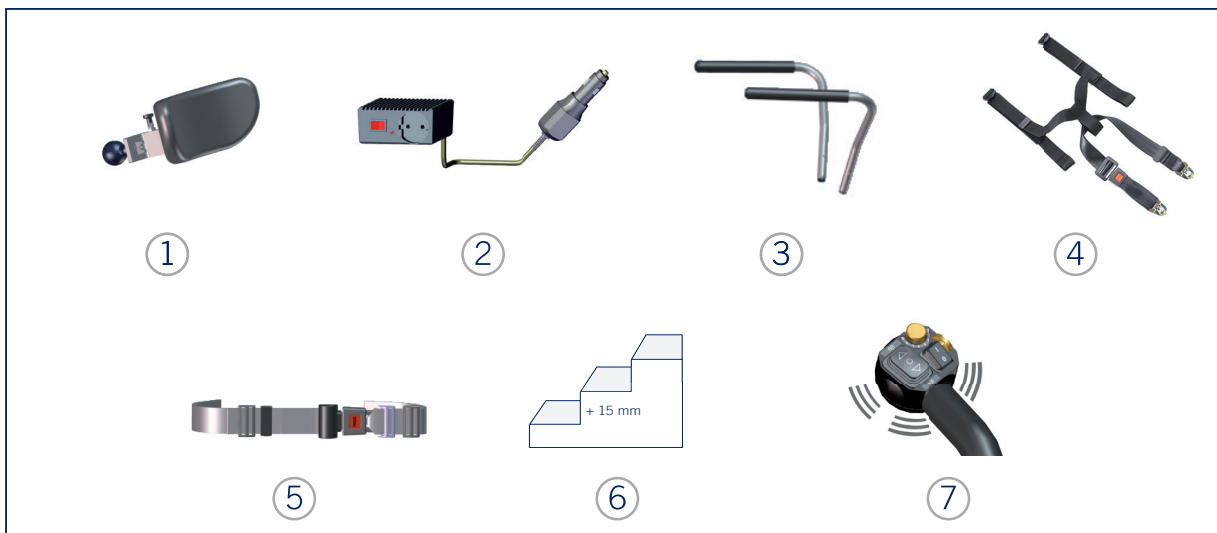
## 4.6 Scope of delivery



- ① Charger incl. user manual
- ② Battery pack with charging electronics and safety latch
- ③ Seat/handle unit
- ④ Climbing unit

## 4.7 Accessories

 HINWEIS - Only use AAT Alber Antriebstechnik GmbH accessories.



- ① Head rest
- ② Charging cable for your vehicle
- ③ Arm rests extended
- ④ Harness belt including lap belt
- ⑤ Lap belt
- ⑥ Climbing height extension
- ⑦ Inclination indicator

## 5 Assembly

### 5.1 Seat/handle unit



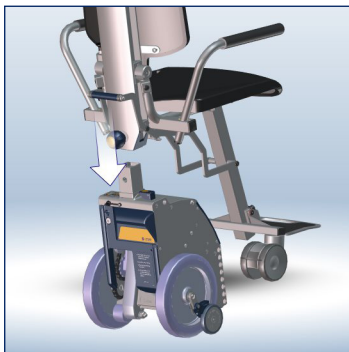
**WARNING** - The seat/handle unit must be securely fixed with the locking screw so it is safely connected to the climbing unit!



**WARNING** - the climbing unit attachment may only be set by the manufacturer, the AAT field team or authorised specialist dealers!

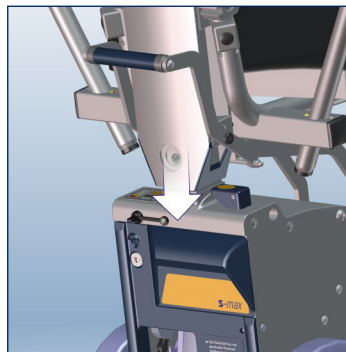


A 9-pin sub-D coupling in the attachment establishes the electrical connection.



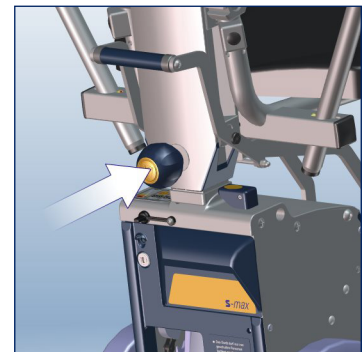
Connect the seat/climbing unit and climbing unit.

» The attachment must be aligned parallel to the housing.



Put the seat/handle unit (21) on the climbing unit attachment.

» The seat must be aligned forwards.

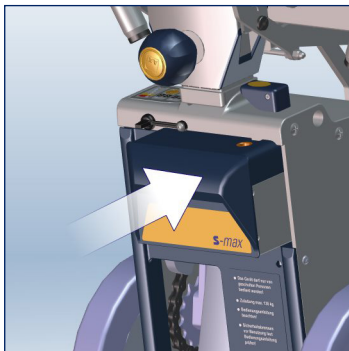


Secure connection with the standpipe (22) fixing knob. Both units must be connected safely.

### 5.2 Battery pack

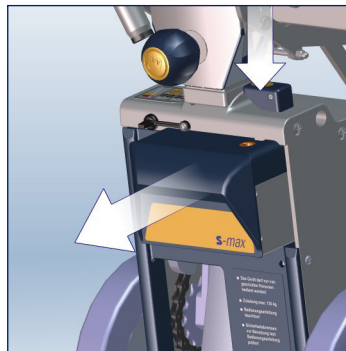


**WARNING** - The battery pack has to be locked safely, otherwise it may move involuntarily!



**Assembly.** Insert the battery pack (10) into the opening provided for this purpose in the climbing unit.

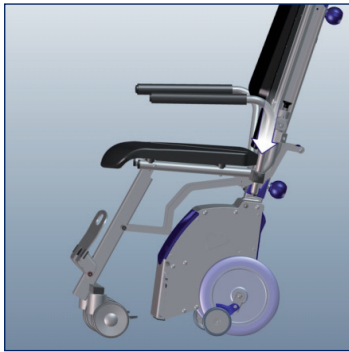
» The battery latch locks automatically.



**Disassembly.** Loosen latch.

» Press down the release button on the climbing unit, then remove the battery pack.

### 5.3 Using armrests



Use the arm rests on ④ both sides. The locking bolts must be fully immersed in the hinge groove.



#### Important information for using the arm rests

The armrests are used as side confinements and may be used as an arm support by the occupant.

