

Model series

Lipo Lomo

Pico

Crossbike



Instructions for use

Electric Power Assist Devices

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Notice to reader

For reasons of readability, the masculine form has been chosen in these instructions for use, nonetheless the information relates to members of all genders.

Misprints, mistakes and price or product changes reserved. Product changes include changes resulting from the further development of the mechanics or the legal requirements.

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1 Declaration of Conformity



The device complies with the current standards and guidelines of the EU. We certify this in the EC declaration of conformity. If required, we will be happy to send you the corresponding declaration of conformity. Our power assist devices have been tested by means of an electromagnetic compatibility test (EMC).

In the event of a change not agreed with R&E Stricker GmbH, this declaration loses its validity.

MDR: We confirm that our products (electric power assist devices and hand-operated wheelchair assist devices - Stricker Handbikes) comply with the essential requirements according to the new regulation (EU) 2017/745 (MDR) or the Medical Devices Act. The documentation of the production is available at the company R&E Stricker Reha-Entwicklungen GmbH. R&E Stricker Reha-Entwicklungen GmbH holds full responsibility for the issuance of the declaration of conformity.

DECLARATION OF CONFORMITY (CE, MDR)

You can find it on our website at: <https://www.stricker-handbikes.de/en/about-us/certificates>

2 Introductory notes

WARNING

Before operating the handcycle or power assist device, please read these operating instructions and all other supplied operating instructions carefully and observe them.

WARNING

Visually impaired persons or persons with cognitive impairments must have the information material and operating instructions read aloud by assistants. Corresponding documents are available on our website www.stricker-handbikes.de on the Internet. Videos and photos are also available there.

DEALER NOTICE

It is imperative that you hand over these operating instructions to each customer when handing over the handbike and expressly draw the customer's attention to the safety and danger instructions.

Never deliver a handbike without operating instructions!

3 Product Description & Intended Use

The handbike is coupled to a manual wheelchair as a manual traction aid. This allows the driver to be supported in his mobility. The aim is to extend the range of action by making it easier to cover longer distances independently. Coupling the handbike creates a three-wheeled vehicle with three relatively large wheels. The handbike therefore improves driving characteristics on uneven surfaces. Obstacles can also be overcome more easily. Driving downhill and on slopes becomes safer due to the additional braking systems. The handbike can be independently coupled to and released from the wheelchair by the rider. The wheelchair as such is not changed and its properties remain fully intact.

4 Safety and driving instructions for accident prevention

WARNING

These instructions are for your own safety. Please read them carefully before operating the hand bike and observe the instructions! Failure to observe the operating instructions could result in damage to the product as well as serious personal injury. We accept no liability for damage resulting from failure to observe the operating instructions.

NOTE

Observe all safety and hazard information and instructions, both in this and in all other operating instructions supplied.

4.1 Safety instructions

For your own safety, do not go without a bicycle helmet when riding a handcycle or power assist device.

4.1.1 Permitted speed

Richten Sie sich unbedingt nach den gesetzlichen Bestimmungen des Landes, in dem Sie das Zuggerät betreiben. Das Zuggerät ist für eine Höchstgeschwindigkeit von 15 km/h zugelassen. In Deutschland brauchen Sie eine Betriebserlaubnis

und ein Versicherungskennzeichen, wenn Sie sich im Bereich der StVO befinden. Ohne Betriebserlaubnis gilt 6 km/h als Höchstgeschwindigkeit. Bei starkem Gefälle darf nur mit einer deutlich niedrigeren Geschwindigkeit gefahren werden, um jederzeit sicher Bremsen zu können.

4.1.2 Permitted payload

The maximum load of the handbike is 120 kg. The maximum load of the wheelchair specified by the manufacturer may limit this. Use the lower value as a guide.

4.1.3 Users with small children

In the interest of the child, please refrain from driving a traction device with a child on your lap. There is a high risk of injury.

4.2 Safety checks

WARNING

Carry out the following safety checks before every journey. These are primarily for your safety and the safety of all other road users.

4.2.1 Air pressure of the drive wheel

Check the air pressure of the handbike and wheelchair tires. The air pressure of the handbike tire should be about 3-4 bar, the air pressure of the wheelchair drive wheels about 5-7 bar. For the exact maximum values, please refer to the imprint on the respective tire. Too low an air pressure of the wheelchair wheels increases the risk of tipping over, especially in curves!

4.2.2 Secure fit of all components

Check all components, especially all screws, for tight fit. The four screws of the cross tube must be checked particularly carefully and tightened if necessary to exclude twisting. For the exact torque values, please refer to „Attachment - A Torque list“.

Achten Sie auf einen festen Sitz der Batterien in den dafür vorgesehenen Halterungen und schließen Sie die Batterien ab. Dies gilt besonders, wenn Sie die Batterien zuvor zum Ladevorgang vom Zuggerät abgenommen haben.

4.2.3 Straight run

Determine whether the drive wheel is aligned centrally to the wheelchair. The wheel must be in the center of the wheelchair track. Deviations of no

more than 1 cm from the center are permissible. If necessary, use the instructions from „**7.4 Coupling the handbike to the wheelchair for the first time**“.

The double-acting steering return supports straight-ahead running. Detailed information or setting instructions can be found in „**12.1 Function of the steering damper**“.

WARNING

An incorrectly aligned drive wheel can lead to accidents due to poor straight-ahead running and vibrations.

4.2.4 Braking

Check whether the braking power of your handbike is sufficient. If this is not the case, check the settings of the brakes

(„**16.5 V-Brake**“ & „**16.6 Disc brake**“)

Note that weather conditions, the road surface and the weight of the handbike and rider have a decisive influence on the braking distance.

Make sure that the parking brakes of your wheelchair are correctly adjusted. Always secure your vehicle with the parking brakes against unintentional rolling away, especially when parking on sloping surfaces. Avoid parking on sloping surfaces if possible.

4.3 Driving instructions

4.3.1 Getting used to the handbike

WARNING

Always adjust your driving to the degree of your disability.

WARNING

Always drive only fast enough to be able to brake safely at any time, even in unforeseeable situations! This applies especially to downhill driving.

WARNING

Always hold the cranks with both hands when riding and braking to reduce the risk of accidents.

Safe control of the combination of wheelchair and handbike requires some practice. Cautious and slow riding is particularly useful for beginners.

Avoid mountainous terrain and bad roads at the beginning until you have familiarized yourself with the driving characteristics of the handbike.

By attaching the handbike or power assist device to your wheelchair, the four-wheeled wheelchair becomes a tricycle with various advantages and disadvantages. In curves, a tricycle is more unstable than a normal wheelchair! In the beginning, familiarize yourself with the new driving and tilting behavior by driving carefully. Avoid jerky steering movements at all costs!

Also slowly get used to the higher speeds that can be reached with the handbike. Adjust your speed to the traffic situation at all times.

4.3.2 Driving at dusk and darkness

Always switch on the built-in lighting for rides at dusk and in the dark. Attach the supplied rear light to the back of your wheelchair. Always check the batteries for the rear light before driving off and have new ones ready.

4.3.3 Risk of falling

Avoid jerky steering movements at all costs!

Drive at a slow speed, especially in curves and in unclear situations. Tilt your upper body towards the inside of the curve (like a cyclist) to avoid tipping over the wheelchair.

With narrow wheelchairs and little camber of the wheelchair's drive wheels, the lateral tipping hazard is particularly high. To reduce the risk of tipping, we recommend our track widening Kippex.

To avoid the risk of falling, do not perform the following maneuvers with the handcycle or power assist device:

- Driving over several steps or landings
- Driving over a curb at an angle
- Turning on sloping roads
- Quick steering movements
- Abrupt braking in curves
- Braking too hard on wet roads

Reduce your speed when transitioning between slopes and level terrain.

Lateral stability is significantly increased by a negative camber of the wheelchair's rear wheels.

4.3.4 Mountain rides

If the incline is too steep, the drive wheel can lose grip and spin. To improve the climbing ability, you can equip your handbike with a wheelbase extension and additional weights. These also have a positive effect on traction on unpaved paths and braking behavior. Avoid attaching weight (e.g. a backpack) to the back of the wheelchair. It is better to use a luggage carrier at the front.

Observe the battery temperature on the display when driving uphill in extreme conditions. The temperature must not exceed 45°C. To prevent overheating, take an operating break to relieve the batteries.

WARNING

If the drive wheel slips when driving downhill, it may be necessary to additionally apply the brakes of the wheelchair.

4.4 Safety instructions for battery and charger

WARNING

Before carrying out any repair, cleaning or maintenance tasks on the power assist device, switch off the electrical components and remove the batteries from the traction unit.

The batteries supplied are only used to power the power assist device's drive systems. Do not connect any other systems to the battery. Any use beyond this requires the written permission of the manufacturer. All specifications are state of the art at the time of printing. A case of misuse includes, but is not limited to:

- Use of the battery contrary to the description and instructions in the user manual.
- Use of the battery in excess of the technical performance limits
- Technical modification of the battery
- Modification of the battery software
- Use of the battery to supply other systems

We accept no liability for damage in the event of misuse.

HEALTH INFORMATION

In case of contact with escaping gases, supply fresh air. In case of body contact with battery fluids, rinse the affected part of the body with plenty of water. In case of contact with mucous membranes or discomfort, consult a doctor.

4.4.1 Operation

Operate the battery only in ambient temperatures between -20°C and 50°C. Operating outside the temperature range will shorten the life of the battery and may cause ignition.

Do not subject the battery to shocks. If the battery has been dropped or has taken a knock, the battery must be checked by the manufacturer. Contact your dealer or the manufacturer for return and repair/disposal procedures. This also applies to otherwise damaged or defective batteries. Never continue to use a damaged or defective battery. Do not open the battery yourself.

Keep the battery dry and clean. Protect the battery against the ingress of moisture or foreign particles. Do not connect the battery's contacts to metallic or other conductive objects. Keep the battery away from small metallic objects such as screws, coins, paper clips, keys or similar to avoid a short circuit. Clean dirty contacts only with a dry, clean cloth. Do not immerse the battery in water.

If you notice that the battery is overheating, leaking, smoking, emitting an unusual odour or deforming, stop using the battery immediately and switch it off.

Protect the battery from heat and open fire (radiators, microwaves, ovens, strong sunlight). Exposure to heat can cause ignition and explosion.

Do not open the battery casing. Do not disassemble the battery. Damage to the battery cells or contact with oxygen can cause fire and explosion. Opening the battery will void the warranty.

FIRE FIGHTING

Do not attempt to extinguish lithium-ion batteries with water or other liquids in the event of a fire. Sand is recommended by battery cell manufacturers as the only extinguishing agent. There is a risk of explosion in the event of a fire.

