



TRANSLATION OF THE ORIGINAL
USER MANUAL



s-max aviation D1611

CE

2024-02 (3.1)
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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.

The product may differ in shape and color from the illustrations in these user manual.

All serious incidents occurring in relation to the device must be reported to the manufacturer and to the competent authority of the Member State where the user and/or occupant is established.



WARNING

Failure to observe this user manual, in particular the safety instructions, can lead to defects in the s-max and endanger the operator and the occupant, as well as affect it in its proper function! There is an increased risk of injury! In the event of an infringement, claims for warranty and liability are excluded!

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. On our homepage, you will also find all safety-related changes which have been made to the user manual. These versions with details of the production period of the product are obtainable at:

www.aat-online.de/en > service > download area > rehabilitation and ambulance transport > user manuals

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1 Symbols and safety instructions



DANGER - Imminent DANGER

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



WARNING - Possibly imminent DANGER

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



CAUTION - Possible imminent danger or harmful situation

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



NOTE - Information by the manufacturer

General safety instructions



NOTE

If you have a visual disability, this user manual can be downloaded at:
www.aat-online.de/de/bda/s-max.

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

In the event of reading disabilities, cover training content in more depth verbally.

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

It does not consist exclusively of flame retardant substances. Keep the device away from sources of ignition.

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

Stability tests were performed under laboratory conditions. The s-max may 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)!
Do not touch the affected surfaces in this case to avoid burns!



WARNING

Never reach into rotating/moving parts to avoid crushing.



DANGER

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

Do not exceed the total permissible weight and the max. person weight, as this may lead to defects or an overload the s-max!





Do not use in rain, wet conditions, snow or black ice to avoid slipping due to the reduced braking effect!

Do not use on escalators or travellers to avoid injuries from falling, the occupant tipping out and damage to property!

The operability of the s-max may 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

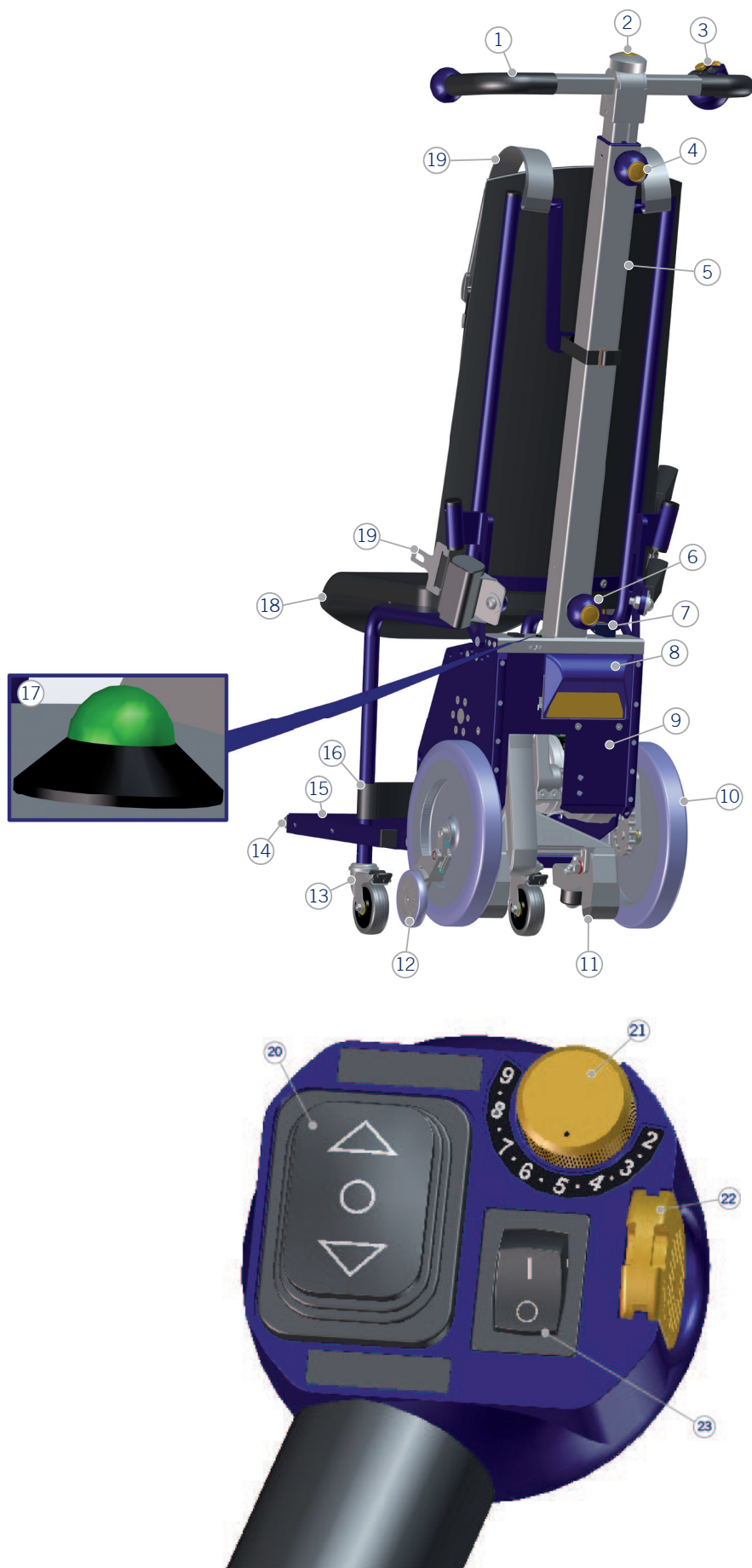
Symbol	Explanation
	Handle with care The packaging including the product must be handled with special care.
	Protect from moisture Protect the packaging including the product from overly high air humidity. Cover during storage. If necessary, cover thoroughly with tarpaulins.
	Caution fragile Handle the packaging including the product carefully and never allow it to fall.
	This way up 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
	CE marking Position: Type plate The product complies with the relevant provisions of the EC Regulation EC 2017/745 (MDR)
	Date of manufacture Position: Type plate Indicates the year the medical device was manufactured.
	Manufacturer Position: Type plate Shows the manufacturer of the medical device (AAT Alber Antriebstechnik GmbH)
	SN Position: Type plate Serial number of the product e.g. D1611XXXXXX
	Medical Device Position: Type plate
	Observe the user manual! Position: Type plate The user manual must be observed! (www.aat-online.de)
	Attention! Position: Type plate Refers to the need for the user to review the user manual and important safety-related information.
	Barcode Position: Type plate Contains the AAT serial number
	Technical safety test badge (refer to chapter Technical safety test) Position: Left side of drive unit Informs about the due date of the next technical safety test
	Adhesive label on the drive unit (for D1611) The device may only be operated by trained persons! Max. load 160 kg. Observe the user manual! Check the safety brakes before use according to the user manual!
	Adhesive label UP / DOWN Position: UP/DOWN switch on the control panel Refers to the direction of travel (refer to chapter "Climbing stairs upwards and downwards")

