

User Manual

LEVO active-easy LAE



Please read these User Instructions carefully before operating your wheelchair! Failure to follow these instructions can result in serious personal injury and/or damage to the wheelchair! This is a type-approved medical device. Alterations to the construction or electronics will void the warranty and the product liability.

In case of difficulty please contact:

Manufacturer

LEVO AG
Anglikerstrasse 20
CH-5610 Wohlen
Tel: +41 (0)56 618 44 11
Fax: +41 (0)56 618 44 10
Web: <https://www.levo.ch>

Agent:

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IMPORTANT!

Contact your dealer, distributor or LEVO AG if you have a visual impairment.

LEVO strongly recommends that wheelchair users

- a) fully acquaint themselves with the instructions for their device**
- b) always have access to 3rd-party assistance in case of emergency.**

1. General Information for Stand-up Wheelchairs

Dear **LEVO** Customer

We would like to thank you for putting your trust in **LEVO AG**.

As well as performing all the functions of a sitting wheelchair, the **LEVO** enables you to stand up on your own. **LEVO** manufactures only wheelchairs with stand-up option.

Please read this manual carefully before using your **LEVO**. It contains important information necessary for the successful operation of your wheelchair.

It is possible that achieving the standing position may load the body in a way that it is perhaps not used to. Therefore, it is **necessary to consult with your doctor or physical therapist to confirm that there are no contraindications such as contractures, orthostatic hypotension, osteoporosis or other conditions present.**

In the case of strong or sudden spasms, cramps or similar conditions, it is necessary that the user is allowed to stand only under the supervision of an accompanying attendant or caregiver.

As a **LEVO** customer, you have the opportunity to make a valuable contribution with the on-going future development of our products. Your suggestions are always appreciated. This will insure that **LEVO** continues to offer the most functional products available and provides for the widest possible range of needs.

Yours faithfully,

LEVO AG

EU SRN: CH-MF-000008751

The EU Authorized Representative for the MDR (EU) 2017/745 is:
be-on-Market GmbH, Lilienstrasse 33, D-91244 Reichenschwand.

2. User profile - LEVO LAE

You intend to be mobile and need a compact, manoeuvrable wheelchair with a special, integrated manual stand-up function to give you optimal support in any situation at work or in your leisure time. The **LEVO LAE** can accept a maximum load of 120 kg.

The **LAE** combines all the major advantages of a manual driven wheelchair with the convenience of safe standing using 2 ratcheting hand bars. The stand-up mechanism, which is supplemented for adults with gas spring support, will take you to all seat angles and standing positions up to 86°.

The **LAE** can be equipped with rear push handles for assistance from an accompanying person.

The **LAE** is intended to improve health, lifestyle and to ensure maximum mobility.

Regarding visual and cognitive skills, the physician, therapist or dealer must decide whether the **LEVO LAE** is suitable for the user in terms of physical condition, personal safety and on the intended environment and use. All stand-up wheelchairs need to be professionally fitted.

The following characteristics distinguish the LEVO LAE:

- Optimal biomechanics in all sitting and standing positions up to 86°
- Continuous rising in all positions between sitting and standing
- Manual stand-up unit operated using 1 or 2 vertical push bars
- Absolutely safe standing thanks to 6 contact points on the ground
- Medical and therapeutic benefits by regularly standing (as agreed with your specialist)
- Excellent handling characteristics in indoor and outdoor use
- Individual upper / lower leg length, foot position and backrest height
- Seat widths: 350 - 480 mm
- Seat depth: 290-540 mm
- User weight max. : 120 kg

LEVO LAE Standard Configuration

- Manual driven wheelchair, manual seat and standing function
- Seat and backrest upholstery
- Armrest with integrated one hand stand-up operation
- Folding and angle adjustable Backrest
- Standard colors: platinum, red, yellow, blue or black
- Two-piece flip-up footrest
- Rear wheels with pneumatic tires / pump
- Chest straps, side guards and knee support incl. wedge

Please ask your specialist retailer for detailed advice or contact your national representative or LEVO AG.



Sections marked with this sign should be read with particular attention as they concern safety instructions or warnings to prevent injury to persons or to avoid damage to the product.

3. EC Declaration of Conformity



EC Declaration of Conformity



As manufacturer of the **LEVO** range of stand-up wheelchairs, the company

LEVO AG
Anglikerstrasse 20
CH-5610 Wohlen
Switzerland

EU SRN: CH-MF-000008751

declares under its sole responsibility that the Stand-up Wheelchair model

LEVO LAE

Basic UDI-DI (GMN) 07613045 31

Product Class I

conforms to all of the general provisions of MDR Medical Device Regulation (EU) 2017/745. The EN 12183 certification is in an update process.

This Declaration of Conformity includes all accessories and options of the **LEVO LAE** and is according to Annex IV of MDR (EU) 2017/745.

The **LEVO LAE** conforms to 2011/65/EU and is tested according to EN 12183:2014.

The EU Authorized Representative for the MDR (EU) 2017/745 is: be-on-Market GmbH, Lilienstrasse 33, D-91244 Reichenschwand.

2021-06-30 **LEVO AG**

Daniel T. Johnson
CEO

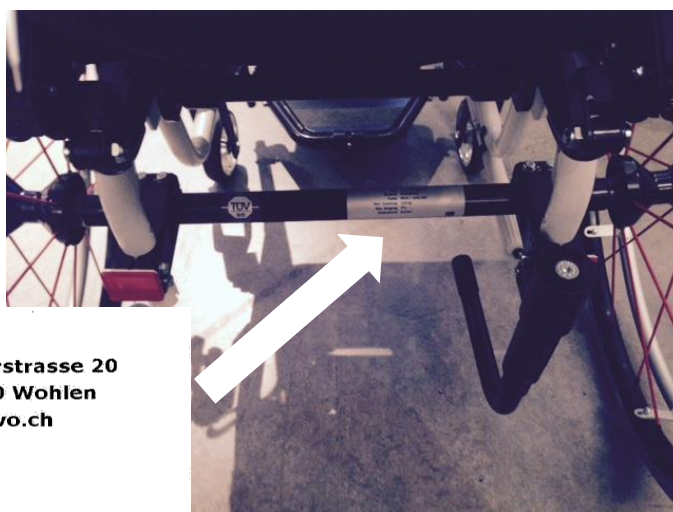
Heinz Bögli
COO

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4. Product Identification – Product Label

A unique serial number plate is attached to the wheelchair rear axle for identification purposes.

