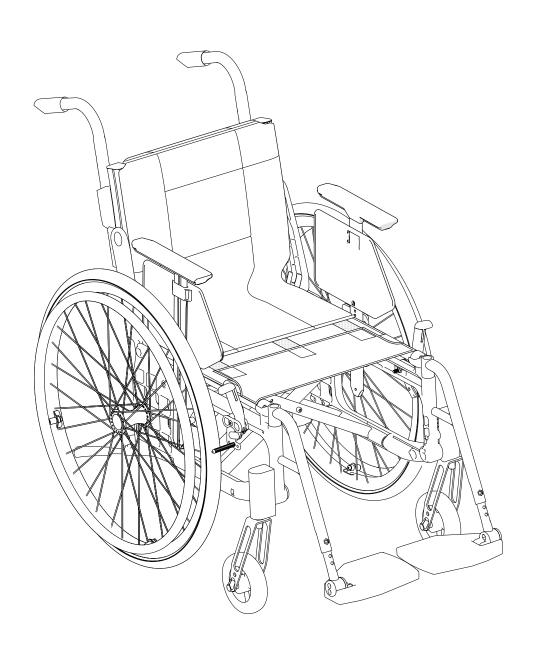
# **Etac Cross 6**

oetac<sup>®</sup>

Manual English

75401G 221219



#### **Content**

Thank you for choosing an Etac product. In order to avoid damage during assembly, handling and use, it is important to read this manual and save it for future reference. You can also find it at www. etac.com. You can select your language via the "International" and "Local websites" link. Here you will also find other product documentation, such as prescriber information, pre purchase guide, and reconditioning instructions.

In this manual, the User is the person sitting in the chair. The attendant is the person who assists the user.



This symbol appears in the manual along with text. It recognizes the instances where the safety of the wheelchair, the user or the attendant could be compromised.



This symbol appears in the manual along with text. Here you will find advice and tips worth considering.

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#### 1. General

#### **Product description:**

Etac Cross 6 (hereafter also referred to as "the product") is a manual, cross-folded all-round wheelchair. Cross 6 offers excellent possibilities for customization through settings and configurable parts.

#### Intended use:

The product is intended to be used for mobility purposes by offering a cross-folded wheel-chair. The product is intended to compensate for injuries and disabilities.

The product is highly adaptable by their many adjustments and configurable parts.

#### Intended user:

The product is intended for users with impaired mobility and adult body size. It is intended for body heights from 140 cm and is suitable for amputees. The product can be used without assistance providing the user can understand its functions and can propel and brake independently. This product is intended for hand and/or foot propulsion. Maximal user weight is stated in the user manual below technical data and dimension and weight on Etac website. The product's intended use is not limited to specific diagnosis.

#### Intended user environment:

This product is designed for indoor and outdoor use. It can be used as a seat in a motor vehicle using the fixation points provided and when the related instructions for use are followed. This product is intended for reuse.

#### **Contraindications:**

Users with dementia or other cognitive disabilities should not move in and out of the wheelchair without supervision/assistance.

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

The product conforms to the requirements of the Medical Devices Regulation (EU) 2017/745.

The product has been tested and meets the

requirements of EN 12183, which includes fire testing in accordance with ISO 8191-2.

Combination agreement is available, see www.etac.com.

The product is crash tested at RISE, Research Institutes of Sweden, according to ISO 7176-19. The tests have been carried out with clamping device UNWIN\_WWR/ATF/K/R according to ISO 10542, and with three point strap 907523, Klippan Safety AB.

The tested product was equipped with: The parking brakes activated Anti-tip guards activated Head support mounted with head support bracket 3A

Handrims on the rear wheels

#### Service life:

The expected service life of the main product is at least five years. The main product comprises the seat and back chassis. The remaining parts/accessories are handled in accordance with the manual and reconditioning manual. The actual service life may vary depending on how often and how intensively the product is used, but will not exceed 10 years. For complete information about the service life of the product, see www.etac.com.

# The following surface treatment methods have been used:

Varnished surfaces = Powder-applied polyester or ED varnish

Unvarnished aluminium parts = Anodizing Unvarnished steel surfaces = Galvanized

#### Warranty:

5 year warranty against defects in material and manufacture. For conditions, see <a href="https://www.etac.com">www.etac.com</a>.

#### **Customization:**

is everything that goes beyond the manual's instructions and settings. Wheelchair specially adapted by the customer must not retain

Etac's CE marking. Etac's warranty expires. If there is any uncertainty regarding the execution of the customization, consult Etac. Wheelchairs coupled with another product may not retain either product's CE mark unless combination agreements exist. Contact Etac for current information.

#### Reutilization:

Cross 6 can be reused. Follow the instructions in "Reconditioning instructions, Etac manual wheelchairs" at <a href="https://www.etac.com">www.etac.com</a>.

Etac is continuously improving its products. We therefore reserve the right to change the products without prior notice. The dimensions given in the drawings or other materials are only indicative.

We will not be responsible for printing errors and incompleteness.



To be sorted according to national regulations

#### **Tools**







Allen key Box-end spanner 3, 4, 5, 6 mm 8, 10, 13, 24 mm



2. Safety

#### Symbols and warnings

These symbols appear on labels and in manuals.



Anchoring. Fixing points for the clamping system for transport in motor vehicles.



Tipping hazard: Always have the anti-tip guard low-ered when driving.



Detachable part, do not lift!

#### General warnings

The following must be taken into account when using the product.



Strong sunlight can heat parts of the chair and cause burns.



The seat can tip over if the backward tilt is greater than  $6^{\circ}$ . Use anti-tip guard!



When adjusting the seat height, balance position or back angle, the function of the anti-tip guard must be checked.



Warning: This product can be adjusted beyond safe use. The prescription of Cross 6 must be done by medical personnel and tested by a specialist.

In case of an adverse event occurred in relation to use of the device, it should be reported to your local dealer and the national competent authority in a timely manner. The local dealer will forward information to the manufacturer.

#### 2. Safety

#### **Transport in vehicles**

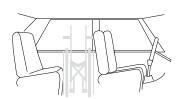
The product is crash tested and approved according to ISO 7176-19 (see section "CE marking, tests" in the manual).

Etac recommends in the following order:

 The user moves to a vehicle seat and uses the vehicle's three-point belt during transport. The wheelchair is then placed securely in the luggage compartment or in the back seat so that it can't overturn or roll.



- The wheelchair should primarily be placed in the luggage compartment.
- If the wheelchair is placed in the back seat, make sure it can't overturn or roll. If possible, secure it with the car's seat belt.



2) The wheelchair is anchored forward in the vehicle according to this manual, the user uses a separate three-point belt that is anchored in the vehicle. This is the way the wheelchair is tested and approved according to ISO 7176-19.

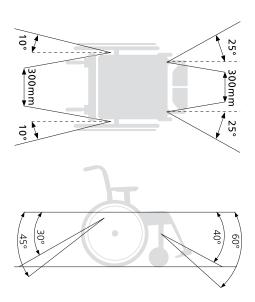


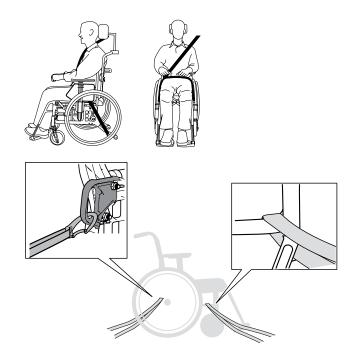
#### Anchoring

- · Rear transport bracket must be used
- The anchoring device must not be pulled through the wheels or around the back posts.



- See section "CE-marking, tests"
- Accessories that can be detached without tools must be removed and clamped
- If head support is mounted other than with head support bracket 3A, cross bar must be used





3) Pursuant to Directive 2001/85/EC, Annex VII, point 3.8.3. in vehicles, there may be specially marked wheelchair spaces that allow transport with the wheelchair facing the direction of travel. If this mode of travel is used, the user/attendant must be active in the ride, be prepared for sudden movements and have the ability to maintain a safe sitting position throughout the transport. The user's disability must not be to such an extent that he cannot hold on himself and the wheelchair to the handle mounted in the vehicle in the event of changes in speed or direction.