4 Product description

4.1 Device overview

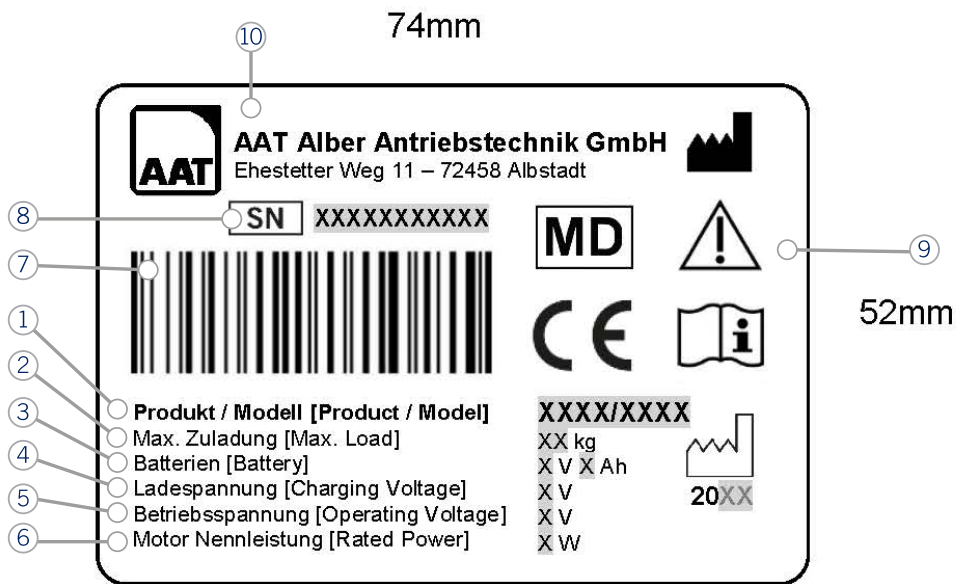


**Manufacturer's information:**

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 Handle
- ② Locking wheel
- ③ Control panel
- ④ Locking knob
- ⑤ Stanchion tube
- ⑥ Locking knob
- ⑦ Battery pack unlocking
- ⑧ Battery pack
- ⑨ Climbing unit
- ⑩ Wheel
- ⑪ Climbing leg with climbing feet and turning mechanism
- ⑫ Safety brake
- ⑬ Castor
- ⑭ Bracket for extending the footrest
- ⑮ Foot support
- ⑯ Foot strap
- ⑰ LED
- ⑱ Transport chair
- ⑲ Harness system
- ⑳ UP/DOWN switch
- ㉑ Speed control
- ㉒ Safety chip for immobiliser
- ㉓ ON/OFF switch

4.2 Overview of type plate incl. serial number



- | | |
|------------------------|--------------------------------------|
| ① Product / Model | ⑦ Barcode (refer to chapter 3) |
| ② Max. load | ⑧ Serial number (refer to chapter 3) |
| ③ Batteries | ⑨ Symbols (refer to chapter 3) |
| ④ Charging voltage | ⑩ Manufacturer address |
| ⑤ Operating voltage | |
| ⑥ Rated power of motor | |

4.3 Intended purpose

The stair climbers are guided manually and are operated by an operator.

They make it possible to transport a single person with reduced mobility safely over stairs, upwards and downwards. The products have been designed for indoor and outdoor use, and moving on spiral stairs and slopes is possible, too.

4.4 Intended patient population

The intended patient population includes all persons who are able to sit independently and have a maximum body weight corresponding to the technical specification of the respective model and variant (max. 160 kg for the s-max D1601).

4.5 Medical requirements and indication

The patients must be able to sit independently. Secure persons who cannot sit upright unaided with belts (refer to accessories) to prevent the occupant from falling out!

The manually guided stair climber assists the accompanying person while transporting the patient over stairs or slopes, upwards and downwards. The use of the stair climber is intended for patients who are not able to move by themselves and accompanying persons who do not have sufficient physical endurance and strength to move the patient over stairs or slopes. The s-max aviation is used to transport patients into an aircraft.

4.6 Contraindications and restrictions

The stair climbers must not be used if:

- the operator has obtained no training/instruction for the product!
- the operator is below the age of 16!
- there is no supervision for minors of at least 16 years of age!
- the operator is not physically and mentally able to operate the stair climber safely!
- more than one person shall be transported simultaneously!
- the person to be transported cannot sit upright unaided!
- the operator does not have adequate eyesight!
- the braking effect is reduced due to rain, wet conditions, snow or black ice!
- the one-side and/or two-side braking effect of stair climber does not set in!
- escalators or travelators shall be overcome!
- medical devices with e.g. a life support function, and diagnostic devices are in the proximity!
- it is not used according to the intended use!

4.7 User group

The stair climbers are intended for use by ground handling personnel.

Users are trained in the use of the device by means of a training course.

4.8 Technical data



WARNING - Do not exceed the total permissible weight and the max. person weight, as this may lead to defects or an overload the s-max!



NOTE - Observe the technical data.

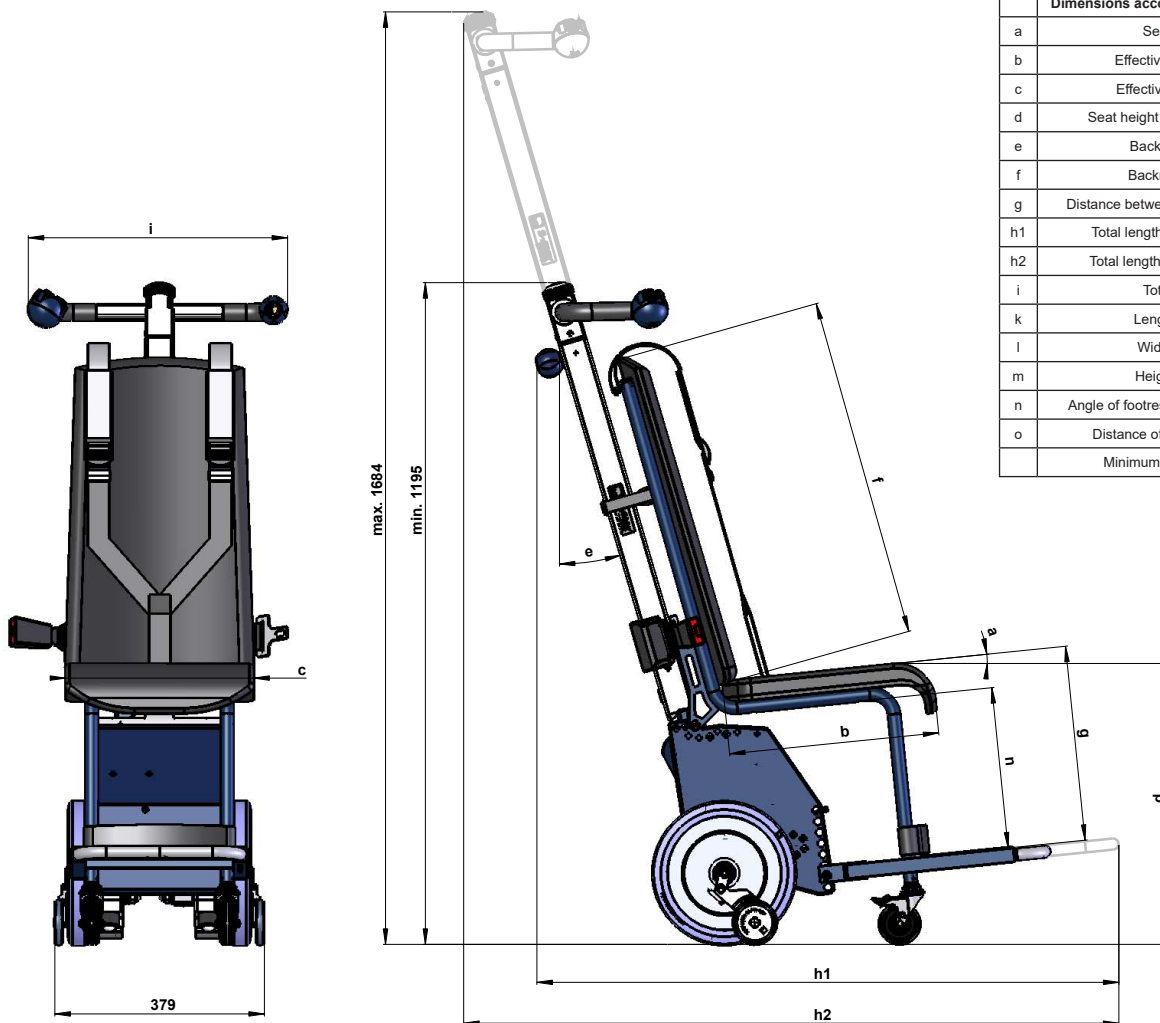
Technology	s-max D1611
Own weight	Climbing unit = 33.6 kg Handle unit = 3.4 kg Battery pack = 3.1 kg Total weight without battery = 37 kg
Total permissible weight	200 kg
Maximum person weight	160 kg
Climbing speed in steps / min	8 - 23, continuously adjustable ¹⁾
Range per battery charge for an average person weight of 75 kg	Approx. 18 floors (approx. 270 steps)
Range per battery charge for a max. person weight of 160 kg (person)	Approx. 9 floors (approx. 135 steps)
Maximum height of step	225 mm
Min. depth of step	140 mm ²⁾
Required step width	Width s-max aviation with transport chair + 100 mm
Minimum platform size	1350 mm x 1350 mm
Min. outer radius from step depth 140 mm (spiral staircases)	1350 mm
Max. slope of the stairs	61.2°
Min. step depth in mm (spiral staircases)	140 mm
Batteries	2 x 12 V / 3.3 Ah (gas-tight)
Direct current motor	24 V / 275 W
Switching force UP/DOWN switch	3 - 8 N
Direct operating forces	3 - 8 N
Sound pressure level	< 70 dB
Storing/operating temperature: Device	-40 °C to +65 °C / -25 °C to +50 °C
Storing/operating temperature: Battery	-25 °C to +65 °C / -25 °C to +50 °C ³⁾
Battery charging temperature	0 °C to + 40 °C
Altitude application range (sea level)	< 3000 m above sea level
Vibration information	The weighted RMS value of acceleration, to which the upper body is subjected, is typically below 2.5 m/s ² .
Adhesive label with serial number	Battery pack drawer
IP protection class	IPX4
Classification according to ISO 7176-28:2012	Type C

