



75474 240306 Version 2



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#### 1. General

Thank you for choosing an Etac product. To avoid damage during assembly, handling and use, please read and save these instructions for use. You can also find them at <a href="https://www.etac.com">www.etac.com</a>, where you can select your language via the link "International" and "Local websites". Here you will also find other product documentation, such as prescriber information, pre-purchase guide, and reconditioning instructions.

In the user instructions, the user is the person who sits in the chair. The carer is the person who assists the user.

#### **Product description**

Xact (hereinafter also referred to as "the product") is a manual wheelchair with a fixed frame and swing-away leg supports. Xact is customisable and configurable through adjustable settings, options and accessories.

#### Intended use

Xact is an assistive device intended to alleviate or compensate for a physical disability due to an injury or disability. The product is intended for mobility purposes. The product is intended for hand and/or foot propulsion and/or to be driven by an assistant.

#### **Intended target group**

The target group for the product is based on the individual's functional ability and not on a specific diagnosis, health condition or age. The product is intended for persons with a height of 146 cm or more, or a weight of 40 kg or more.

Secondary users of the product are persons assisting the user and clinicians/technicians setting up the product.

#### Intended user environment

The product is intended for indoor and outdoor use on level ground and in accessible terrain. It should not be exposed to salt water. The product has fixing points for transportation in motor vehicles.

#### Intended application

The product is intended for short-term and long-term use. The product is intended to be used with a seat cushion. The product is intended for reconditioning and reuse. Follow the instructions in "Reconditioning instructions, Etac manual wheelchairs" at <a href="https://www.etac.com">www.etac.com</a>.

#### **Expected service life**

The product has an expected service life of five years. Preventive maintenance is recommended. Failure to perform maintenance can shorten the service life of the product. For complete information about the service life of the product, see <a href="https://www.etac.com">www.etac.com</a>.

#### **Indications**

Indications for use are disabilities including, but not limited to, impaired ability to walk.

#### **Contraindications**

There are no known contraindications.

#### **Warnings**

Warnings describing a hazard during a specific action or adjustment of the product may be found in the respective sections.



Do not leave the device in direct sunlight. A hot device may cause burns



Tipping risk. Inactivated anti-tips will increase the risk of injury. Activate the anti-tips to avoid the risk of tipping.



A defective device must not be used. Risk of injury.



This device can be adjusted beyond safe use. Adjustments should only be carried out by a person who understands the use of the device.



Do not lift the wheelchair by the leg supports. Risk of injury.

#### 1. General



Do not stand on the foot plates. Risk of injury.



Do not use wheelchair with One Arm Drive as seat in a motor vehicle. Risk of injury.



Do not lift the wheelchair by the head support mount. Risk of injury.



Do not lift the wheelchair by the crossbar. Risk of injury.



Check that the lockable leg supports are locked before lifting. Risk of injury.



When attaching the rear wheels, make sure that the quick-release button fully returns. Test by pulling the wheel. Risk of injury.



Fingers can be injured if they get between the spokes. Spoke protection is available as a means to prevent injury.

#### **Combinations**

Risk-managed combinations between Etac's products and products from other suppliers are presented in the combination list at www.etac.com.

#### **Miscellaneous**

Etac improves its products on an ongoing basis. We therefore reserve the right to modify the products without prior notice. The dimensions stated on drawings or other material are only indicative. We cannot be held responsible for printing errors and omissions.

#### **CE** marking, tests

The product complies with the requirements of MDR (EU) 2017/745.

The product has been tested and complies with the requirements of EN 12183 and ISO 7176-19.

#### **Pre-purchase information**

Available at www.etac.com.

#### **Serious incident**

If a serious incident occurs in connection with the use of the product, it should be reported without delay to the local distributor and the relevant national authority. The local distributor will forward the information to the manufacturer.

#### **Customisation**

In the event of actions that go beyond the instructions and settings in the user instructions, CE marking in accordance with MDR 2017/745 does not apply and the warranty will be invalidated.

# 2. Description 9 18

- 1. Push handle
- 2. Back rail
- 3. Cross bar
- 4. Rear wheel
- 5. Handrim
- 6. User brake
- 7. Quick-release hub
- 8. Chassis
- 9. Front fork
- 10. Castor wheel
- 11. Back support cover
- 12. Back support upholstery
- 13. Arm support

- 14. Seat upholstery
- 15. Leg support
- 16. Product label
- 17. Footplate lock
- 18. Footplate

#### 3. Symbols, labels

#### **Symbols**

These symbols appear in the user instructions.



Warning! Danger when used incorrectly!



Useful advice and tips



Materials for recycling



The part is not locked and can be moved/adjusted



The part is locked and cannot be moved/adjusted



Scan the QR code next to the symbol to view video



Shows option **1** of two available



Shows option **2** of two available

#### **Symbols**

These symbols appear on labels on the product.



Risk of tipping! Make sure that the anti-tip guards are activated.



Detachable part, do not lift!



Anchor point.
Fixing points for the restraining system during transportation in motor vehicles.



The product complies with ISO 7176-19.



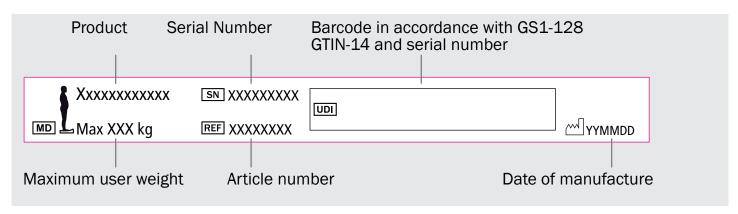
Must not be used during transportation in motor vehicles.



Refer to user manual

#### **Product label**

Article information.



\*The product's date of manufacture can be read from the barcode on the product. The number 11 is shown below the barcode in brackets. The number combination after these brackets is the date of manufacture.

#### Tools

These tools are needed to perform the adjustments shown in the user instructions.



Allen key 3 and 5 mm



Ring spanner 10 mm



Socket wrench 19 mm



Screwdriver Ph 2

# 4. Technical data

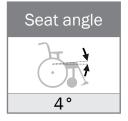
| Seat type     | Art. no. | Total width | Seat depth from back tube* | Weight  | Max. user<br>weight | Transport<br>weight |
|---------------|----------|-------------|----------------------------|---------|---------------------|---------------------|
|               | 3        |             |                            | KG      | max<br>kg           | KG                  |
| 35 cm std.    | 13250101 | 550 mm      | 380-460 mm                 | 9.8 kg  | 100 kg              | 5.4 kg              |
| 35 cm short   | 13250102 | 550 mm      | 350-430 mm                 | 9.8 kg  | 100 kg              | 5.4 kg              |
| 37.5 cm std.  | 13250103 | 575 mm      | 380-460 mm                 | 9.9 kg  | 100 kg              | 5.5 kg              |
| 37.5 cm short | 13250104 | 575 mm      | 350-430 mm                 | 9.9 kg  | 100 kg              | 5,5 kg              |
| 40 cm std.    | 13250105 | 600 mm      | 380-460 mm                 | 10.0 kg | 100 kg              | 5.6 kg              |
| 40 cm short   | 13250106 | 600 mm      | 350-430 mm                 | 10.0 kg | 100 kg              | 5.6 kg              |
| 42.5 cm std.  | 13250107 | 625 mm      | 380-460 mm                 | 10.1 kg | 100 kg              | 5.7 kg              |
| 42.5 cm short | 13250108 | 625 mm      | 350-430 mm                 | 10.1 kg | 100 kg              | 5.7 kg              |
| 45 cm std.    | 13250109 | 650 mm      | 380-460 mm                 | 10.3 kg | 135 kg              | 5.8 kg              |
| 45 cm short   | 13250110 | 650 mm      | 350-430 mm                 | 10.3 kg | 135 kg              | 5.8 kg              |
| 47.5 cm std.  | 13250111 | 675 mm      | 380-460 mm                 | 10.4 kg | 135 kg              | 5.9 kg              |
| 47.5 cm short | 13250112 | 675 mm      | 350-430 mm                 | 10.4 kg | 135 kg              | 5.9 kg              |
| 50 cm std.    | 13250113 | 700 mm      | 380-460 mm                 | 10.5 kg | 135 kg              | 6.0 kg              |
| 50 cm short   | 13250114 | 700 mm      | 350-430 mm                 | 10.5 kg | 135 kg              | 6.0 kg              |

Weights apply to chair with 24" Maxx rear wheels, high-pressure tyres, hard aluminium handrims, leg supports, footplate, and scissor brake. Dimensions stated may vary  $\pm$  2%.

\*Min. with 76° back support angle to seat tube and lumbar angle adjustment in rear position (pos. 7). Max. with 101° back support angle and lumbar angle adjustment in forward position (pos. 1).

| Front seat<br>height | Rear seat<br>height | Back support height | Back support angle | Lumbar<br>angle | Transport<br>width | Total height |
|----------------------|---------------------|---------------------|--------------------|-----------------|--------------------|--------------|
|                      |                     |                     |                    |                 |                    |              |
| 405-505 mm           | 375-475 mm          | 320-450 mm          | -14° - +11°        | +/- 16°         | SW+180 mm          | 705-885 mm   |

| Total<br>length** | Leg support length                        | Length when folded | Leg support angle | Max. incline sideways | Max. incline downwards | Max. incline<br>brake |  |  |  |
|-------------------|---|--------------------|-------------------|-----------------------|------------------------|-----------------------|--|--|--|
|                   | 37  |                    | 01                |                       |                        |                       |  |  |  |
| 830-930 mm        | 300-455 cm                                | 690 mm             | 108°-114°         | >20°                  | >20°                   | 7°                    |  |  |  |
| **With 24" wh     | **With 24" wheels and narrow leg supports |                    |                   |                       |                        |                       |  |  |  |



|         | Tyres              |  |  |  |  |  |
|---------|--------------------|--|--|--|--|--|
|         | High-pressure      |  |  |  |  |  |
| PSI/Bar | 110/7.5            |  |  |  |  |  |
|         | 451/501/540/559 mm |  |  |  |  |  |
|         | 25 mm              |  |  |  |  |  |

# The following surface treatment methods have been used:

Varnished surfaces = Powder-applied polyester or ED varnish Unvarnished aluminium parts = Anodising Unvarnished steel surfaces = Galvanised

# 5. Seat options

In the "Chair options" section, you can see all the adjustments that can be made to the wheelchair. There are also so-called "Odd combinations", e.g. in terms of rear wheels, castor wheels and back support model. Please contact customer service.