Extinguish lead-gel batteries with water, foam or CO₂. Dangerous gases may be formed in a fire involving lead-gel batteries. Do not breathe in the gases under any circumstances.

4.4.2 Charging process

WARNING

Do not leave the battery unattended during the charging process.

Charge the battery only at temperatures between 0 and 40°C. Charging outside the temperature range will be automatically aborted by the battery. To optimise battery life, charge the battery at temperatures between 10-30°C.

Charge the battery in a sufficiently ventilated, dry and dust-free environment. Ensure sufficient air circulation during the charging process.

Do not charge the battery near flammable substances (solids, liquids, gases).

Protect the battery from moisture during the charging process. Do not charge the battery in rooms where water could condense on the battery or the charger. Only use the charger when it is completely dry. If condensation has formed, allow the charger to dry completely before charging.

Only use the charger supplied to charge the battery. Using any other charger may cause malfunction, damage, defect, ignition or explosion. Do not charge the battery with a defective charger. Replace a defective charger immediately.

Do not use a charger that has been knocked or dropped. Do not open or repair the charger yourself.

Do not charge damaged batteries.

Avoid unnecessary charging and do not charge the battery for a long time when not in use.

The battery charging process is automatically terminated as soon as the battery is fully charged. When charging is complete, first disconnect the charger from the mains socket and then from the battery.

Do not carry the charger by the mains cable or the charging cable. Do not pull on the mains cable to disconnect the charger from the mains socket. Do not subject the cables and plugs to pressure or pinch the parts. There is a risk of electric shock or ignition.

Position the charger so that no one can step on or trip over the cable or charger. Also protect the charger and all related components from other harmful influences or stresses.

4.4.3 Storage

Do not store the batteries in places that are exposed to heat for long periods of time (sunlit car boot, garden shed, etc.). The service life of the battery depends, among other things, on the storage conditions.

Only use your car for transport, not for storing or keeping the battery.

For optimum service life, store the battery at 18-23 °C and a maximum humidity of 80%. Do not expose the battery to moisture (rain, snow, etc.) during storage.

Charge the battery before storage according to the specifications of the respective battery. Check the charge level at least every three months and recharge the battery if necessary.

Ensure that the battery is stored away from damage and unauthorised access.

Store the battery out of the reach of children.

5 Condition of the wheelchair

Your handbike can be mounted to different wheelchairs. For this purpose, your wheelchair should be in a technically perfect condition. Do not use a wheelchair that has already undergone major repairs to the frame. We recommend wheelchairs with rigid frames, as these offer greater stability for use with a handbike than folding wheelchairs. Nevertheless, most folding wheelchairs are suitable for combination with our handbikes. If you have any questions about your wheelchair model or a planned new purchase, please contact us.

Make sure that the brakes of the wheelchair are in perfect condition.

Despite the attached handbike, you can move the wheelchair normally by driving the rear wheels. This means that driving forwards and backwards is possible without restriction. Steering by moving the wheelchair wheels is only possible to a limited extent due to the automatic steering reset.

6 Commissioning

Instruction is provided by a dealer, a medical supply store, a Stricker field service representative or a Stricker employee at R&E Stricker GmbH on site. We recommend involving an assistant for instruction and commissioning who can later provide handling support if necessary.

When using the handcycle or power assist device for the first time, drive at low speed and familiarize yourself with the handcycle. Always adapt the speed and driving maneuvers to your own ability, the external circumstances (weather, traffic) and the legal regulations. After a short time you will get a feeling for the handbike. Before you ride the handbike on slopes, inclines or uneven terrain, learn how to handle the handbike on firm, level ground.

7 Fitting the handbike to the wheelchair and the rider

NOTE

Unpacking and installation video can be found on www.stricker-handbikes.de/installationsupport

WARNING

Ensure that all screws are tightened to the appropriate torques after adjustment is complete. The corresponding torques can be found in the following instructions and in „**Attachment - A Torque list**“. Screws that are not tightened properly pose a significant safety risk and can lead to serious injuries.



Fig. 1: Lipo Lomo

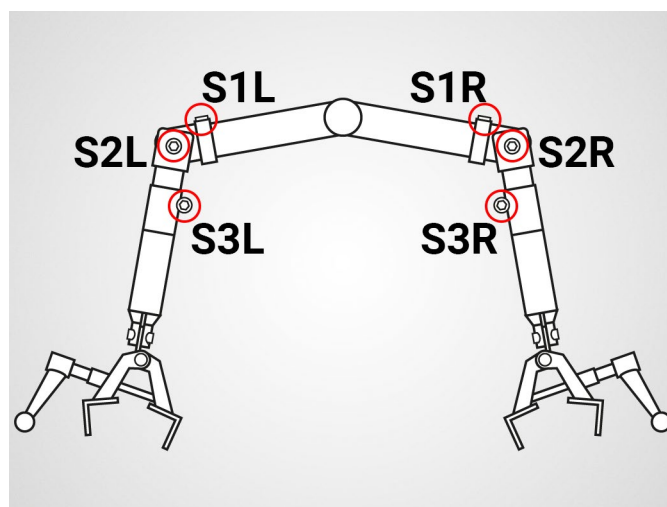


Fig. 2: Standard frame

7.1 Unpacking the handbike

The handbike is tied up in the box for transport. Cut the cord before removing the handbike.

Zum Transport werden beide Längsrohre nach oben verdreht. Die Einstellungen der Teile wird im Folgenden erklärt.

NOTE

To perform all adjustments, place the handcycle and your wheelchair securely on level, solid ground. Make sure there is enough space and light to carefully implement the adjustments.

7.2 Adjusting the inclination of the headstock tube

WARNING

Make sure that the corner brackets secured by the S1L and S1R screws do not slip out of the cross tubes. Do not use the insertion depth of the corner brackets to adjust the width of the clamping device.

Loosen the S1L and S1R screws using the Allen key (SW 6) provided. Turn the longitudinal tubes to the desired angle to the control bearing tube. A guide value for this is 90°. For fine adjustment of the crank position, you may have to adjust the angle again. Lightly tighten the S1L and S1R bolts (Fig. 2).

After completing all adjustments, tighten the S1L and S1R screws to a torque of 30 Nm.

NOTE

If you make adjustments to the inclination of the headset tube while the handbike is coupled to the wheelchair, also loosen the S3L and S3R screws to prevent tension in the frame. Tighten them again afterwards with a torque of 30 Nm.

7.3 Adjusting the length and width of the clamping device

To adjust the length of the longitudinal tubes and the angle of the clamps, loosen screws S3L and S3R. Make sure that the length of the longitudinal tubes is always set identically on both sides (Fig. 3).

Adjust the angle of the clamps according to the wheelchair frame at the clamping position. This is especially important for wheelchairs with V-shaped frames. Lightly tighten the S3L and S3R screws. After completing all adjustments, tighten the S3L and S3R screws to a torque of 30 Nm.

NOTE

If you make adjustments to the length of the longitudinal tubes while the handbike is coupled to the wheelchair, also loosen the S2L and S2R bolts to avoid tension in the frame.

To adjust the width of the clamping device, loosen the S2L and S2R screws. Adjust the clamping device to the width of the wheelchair frame. Make sure to set the same angle to the cross tube on both sides. Lightly tighten the S2L and S2R screws. After completing all adjustments, tighten the S2L and S2R screws to a torque of 30 Nm.

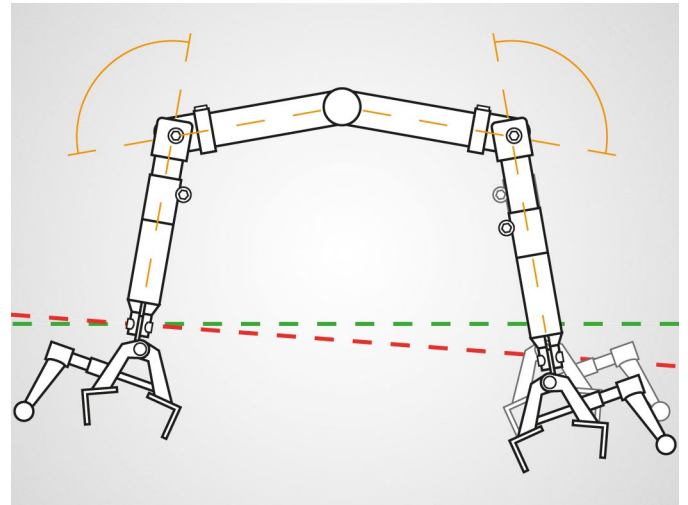


Fig. 3: Setting the default frame

7.4 Coupling the handbike to the wheelchair for the first time



Fig. 4: Clamp fixed to the wheelchair frame

Fig. 4 shows how the clamps are correctly fixed to the wheelchair. The position clamps mounted under the clamps ensure that the clamp always

sits at the set height. The position clamps are included in the delivery and should be attached to the wheelchair.

If your wheelchair has removable footrests, an adaptation is necessary, as otherwise no stable connection can be made between the handbike or traction device and the wheelchair.

7.4.1 Fitting the stem fix (optional)

The front fixation fixes footrests that can be swivelled to the side and ensures that the clamps of the handbike or traction device can correctly transfer the power transmission to the wheelchair when driving. The length of the stem fix can be determined with the holes. See **Fig. 5**.



Fig. 5: The pre-mounting fix stabilises the swing-away footrests and enables a stable clamp connection.

7.4.2 Fitting the general adapter (optional)

If the clamp does not fit easily on the wheelchair, the general adapter can be used. The clamps are mounted on the rigid part of the wheelchair. The clamping surface then runs forward and provides a stable and straight support surface for the clamp. With the different holes, the adapter can be adapted to the wheelchair.

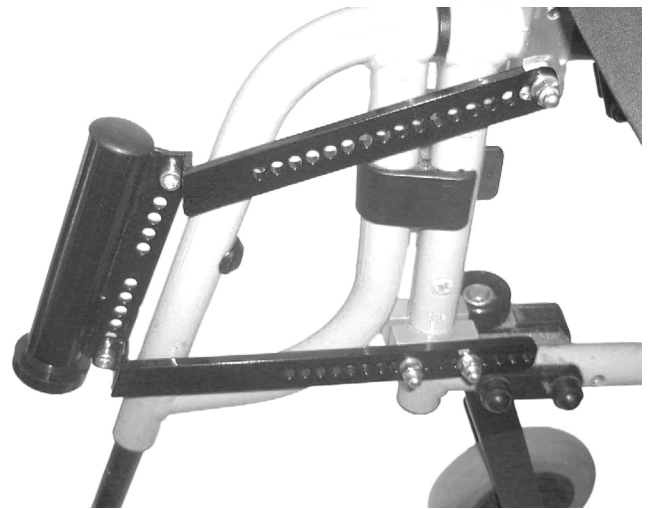


Fig. 6: Mounted general adapter if a stable clamp connection is not possible due to removable footrests.