1) With activated ComfortStep, the climbing speed and the range are reduced. The range also depends on the weight of the occupant.

2) Any steps of a smaller depth may not be travelled as in this case it is no longer possible for the wheel to be set down safely.

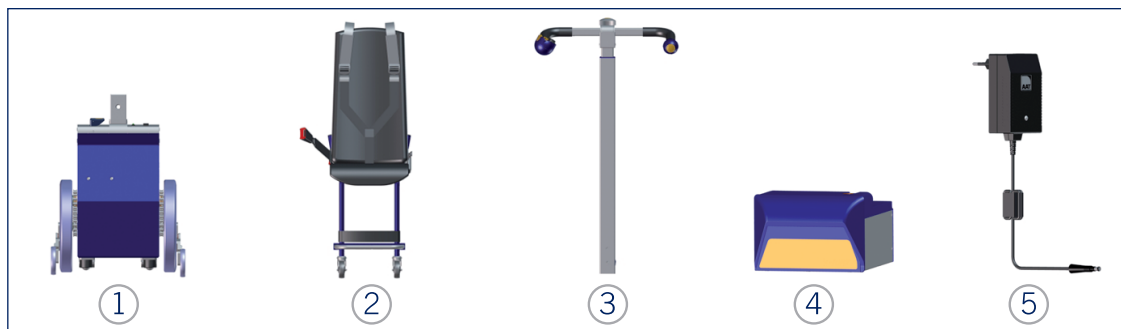
3) At temperatures below 0 °C the performance of the battery pack will decrease; therefore we recommend a storage temperature of at least 0 °C.

4.9 Dimensional drawing



	Dimensions according to ISO 7176-15	
a	Seat angle	6°
b	Effective seat depth	380 mm
c	Effective seat width	340 mm
d	Seat height at the front edge	507 mm
e	Backrest angle	16°
f	Backrest height	615 mm
g	Distance between footrest and seat	352 mm
h1	Total length w. footrest min.	1051 mm
h2	Total length w. footrest max.	1184 mm
i	Total width	468 mm
k	Length folded	-
l	Width folded	-
m	Height folded	-
n	Angle of footrest to seating surface	0°
o	Distance of armrest to seat	mm
	Minimum turning radius	Approx. 1000 mm

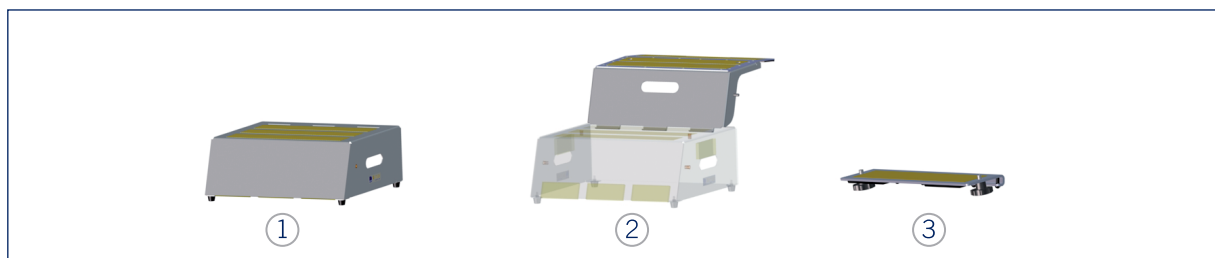
4.10 Scope of delivery



- ① Climbing unit
- ② Transport chair with foot strap / harness system
- ③ Handle unit
- ④ Battery pack
- ⑤ Charger incl. instructions

4.11 Accessories

i NOTE - Only use AAT Alber Antriebstechnik GmbH accessories.



- ① Universal step
- ② Dash 8 adaptation
- ③ ART/SAAB adaptation



- ④ Headrest
- ⑤ Armrests
- ⑥ Battery pack
- ⑦ Motor vehicle voltage converter

5 Assembly

5.1 Handle unit



WARNING - The handle unit must be securely fixed with the locking screw so that it is safely joined to the climbing unit!



WARNING - Plug-in contacts must be dry!



A 9-pin sub-D coupling in the receptacle provides the electrical connection.



Connect the handle unit and the climbing unit to each other.

» Control panel on the right!



Secure the connection with locking knob for stanchion tube. Both units must have been securely joined.

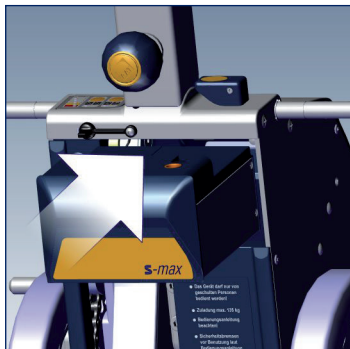


Disassembly:
Switch s-max aviation off and proceed in reverse order.

5.2 Battery pack

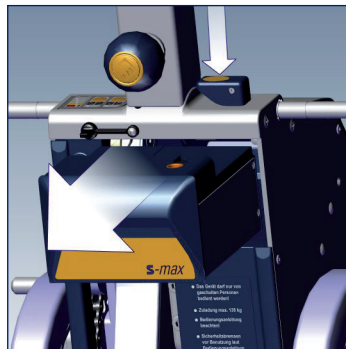


WARNING - The battery pack must be fixed and locked to prevent immediate detachment!



Assembly. Insert the battery pack into the opening provided in the climbing unit.

» The battery locking device is activated automatically.



Disassembly. Release the locking device.


» Press the release button on the climbing unit downwards, then pull out the battery pack.