For more information about chair options, see <a href="https://www.etac.com">www.etac.com</a>

| Coat haidht              | Front  |   | 40.5-50.5 cm               |  |  |  |
|--------------------------|--|---|----------------------------|--|--|--|
| Seat height              | Rear   |   | 37.5-47.5 cm               |  |  |  |
| Seat angle               | 4° (fixed angle)                               |   |                            |  |  |  |
|                          | 5" 125x28                                      |   |                            |  |  |  |
| Cooterwheele             | 4" 100x34 (max. user weight 100 kg)            |   |                            |  |  |  |
| Castor wheels            | 5" 125x34                                      |   |                            |  |  |  |
|                          | 6" 150x34                                      |   |                            |  |  |  |
|                          | XS (three heigh                                | t pos   | itions)                    |  |  |  |
| Front fork               | S (four height p                               | ositio  | ons)                       |  |  |  |
|                          | S+25 (four heig                                | ght po  | ositions)                  |  |  |  |
|                          | 20"C6  |   |                            |  |  |  |
| Rear wheels              | 22" Maxx                                       |   |                            |  |  |  |
| Real Wileeis             | 24" Maxx                                       |   |                            |  |  |  |
|                          | 25" Maxx                                       |   |                            |  |  |  |
| Handrims                 | Hard anodised a                                | lumir   | nium 22"-25"/Aluminium 20" |  |  |  |
| Handinis                 | Plastic-coated 2                               | 0"-25   | ,,,                        |  |  |  |
| Camber                   | 2.2°   |   |                            |  |  |  |
| Seat                     | Adjustable seat                                | uphol   | stery                      |  |  |  |
|                          |  | Back  | ( 3A                       |  |  |  |
|                          | Height   |   | 5 cm                       |  |  |  |
| Back support             | Hip angle                                      | Back support angle -14° - +11° (starting point 90 to seat tube), gives hip angle 76°-101° |                            |  |  |  |
|                          | Lumbar angle                                   | -16°  | - +16°                     |  |  |  |
| Seat depth               | Short seat depth                               | า 35 -  | 43 cm                      |  |  |  |
| Seat depth               | Long seat depth                                | 38 -  | 46 cm                      |  |  |  |
| Back support upholstery  | Adjustable upho                                | Istery  |                            |  |  |  |
| Back support cover       | Airmesh  |   |                            |  |  |  |
|                          | Height-adjustabl                               | e pus   | sh handle, active          |  |  |  |
| Push handle/             | Fixed to 3A back                               | (   |                            |  |  |  |
| Bow handle               | Height-adjustable bow handle                   |   |                            |  |  |  |
|                          | Height-adjustable bow handle, angle-adjustable |   |                            |  |  |  |
|                          | Narrow knee angle active                       |   |                            |  |  |  |
| Leg supports             | Narrow knee ang                                | gle   |                            |  |  |  |
| Leg supports             | Narrow knee ang                                | gle sh  | ort                        |  |  |  |
|                          | Wide knee angle                                |   |                            |  |  |  |
| Log cupports             | Narrow knee ang                                | gle   |                            |  |  |  |
| Leg supports<br>Lockable | Narrow knee ang                                | gle sh  | ort                        |  |  |  |
|                          | Wide knee angle                                | )   |                            |  |  |  |

# 5. Seat options

| Leg supports<br>Angle-adjustable | Angle-adjustable with folding calf supports   |  |  |  |  |  |
|----------------------------------|---|--|--|--|--|--|
|                                  | Amputee leg support   |  |  |  |  |  |
|                                  | Amputee weight  |  |  |  |  |  |
| Arm cupport                      | Active height-adjustable, 25 cm long, solid plate, black.<br>Maximum arm support height 29 cm |  |  |  |  |  |
| Arm support                      | Active height-adjustable, 38 cm long, solid plate, black.<br>Maximum arm support height 29 cm |  |  |  |  |  |
|                                  | Medium Max. length: 51 cm. Min. length: 33 cm.  |  |  |  |  |  |
| Foot supports                    | Shortened attachment tubes -8 cm (standard version)   |  |  |  |  |  |
|                                  | Extended attachment tubes +10 cm  |  |  |  |  |  |
|                                  | Full footplate  |  |  |  |  |  |
| User brake (scissor brake)       | Only in combination with pneumatic tyres.   |  |  |  |  |  |
|                                  | Angled red handle   |  |  |  |  |  |
| User brake                       | Angled black handle   |  |  |  |  |  |
| (knee brake)                     | Extended handle   |  |  |  |  |  |
|                                  | Single-hand brake (standard or angled handle)   |  |  |  |  |  |
| Attendant brake                  | Brake handle 100 mm opening grip  |  |  |  |  |  |
| Single-hand operation            | For right or left side.   |  |  |  |  |  |
| Frame colour                     | 01 = Black  |  |  |  |  |  |

# 6. Accessories

Assembly instructions are included with all accessories when they are delivered from Etac. You can find them and more information about the accessories on our website <a href="https://www.etac.com">www.etac.com</a>. Settable= Adjusted using tools. Adjustable= Adjusted without tools.

| Arm support cover                          | Removable, 25 or 38 cm long padded or gel, dark grey plush or black Dartex. Compatible with arm supports with solid plate.         |              |  |  |  |  |  |
|--|--|--------------|--|--|--|--|--|
| Hemiplegic arm support cushion             |  |              |  |  |  |  |  |
| Mudguard                                   | Adjustable in height and depth   |              |  |  |  |  |  |
| Knee support, outer                        | Padded. Provides lateral support for knees and th<br>Not in combination with Leg support, narrow knee                              |              |  |  |  |  |  |
| Hemi tray                                  | Transparent, Width 35-50 cm Can be mounted on or long arm supports.  | short        |  |  |  |  |  |
| Anti-slip hemi tray                        |  |              |  |  |  |  |  |
| Hemi tray/<br>Communication<br>table, half | Right/left   |              |  |  |  |  |  |
| Seat cushion                               | Dark grey plush and black velour, 56 cm long, trin depth, washable   | nmed to seat |  |  |  |  |  |
| Tidy seat cushion                          | Water-repellent, wipeable  |              |  |  |  |  |  |
| Comfort wedge                              | For cushion, flattens the front part of the seat   |              |  |  |  |  |  |
| Cover for calf plate                       | On angle-adjustable leg support, dark grey plush or black Hygiene  |              |  |  |  |  |  |
| Calf strap                                 | Removable, black nylon, length-adjustable  |              |  |  |  |  |  |
| Padding                                    | For calf strap   |              |  |  |  |  |  |
| Calf support                               | Plush. Mounted/adjusted with Velcro  |              |  |  |  |  |  |
| Heel strap                                 | Black nylon, length-adjustable   |              |  |  |  |  |  |
| Hip belt                                   | Two-piece with snap lock, fixing points on wheelch   | nair frame   |  |  |  |  |  |
| Belt                                       | With snap lock   |              |  |  |  |  |  |
| Head support,                              | Adjustable in height, depth and angle. Several models available  |              |  |  |  |  |  |
| traditional                                | With side supports. Adjustable in height, depth and angle.   |              |  |  |  |  |  |
| Head support bracket 3A                    | For head support bracket 3A back   |              |  |  |  |  |  |
|  | Three different sizes, fastened with Velcro.   | 13x9.5x2 cm  |  |  |  |  |  |
|  | Creates support and shape in back support. The wedges can also be combined with other  | 19x12x2 cm   |  |  |  |  |  |
| Back support wedge                         | accessories and adapted to the desired size, and several wedges can be combined.   | 20x17x2.5 cm |  |  |  |  |  |
|  | David dua valvala  | 15 cm        |  |  |  |  |  |
|  | Dark grey plush  | 30 cm        |  |  |  |  |  |
| Side cushion                               | Provides gentle lateral support. Used in cases who support is too stabilising. (Combined with arm support in necessary, side stop) |              |  |  |  |  |  |
|  | Combined with wedge or side support cushion.   | Straight     |  |  |  |  |  |
| Side stop                                  | Creates a more distinct stop and holds wedge or side support pad in place  | Angled, 3 cm |  |  |  |  |  |

# 6. Accessories

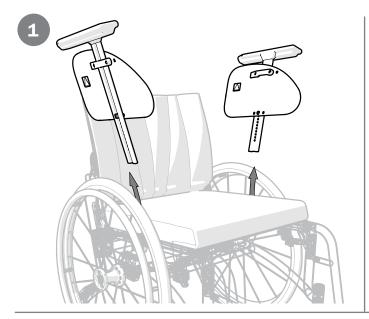
| Anti-tip guard          | Anti-tip guard active. Four models, depending on seat height |
|-------------------------|--|
| Walking stick<br>holder | Attached around the tube                                     |
| Spoke cover             |  |

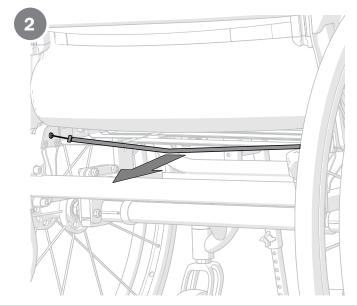
# 7. Assembly upon delivery

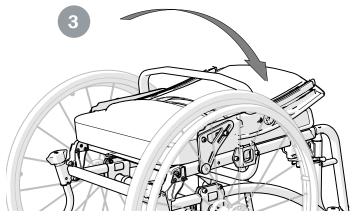
Leg supports with footplates and arm supports/side guards are delivered in separate packages and are to be assembled upon delivery

# 8. Operation

# Folding back support

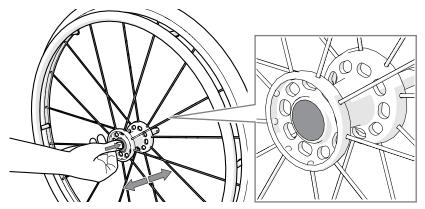


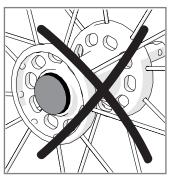




#### Rear wheel with quick-release









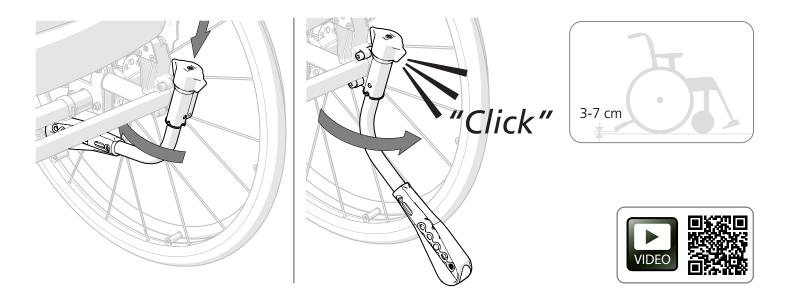
# 8. Operation

#### **Anti-tip guard**

The anti-tip is activated/deactivated by pressing down and turning. If the wheelchair's settings are adjusted, the anti-tip guard may need to be replaced.



The function of the anti-tip guard must be checked in connection with all settings and adjustments made to the chair. Adjust or replace the anti-tip guard in accordance with the seat height table.