7.4.3 Wheel alignment

Make sure that the screws S1L and S1R as well as S3L and S3R are only slightly tightened. A slight adjustment according to the wheelchair should still be possible. Make sure that the handbike stands straight.

Align the wheel of the handbike exactly in the center of the wheelchair track. A maximum deviation of 1 cm from the center is permissible. Use the footrest to check the alignment.

WARNING

An incorrectly aligned drive wheel can lead to accidents due to poor straight-ahead running and swinging tendencies.

To simplify the adjustment, you can make a template. Then drive the wheelchair up to the template so that the wheels are the same distance from the line of symmetry. Place the drive wheel of the handbike exactly on the line of symmetry (**Fig. 7**).

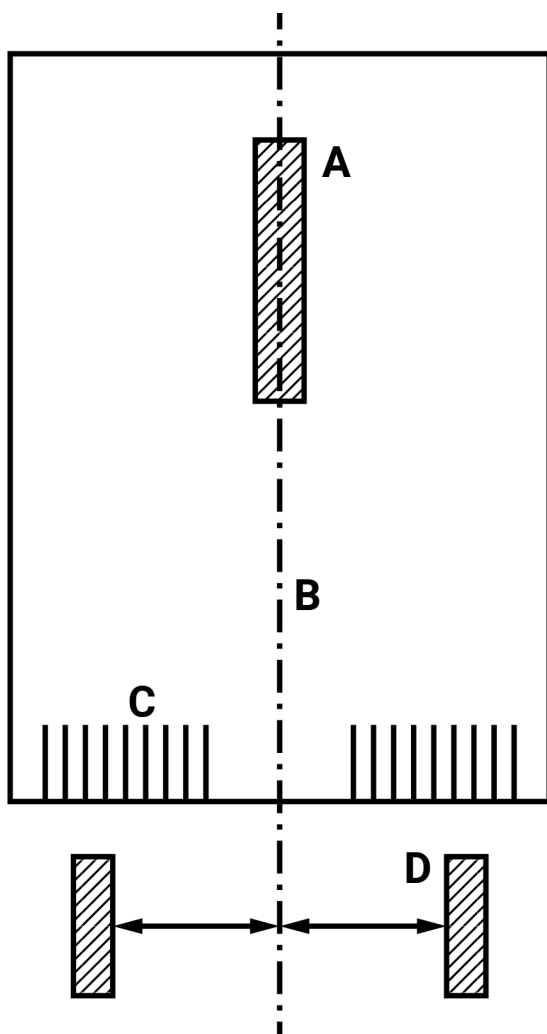


Fig. 7: Template

- A Front wheel
- B Symmetry line
- C Markings for the wheelchair front wheels
- D Wheelchair front wheels

Couple the handbike to the wheelchair. Then follow the further adjustment instructions to adapt the handbike exactly to you and your wheelchair.

7.5 Adjusting the ground clearance

Clamp the handbike to the wheelchair.

WARNING

Leave the front wheels of the wheelchair on the ground. Make all adjustments only when the wheelchair is parked. There is a considerable risk of injury when making adjustments in the driving position.

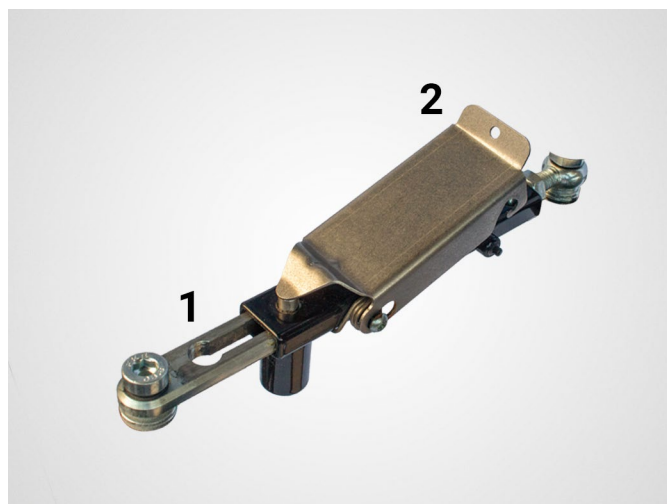


Fig. 8: Automatic catch open

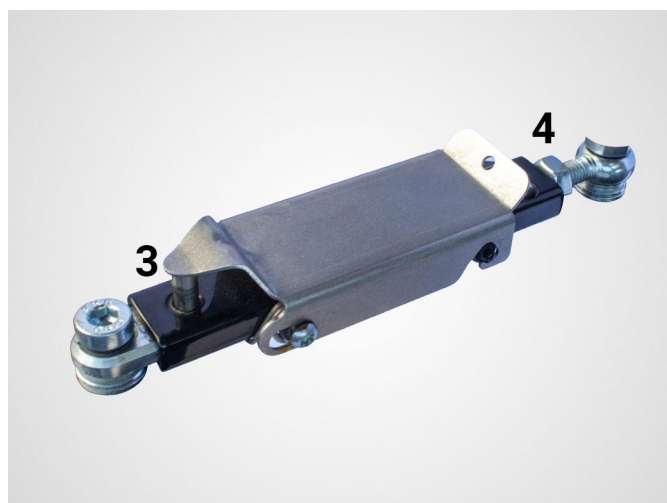


Fig. 9: Automatic catch closed

- 1 Locking slot
- 2 Flap / Cover
- 3 Bolt
- 4 Nut

The ground clearance is defined by the distance between the front wheels of the wheelchair and the ground. The setting is made using the SL Allen screw in the slotted hole adjustment. Set both automatic notches in the same way. Open the grid flap. To do this, loosen the SL Allen screw on the slot in the automatic latch. Move the Automatic catch mechanism according to your wishes and tighten the Allen screw SL with a torque of 30 Nm. If the adjustment of the elongated holes is not sufficient, you can also use the adjustment via the lock nut. Loosen the lock nut. Turn the adjusting nut according to your requirements. Retighten the lock nut after completing the settings.

If you have a particularly flat wheelchair front frame and a cross bike, you may have to mount the automatic catch differently. To do this, first loosen the screw SL with which the automatic latch is attached in the elongated hole and unscrew the screw completely. Remove the sleeve and all washers. Make sure you slide the sleeve and all washers back onto the appropriate screw in the correct order. **Fig. 9.**

Now loosen the lock nut on both Automatic catch and completely unscrew the eyebolt. Also take the adjusting nut out of the Automatic catch housing. Install the sleeve from the eyebolt into the slot in the housing of the automatic catch. Now mount the screw SL again with all washers through the Automatic catch-in housing in the elongated hole.

NOTE

Pay particular attention that the smaller washer (shim washer) is in direct contact with the sleeve. Otherwise there is a risk of damage to the parts.

If you now try to close the flap, the flap collides with the screw SL. Therefore you have to bend the angled end of the ratchet flap (the end with the hole) up to 90 ° with flat-nose pliers. Tighten the screw SL with a torque of 30 Nm. (**Fig. 10**).



Fig. 10: Converted Automatic catch

WARNING

When lifting the front wheels into the driving position, both locking pins must engage simultaneously. This is absolutely necessary for proper function.

The length of the latching slot provides a reference point for the setting. When the handbike is parked, about 1 cm of this should be visible. The longer the visible part is in the parked position, the greater the ground clearance in the driving position.

After adjustments have been completed, check the ground clearance by lifting the front wheels of the wheelchair into driving position. We recommend a ground clearance of approx. 3-4 cm. Carry out the previously described steps until the adjustment meets your requirements. The adjustment of the ground clearance may have an effect on the crank position. Adjust this again if necessary.

8 Adjusting the traction device to the wheelchair and the driver (Pico frame)



Fig. 11: Lipo Lomo Pico

WARNING

Ensure that all bolts are tightened to the appropriate torques after adjustment is complete. Screws that are not secured pose a significant safety risk and can cause serious injury.

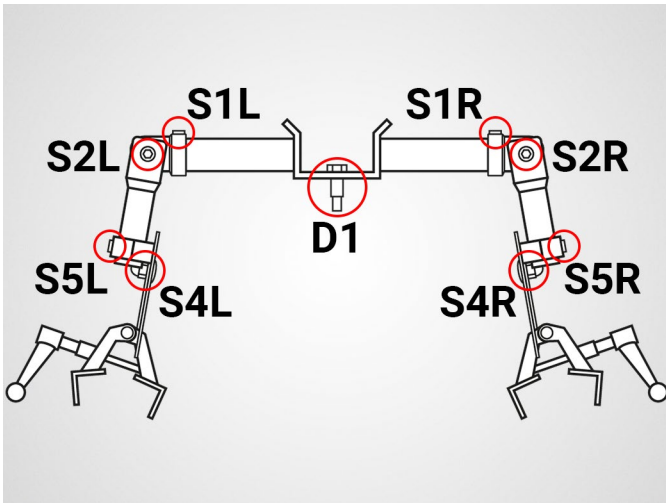


Fig. 12: Pico frame

8.1 Assembly of the U-frame

The aim of the assembly steps is to position the top edge of the coupling plate approx. 42 cm above the floor (**Fig. 13**). Once the U-frame with the coupling plate is correctly positioned and securely fastened, the traction device can be coupled to the wheelchair and also uncoupled from the wheelchair at any time without any problems and without tools by the driver.



Fig. 13: Adjusting the Lipo Lomo Pico

To do this, open the clamps on both sides just enough to slide them over the front frame tubes of the wheelchair. Only open the clamps as far as necessary, as if they are opened too far the clamping nuts could fall out (after approx. 20 turns).

Loosen the screws S2L and S2R so that the width of the U-frame can be adjusted.

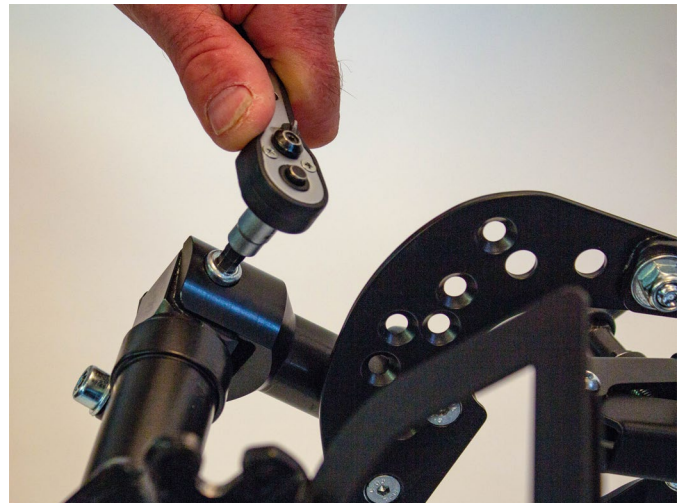


Fig. 14: Loosening S2R and S2L

Adjust the angle of the clamps according to the wheelchair frame at the clamping position. To do this, loosen the screws S5L and S5R. This is especially important for wheelchairs with V-shaped frames.