- » They must not be loaded with more than 90 kg per side!
- » Do not load the armrests on one side (risk of tipping)!
- » Never sit on the armrests!
- » Do not fasten objects on the armrests (e.g. bags)!
- » Check the armrests are fitted correctly before use!
- » The occupant's arms may not protrude above the armrests!
- » Do not remove the armrests before climbing the stairs!

### 5.4 Assemble the head rest (optional accessory)



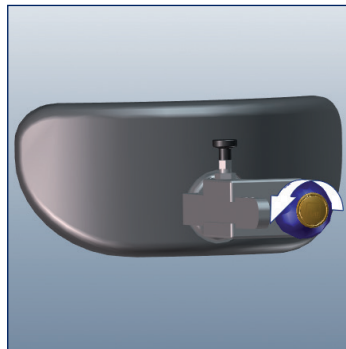
CAUTION - To ensure head stability, we recommend placing the head rest at the back of the occupant's head!



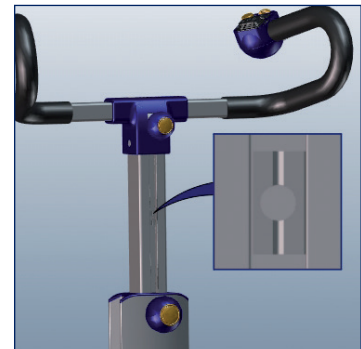
CAUTION - To avoid injury, beware of pinch points at the groove opening!



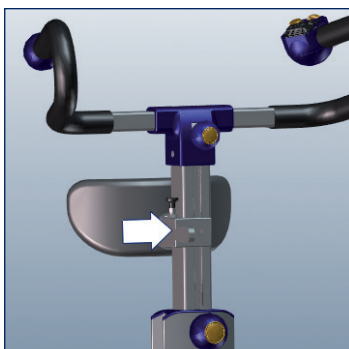
Set the handle unit at the right height beforehand (see chapter 7.1).



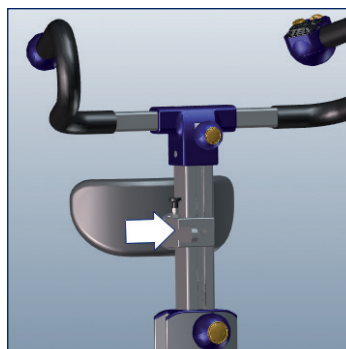
Detach the head support fixing knob.



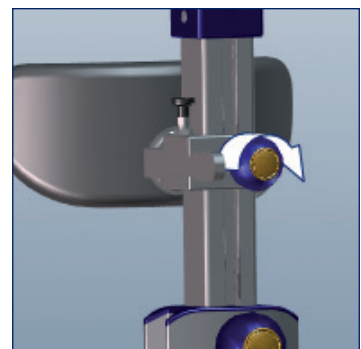
Insert the 'slot stone' into the standpipe groove opening at an angle.



Strap head support onto standpipe.



Adjust height of the head rest to the head height of the occupant.



Secure with the locking screw.

## 6 Folding and unfolding

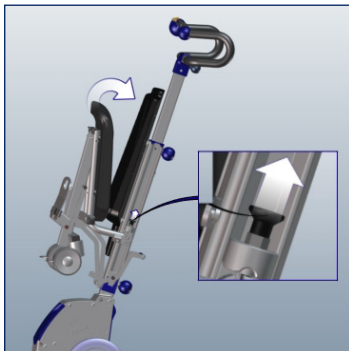


DANGER - Lock the seat/handle unit, otherwise parts may move involuntarily!



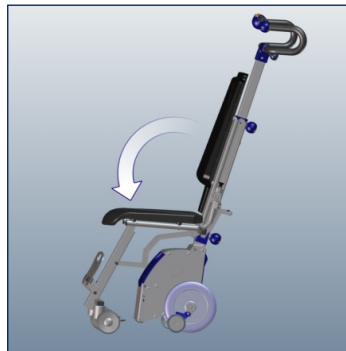
WARNING - Watch out for pinch points while folding or unfolding!

### 6.1 Unfolding the seat/handle unit



Pull the seat cushion against the backrest cushion.

» Pull the release button upwards ②③ at the same time.



Fold the seat unit downwards until it audibly clicks into place.



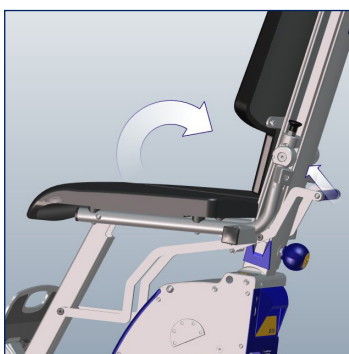
Fold out the foot rest<sup>12</sup>.

» Loosen the locking screw if required and adjust the footrest height.

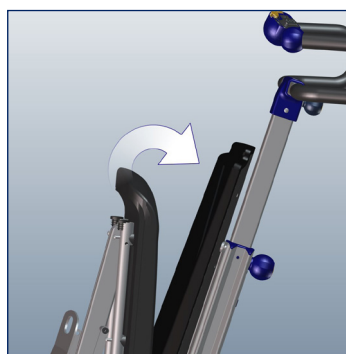
### 6.2 Folding up the seat/handle unit



Before folding up, remove the armrests and fold in the footrest.





Press the release lever ②③ towards the backrest cushion and fold the seat unit upwards.




Press the seat cushion against the backrest cushion until it audibly clicks into place.

## 7 Start-up

-  NOTE - Store s-max sella in a frost-free environment at least one hour prior to start-up to avoid malfunctions.
-  NOTE - Wait a few seconds after turning on before pressing the UP/DOWN switch!

### 7.1 Adjusting the handles to the correct height

 **WARNING** - Always securely fix the handle with a locking screw so the handle setting does not change unexpectedly!

 **CAUTION** - To avoid injury, beware of pinch points at the groove opening!



Turn the height adjustment locking screw ⑭ counter clockwise and pull out the handle ② at shoulder height.



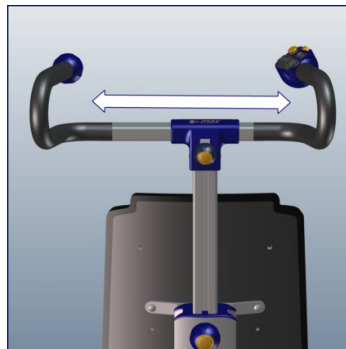
Tighten the locking screw clockwise.

#### Transverse adjustment handle

The handle may hit the wall if the stairwells or spiral staircases are narrow. In these cases, adjust the handle in a transverse direction.



Turn the transverse adjustment locking screw anti-clockwise.



Move handle in the desired direction.