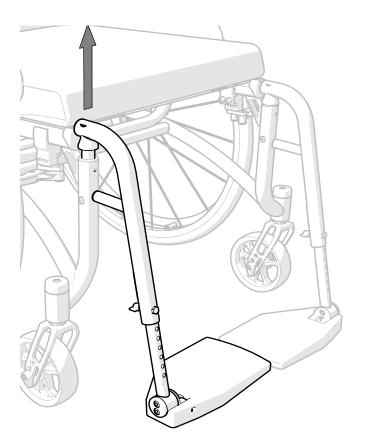


#### Leg supports

The leg supports can be lifted off/swung to the side.



Do not lift the wheelchair by the leg supports. Risk of injury.



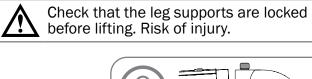


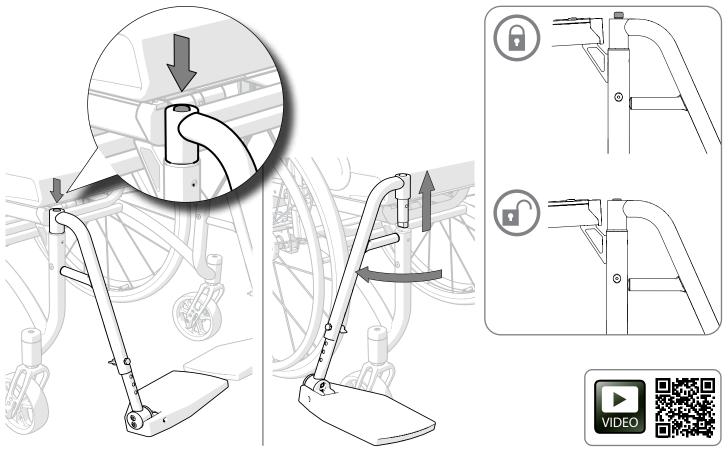
# 8. Operation

# Lockable leg support

The lockable leg support can be lifted off/swung to the side by first pressing down the red button.

When assembling, press down the button, put the leg support into place and release the button.

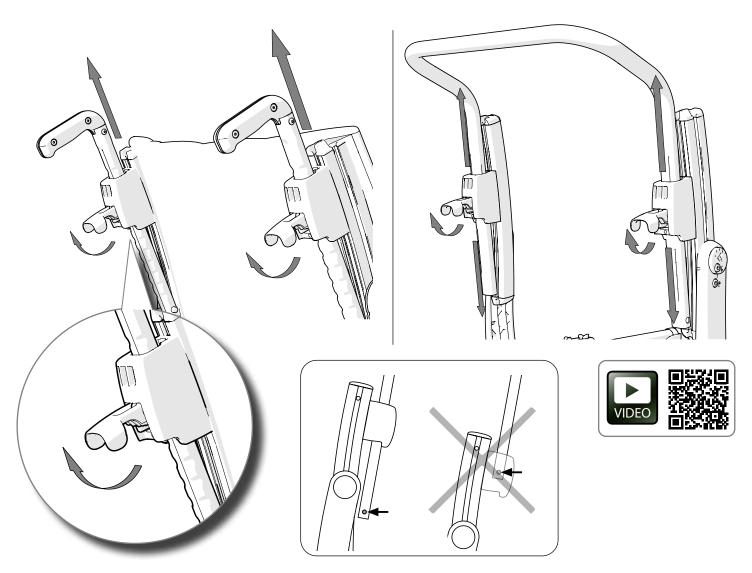




# 8. Operation

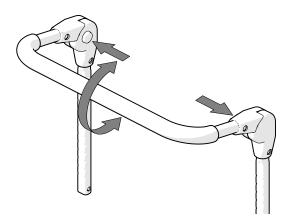
# Push handle/bow handle, height-adjustable

Raise and lower by opening the locking handles. Push in the locking handles firmly. Make sure that the push handle lock catch snaps out under the push handle bracket.



# **Angle-adjustable bow handle**

Press down the lock buttons to adjust the angle.



# 9. Seating comfort settings

#### **Sitting comfort**

Good sitting comfort depends on each individual's needs and circumstances. Here are some general guidelines on what to consider when making the settings.

Choose the seat cushion with care. In addition to comfort, it affects stability and thus freedom of movement. Seat cushions also have different levels of pressure distribution.

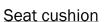
The back support setting is a combination of angles, height and shape. The angle settings and height of the back support may therefore also need to be readjusted when adjusting the back support upholstery.



The function of the anti-tip guard must be checked in connection with all settings and adjustments made to the chair. Adjust or replace the anti-tip guard in accordance with the seat height table.

#### Back support cover

- Loosen all back support straps, but make sure that the Velcro straps still lock against each other.
- Position the back support cover so that it covers the upper edge of the back support rails and forms a fold between the seat and back support, so that the user can "settle" firmly into the seat.

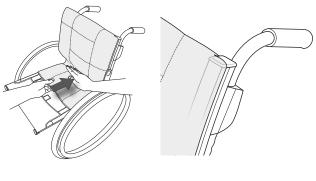


- Make sure that the seat depth is set correctly.
- Place the cushion far enough back on the seat to ensure that the rounded corners fit between the back support rails.
- Measure the appropriate length for the seat cushion and trim it in accordance with the instructions supplied.
- For a more contoured seat cushion, it can be supplemented with a comfort wedge, which is placed in the pocket of the cover on the underside of the seat cushion.

#### Back support upholstery

Adjustment of the back support upholstery is done with the user sitting in the wheelchair.

- Make sure that the user is sitting as far back in the seat as possible.
- Support the pelvis by tightening the strap located just below the lower back.
- Then adjust the upper strap so that the user's upper body is supported and balanced.
- The other straps are adjusted to give room for the posterior and follow the natural curve of the back.







#### Back support angle

The back support angle may need to be adjusted when setting the shape of the back support upholstery.

Please contact your prescriber.

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# 9. Seating comfort settings

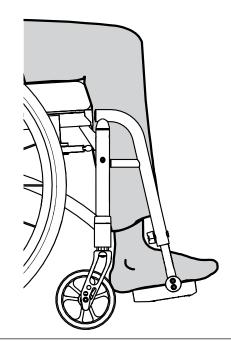
#### **Foot plates**

Adjust the height so that you feel your feet are supported and your thighs are resting against the cushion.

For outdoor use, the footplates should be 4-5 cm from the ground.



Do not stand on the foot plates. Risk of injury.

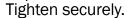


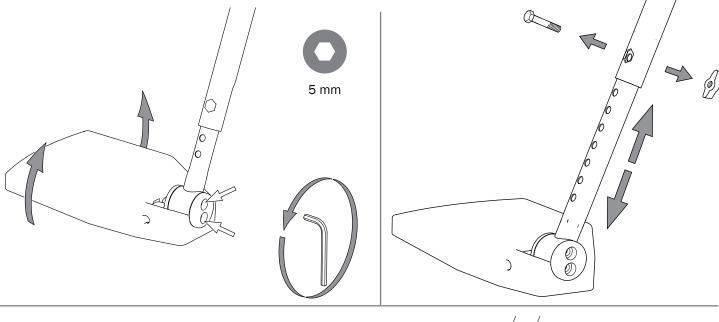
#### Adjusting the angle

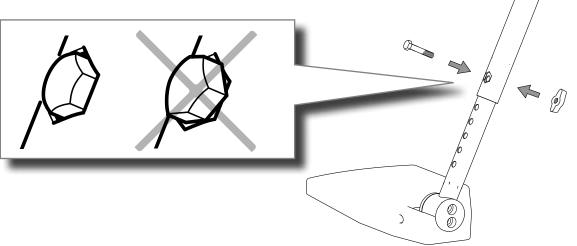
Adjust the angle of the footplates so that the ankles are at a 90° angle.

#### Adjusting the height

Loosen the locking handle on the leg support completely. Remove the screw. Set the height. Replace the screw and the handle.





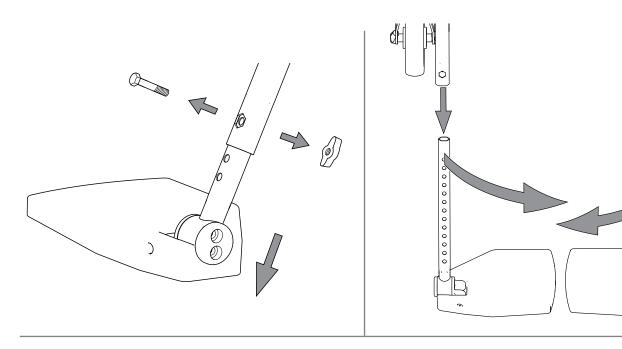


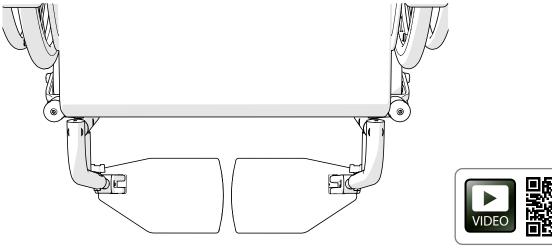


# 9. Seating comfort settings

# <u>Changing the depth of footplates</u> Adjust the depth of the footplates by switching

the right and left footplates. Do not forget to adjust the angle.

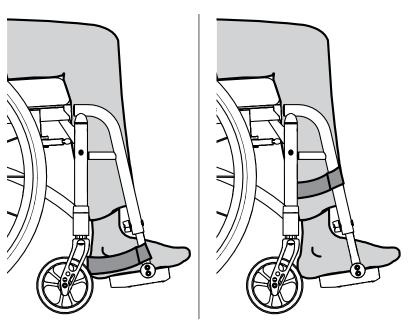






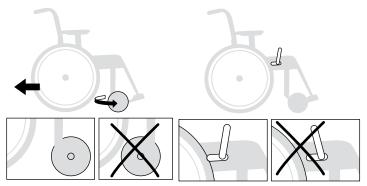
# Calf/heel strap

Adjust the length so that the centres of the feet are resting on the footplates.



#### **Parking**

Turn the castor wheels forward, apply the brakes.

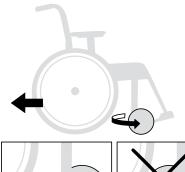


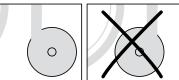
#### Transferring to/from the wheelchair

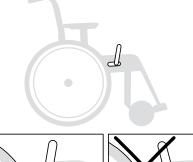
Turn the castor wheels forward, apply the brakes, fold up the footplates and fold away the leg supports.



Do not stand on the foot plates. Risk of injury.



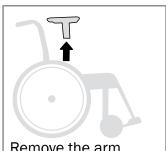




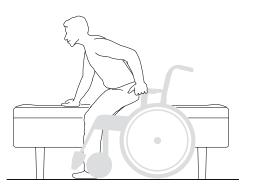




#### **Sideways**



Remove the arm support on the side on which the transfer will take place.

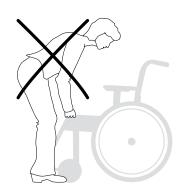


#### From the front



# Lifting the wheelchair





- Lift the wheelchair by the push handles and front part of the frame, or by the lockable leg supports.
- Swing non-lockable leg supports under the seat and lift the wheelchair by the front upper part of the frame.



