



Ideen bewegen mehr

www.aat-online.de

max-e Q1604 - Cable version

Translation of the original user manual



CE

2018-05 (1.1)

EN

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CE declaration of conformity

The company AAT Alber Antriebstechnik GmbH hereby declares that max-e complies with the relevant provisions of EC Directive 2006/42/EC, 2007/47/EC and 93/42/EC. If any alteration is made to max-e without the prior agreement of AAT Alber Antriebstechnik GmbH, this declaration loses its validity. This statement is valid only for the products with the article numbers: 330220.

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)



WARNING

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

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

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



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1 Symbols and safety instructions



DANGER – Immediately imminent danger

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



WARNING – Possible 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 – Manufacturer's information

General safety instructions



NOTE

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

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 through it.

It does not consist exclusively of flame retardant substances.

Keep max-e away from sources of ignition.

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

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

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



CAUTION

External heat sources may cause the surface temperature to rise (e.g. sunlight)!
Do not touch the affected surfaces in this case to avoid burns!



WARNING / RISK OF CRUSHING

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



DANGER

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

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

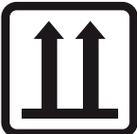
Avoid driving in heavy rain, ice, snow and on unsurfaced ground (sand, mud, loose crushed rock) to prevent slipping!

Do not use on escalators or travellers to avoid injuries caused by a crash or the falling out of the occupant and the occurrence of damage to property!

The operational capability of max-e 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

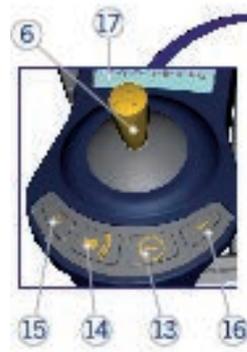
Symbol	Explanation
	Handle with care The packaging including the product must be handled with special care.
	Protect from moisture Protect the packaging including the product from overly high air humidity. Cover during storage. Carefully cover with a tarpaulin, if necessary.
	Caution fragile Handle the 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
	<p>CE mark The product complies with the relevant provisions of EC Directives 2006/42/EC, 2007/47/EC und 93/42/EC</p>
	<p>SN Serial number of the product e. g. Q1604XXXXXX</p>
 <p>www.aat-online.de</p>	<p>Note on the user manual The user manual must be observed!</p>
	<p>Electrical voltage / V = Volt</p>
	<p>Inspection plate for technical safety testing (see Chapter 9.6) Provides information on the due date of the next technical safety test</p>

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 Battery pack
- ② Power lead; Battery pack connection
- ③ Battery bag
- ④ Operating unit holder
- ⑤ Operating unit
- ⑥ Joystick
- ⑦ Power lead; Power unit connection
- ⑧ max-e drive unit
- ⑨ Bracket for the drive unit
- ⑩ Wheels with sprocket
- ⑪ Anti-tip supports
- ⑫ Emergency release button
- ⑬ ON/OFF
- ⑭ Horn
- ⑮ Speed selection fast
- ⑯ Speed selection slow
- ⑰ Display
- ⑱ Spiral cable; drive unit connection
- ⑲ Spiral cable; control unit connection

Type label incl. serial number (without figure) on the back of the drive unit

4.2 Indication and intended use

The max-e transport device allows those who have limited mobility, or disabled people that are no longer able to use a manual wheelchair using their own residual force, to move around independently.

The max-e transport device is also equipped with an operating unit that can be used by an accompanying person. This feature is important when the wheelchair user is no longer able to move around themselves using the joystick and the accompanying person's own strength does not allow them to push a wheelchair along with the wheelchair user in it. The accompanying person of a single person in a wheelchair is supported both on even surfaces as well as on upward/downward slopes. The max-e transport device may be used indoors as well as outdoors.

The max-e transport device has been developed to be operated by one person using the joystick or from an accompanying person using the operating unit. These people must be trained, and be physically as well as mentally able to safely operate the max-e transport device! They must have sufficient vision capability!

Please bear in mind that using the max-e transport device may entail a greater degree of risk and requires more skill than that required to operate/use a manual wheelchair.

The life expectancy of max-e 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.

4.3 Contraindication

max-e may not be used if:

- the operator has not received training/instruction for the product!
- the operator is physically and mentally unable to safely use max-e!
- more than one person needs to be transported at the same time!
- the operator does not have sufficient ability to see!
- the braking effect is lost due to rain, wet conditions, snow or ice!
- a braking effect of max-e is not achieved!
- escalators or travellers must be negotiated!
- medical devices, for example with a life support function, and diagnostic devices, are nearby!
- the intended use is contradicted!
- objects are to be transported!

4.4 Technical data



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



NOTE - Observe the technical data.

