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# c-max U1

C1414 / C1611

Originalbedienungsanleitung



CE

2018-04 (1.1)

EN

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



AAT Alber Antriebstechnik GmbH  
Ehettetter Weg 11 · D-72426 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 c-max U1 complies with the relevant provisions of EC Directive 2006/42/EC, 2007/47/EC and 93/42/EC. If any alteration is made to c-max U1 without the agreement of AAT Alber Antriebstechnik GmbH, this declaration shall no longer be valid. This statement is valid only for the products with the article numbers: 300151, 300405.

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 c-max U1 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 c-max U1, endanger the operator and the occupant, and impair function! 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 risk 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 available at:

**[www.aat-online.de/de/bda/c-max-u1](http://www.aat-online.de/de/bda/c-max-u1)**



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# 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 physical 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/c-max-u1](http://www.aat-online.de/de/bda/c-max-u1)**

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 away from sources of ignition.

The c-max U1 can interfere with highly sensitive electromagnetic fields of other electronic devices (e.g. anti-theft devices).

Stability tests were performed under laboratory conditions. The c-max U1 can behave differently under real conditions compared to laboratory tests.

Training may only be carried out by the manufacturer or authorized personnel.



#### **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

The c-max U1 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 overloading of the c-max U1!





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

Do not use on travelators 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 the c-max U1 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	Erklärung
	<b>CE mark</b> The product complies with the relevant provisions of EC Directives 2006/42/EC, 2007/47/EC and 93/42/EC.
	<b>SN</b> Serial number of the product e.g. c-max U1 C1414XXXXXX / C1611XXXXXX
 www.aat-online.de	<b>Note on the user manual</b> The user manual must be observed
	<b>Electrical voltage / V = Volt</b>
	<b>Inspection plate for technical safety testing (see Chapter 9.5)</b> Provides information on the due date of the next technical safety test

## 4 Product description

## 4.1 Device overview



- ① Control unit
- ② Handle, adjustable
- ③ Arm rest, removable
- ④ Foot rest, foldable
- ⑤ C-part with seat
- ⑥ Tightening screw for handle
- ⑦ Lever with chain drive
- ⑧ Climbing leg with climbing foot
- ⑨ Safety brake
- ⑩ Climbing unit
- ⑪ Battery pack with safety interlock
- ⑫ Battery display

**i 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.



- ⑬ Single step switch
- ⑭ ComfortStep
- ⑮ ON/OFF switch
- ⑯ UP/DOWN switch
- ⑰ Safety chip
- ⑱ Speed control
- ⑲ Rating plate with serial number
- ⑳ Steering rollers
- ㉑ Wheel
- ㉒ Back rest
- ㉓ Tightening screw for C-part with seat
- ㉔ Tightening screw for back rest

## 4.2 Indication and intended use

With the c-max U1 stair climber you can transport one person with limited mobility safely and easily up and down stairs. Indoor and outdoor spiral staircases can also be navigated without issue. 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 c-max U1! They must have sufficient vision capability! Minors below the age of 16 are not allowed to operate the c-max U1! Minors of at least 16 years are allowed to operate the c-max U1, 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 c-max U1 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 **c-max U1 C1414** and **c-max U1 C1611**. The stair climbers differ in terms of technology and optics - but not in terms of the application. You can see which version you have by checking the serial number. The total permissible weight for c-max U1 C1414 is 170 kg. The c-max U1 C1611 is designed for a total weight of 190 kg (see Chapter 4.4 Technical data). All chapters in this manual apply to both models.

## 4.3 Contraindication

The c-max U1 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 older than 16 years old, but there is no supervision!
- the operator is physically and mentally unable to safely use the c-max U1!
- 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 of the c-max U1 is not guaranteed (on one or both sides)!
- escalators or travelators 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 c-max U1!



**NOTE** – Observe the technical data.

Technology	c-max U1 C1414	c-max U1 C1611
Measurements	Height = min. 1090 mm - max. 1440 mm Width with arm rests = 440 mm Width without arm rests = 485 mm Depth with the foot rest folded in = 730 mm Depth with the foot rest folded out = 915 mm	
Weight	Steigereinheit = 18,1 kg, C-Teil mit Sitz = 5,5 kg, Rückenteil = 4,5 kg, Beide Armlehnen = 1,2 kg, Akku-Pack = 4,1 kg, Ladegerät = 0,3 kg Gesamtgewicht = 33,7 kg	
Total weight approved	170 kg	190 kg
Max. weight of the person	140 kg	160 kg
Climbing speed <sup>1)</sup>	8 - 23 steps / minute (continuously adjustable)	
Range with one charge of the batteries <sup>1)</sup>	approx. 25 floors (corresponds to approx. 375 steps)	
Maximum height of step	210 / 225 mm (extended climbing height)	
Minimum height of step <sup>2)</sup>	140 mm	
Necessary step width (straight stairs)	Width c-max + 100 mm	
Minimum platform size (U-shaped stairs)	1350 x 1350 mm	
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 to +60° C / -30° C to +50° C	
Storing/operating temperature: batteries	0° C to +60° C / -30° C 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 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)	