WARNING

When loosening and tightening the screws S5L and S5R, be sure to counteract from the inside with a 4 mm Allen key and tighten the nut with a 5 mm Allen key. Be careful not to overtighten the screws (10 Nm).

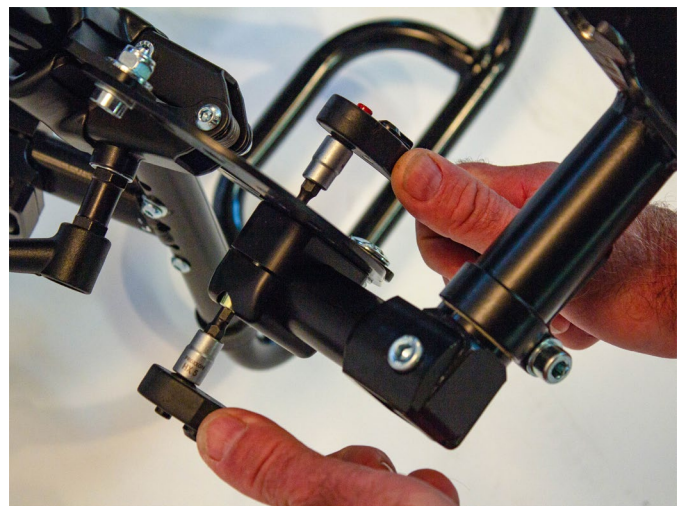


Fig. 15: Loosening S5R and S5L

Now attach the clamping device to the frame of the wheelchair using the levers H1L and H1R on the left and right. Make sure that the clamps are at the same height. Do not finally tighten the levers yet, so that small adjustments can still be made.

Now carefully align the U-frame so that it is symmetrical and centred in front of the wheelchair.



Fig. 16: Correctly adjusted frame

To adjust the distance of the cross tube, you can move the slide tubes in the clamp. This allows you to shorten or lengthen the frame by a maximum of 3 cm. To do this, loosen the screws S5L and S5R. Make sure that the slide tubes are in the same position on both sides to prevent the cross tube from slipping. Under no circumstances pull the slide pipes too far out of the clamp. The end caps must remain completely in front of the clamp.

NOTE

If you need a greater distance from the traction device to the wheelchair, frames with longer push tubes are available.

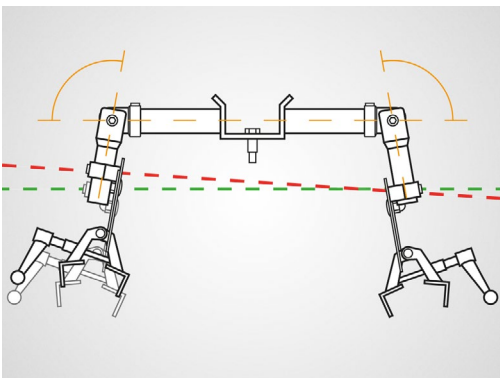


Fig. 17: Adjusting the Pico frame

Check the U-frame carefully for an exact, symmetrical and centred position in front of the frame of the wheelchair. Then all screws and levers loosened so far can be tightened securely to ensure absolute form stability. Tighten all screws accordingly: „Attachment - A Torque list“.

If you have carried out all steps one after the other according to the instructions, the U-frame is basically ready for use. If necessary, however, adjustments of the coupling plate must be carried out before the traction unit can be coupled. To do this, please carry out the necessary steps below.

8.2 Adjusting the inclination of the coupling plate

You can adjust the ground clearance of the front wheels of the wheelchair by adjusting the inclination of the coupling plate. Loosen the screws S1L and S1R. Now you can change the inclination of the coupling plate by turning the cross tube. After you have adjusted the inclination according to your wishes, carefully tighten all screws according to the torque list: „Attachment - A Torque list“.



Fig. 18: Coupling plate tilted too much

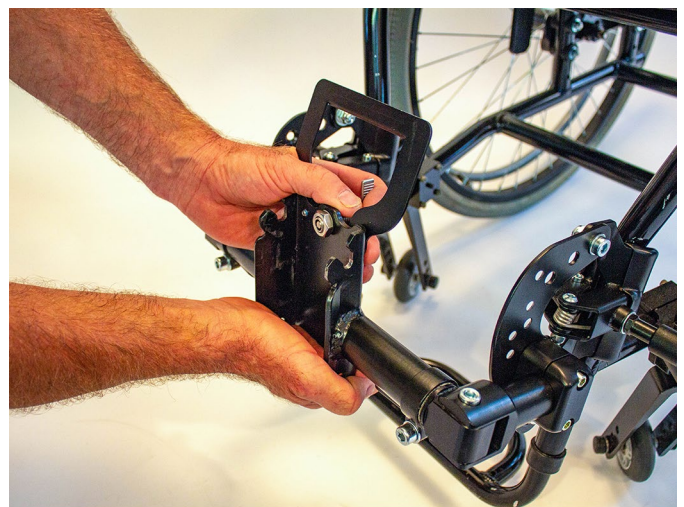


Fig. 19: Correctly inclined coupling plate

8.3 Adjusting the height of the coupling plate

(Abb. 17) Loosen the screws S4L and S4R. Now you can adjust the height of the coupling plate by tilting the U-frame up or down. After you have adjusted the height according to your wishes, tighten all screws carefully according to the torque list: „Attachment - A Torque list“.

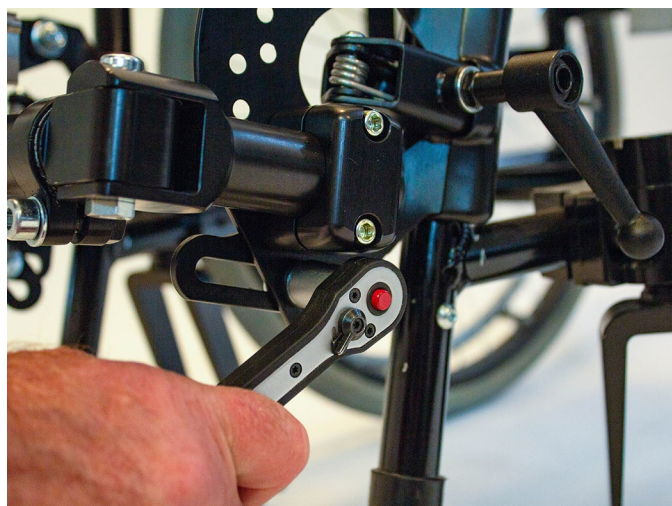


Fig. 20: Loosening S4R and S4L

8.4 Adjusting the handlebar height

Loosen the lever HS and adjust the height of the handlebars according to your wishes. For transport, it is a good idea to push the handlebars together completely. (Fig. 24).

9 Coupling the handbike to the wheelchair

9.1 Coupling standard frame

Once you have carefully adjusted the handbike to your wheelchair, you can easily and quickly connect and disconnect it from your wheelchair at any time.

If locked, unlock the Automatic catch. To do this, push the latch flap in the direction of the clamps. (Fig. 8 und Fig. 9). This causes the latch flap to spring open and release the locking pin. Now you can adjust the clamping device and thus relax the automatic detents to maximum length. We recommend that you close the detents again immediately to avoid injury when operating the clamping levers.

Open the clamping device on both sides just enough so that they can be slid over the front frame tubes of the wheelchair. Open the clamps only as far as necessary, as opening them too far could cause the clamping nuts to fall out (after approx. 20 turns).

WARNING

Tighten the ball handle nut or the tetrastar nut with a maximum torque of 6-8 Nm!

Grasp the handbike by the handlebar and attach it to the front frame of the wheelchair using the clamping device. Now tighten the clamps on both sides.

For your own safety, we recommend locking the brakes on the wheelchair and handbike for the coupling process. This will prevent the handbike or wheelchair from moving and you will have both hands free to close the clamps..

To further simplify the coupling process, you will receive positioning clamps together with the handbike, which you can permanently mount on the wheelchair. You can easily and safely position the handbike's clamping device on these and only have to close the clamps.

NOTE

When closing the clamps, always make sure that the clamps are aligned parallel to the tubes of the front frame of the wheelchair. If this is not the case, there is a risk of damage to the PVC caps. Before coupling, make sure that the PVC caps are undamaged. Damaged PVC caps can cause damage to the wheelchair.

WARRANTY & LIABILITY NOTICE

The PVC caps are wearing parts, therefore no warranty applies to them. We accept no liability for damage caused by damaged PVC caps.

Now release the brakes of the handbike. Push the handbike forward by the handlebar so that the front wheels of the wheelchair lift off the ground. Push the handbike forward until the automatic locks engage on both sides. You should hear a distinct click. Check whether both locking pins are visibly engaged.

9.2 Coupling the Pico frame

As soon as the U-frame and the coupling plate have been brought into the optimal position, you can couple the traction device to the wheelchair.

Check the position of the rotary switch D1. This must point downwards before the docking process so that the pin controlled by it protrudes. (**Fig. 12**).

Position the towing device centrally in front of the coupling plate and lift the lateral pins of the towing device into the slots provided in the coupling plate. In doing so, the pin controlled by D1 is first pushed in and must then automatically pop out again as soon as the towing device is in the correct position.

Now push the handlebar of the towing device away from you and thereby carefully lift the front wheels of the wheelchair until the lower pins of the towing device engage in the coupling plate. Make sure that the pins are engaged on both sides. The towing device is now ready to drive.

10 Uncoupling the handbike from the wheelchair

10.1 Unhitching Standard Frame

If locked, unlock the Automatic catch. To do this, push the latch flap in the direction of the clamps. (**Fig. 8** und **Fig. 9**). The ratchet flap now presses on the locking bolt. The release only works as long as the indexing bolt is unloaded. To release the indexing plunger, grasp the handbike by the handlebar and push it forward away from your body. The ratchet flaps now push the locking bolt back and unlock the automatic locking mechanism. Now carefully set down the front wheels of the wheelchair. We recommend closing the latching flaps again immediately to avoid injury when operating the clamping levers.

WARNING

As soon as you press the handbike forward by the handlebar with the louvers open, the automatic louvers unlock. You now hold the full weight.

The ratchet flaps only work load-free. Never try to force the detent bolts back. This could bend the nose of the louvered flap. If the nose of the detent flap is bent, it must be bent back again to restore the function of the automatic detent.