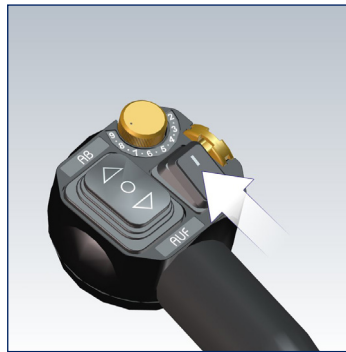


Tighten locking screw clockwise.

## 7.2 Turning on the device



Insert safety chip for the engine (16) immobiliser.  
» Safety chip must latch!



Turn on s-max sella by pressing the **ON/OFF switch** (17).

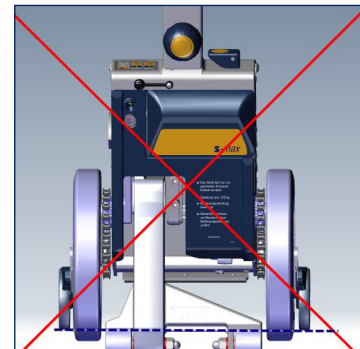
## 7.3 Neutral position



Bring climber (5) into the neutral position (5) by pressing the UP/DOWN switch (18).  
» If single step mode (8) (see chapter 7.5) is activated, the climber will stop automatically in the neutral position!



Correct.



Wrong!

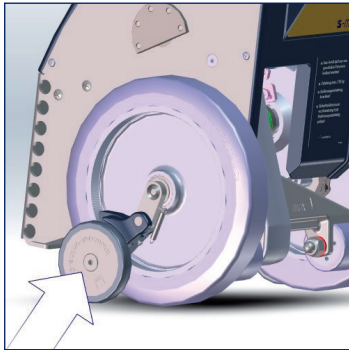
## 7.4 Checking the safety brakes



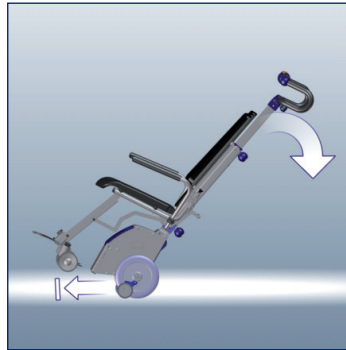
**DANGER** - Do not use the s-max sella if the required braking effect (on one side or both sides) is not guaranteed because a reduced braking effect can lead to falling down the stairs. Contact the manufacturer or your authorised dealer!



**WARNING** - Check safety brakes without an occupant!



There are safety brakes located on both sides of the climbing unit ⑥. Activate them for checking the effect.  
» Check the safety brakes before each use.



Pull in the climbers to their utmost position and tilt s-max sella backwards.

**Test: s-max sella cannot be pushed forward, only backwards = safety brakes activated.**



### **Manufacturer's recommendation:**

Put your foot on the housing and tilt the s-max sella towards you. See detailed description in Chapter 8.3.

## 7.5 Single step mode



**DANGER** - If the single step mode is deactivated, make sure to operate the s-max sella correctly and safely! Otherwise it can lead to falling down the stairs!



**Single step mode ⑧**  
**Activate / deactivate.**  
LED glows = single step mode is activated!



Should you choose to turn off the single step mode you can do so by pressing the appropriate button.

» LED does not glow = single step mode is deactivated!

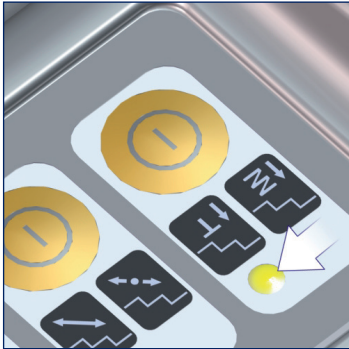


### **Manufacturer's recommendation:**

Only deactivate the single step mode, if the operator is able to use the s-max sella safely.

## 7.6 ComfortStep

**i** NOTE - If an adjustment of the height of the step is required, please contact the AAT field staff or your authorised dealer!



### Activate / deactivate.

- » LED glows = ComfortStep is activated! **9**
- » It ensures a pleasant and comfortable climbing process.



- Should you choose to turn off the ComfortStep you can do so by pressing the appropriate button.
- » LED does not glow = ComfortStep is deactivated!



### Manufacturer's information:

Every time you turn on the device, the last used setting will be reproduced.

## 7.7 Check capacity of the batteries



**7** Battery display  
Green = battery full



Battery display  
Yellow = battery low  
» Charge battery!



Red = battery empty  
» Charge battery!  
» Audio warning every 12 sec.!  
» The capacity of the batteries is sufficient for max. 20 - 35 steps!

## 8 Operation



DANGER - Operation only by a trained person who is physically and mentally able to safely operate the s-max sella!



DANGER - Other persons are not allowed to be in the danger area underneath the s-max sella!



DANGER - Check the safety brakes each time before each use! (see Chapter 7.4)



WARNING - Wear non-slip footwear to avoid falling down the stairs!



WARNING – Always operate with both hands to avoid risky situations and to ensure a safe climbing process!



WARNING - Do not use on wet, slippery or waxed stairs to avoid falling down the stairs! Carpeted stairs must be non-slippery!



WARNING - The occupant's arms should not dangle over the sides and may also not be moved in an uncontrolled fashion. Place arms on the armrests or thighs!



WARNING - Secure persons, who cannot sit on their own, with belts (see Accessories - chapter 4.7). This keeps the occupant from falling out!



NOTE - Practice driving without an occupant and in single step mode.



NOTE - Check the depth of the step as well as the condition of the stairs! Danger of falling!



NOTE - Wait a few seconds after turning on before pressing the UP/DOWN switch!

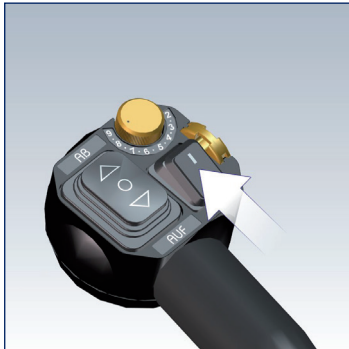


NOTE – When using seat supports (cushions, etc.), ensure that the occupant is securely seated to prevent the occupant from falling out or slipping.

## 8.1 Position of the occupant



**WARNING** - The occupant's arms should not hang over the arm rests to avoid possible injuries!



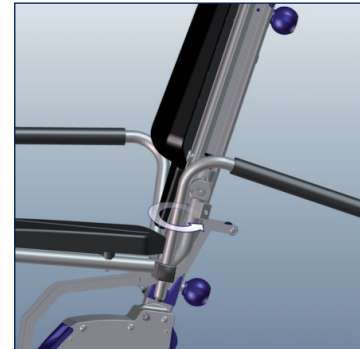
Turn on s-max sella by pressing the ON/OFF switch.