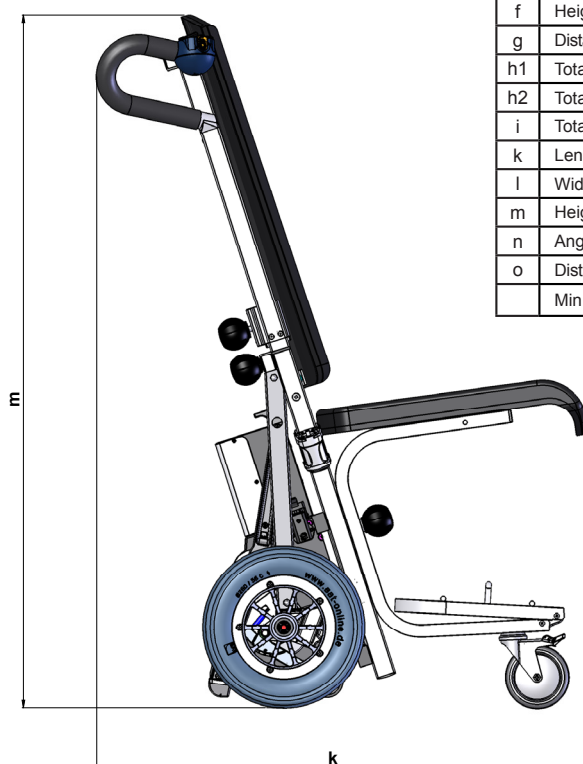
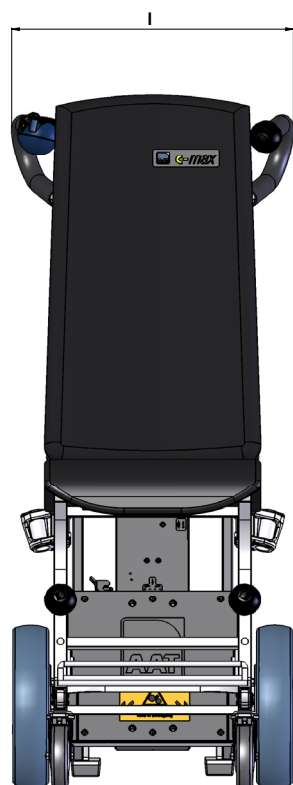
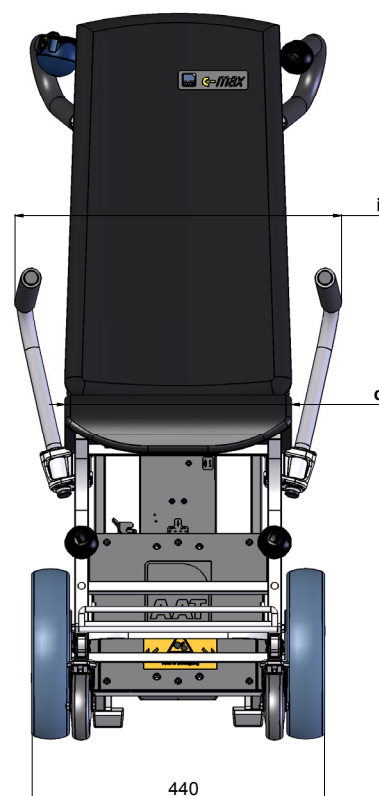
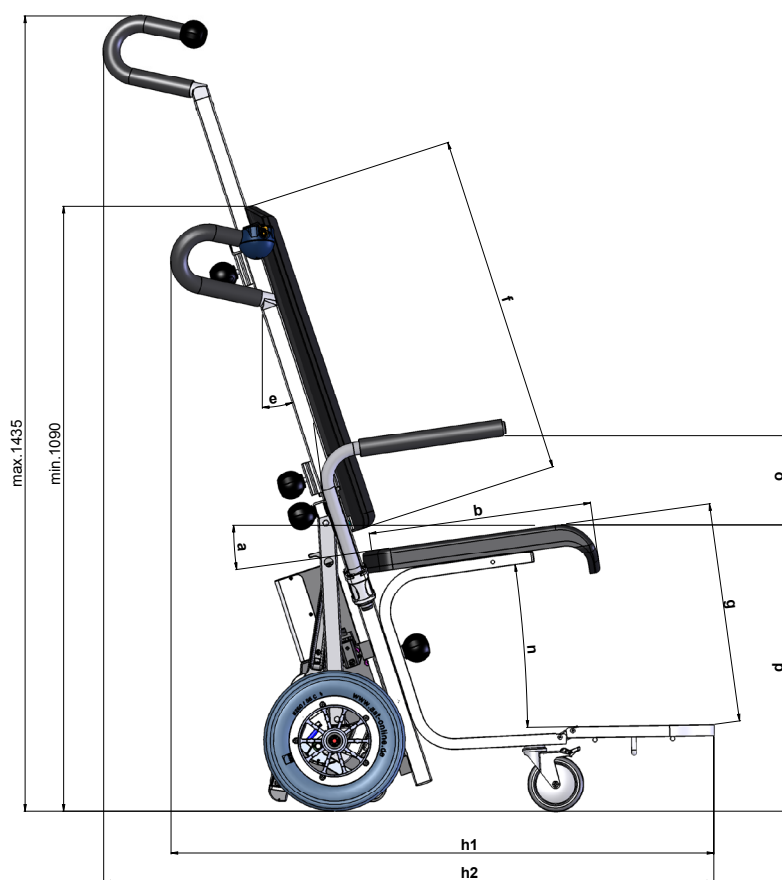
1) The climbing speed as well as the range with one charge of the batteries is reduced if the ComfortStep is activated. The range also depends on the weight of the person seated.

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.

In the interest of progress, we reserve the right for technical changes.



## 4.5 Dimensional drawing



Dimensions according to ISO 7176-15		
a	Angle of the seat	8°
b	Effective seat depth	403 mm
c	Effective seat width	340 mm
d	Height of the seat, frontal edge	517 mm
e	Angle of the back rest	18°
f	Height of the back rest	615 mm
g	Distance between foot rest and seat	395 mm
h1	Total length with foot rest min.	980 mm
h2	Total length with foot rest max.	1100 mm
i	Total width	490 mm
k	Length, folded	773 mm
l	Width, folded	444 mm
m	Height, folded	1090 mm
n	Angle from foot rest to seat	7°
o	Distance between arm rest and seat	160 mm
	Min. turning radius	+/- 1050 mm

## 4.6 Scopy of delivery



- ① Charger incl. user manual and splash protection
- ② Battery pack
- ③ c-max U1

## 4.7 Accessories



NOTE – Only use AAT Alber Antriebstechnik GmbH accessories.