Once you have parked the handcycle or power assist, you can open the clamps and release the handcycle from the wheelchair. Only open the clamps as far as necessary, since if they are opened too far, the clamping nuts could fall out (after approx. 20 turns).

10.2 Uncoupling the Pico frame

To uncouple the towing device from the wheelchair, push lever H2 all the way forward. This unlocks the pins at the bottom of the coupling plate and the traction unit detaches from the coupling plate, thereby lowering the raised wheels of the wheelchair to the ground.

Now turn the rotary switch D1 upwards so that the pin controlled by it is lowered. The traction device is now completely detached from the U-frame. Lift the traction device slightly out of the coupling plate and place it on the stand.

NOTE

Turn the rotary switch back down immediately after uncoupling so that you do not forget to do so the next time you couple it.

11 Operation

11.1 Model range Lipo Lomo

- 1 Key switch
- 2 Three-position switch
- 3 Light
- 4 Capacity indicator
- 5 Rotary throttle
- 6 Brake lever with break contact
- 7 Bell
- 8 Reverse gear (extra equipment)
- 9 Cruise control (extra equipment)
- 10 Speedometer
- 11 USB socket (extra equipment)
- HS Handlebar height adjustment
- HL Handlebar screw
- H2 Coupling plate release



Fig. 21: Lipo Lomo control unit

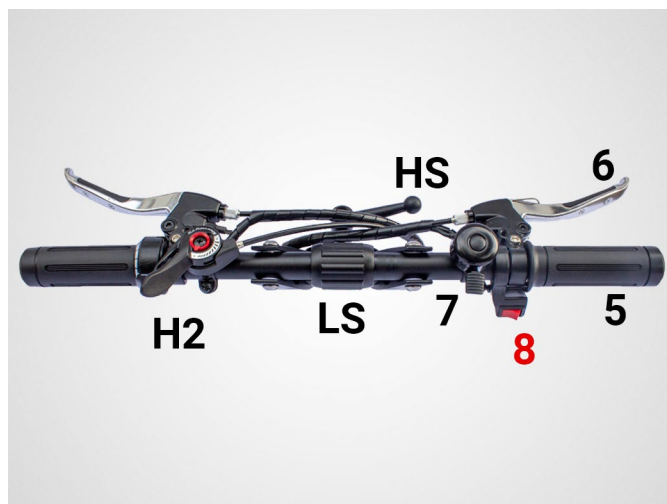


Fig. 24: Lipo Lomo Pico handlebar



Fig. 22: Lipo Lomo Pico control unit

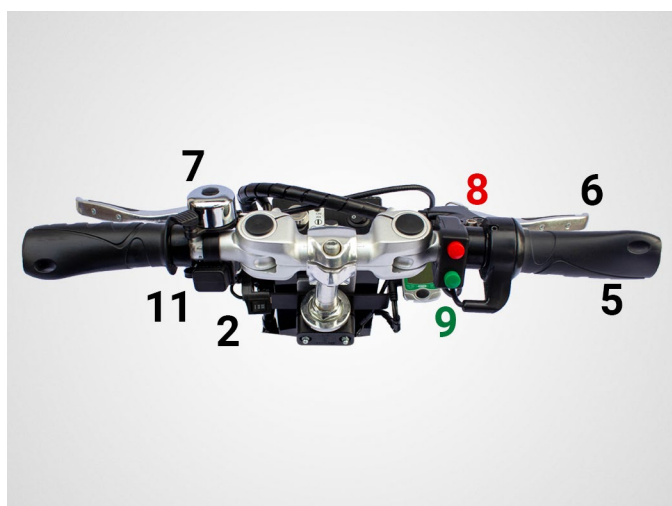


Fig. 23: Lipo Lomo handlebar

11.1.1 Start driving

WARNING

When parking the traction unit, always remove the key for the key switch to prevent unauthorised use of the unit.



Fig. 25: Battery

Switch on the battery with the main switch on the battery. You will know that the battery is switched on when the lamp on the battery lights up (**Fig. 25**).

Turn the key switch with the key to the „ON“ position (**Fig. 21** bzw. **Fig. 22**). Remove the key and stow it safely so as not to lose it while driving.

Turn the right handle to accelerate.

The brake lever on the right side of the handlebar automatically interrupts the drive electronics when actuated. You therefore cannot operate the right brake lever and accelerate at the same time.

The brake lever on the left side of the handlebar has no breaker contact. You can use the left brake lever for starting uphill.

11.1.2 Starting uphill

If you have stopped on an incline and want to start again, you may roll backwards and not be able to start. In order to be able to start despite the slope, lean forward to put more weight on the front wheel. Press and hold the left brake lever. At the same time, carefully apply the accelerator. Reduce the pressure on the brake while slowly increasing the throttle. As soon as you feel that you are moving in the direction of travel, you can release the brake completely.

11.1.3 End of ride

Switch off the battery using the main switch on the battery. You will know that the battery is off when the light on the battery is not lit. (**Fig. 25**).

Turn the key switch on the control unit with the key to the „OFF“ position. (**Fig. 21** bzw. **Fig. 22**). Remove the key and store it in a safe place. Make sure it is not within reach of unauthorised persons or children.

11.1.4 Optional extras: lights/horn and cruise control/reverse gear.

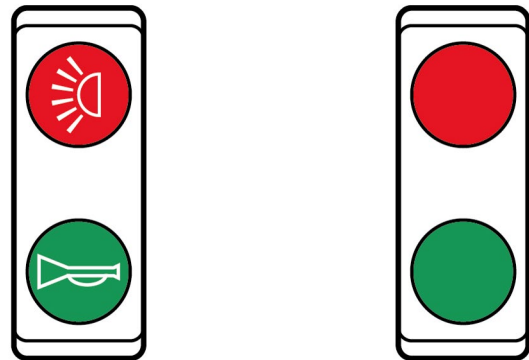


Fig. 26: Left: Light (red) and horn (green); Right: reverse gear (red) and cruise control (green).

To switch on the light on the traction unit, press the red button with the light symbol on the left handle. Press the button again to switch the light off. Press the green button with the horn symbol to activate the horn.

To activate reverse gear, press the red button on the right handle. Press the button again to disengage reverse gear. Press the green button to activate the cruise control. When the cruise control is activated, it saves and maintains your current driving speed. Press the button again to deactivate cruise control. Pressing the brake with breaker contact (brake on the right handle) also deactivates the cruise control. Should you use the throttle handle while the cruise control is active, the traction unit will not accelerate. If the throttle grip is turned back to the zero position after accelerating, this will deactivate the cruise control.

WARNING

Use cruise control only when the traffic situation permits. Be ready to deactivate cruise control at any time with the brake with breaker contact.

11.1.5 Optional equipment: 2 Lipo batteries with 2 change-over switches

With this optional equipment for the Lipo Lomo you get a towing device with two batteries on the fork and a control box with two toggle switches. The standard battery holder on top is omitted with this equipment.

You cannot operate the two batteries in parallel. Use the two switches to toggle the batteries and the display. Always switch both switches at the same time. Make sure that both switches are in the same position at all times.

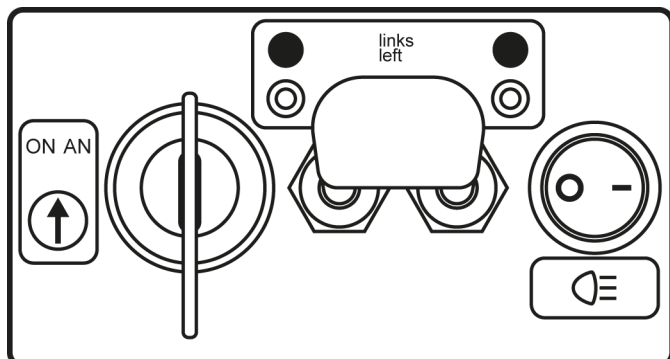


Fig. 27: Battery left switched on

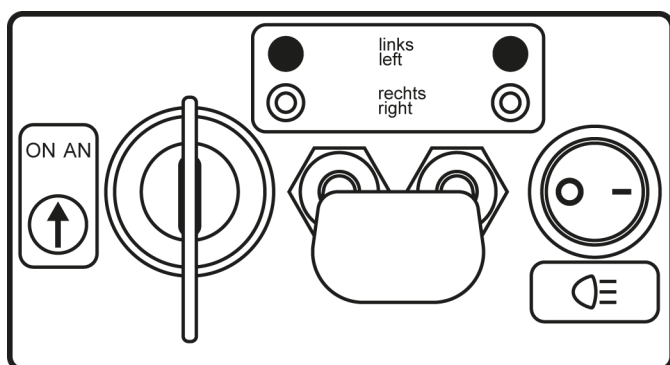


Fig. 28: Battery right switched on

11.1.6 Special equipment: 3 Lipo batteries with 4 switches

With this special equipment for the Lipo Lomo you get a towing device with two additional batteries on the fork and a control box with four toggle switches.

You cannot operate the batteries in parallel. With the two left-hand switches you switch the batteries and the display from left to right or vice versa. Use the two right-hand switches to switch the operation from the standard battery to the batteries on the fork or vice versa. Always switch two switches at the same time. Make sure that the left or right switches are switched to the same position at all times.