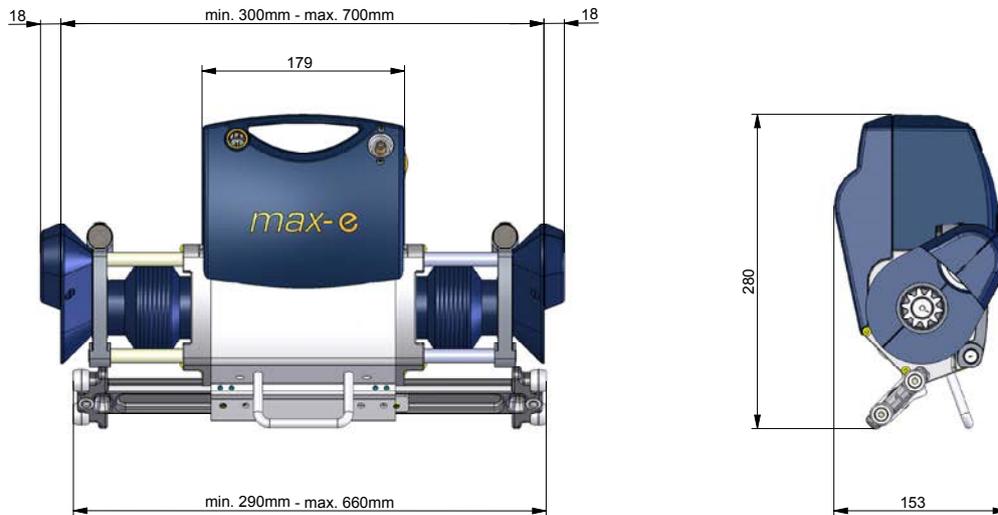
Technology	max-e
Drive dimensions	Height = 280 mm; Width = 300 - 700 mm; Depth = 153 mm
Own weight	Drive unit = 8.1 kg; Battery pack = 10.2 kg; Operating unit = 0.5 kg power lead = 0.2 kg; Spiral cable = 0.2 kg Battery bag incl. Velcro tapes = 0.2 kg Charger = 0.3 kg; Total weight (without wheelchair) = 19.7 kg
Total permissible weight	200 kg (person, wheelchair, max-e ⁽¹⁾)
Limit values during construction	From seat width 28, max. 5° camber
Speed forward backward	6 km/h 3 km/h
Range with one charge of the batteries	up to 16 km ⁽²⁾
Rated slope	up to 20 % ⁽³⁾
Batteries	2 x 12 V / 16 Ah
Direct current motor	24 V / 130 W
Noise information	The A-weighted sound pressure level is typically below 60 dB (A)
Switching/actuating forces	Joystick: 3.5 N Buttons (ON/OFF, horn, speed selection): 0.74 N Emergency release button = 0.74 N
Static stability downhill / sideways	Observe the wheelchair manufacturer's information
Turning circle diameter	Observe the wheelchair manufacturer's information
Tire pressure / Hand rim diameter	Observe the wheelchair manufacturer's information
Maximum surmountable obstacle height	Observe the wheelchair manufacturer's information and chapter 6.4
Storing/operating temperature: Device	+40° C to +65° C / -25° C to +50° C
Storing/operating temperature: Battery pack	-20° C to +60° C / -10° C to +50° C
Charging temperature: Battery pack	0° C to 40° C
Vibration information	The weighted RMS value of acceleration, to which the upper body is subjected, is typically below 2.5 m/s ² .
Application class	B
Type label with serial number	Drive unit and back of the user manual

(1) Observe the maximum load according to the wheelchair manufacturer's information.

(2) According to ISO 7176-4, the distance range depends on the weight of the transported person, the ground, the terrain profile, the ambient temperature, etc.

(3) Climbing and braking ability also depend on the surface, terrain profile, ambient temperature etc.

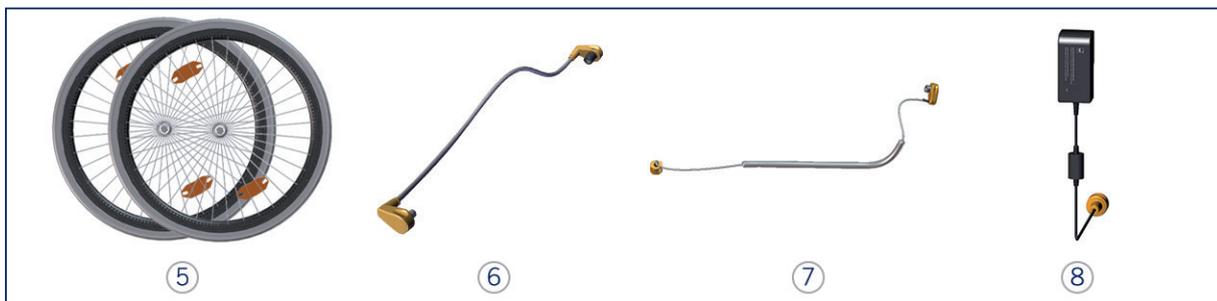
4.5 Dimensional drawing



4.6 Scope of delivery



- ① max-e drive unit
- ② Operating unit with operating unit holder
- ③ Battery pack
- ④ Battery bag incl. Velcro tapes



- ⑤ Pair of wheels with toothed rings (24x1 3/8 or 20x1 3/8")
- ⑥ Power lead 70 mm
- ⑦ Spiral cable
- ⑧ Charger for the rechargeable battery pack

4.7 Accessories



NOTE - Only use AAT Alber Antriebstechnik GmbH accessories.