- The parking brake must be used
- · Anti-tip guard must be folded down
- Add-on options/accessories that can be detached without tools must be removed and clamped.
- A properly set head support must be used
- Positioning belt should be used

#### 3. Service and maintenance

#### Cleaning

Back upholstery, seat upholstery and arm support upholstery:

Wash as per the washing instructions on the product

<u>Chassis</u>, <u>handle and arm supports</u>: Everyday maintenance: Clean the chassis with commonly used cleaning agents without abrasives that have a pH value between 5 - 9. Rinse and dry.

#### Disinfection

With 70% disinfectant. Allow to air dry. Cleaning in addition to everyday maintenance/reconditioning: See reconditioning instructions at <a href="https://www.etac.com">www.etac.com</a>.

Observe the disinfectant manufacturer's user and safety instructions.

#### Other maintenance

#### Rear wheels/castor wheels

Tyre/tube: Check tyre pressure (see tyre

side) at least once a month,

and also tyre tread.

Spokes: Loose spokes can cause warped

wheels. Contact a bicycle shop or technical aids centre if you need to adjust the spokes.

Wheel axles: Clean rear wheel and castor

wheel axles from hair and dirt

if necessary.

Bearings: Maintenance-free.

Hand rim: If a hand rim is scratched that

could damage your hand during propulsion, it must be replaced.

#### Front fork attachments:

For best driving characteristics, the mounts must be set perpendicularly. Also check that the front forks are properly tightened. See section "Removing/mounting front fork".

#### **Brakes**

The effect of the brakes depends on the tyre pressure. Heavy soiling can adversely affect the braking mechanism. If adjustment is required, see section "Brake, adjustment".

#### Touch-up paint

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

#### Other

If something on your wheelchair does not work, contact your prescriber or technical aids centre. A defective wheelchair must not be used.

When reconditioning and replacing parts, original Etac parts or components of similar quality should be used. When using other parts, Etac is not responsible for function and safety.



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

#### **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.

	Troubleshooting guide
The wheelchair is pulling sideways	<ul> <li>Pump the tyres</li> <li>Check and adjust the height and angle of the front fork attachments</li> <li>Check that the rear wheel brackets are correctly mounted</li> <li>The user load is uneven on the wheelchair</li> <li>The propulsion is stronger on one side</li> </ul>
The wheelchair is "hard" to drive	<ul> <li>Pump the tyres</li> <li>Check that the rear wheel brackets are correctly mounted</li> <li>Clean hair and dirt from the castor wheel axles</li> <li>Too much weight over the castor wheels, adjust the wheelchair's balance position</li> </ul>
The wheelchair is "hard" to turn	<ul> <li>Pump the tyres</li> <li>Make sure that the front forks are not too tight</li> <li>Clean hair and dirt from the castor wheel axles</li> <li>Too much weight over the castor wheels, adjust the wheelchair's balance position</li> </ul>
The brakes are bad	<ul><li>Pump the tyres</li><li>Adjust the distance between the tyre and the brake</li></ul>
The rear wheels are "loose"	Adjust the length of the hub shaft
The rear wheels are difficult to remove/put on	<ul><li>Lubricate and clean the quick-release coupling, with e.g. bicycle oil</li><li>Adjust the length of the hub shaft</li></ul>
The castor wheels are "wobbling"	<ul> <li>The front axles are not tightened hard enough</li> <li>Check and adjust the height and angle of the front fork attachments</li> <li>Too much weight over the castor wheels, adjust the wheelchair's balance position</li> </ul>
The wheelchair is difficult to fold/unfold	<ul> <li>The upholstery is too tight</li> <li>Lubricate and clean the cross sections under the seat</li> </ul>
The wheelchair feels "unsteady"	<ul> <li>Pump the tyres</li> <li>Make sure screws and controls are tightened properly</li> </ul>

# 4. Technical data

Chair type	Art no	Total width	Seat depth from back post *	Weight
				KG
35 cm short	13240101	55,5 cm	36-49 cm	14.6 kg
35 cm long	13240102	55,5 cm	42-55 cm	14.8 kg
37.5 cm short	13240103	58,0 cm	36-49 cm	14.7 kg
37.5 cm long	13240104	58,0 cm	42-55 cm	14.9 kg
40 cm short	13240105	60,5 cm	36-49 cm	14.8 kg
40 cm long	13240106	60,5 cm	42-55 cm	15.0 kg
42.5 cm short	13240107	63,0 cm	36-49 cm	14.9 kg
42.5 cm long	13240108	63,0 cm	42-55 cm	15.1 kg
45 cm short	13240109	65,5 cm	36-49 cm	15.1 kg
45 cm long	13240110	65,5 cm	42-55 cm	15.3 kg
47.5 cm short	13240111	68,0 cm	36-49 cm	15.2 kg
47.5 cm long	13240112	68,0 cm	42-55 cm	15.4 kg
50 cm short	13240113	70,5 cm	36-49 cm	15.3 kg
50 cm long	13240114	70,5 cm	42-55 cm	15.5 kg
52.5 cm short	13240115	73,0 cm	36-49 cm	15.4 kg
52.5 cm long	13240116	73,0 cm	42-55 cm	15.6 kg

Max user weight	Seat height back	Seat height front	Back support height	Transport width
<b>k</b> max				
135 kg	32-53 cm	32-56.5 cm	32-45 cm 38-51 cm	32 cm

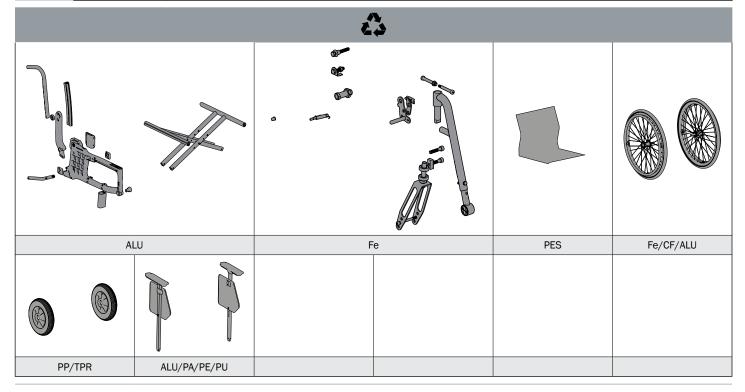
Total height	Total length	Leg support length	Length collapsed	Leg support angle
<b>B</b>	<b>A</b>		<b>5</b>	<u>Q</u>
72-116 cm	80-122 cm	26-64 cm	62-86 cm	108°-114°

Hand rim size	Maximum tilt sideways	Maximum tilt down	Maximum tilt brake
<b>SV</b>			
46.5-58 cm	>20°	>20°	>7°

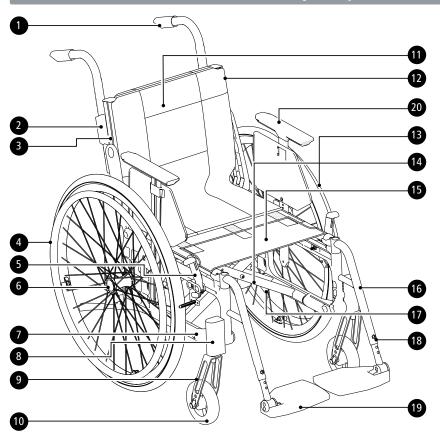
Weights apply to a chair with 24" rear wheels, high-pressure tyres, aluminium hand rims, handles, leg supports, foot plate, brake, arm support mount, 6 1/2" castor wheels and medium fork. Dimensions stated can vary  $\pm$  2%.

*	With	Cross	brace	2	36-4	12/	42-48	cm
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				Tyre			
	High pressure 22"	High pressure 24"	Solid 22"	Solid 24"	Solid (solid inner tube) 22"	Solid (solid inner tube) 24"	High pressure 24" (Carbon)
PSI/Bar	110/7.5	110/7.5	-	-	-	-	110/7.6
	550 mm	590 mm	550 mm	600 mm	550 mm	590 mm	592
	25 mm	25 mm	32 mm	32 mm	25 mm	25 mm	23 mm



### 5. Description/Standard version



- 1. Handles
- 2. Steering handle lock
- 3. Back rail
- 4. Hand rim
- 5. User brake
- 6. Quick release
- 7. Gable
- 8. Front fork attachment
- 9. Front fork
- 10. Castor wheel
- 11. Back cover
- 12. Upholstery back
- 13. Rear wheel
- 14. Cross
- 15. Upholstery seat
- 16. Leg support
- 17. Article and serial numbers\*
- 18. Steering wheel foot lock
- 19. Footplate
- 20. Arm support

\*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.