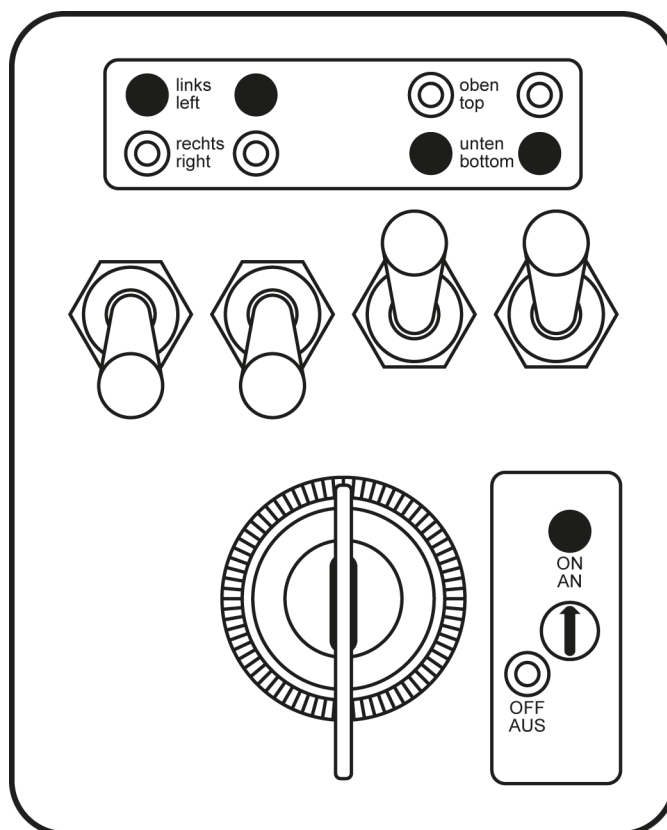


Fig. 29: Battery on top switched on

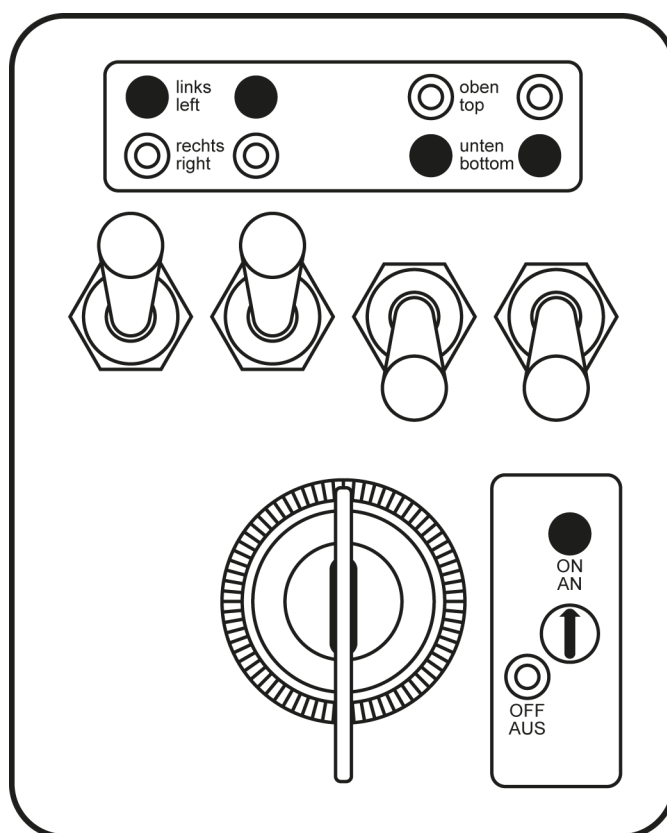


Fig. 30: Battery bottom left switched on

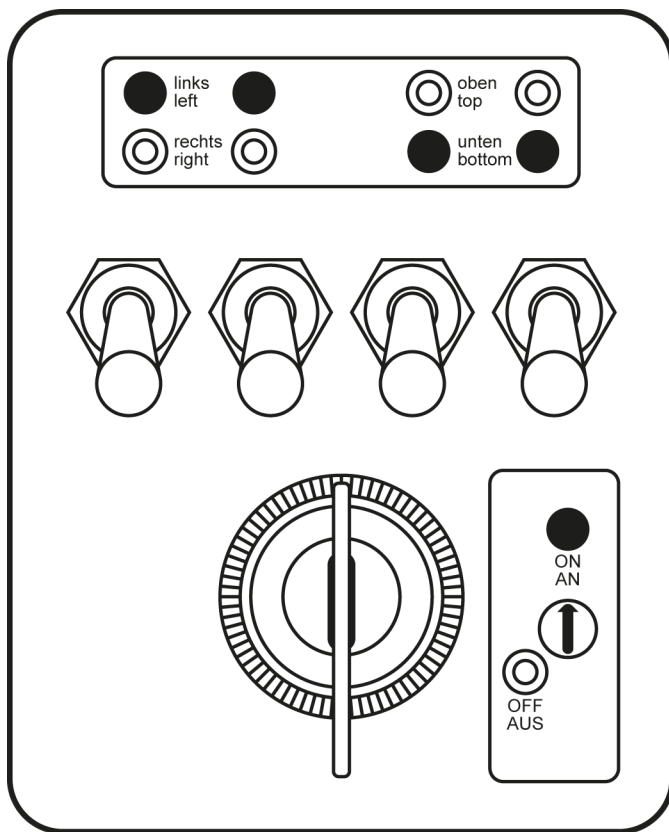


Fig. 31: Battery bottom right switched on

11.2 Crossbike range

11.2.1 Before driving

WARNING

Always remove the key for the key switch when parking the power assist device to prevent unauthorized use of the device. Before starting the journey, make sure that the battery is properly engaged and locked. Remove the key and stow it securely to prevent the lock from opening while driving. Otherwise you risk loosening the battery while driving.

Slide the battery onto the holder from above and lock it with the key. You can check the charge level using the charge level indicator on the battery (**Fig. 32**).



Fig. 32: Battery charge level indicator

Switch on the battery using the main switch on the battery. Turn the key switch on the control with the key to the "ON" position. You can only remove the key from the control unit when it is switched off. Close the closure of the charging and USB ports so that no dirt and water can get in. The USB port is not intended for charging USB devices. Please use the USB port on the display for this. (**Fig. 38**)



Fig. 33: Switch on the battery



Fig. 34: Key switch on battery and control

Switch on the control at the control unit. The on / off switch with the on / off symbol is slightly highlighted in the middle of the control panel. You cannot remove the key when it is switched on (**Fig. 33**).



Fig. 35: Control unit on the left handle

Press and hold the power switch on the control unit for 3-5 seconds until the Stricker logo appears on the display. The speed levels 1-5 are controlled using the +/- buttons on the control unit. These are shown on the display below the speed indicator (**Fig. 36**). Press or turn the thumb throttle or twist throttle to accelerate (**Fig. 35**).



Fig. 36: Display on the handlebar

The current battery charge status can be read in the upper right corner of the display. The number next to the state of charge describes the battery voltage in volts (**Fig. 36**).

The Pushing aid can be activated by holding the "-" key on the control unit. As a result, the power assist device travels at a speed of 5 km / h as long as the button is held.



Fig. 37: Bike computer reset

You can reset the travel data by simultaneously pressing and holding the +/- buttons on the control unit. This will set the daily mileage and driving time to 0 (**Fig. 37**).

If your display is equipped with a time, you can set this. Briefly press the M button twice in succession to access the display settings. There select the menu item "Clock".



Fig. 38: USB-Port on Display

The USB charging socket on the display can only be used when the system is switched on. To do this, remove the cover (Fig. 38).

11.2.2 Controls light / horn and cruise control / reverse gear

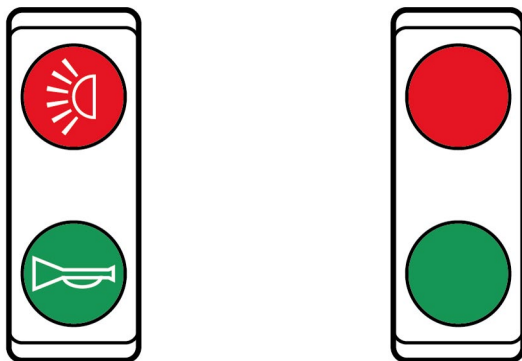


Fig. 39: Left: light (red) and horn (green); Right: reverse gear (red) and cruise control (green)

To switch on the light on the power assist device, press the red button with the light symbol on the left handle (Fig. 39). Press the button again to turn the light off again. Set the correct angle by tilting the headlight (Fig. 40). Press the green button with the horn symbol to trigger the horn.



Fig. 40: Adjustment of the inclination of the lamp with integrated horn

To activate reverse gear, press the red button on the right handle. Press the button again to turn the reverse gear off. The engaged reverse gear can be recognized by an acoustic signal (beeping) and the red glowing signal on the controller (reverse light). (Fig. 41).



Fig. 41: The reverse light on the control lights up when reverse gear is activated

The cruise control can be activated with the green button. When the cruise control is activated, it saves your current speed and maintains it. If you press the button again, the cruise control is deactivated. The cruise control is also deactivated by actuating the brake with an interrupter contact (brake on the right hand grip). If you use the throttle while the cruise control is active, the power assist device will not accelerate. If the throttle grip is turned back to the zero position after accelerating, the cruise control is deactivated.

The cruise control can be used in conjunction with the assist levels (1-5) to maintain their respective maximum speed on every incline. To do this, select, for example, level 1 and accelerate until the speed limit of the level is reached. If the cruise control is now activated, the power assist device maintains its speed, even on inclines.

WARNING

Only use the cruise control if the traffic situation allows it. Be ready at any time to deactivate the cruise control with the brake with the breaker contact.

CRUISE CONTROL ON SLOPES

The cruise control only maintains the speed when driving on the flat or on inclines. The system does NOT brake on a downhill slope.

11.2.3 Recovery brake

USAGE INSTRUCTIONS

Since the recuperation feeds energy back into the system, some usage instructions must be observed. If you ignore this, you run the risk of reduced battery life and a defect in the battery.

Your product is equipped with a recuperation brake, which feeds energy back into the battery during the braking process. Recuperation is initiated by pulling the right brake lever. Two disc brakes are available in parallel to recuperation (**Fig. 42**).



Fig. 42: Brake lever with brake contact and initiation of recuperation (interrupter contact is only connected to the right brake lever.)

The brake lever on the left side of the handlebar has no break contact. You can use the left brake lever to start off on a hill („**11.2.4 Starting uphill**“).

The recuperation brake may only be used with a completely intact battery. If your battery shows a defect, such as greatly reduced capacity, greatly changed voltage or external deformation, we advise against further use of the battery.

USAGE INSTRUCTIONS

If the battery is fully charged, it cannot absorb any regenerated energy. This means that the function of the recuperation brake is not available or only to a very limited extent when the battery is fully charged. The controller may prevent recuperation. It can happen that the recuperation brake is suddenly switched off by the controller while driving (e.g. during braking) because the battery has reached its state of charge limit. This means that you have to provide all of the braking power via the disc brakes and therefore pull the brake levers more strongly. For safety reasons, we recommend that you always carry out a longer and steeper descent with the system switched on and the recuperation brake activated.

If you charge the device before a long and steep downhill descent, the charging process should not be fully completed so that the recuperation brake works during the descent.

11.2.4 Starting uphill

If you have stopped on an incline and want to start again, you may roll backwards and not be able to start. In order to be able to start despite the slope, lean forward to put more weight on the front wheel. Press and hold the left brake lever. At the same time, carefully apply the accelerator. Reduce the pressure on the brake while slowly increasing the throttle. As soon as you feel that you are moving in the direction of travel, you can release the brake completely.

11.2.5 Battery change

Only obtain batteries for your power assist device from a Stricker dealer certified by us or directly from the factory. Our batteries could look similar to other e-bike batteries and may also fit on the bracket. Nevertheless, batteries may differ in technical features that are not compatible with our system. Please note that your guarantee will be void if an incompatible battery causes a defect.

12 Steer

Steer the handbike by turning the steering bearing tube (handbike stem) using the crank handles. The steering is equipped with a double-acting steering damper, which ensures optimum directional stability. For your own safety, avoid rapid steering movements, especially when riding fast. There is a risk of tipping over with the vehicle.