**Secure stand of the s-max sella.**

Press the UP/DOWN switch direction **UP**.

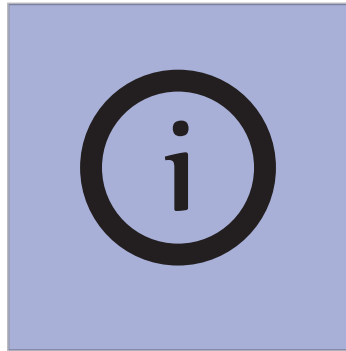
» Extend the climber until it touches the floor.



The arm rests can be extended or folded backwards if required.



Fold out the footrest if it has not yet been done.



**After the occupant has taken their seat, move the armrests back into the home position if required.**

» Make sure that the occupant is sitting safely.

» Place arms on armrests or thigh.

## 8.2 Drive on level ground / overcoming obstacles

 NOTE - The climber may not be extended because could get damaged!

 NOTE - Always navigate obstacles backwards to avoid damaging the safety brakes!



Set in neutral position (see Chapter 7.3)  
» Retract climbers completely.




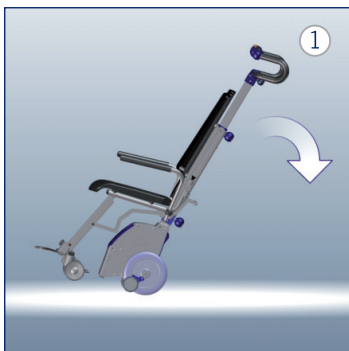
To drive on level ground.  
» push the s-max sella forward.



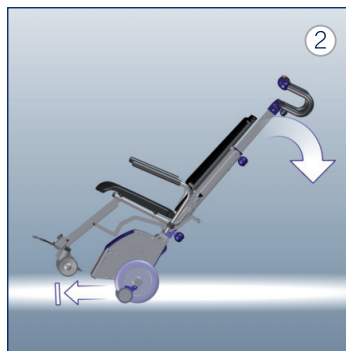
Pull the s-max sella carefully backwards against curbs/obstacles if you want to overcome them.

## 8.3 Tilting the stair climbing system

 WARNING - Always tilt the s-max sella when driving on slopes or during the climbing process!



Put your foot on the housing and tilt the s-max sella slightly towards you.  
» The stair climber has to be balanced.  
» If there is neither pressure nor tension noticeable at the handles, the device is balanced correctly.



s-max sella can be moved.  
» If you tilt further or too much, the safety brakes engage and the s-max sella can't be moved forward any more.



### Manufacturer's recommendation:

If you are not able to tilt the s-max sella independently, use the climbers as a **tipping aid**.

- » Switch on the s-max sella
- » Press the UP/DOWN switch direction UP until the main wheels are raised by approx. 1-2 cm
- » Tilt the s-max sella (Illustration 1)
- » Then, fully retract the climber again.
- » Move the s-max sella (Illustration 2)

## 8.4 Operation on a slope



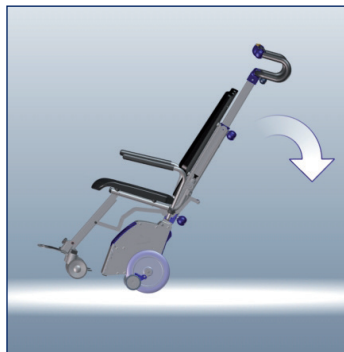
**WARNING** - For safety reasons we recommend that you ask another person for assistance when driving on a slope!



**NOTE** - Observe the safety instructions in Chapter 8!



When necessary Pull out the handles at shoulder height and fix with fixing knob.

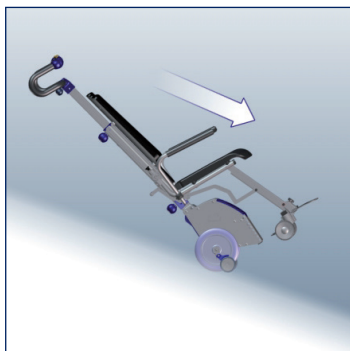


Tilt the s-max sella forward.  
» When necessary Use the manufacturer tip from Chapter 8.3.

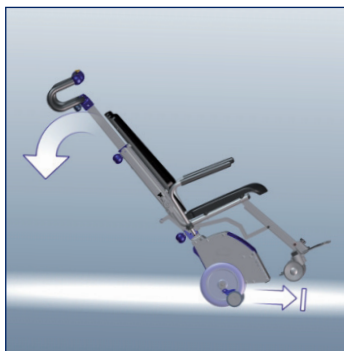


Climber must be fully retracted.

### Drive downhill

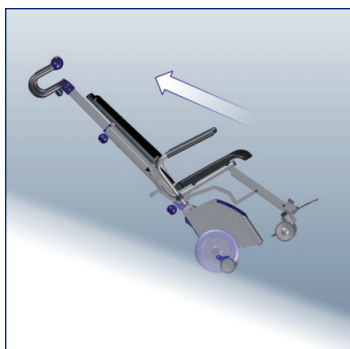


Drive forward to the edge of a slope.



To slow down, you need to tilt the s-max sella a bit more, so that the safety brakes are activated.

### Drive uphill

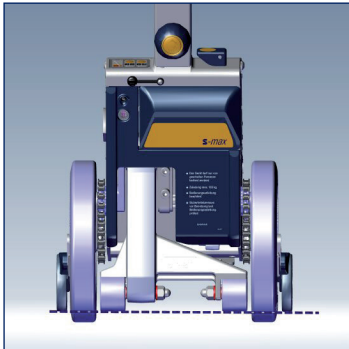


Please drive backwards up a slope.

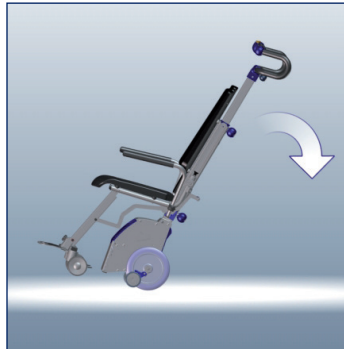
## 8.5 Climbing - upstairs



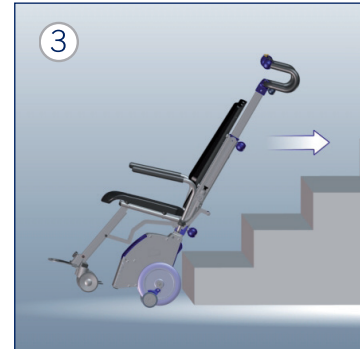
**NOTE - Observe the safety instructions in Chapter 8!**



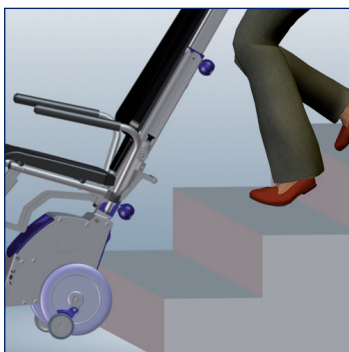
Set in neutral position.  
» Climber must be fully retracted.