- ① Head rest
- ② Charging cable for your vehicle
- ③ Lap belt
- ④ Harness belt including lap belt
- ⑤ Climbing height extension
- ⑥ Inclination indicator
- ⑦ Footrest (shortened / extended)
- ⑧ Footrest for children
- ⑨ Widened arm rests

## 5 Assembly

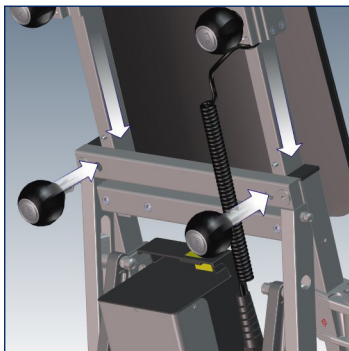
### 5.1 Handle unit and C-part with seat



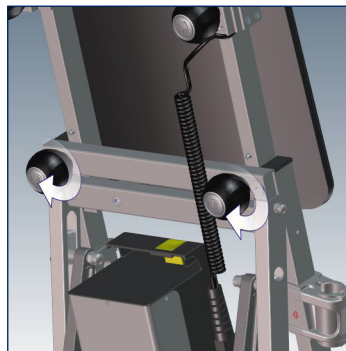
**DANGER** - Lock the handle unit and c-part safely, otherwise parts may move involuntarily! Tighten the locking screws!



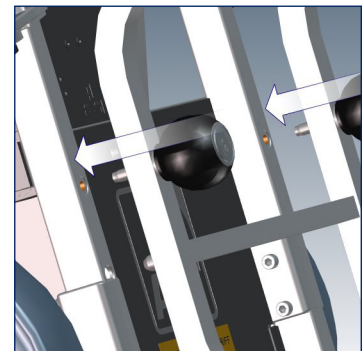
**WARNING** - Special care must be taken to avoid crushing or pinching of body parts while assembling.



Attach the back rest (22) to the chassis by putting it onto the guide pins on top of the chassis (10). Insert the tightening knobs (24).



Affix the back rest.  
» Secure both tightening screws by turning them clockwise.  
» Make sure that the back rest is securely fastened.

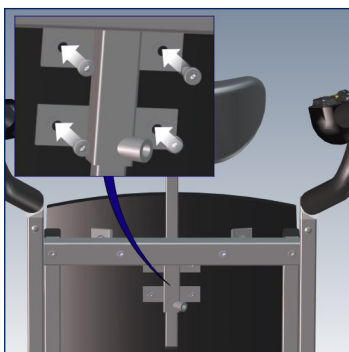


Attach the C-part plus seat (5) to the chassis.  
» The tightening screws of the C-part (23) fit into the corresponding holes in the frame.  
» Make sure that the back rest is securely fastened.

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

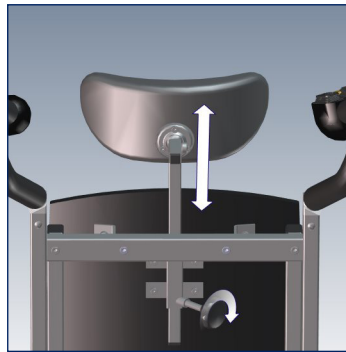


**CAUTION** - To ensure head stability, we recommend placing the head rest at the back of the occupant's head!



Place the bracket of the head rest above the marks.

» Mount the head rest on the back rest using the screws.



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

» Secure with the locking screw.

## 5.3 Arm rests



**DANGER** - The arm rests must not be loaded unevenly as there is a risk of tipping!



**DANGER** - Do not attach any objects (such as bags) to the arm rests! Risk of tipping!



**WARNING** - Never sit on the arm rests or use as a carry handle, as these are not designed for this purpose!



**WARNING** - When using the c-max U1, the occupant's arms must not protrude beyond the arm rests!

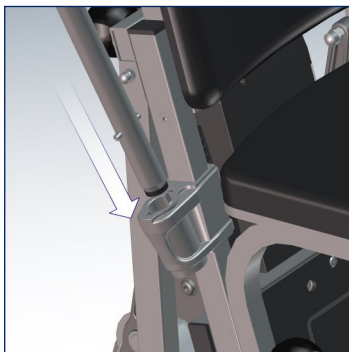


**CAUTION** - Special care must be taken at the pinch point on the swivel part to avoid injuries when swivelling the arm rests!

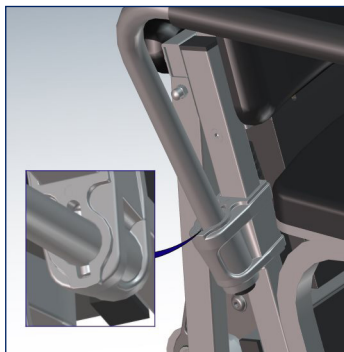


**NOTE** - The arm rests must not be loaded with more than 90 kg per side.

**Arm rests function as side confinements and may be used as an arm support.**



Insert arm rests ③ on both sides.



Please always make sure that the stop bolts snap into their appropriate notches.

Repeat the steps from Chapter 5 in reverse order to remove the arm rests.

## 6 Start-up



**NOTE** - Store c-max U1 in a frost-free environment for at least one hour prior to start-up to avoid malfunctions.



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

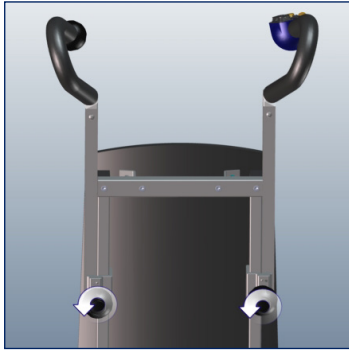
## 6.1 Adjust the handles



**WARNING** - Always tighten the locking screws, as otherwise parts can suddenly become loose!



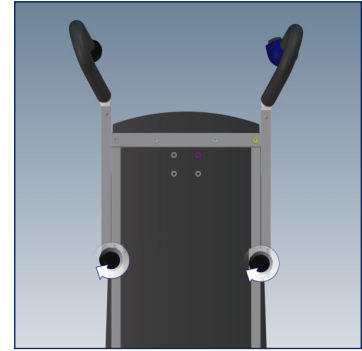
**CAUTION** - To avoid injury, beware of pinch points at the notch opening!



Release the locking screws ⑥ of the handles counter clockwise.



Adjust the height of the handles to shoulder height.