The device is absolutely identified by the serial number and the extended barcode GS1-128.



LEVO.[®] **dt**
THE EXPERTS IN STANDING

LEVO AG Anglikerstrasse 20
Switzerland CH-5610 Wohlen
office@levo.ch www.levo.ch

Typ LAE/S-M/35/51
Serie Nr 313662 2014
Farbe schwarz
Max. Zuladung Max. user 120kg
Max. Neigung Max. save slope 14°
Reifendruck 6 - 7.5 bar



(01)761304503605(21)313662 2014

The following is an example of the **LEVO** serial number plate or sticker:

Identification	Example	Intent / Meaning	Visual aid
Type	LAE/S-M/35/51	Model LAE/S-M/35/51	
Serial No.	313662 2014	Serial No. 313662 Year of Production 2014	
Color	black	Color black	
Max. Load	Max. user 120kg	max. User Weight 120kg	
Max. gradient	Max. save slope 11°	max. save slope, unremoved, direction downhill 11°	
Tyre pressure	6 - 7.5bar	Recommended pressure range of pneumatic tires min. 6.0 bar - 7.5bar	

Please note that the chair identification is also shown on the warranty card. This card is delivered to your dealer and they should store it for you. Please ask for a copy and refer to your Serial Number for any communication when referring to your wheelchair.

5. Warranty

Your **LEVO** product carries a warranty of two years on all material and manufacturing defects of mechanical parts.

Batteries are excluded from the warranty.

Any signs of improper use or lack of maintenance will void any warranty.

Any structural or technical changes on the chair are prohibited and will void all warranty or product liability claims.

Please notify your dealer and **LEVO** of any warranty claim or possible issues with your chair.

LEVO contact information can be found on the first page of this manual.

6. Meaning of symbols



Please read these instructions carefully before using your wheelchair. Failure to do so can result in serious injury and/or damage to the wheelchair.



Symbol of a wheelchair which is not used as a seat in a motor vehicle or to transport in a motor vehicle. Please contact your retailer about available equipment.



Symbol of a wheelchair which is equipped and certified as a seat in a motor vehicle or for transportation in a motor vehicle.



Symbol signalling a danger of trapping body parts during operation. Please take particular care of the areas between armrest and seat unit and around the pivots of the armrest and the standing mechanism when changing the seat position to avoid injury! This also applies to any other people around the wheelchair.



The wheelchair should not be lifted by the armrests.



The wheelchair conforms to current EU medical device regulations, directives and legislation and carries the CE mark.

7. Important Safety Information before use



The stand-up wheelchair **LEVO active-easy LAE** allows manual driving with a self-actuated, manual stand-up mechanism. The stand-up actuator is operated by the user pushing down on 2 ratcheting hand bars. The seat moves to any position between completely seated, as with any ordinary wheelchair, and standing up to 86°.

Moving to a standing position may load the body in a way that the body is perhaps not used to. Therefore, before using a stand-up wheelchair, consult your doctor or physical therapist to make sure that no contraindications such as strong contractures or osteoporosis are present. Without a prescription by your doctor or physical therapist, there are risks of injury. All user and medical instructions must be strictly followed.

In the case of strong or sudden spasms, cramps or similar, the user should stand under the supervision of an accompanying person.

Regarding visual and cognitive skills, the physician, therapist or dealer must decide whether the **LEVO LAE** is suitable for the user in terms of physical condition, personal safety and on the intended environment and use.

Please take care to avoid trapping yourself or other persons in the mechanism during elevation or descent. Especially take care of the sections between the seat and the mainframe to avoid any kind of injury.

The **LEVO LAE** must be driven to level and solid ground before elevating the user to a standing position (Caution: risk of tipping over!).

The brakes of the **LEVO LAE** must be activated before elevating to a standing position (Caution: risk of tipping over!).

The standing function should not be operated without a person seated in the **LEVO LAE** (risk of accident!).

It is absolutely essential to mount the knee support and the chest strap correctly before you use the stand-up function! You should never go into standing without these safety restraints securely in place (risk of accident)!

The restraints must be worn over clothing to prevent any skin irritations.

The **LEVO LAE** should not be lifted by the armrests. The armrests are designed for high, downward load, but not for upward, tensile loading.

Driving the wheelchair must always be in the completely seated position so that the load can be distributed to the frame. Otherwise there are risks of damage to the seating system.

Please avoid any abnormal and unforeseen loads like torques or shear forces. Additional load at the armrests or backrest, fixing for transport without the dedicated equipment etc. should be strictly avoided! The wheelchair could be damaged causing injury to the user or other persons.

For amendments and adjustments to the mechanism and for maintenance work, please contact your dealer.

For safety reasons, adjustments to the stand-up mechanism and functionally-related parts must only be performed by trained personnel.



Standing wheelchairs require professional adjustment to safely and comfortably be used in the standing position.

All available standard sizes guarantee the passage of escape routes marked as wheelchair accessible, as wheelchair seats or connecting routes in public transport. Please take note of and ask about escape routes. Size-dependent adjustments are therefore strictly forbidden, as these may put these features at risk.

All adjustments outside the standard configurations which convert wheelchair characteristics are strictly forbidden as this can cause risk of serious injury.

Be aware that the surface temperatures can increase when exposed to external sources of heat (e.g. sunlight).

Please avoid exposing the wheelchair to extreme heat. Please also note that, if exposed to high humidity or salt, the wheelchair should be cleaned and dried frequently.

The resistance to ignition of materials and assemblies are as follows:

- Plastic parts according to UL 94-V0
- Upholstery according to EN 1021-2

Please note that all product safety information can be obtained on our website, from your dealer and in the user manuals which will be available at your retailer. In case of product recalls you will be informed by your retailer, as the **LEVO** products are sold exclusively through retailers.

Owners or users of **LEVO** products that have acquired a second-hand **LEVO** product from a source other than a recognised retailer must contact **LEVO** and/or a **LEVO LAE** representative to ensure correct fitting and to perform necessary safety checks. Adjustments to the mechanism must be performed only by trained personnel.