Tilt the s-max silla and keep it in balance.



Drive backwards to the step all the way.

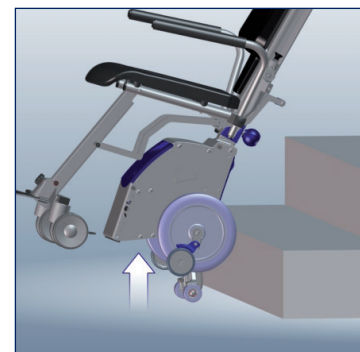


Go 2-3 steps up.



Press UP/DOWN switch direction UP.

» If the single step mode is activated, press and hold the UP/DOWN switch until s-max silla stops independently.



s-max silla climbs up.

**Repeat process from Figure 3.**

### Climbing upstairs - spiral staircases

To climb on spiral staircases, you have to follow the same steps referred to above in this chapter.

**Please note:** The s-max silla must be repeatedly aligned with the spiral staircase during the climbing process, so that both wheels are always in line with the edge of the step to be climbed next.

**Manufacturer's recommendation:** Activate single step mode.



### DANGER!

Compare the conditions of the spiral staircases to the technical data in Chapter 4.4!

Never use the s-max silla on stairs that are not suitable pursuant to the technical data. Non-observance can lead to falling down the stairs!

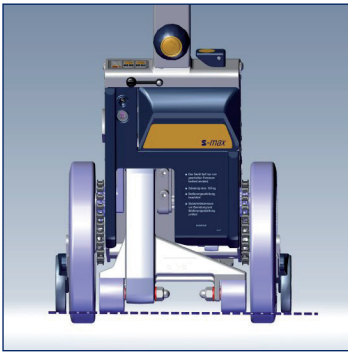
## 8.6 Climbing - downstairs



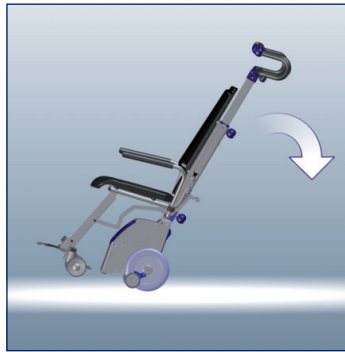
**NOTE - Observe the safety instructions in Chapter 8!**



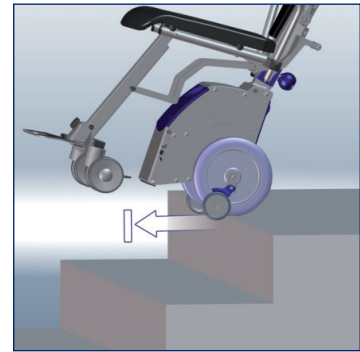
**DANGER** -As soon as the climber takes onweight, you can feel tension in the handles.  
Hold the s-max sella lower briefly to counteract this!



Set in neutral position.  
» Climber must be fully retracted.



Tilt the s-max sella and keep it in balance.

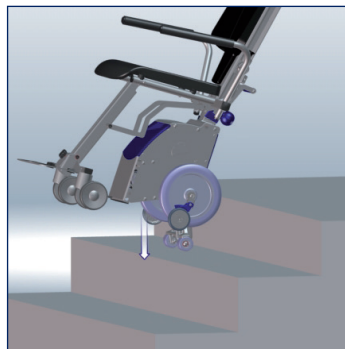


Roll the s-max sella forward until the safety brakes grip.

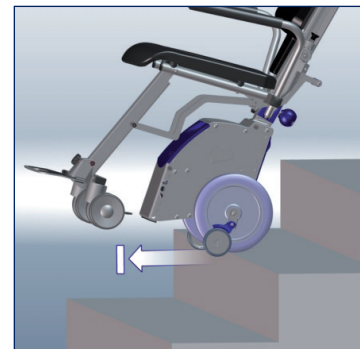


Press UP/DOWN switch direction DOWN.

» If the single step mode is activated, press and hold the UP/DOWN switch until s-max sella stops independently.



s-max sella descends.



Roll the s-max sella forward until the safety brakes grip.

**Repeat process from picture 4.**

### Climbing downstairs - spiral staircases

To climb on spiral staircases, you must follow the same steps referred to in this chapter.

**Please note:** The s-max sella must be repeatedly aligned with the spiral staircase during the climbing process, so that both wheels are always in line with the edge of the step to be climbed next.

**Manufacturer's recommendation:** Activate single step mode.

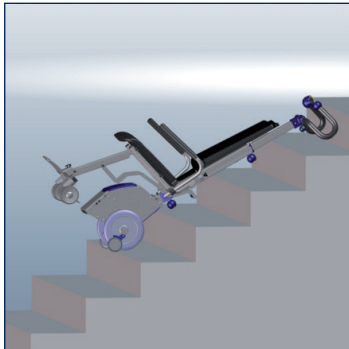


### **DANGER!**

Compare the conditions of the spiral staircases to the technical data in Chapter 4.4!

Never use the s-max silla on stairs that are not suitable pursuant to the technical data. Non-observance can lead to falling down the stairs!


## 8.7 Laying the device down on the stairs / emergency stop function



### Lay down the s-max sella.

- » Safety brakes prevent from rolling down!
- » Keep the UP/DOWN switch pressed until the climber is fully retracted.

**Please note:** When laying down the s-max sella on the stairs it **has** to lie on its main wheels. Otherwise the safety brakes may not grip!



### Emergency stop function



In hazardous situations follow the next steps:

- » 1 - Release the UP/DOWN switch
- » 2 - Turn off the s-max sella by pressing the ON/OFF switch
- » 3 - Pull out the safety chip for the engine immobiliser
- » Lay down the s-max sella as mentioned

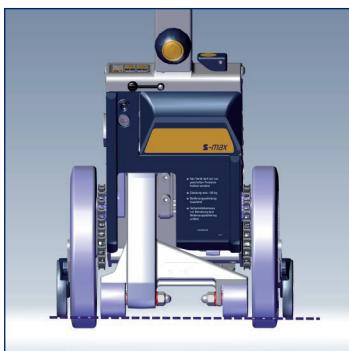
### Eliminate the hazardous situation and start climbing again

- » Insert the safety chip
- » Turn the s-max sella on by pressing the ON/OFF switch
- » Press the UP/DOWN switch

## 8.8 Parking

-  NOTE - Only park the s-max sella on flat ground.
-  NOTE - Charge the battery pack after each use.