- | | |
|-----------------------------|-----------------------------|
| ① Bracket | ④ 22 Ah mega battery pack |
| ② Spoke protector | ⑤ Bag for mega battery pack |
| ③ Battery pack (additional) | |



- | | |
|--|--|
| ⑥ Quick-release wheels with drum brake | ⑧ Anti-tip supports |
| ⑦ Vehicle voltage converter 12 V / 230 V | ⑨ Power cable (longer design - 900 mm) |

Lighting set according to the Road Traffic Licensing Regulation; Conversion set for stand-up wheelchairs (no illustration)

Accessories for the operating unit



- | | |
|-------------------------------------|--------------------|
| ① Therapy tray installation | ⑤ Soft ball |
| ② Bracket for the attendant control | ⑥ Tetraplegic fork |
| ③ Dotter operator | ⑦ Swivel arm |
| ④ 40 or 50 mm ball | |

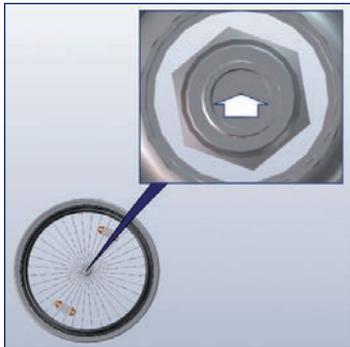
5 Assembly and start-up

5.1 Quick-release wheels



DANGER - Quick-release wheels must lock into place, as they may become detached unexpectedly!

If the wheelchair still has the original wheels on, then remove them and attach the pair of wheels with toothed rings that is included in the max-e's delivery contents.



Position the drive wheel and press in the quick-release axle release button.



Adapt wheel.



Let go of the quick-release axle release button. Repeat this process on the other side.

5.2 Battery pack



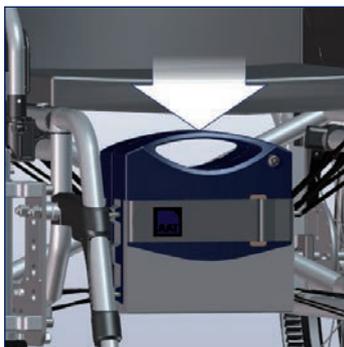
WARNING - Never short-circuit or connect the poles of the battery pack to avoid electric shocks!



CAUTION - Plug-in contacts must be dry!



Detach the Velcro on the battery pack pre-mounted on the wheelchair.



Place the battery pack in the battery bag and fix with Velcro.



Insert the power cable pre-mounted on the wheelchair into the battery pack's charging socket.

5.3 Drive unit



DANGER- The drive unit must be fully inserted in the bracket, as may otherwise move unexpectedly and the drive shafts cannot be extended correctly!

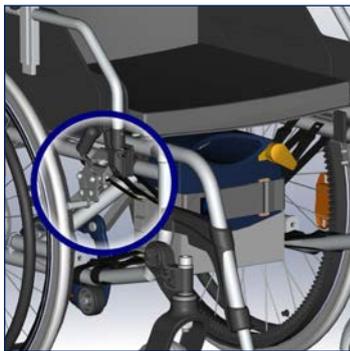


CAUTION - Plug-in contacts must be dry!

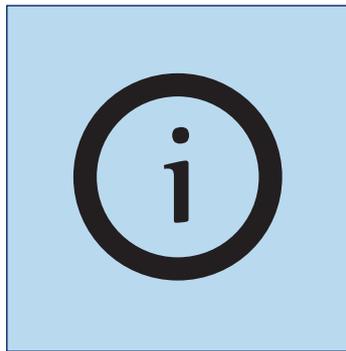


Manufacturer information:

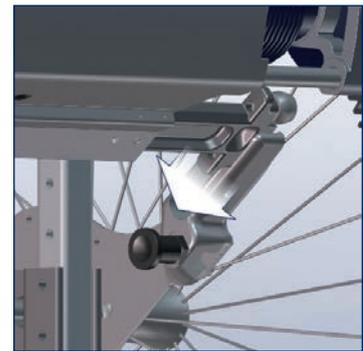
The width of the Delrin castor bracket is set especially for your wheelchair. If you have any questions or need to make any changes, please contact your authorised specialised dealer, the AAT field team or the manufacturer.