# 6. The chair's possibilities

In the section "The chair's possibilities" you can see all the adjustments that can be made to the wheelchair. Additional "Odd combinations" exist, e.g. in terms of rear wheels, castor wheels and back model. Contact customer service.

For more information about the chair's possibilities, see www.etac.com

or more imormation	about the chair's possibilities, see y	WWW.ctdc.com
Seat height	Front	32-56.5 cm
Seat Height	Back	32-53 cm
Seat angle	Max forward angle: 2 cm lowe	
	Max backward angle: 6 cm hig	gher than back (9°)
	4" solid (max user weight 100	kg)
	5" solid	
	6" solid	
Castor wheel	6.5" solid	
Castol Wileel	6" solid soft	
	7" solid soft	
	8" solid soft 200x35 or 200x5	50
	8" air pumped	
	Extra short (two height positio	ns for castor wheels)
Front fork	Short (three height positions f	or castor wheels). 3 or 4 mm thick
FIORE TORK	Medium (three height position	ns for castor wheels). 3 or 4 mm thick
	Long	
Rear wheel	22"	
	24"	
	24" Carbon (not with attendan	nt brake)
	26"	

# 6. The chair's possibilities

	Aluminium			
	Stainless steel			
Handrims	Plastic			
	Foam rubber (not with attendant brake)			
	Titanium (not with attend			
	2°			
Camber angle	0°			
_	Seat upholstery			
Seat	Hard seat			
		Back 3A	Back 3A high	
Back support 3A/	Height	32-45 cm	38-51 cm	
Back support 3A high	Hip angle	-5° - +20°	-5° - +20°	
	Lumbar angle	-16° - +16°		
Seat depth	Short frame 36-49.5 cm			
Seat depth	Long frame 41-55.5 cm			
Back support mod. 2	Height 30-45 cm, angle	-5° - +15°. Star	ndard	
back support mod. 2	Height 30-45 cm, angle	-5° - +15°. Wide	ened	
Seat depth back support mod. 2	Short frame 36-42 cm. L Func: Short frame 42-48	-		
Back support uphol- stery	Adjustable upholstery			
	Standard			
Back support cover	Comfort			
	Tidy, wipeable			
Push handles/	Height-adjustable push h	nandles with 2 c	m intervals. Detachable.	
Bow handle	Height-adjustable bow ha	andle with 2 cm	intervals. Detachable.	
Fixed push handles	Ri/le fits Cross back support 3A			
Fixed back with fixed push handles, 2B	Height low back 35-40 Height high back 42.5-47.5 Angles -5 to +15			
Leg supports,	Normal knee angle			
detachable	Narrow angle (fits only w	ith 5" castor wh	eels)	
swing-away	Narrow angle short			
	Normal knee angle			
Leg supports lockable	Narrow angle			
	Narrow angle short			
Leg supports	Elevating with folding calf plate from 40 cm seat width			
Elevating	Elevating with cushion console and padded folding calf plate.			
	Elevating with folding cushion console and padded calf plate.			
Leg supports	Plaster cast leg supports	<b>;</b>		
other	Amputee leg support			
	Amputee weight			
Arm support	Height adjustable, 25 cm	n long, solid plat	e, black	
3566310	Height adjustable, 38 cm	n long, solid plat	e, black	

# 6. The chair's possibilities

	Std Max length: 51 cm. Min length: 33 cm.
	Extended attachment tubes +10 cm
Foot supports	Shorter attachment tubes -8 cm
	One-piece foot support
	One-piece foot support compl for 35-37.5 seat width, angle adjustable, height and depth adjustable
	Low, widened
Front fork attachment	Standard
	Widened 6 cm
	Angled handle red
User brake	Angled handle black
USEI DIAKE	Extended handle
	Single hand brake (standard or angled handle)
Attendant brake	Brake handle 75 mm opening grip
Allendant brake	Brake handle 100 mm opening grip
Single-hand drive	For the right or left side. Telescopic shaft, easy to detach when folded (not with attendant brake)
Colour frame	01 = Black 92 = White 78 = Grey

# 7. Accessories

Installation instructions are included with all accessories when delivered from Etac. You can find them and more info about the accessories on our website www.etac.com.

Settable = Adjustable using tools. Adjustable = Adjustable without tools.

Arm support	Short 26 cm		
Arm support	Long 36 cm		
Cover arm support	Detachable, 25 alt 38 cm long padded alt gel, dark grey plush alt black Dartex. Fits arm support with solid plate.		
Arm support pad hemi	Swivel for mounting on long arm support		
Arm support locking kit	Locked arm support is not detachable but free for height adjustment		
Side protection	Black		
Mudguard	Right or left		
high support			
high support	With soft pad		
Distal thigh support Add- On	Padded. Helps to align the femur, position the knees in a more neutral position and to control abduction.		
Videning kit	To move the rear wheels, brake and arm support 5 mm per side		
ray	Transparent, mounted on long arm supports		
Hemi tray	Transparent, Width 35-50 cm Can be mounted on short or long arm supports.		
Anti-slip hemi tray			
Hemi tray/Communication ray half	Right/left		
Seat extension	Mounted at the rear with a 3A back support		
Seat cushion	Dark grey plush and black velour, 56 cm long, cut to adjusted seat depth, washable		
Seat cushion Tidy	Water repellent, wipeable		
Comfort wedge	For the cushion, levels off the front of the seat		
Cover for calf plate	On elevating leg support, black Hygiene		

# 7. Accessories

Calf strap	Detachable, black nylon, adjustable in length				
Padding	For calf strap				
Calf pad	Plush. Mounted/adjusted with Velcro				
Heel strap	Black nylon, adjustable in length				
Foot whate modeling	For foot support depth 13 cm				
Foot plate, padding	For one-piece, angle adjustable foot plate				
Extended foot plate	Mounted on existing foot plate, seat width 40-55 cm				
Extended foot support Add-on	Fits onto the existing footplate, from seat width 35-52,5 cm. Extends the depth of the foot supports to 22.5 cm				
Sideprotection foot plate Add-on	Mounted on extended foot plate				
Foot box	Padded. Securely contains the feet, while still allowing some movement. Medium or large				
Positioning belt	Two-piece with snap-fit buckle, fixing points on the wheelchair frame				
Seat belt	With snap-fit buckle				
Hood our power that distance	Adjustable in height, depth and angle. Available in several models				
Head support, traditional	With side support. Adjustable in height, depth and angle.				
Head support attachment 3A	For Cross 3A back support, mod 4				
Head support attachment	For mounting on chassis				
Cross-brace (for back support)	For Cross 3A back support. With snap-fit buckle				
Cross-brace (for back support)	For Cross 2 back support. With snap-fit buckle				
	Three different sizes, attached with Velcro. Provides support and	13x9.5x2 cm			
	shape in back support. The wedges can also be combined with other accessories and adapted to the desired size, and several wedges can	19x12x2 cm			
Back wedge	be built together.	20x17x2.5 cm			
	Dayle gray alicela	15 cm			
	Dark grey plush	30 cm			
Side cushion	Provides light side support. Used in cases where trunk supports are too stabilizing.  (Combined with arm supports and side stops if needed)				
Sida stan	Combined with wedge or side support cushion. Creates a more dis-	Straight			
Side stop	tinct stop and holds wedge or side support cushion in place	Angled, 3 cm			
Lateral support	Adjustable in height, depth and width and detachable.				
Lateral support	Swing-away and detachable. Adjustable in height, depth and width				
Lateral support	Cross 3A back support, PUR or Dartex				
Lateral support	Cross 3A back support, swing-away, medium or large cushion				
Anti-tip guard	Telescoping foldable, adjustable in height, adjustable in length and angle				
Cane holder	Two piece of which the elastic part is attached around the cane post				
Drip stand	Bracket and stand				
Spoke guards	With grey or yellow colour print				
Tetra quick release adapter	For users with reduced hand function				
Tool kit					

### 8. Installation upon delivery

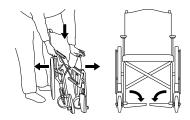
Leg supports with foot plates and arm supports/side covers are delivered unassembled and must be mounted upon delivery.