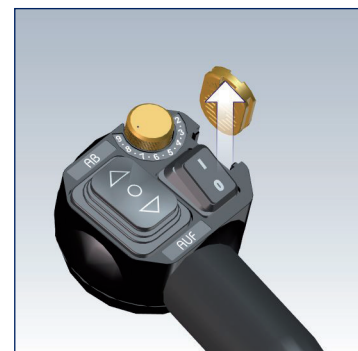
The automatic switch-off turns it off during longer periods of inactivity. Turn the s-max sella **OFF** first and then **ON**.



Set in neutral position.  
» Climber must be fully retracted.



Turn on s-max sella by pressing the ON/OFF switch.



Pull out the safety chip for engine immobiliser.

## 8.9 Transportation



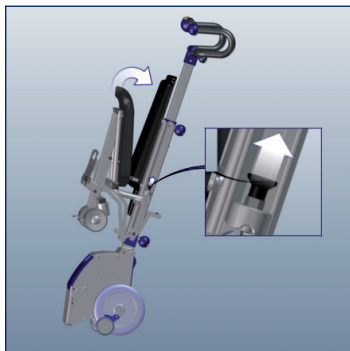
WARNING - Please note the weight specifications of the several components! (see Chapter 4.4)



WARNING - During transportation in vehicles, secure according to the relevant legal regulations!

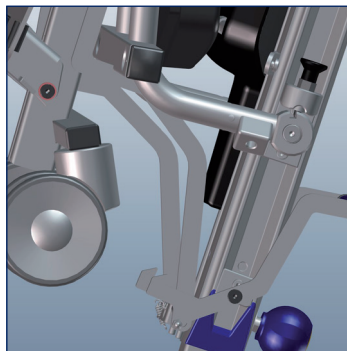


CAUTION - Turn off the s-max sella while transporting!



Fold up s-max sella (see Chapter 6.2).

- » Fully retract the handles.
- » Disassemble if required (see Chapter 5).
- » Hold by the metal frame.



To avoid crushing, do not hold at the V-shaped opening.



### Manufacturer's recommendation:

The batteries are not considered dangerous goods according to the IATA special provisions A67, GGVS (Goods transportation regulations) Rn-No. 2801 A, Para. 2! Batteries are permitted for air travel by DOT and IATA! However, inform the airline in advance.

## 9 Care and maintenance



WARNING – Repairs and safety checks may only be performed by the manufacturer or authorised personnel! (see Chapter 9.5)



WARNING – The housing of the s-max sella may only be opened by the manufacture or authorised personnel!



NOTE – We recommend a safety check every two years!  
The inspection plate provides information on the due date of the next technical safety check.

We also recommend a safety check, is the s-max sella is transferred to a new user.

## 9.1 Battery pack and charger



**CAUTION** - Protect against humidity and never touch it with moist hands.  
This prevents electrical shocks as well as malfunctions!



**NOTE** - Charge the batteries after each use.



**NOTE** – Protect charger and the voltage converter from oils, greases, aggressive cleaning agents, thinners or damage.



**NOTE** – Follow the user manual for the charger/voltage converter.



**NOTE** - A total discharge leads to a loss of the batteries' capacity and shortens their durability.



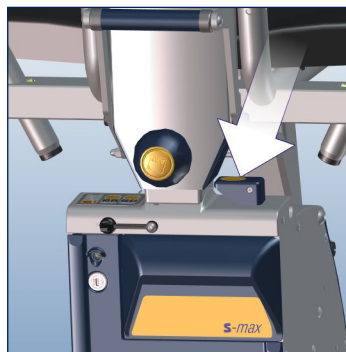
**NOTE** - Pack the battery pack safely before dispatching it (e.g. for repair, recycling, etc.)  
Package battery pack securely. No special packaging necessary.

New batteries reach their full capacity after several charges.  
The batteries are maintenance free and rechargeable.

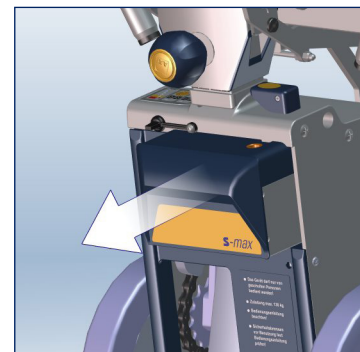
### Charge battery when removed



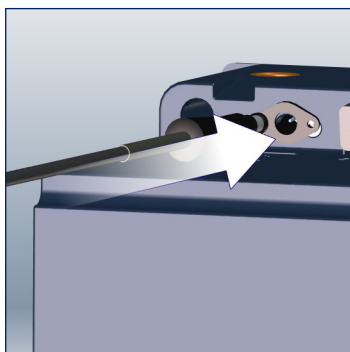
Switch off s-max sella.



Press the battery latch release button.



Pull the battery pack over the handle.



Connect the charger.  
» Keep the plug-in contacts dry!



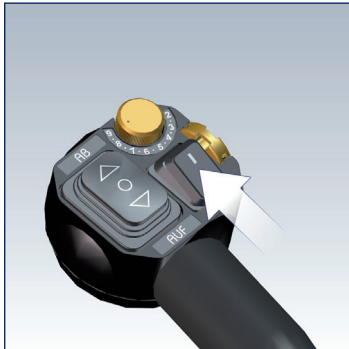
LED is red = batteries are charging



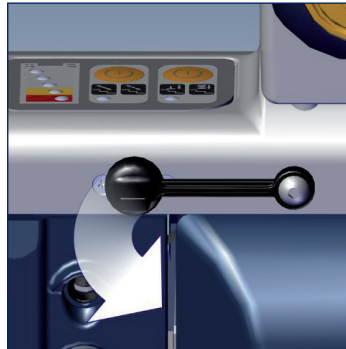
LED green = battery are completely charged

**i** **Manufacturer's recommendation:** The charger automatically switches into trickle charge mode once the battery pack is fully charged. A trickle charge mode keeps the battery pack at the optimum level as long as it is connected to the charger. The LED glows green during the trickle charge mode.