Activate the parking brakes to prevent the wheelchair from rolling away.



Manufacturer's recommendation:
Only release the parking brakes if chapter 5 has been carried out in full.



Fully insert the drive unit into the wheelchair bracket and make sure it has been inserted evenly.



Wrong!
» max-e must fully lock into place!



Insert the other end of the power cable into the left drive unit socket.

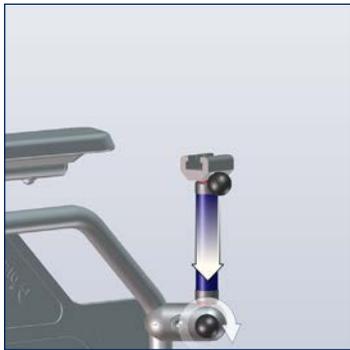


Insert the plug of the spiral cable into the right drive unit socket.

5.4 Operating unit



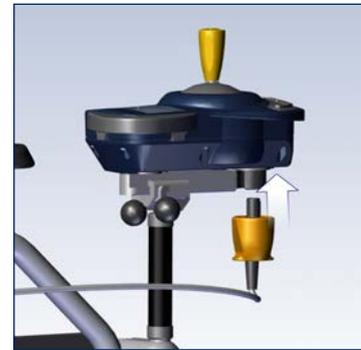
CAUTION - Plug-in contacts must be dry!



Attach the operating unit holder.



Slide operating unit into holder.



Plug the other end of the spiral cable into the socket on the control unit.

5.5 Anti-tip supports



WARNING - Never use without both anti-tip supports to prevent the wheelchair from tipping backwards!



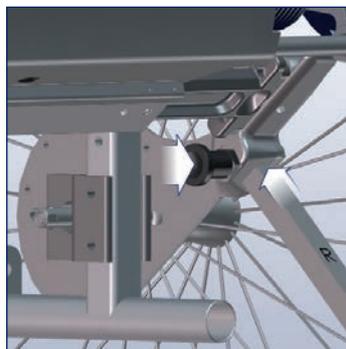
WARNING - Check the anti-tip supports before initial operation to ensure safety!

If anti-tip supports are not available on your wheelchair as standard, use AAT anti-tip supports in pairs! The wheelchair bracket determines which anti-tip supports you require. The type of holder you should attach to your wheelchair depends on the model of your wheelchair.

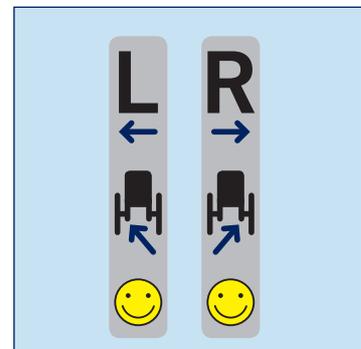
Option 1: Bracket with locking bolts



Remove bracket locking bolts.

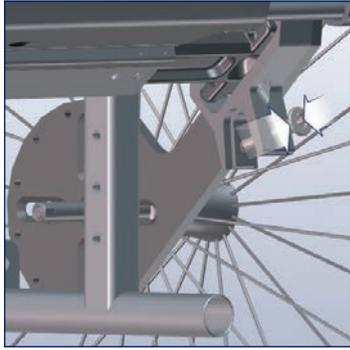


Push the anti-tip support into the bracket and secure with the locking pin.



Observe the 'R' + 'L' markings! Repeat process on the other side.

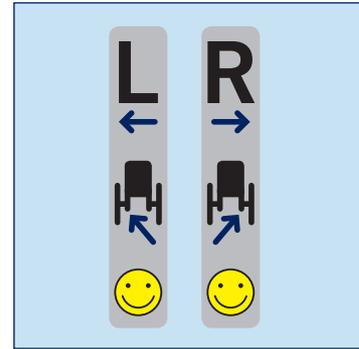
Option 2: Bracket with locking pin



Press in the locking pin button and pull it out.



Push the anti-tip support into the bracket and secure with the locking pin.



Observe the 'R' + 'L' markings! Repeat process on the other side.

6 Start-up



DANGER - Operation only by a single, trained person. This person must be physically and mentally able to safely operate max-e and may not suffer from cognitive impairments!



DANGER – Never use without both anti-tip supports to prevent the wheelchair from tipping backwards!



DANGER – Avoid parallel journeys on steep hillsides or rails, to prevent the wheelchair from overturning!



DANGER – Cross over roads, crossroads and railway crossings with increased caution!



DANGER - Avoid driving on slopes with max-e disabled, as there is no braking effect when doing so!



DANGER - Do not use on escalators or travellers to avoid injuries caused by a crash or the falling out of the occupant and the occurrence of damage to property!



WARNING – Practise outdoors on a level surface and at low speed!



WARNING – Drive down slopes at the lowest speed to avoid dangerous situations!