The following sketches show the principles of driving technique and overcoming obstacles.

#### **User, up forwards**

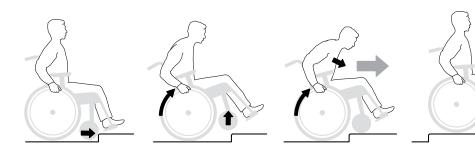
This technique is only recommended for experienced wheelchair users.

- Make sure that the anti-tip guards are inactive.



- Make sure that the anti-tip guards are inactive.

Tipping risk. Inactivated anti-tips will increase the risk of injury. Activate the anti-tips to avoid the risk of tipping.



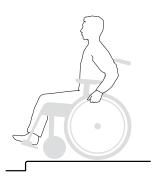


#### User, up backwards

This technique only works if there is a low edge/threshold, depending on the height adjustment of the footplates.



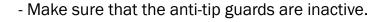






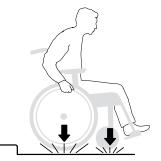
#### User, down forwards

This technique is only recommended for experienced wheelchair users.







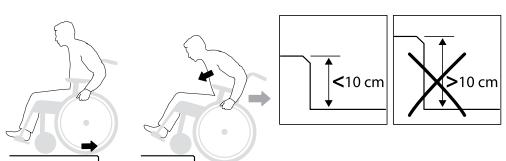




#### User, down backwards

This technique is only recommended for experienced wheelchair users.

- Make sure that the anti-tip guards are inactive.





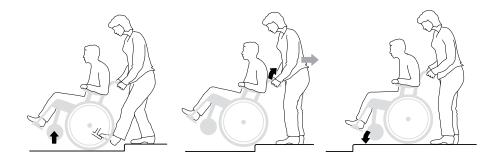
# **Carer, up forwards**

- Make sure that the anti-tip guards are inactive.



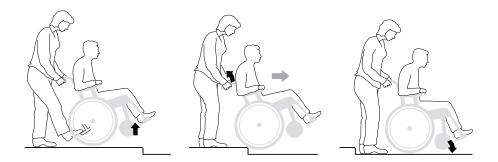
#### Carer, up backwards

- Make sure that the anti-tip guards are inactive.



# **Carer, down forwards**

- Make sure that the anti-tip guards are inactive.



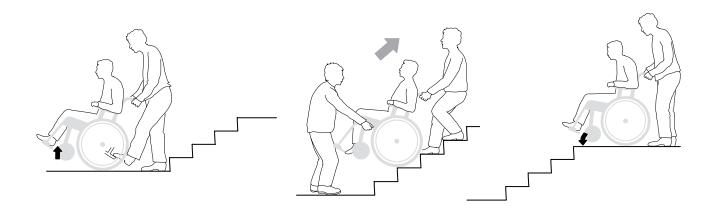
#### Carer, down backwards

- Make sure that the anti-tip guards are inactive.



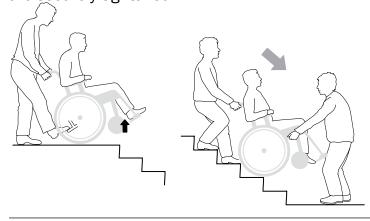
#### Stairs, up

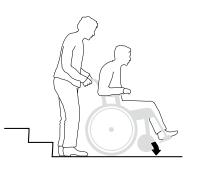
- Make sure that the anti-tip guards are inactive. Never use escalators, even if there is a carer. Make sure that the height-adjustable handles are securely tightened. It is recommended that there are always two carers for this transfer: one walking behind and holding the push handle, and one walking in front and holding the frame (or the leg supports if these are lockable).



#### Stairs, down

- Make sure that the anti-tip guards are inactive. Never use escalators, even if there is a carer. Make sure that the height-adjustable handles are securely tightened. It is recommended that there are always two carers for this transfer: one walking behind and holding the push handle, and one walking in front and holding the frame (or the leg supports if these are lockable).





#### Driving up/down a slope

Control the speed using the handrims, not the brakes! Avoid turning in the middle of a slope. Always drive up/down in as straight a line as possible.

If in doubt, ask for help.

Going up a slope
Tilt your body forward to correct
the centre of gravity.

<u>Going down a slope</u>
Tilt your body back to correct
the centre of gravity.

## **Foot propulsion**

The user kicks with one or both feet to move forwards.



#### Seat height, seat height table

The seat height is adjusted by replacing:

- Length of front fork
- Position of castor wheel in fork
- Size of castor wheel

#### and

- Rear axle bracket
- Rear wheel position
- Size of rear wheel

The seat angle is always 4°, so to ensure that the castor bracket is always vertical to the ground surface, the front and rear seat height must be adjusted parallel.

Assembly instructions may be found in the sections entitled "Disassemble/assemble

the front fork", "Disassemble/assemble the castor wheels", "Adjusting the height of the rear axle bracket" and "Replacing the rear axle bracket".



The function of the anti-tip guard must be checked in connection with all settings and adjustments made to the chair. Adjust or replace the anti-tip guard in accordance with the seat height table.



| ı | Front forks a | Rear ax              | le bracket     | ts and rea | ar wheel p | ositions |      |   |
|---|---------------|----------------------|----------------|------------|------------|----------|------|---|
|   |               |                      |                | Stan       | dard       |          | High |   |
|   | XS            | S                    | S+25           | E          | D          | С        | В    | Α |
|   | 1XS 2XS 3XS   | 1S<br>2S<br>3S<br>4S | 3S+25<br>4S+25 |            |            |          |      |   |

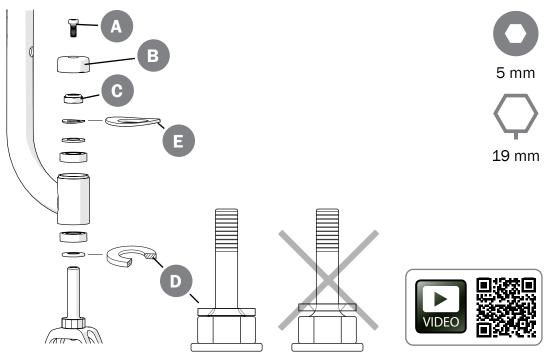
# Seat height table

|     |     |     |            |       |     |     |     |     | 7     |
|-----|-----|-----|------------|-------|-----|-----|-----|-----|-------|
|     |     | 4"  | 5"         | 6"    | 20" | 22" | 24" | 25" | Model |
| 375 | 405 | 1XS |            |       | E   |     |     |     | 1     |
| 388 | 418 | 2XS |            |       | D   |     |     |     | 1     |
| 400 | 430 | 3XS | <b>1</b> S |       | С   | Е   |     |     | 2     |
| 413 | 443 |     | 2S         |       | В   | D   |     |     | 2     |
| 425 | 455 |     | 3\$        | 2S    | А   | С   | E   |     | 3     |
| 438 | 468 |     | 48         | 3S    |     | В   | D   | Е   | 3     |
| 450 | 480 |     | 3S+25      | 48    |     | А   | С   | D   | 3     |
| 463 | 493 |     | 4S+25      | 3S+25 |     |     | В   | С   | 4     |
| 475 | 505 |     |            | 4S+25 |     |     | А   | В   | 4     |

Tolerance in above dimensions +/-10 mm More combinations than the above may be possible.

#### Disassemble/assemble the front fork

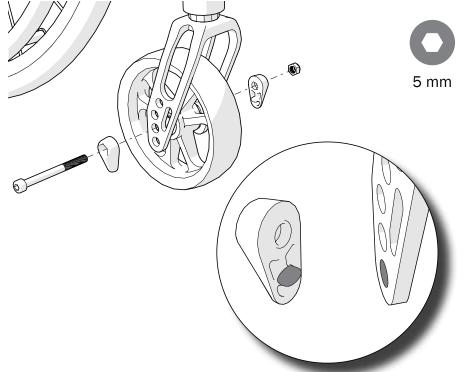
- Loosen the screw (A) and remove the cover plug (B) Loosen the retaining nut (C), pull out the front fork and transfer the chamfered washer (D) and the ball bearing to the new fork.
- Fit washers and ball bearings in the front fork attachment as shown in the illustration. Place washer (D) with the chamfered side facing the fork. Spring washer (E) at the top under retaining nut.
- Tighten the retaining nut carefully until the front fork turns with some inertia, and then loosen approx. 1/2 turn. This gives the spring washer the correct tension, which reduces the risk of the castor wheel starting to "wobble".
- Fit the cover plug.

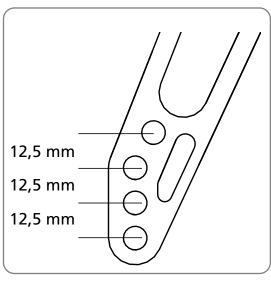


#### Disassemble/assemble the castor wheels

Loosen screw, nut and spacers and mount the wheel in a suitable position.

Make sure that the small pin of the plastic spacer locks into the appropriate hole in the fork.





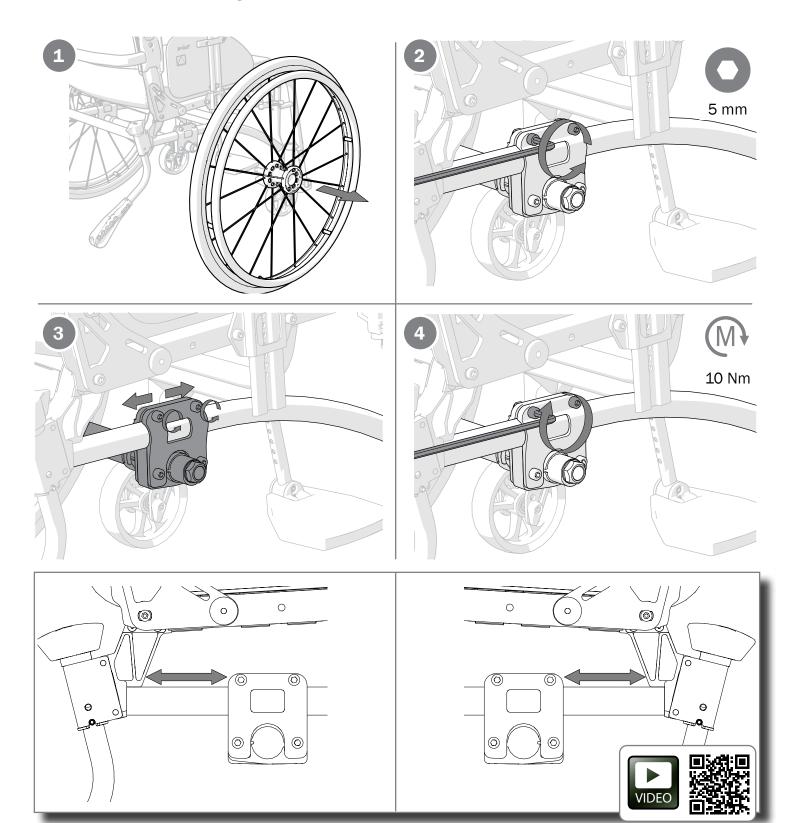


# Change the rear wheel position, centre of balance

- 1. Remove the rear wheels.
- 2. Loosen the two upper screws on both the right and left rear axle brackets.
- 3. Move the rear axle brackets forwards for lighter balance or backwards for a more stable chair. Tighten the screws. Make sure that the brackets on the right and left are the same distance from the anti-tip guard bracket.