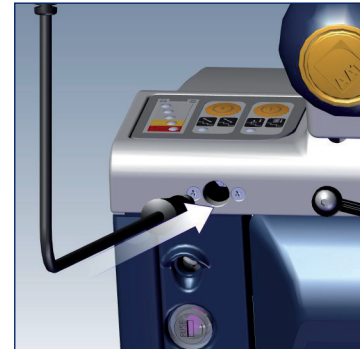
### Charge battery via charging socket on device



Switch off s-max sella.



Push up the locking flap and remove the plug seal.



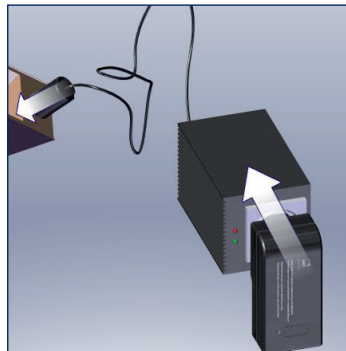
Insert the charger plug into the charging socket.  
» (For an LED description, see images 1 + 2, previous page)

After the charging process, lock again with the plug seal and the locking flap.

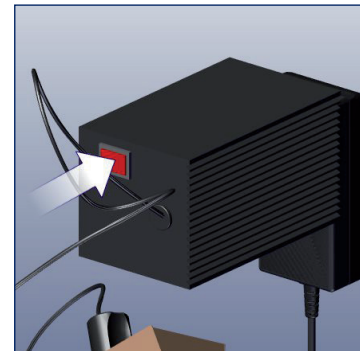
### Charge batteries in a vehicle



Switch off s-max sella.



Attach the voltage converter. Connect the s-max sella via the charger.



Turn on the voltage converter. Audio warning = low voltage!





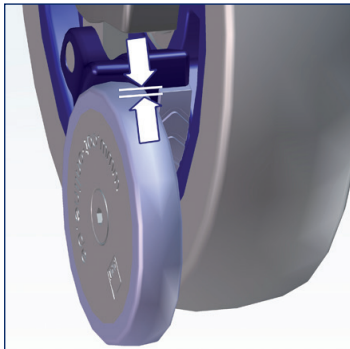
LED is red = batteries are charging.



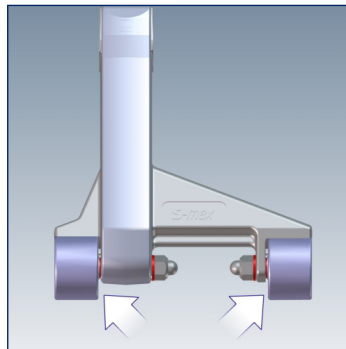
LED green = batteries are completely charged

## 9.2 Check the lining of the brakes and the climbing feet

-  NOTE - Minimum thickness for brake lining = 1 mm. Should the lining be thinner or damaged, contact the manufacturer, AAT field service or authorised personnel!
-  NOTE - If the foot lining is worn or broken, please have both climbing feet replaced by the manufacturer, AAT field service or your authorised dealer!



Check the brake lining of the safety brakes regularly.



Please also check the climbing feet castors for damage on a regular basis.

## 9.3 Cleaning and disinfection



WARNING - Check safety brakes after cleaning (Chapter 9.2)!



WARNING – Do not smoke during cleaning!



WARNING – It is important to prevent moisture from getting into the device!  
Use only damp cloths for cleaning the device's surface! Never use wet cloths!



NOTE - Clean the safety brakes and the brake drums in the wheel rims weekly or after contamination using alcohol! Follow the hazard notes on the alcohol!



NOTE - Keep the s-max sella away from sources of ignition!



NOTE – Do not use a high-pressure cleaning device!

Clean upholstery covers as well as all surfaces, that are in contact with the skin of the occupant after each use.

» Only use household cleaning detergents to wipe surfaces clean.

All other components can be wiped clean with a mild conventional household detergent.

» Follow the hazard notes on the detergent before each use!

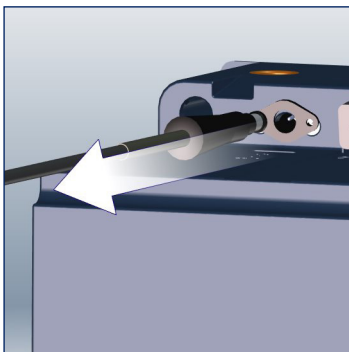
Should you need to disinfect, clean it by wiping with household disinfectants and take note of the manufacturer's specifications. Follow the hazard notes on the disinfectant before each use.

## 9.4 Replacing fuses

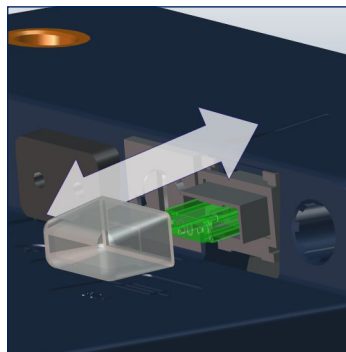
**i** NOTE – You may not mend or by-pass a damaged fuse! Always replace it with an identical one of the same amperage (**30 A**)! Replacement fuses are available from the manufacturer!

**i** NOTE - Should your fuses burn out frequently, please contact the AAT Alber Antriebstechnik GmbH or your authorised dealer!

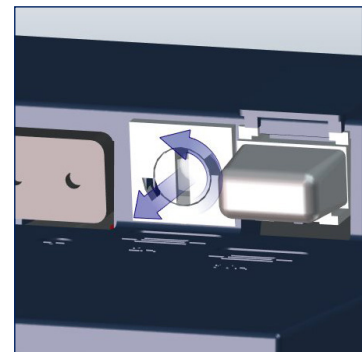
### Battery pack fuse



The battery pack may not be connected to the charging unit when changing the fuse.

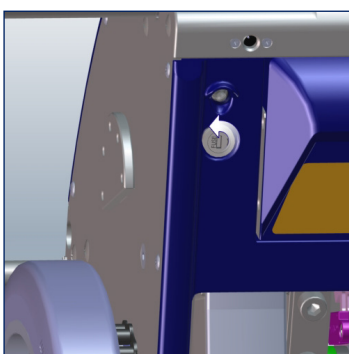


Remove the fuse cover, remove the broken fuse and insert the new one.  
» Then, fit the cover again.



To change the fuse, press in the fuse bracket and turn it anti-clockwise at the same time.  
» Remove broken fuse and insert new fuse.  
» Tighten clockwise.

### Climbing unit fuse



To change the fuse, press in the fuse bracket and turn it anti-clockwise at the same time.



Pull out the fuse bracket and remove the broken fuse. Insert the new fuse, turn the fuse bracket clockwise and fix it in place.