WARNING – Do not drive up stairs or steps to prevent the wheelchair from overturning!



WARNING – Avoid driving in heavy rain, ice, snow and on unsurfaced ground (sand, mud, loose crushed rock) to prevent slipping!



WARNING – During driving breaks, when using local transport (busses, trams, etc.) and when transferring, switch max-e off and apply the parking brakes to prevent the wheelchair from rolling away!



WARNING – When driving on public roads, observe the road traffic regulations!



WARNING – Never reach into rotating/moving parts to avoid being crushed!



WARNING – If the drive elements become blocked or when the driving behaviour has been altered, switch off max-e immediately and do not use it!



WARNING - Observe the maximum permissible weight (see chapter 4.4)!



CAUTION – Always overcome kerbs/obstacles backwards (see chapter 6.4)!



CAUTION – Maintain sufficient distance to the edge of the kerb to avoid damage!



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



NOTE - Never drive backwards on walls with the anti-tip supports mounted so as not to damage the anti-tip supports.

6.1 Switching on



Turning on the max-e.

6.2 Display indicators



Start display.



Turn on.
Pressure builds up and the drive shafts extend.

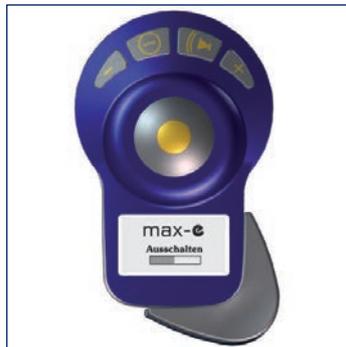


Standard display.
» Battery pack capacity
» Speed level



Apply the brakes.

Before the drive shafts are engaged, secure the wheelchair by applying the parking brake.



Switch off.

Pressure reduces and the drive shafts retract.



Overload warning sign.



Stand-up wheelchair.



Error messages.
(see chapter 10.2)

6.3 Driving with max-e



DANGER – When going up a slope, reduce the speed in order to prevent the wheelchair from tilting backwards!



NOTE - Please refer to the chapter on warning notices, error messages and troubleshooting!



NOTE - Display lighting switches off if the operating unit has not been used for 20 seconds.



- » 5 bars = full battery
- » 3 bars = battery is half-full
- » 1 bars = empty battery > please charge!
(see chapter 9.1)
- » Operating unit capacity low > please charge!
(see chapter 9.1)

After turning on the device, please check the battery capacity.



Select speed.

- » Practise at the lowest speed.
- » Cannot be set when moving - only when device is stopped.



Move the joystick in the desired direction of travel.

- » Can be moved 360° in one go!



Horn.

Emergency stop function

When you let go of the joystick the max-e stops automatically on the flat surface within 1 meter¹⁾.

¹⁾ depending on the weight of the transported person, the ground, the terrain profile, etc.

Emergency release button



Unplug power lead (if necessary, apply the parking brake beforehand).



Press the emergency release button. Pressure reduces and the drive shafts retract.
» Wheelchair can be moved manually!

6.4 Overcoming obstacles



NOTE - Observe the wheelchair manufacturer's information on the maximum obstacle height in the user manual without fail!



Note - Be mindful of the anti-tip supports if you need to climb edges or obstacles as they can otherwise be damaged.

6.5 Deactivating the drive



Turning off the max-e.
Press the ON/OFF switch.



Apply the parking brakes if necessary and confirm the display indicator accordingly.
» Drive shafts retract.



The power lead may be unplugged from the drive unit and from the battery pack.



Unplug the spiral cable from the drive unit.



Unplug the other end of the spiral cable from the socket on the control unit.

7 Disassembly

Remove max-e from the wheelchair:

Perform the installation steps (Chapter 5) performed during the assembly in reverse order:

1. Remove the anti-tip supports (chapter 5.5)
2. Remove the operating unit and its bracket (chapter 5.4)
3. Remove drive unit (chapter 5.3)
4. Remove battery pack (chapter 5.2)

If required:

5. Remove pair of wheels with toothed rings (chapter 5.1)

8 Transport



WARNING – Do not use max-e with wheelchair as a seat in a vehicle!



WARNING – Secure according to valid statutory provisions during transport in vehicles/aeroplanes!



CAUTION – Switch off during transport!



CAUTION – Observe the vehicle's weight specifications!



NOTE – Store in a frost-free environment at least one hour prior to start-up to avoid malfunctions!

Manufacturer's information:



Batteries are not considered dangerous goods according to IATA special provisions A67, GGV-SEB (Goods Transportation Regulations) and GGVSee (Goods Transportation Regulations over Sea)! Batteries are permitted for air travel in accordance with DOT and IATA! However, make sure you contact the airline company in advance before boarding a flight.

Disable max-e (see chapter 6.5)

Dismantle max-e (see chapter 7).