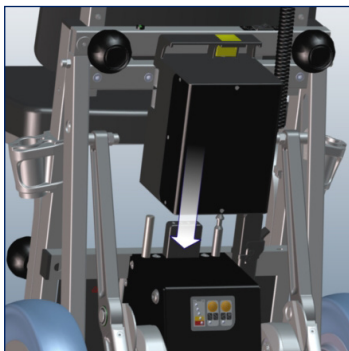


Tighten the locking screws.

## 6.2 Insert battery pack and connect spiral cable



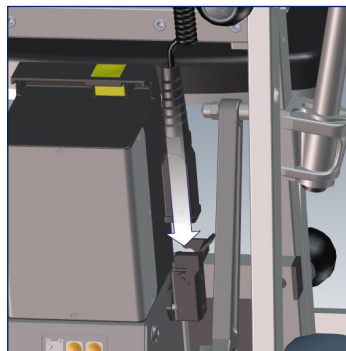
**WARNING** - The battery pack has to be locked safely, otherwise it may move involuntarily!



**Attach the battery pack.**  
Push the battery pack ⑪ into its fixture by means of the guiding pins on the top of the housing.

» Yellow release button locks automatically.

To remove the battery pack, push down the release button and pull out battery pack.

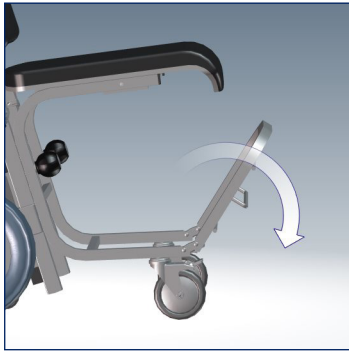


**Plug in the helix cable.**

Insert the plug of the helix cable into the socket and lock it with the security clip.

To unplug the helix cable release the security clip and pull it off.

### 6.3 Folding out the foot rest

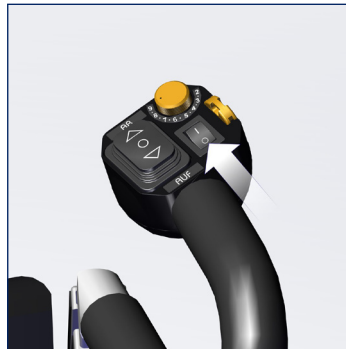


Fold out the foot rest ④.

### 6.4 Turning on the device

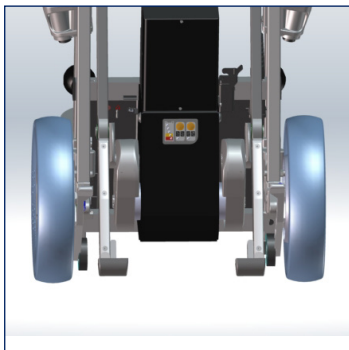


Insert safety chip ⑰ for the engine immobilizer.  
» Safety chip must latch!

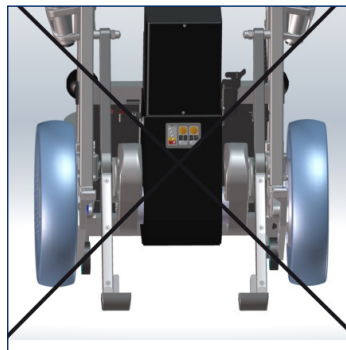


Turn on c-max U1 by pressing the **ON/OFF switch** ⑮.

### 6.5 Neutral position



Bring climbers ⑧ into the neutral position by pressing the UP/DOWN switch ⑯.  
» If single step mode ⑬ (see Chapter 6.6) is activated, climbers will stop automatically in the neutral position!



Wrong!

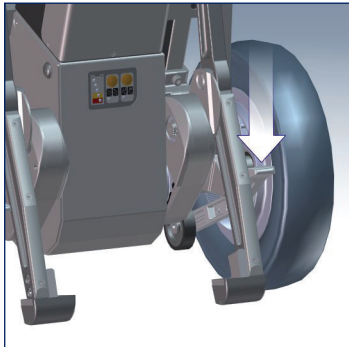
## 6.6 Checking the safety brakes



**DANGER** - Do not use the c-max 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 authorized dealer!

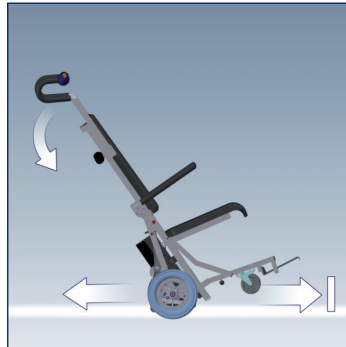


**WARNING** - Check safety brakes without an occupant!



There are safety brakes ⑨ located on both sides of the chassis.

» Check the safety brakes before each use.



Pull in the climbers to their upmost position and tilt c-max backwards.

**Test: c-max cannot be pushed forward, only backwards = safety brakes active.**



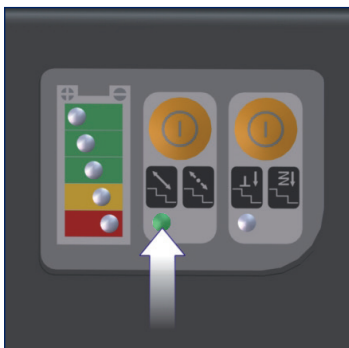
### **Manufacturer's recommendation:**

Put your foot on the housing and tilt the c-max towards you. See detailed description in Chapter 8.2.

## 6.7 Single step mode

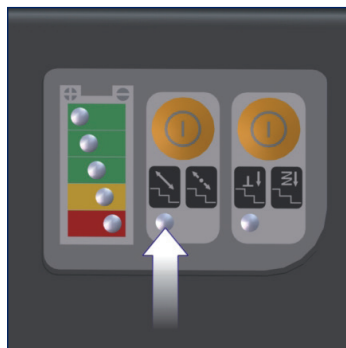


**DANGER** - If the single step mode is deactivated, make sure to operate the c-max U1 correctly and safely! Otherwise it can lead to falling down the stairs!



### **Single step mode ⑬** **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:**

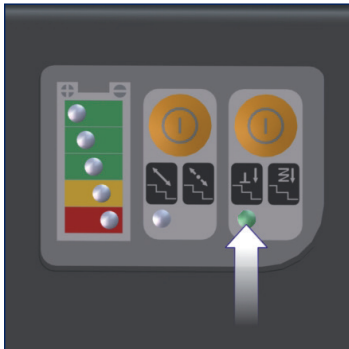
Only deactivate the single step mode, if the operator is able to use the c-max U1 safely.