6 Starting up

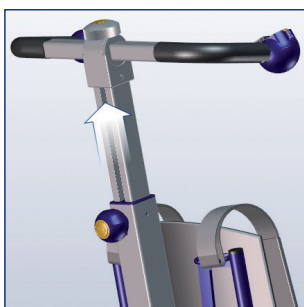
 NOTE - To avoid malfunctions or defects, store the s-max aviation in a frost-free environment for at least one hour prior to start-up.

 NOTE - Press UP/DOWN switch only a few seconds after switching on!

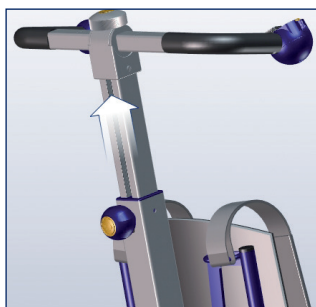
6.1 Adjusting the handles to the correct height

 WARNING - The handle must have been securely fixed with the locking screw so that the handle adjustment does not change directly!

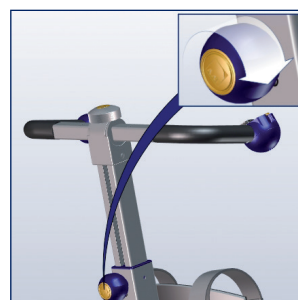
 CAUTION - Pay attention to the pinch point at the groove opening to avoid injuries!



Turn the locking screw for height adjustment counterclockwise.



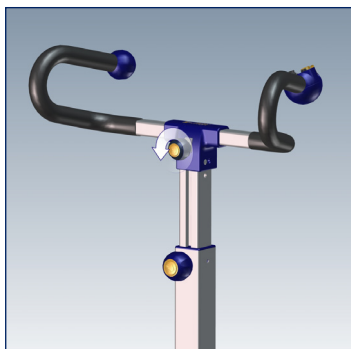
Extract the handle to shoulder height.



Tighten the locking screw clockwise.

6.2 Transverse adjustment of handle

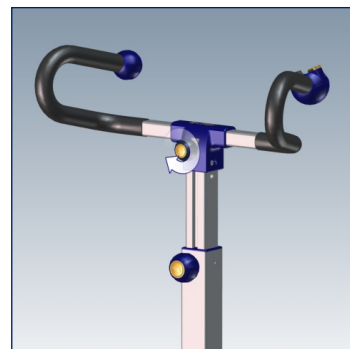
On very narrow stairs, the handle might bump. In these cases, adjust the handle in the transverse direction.



Turn the locking screw for transverse adjustment counterclockwise.



Move the handle in the desired direction.



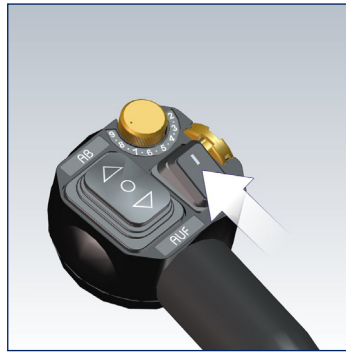
Tighten the locking screw clockwise.

6.3 Switching on the device



Insert the safety chip for the immobiliser.

» The safety chip must snap in!



Switch the s-max on via the **ON/OFF switch** 23.

6.4 Neutral position



Move the climbing leg to neutral position by keeping the UP/DOWN switch pressed.

» If the single-step mode (refer to chapter 6.6) has been activated, the climbing leg is automatically stopped in neutral position!



Correct.



Incorrect!

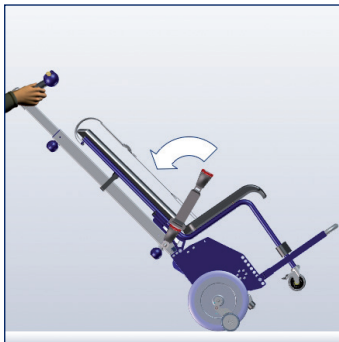
6.5 Checking the safety brakes



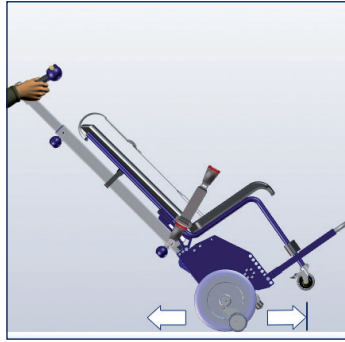
DANGER - If there is only a one-sided braking effect or no braking effect, do not use the s-max aviation, to avoid falling from the stairs. Notify the manufacturer, the AAT field service, or the authorised specialist dealer!



WARNING - Check safety brakes without occupant!



Tilting the s-max aviation
» Test the safety brakes
before every journey.



Test: the s-max cannot be
rolled forwards, but only
backwards = safety brakes
active.



Recommendation by the manufacturer:

as an aid, support foot
on the drive housing to
tilt the s-max backwards.
For a detailed procedure,
refer to chapter 8.3.

6.6 Single-step mode



DANGER - With the single-step mode deactivated, it is essential to ensure correct operation, otherwise the s-max aviation may slip!



**Single-step mode
Deactivate / Activate.**
LED is lit = single-step mode
activated!



If you do not need the
single-step mode, you can
switch it off manually on the
membrane keypad.
» LED is not lit = single-step
mode deactivated!



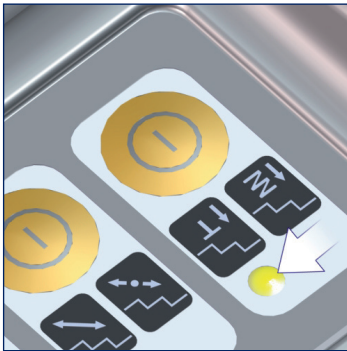
Manufacturer's recommendation:

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

6.7 ComfortStep



NOTE - If an adjustment of the step height is to be made, please contact the AAT field service or the manufacturer AAT Alber Antriebstechnik GmbH!



Deactivate / Activate.

- » LED is lit = ComfortStep activated!
- » This ensures a gentle and thus more comfortable climbing procedure.



- If you do not need ComfortStep, you can switch it off manually on the membrane keypad.
- » LED is not lit = ComfortStep deactivated!



Manufacturer's information:

Each time the device is switched on again, the memory function plays back the last setting used.

6.8 Checking battery capacity



Battery indicator
Green = full



Battery indicator
Yellow = low
» Charge battery.



Red = empty
» Charge battery.
» Warning tone every 12 sec!
» The capacity of the battery will last for max. 20 - 35 steps!

7 Operation



DANGER - Operation only by a trained person who is physically and mentally capable of operating the s-max safely!



DANGER - Do not allow any persons to stay in the danger zone underneath the s-max!



DANGER - Check the safety brakes before each use! (Refer to chapter 6.5)



WARNING - Wear anti-slip footwear to avoid slipping on the stairs.



WARNING - Always operate with both hands to avoid dangerous situations and to ensure a safe climbing procedure!



WARNING - Do not travel wet, slippery, or waxed stairs to avoid falls! Carpet surfaces must be non-slip.



WARNING - The arms must not hang down on the sides or be strongly flexed in an uncontrolled manner. Rest the arms on the armrests or thighs!



WARNING - Secure persons who cannot sit upright unaided with belts (refer to accessories - chapter 4.11) to prevent the occupant from falling out!



NOTE - Practise without occupant and in the single-step mode.



NOTE - Note the depth of the step and its condition! Risk of falling!



NOTE - Press UP/DOWN switch only a few seconds after switching on!