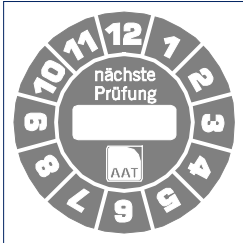
## 9.5 Safety check



NOTE – Safety checks may only be performed by the manufacturer, the AAT field staff or the authorised dealer.



NOTE – We recommend a safety check every two years. The inspection plate informs you about the next date for inspection. Tip: After a change in operator/reuse.



To ensure flawless device function, we recommend carrying out a safety check every 2 years. We also recommend doing the safety check before each reuse.

To perform a safety check special training is required. More detailed information is available on the website: [www.aat-online.de](http://www.aat-online.de)

## 9.6 Re-use (change of operator)

A re-use is referred, if the AAT product of patient X is transmitted to patient Y. Please contact the manufacturer, the AAT field staff or the authorised specialist shop.

s-max is suitable for reuse. We recommend a safety check as well as a cleaning/disinfection, if the s-max sella goes to a new user. (see chapter 9.5 and 9.3)

## 9.7 Disposal

Your s-max sella and its batteries are durable products. After expiry of the natural service life, you can return these components to AAT Alber Antriebstechnik GmbH or their specialist dealers for disposal.



s-max sella and its batteries must not be disposed of in places that are not intended for this purpose (e.g. landfills) according to the current legislation in force in each respective country. Substances may be present that could prove to be harmful to the environment.

The product marked with a crossed wheelie bin cannot be disposed of with household waste (WEEE Directive). Inform yourself about the valid statutory provision in your country as the WEEE regulation is not applicable in all European countries.

## 9.8 Long-term storage

If the s-max sella will be stored for a longer period of time (e.g. for a few months), please ensure the following:

- » Protect the device from rain or moisture!
- » Store s-max sella in a dry place with low relative humidity. If necessary, protect with foils!
- » Protect against strong exposure to sunlight!
- » Make sure that unauthorised persons - especially children – have no access to the storage room of the s-max sella!
- » Remove the battery pack before storage. Observe Chapter 9.1 when storing the battery pack!

If you want to re-use it, please clean the s-max sella as described in Chapter 9.3. Please check the inspection plate. If necessary, commission a safety check (see Chapter 9.5).

If no safety check is necessary, please make sure to check the electronic functions and the safety brakes before re-use!

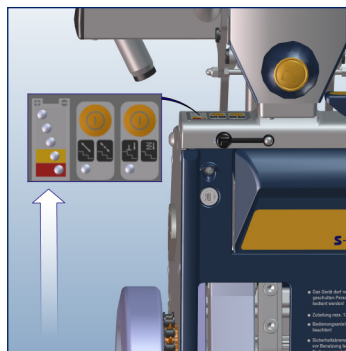
## 10 Malfunction and trouble shooting



**WARNING** - If the driving characteristics change unusually, turn off the s-max sella immediately and stop using it, to avoid dangerous situations!



Switch on the s-max sella.



LED blinks.  
» Note the malfunction!



Switch off s-max sella.

**Turn on the s-max sella.**

- » **LEDs are blinking - Contact the manufacturer or your authorised dealer!**

## Malfunction codes

LED flashes	Fault Condition
1x	Defective charging socket
2x	Speed controller, UP/DOWN switch, plug-in contacts or supply line are defective
3x	Circuit board fault (FET)
4x	Circuit board fault (relay)
5x	Motor fault
6x	Overload
7x	Overvoltage
8x	Electromagnetic brake fault
9x	Electronics fault
10x	Sensor hollow shaft fault (only if ComfortStep is activated)

## Trouble shooting

Problem	Check and potential solution
s-max sella cannot be turned on	Is the charger connected? Yes: Disconnect the charging cable.
	Are the batteries empty? Yes: Charge the batteries.
	Is the problem still present? Yes: Contact the manufacturer, AAT field service or the authorised dealer.
s-max sella does not drive	Is the safety chip for the engine immobiliser inserted? Yes: Contact the manufacturer, AAT field service or the authorised dealer.
Battery pack doesn't charge	Contact the manufacturer, AAT field service or the authorised dealer.
The housing of the battery pack is damaged	Contact the manufacturer, AAT field service or the authorised dealer.

## 11 Warranty and liability

### Warranty

AAT Alber Antriebstechnik GmbH grants a warranty of two years for the s-max sella, including all its accessory parts (with the exception of the sealed lead acid batteries). The warranty begins at the date of purchase and covers failure of material and errors in manufacturing.

For the sealed lead acid batteries, always assuming correct maintenance, AAT Alber Antriebstechnik GmbH grants a warranty of one year from the date of purchase.

**The warranty is void for defects or damage to the s-max sella, which are the result of the following:**

- » Damage due to excessive strain.
- » Damage due to improper handling.
- » Violent damage.
- » Natural wear and tear (brake lining, gliding strip, climbers).
- » Improper and insufficient maintenance by the customer.
- » Unauthorised constructional changes or inappropriate use of the s-max sella or its accessories.
- » Using the s-max sella exceeding the total weight approved or the max. approved weight of the occupant.
- » Improper charging of the sealed lead acid batteries.

### Liability

**The manufacturer, AAT Alber Antriebstechnik GmbH is not responsible for any potential damage to the s-max sella in case of:**

- » Improper handling of the s-max sella.
- » Repairs, fittings or other works performed by unauthorised personnel.
- » s-max sella was not used in accordance with the user manual.
- » Extraneous parts added or connected to the s-max sella.
- » Parts removed from the s-max sella.
- » Operation of the s-max sella exceeding the total weight approved or the max. weight approved of the occupant.
- » s-max sella was not serviced periodically (in a regular 2-year cycle) by the manufacturer, the AAT field staff or an authorised dealer.
- » Operation of the s-max sella by minors without supervision (excluding minors above the age of 16 years who were trained under supervision).
- » Operation of the s-max sella with insufficiently charged batteries.

## 12 Corrective actions / product recall

We will contact our authorised personnel, if additional important safety information is available or if subsequent changes have been made on the product. As stated at the beginning, the current version of this user manual can be retrieved at any time on our homepage.

Should any subsequent changes be made to the product or corrective action be taken, we will inform you and/or our authorised dealers in writing about all the affected serial numbers. If your s-max sella is part of a product recall, you will be informed about the process to be followed.





AAT Alber Antriebstechnik GmbH  
Postfach 10 05 60 · 72426 Albstadt · Germany  
Phone: +49 (0) 74 31 12 95 0  
Fax: +49 (0) 74 31 12 95 35  
info@aat-online.de · www.aat-online.de

**Serial number:**



Ideen bewegen mehr