### 9. Handling



#### **Unfolding**

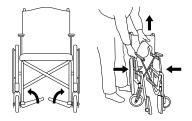
- Push one seat post down, with your whole hand on top of the seat.
- · Do not hold the seat post when unfolding.
- · Fold down the foot plates.





#### **Folding**

- Any drive handle and/or crossbar are detached/unclipped.
- Fold up the foot plates.
- Lift the seat up.

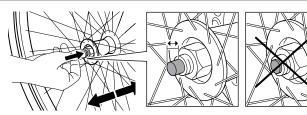




#### Rear wheels with quick-release axle

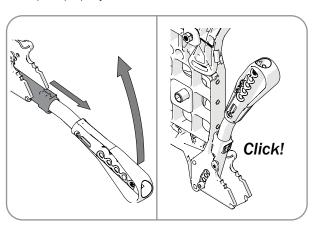


When assembling, always make sure that the quick-release button in the hub springs out properly. Test by pulling the wheel.

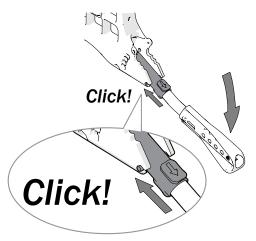


#### **Anti-tip guard**

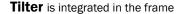
- The anti-tip guards are foldable in two locking positions. The first locking position may be required if the anti-tip guard pushes against the back chassis.
- When unfolding the anti-tip guard, make sure that the locking pin snaps in properly.

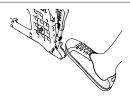






• After all adjustments to the chair, the function of the anti-tip guard must be checked. If the anti-tip guard needs to be adjusted, contact your technical aids centre.





### 9. Handling

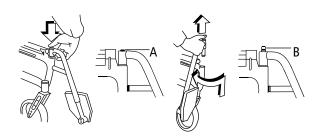
#### Leg supports

The leg supports can be lifted off/swung to the side if needed. Lockable leg supports by pressing the red button (A).

When installing lockable leg supports, press the red button (A), place the leg support in position and release the button. The leg support is now locked (B).



Check that the leg supports are locked before lifting.



#### Push handles/bow handle, height adjustable

Release the locking handle. Set the desired height position. Make sure the handles are in a "snap-in" position, lock the locking handle.



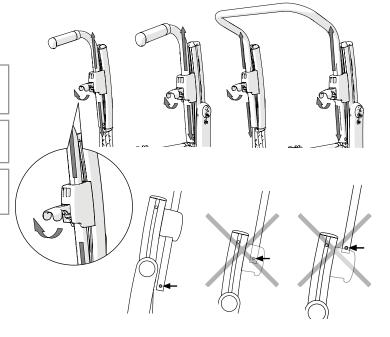
Make sure the locking handles are properly locked. This is especially important when lifting the wheelchair with the user in situ.



Make sure that the locking handle of the handle always snaps out under the handle bracket.

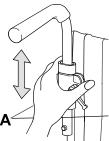


The bow handle must be removed before the chair can be collapsed.

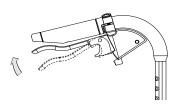


#### Cross 2 back support

Release the knob (A), push in the red wedge. Then as above.

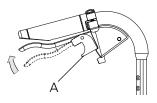


#### Attendant brake (service brake)



Brake during travel by pulling the brake lever upwards.

#### Attendant brake (parking brake)



- To activate the parking brake, pull the brake lever upwards and press the A button.
- Release by pulling the handle upwards.

# 10. Seating comfort settings

#### **Seating comfort**

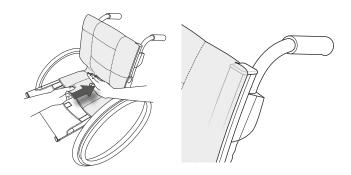
What constitutes good seating comfort depends on the needs and condition of each individual. Here are some general guidelines to consider when making the settings.

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

The back support setting is a combination of angles, height and shape. Therefore, the angular settings and height of the back support may also need to be fine-tuned when adjusting the back upholstery.

#### Back cover

- Slacken all back straps, but make sure the Velcro straps still lock against each other.
- Position the back cover so that it covers the upper edge of the back rails and forms a crease between the seat and back support so that the user can "sit" properly on the seat.



#### Seat cushion

- Make sure the seat depth is set correctly.
- Place the cushion so far back on the seat that the rounded corners go in between the back support rails.
- Measure the appropriate length for the seat cushion, and cut it according to the instructions provided.
- For a more contoured seat cushion, it can be supplemented with a comfort wedge, which is placed in the pocket on the underside of the seat cushion.



#### Back upholstery

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

- · Make sure the user sits as far back as possible on the seat.
- Support the pelvis by tightening the strap placed just below the trunk.
- Then adjust the upper strap so that the user gets support and balance in the upper body.
- The other straps are adjusted to leave space for the seat and follow the natural rounding of the back.



Consider the risk of tipping.
Always check the setting of the anti-tip guard.



Do not over-tighten the top straps as this affects the folding of the cross, i.e. the seat posts lock against the frame.



#### Back angle

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

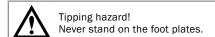
Contact your prescriber.

# 10. Seating comfort settings

#### **Foot plates**

Adjust the height so that your feet feel supported and your thighs rest against the cushion.

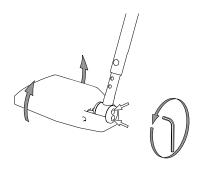
For outdoor use, the foot plates should be 4 - 5 cm from the ground.





#### Angle adjustment

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

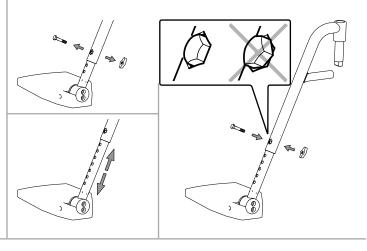




5 mm

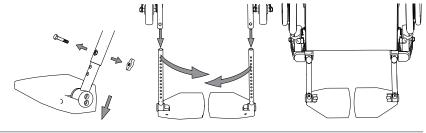
#### Height adjustment

Loosen the locking knob completely on the leg support. Undo the screw. Adjust the height. Install screw and knob. Tighten properly.



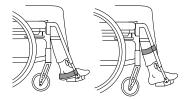
#### Changing the depth of the foot plates

Adjust the depth of the foot plates by switching the left and right foot plates. Don't forget to adjust the angle.



#### Calf/Heel strap

 Adjust the length so that the middle part of the feet are on the foot plates.



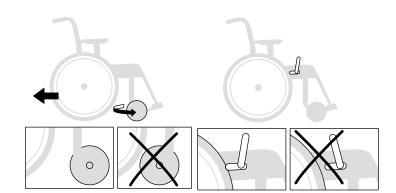


#### **Parking**

Turn the castor wheels forward, apply the brakes.



Do not park on a hill with user in the wheelchair.

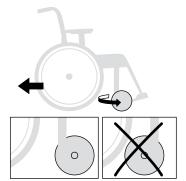


#### Transfer to/from a wheelchair

Turn the castor wheels forward, apply the brakes, fold up the foot plates and swing away the leg supports.



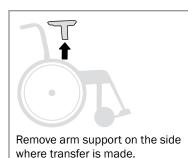
Never stand on the foot plates, risk of tipping!

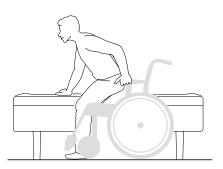






#### **Sideways**





#### From the front



#### Lift off wheelchair





- Make sure that adjustable push handles are properly tightened and that lockable leg supports are properly locked.
- Non-lockable leg supports are swung in under the seat and the wheelchair is lifted at the front upper part of the frame.



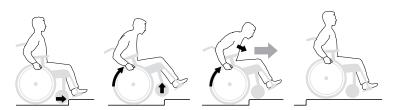
(!)

The following sketches show principles for driving technique and dealing with obstacles.

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

This technique is only recommended for experienced wheelchair users.

- Make sure the anti-tip guards are inactive.





Activate the anti-tip guards afterwards!

#### User, up backwards

This technique only works with a low edge/threshold, depending on the height adjustment of the foot plates.

- Make sure the anti-tip guards are inactive.



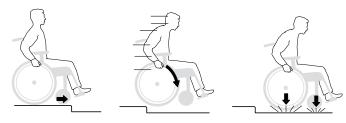


Activate the anti-tip guards afterwards!