A lighter balance means that the wheelchair is easier to drive and turn, while the risk of tipping backwards increases.
Also check the brakes, see section "Brake, adjustment".



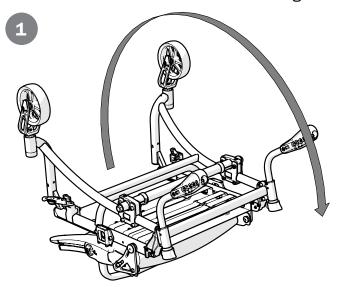


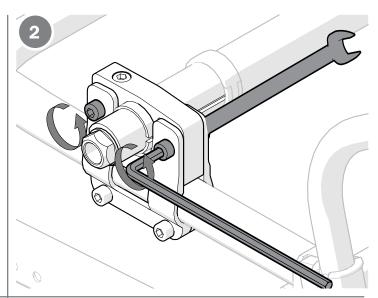
### Adjusting the height of the rear axle bracket

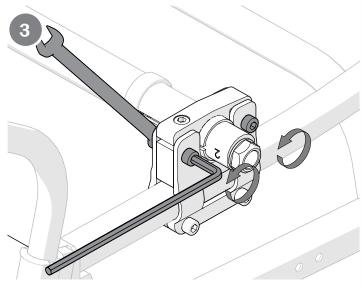
- 1. Remove the rear wheels, turn the chair upside down.
- 2. Loosen and remove the two lower screws/ nuts in the rear axle bracket
- 3. Move the rear axle clamps to the desired position in the rear axle bracket and tighten the screws. Make sure that the right and left brackets are at the same height.

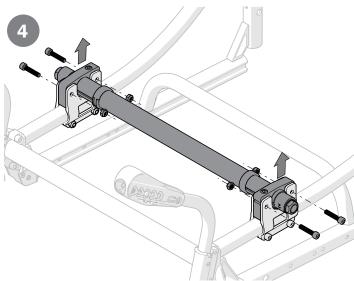
See also section entitled "Seat height table". Also check the brakes, see section "Brake, adjustment".

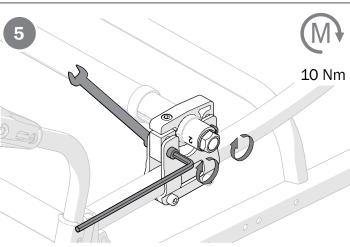


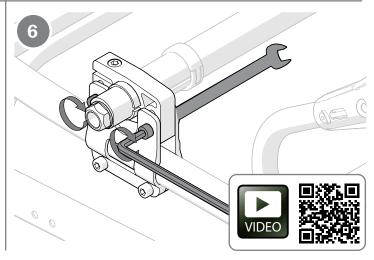










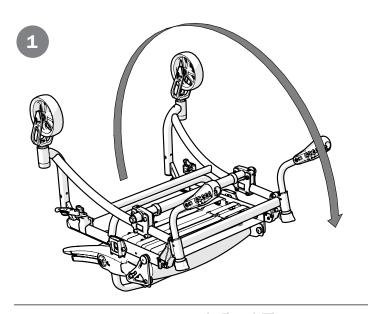


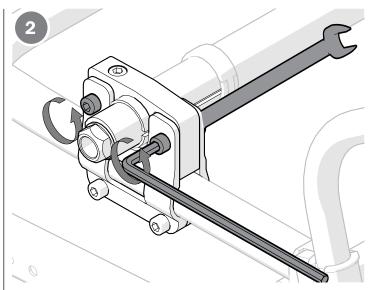
#### Replacing the rear axle bracket

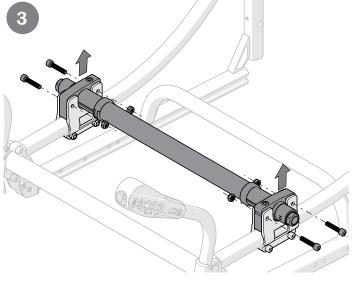
- 1. Remove the rear wheels and turn the chair upside down.
- 2-3. Loosen and remove the two lower screws/nuts and lift out the rear axle and its clamps.
- 4. Loosen the screws and remove the clamps from the rear axle.

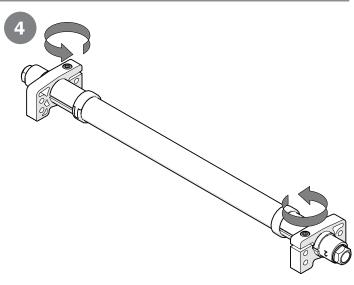
Also check the brakes, see section "Brake, adjustment".

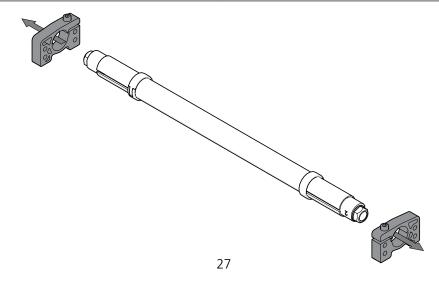




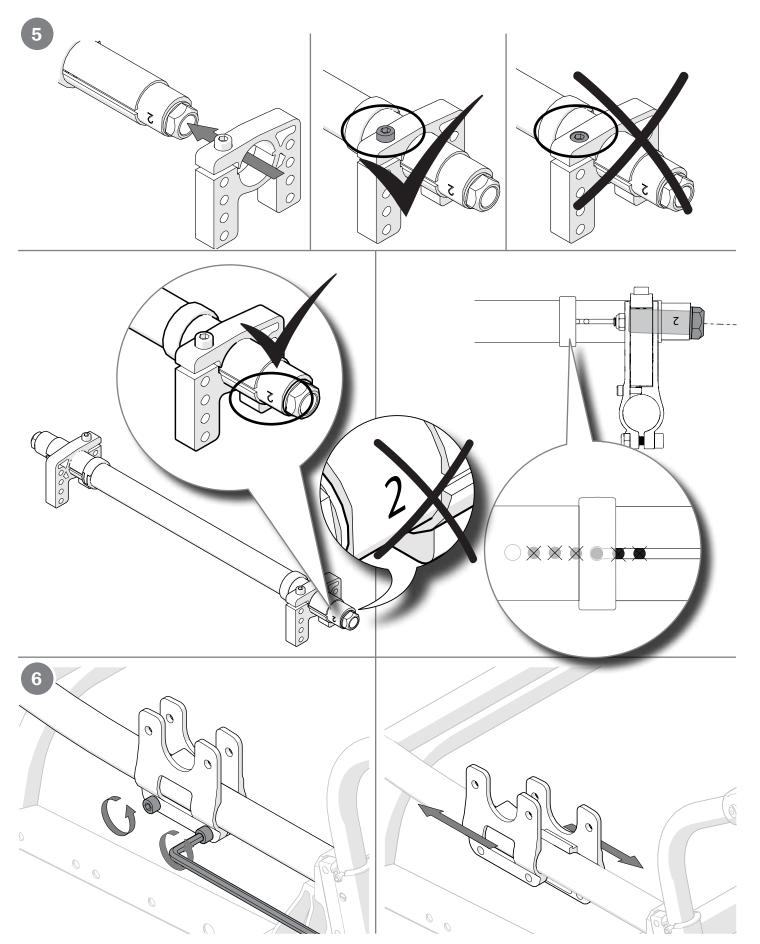






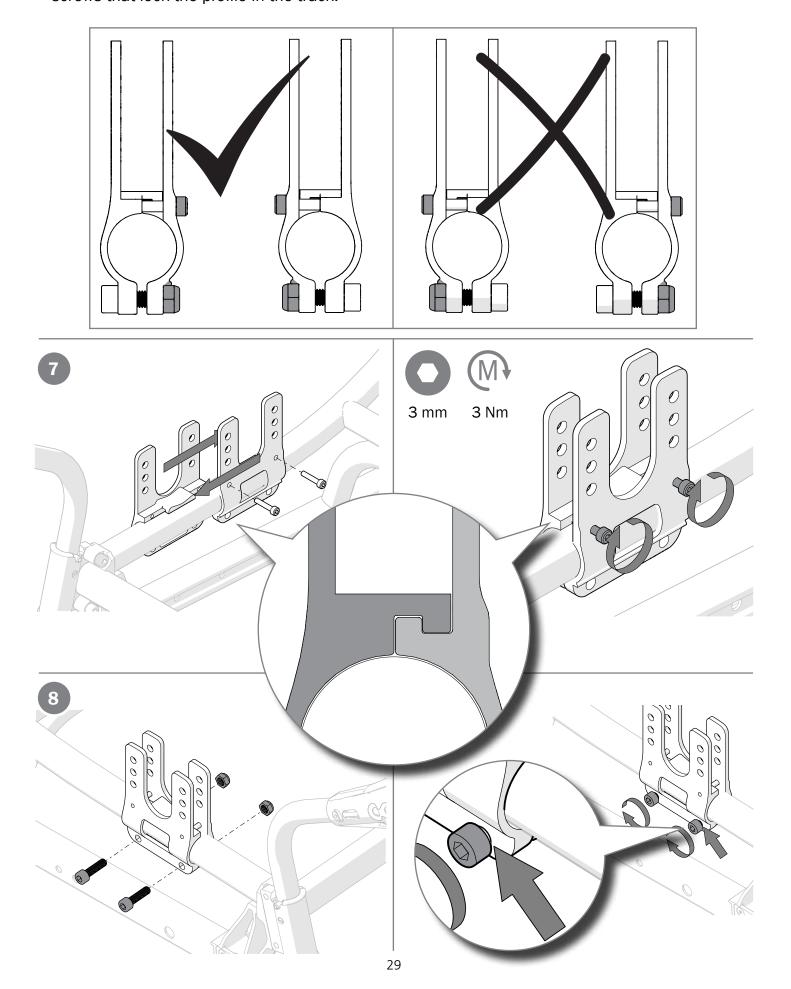


- 5. Slide on the new clamps without tightening the locking screws. Make sure that the camber angle is correct.
- 6. Remove the rear axle brackets by loosening and removing the screws, and pulling apart the parts parallel to the tube.