Please note that the product life under normal functional use and care is around 7 to 10 years. If the wheelchair is used not according the instructions or is subject to extreme or difficult conditions, the life may be shortened.



8. Seating adjustments

All LEVO wheelchairs are custom made and come fully assembled. Minor adjustments concerning the axles and the seat support may only be conducted by your local specialist dealer. The same applies to other general adjustments as for example the tilt angle of the chair.

Any sort of alterations on the wheelchair as well as disregarding the weight limits are strictly prohibited. Incorrect adjustments can lead to major injuries. Contact your LEVO dealer regarding any adjustment.

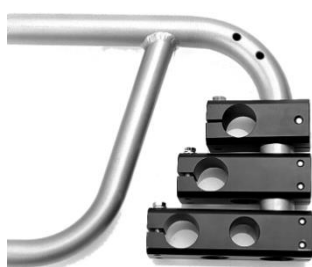
8.1. Seat inclination

The standard pre-set angle of inclination is approx. 5° to the rear. By altering the height of the axle holder it is possible to re-set the backrest angle between 0° and 8° to the rear. To ensure these alterations do not compromise safety in the standing position, the front wheel forks must be adjusted appropriately. These adjustments should only be carried out in consultation with your **LEVO** dealer!



8.2. Position of the rear wheels

By re-setting the axle holder either further forwards or further backwards, you are able to increase or decrease your **LEVO** tendency to tip over. To avoid accidents (tipping over) we recommend the fitting of anti-tip wheels. Please consult your **LEVO** dealer!



8.3. Position of the front wheels

The correct positioning of the front castors depends on the height of the rear wheels and is crucial in ensuring a safe standing position. Please consult your **LEVO** dealer!

8.4. Backrest angle



The standard pre-set angle between backrest and seat is 90°. It is possible to re-set this angle either 5° further forward or 5° further back.

These adjustments should only be carried out by your **LEVO** dealer!



- Take off the main wheels.
- Release the screw in the 3-position slot at the hinge right and left with a 4mm allen key.
- Take off the screws including the distance bush.
- Set in the screws and distance bushes at the preferred angle 85° or 95° or back to 90°.
- Tighten the screws right and left.
- Attach the main wheels.

Attention: After adjustment check that the plunger on the hinge is fully locked in place and that the backrest is fully secure.



8.5. Backrest and Seat Upholstery



The backrest upholstery can be adjusted using the Velcro fasteners. The backrest can be tightened (for a more upright seated posture) or relaxed (for more back support).

The seat upholstery can be similarly tightened or released by use of Velcro fasteners and should be as tightened as possible. Depending on the height of the cushioning, it may be necessary to loosen the upholstery to be able to lower the cushioning down between the two seat supports.

Depending of the seat depth, adding or removing one or two Velcro straps is required. When adjusting the seat depth please ensure that the flap of the backrest upholstery covers the seat by a minimum of 12 cm.

8.6. The calf/heel strap



The purpose of the calf/heel strap is to prevent the legs and/or feet slipping backwards. It is fitted behind the heels or higher. By making use of the Velcro fastening it is possible to alter the length of the strap and to ensure the ideal position for the feet on the footrest. Ideal positioning of the feet is vital in ensuring a good standing position. Please consult your **LEVO** dealer!

8.7. Seat cushion

There is a choice of various different seat cushions, governed by your individual needs. The Velcro fasteners fitted to the surface of your seat should allow you to attach the majority of seat cushions securely. The Velcro fasteners prevent the cushion from slipping out of place even when you are standing up. The height of the footrest should be adjusted to take into account the height of a given seat cushion. Please consult your **LEVO** dealer!

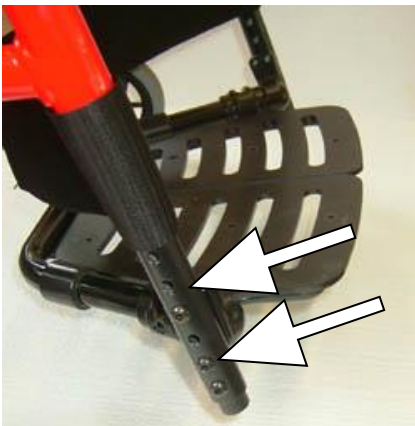
8.8. Footrest



The height of the footrest is important for a good sitting position as well as for the standing position. The footrest is set according to the details given in the original order form and can be adjusted within the limits of those settings.

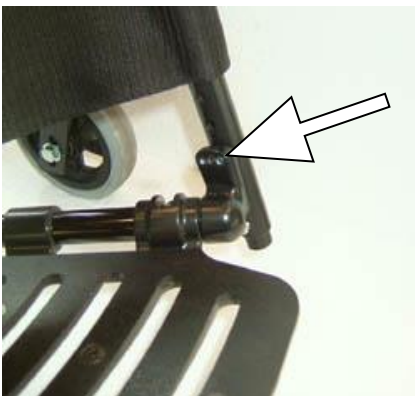
Contact your LEVO dealer regarding any adjustments.

There is a choice of 5 different heights for mounting the footrest.



- The 5 different positions of height to which the footrest can be adjusted.
- Unscrew the four oval head screws at the outer side of the footrest using a 4mm hex key and set the footrest either higher up or lower down.

There are three possible footrest angle variations:



- Foot angle 100°
- Foot angle 90° (Standard)
- Foot angle 80°
- Release the four screws at the out side of the footrest using a 4 mm hex key and remove the upper ones. Set the footrest at the required angle and tighten the screws.

The footrest angle is set as standard at 14° to the floor. With the footrest in the lowest possible setting, an angle of 4° is the only practicable variation as the footrest

otherwise touches the ground before the leg supports which reduce the standing stability!

With the second lowest setting the only variations are 4° and 14°, for the same reasons.

For all higher footrest settings there are all three angle variations possible.

Caution: Check the standing stability after adjustment to avoid tipping forwards.



8.9. Chest Belt

The chest belt is fixed by Velcro to the backrest upholstery and is adjustable in the height

9. Adjustments for seating and standing position



Adjustments for sitting and standing position must be carried out by your local LEVO dealer. Also, if you should feel uncomfortable in any of the upper mentioned positions, please do not hesitate to contact your local LEVO dealer.