- » Lift the max-e onto the grip recess.
- » The pair of wheels with toothed rings do not have to be removed from the wheelchair.

Stow securely in the vehicle boot.

- » Do not place the pair of wheels on push rims to avoid scratches!

9 Care and maintenance



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



NOTE – Perform a visual inspection prior to each start-up! If parts are visibly defective or missing, contact the authorised specialist shop or the manufacturer!



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.

9.1 Battery pack and charger



WARNING – Never short-circuit or connect the poles of the battery pack to avoid electric shocks!



CAUTION – During the charging procedure, ensure that cables are laid safely to avoid tripping over them!



CAUTION – Do not attempt to repair or bypass defective fuses to avoid electric shocks!



CAUTION – Protect against moisture to avoid electric shocks!



NOTE – Never carry the charger by the charging cable/charging line.



NOTE – Charge the battery pack after each use! Exhaustive discharge results in a loss in capacity and shortens the service life.



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



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



NOTE – Store the battery pack in a frost-free environment at least one hour prior to start-up to avoid malfunctions.



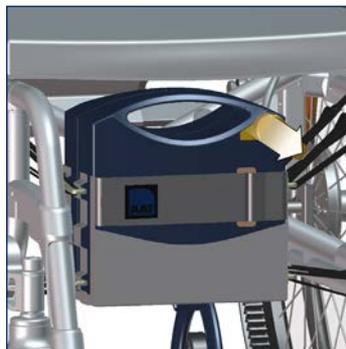
Manufacturer's information:

The battery pack is maintenance-free and rechargeable. New batteries only reach their full capacity after several charging cycles. During the charging process, max-e cannot be operated.



Charge battery pack

Disable max-e (see chapter 6.5).



Unplug power cable.

» The battery pack can stay in the battery bag when being charged.



Charge battery pack.

» Plug the charger connector into the charging port of the battery pack.



LED green = battery full
approx. 10 hours



LED orange = battery is
charging

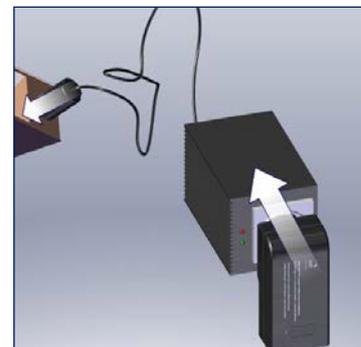
Charge the battery pack in the motor vehicle



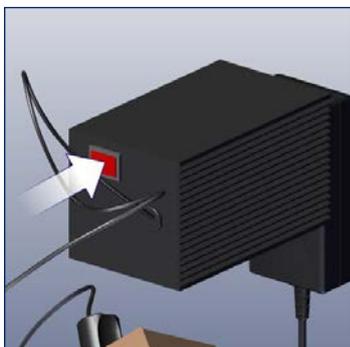
Disable max-e (see chapter
6.5) and unplug power cable.



Remove the battery pack.
» Open Velcro and remove
battery pack.
» Connect charger to battery
pack / operating unit.



Connect voltage transformer
and charger.



Switch on the voltage
converter.
Warning tone = low voltage!



LED green = battery full
approx. 10 hours



LED orange = battery is
charging.

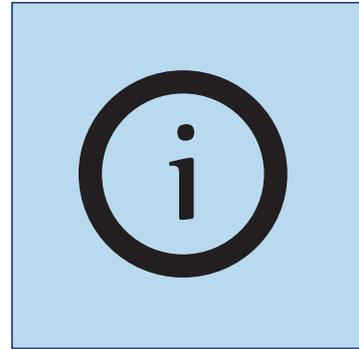
Information on the charger



max-e charger
» Battery capacity 16 Ah.



Possible error
LED does not light up.
Contact the manufacturer!

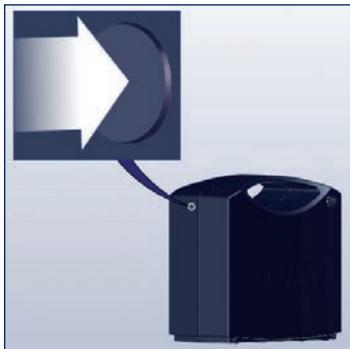


Observe the manufacturer's information in the charger's user manual!

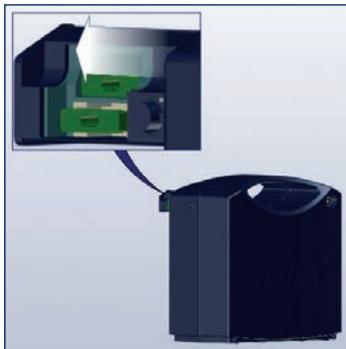
9.2 Replacing the fuse



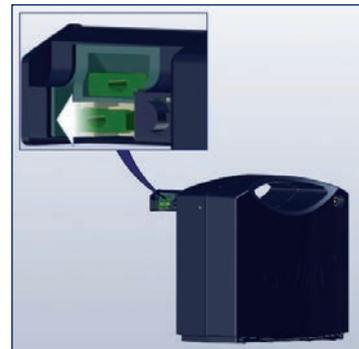
NOTE - You may not mend or bypass a damaged fuse.