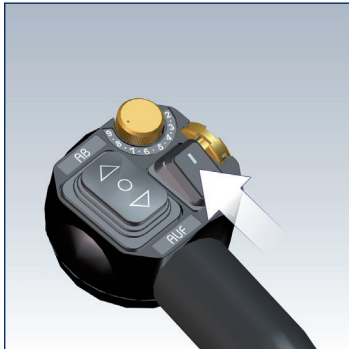


NOTE - When using seat supports (cushions, etc.), ensure that the occupant is securely seated to prevent the occupant from slipping or falling out.

7.1 Occupant taking a seat



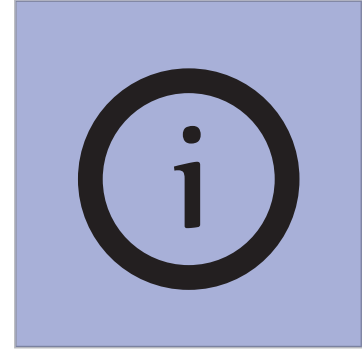
WARNING - The arms must not protrude over the armrests to avoid possible injury!



Switch the s-max on via the ON/OFF switch.



Secure stand of the s-max.
Operate the UP/DOWN switch in the **UP** direction.
» Extend the climbing leg until it rests on the ground.

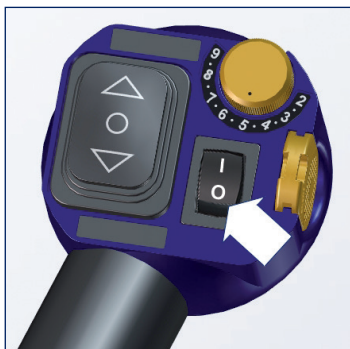


After the occupant has taken seat, ensure that he/she is seated securely.
» Rest the crossed arms on the thighs.

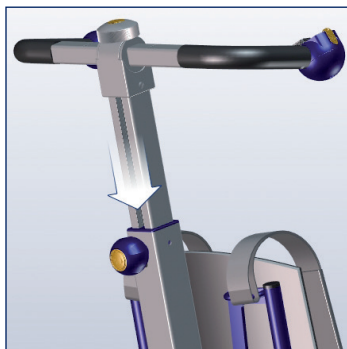


Locking the castors

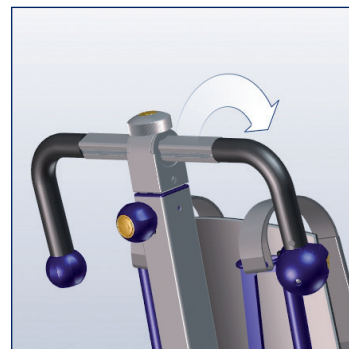
Manufacturer's recommendation for the occupant changing seats!



Switch off the s-max aviation.



Loosen the locking screws for height adjustment ④. Then retract the handle and tighten the locking screw again.



Loosen the locking wheel ②. Then turn the handle downwards and tighten the locking wheel again.



Occupant taking the seat or changing seats.
» Secure occupant with foot strap and harness system!
» Rest the crossed arms on the thighs.





Loosen the locking wheel and turn the handle upwards.



Tighten the locking wheel again and adjust the handle (refer to chapter 6.1).

7.2 Moving on level ground / overcoming obstacles

-  NOTE - The climbing leg must not have been extended, otherwise it could be damaged!
-  NOTE - Do not overcome obstacles forwards, otherwise the safety brakes will be damaged!



Adjust the neutral position (refer to chapter 6.4)
» Fully retract the climbing leg.



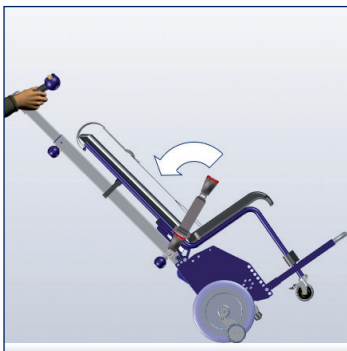
Release the locking device of the castors.



Moving on level ground.
» Push the s-max aviation.
» Overcome thresholds backwards!

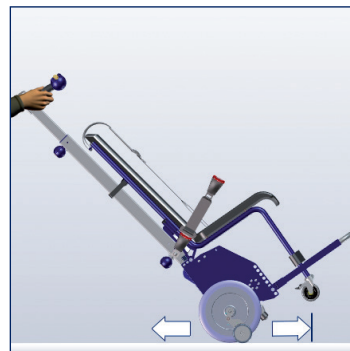
7.3 Tilting the stair climbing system

-  WARNING - The s-max aviation must be tilted for climbing stairs and moving on slopes!



Support foot on drive housing and tilt s-max aviation backwards.

- » The device must be balanced.
- » The device is balanced when neither pressure nor tension is felt in the handle.



The s-max can be moved.

- » In case of excessive tilting, the safety brakes stop the s-max aviation in forward direction.



Recommendation by the manufacturer:

If you cannot tilt the s-max by yourself, use the climbing legs as a **tipping aid**.

- » Switch on the s-max
- » Press the UP/DOWN switch in the DOWN direction until the wheels lift approx. 1-2 cm off the ground
- » Tilt the s-max (figure 1)
- » Then retract the climbing leg completely again.
- » Move the s-max (figure 2)

7.4 Moving on slopes



WARNING - For safety reasons, a second person should be present to help steer!



NOTE - Be sure to observe the safety instructions in chapter 7!



Extract the bracket ⑭ and release the locking device on the castors.

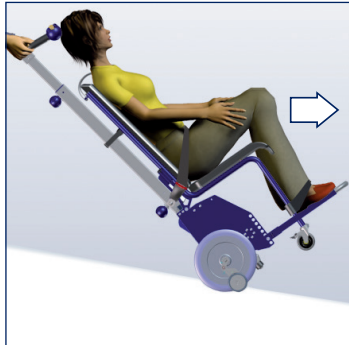


Tilt the s-max aviation.
» If necessary, use the recommendation by the manufacturer from chapter 7.3.



The climbing leg must be completely retracted. (Neutral position, refer to chapter 6.4)

Moving down a slope



Approach the slope moving forward, tilt the s-max aviation and move downwards.

» Tilt closer to the ground to decelerate!

Moving up a slope

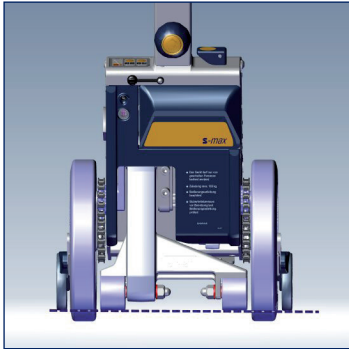


Move backwards on the slope.

» Tilt closer to the ground to decelerate!

7.5 Climbing stairs - Upwards

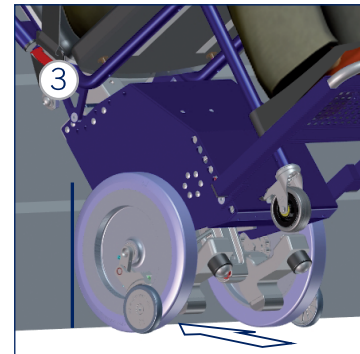
i NOTE - It is mandatory to observe the safety instructions in chapter 7!



Adjust neutral position.
» The climbing leg must be completely retracted.



Extract the bracket and release the locking device on the castors.
Tilt the s-max aviation and keep it balanced.



Approach the step backwards until wheels are in contact.

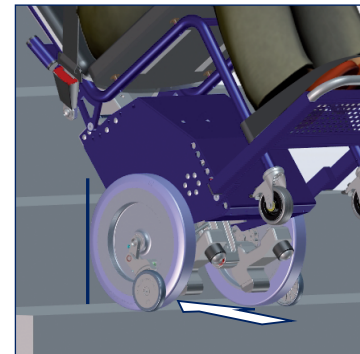


Walk 2 to 3 steps up.