#### User, down forwards

This technique is only recommended for experienced wheelchair users.

- Make sure the anti-tip guards are inactive.



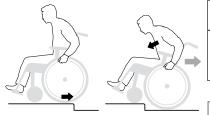


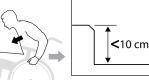
Activate the anti-tip guards afterwards!

#### User, down backwards

This technique is only recommended for experienced wheelchair users.

- Make sure the anti-tip guards are inactive.









The risk of tipping is great in this maneuver!



Activate the anti-tip guards afterwards!



#### Attendant, up forwards

- Make sure the anti-tip guards are inactive.



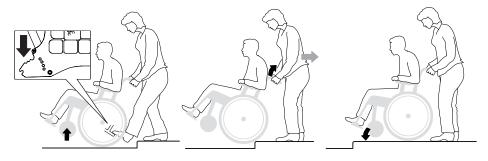


Activate the anti-tip guards afterwards!



#### Attendant, up backwards

- Make sure the anti-tip guards are inactive.



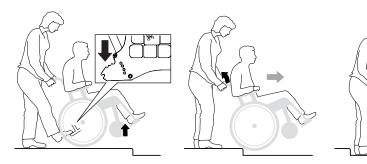


Activate the anti-tip guards afterwards!



#### Attendant, down forwards

- Make sure the anti-tip guards are inactive.



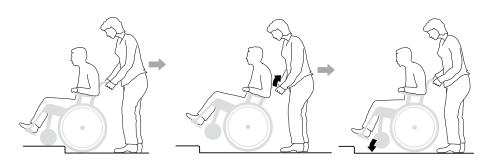


Activate the anti-tip guards afterwards!



#### Attendant, down backwards

- Make sure the anti-tip guards are inactive.





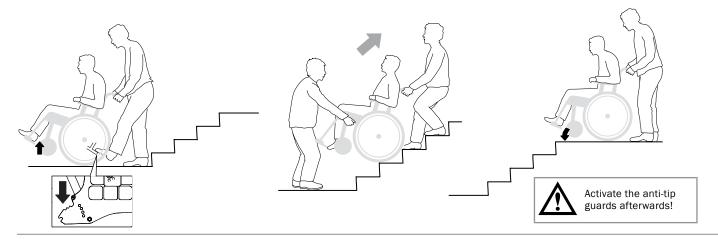
Activate the anti-tip guards afterwards!



#### Stairs, up

- Make sure the anti-tip guards are inactive. Never use escalators, even if there is an attendant. Make sure that height adjustable handles are tightened.

We recommend that there always be two attendants in this move. One who goes behind and holds the handles and one who goes in front and holds the frame (or the leg supports if they are lockable).

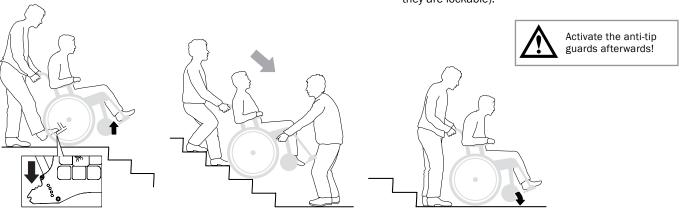




#### Stairs, down

- Make sure the anti-tip guards are inactive. Never use escalators, even if there is an attendant. Make sure that height adjustable handles are tightened.

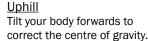
We recommend that there always be two attendants in this move. One who goes behind and holds the handles and one who goes in front and holds the frame (or the leg supports if they are lockable).





#### Driving uphill/downhill

Check your speed with the hand rims, not with the brakes! Avoid turning in the middle of a hill. Always drive as straight up/down as possible. If you are unsure, ask for help.





#### **Downhill**

Tilt your body backwards to correct the centre of gravity.



#### Foot propel

The user propels the wheelchair with one or two feet.



**The seat angle** is obtained by the difference between front and rear seat height.

At changed seat angle:

- Adjust the angle of the front fork attachments.
- Check the back support angle.

**The seat depth** can be adjusted by lifting the front seat upholstery and moving it backwards/forwards.

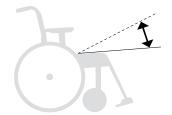
With Cross back support 3A, the seat depth can be extended by using the back support adjustment (see section "Adjusting the seat depth using the lumbar angle, 3A").

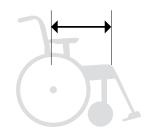
#### **Seating comfort**

After adjusting the seat height, seat angle, seat depth and back angle, the back upholstery should be adjusted to provide support and comfort. See section "Seating comfort settings".



Consider the risk of tipping. Always check the setting of the anti-tip guard.





#### Front seat height can be adjusted using:

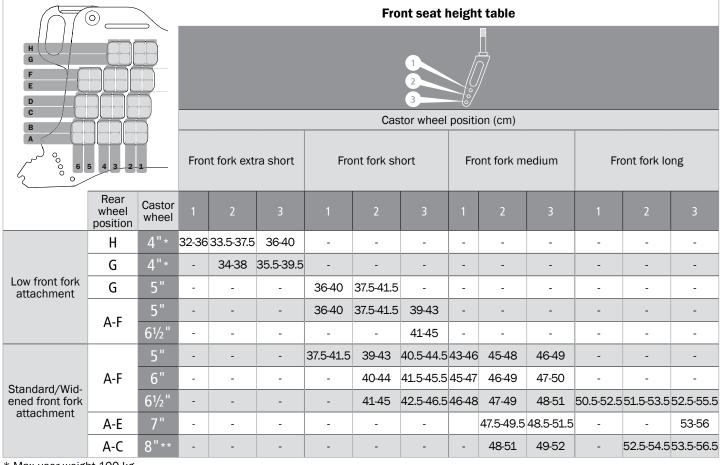
- Front fork attachment, adjustable in height and angle.
- Changing the position of the castor wheel in the front fork.
- Change of front fork
- Change of castor wheel
- Change of front fork attachment



Consider the risk of tipping. Always check the setting of the anti-tip guard.



Installation instructions can be found in the sections "Height adjustment front fork attachment", "Angle adjustment front fork attachment", "Removing/mounting front fork" and "Removing/installing castor wheels".



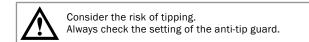
<sup>\*</sup> Max user weight 100 kg.

For correct adjustment of the front fork attachment: Max backwards angle 6 cm higher than rear (9°), max forward angle 2 cm lower than rear (3°).

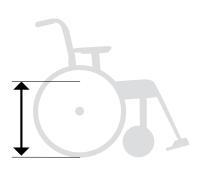
\*\* Works in balancing 4-6 with 3° backward angle and Std leg support. Make sure that the front fork/castor wheel can rotate freely without hitting the wheelchair or the user. For castor wheels 8x2", use fork Transit (gives seat height 47-51 cm).

#### Rear seat height can be adjusted using:

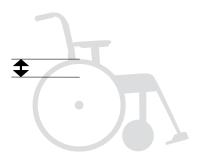
- The position of the rear wheel (camber washer) in the gable.
- Camber washer's twist in the gable.
- Change of rear wheels



	Back seat height table			
	Rear wheel	Seat height cm	Distance cm seat-rear wheel	
Position A	20"	46	4.5	
	22"	48.5	7.0	
	24"	51	9.5	
	26"	53.5	12	
Position B	20"	44	6.5	
	22"	46.5	9.0	
	24"	49	11.5	
	26"	51.5	14	
Position C	20"	42	8.5	
	22"	44.5	11.0	
	24"	47	13.5	
	26"	49.5	16	
Position D	20"	40	10.5	
	22"	42.5	13	
	24"	45	15.5	
	26"	47.5	18	
Position E	20"	38	12.5	
	22"	40.5	15	
	24"	43	17.5	
	26"	45.5	20	
Position F	20"	36	14.5	
	22"	38.5	17	
	24"	41	19.5	
	26"	43.5	22	
Position G	20"	34	16.5	
	22"	36.5	19	
	24"	39	21.5	
	26"	41.5	24	
Position H	20"	32	18.5	
	22"	34.5	21	
	24"	37	23.5	
	26"	39.5	26	



Seat height



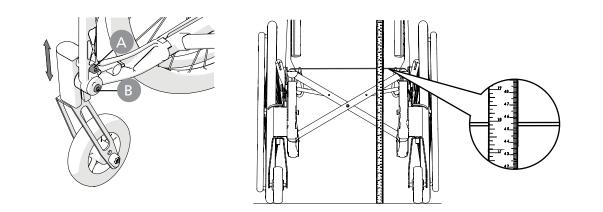
**Distance seat-rear wheel** 

#### Height adjustment front fork attachment

Loosen the screws (A and B). Set the desired seat height by measuring from the floor to the top of the seat post (push down the post in the cup when measuring) and tighten the screws on one of the front fork attachments. Use the bar markings as a reference for height adjustment of the opposite side. Tighten the other attachment. Check and adjust so that the attachments are vertical (see section "Angle adjustment of front fork attachment"). Fine-tune the height of the front fork attachments so that both wheels are on the floor.