Seat depth: correct



Knee support attachment
Screw aligned with the
center of the knees

Seat depth: too long



Knee support attachment
screw beyond the centre
of the knees

Seat depth: too short



Knee support attachment
screw behind the centre of
the knees



Ankle/knee/hip joint
straight



Knee joint overstretched



Incomplete stretching of
the knee

Correct seating position



Seat cushion too high

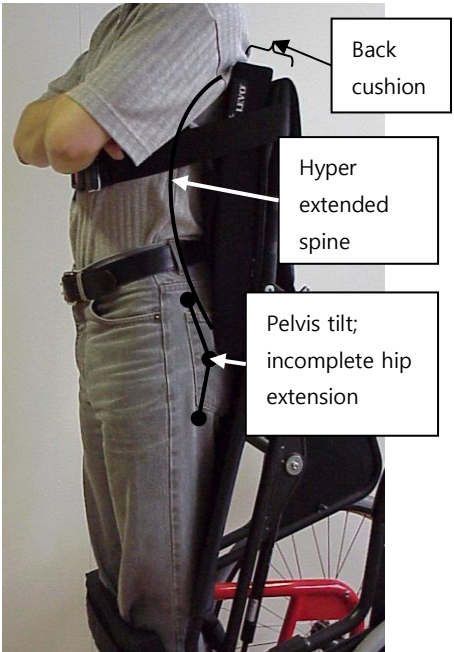
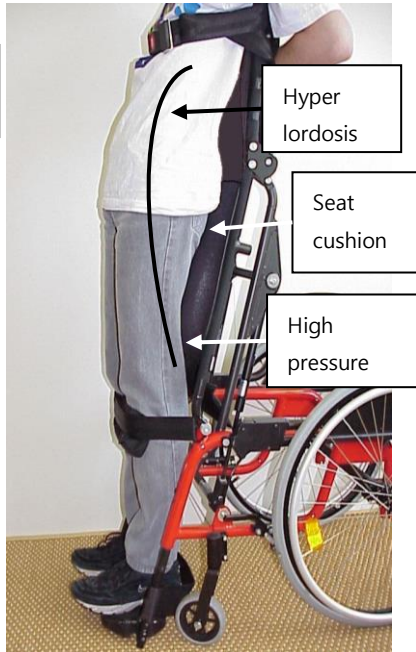
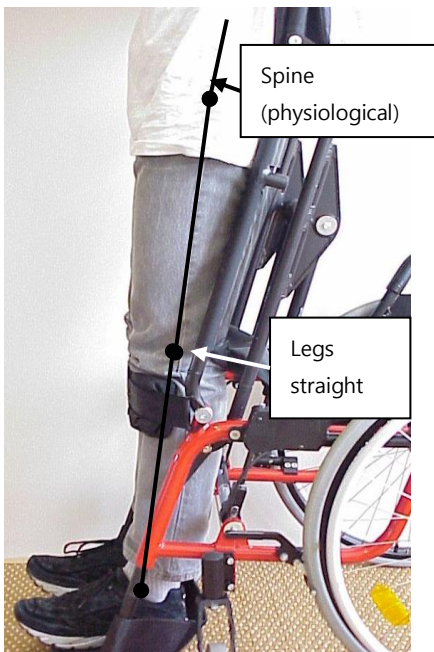


Cushion for pressure relief in seated position

Back adjustment too low



Backrest cushion or solid back for more comfort or stability





10. Safety Information Standing

It is possible that achieving the standing position may load the body in a way that it is perhaps not used to. Therefore, it is necessary to consult with your doctor or physical therapist to confirm that there are no contraindications such as contractures, orthostatic hypotension, osteoporosis or other conditions present.

In the case of strong or sudden spasms, cramps or similar situations, it is necessary that the user is allowed to stand only under the supervision of an accompanying attendant or caregiver.

Regarding visual and cognitive capability the physician, therapist or dealer must decide whether the **LEVO LAE** can be used by the user depending on its environment and in terms of personal safety.

There are many moving components on the chair that interact and change positions as the chair cycles from sit to stand. Please take care to avoid any pinching or squeezing of the client or attendant.

To insure standing stability and avoid risk, the **LEVO LAE** must be located on flat and level surfaces with the brakes engaged. Be certain to check for objects which would prevent the legrests from reaching the ground simultaneously preventing solid contact.

Damage may occur if the standing system is operated without a person in the chair. The chair is engineered so that the client's weight acts as an assist to the electric lift actuator and gas struts as the chair returns to the seated position.

It is imperative that before attempting to stand, that the knee support and the chest strap are properly positioned to restrain the client and are secured to the wheelchair.

The restraints must be worn over clothing to prevent any skin irritations.



11. Brakes

The brakes lock the rear wheels to secure the **LEVO LAE** against unintended movement.

By pushing both brake levers forwards you should be able to lock the brakes immediately.

The efficiency of the brakes is dependent on tyre pressure and profile, which should be checked regularly.

Caution: Wet tyres or surfaces also have a detrimental effect on brake efficiency.

Be sure to re-adjust the brakes when altering the position of the wheel axle.

11.1. Brake adjustment

The wheelchair should be unoccupied when dismantling the brakes. Secure the wheelchair in such a way as to prevent it moving when the brakes are removed.

Release the brake as much as possible.

Release the cylinder screw on the brake itself (see figure on the left).



Adjust the position of the brake and leave a gap of approx. 10 - 15mm between the brake shaft and the tyre, then tighten the cylinder screw (see figure on the right).

Test if the brakes function correctly afterwards.

If you want to increase the brake force, position the brake shaft closer to the tyre, if otherwise leave a larger gap between the brake shoe and the tyre.



12. Knee support and chest strap

The most important safety features are the knee support and the chest strap. It is essential to secure yourself every time you would like to change from sitting into standing position. Caution: Carry out each step carefully before moving yourself into the upright position to avoid injury.

12.1. Knee support

The knee support holds the knees in an extended posture and prevents you slipping out of the wheelchair while standing up.

Attach the two eyes of the knee support to the double-head screws on either side of the wheelchair (see figure on the left below).



Centre the knee support in front of each knee using the Velcro fasteners, then pull it until it is sitting firmly in place, just below (not right on) the knee cap and not too tight (figure above right).