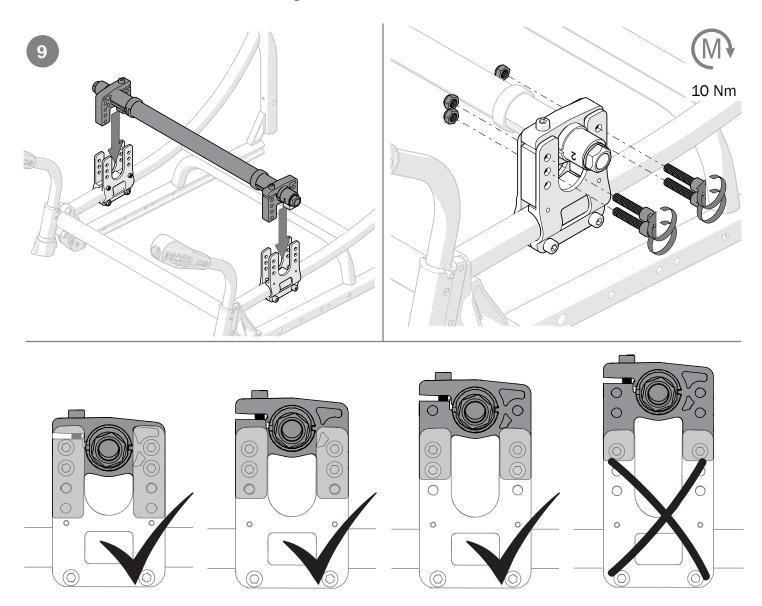


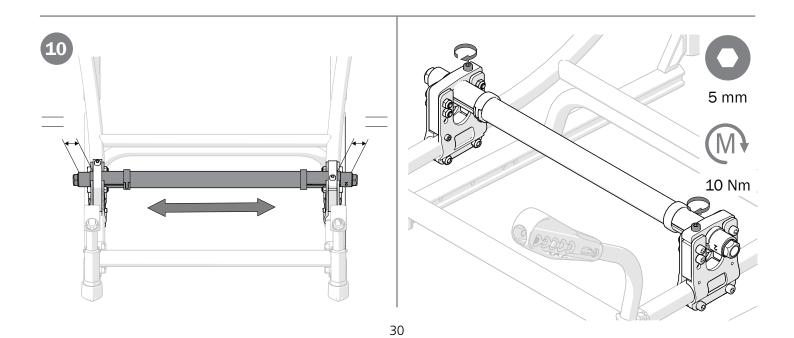
7. Fit the new rear axle brackets by sliding them together parallel to the tube. Tighten the screws that lock the profile in the track.

8. Mount screws and nuts without tightening.

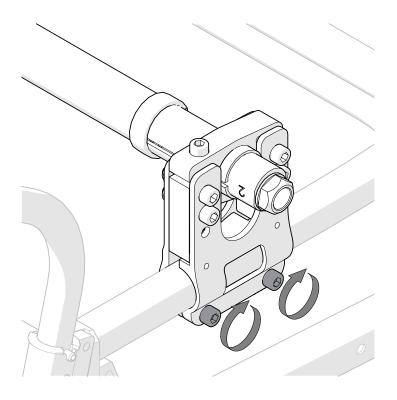


- 9. Fit the package with the rear axle and clamps at the selected height. Tighten the screws. 10. Centre the rear axle and tighten the locking screws. at the selected height. Tighten the screws. See also section entitled "Seat height table".





11. Set the centre of balance (see section entitled "Change the rear wheel position/centre of balance") and tighten the screws

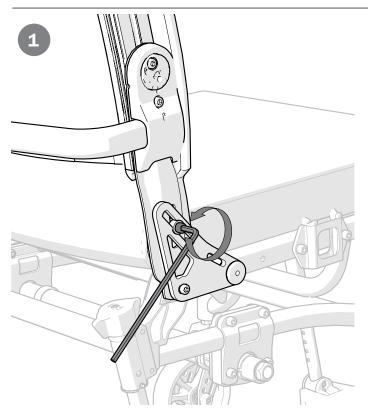


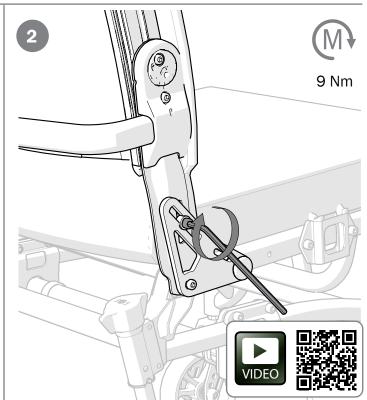
### Adjust back support angle

The back support angle is infinitely adjustable (see "Chair options").

1. Loosen the screw.

- 2. Adjust the back support angle. Check to ensure that the right and left back support profiles have the same angle.
- 3. Tighten the screw.

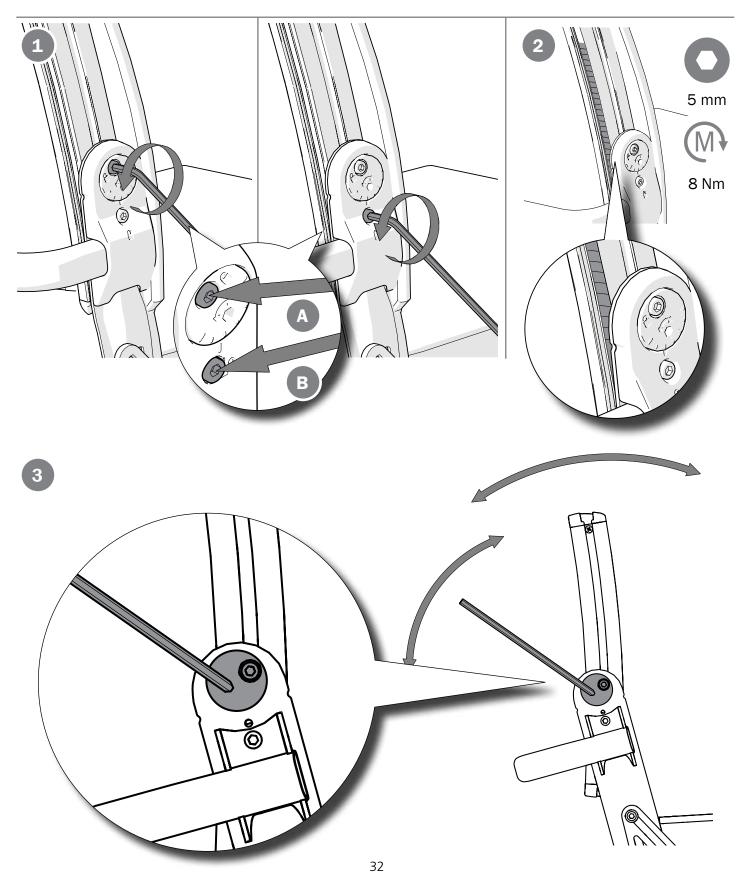




#### Adjust back support height and lumbar angle 3. Insert the Allen key into the key grip

The back support height and lumbar angle are adjustable (see "Chair options").

- 1. Loosen locking screws A and B max. 1 turn.
- 2. Adjust the back support height using the scale and the marking on the lower back rail. Tighten locking screw B 1/2 turn so that the back rail cannot change in height.
- 3. Insert the Allen key into the key grip of the eccentric sleeve and set the desired lumbar angle.
- 4. Tighten the locking screws.

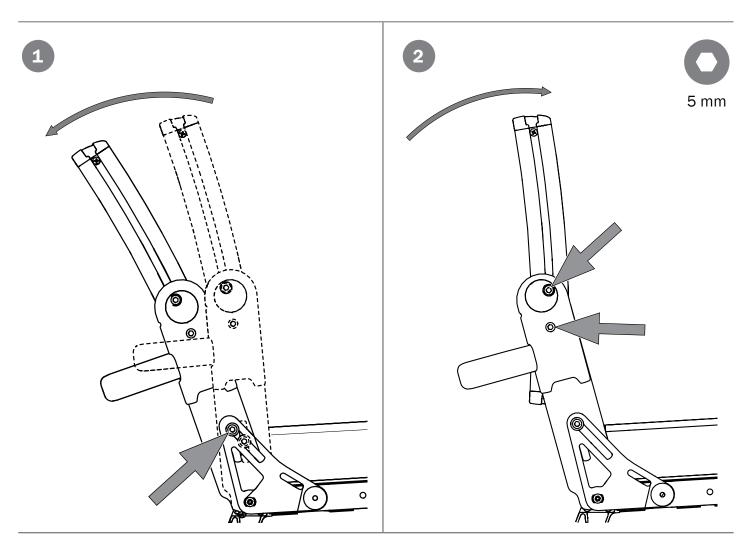


#### **Adjust seat depth**

The seat depth is adjusted by adjusting the back support angle and then the lumbar angle.

- 1. Adjust the back support angle (see section entitled "Adjust back support angle 3A").
- 2. Adjust the lumbar angle using the eccentric

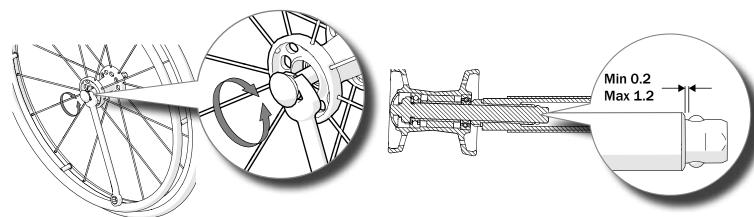
sleeve to the desired back support angle (see "Adjust back support height and lumbar angle, 3A").



# Rear wheel with quick-release

The distance between the hub sleeve and the locking balls can be adjusted by adjusting the nut on the outside of the hub. The distance between the hub sleeve and the locking balls should be 0.2 to 1.2 mm.





# 12. Settings, readjustments

#### Brake (scissor brake), adjustment

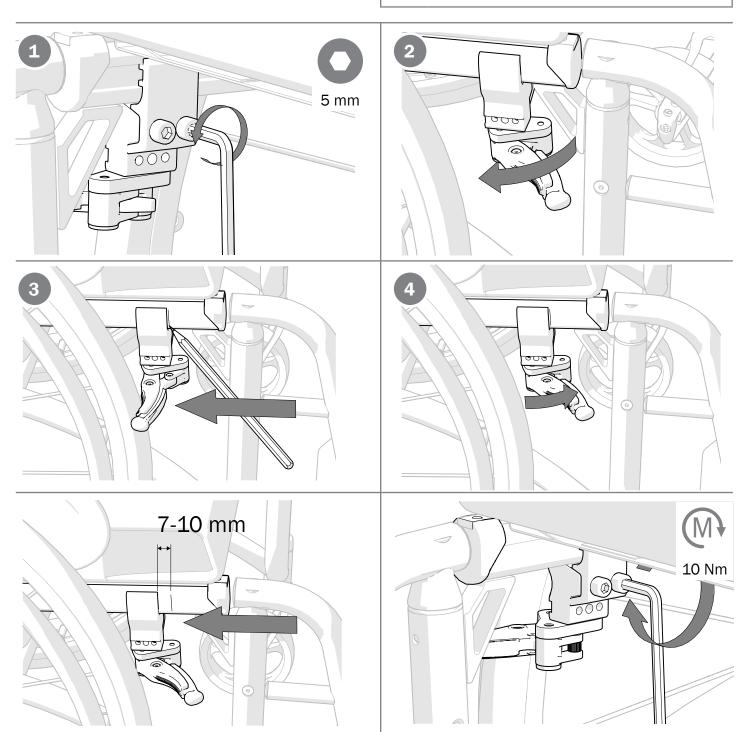
The brake is infinitely adjustable.