Press the UP/DOWN switch in the UP direction.

» If the single-step mode has been activated, keep UP/DOWN switch pressed until s-max aviation stops by itself.



The s-max aviation climbs up. Pull to the next step.

Repeat procedure starting with image 3.

7.6 Climbing stairs - Downwards

i NOTE - It is mandatory to observe the safety instructions in chapter 7!



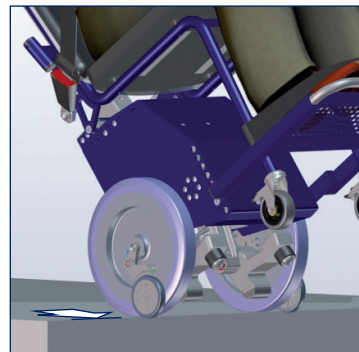
DANGER - As soon as the climbing leg starts taking the load you will feel the handles pulling. Tilt the s-max closer to the ground to counteract!



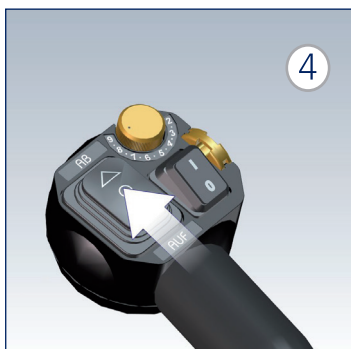
Adjust neutral position.
» The climbing leg must be completely retracted.



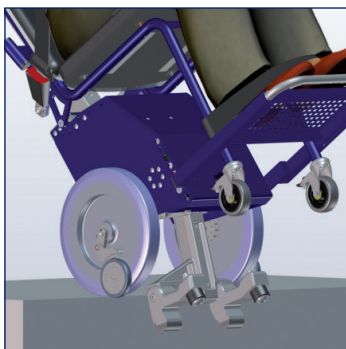
Extract the bracket and release the locking device on the castors.
Tilt the s-max aviation and keep it balanced.



Push the s-max aviation forward until the safety brakes engage.



Press the UP/DOWN switch in the DOWN direction.
» If the single-step mode has been activated, keep UP/DOWN switch pressed until s-max stops by itself.



The s-max aviation climbs down.



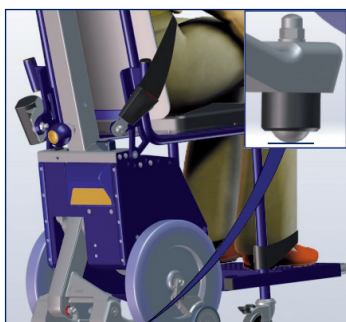
Push the s-max aviation forward until the safety brakes engage.

Repeat procedure starting with image 4.

Turning mechanism:



Extract the bracket ⑭ and release the locking device on the castors.



Press the UP/DOWN switch in the UP direction until the balls touch the ground.

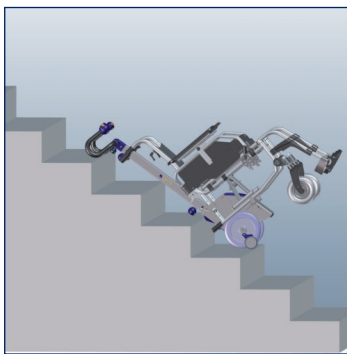


Turn/move the device in the desired direction (360°).

Recommendation:

Hold the handle with one hand and the stanchion tube with the other. Use the foot to push the climbing leg in the desired direction!

7.7 Laying down on stairs / emergency stop function



Lay down the s-max.

- » The safety brakes prevent it from rolling away!
- » Press and hold the UP/DOWN switch until the climbing leg has been fully retracted.

Please note:

The s-max aviation **must** be lying on the wheels, otherwise the safety brakes do not take effect!



Emergency stop function



If a hazardous situation occurs, proceed as follows:

- » 1 - Release the UP/DOWN switch
- » 2 - Switch the s-max off via the ON/OFF switch
- » 3 - Remove the safety chip
- » Lay the s-max down as described

Eliminate the hazardous situation and resume operation

- » Insert the safety chip
- » Switching the s-max on via the ON/OFF switch
- » Operate the UP/DOWN switch

7.8 Parking

-  NOTE - Only park the s-max aviation on the horizontal.
-  NOTE - Charge the batteries after each use.

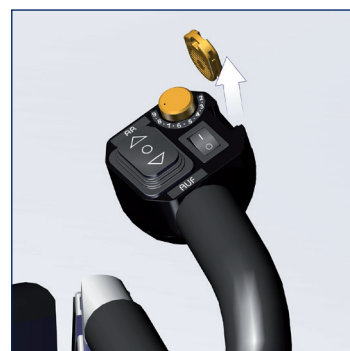
The automatic switch-off turns off during longer breaks.
Switch the s-max aviation first **OFF** and then **ON** again.



Adjust neutral position.
 » The climbing leg must be completely retracted.
 » Lock the castors.



Switch the s-max aviation off via the ON/OFF switch.



Remove the safety chip for the immobiliser.

7.9 Transportation



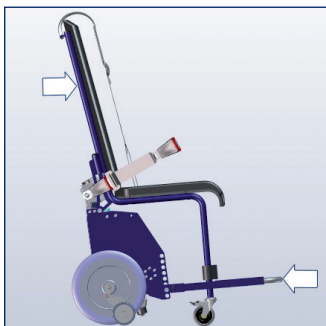
WARNING - Observe the weight specifications of the individual components! (Refer to chapter 4.8)



WARNING - Secure according to valid statutory provisions during transport in vehicles!



CAUTION - Switch the s-max aviation off during transport!



Disassemble the s-max aviation (refer to chapter 5.1).



Note by the manufacturer:

In accordance with the special provisions A67 and GGVS Rn no. 2801 A, Par. 2 by IATA, the batteries are not considered dangerous goods! Batteries are permitted for air travel in accordance with DOT and IATA! Make sure you contact the airline in advance before boarding a flight.

8 Care and maintenance



WARNING - Repairs and technical safety tests are performed by the manufacturer, the AAT field staff or the authorised specialist shop!



WARNING - Opening the housing of the s-max aviation may only be performed by the manufacturer, the AAT field service or the authorised specialist dealer!



NOTE - It is recommended to perform a technical safety test every two years! The inspection plate provides information about the latest date.
 Recommendation: After a change in operator/reuse.

8.1 Battery and charger



CAUTION - Protect from moisture and do not touch with wet hands to avoid electric shocks and defects!



NOTE - Charge the batteries after each use.



NOTE - Protect the charger and voltage converter against oils, greases, aggressive cleaning agents, thinning agents or damage.



NOTE - Observe the user manual for the charger/voltage converter.



NOTE - Deep discharge results in loss of capacity and a reduced service life.



NOTE - Before sending the batteries (repair, disposal, etc.) pack the battery pack securely. No special cardboard packaging is needed.

New batteries only reach their full capacity after several charging cycles. The batteries are maintenance free and rechargeable.

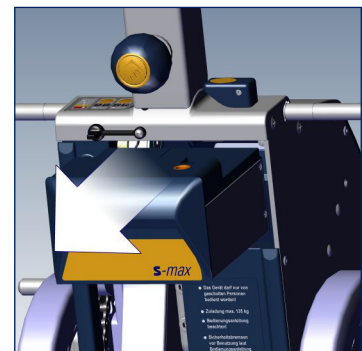
Charging the battery when removed



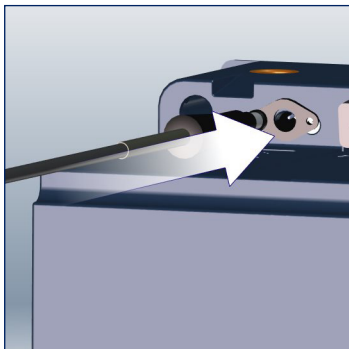
Switch off the s-max aviation.