12.2. Chest strap

The chest strap holds the upper body in place. Make sure that the strap is securely fastened to the backrest.

To release the chest strap simply press the red button in the center of the catch.

Try to avoid wearing the chest strap on bare skin as the material might cause dermal injuries or irritations.



Note: You might need an assistant when adjusting the chest strap. It is difficult to adjust on your own.

Once both the knee support and chest strap are fitted correctly you are ready to stand up.



13. Standing up

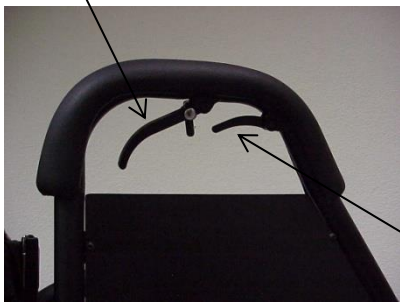
The armrests on both side right and left of the seat serve not only as armrests. They are part of the stand-up mechanism.

There are two different release levers.

The bigger one in the rear of the armrest is the stand-up unit gas-spring release lever. This lever releases the gas springs which assist you as you raise yourself up by pushing lightly with your arms down on both armrests. The side of the stand-up release can be chosen when ordering. As an option, a bilateral release on the right and left side is available.

The two smaller release levers (one on each armrest) at the front of the armrest are the armrest-release levers. By using these levers, the armrests can be brought higher to push yourself upwards or can be lowered as you lower yourself to the seated position.

Gas spring-release lever (rear, bigger)



Armrest-release lever (front, smaller)



13.1. Gas spring release

To release the gas springs, pull the rear release lever, which is located either on the left or right side or both (picture left).

13.2. Standing up – Step 1

Release the gas spring and push yourself up as far as your arms will allow. Let go of the gas spring-release lever to lock the gas springs at any interim position between sitting and standing (picture above right).

By using the two armrest-release levers further toward the front of the armrests, you can bring the armrests up to the appropriate height which allows you to push yourself higher up to full standing.

13.3. Raising the Armrests – Step 2

Pull the two armrest-release levers, lift the two armrests. Let go the armrest-release levers and pull the two armrests up until they click in (pictures below).



13.4. Raising up to standing

Repeats step 1 and 2 (picture above right) until you are standing fully upright. The leg supports should be in contact with the ground.

14. Sitting down

To go into the sitting position, operate the gas spring release as for standing up, but instead of pushing up, you pull down on the armrests.

14.1. Lowering the Seat – Step 1

Operate the gas-spring release lever and, holding it closed, pull yourself downwards using the armrests.

14.2. Lowering Armrests – Step 2

Let go the gas spring-release lever and use the armrest-release levers to lower the armrests into an intermediate position.

14.3. Lowering to a final sitting position

Repeats step 1 and 2 until you are in fully sitting position.

Attention: Raise and lower yourself slowly to avoid any risk of tipping over!

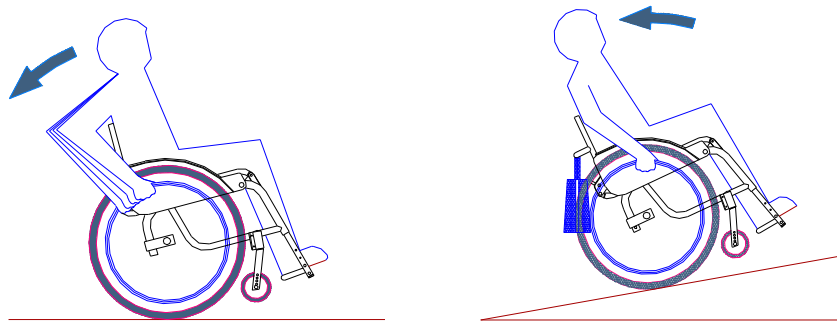


Never operate the standing mechanism without your full weight in the chair.

15. General Information on Use of a Wheelchair

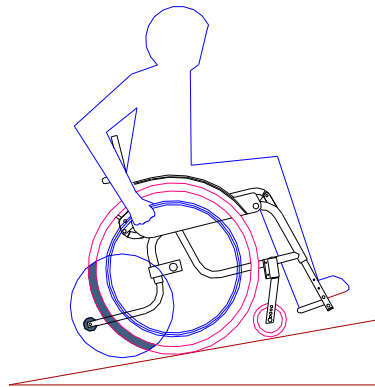
15.1. Driving the wheel chair: How to avoid tipping over

Please note that when starting pushing the wheel chair, the front wheels are going to lose traction due to acceleration. Depending on weight distribution this may cause the wheels to lift off the ground and the wheel chair to tip over backwards.



The situation mentioned above intensifies when using different rear wheel positions to achieve greater seat inclination, by too-vigorously engaging the drive wheel in the forwards direction or by using a cushion for elevated seating.

Please note that the weight of personal belongings (e.g. bags) can have a major effect on the centre of gravity of your wheel chair which may lead to increased instability.

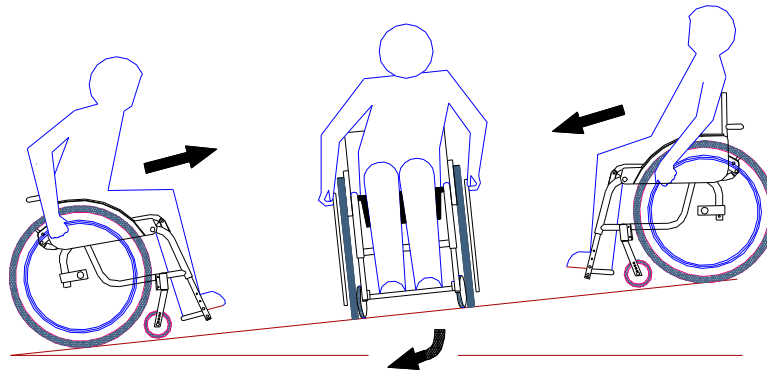


For more security while driving the installation of an anti-tip mechanism is strongly advised.

15.2. Gradients



Bear in mind that, when turning around on a steep hill, you will pass through a crosswise position first before the turn is completed. Whilst in the crosswise position, there is a risk of slipping sideways down the hill. Both you and any assisting person should be aware of this risk and counter steer accordingly.