Consider the risk of tipping. Always check the setting of the anti-tip guard.







6 mm

#### Angle setting front fork attachment

Correct angle setting is important for the wheelchair's driving characteristics.

Loosen the retaining screw (A) about 2 turns so that the shaft (C) moves freely inside the sleeve.

Insert the Allen key into the hole (B) and turn until the attachment is vertical. Always start from a position so that the wheel moves forward in rotation (D).

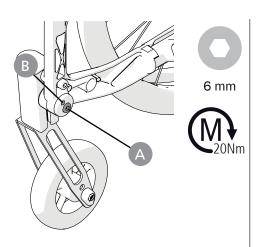
Push in the sleeve and hold in the correct position while tightening the retaining screw.

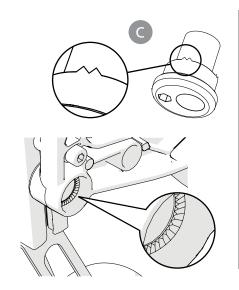


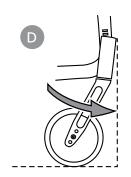
Consider the risk of tipping.
Always check the setting of the anti-tip guard.



 $\operatorname{\mathsf{Aim}}$  for something vertical, such as door post, table legs when setting.









#### Removing/mounting front fork

- Remove cover (A) and loosen lock nut (B). Pull out the front axle and move the beveled washer (C) and the ball bearing to the new axle.
- Mount the washers and ball bearings in the front fork attachment as illustrated. The washer (C) is placed with a beveled side against the axle. Spring washer (D) at the top under the lock nut.
- Gently tighten the lock nut until the front axle spins with some inertia and then loosen about 1/2 turn. The spring washer then has the correct tension, which reduces the risk that the castor wheel starts to "wobble".
- Fit the cover.

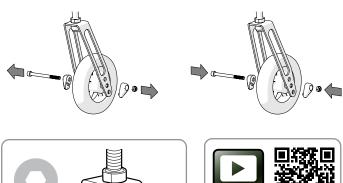


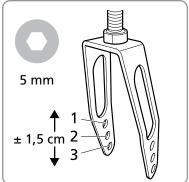
#### Removing/mounting castor wheels

Loosen screw, nut and spacer and mount the wheel in the appropriate position.



Consider the risk of tipping. Always check the setting of the anti-tip guard.





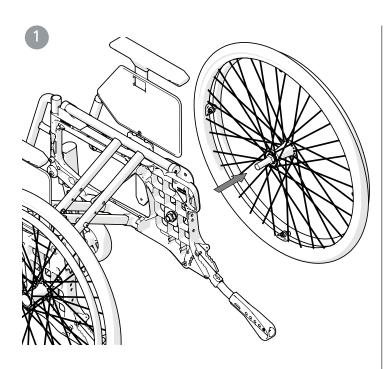


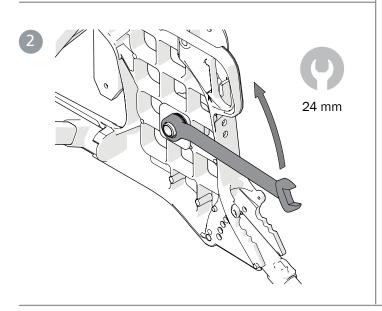
#### **Change rear wheel position**

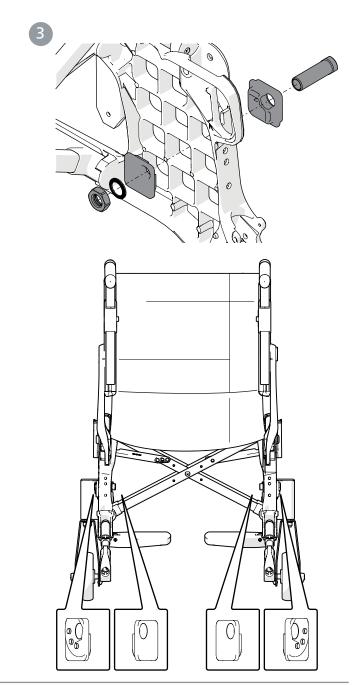
- 1. Remove the rear wheel
- 2. Loosen the nut.
- 3. Take the assembly apart with the washers and mount in the desired position (see table in section "Rear seat height table").

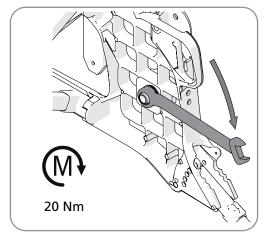


Consider the risk of tipping.
Always check the setting of the anti-tip guard.

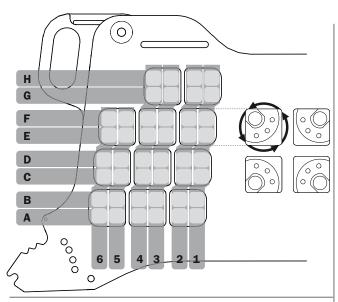




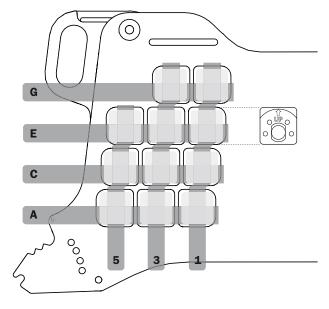


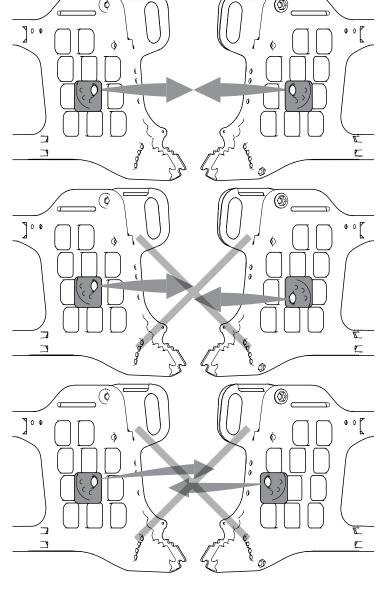






Fitting 0° Camber

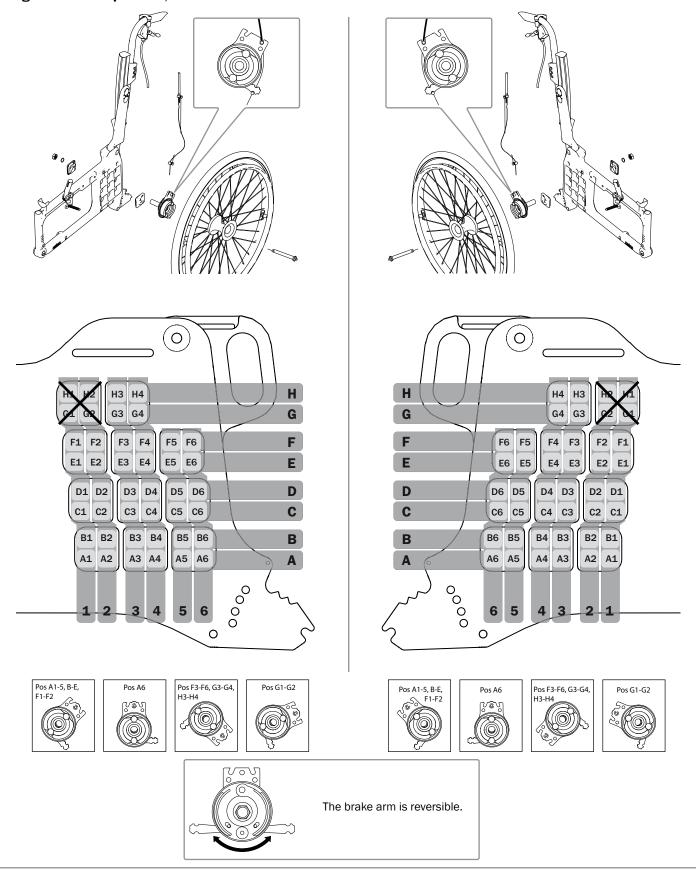






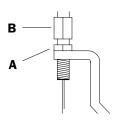
When fitting, check that the rear wheel hub shaft is correctly set. The button in the hub should spring out to its original position. Test by pulling the wheel.