Press the release button of the battery locking device.



Pull the battery pack off via the handle.



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



LED is red = battery is being charged

LED is orange = battery is charging



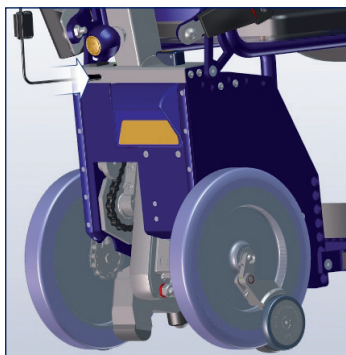
LED green = battery full

Note by the manufacturer: The charger automatically changes over to trickle charge mode once the battery pack is fully charged. To compensate for the self-discharge of the battery, the purpose of the trickle charge mode is to keep the batteries in a fully charged state. The LED is lit green during the trickle charge mode.

Charging the battery when installed

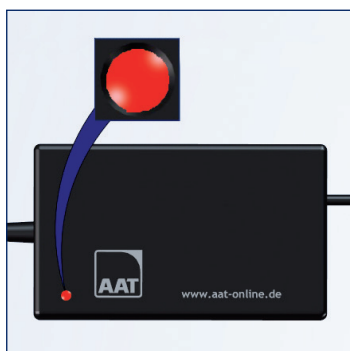


Switch off the s-max aviation.

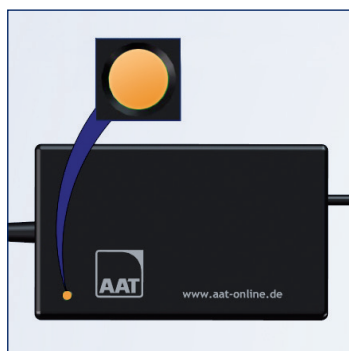


Connect the charger to the s-max aviation.

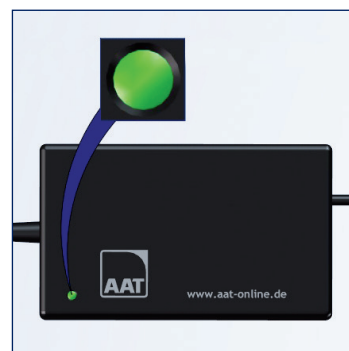
Information / status LED coloring



LED red = battery empty > please charge



LED orange = battery is charging

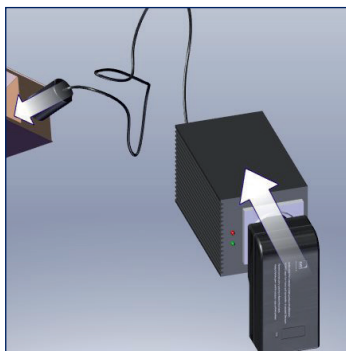


LED green = battery full approx. 8 hours

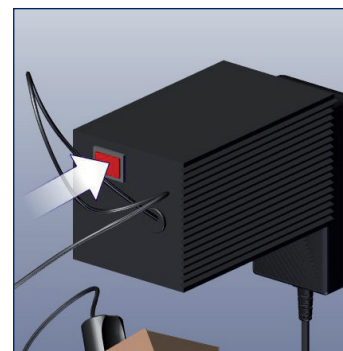
Charging batteries in car



Switch off the s-max aviation.





Connect the motor vehicle voltage converter and the charger.

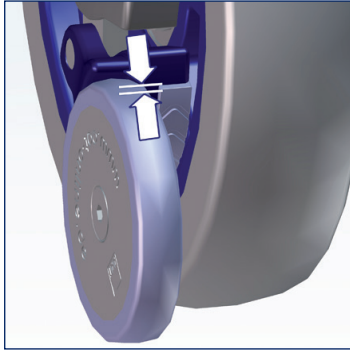


Switch on the motor vehicle voltage converter.

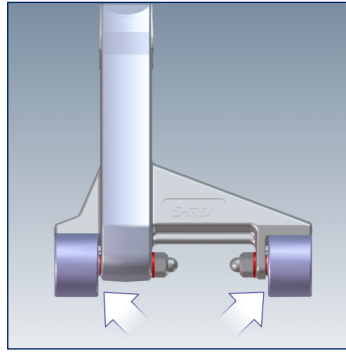
» Warning tone = low voltage!

8.2 Checking brake linings and climbing feet linings

-  NOTE - Minimum lining thickness of the brake linings = 1 mm - If below this value or damaged, inform the manufacturer, the AAT field service or authorised specialist dealer!
-  NOTE - If a lining is worn or damaged, both climbing feet rollers must be replaced by the manufacturer, the AAT field service or by an authorised specialist dealer!



Check the brake linings of the safety brakes on a regular basis.



Check the climbing feet rollers for damages on a regular basis.

8.3 Cleaning and disinfection



WARNING - No moisture must be allowed to enter the interior of the device!
This may result in electric shocks! Use only damp cloths for cleaning the device's surface!
Never use wet cloths!



WARNING - Test all safety-relevant functions after cleaning!



WARNING - Do not smoke during cleaning!



NOTE - Keep the stair climber away from sources of ignition!



NOTE - Clean the safety brakes in the rims weekly or with spirit when dirty! Observe the hazard information for the spirit!



NOTE - Do not use a high-pressure cleaner!



NOTE - Do not use abrasive or aggressive agents (if necessary, test on an inconspicuous area first)!



NOTE - Do not use substances containing alcohol!



NOTE - Do not use acidic substances such as orange cleaner!



NOTE - Clean upholstered surfaces and all surfaces that come into direct contact with the skin as necessary (e.g. optional headrest).

Wipe the surfaces of the stair climber with mild household cleaning agents.
» Observe the manufacturer's information.



If you want to disinfect the stair climber, carry out a wipe disinfection.

Use household disinfectants.
» Observe the manufacturer's information.

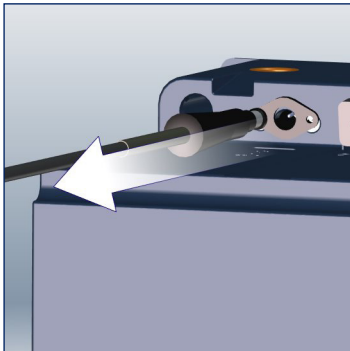
Possible disinfectants:

- Ecolab Oxy Wipe disinfectant wipes
- B15 disinfectant wipes or Chemie
- Schülke mikroZid sensitive wipes
- Sagrotan disinfection cleaner

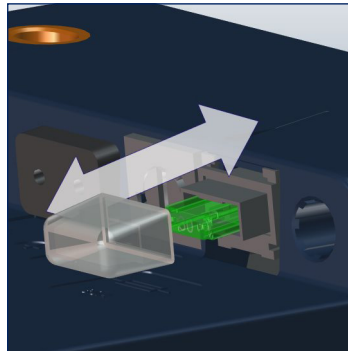
8.4 Replacing fuses

-  NOTE - Do not mend nor bridge defective fuses! Only new fuses with **30 A** may be replaced! Replacement fuses are available from the manufacturer!
-  NOTE - If the fuse blows frequently, contact the manufacturer or an authorised specialist dealer!

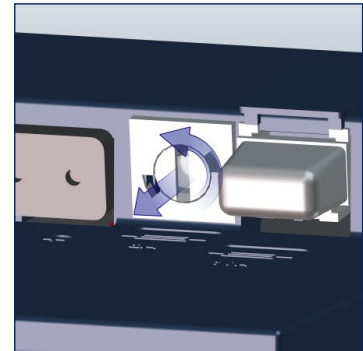
Battery pack fuse



The battery pack must not be connected to the charger during the fuse change.