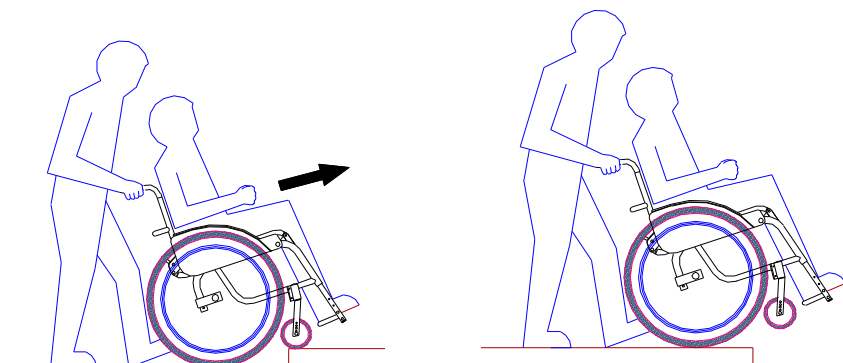
As a safety precaution, always ask a person to accompany you when manoeuvring down a slope. Bear in mind that slowing the wheelchair using the hand rims generates a great deal of heat between hands and the hand rim itself and can lead to burns on the palms of the hands. Therefore proceed cautiously when braking manually and, most importantly, when travelling downhill, never go faster than walking pace. Leaning backward improves stability and increases rear wheel downforce, thus also improving braking efficiency.

15.3. Climbing obstacles

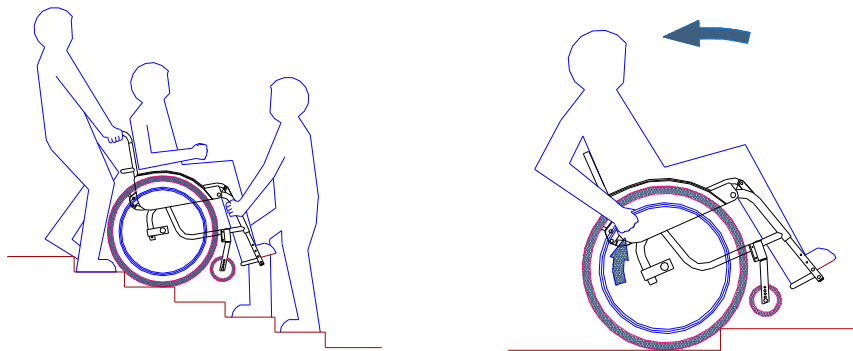
Any obstacle, such as a curb or threshold, should be viewed as a potential source of danger. This is due, in part, to the very short wheelbase of the wheelchair. To climb an obstacle, ask an accompanying person for assistance.

Should you wish to negotiate such an obstacle with the help of an accompanying person they should not attempt to lift the wheelchair completely. It is important that they make sure that the rear wheels stay in contact with the floor all the time.

To overcome an obstacle (e.g. driving over a curb), first tilt the wheelchair just enough to lift the front wheels. Slowly lower the front wheels onto the obstacle and then push the wheel chair on until the large wheels are resting against the edge of the obstacle. Finally move the chair onto or over the obstacle.



To descend a major obstacle (e.g. to go down stairs), always use an assistant! The assistant should first tilt the wheelchair until the front wheels are off ground slightly, then move the chair forwards slowly.



Should you have to be carried over certain obstacles, please make sure to request the assistance of at least two persons. It is of great importance to inform the assistants that the wheelchair should be lifted by the solid parts only.

CAUTION:

- **Disregarding those instructions is a risk of major accidents and injuries!**



Keep in mind that handling any sort of obstacles on your own can be very demanding. You should be aware of the tendency of the wheelchair to tip over backwards when attempting to overcome an obstacle. Do not hesitate to ask for help at any time.



CAUTION!

Do not attempt to use the wheelchair on an escalator!

15.4. Activating the Brakes

When using the wheelchair in situations where increased stability is particularly important, the brakes must be activated. This is especially important when standing up, transferring into your wheelchair or when you want to transfer yourself from the wheelchair into another seat. For safety reasons, it is particularly important to note that even though the wheelchair may be locked securely it can still slip away sideways.

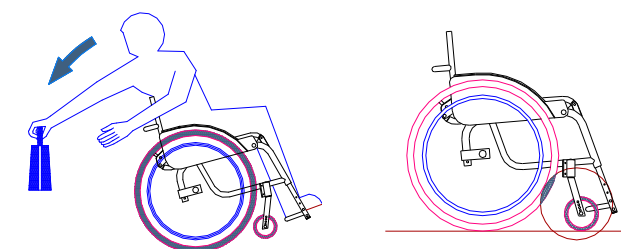
Keep in mind that insufficient tyre pressure or heavily worn out tyre treads have a detrimental effect on braking efficiency.

After driving through a puddle keep in mind that wet tyres reduce braking efficiency.

15.5. Picking up objects



Always remember that picking up objects will alter the centre of gravity which will affect the stability of the chair. This can cause the wheelchair to tip over, either backwards (see figure on the left), sideways or forwards. In the latter case, enlarge the wheelbase by positioning the front wheels in the same way they are positioned when driving backwards. It is also advisable to draw as near as possible to the object before attempting to pick it up.



15.6. Transfer sideways

- Drive as close as possible to the object you wish to transfer to.
- Put on the brakes
- Flip up the footrest of the wheelchair and put your feet on the ground.
- Lift the armrest on the side you are transferring to.
- Transfer yourself in your usual way out of the wheelchair or have yourself transferred out of the wheelchair.
- Lateral transfer is only in the complete sitting position of the wheelchair allowed.

15.7. Detachable components

Please note your wheelchair is designed to detach components to guarantee the lowest possible packing volume and weight. The detachable components are listed as follows:

Detachable components	LEVO LAE Weight reduction
2 main drive wheels	2x ca. 1.7 kg
2 front wheels	2x ca. 0.5 kg
1 footrest or legrest	1x ca. 1.2 kg 1x ca. 1.8 kg

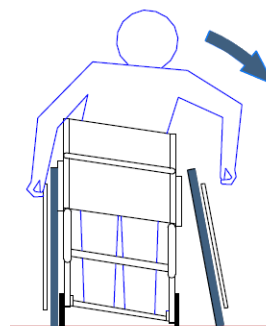
Please take care not to trap any clothing or parts of the body in the joints of the wheelchair as you are folding the backrest.