### Change rear wheel position, attendant brake



When adjusting the brake, loosen the nut (A) and adjust the brake by screwing (B) up/down.

When the brake is tight enough tighten the nut (A). This adjustment should be made when the brake does not work satisfactorily.





8 mm

#### Adjust the back support angle, 3A

The angle of the back support is continuously adjustable (see "The chair's possibilities").

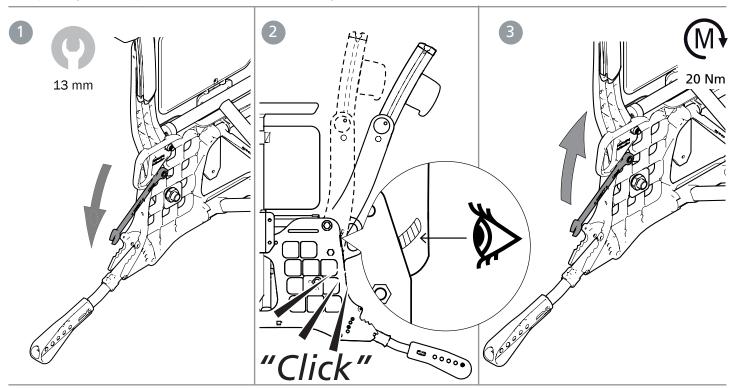
- 1. Loosen the nut.
- Adjust the back angle. Use the bar markings or count the number of "clicks" to get the same back angle on the right and left sides respectively. The click positions have 3° intervals and are only

for simplifying the setting, the back angle can therefore also be adjusted between the click positions.

3. Tighten the nut.



Consider the risk of tipping.
Always check the setting of the anti-tip guard.



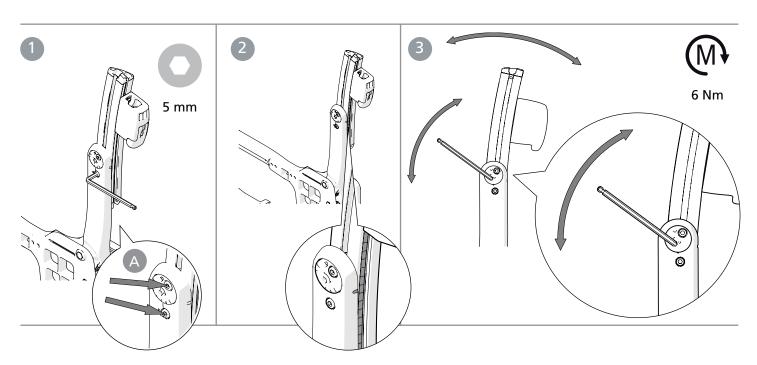
#### Adjust the back support height and lumbar angle, 3A

The back height is adjustable (see "The chair's possibilities").

- 1. Loosen the locking screws (A) max 1 turn.
- 2. Adjust the back height using the scale and mark on the lower back rail. Tighten the locking screws max 1/2 turn.
- 3. Insert the Allen key into the eccentric sleeve locking screw and loosen this 1/2 turn. Move the Allen key to the eccentric sleeve's key grip and set the desired lumbar angle.
- 4. Tighten the locking screws.



Consider the risk of tipping.
Always check the setting of the anti-tip guard.



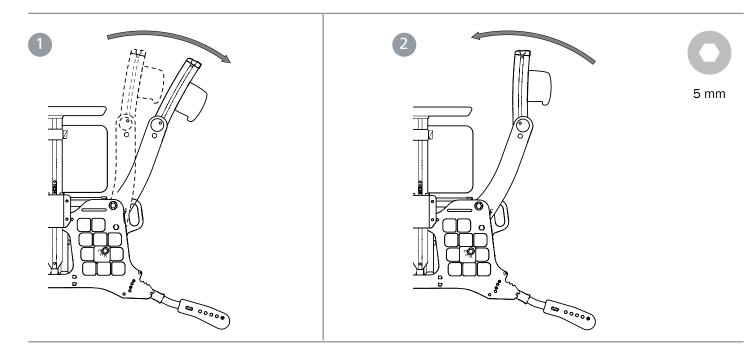
#### Adjust seat depth using lumbar angle, 3A

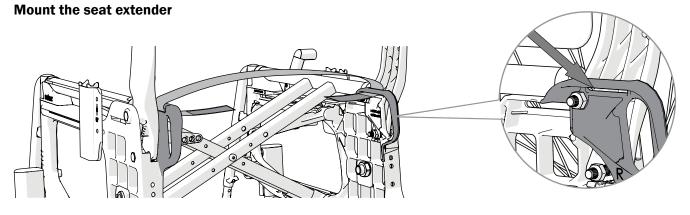
An extended seat depth is obtained by opening the back support angle (hip) and following with the lumbar angle.

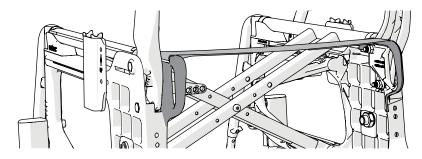
- 1. Adjust the back angle (see section "Adjusting the back support angle 3A").
- 2. Adjust the lumbar angle using the eccentric sleeve to the desired back angle (see "Adjusting the back support height and lumbar angle, 3A").
- 3. If necessary, mount the seat extender (accessory).



Consider the risk of tipping.
Always check the setting of the anti-tip guard.









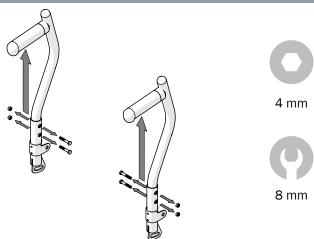
Consider the risk of tipping. Always check the setting of the anti-tip guard.

#### Adjust the back support height, 2B

The back height is adjustable (see "The chair's possibilities"). Loosen the screws to adjust the back height. Tighten the screws.



Consider the risk of tipping.
Always check the setting of the anti-tip guard.



#### Adjust the back angle, 2B

The angle of the back support is continuously adjustable (see "The chair's possibilities"). The angle is adjusted by means of the nut on the inside of the rear wheel mounts.

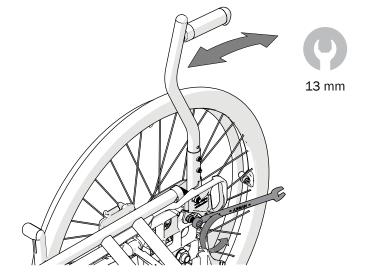
- Loosen the nut for one of the back posts, set the desired angle and tighten.
- Adjust the other back post equally.



Check that the angle is the same on both sides by comparing the distance between the back post and the arm support plate.



Consider the risk of tipping.
Always check the setting of the anti-tip guard.



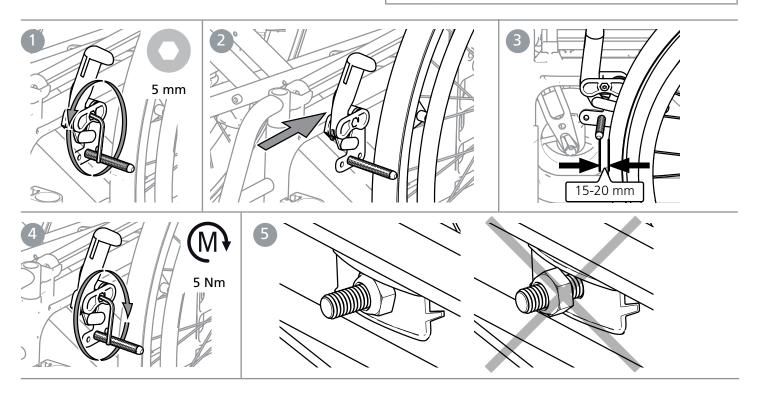
#### Brake, adjustment

The brake is continuously adjustable.