## 6.8 ComfortStep

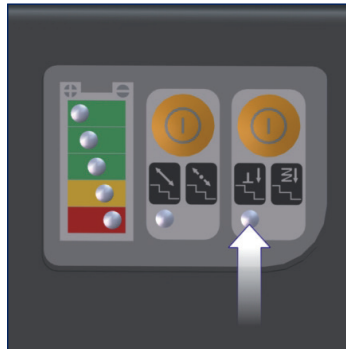


NOTE - If an adjustment of the height of the step is required, please contact the AAT field staff or your authorized dealer!



### Activate / deactivate.

- » LED glows = ComfortStep is activated! ⑭
- » It ensures a pleasant and comfortable climbing process.



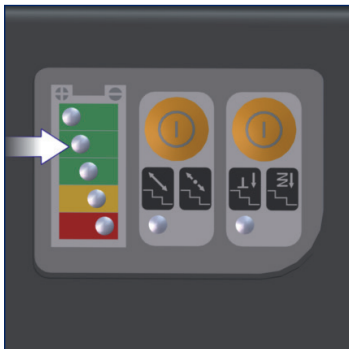
- Should you choose to turn off the ComfortStep you can do so by pressing the appropriate button.
- » LED does not glow = ComfortStep is deactivated!



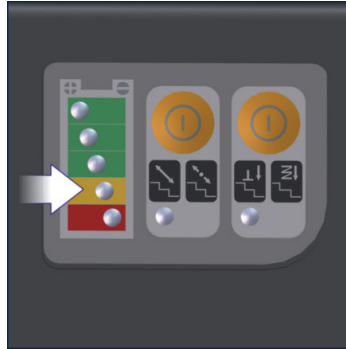
### Manufacturer information:

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

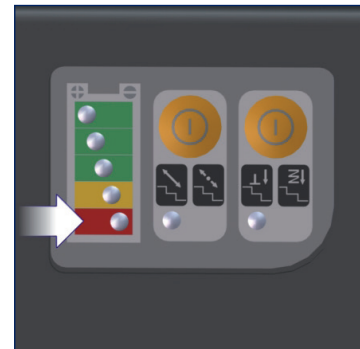
## 6.9 Check capacity of the batteries



Battery display ⑫  
Green = battery full



Battery display  
Yellow = battery low  
» Charge batteries!



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

## 7 Position of the occupant



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

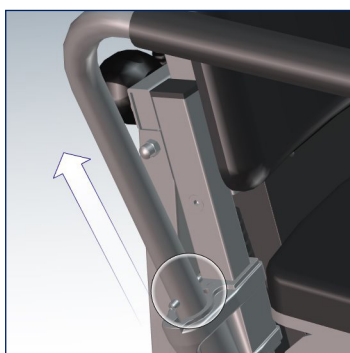


**Secure stand of the c-max.**  
Press the UP/DOWN switch direction **UP**.  
» Climbers should touch the floor.



**Position of the occupant.**  
» If necessary fold out the arm rests.  
» Observe if the occupant is sitting safely.  
» If present, secure with belts (optional accessories).  
» Place arms on the thighs or on the arm rests.

### 7.1 Swivel out or remove the arm rests



Sitting down can be facilitated by folding out the arm rests.  
» Raise the arm rests until the locking bolts are exposed.



Turn the arm rests backwards and insert them on both sides.

**After the occupant has taken a seat you put the arm rests back into their original position.**

## 8 Operation



**DANGER** - Operation only by one trained person who is physically and mentally able to safely operate the c-max U1! When using carrier rods (optional accessory), a second person can function as a safeguard during operation.



**DANGER** - No other persons may reside in the danger area below the c-max U1 (except for the person on the carrier rods to safeguard the operation)!



**DANGER** - Check safety brakes before each use! (see Chapter 6.5)



**WARNING** - Wear non-slip shoes 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 surfaces 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 thighs or on the arm rests! (Observe Chapter 5.3)



**WARNING** - Secure persons who cannot sit on their own with belt (optional accessory) as well as the foot belt. 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 Drive on level ground / overcoming obstacles

**i** NOTE - Climbers may not be extended because they could become damaged!

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



Set in neutral position (see Chapter 6.4)  
» Retract climbers completely.



Driving on level ground.  
» Push c-max U1.



Pull the c-max U1 carefully backwards against curbs/obstacles if you want to overcome them.

## 8.2 Tilting the stair climbing system

**!** WARNING - Always tilt the c-max U1 when driving on slopes or during the climbing process!



Put your foot on the housing and tilt the c-max U1 slightly towards you.  
» Device must be balanced.  
» If there is neither pressure nor tension noticeable at the handles, the device is balanced correctly.



c-max U1 can be moved.  
» If you tilt further or too much, the safety brakes engage and the c-max U1 can't be moved forward any more.



### Manufacturer's recommendation:

If you are not able to tilt the c-max U1 independently, use the climbers as a **tipping aid**.

- » Turn on c-max U1
- » Press the UP/DOWN switch direction UP until the main wheels are raised by approx. 1-2 cm
- » Tilt the c-max U1 ①
- » Then retract the climbers completely.
- » Move the c-max U1 ②

### 8.3 Operating on a slope



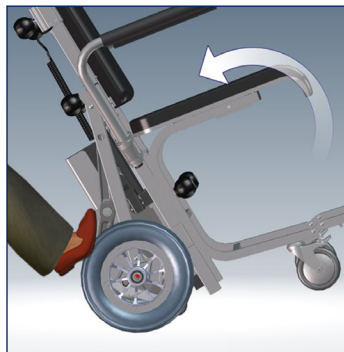
**WARNING** - For safety reasons we recommend that you ask another person for assistance when driving on a slope!



**NOTE** - Please observe the safety instructions in Chapter 7!



Make sure the handles are adjusted appropriately.