You should only occupy the wheelchair once it has been fully reassembled with all detachable components securely fixed in place.

Always make sure that the rear wheels have been securely fixed and cannot get loose while the wheelchair is moving.

Make sure the wheelchair is being lifted by gripping the main frame only.

Caution: Do not lift the chair by gripping the armrests, the backrest or the seating tubes as this might lead to major damage.



16. Transport



16.1. Transport in a motor vehicle - wheelchair only

To transport the wheelchair in a motor vehicle make sure it is secured to prevent sliding or tipping over. Use only a fastening system which secures the wheelchair correctly.

CAUTION:



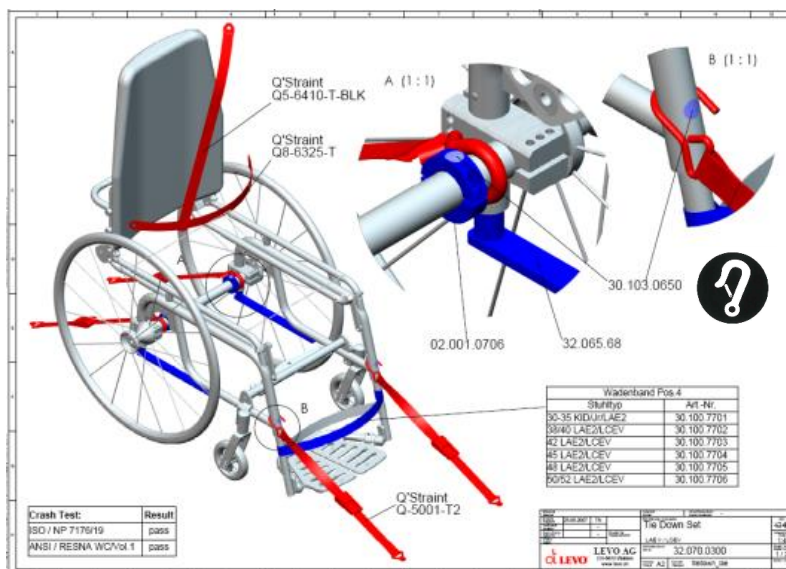
When transporting the wheelchair in a motor vehicle, be sure nothing could release the stand-up unit at the armrest.

16.2. Transport in a motor vehicle - user in wheelchair

To transport the user in the wheelchair in a motor vehicle, please assure the following correct equipment is installed and restraints for fixation are ready for use:

- The chair has to be equipped and reinforced with the "Tie down transportation kit # 32.070.050x" that can be ordered at **LEVO AG** through your **LEVO** distributor.
- The chair has to be secured by using solely a restraint system which has been tested and passed the ISO 10542/2 standards.
- The occupant has to be safely secured by using only a restraint system which has been tested and passed the ISO 10542/2 standards.

See the instructions:



16.3. Public transport of the wheelchair - wheelchair only



The **LEVO LAE** wheelchair can be transported in every kind of public transportation including in airplanes without any restrictions.

17. Components

17.1. Gas Springs

The gas springs are under pressure and may only be adjusted by your LEVO dealer!

The gas springs are specially adjusted to hold your weight in balance. There is a range of spring strengths to suit the different user weights.

Caution: do not bend or stretch the cables leading from the armrests to the gas springs as this may activate the trigger of the stand-up mechanism (risk of accident)!

17.2. Quick-release axles

The quick-release axles enable you to remove and re-mount the rear wheels of your **LEVO LAE** quickly, thus reducing significantly the volume and weight of the wheelchair.

When removing a wheel, the wheelchair must be unoccupied. The wheelchair should be supported in a way that it cannot tip over nor roll away after removing the wheel.

Press the release button in the center of the wheel, then pull off or re-mount the wheel.

Having mounted the wheel, push and pull it several times to ensure the quick-release axle has fully engaged.

17.3. Rear wheels



All **LEVO** stand-up wheelchairs are equipped with low resistance pneumatic or airless tyres. Ask your local dealer for suggestions concerning specific adjustments or custom made tyres.

Please make sure to check the pneumatic tyre pressure regularly.

The optimal pressure is 6.0-7.5 bar or 600-700 kPa.

17.4. Front wheels



To remove the front wheels (together with the front forks), press the quick-release axle from underneath, then pull off the forks (see photo).

After reinstalling the front wheels please make sure that they are fitted correctly.

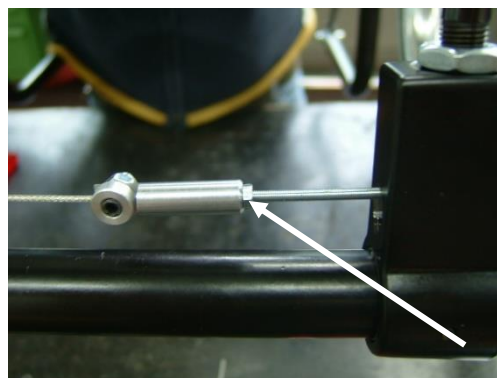
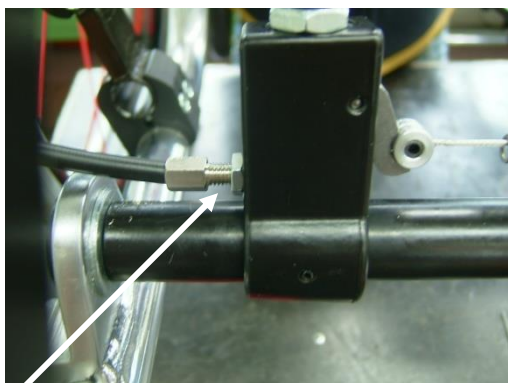


18. Maintenance and Functional check

To keep the **LEVO LAE** running perfectly and to ensure personal safety and proper operation, please ensure your wheelchair is being serviced by your local **LEVO** dealer at least once a year and observe the following rules:

- **In general** please keep the wheelchair clean, never store it when damp.
- Check the tire pressure **every week**. If necessary pump the tires up to 6.0 – 7.5 bar.
- Check the condition of the main and front wheels **every 2–3 months**. If a tire is heavily or unevenly worn, it should be replaced immediately.
- Check **every week** that the brakes still work reliably. Having applied the brakes, the wheels should stop turning completely. If the brakes are ineffective, they should be tightened and checked by your dealer.
- Check **every week** that the gas-springs support the actuator during elevating, which you will see by the smooth running of the stand-up mechanism up and down.
- If any faults are found, immediately inform your dealer before further using of the chair.
- During the **first month of use**, check the cable tension on the gas spring-release once a week. The cable tension should be re-adjusted by your **LEVO** dealer either weekly or monthly, depending on how often you use the stand-up function.
- Check weekly that the gas springs lock and release correctly when you press the release lever.