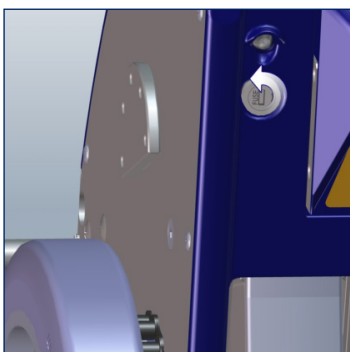


Remove the fuse cover, remove the defective fuse and insert a new one.
» Then put the cover back on.



To change the fuse, press in the fuse holder and turn it counterclockwise at the same time.
» Pull out the defective fuse and insert a new one.
» Turn clockwise to tighten.

Fuse for climbing unit




To change the fuse, press in the fuse holder and turn it counterclockwise at the same time.

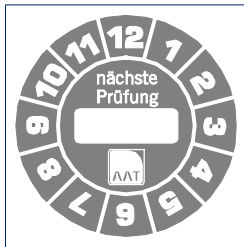


Pull out the fuse holder and remove the defective fuse. Insert new fuse, turn fuse holder clockwise and fix.

8.5 Technical safety testing

 NOTE - Technical safety tests may only be performed by the manufacturer, the AAT field staff or the authorised specialist shop.

 NOTE - It is recommended to perform a technical safety test every two years. The inspection plate provides information about the latest date. 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 the technical safety test before each reuse.

Training is required in order to be able to perform the technical safety testing. For more information, please visit: www.aat-online.de

8.6 Disposal

Your s-max 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.



On this product you will find the symbol of the “crossed out dustbin” according to the WEEE Directive. This marking indicates that these products must be brought to a regional recycling facility when they have reached the end of their useful life.

Please check the applicable legislation in your country for the disposal of this product as the implementation of the WEEE Directive differs in the respective countries and/or, does not apply outside of Europe.

Alternatively, you can also return these products to AAT or the competent specialized dealers, where they are collected for correct disposal.

8.7 Long-term storage

If s-max aviation is not used for an extended period of time (e.g. over several months), observe the following:

- » No moisture shall reach the inner parts of the device.
- » Store the s-max in a dry place with low relative humidity. If necessary, protect with foils!
- » Protect against permanent exposure to sunlight!
- » Unauthorised persons, especially children, should not have unsupervised access to the storage location of the s-max!
- » Remove the battery pack before storage - For storage of the battery pack, it is essential to observe chapter 9.1!
- » For storage of the wheelchair, please follow the instructions of the wheelchair manufacturer!

If the s-max is to be put back into operation, clean it first (refer to chapter 9.3). Check whether a technical safety test must be carried out (if necessary, refer to chapter 9.5).

If no technical safety test is necessary, it is mandatory to test the electrical function and the safety brakes prior to start-up!

8.8 Fault conditions and troubleshooting



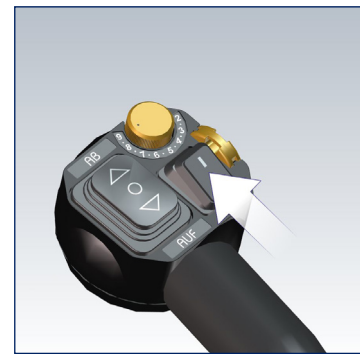
WARNING - To prevent hazardous situations, do not use the s-max if it shows any abnormal behaviour!



Switch on the s-max.



The LED is flashing.
» Observe any fault conditions!



Switch off the s-max.

Switch the s-max on again.

- » **The LED is flashing - Notify the manufacturer, the AAT field service, or the authorised specialist dealer!**

Fault conditions

The LED is flashing	Fault condition
2x	Speed control, UP/DOWN switch, plug-in contacts, or supply cable defective
3x	Error Circuit board (FET)
4x	Error Circuit board (relay)
5x	Error Motor
6x	Overload
7x	Overvoltage
8x	Error Electromagnetic brake
9x	Error Electronics
10x	Error Hollow shaft sensor (only when ComfortStep active)

Troubleshooting

Problem	Check and possible remedy
The s-max cannot be switched on	Is the charger connected? Yes: Disconnect the charging cable.
	Are the batteries empty? Yes: Charge the batteries.
	Does the problem persist? Yes: Notify the manufacturer, the AAT field service, the authorised specialist dealer.
The s-max does not move	Safety chip inserted? Yes: Notify the manufacturer, the AAT field service, the authorised specialist dealer.
Battery pack isn't charging	Notify the manufacturer, the AAT field service, the authorised specialist dealer.
The battery shows external damage	Notify the manufacturer, the AAT field service, the authorised specialist dealer.

9 Warranty and liability

Warranty

AAT Alber Antriebstechnik GmbH warrants the s-max (with the exception of the lead batteries) and all accessories to be free from defects in material and workmanship for a period of two years from the date of receipt.

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

The warranty on the s-max does not cover faults which are due to:

- » damage as a result of excessive strain.
- » any damage resulting from careless handling.
- » violent damage.
- » natural wear parts (brake linings, wheel slide protection, climbing feet).
- » improper or inadequate maintenance by the customer.
- » unauthorised structural changes or improper use of the s-max or its accessories.
- » use of the s-max in excess of the permissible total weight or the max. person weight.
- » improper charging of the lead batteries.

Liability

The manufacturer of the s-max, AAT Alber Antriebstechnik GmbH, cannot be held liable for any possible damage in the following cases:

- » The s-max has been handled improperly.
- » Repairs, assembly or other work have been performed by unauthorised personnel.
- » The s-max has not been used in accordance with the user manual.
- » No original AAT spare parts or accessories have been fitted or connected to the s-max.
- » Parts of the s-max have been removed.
- » The s-max was loaded in excess of the permissible total weight or the max. person weight.
- » The s-max has not been serviced regularly (every 2 years) by the manufacturer, the AAT field service or an authorised specialist dealer.
- » Minors operate the s-max without supervision (except for minors older than 16 years under supervision).
- » The s-max has been operated with insufficiently charged battery.

10 Recalls and corrective actions

If new important safety information regarding the handling of your s-max is available, we will inform you about this. As already stated at the beginning, you will always find the latest version of this user manual on our homepage.

Should any subsequent changes be made to the product or any corrective action taken, we and/or our authorised specialist dealer will inform you in writing about all the affected serial numbers. If your s-max is affected by a product recall, you will subsequently be informed about all further steps to be taken.

[illegible]



TRANSLATION OF THE ORIGINAL

EU DECLARATION OF CONFORMITY

We hereby declare under our sole responsibility

AAT Alber Antriebstechnik GmbH

Ehestetter Weg 11

72458 Albstadt/Germany

SRN: DE-MF-000007581

that the stair climbers for transporting persons named in the following

As of serial number: D161124003

Risk class: Class I

(in accordance with Annex VIII, Rule 1 and 13)

Stair climber **s-max aviation D1611**

Article no. 300426

(Basis-UDI-DI) 4054959D16XXPT

complies with the basic safety and performance requirements and applicable parts of the following regulations and standards.

2017/745/EU	ISO 7176-28; ISO 7176-14; ISO 7176-21 DIN EN ISO 14971; DIN EN ISO 10993-1 IEC 60335-2-29 + A1 & A2; IEC 60335-1
2011/65/EU	EN IEC 63000

The products are marked with **CE** in compliance with the regulations. This declaration is only valid for the products with the article numbers indicated above. This declaration is replaced whenever there is a significant change to the product, product family, standards and laws.

2024-02-09, Albstadt

Date, place

Daniel Mohr, PRRC (MDR 2017/745 Art.15)



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Serial number:



www.aat-online.de



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