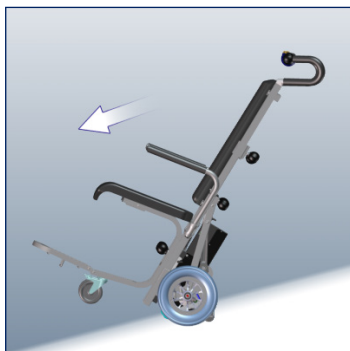


Tilt the c-max U1 slightly.  
» If necessary, use the manufacturer tip from Chapter 8.2.

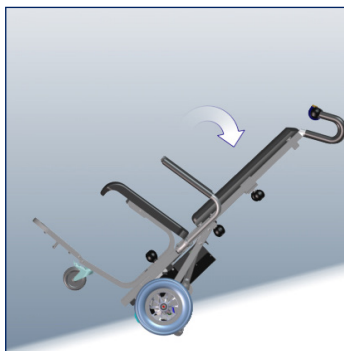


Climbers have to be retracted entirely.

#### Drive downhill



Drive forward to the edge of a slope.

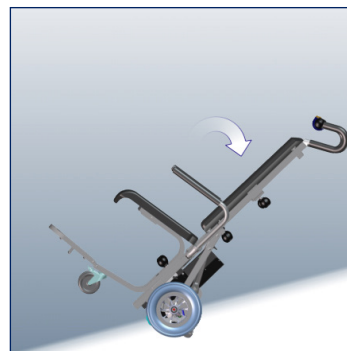


To slow down, you need to tilt the c-max a bit more, so that the safety brakes are activated.

#### Drive uphill



Please drive backwards up a slope.



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

## 8.4 Climbing - upstairs



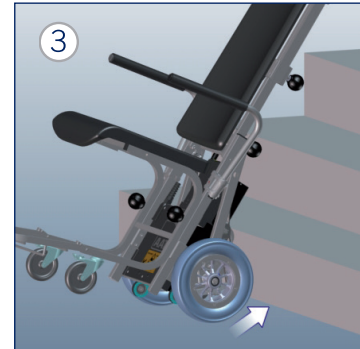
**NOTE - Observe the safety instructions in Chapter 8!**



Set in neutral position.  
» Climbers have to be retracted entirely.



Tilt the c-max U1 and keep it balanced.



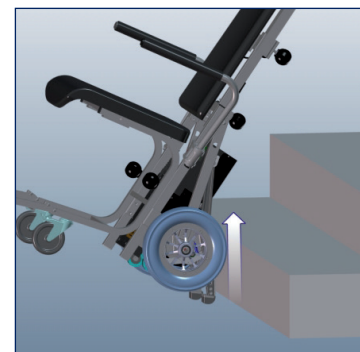
Drive backwards to the step all the way.



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 c-max U1 stops independently.



c-max U1 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 Chapter 8.4.

**Please note:** The c-max U1 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 c-max on stairs that are not suitable pursuant to the technical data. Non-observance can lead to falling down the stairs!



## 8.5 Climbing - downstairs



**NOTE - Observe the safety instructions in Chapter 7!**



**DANGER** - As soon as the climbers assume the load, you feel tension in the handles. Hold the c-max U1 lower briefly to counteract this tension!



Set in neutral position.  
» Climbers have to be retracted entirely.



Tilt the c-max U1 and keep it balanced.

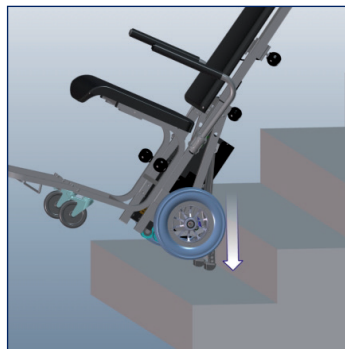


Roll the c-max U1 forward until the safety brakes grip.

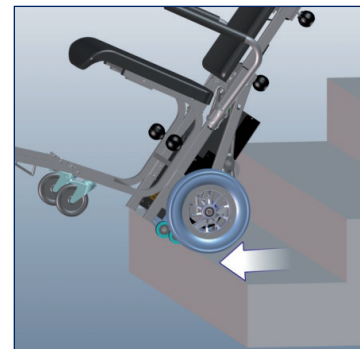


Press UP/DOWN switch direction DOWN.

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



c-max U1 descends.



Roll c-max U1 forward until the safety brakes grip.

**Repeat process from Figure 4.**

### Climbing downstairs - spiral staircases

To climb spiral staircases, follow the same steps referred to above in Chapter 8.5.

**Please note:** The c-max U1 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.



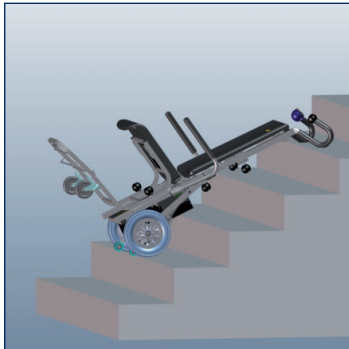
**DANGER!**

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

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



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



### Lay down the c-max U1.

- » Safety brakes prevent from rolling down!
- » Keep the UP/DOWN switch pressed until the climbers are retracted completely.

**Please note:** When laying down the c-max U1 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 c-max U1 by pressing the ON/OFF switch
- » 3 - Pull out the safety chip for the engine immobilizer
- » Lay down the c-max U1 as mentioned

### Eliminate the hazardous situation and start climbing again

- » Insert the safety chip
- » Turn the c-max U1 on by pressing the ON/OFF switch
- » Press the UP/DOWN switch

## 8.7 Parking

-  NOTE - only park the c-max U1 on flat ground.
-  NOTE - Charge the battery pack after each use.

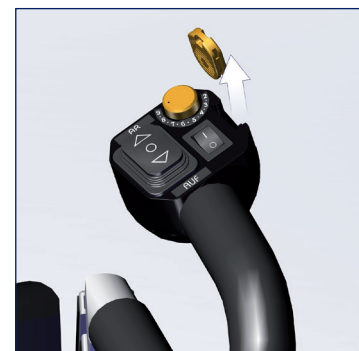
The automatic switch-off turns the device off during longer periods of inactivity. Turn the c-max U1 **OFF** first and then **ON**.