12.1 Function of the steering damper

The steering damper is located at the upper end of the fork. Via the device, the steering is damped, straight-line stability is supported and automatic steering return is achieved. These functions are provided by several steering damper rubbers.

There is a key milled hole (SW 13) on the lower bolt of the tensioning rubbers. Turn this to the right or left to adjust the fork and thus the straight run. If necessary, also open the nut on the front of the fork (**Fig. 43**).



Fig. 43: Steering damper setting

13 Breaks

SAFETY INFORMATION

The brakes are designed for a single-seat handbike or power assist device. Use on other vehicles or equipment will void the warranty. Improper use may result in serious personal injury.

For safety reasons, all models are equipped with two independent brakes or a brake with two independent operating mechanisms.

Before each ride, check the function of the brakes and the brake pads for wear.

14 Kickstand

We offer attachable stands in various designs. All designs are freely interchangeable with each other. You can find the different options in our catalog or on our website and order directly from us.

To adjust the angle, loosen screw A. In the parked position, the stand should touch the ground near the front wheels of the wheelchair.

14.1 Standard equipment

Loosen the thumbscrew C to adjust the length of the Kickstand.

The Kickstand can remain on the handbike or power assist device while driving, as it is lifted off the ground just like the front wheels of the wheelchair. For transporting the handbike, you can remove the Kickstand tubes if necessary. To remove the Kickstand tube, press button B and pull off the Kickstand tube.

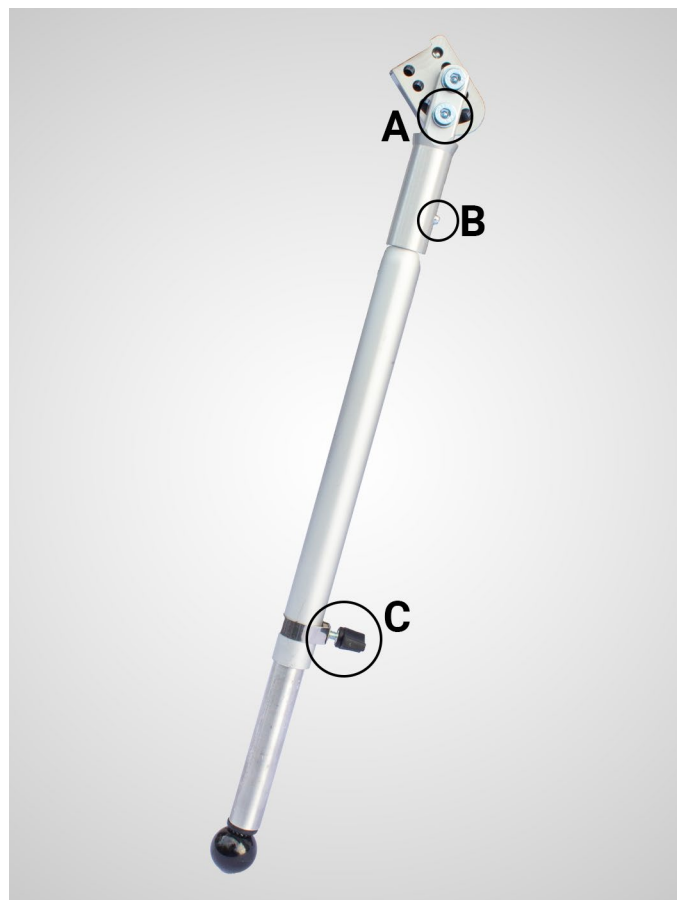


Fig. 44: Kickstand adjustment

14.2 Special equipment quick adjustment

With the optional quick-adjustable kickstand, you can adjust the height of the kickstand even more easily and quickly at any time. This allows you to quickly adjust the ground clearance, e.g. on uneven terrain.

15 Battery and charger

SAFETY NOTICE

Be sure to read and follow all safety and hazard warnings. („4.4 Safety instructions for battery and charger“)

WARRANTY NOTICE

Batteries are wearing parts. The warranty period is 24 months.

DISPOSAL INSTRUCTIONS

Dispose of batteries only at designated disposal points. If you have any questions, please contact a specialist dealer or the manufacturer.

15.1 Charging the battery

WARNING

Before using the battery, check that the mains voltage matches the connection voltage of the charger. The connection voltage of the charger is indicated on its type plate.

We recommend charging the battery after each use of the traction unit. If the battery is completely discharged, recharge it immediately.

Charge the battery before each use. Check the battery charge level before each journey. If the battery is completely discharged during travel, further travel is only possible manually by driving the wheelchair wheels.

Only switch on the battery for use. Switch the battery off immediately when you switch off the traction unit.

15.2 Model series Lipo Lomo

15.2.1 Equipment

As standard, a Lipo Lomo is equipped with a maintenance-free lithium-ion battery. Since the battery has no memory effect, you can charge the battery at any charge level without hesitation. You do not have to fully discharge the battery before charging. The battery has a fuse at a point that depends on the production date. New fuses can be obtained from us.

15.2.2 Mounting the battery

The battery is attached to the frame by a bracket and secured by a lock. You can remove the battery from the holder for charging, changing or transport. To do this, turn the key anti-clockwise. Slide the battery off the holder on the side of the lock.

After fixing, lock the lock again by turning the key clockwise. Remove the key and store it safely to prevent the lock from being opened while riding.



Fig. 45: Battery mounting

16 Repair, cleaning and maintenance

Maintain your handbike or power assist device regularly. Your safety depends greatly on the condition of the handcycle or power assist device, especially the condition of the brakes. The service life of the handbike is considerably extended by maintenance and care. For detailed instructions of standard components use the offers of the respective manufacturers on the Internet. Professional maintenance can be performed by us or your dealer. We recommend professional maintenance every 2 years. A maintenance

protocol is available on our website. For the adjustment of many handbike components, you can also visit a specialist bicycle store.

16.1 Cleaning and care

Clean your handbike with warm fresh water and a sponge. For stubborn dirt, we also recommend Sonax® Bike Cleaner (Stricker item no. 873027-0). If you use the handbike near the sea or at the beach, clean the device regularly with plenty of fresh water to avoid corrosion.

WARNING

Avoid cleaning the handbike or power assist device with high water pressure. There is a risk that water will penetrate the control and operating unit. These could be destroyed as a result.

After cleaning, spray the frame of the handbike and the screws with care oil. This further prevents corrosion. We recommend Sonax® SX 90 PLUS multifunction oil or WD40.

WARNING

Do not spray the care oil on brakes or rims and do not spray on rubber parts.

The pushbutton, the display and the battery may only be wiped with a damp (not wet) cloth. The drive wheel can be cleaned with a soft sponge or brush.

16.2 Air pressure of the drive wheel

Check the air pressure of the handbike or power assist device and wheelchair tires. The air pressure of the tire should be about 3-4 bar. For the exact maximum values, please refer to the imprint on the respective tire.

When riding on loose surfaces or inclines, we recommend reducing the air pressure of the drive wheel to about 2 bar. This increases the contact area of the tire and improves the grip.

EQUIPMENT NOTE

If you regularly use your handbike in conditions such as loose ground or inclines, it may be advisable to use different tires. Please feel free to contact us about this.

16.3 Clamping device

Regularly lubricate the latching slot, the pin, the latching flap's sliding hinge holes and the spiral spring located in the latching flap with spray oil.

16.4 Automatic catch

Regularly lubricate the thread, taper washer and taper socket of the ball handle nuts with grease.

16.5 V-Brake

16.5.1 Adjustments

Full braking performance can only be achieved with correctly adjusted brakes. Therefore, pay attention to the following points during adjustment:

- With properly adjusted brakes, the brake pads should have a small distance (1.5-2.0 mm) to the rim. The greater the distance, the lower the braking effect and you need considerably more force to brake.
- Align the brake shoe almost parallel to the rim. When braking, the brake shoe should be in full contact. Make sure that the front part of the brake shoe touches the rim first. When the front part just touches the rim, the rear part may still have 0.5 mm clearance. A common cause of brake squeal is poor brake shoe adjustment.
- With properly adjusted brakes, the brake shoes should be centered on the rim flank. If you have mounted the brake shoes too low, they can slip off the rim flank and get caught in the spokes. If the brake pads are mounted too high, the tire can be damaged by the brake pads.
- Ensure the correct position of the brake arms to achieve the best possible braking performance. When the pads are in contact with the rim, the brake arms should be vertical. Use the washers of different thicknesses to achieve the correct alignment.

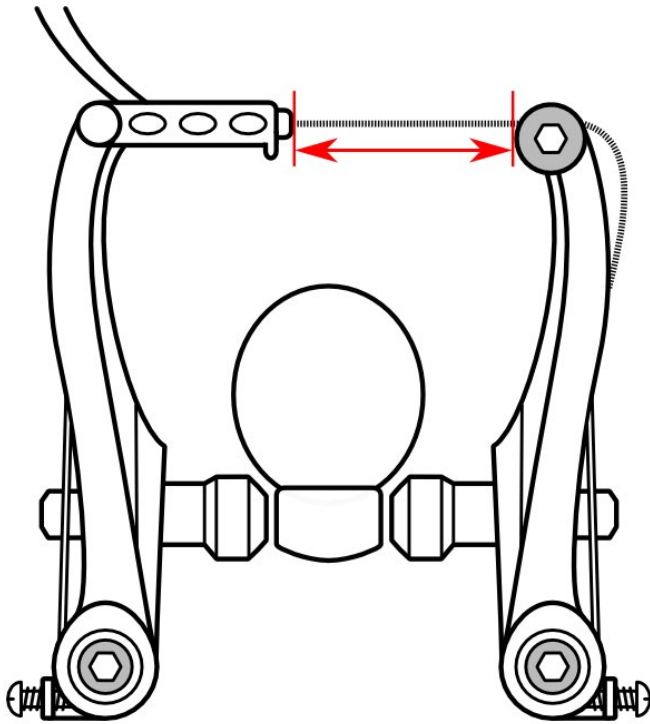


Fig. 46: Adjustments V-Brake

- In the event that the brake operates unevenly, check the fine adjustment. To do this, adjust the 2 mm Allen screw on the brake arms. Turn the screws clockwise to increase the distance of the brake pad from the rim. Turn counterclockwise to decrease the distance. Adjust the brakes so that both sides have the same distance to the rim.

16.5.2 Maintenance

Be sure to check the brakes regularly. Only then can you rely on the function of the brakes and come to a safe stop even in dangerous situations.

Pay attention to the following points when checking the brakes:

- Are the brake shoes in good condition?
 - Carefully clean the brake shoe from time to time with emery paper or a wire brush.
 - Replace worn brake pads.
- Do the brake shoes have the correct alignment to the rim .Adjusting")
- Do the brake shoes have the correct distance to the rim? .adjust")
- If the brake cables are undamaged?