- 1. Loosen the screws.
- 2. Ease out the brake in "braking mode".
- 3. Slide the brake towards the tyre and make a mark on the frame with a pencil.
- 4. Ease back the brake and move it approx.

7-10 mm in the direction of the rear wheel. Tighten the screws and test the brake. Adjust as necessary.



The braking effect depends on the air pressure in the tyres. The brake is a parking brake and should not be used as a service brake.





# 12. Settings, readjustments

#### Brake (knee brake), adjustment

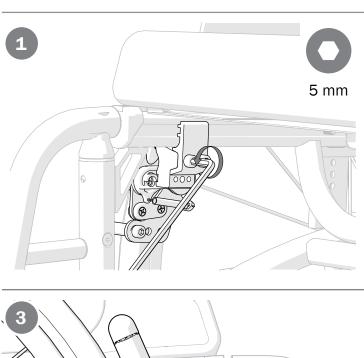
The brake is infinitely adjustable.

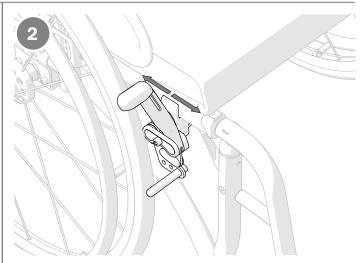
- 1. Loosen the screws.
- 2-3. Adjust the brake's position. The brake pin should be approx. 13-15 mm from the tyre in unbraked mode.

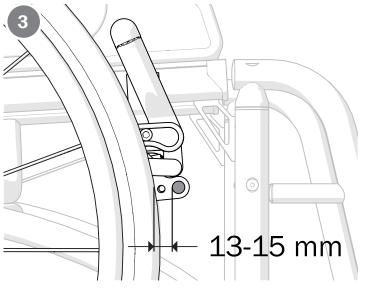
4. Tighten the screws and test the brake. Adjust as necessary.

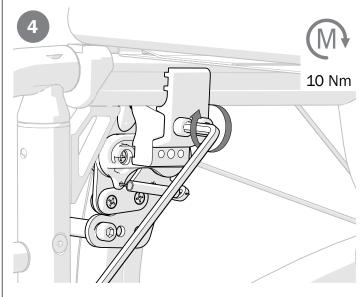


The braking effect depends on the air pressure in the tyres. The brake is a parking brake and should not be used as a service brake.









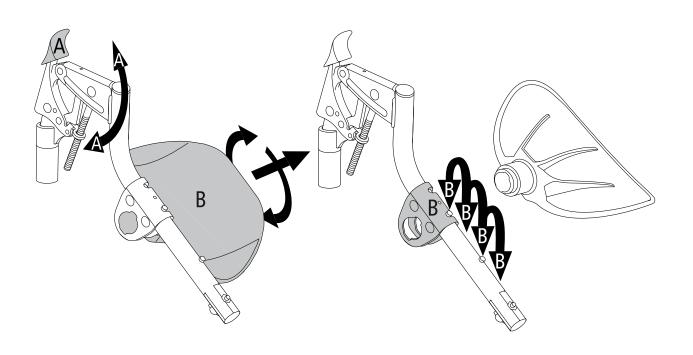


# 12. Settings, readjustments

**Leg support, infinitely adjustable angle** Angle-adjustable leg supports can be adjusted.

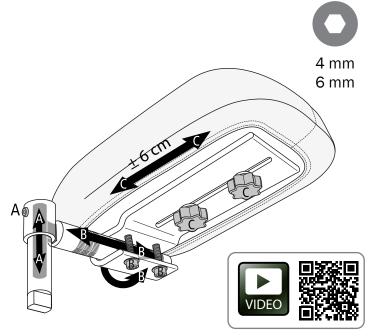


Do not lift the wheelchair by the leg supports. Risk of injury.



## **Amputee leg support**

The amputee leg support is adjustable in height, depth and width.



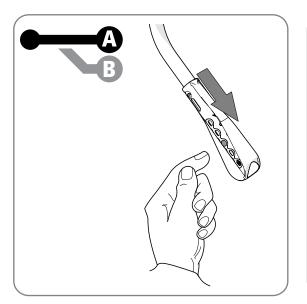
# 12. Settings, readjustments

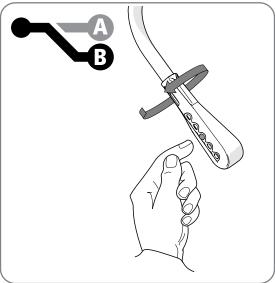
## **Anti-tip guard**

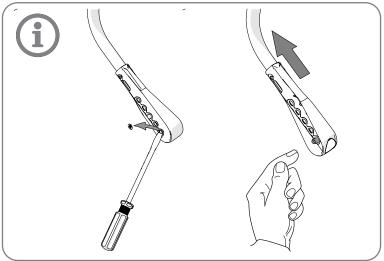
The anti-tip guards are adjustable in height and length. When adjusting the seat height, the anti-tip guards may need to be replaced (see also section entitled ("Seat height table".

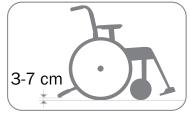


The function of the anti-tip guard must be checked in connection with all settings and adjustments made to the chair. Adjust or replace the anti-tip guard in accordance with the seat height table.











Ph 2

#### **Handrims**

The material of the handrims and the distance between the rear wheels and handrims affect the user's ability to grip.

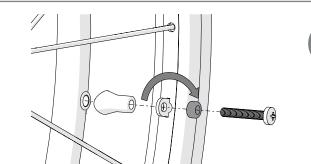
Plasticised drive rings offer higher friction. Braking sharply can cause minor burns (e.g. blisters). Be careful not to injure your fingers when moving through narrow passages.



Fingers can be injured if they get between the spokes. Spoke protection is available as a means to prevent injury.

#### **Handrim distance**

The handrim distance can be adjusted by moving the short spacer.



# 12. Settings, readjustments

#### **Arm support**

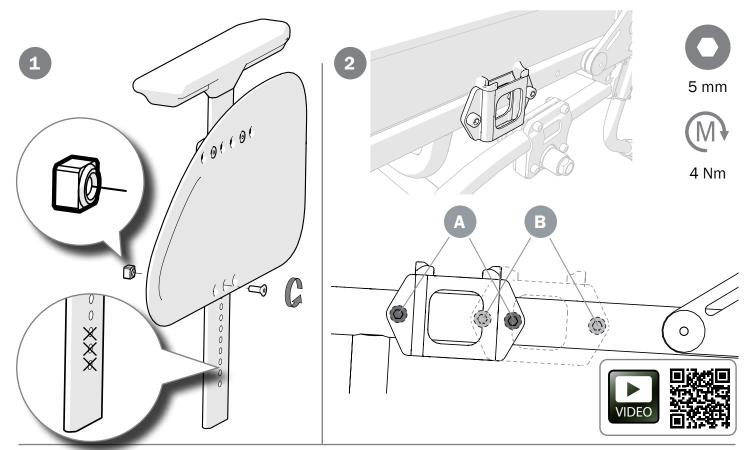
- 1. The height of the arm supports is adjustable. The square nut both determines the height of the arm support and attaches the side guard:
- Loosen the screw holding the square nut.
- Slide the side plate up or down to the desired height.
- Re-tighten the nut on the side plate. Maximum arm support height 29 cm.

The depth of the side guard can be adjusted.

2. The arm support brackets can be mounted with two different depth positions.

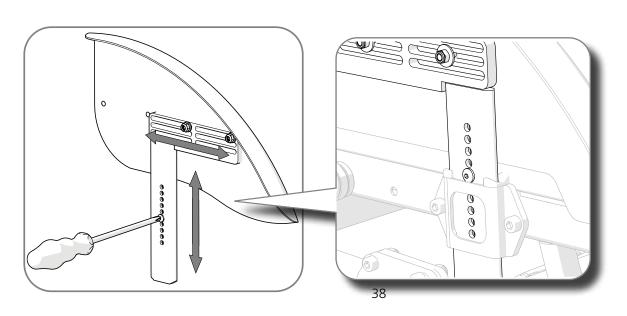
Loosen the screws and move the bracket.

If necessary, the right arm support can be mounted on the left side, and vice versa.



## Mudguard

The height and depth of the mudguard can be adjusted.





3 mm

# 13. Settings, accessories

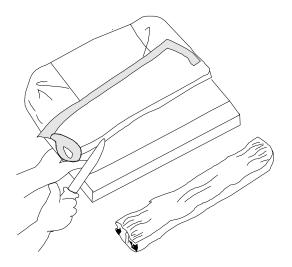
Assembly instructions are always included with the accessories when they are delivered from Etac. Instructions can also be found on our website, www.etac.com

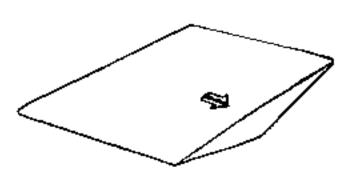
## Seat cushion and comfort wedge

Trim the seat cushion to the set seat depth at the front or rear edge. When measuring the length, make sure that the cushion lies firmly between the back tubes with the rounded corners facing backwards.

The cushion is standard, and is not intended for users with pressure sores.

The cushion can be supplemented with a **comfort wedge**. This flattens the front edge of the seat, which significantly improves seating comfort. Place the comfort wedge in the inner pocket of the cushion cover on the underside of the cushion. The arrow on the comfort wedge must be facing upwards and pointing forwards.



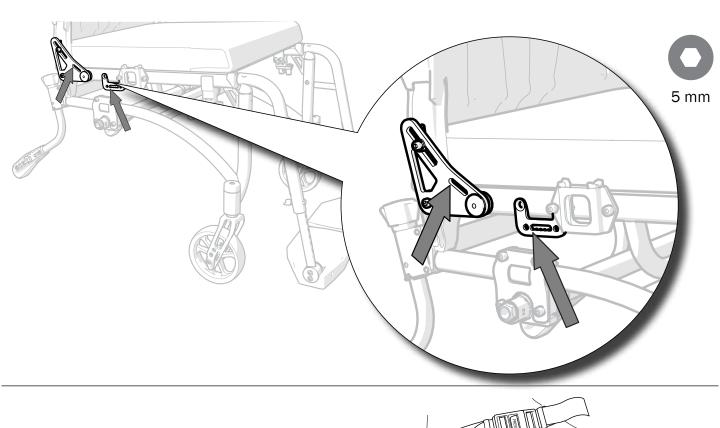


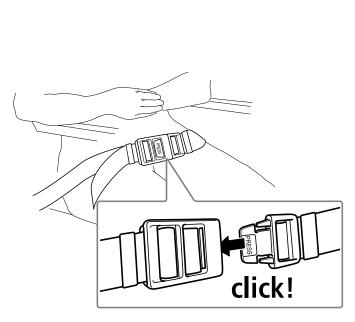
# 13. Settings, accessories

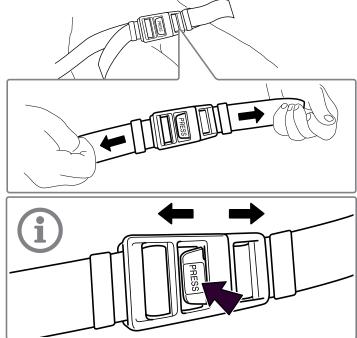
## **Positioning belt**

The length of the positioning belt is adjustable, and is fastened with a snap lock. It is installed in the designated fixing points in the back support plate, or in a bracket by the armrest bracket (accessory).