Set in neutral position.  
» Climbers have to be retracted entirely.



Turn the c-max U1 on by pressing the ON/OFF switch.



Pull out the safety chip for engine immobilizer.

## 8.8 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 c-max U1 while transporting!

### Dismount the c-max U1

- » Repeat the steps from Chapter 5 in reverse order.
- » Retract the handles completely.
- » Note: Remove battery pack to reduce the total weight.
- » Hold by the metal frame.



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



### Manufacturer's note:

Batteries are not considered dangerous goods according to the IATA special provisions A67, GGVSEB (Goods transportation regulations) and GGVSee (Goods transportation regulations for Sea)! Batteries are permitted to air travel by DOT and IATA! However, inform the airline in advance.

## 9 Care and maintenance



**WARNING** – Repairs and safety tests may only be performed by the manufacturer, or the authorized personnel! (see Chapter 9.5)



**WARNING** – The housing of the c-max U1 may only be opened by the manufacture or authorized 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 upon change of operator/re-use!

## 9.1 Battery pack and charger



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



**NOTE** - Charge the battery pack after each use.



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



**NOTE** – Follow the user manual of the charger and the voltage converter.



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

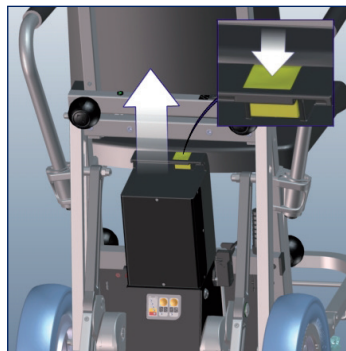


**NOTE** - Pack the battery pack safely before dispatching it (e.g. for repair, recycling, etc.)  
Package battery pack securely. No special packaging necessary.

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



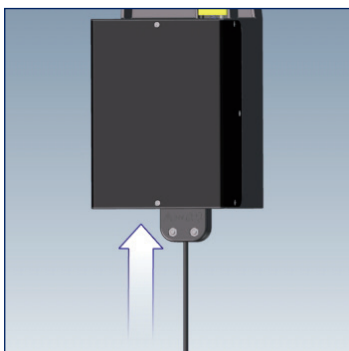
Turn off the c-max U1.



Press the release knob and pull the battery pack upwards over the handle.



Remove the splash protection.



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



LED is red = batteries are charging



LED is green = batteries are completely charged



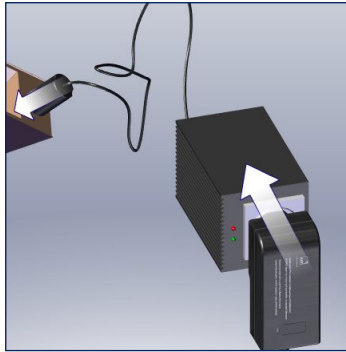
### **Manufacturer's note:**

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.

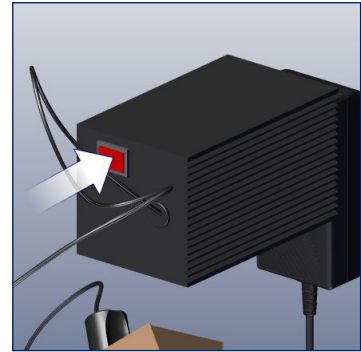
## Charge batteries in a vehicle



Turn off the c-max U1.



Attach the voltage converter.  
Connect the c-max via the  
charger.



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





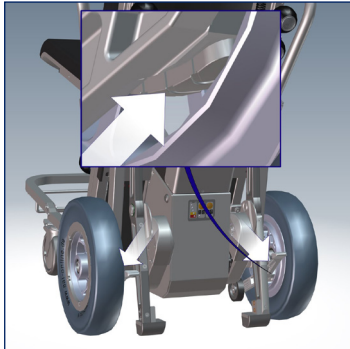
LED is red = batteries are  
charging




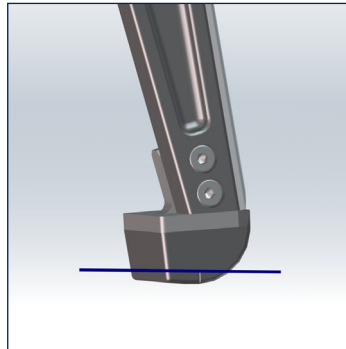
LED is green = batteries are  
completely charged

## 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 or authorized personnel!
-  NOTE - If the foot lining is worn or broken, please have both climbing feet replaced by AAT Alber Antriebstechnik GmbH or your authorized dealer!



Check the brake lining of the safety brakes regularly .



Please also check the climbing feet on a regular basis.

## 9.3 Cleaning and disinfection



WARNING - Check safety brakes after cleaning (Chapter 6.6)!



WARNING – Do not smoke during cleaning!



WARNING – It is important to prevent moisture from getting into the c-max U1! Only use 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 c-max U1 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 the c-max U1, clean it by wiping with household disinfectants. Follow the hazard notes on the disinfectant before each use.

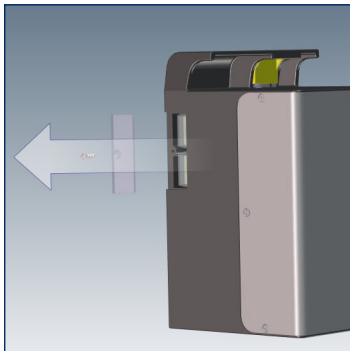
## 9.4 Replacing fuses



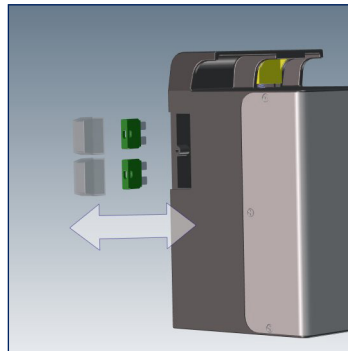
NOTE – You may not mend or bypass a damaged fuse!  
Always replace it with an identical one of the same amperage (**30 A**)!