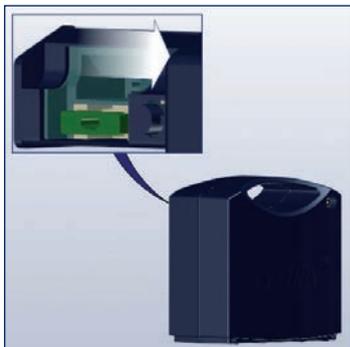
Loosen latch with a sharp object.



Pull out fuse drawer.



Change fuse.
» Top fuse = replacement fuse!



Push in fuse drawer. The latch must lock into place!



If your fuses burn out frequently, please contact the authorised specialist dealer, AAT field team GmbH or the manufacturer.

Only use new fuses with **40 Ah!**
Replacement fuses are available from the manufacturer.

9.3 Cleaning



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 max-e away from sources of ignition!



NOTE - Clean the drive unit, tooth segments and drive shafts in the event of dirt/deposits!



NOTE – Clean the wheelchair according to the manufacturer's information!



NOTE – Do not use a high-pressure cleaner!

Clean the max-e surfaces with common household cleaning agents.

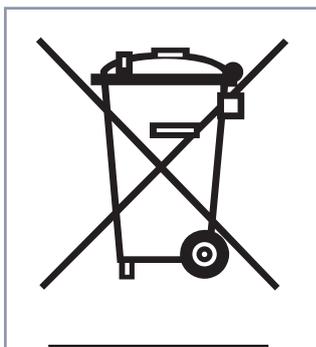
» Observe the manufacturer's information.

If you wish to disinfect max-e, use common household disinfectants and perform a wipe disinfection.

» Observe the manufacturer's information.

9.4 Disposal

Your max-e 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.



max-e 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.

9.5 Long-term storage

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

- Observe the wheelchair manufacturer's information if the wheelchair is to be stored!
- No moisture must be allowed to enter the interior of the device!
- Store in dry rooms and avoid excessive air humidity. Cover with film, if necessary!
- Protect against permanent exposure to sunlight!
- Unauthorised persons, particularly children, should not have unsupervised access to the storage location of max-e!
- Remove the battery back before placing in storage!
- Observe the safety instructions in chapter 9.1 for placing the battery pack in storage!

If the max-e is to be put into operation again, clean the wheelchair and the product (chapter 9.3).

Check whether a technical safety test must be performed. (see chapter 9.6.)

If a technical safety test is not necessary, electrical function, anti-tip supports, brackets and, if necessary, the air pressure of the castors must be checked prior to start-up!

9.6 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.

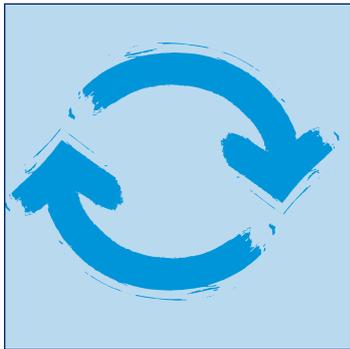
Training is required in order to be able to perform the technical safety testing. For more information, please visit: www.aat-online.de under Company / Training.

The test badge shows when the test is to be carried out at the latest!

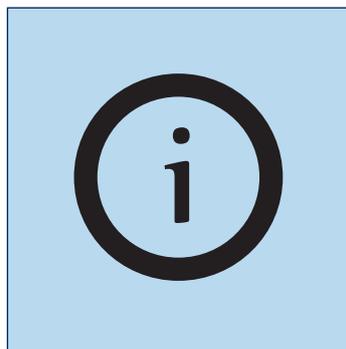
9.7 Reuse (change in operator)

The term reuse is used when the AAT product of patient X is to be used for another patient Y. In addition, there is a reuse when a patient receives a different wheelchair and therefore requires new add-on parts.

Please contact the manufacturer, the AAT field staff or the authorised specialist shop.



max-e is suitable for reuse.



A technical safety test and cleaning/disinfection work should be performed prior to each reuse. (see chapters 9.6 and 9.3)

9.8 Corrective action/recall

If new important safety information regarding the handling of your product 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 corrective action be taken, we will inform our authorised dealers in writing about all the affected serial numbers. If your product is affected by a recall, you will subsequently be informed about all further steps to be taken.