The positioning belt is intended for positioning in the wheelchair only. It must not replace a seat belt in a car.







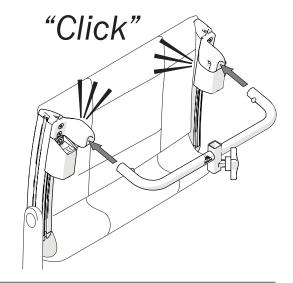
# 13. Settings, accessories

### **Head support bracket**

The head support bracket is used for installing the head support.



Do not lift the wheelchair by the head support mount. Risk of injury.



### **Head support**

The head support is mounted on a separate head support bracket. The height, depth, angle and lateral position of the head support are adjustable,

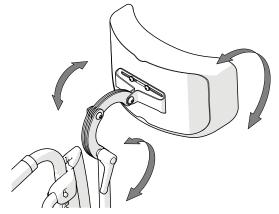
and it is detachable.

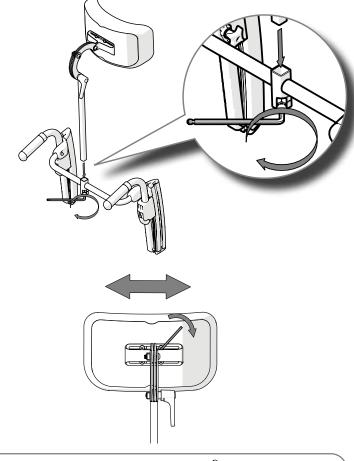


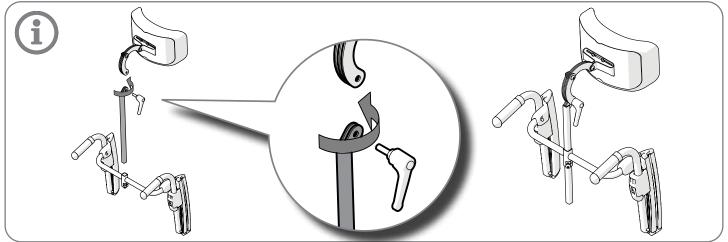
Before adjusting the head support, check that the user is in a good sitting position and is sitting comfortably.



The balance point can be moved when the user leans against the head support.







## 14. Service and maintenance

**Cleaning** 

Back upholstery, seat upholstery and arm support padding:

Wash in accordance with washing instructions on the product.

Chassis, push handle and arm supports: Daily maintenance: Clean the chassis using a commercially available non-abrasive detergent user and safety instructions. with a pH value between 5 and 9. Rinse and dry.

**Disinfection** 

Use 70% disinfectant alcohol.

Allow to dry in the air.

Cleaning in addition to daily maintenance/ reconditioning: See reconditioning instructions at www.etac.com.

Please note the disinfectant manufacturer's

#### Other maintenance work

Rear wheel/castor wheel

Tyre/tube: Check the tyre pressure (see tyre sidewall) at least once a month,

as well as the tyre tread.

Spokes: Loose spokes can cause the wheels to wobble. If spokes need adjusting,

contact someone who is familiar with the product.

Clean the rear wheel and castor wheel axles of hair and dirt if necessary. Wheel axles:

Ball bearings: Maintenance-free.

Handrims: If a handrim sustains a scratch that might cause a hand injury during

operation, remove the scratch or replace the handrim.

#### **Brakes**

The effect of the brakes depends on the air pressure in the tyres. Heavy soiling can have a negative effect on the brake mechanism. If any adjustment is needed, see section entitled "Brake, adjustment".

#### Touch-up paint

For minor scratches and paint damage, touch-up paint is available in the frame colour of the product.

#### Miscellaneous

If something on your wheelchair is not working, contact your prescriber or assistive technology centre. A defective wheelchair must not be used.

When reconditioning and replacing parts, original Etac parts or components of equivalent quality should be used. If other parts are used, Etac is not responsible for the function or safety.



If necessary, lubricate moving parts/joints with lubricant such as bicycle oil or similar.

#### **Warranty:**

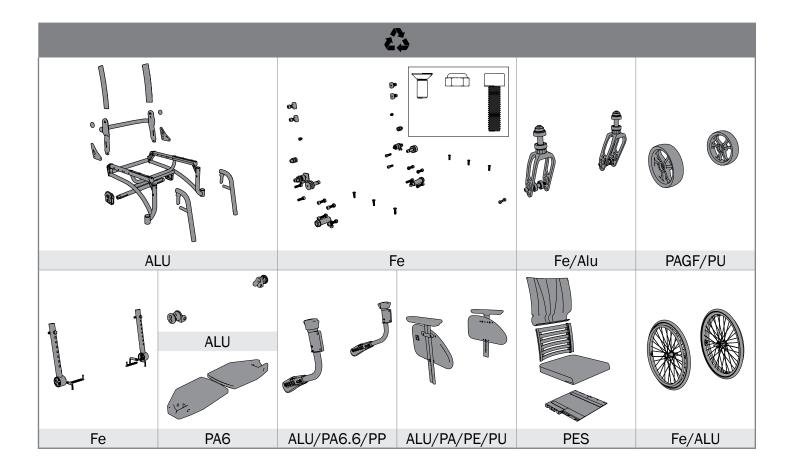
5-year warranty against defects in materials and manufacture. For conditions, see www.etac.com.

# 15. Transport, storage and disposal

## **Storage**

The product should be stored indoors in a dry place at a temperature above 5 °C.

If the product has been stored for a long time (more than four months), its function must be checked by an expert before use.



## 15. Transport, storage and disposal

#### **Transportation in vehicles**

The product has been crash-tested and approved (see section entitled "Declaration of Conformity" in the user instructions).

Etac recommends, in the following order:

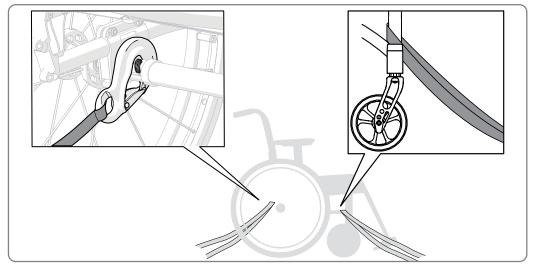
- 1) The user transfers to a vehicle seat and uses the vehicle's three-point seat belt while travelling. The wheelchair is then placed in the boot or in the rear seat in a safe manner so that it cannot overturn or roll. If possible, secure it using the vehicle's seat belt.
- 2) The wheelchair is secured in a forward-facing position in the vehicle in accordance with these user instructions; the user uses the separate three-point seat belt that is secured in the vehicle.
- The restraining device must not be pulled through the wheels or around the back tubes.
- Options/accessories that can be detached without tools must be removed and secured.

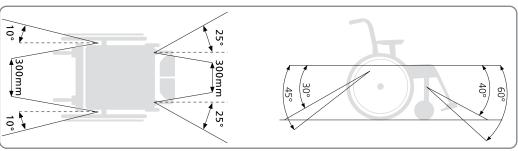
This is how the wheelchair has been tested and approved in accordance with ISO 7176-19.

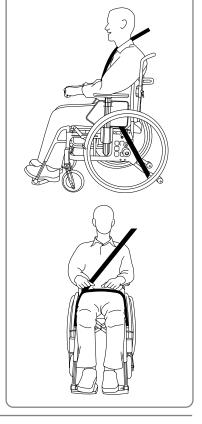
- Tensioning device UNWIN\_WWR/ATF/K/R in accordance with ISO 10542
- Three-point belt 907523, Klippan Safety AB.
- Parking brakes applied
- Anti-tip guards activated
- Rear wheels with handrims.



Do not use wheelchair with One Arm Drive as seat in a motor vehicle. Risk of injury.







3 ) According to Directive 2001/85/EC, Annex VII, section 3.8.3. there may be specially marked wheelchair spaces in vehicles that allow transport with users in wheelchairs facing backwards. If this mode of transport is used, the user/attendant must be active during travel, be prepared for sudden movements and be able to maintain a safe sitting position throughout the entire transport operation. The user's mobility impairment must not be

so great that they cannot hold on and to the wheelchair by the handle mounted in the vehicle during changes in speed or direction.

- The parking brake must be activated
- · Anti-tip guards must be activated



- Options/accessories that can be detached without tools must be removed and secured.
- A hip belt should be worn

# **16.** Troubleshooting chart

| The wheelchair pulls to one side           | <ul> <li>Inflate the tyres</li> <li>Check that the front forks are mounted correctly</li> <li>Check that the rear wheel brackets are mounted correctly</li> <li>The user is distributing weight unevenly in the wheelchair</li> <li>Propulsion is stronger on one side than the other</li> </ul> |
|--|--|
| The wheelchair is "heavy" to operate       | <ul> <li>Inflate the tyres</li> <li>Check that the rear wheel brackets are mounted correctly</li> <li>Clean the castor axles of hair and dirt</li> <li>Too much weight over the castor wheels; adjust the wheelchair's centre of balance</li> </ul>  |
| The wheelchair is "heavy" to turn          | <ul> <li>Inflate the tyres</li> <li>Check that the front forks are not too tight</li> <li>Clean castor axles of hair and dirt</li> <li>Too much weight over the castor wheels; adjust the wheelchair's centre of balance</li> </ul>  |
| The user brake is not effective            | <ul><li>Inflate the tyres</li><li>Adjust the distance between the tyre and the brake</li></ul>   |
| Rear wheels are "loose"                    | Adjust length of hub axle  |
| Rear wheels are difficult to remove/attach | <ul> <li>Lubricate and clean the quick-release, e.g. with bicycle oil</li> <li>Adjust length of hub axle</li> </ul>  |
| The castor wheels "wobble"                 | <ul> <li>The front forks have not been tightened sufficiently</li> <li>Check that the front forks are mounted correctly</li> <li>Too much weight over the castor wheels; adjust the wheelchair's centre of balance</li> </ul>  |
| The back is difficult to fold              | Lubricate and clean  |
| The wheelchair feels "awkward"             | <ul><li>Inflate the tyres</li><li>Check that screws and controls are properly tightened</li></ul>  |



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