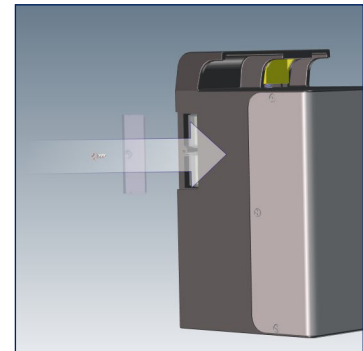
NOTE - Should your fuses burn out frequently, please contact the AAT Alber Antriebstechnik GmbH or your authorized dealer!



Remove the locking plate on the left side of the battery  
» by loosening the screw.



Pull out the covers and the old fuses, then insert the new fuses and replace the covers.  
» AAT offers you a replacement of the fuses 40 A!



Close with locking plate. Fix it by tightening the screw with a screwdriver.

## 9.5 Safety check



WARNING – Safety checks may only be performed by the manufacturer or your authorized dealer!



WARNING - We recommend a safety check every two years! The inspection plate informs you about the next date for inspection! We also recommend a safety check if the c-max U1 is transferred to a new user!



Incorrect use may damage the c-max U1 and in turn impair its technical functionality. This is why a safety check should be carried out every 2 years. We also recommend a safety check prior to each re-use.

Relevant training is required to be able to perform the safety check. For more information, please visit: [www.aat-online.de](http://www.aat-online.de)

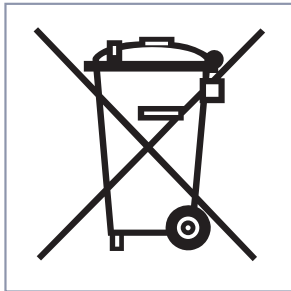
## 9.6 Re-use (change of operator)

The term re-use is used when the AAT product of patient X is to be used for another patient Y. Please contact the manufacturer, the AAT field staff or your authorized dealer.

The c-max U1 is suitable for re-use. A safety check and cleaning/disinfection should be performed prior to each re-use (see Chapters 9.3 and 9.5)

## 9.7 Disposal

The c-max U1 and its battery 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.



The c-max U1 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 c-max U1 will be stored for a longer period of time (e.g. for a few months), please ensure the following:

- » Protect from moisture!
- » Store c-max U1 in a dry place with low relative humidity. If necessary, protect with film!
- » Keep away from strong sunlight!
- » Make sure that unauthorized persons - especially children - have no access to the storage room of the c-max!
- » 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 c-max U1 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!

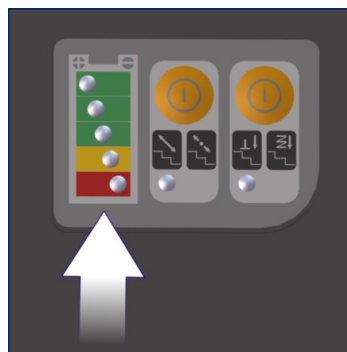
## 10 Malfunction and trouble shooting



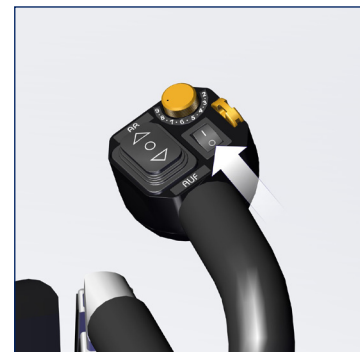
**WARNING** - If the driving characteristics change unusually, turn off the c-max U1 immediately and stop using it, to avoid dangerous situations!



Turn on the c-max U1.



LED blinks.  
» Note the malfunction!



Turn off the c-max U1.



Turn on the c-max U1.

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

## Malfunction codes

LED flashes	Fault condition
1x	Overloaded
2x	Undervoltage, battery pack empty
3x	Overvoltage
4x	Speed control, UP/DOWN switch, plug-in contacts or supply line are defective
5x	Electromagnetic brake is defective
6x	Malfunction, electronics
7x	Error, circuit board (FET)
8x	Error, circuit board (Relays)
9x	Error, motor
10x	Error, sensor hollow shaft (only if ComfortStep is activated)

## Trouble shooting

Problem	Check and potential solution
c-max U1 cannot be turned on	Is the helix cable inserted and locked? No: insert helix cable into its socket and lock it.
	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 or the authorized dealer.
c-max U1 does not drive	Is the safety chip for the engine immobilizer inserted? Yes: Contact the manufacturer or the authorized dealer.
Battery pack doesn't charge	Contact the manufacturer or the authorized dealer.
The housing of the battery pack is damaged	Contact the manufacturer or the authorized dealer.

## 11 Warranty and liability

### Warranty

AAT Alber Antriebstechnik GmbH grants a warranty of two years for the c-max U1, 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 lead acid batteries, always assuming correct maintenance, AAT Alber Antriebstechnik GmbH grants a warranty of one year from the date of purchase.

**The warranty on the c-max U1 is void for defects or damage 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.
- » Unauthorized constructional changes or inappropriate use of the c-max U1 or its accessories.
- » Using the c-max U1 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 neither liable nor responsible for potential damage to the c-max U1 in case of:**

- » Improper handling of the c-max U1.
- » Repairs, fittings or other works performed by unauthorized personnel.
- » Operation of the c-max U1 not in accordance with the user manual.
- » Extraneous parts added or connected to the c-max U1.
- » Parts removed from the c-max U1.
- » Operation of the c-max U1 exceeding the total weight approved or the max. weight approved of the occupant.
- » The c-max U1 is not serviced every 2 years by the manufacturer or your authorized dealer.
- » Operation of the c-max U1 by minors without supervision (excluding minors above the age of 16 years who were trained under supervision).
- » Operation of the c-max U1 with insufficiently charged batteries.

## 12 Corrective actions / product recall

We will inform you of any new important safety information regarding the handling of your c-max U1. As stated previously, all versions 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 authorized dealers in writing about all the affected serial numbers. If your c-max U1 is affected by a product recall, you will subsequently be informed about all further steps to be taken.

## This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



AAT Alber Antriebstechnik GmbH  
Postfach 10 05 60 · D-72426 Albstadt  
Tel.: +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