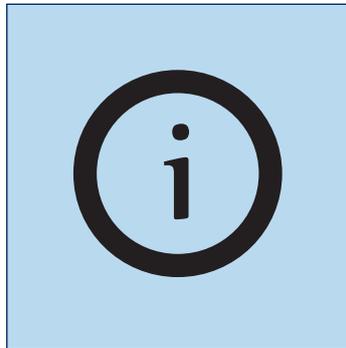
10 Warning notices, error messages and troubleshooting

10.1 Warning notices



Overload

- » Display: Overload!
- » Beep!



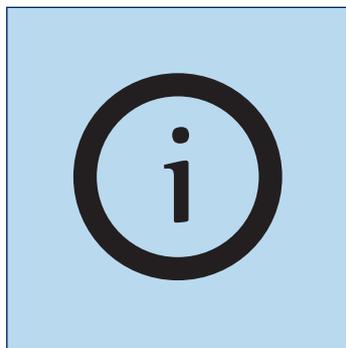
Releasing the joystick

- Continue moving, taking the cause into account.
- » Remove or bypass obstacles if necessary.



Stand-up wheelchair

- » Display: Stand-up wheelchair!



Change the wheelchair to normal/seated position.



Apply the brakes

- » Display: Apply brakes!

10.2 Error messages

Drive unit error - control processor

Error message	Error resolution
Motor controller 1; Motor controller 2	Notify the manufacturer!
Brake 1; Brake 2	Notify the manufacturer!
Electronics 1; Electronics 2	Notify the manufacturer!
Parameter controller, software controller	Notify the manufacturer!
Pump error	Notify the manufacturer!
Valve error	Notify the manufacturer!
Pressure not reached	Notify the manufacturer!

Drive unit error - communication processor

Error message	Error resolution
Undervoltage	Charge the battery pack (see chapter 9.1)
Overvoltage	Reduce speed
Parameter	Notify the manufacturer!
Controller - Comm.	Notify the manufacturer!
Software - Comm.	Notify the manufacturer!

Operating unit error

Error message	Error resolution
Undervoltage	Charge the battery pack (see chapter 9.1)
Parameter	Notify the manufacturer, the AAT field staff, the authorised specialist dealer!
Software	Notify the manufacturer, the AAT field staff, the authorised specialist dealer!
Unknown	Notify the manufacturer, the AAT field staff, the authorised specialist dealer!

10.3 Troubleshooting

Problem	Testing and troubleshooting
Unable to switch on max-e	Is the power lead plugged into the drive unit and battery pack? No: Plug it in!
	Spiral cable is plugged into the drive unit and control unit? No: Plug it in!
	is the battery pack empty? Yes: Charge!
	Fuse broken? Yes: Change!
	Does the problem still exist? Yes: Notify the manufacturer, the AAT field staff, the authorised specialist dealer!
max-e is not moving	Is max-e switched on? No: Switch on!
	Does the problem still exist? Yes: Notify the manufacturer, the AAT field staff, the authorised specialist dealer!
Unable to load the battery pack	Is the charger connected? No: Connect properly!
	Is the problem still present? Yes: Notify the manufacturer, the AAT field staff, the authorised specialist dealer!
Drive shafts will not extend on one or both sides (buckle)	Unscrew the threaded pins for width adjustment (on the casing) and then tighten again (check the width).
	Does the problem still exist? Yes: Notify the manufacturer, the AAT field staff, the authorised specialist dealer!
Pressure not reached	Unscrew the threaded pins for width adjustment (on the casing) and then tighten again (check the width).
	Does the problem still exist? Yes: Notify the manufacturer, the AAT field staff, the authorised specialist dealer!

11 Guarantee and liability

Guarantee

AAT Alber Antriebstechnik GmbH assumes the guarantee for max-e (except the battery pack) and all accessories, for a period of two years from the date of receipt, that these are free of material and processing defects.

AAT Alber Antriebstechnik GmbH assumes the guarantee for the battery pack, provided it is properly maintained, for a period of twelve months from the date of receipt. The max-e guarantee does not cover defects that are attributable to:

- damage as a result of excessive use.
- Damage as a result of careless handling.
- violent damage.
- natural wear parts (driving wheels, wheelchair tyres).
- improper or inadequate maintenance by the customer.
- unauthorised structural alterations or improper use of max-e or the accessories.
- use of max-e beyond the total permissible weight.
- improper charging of the battery pack.

Liability

As the manufacturer of max-e, AAT Alber Antriebstechnik GmbH is not responsible for any damages that may result if:

- max-e was improperly handled.
- repairs, assembly or other work were performed by unauthorised personnel.
- max-e was not used in accordance with the user manual.
- non-original parts were attached or connected to max-e.
- parts of max-e were dismantled.
- loads were applied to max-e beyond the total permissible weight.
- max-e was not serviced periodically (in a regular 2-year cycle) by the manufacturer, the AAT field staff or an authorised specialist dealer.
- max-e was operated with inadequate battery charge.



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Serial number:



Ideen bewegen mehr