- Check all places where the brake cables come into contact with the frame.
- If individual fibers of a brake cable are damaged, replace the brake cable immediately.
- Tighten the brake cable fixing screws regularly.
- They generally after about 8000-10000 km all brake cables and outer shells.

16.5.3 Squeaking brakes

Squealing brakes can have different causes. Basically, it is a resonance effect as a result of vibrations. Due to the different possible causes, you may have to try several measures to eliminate the cause. The following measures can help to eliminate the problem.

- Adjust the brake shoe slightly higher or lower to the rim flank.
- Shorten or grind the brake pads a little to make the braking surface a little flatter.
- Sand the rim flanks a little with fine sandpaper.

If these measures show no effect, try brake pads from another brake pad manufacturer or install a Brake Booster.

16.5.4 Insufficient braking power

First check the adjustment of the brakes. The routing of the brake cables can also have a negative influence on the braking performance. Too tight radii lead to unnecessarily high hand forces due to friction of the brake cable. Outer sheaths that are laid too generously have the same effect. Corroded brake cables also impair braking performance and should be replaced.

16.5.5 Changing the brake pads

In the case of a brake shoe with replaceable brake lining, pull the pin out of the brake shoe using a pair of combination pliers. The brake lining can now be pulled off. If necessary, use combination pliers for this if the brake lining is very tight. If the brake lining of the brake shoe cannot be replaced, replace the entire brake shoe.

16.6 Disc brake

16.6.1 Mounting

Leave the installation of the disc brake components to qualified personnel with the appropriate knowledge and tools. Improper installation poses a major safety risk and can lead to accidents with serious personal injury.

16.6.2 Running in

In order to achieve the maximum possible braking force of the disc brakes, you must run them in. To do this, perform about 30-40 braking operations. During the running-in period, the disc brakes may cause noises.

16.6.3 Maintenance

Clean the brake disc and brake pads occasionally.

WARNING

Do not use disc brake cleaner. Only clean the disc brakes with spirit.

16.6.4 Replacing the brake pads

Due to wear, contamination and damage, the brake pads must be replaced occasionally. Replace them using the following instructions.

- Remove the wheel.
- Use a 2 mm Allen key to loosen the grub screw (**Fig. 47**).



Fig. 47: Loosening the 2 mm grub screw

- Using a 5 mm Allen key, turn the inner brake shoe adjuster counterclockwise until one of the engagement threads is visible (**Fig. 48**).



Fig. 48: Loosening the 5 mm brake shoe adjuster

- Using a pair of flat-nose pliers, first remove the outer brake shoe facing away from the wheel. To do this, first pull the tab in the center of the brake shoe base plate to the center of the brake caliper and then pull it out. The brake shoe is held in place magnetically.

NOTE

You can only remove the brake shoes if you remove the outer brake shoe first.

- Repeat the above steps for the inner brake shoe facing the wheel.

NOTE

The inner and outer brake shoes are identical.

- First mount the new inner brake shoe using a pair of flat-bladed pliers. Press the brake shoes into the center of the shoe base plate using the tab. Angle the brake shoe slightly until the magnetic force pulls it into place.
- WARRANTY & LIABILITY NOTICE
- Reinstall the wheel.

- Adjust the inner shoe adjuster to the correct distance using a 5 mm Allen key.
- Finally, retighten the 2 mm grub screw.

17 Transport

MODEL NOTE LIPO LOMO PICO

In transport condition, the traction unit fits into our practical transport case.

To fold the handlebar, loosen the handlebar screw LS completely. Now you can fold down the two halves of the handlebar. Loosen the lever HS and adjust the height of the handlebar completely.

17.1 Transporting batteries

HINWEIS

Special legal regulations apply to the transport and shipping of lithium-ion batteries and must be strictly observed.

The shipping of lithium-ion batteries is strictly regulated. Therefore, take a defective battery personally to your specialist dealer. Contact your specialist dealer beforehand.

The legal transport regulations for taking lithium-ion batteries with you may change annually. Before starting a journey, enquire in good time about the applicable regulations with the airline or shipping company or your tour operator.

Some batteries from R&E Stricker GmbH are suitable for air travel according to IATA guidelines (as of 2020). The energy of these batteries is 300 Wh. You can find the latest guidelines on our website www.stricker-handbikes.de or on the IATA website. We recommend that you bring the regulations with you to the airport, either printed out or digitally on your smartphone or tablet. Be sure to contact your airline when planning your trip. Not every airline follows the IATA guidelines in its transport regulations. In addition, depending on the airline, it may be necessary for you to register the battery transport when booking the ticket or before the start of the journey. The airline may refuse to carry a battery without also carrying a traction device. Check extensively with your airline.

WARNING

As a general rule, defective batteries must not be taken on a flight.

17.2 Transportation in vehicle

Always transport the handbike only when it is disconnected. If necessary, detach the attachment stand from the handbike. Secure all individual parts against slipping.

The batteries can be transported in any position as they are leak-proof batteries. Only use your car to transport the battery, not to store or keep it.

17.3 Airplane transportation

If you take your handcycle with you on a flight, we recommend wrapping the handcycle with packing film (similar to cling film). Especially the crank unit and the frame should be well wrapped and thus protected from scratches in the paint and damage to mechanical parts. Alternatively, have the handbike wrapped with stretch film at the airport.

NOTE

Avoid sticking parcel tape to the handbike, as adhesive residue is difficult to remove.

18 Reuse

If the Handbike or power assist device was provided to you by your health insurance company and you no longer need it, you should contact your health insurance company or your medical supply dealer. Your traction device can then be easily and economically reused. Before each reuse, maintenance and disinfection of the power assist device must be performed.

Before reuse, carefully wipe and spray disinfect all surfaces of the traction device. Use a liquid alcohol-based disinfectant suitable for medical products and equipment. Please follow the manufacturer's instructions for use for the disinfectant you are using.

19 Disposal and recycling

Electrical appliances, batteries, accessories and packaging should be recycled in an environmentally friendly manner.

Do not throw the batteries, chargers and electrical components of your train set into the household waste. In accordance with current EU directives, electrical equipment and batteries must be collected separately and recycled in an environmentally friendly manner.

Dispose of all other components of your handcycle according to the regulations of your region at appropriate collection points or in the household waste (paper, cardboard, plastic packaging).

20 Materials used

The following section describes the materials used for the power assist device or handbike, with information on how to dispose of or recycle the device and packaging.

In addition, specific local regulations may apply regarding disposal or recycling; these must be followed when disposing of your power assist device or handcycle. (This may include cleaning or decontaminating the traction unit or handcycle before disposal).

Aluminium: tubes, covers, rim, handlebars.

Steel: bolts, frame

Stainless steel: screws, spokes

Plastic: handles, plugs, display, charger, housing, twist throttle, thumb throttle, rim tape

Rubber: tyre, inner tube

Packaging: Made of cardboard

Battery: Lithium-ion battery (hazardous material)

21 Warranty and guarantee**NOTE**

The warranty and guarantee information is taken from our general terms and conditions (as of May 5, 2021). These can be viewed in full at the web address <https://stricker-handbikes.de/en/general-business-terms>.

Complaints due to incomplete or incorrect delivery or recognizable defects must be made in writing immediately, at the latest 8 days after receipt of the goods. Our obligation in the case of justified complaints is limited to replacement delivery or repair by us. In the case of warranty repairs, which have been agreed with us in advance, the rejected parts are to be sent back to us. Modification or

repair work carried out by the customer or a third party without our prior consent shall invalidate the warranty obligation.

The warranty period for the handbike is 2 years. The batteries for our Lipo and Neodrives models also have a 2-year warranty. Not covered by the warranty are defects due to wear and tear or improper handling. Wear parts are for example: tires, brake pads, Bowden cables, light bulbs. Also wear parts are lead-acid batteries, on which we grant a half-year warranty.

22 Liability

NOTE

The information on liability is taken from our general terms and conditions (as at the time of printing). These can be viewed in full at the web address <https://stricker-handbikes.de/en/general-business-terms>.

We shall only be liable for consequential damages or other claims for damages if we, our legal representatives or vicarious agents are guilty of intent or gross negligence insofar as this is in accordance with the statutory provisions.

Attachment

A Torque list

S1L/S1R	30Nm
S2L/S2R	30Nm
S3L/S3R	30Nm
S4L/S4R	28 Nm
S5L/S5R	10 Nm
SL	30Nm
Ball handle nut/tetra grid nut	6- 8 Nm
Brake pads V-brake	8Nm
Brake caliper disc brake	10 Nm

B Technical data Lipo Lomo

Traction device

Wheel	12", 16", 20"
Transport weight* in kg	from 12
Additional weights in kg 15 optionally available (standard for Tetra T3)	5, 10,
Engine power in W	250, 350
Speed** in km/h optionally available	6 (15
Parking brake brake	Disc
V-brake on handlebar	

Battery

Type Ion	Lithium
Voltage in V	36
Charge in Ah 8,3	14,
Power in W 300	504,
Weight in kg 2,0	2,5
Lamp V	LED 36

Rear light battery-powered	LED
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Optional equipment

Additional batteries the fork	2x on
Parking brake on frame	V-brake
Disc brake hydraulic	

C Technical data Lipo Lomo Pico

Traction device

Total weight in kg	from 14,5
Transport weight* in kg	from 9,5
Engine power in W	350
Speed** in km/h optionally available)	6 (15
Parking brake brake (Brake lever on handlebar)	Disc
Disc brake lever on handlebar	Brake
Lamp V	LED 36
Rear light battery-powered	LED

Display

Display, State of charge, number of charge cycles, battery temperature, speed

Battery

Type Ion	Lithium
Voltage in V	36
Charge in Ah	8,3
Power in W	300
Weight in kg	2,0
Charger voltage in V	36

Charger current in A	1,4
Charging time in h	~ 5

D Technical data Crossbike

Traction device

Wheel	16",20"
Gesamtgewicht in kg	from 25
Transport weight* in kg	from 20
Engine power in W	1500, 2000
Speed** in km/h	6,15
Parking brake brake (Brake lever on handlebar)	Disc
Brake lever on handlebar	
Lamp V	LED 48
Rear light battery-powered	LED

Display

Display, charge status, assist level, battery voltage and capacity, speed, recuperation

Battery

Type Ion	Lithium
Voltage in V	48
Charge in Ah	13,17
Weight in kg	4
Charger voltage in V	48
Charger current in A	2
Charging time in h	~ 6,5

(*) The transport weight corresponds to the total weight minus the battery and the mounting frame. It is recommended to remove these parts for easier transport.

(**) The maximum speed of 6km/h prescribed by the statutory health insurance can only be changed by Stricker using special manufacturer software and data cables.

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