If the gas springs release is **slow/inactive**, have them adjusted by a qualified technician. The technician will loosen the counter nut and turn the adjustment screw one turn to the left = anti-clockwise (picture below on the left).



If the gas springs are **not locking properly**, have them adjusted by a qualified technician. The technician will have to loosen the counter nut and turn the adjustment screw one turn to the right = clockwise (picture above right).

Please see your LEVO dealer to adjust the cable tension!



18.1. Functional check

Please make sure that the wheelchair is being maintained at least once a year by your **LEVO** dealer to assure and to guarantee the safe functioning of the chair.

The **LEVO LAE** is delivered already greased. Additional greasing should only be carried out professionally by your dealer.

For your chair the dealer should provide a service card in which all details of necessary maintaining or repairs are noted.

The following general functional check should be made before and after maintenance:

- Function of the gas spring and armrest release
- Function of both gas springs.
- Braking effect when driving uphill (Inclination: 8 degree)
- Braking effect when driving downhill (Inclination: 11 degree)
- Check all screws are securely fastened

19. Cleaning

- In case of soiling the wheelchair can be cleaned with a moist cloth. Wipe it dry well afterwards.
- In case of heavy soiling use a mild detergent and warm water for cleaning.
- Never apply furniture polish, pure spirit or solvents for cleaning.

20. Storage

20.1. Storage in general

The **LEVO LAE** is equipped with a folding backrest which allows you to reduce significantly space required to store.



Push up the two folding levers at the backrest joints and push at the same time to move the backrest forward.

The two folding levers can also be connected by a cord. In this case, pull the cord to the rear/top and push the backrest forward.

20.2. Storage for more than 4 months

The **LEVO LAE** is essentially maintenance-free, and the user must only pay attention to keeping it clean. If the wheelchair is stored for more than 4 months or exceeds the recommended maintenance cycle deadlines, it must be checked in accordance with the Maintenance and Functional checking instructions in section 6 before use. Please note that the temperature range of storage is minimum 5 °C to maximum 50 °C.

21. Disposal

- At the end of its service life the wheelchair should be returned to your **LEVO** dealer for proper disposal.
- Used batteries should also be returned to your **LEVO** dealer or to the place where they were purchased.

22. Technical Information

	Min.	Max.
Overall Length (with footplate)	890 mm	1005 mm
Overall Width	570 mm	700 mm
folded Length (without wheels)	900 mm	1020 mm
folded Width (without wheels)	490 mm	720 mm
folded Height (without wheels)	460 mm	540 mm
max. Weight	25 kg	27 kg
Mass of the heaviest part	19.5 kg	21.5 kg
Static stability downhill, sitting position	12°	15°
Static stability uphill, sitting position	4°	11°
Static stability sideways, sitting position	15°	15°
Break effectiveness uphill	--	8°
Break effectiveness downhill	--	11°
Seat plane angle	0°	8°
Effective seat depth	290 mm	540 mm
Effective seat width	350 mm	480 mm
Seat surface height at front edge	480 mm	570 mm
Back seat angle	-5°	13°
Backrest height	310 mm	560 mm
Footrest to seat distance	360 mm	560 mm
Leg to seat surface angle	80°	100°
Armrest to seat distance	190 mm	190 mm
Main wheel diameter	560 mm - 22"	660 mm - 26"
Hand rim diameter	470 mm	570 mm
Minimum turning circle	1000 mm	1200 mm
Tire pressure	6 bar / 600 kPa	7.5bar / 750 kPa
Temperature for use	+5°C	+40°C
Temperature for long term storage	+5°C	+50°C
Available sizes: D22x1", D24x1", D26x1"		



23. Trouble shooting

23.1. General operation

	Fault	Rectification
	<ul style="list-style-type: none">• Wheelchair doesn't run in a straight line or doesn't stand properly on the ground	<ul style="list-style-type: none">• Pump up or repair the tyres. See Technical Data and Tyre repair.• Have a technician check and if need be adjust the rear wheel axle mounting, front fork mounting etc.
	<ul style="list-style-type: none">• Discomfort in seated or standing position	<ul style="list-style-type: none">• Have a technician check and if need be adjust the rear wheel axle mounting, front fork mounting, etc.
	<ul style="list-style-type: none">• Leg supports don't rest on the ground in the uppermost standing position	<ul style="list-style-type: none">• Caution: There is no safety of stability in standing position! Levo dealer must check and adjust the rear wheel axle mounting, front fork and leg supports.
	<ul style="list-style-type: none">• Wheelchair tips over backwards too easily	<ul style="list-style-type: none">• Have a technician check and if need be adjust the rear wheel axle mounting, front fork mounting, etc.• Attach anti-tip rollers (see accessories)
	<ul style="list-style-type: none">• Brakes don't brake effectively	<ul style="list-style-type: none">• Have a technician check and if need be adjust the brakes

23.2. Stand-up mechanism

	Fault	Rectification
	<ul style="list-style-type: none"> Mechanism doesn't always function at the same speed, i.e. quicker going up or coming down 	<ul style="list-style-type: none"> Check gas spring strength corresponds to user body weight. If needed replace gas springs.
	<ul style="list-style-type: none"> Mechanism inoperable (neither up nor down) 	<ul style="list-style-type: none"> Check gas spring release cable and re-adjust or replace if needed.

24. Version Management

Version Nr.	Date	Description	Release
1.0	2016-01-03	TÜV-Update Test according EN 12183:2014	HB
1.1	2021-01-27	Updated for (EU) 745/2017 and Service Document separated	JC
1.2	2021-04-09	MDR Adjustments	JC
1.3	2021-06-30	EU Single Registration Number SRN	H. Bögli