- 1. Loosen the screw a few turns.
- 2. Adjust the brake position
- 3. The brake pin must be approximately 15-20 mm from the tyre in the unbraked position.
- 4. Make sure the brake is straight in the groove. Tighten the screw by about 5 Nm. Test the brakes!
- 5. Make sure the nut locks on the inside.

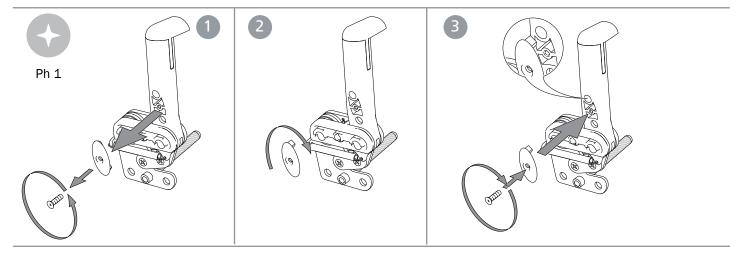


The braking effect depends on the tyre pressure. The brake is a parking brake and should not be used as a driving brake.

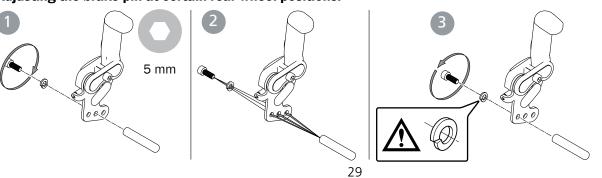


If the rear wheels are mounted in one of the front positions, leg supports that are folded aside can release locked brake. To avoid this, the brake lever should be adjusted so that it gets a "free position". Then the brake is released only when the brake lever is moved near the rear wheel.

- 1. Loosen the screw on the inside of the brake lever.
- 2. Remove the oval plate, turn it 180° (the spike on the inside of the plate should come in the upper hole).
- 3. Screw it in again.



#### Adjusting the brake pin at certain rear wheel positions:

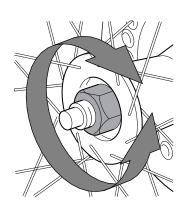


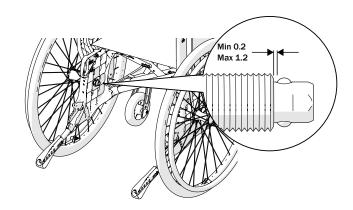
#### Rear wheels with quick-release axle

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



When assembling, always make sure that the quick-release button in the hub springs out properly. Test by pulling the





#### Leg supports, continuously elevating

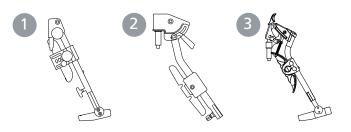
can be adjusted.

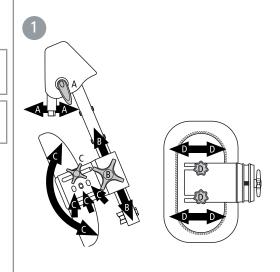


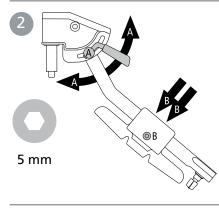
Never stand on the foot plates, risk of tipping! When lifting a wheelchair, remove the leg supports and lift the frame (lower or upper frame post).

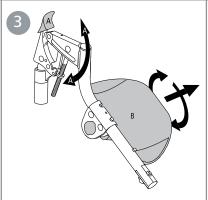


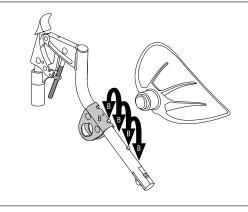
Always have screws and knobs for foot plate mounted even if foot plate is not used.











#### Amputee leg support can be adjusted.



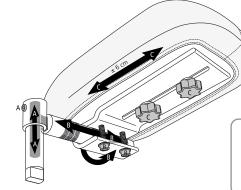
Never sit on the amputee support. When lifting a wheelchair, remove the amputee support, fold the other leg support under the seat (or remove it) and lift the frame (lower or upper frame post).



4 mm



6 mm





**The anti-tip guards** are adjustable in height and angle and adjustable in length.

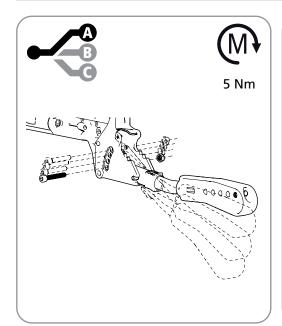


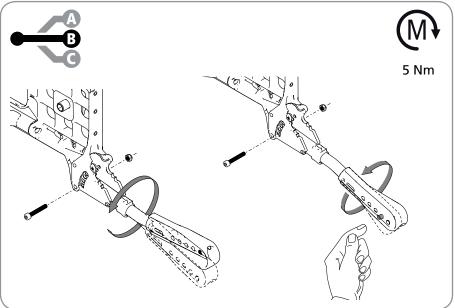
When adjusting the seat height, balance position or back angle, the function of the anti-tip guard must always be checked.

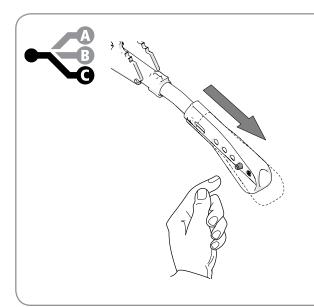


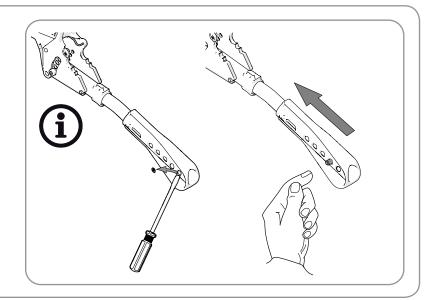


5 mm









**The material of the handrims** and the distance between the rear wheels - the handrim affects the user's grip possibilities. Foam rubber and plastic are available as an option.



Foam rubber/plastic handrims give higher friction. In the event of heavy braking, slight burns (e.g. blisters) may occur.

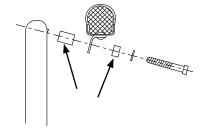


Risk of crushing your fingers may occur when passing through narrow passages, and if your fingers enter the spokes.



If there is a risk that the user can get his fingers in the spokes, we recommend spoke guards.

**Hand rim spacing** on rear wheels 24", 22" and 20" with aluminium, stainless steel, plastic and foam rubber handrim can be adjusted by moving/changing the space between the two distances.



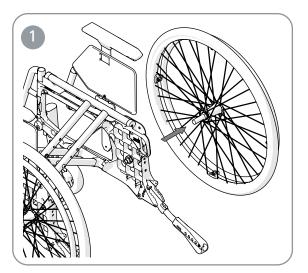


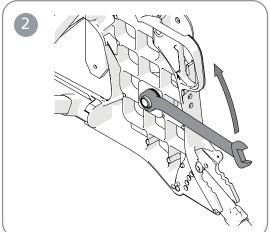
4 mm

**The camber angle** can be changed by replacing the washers between the hub sleeve and the nut (see also section "Changing the rear wheel position").



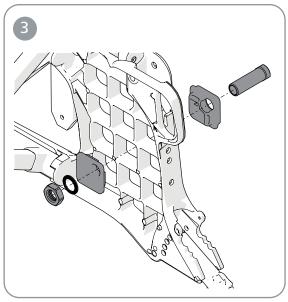
Check that the rear wheel hub shaft is set correctly. The button in the hub should spring out to its original position. Test by pulling the wheel.

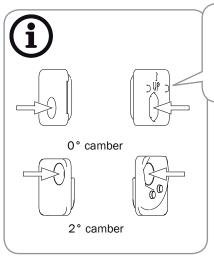


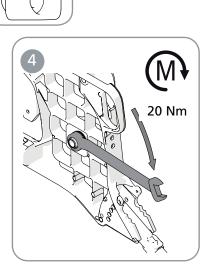




24 mm







# The centre of gravity/balance setting is adjusted by changing the position of the rear wheels.

- Move hubs/rear wheels forwards or backwards.



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



24 mm

When the rear wheel position is moved forwards, the wheelchair becomes easier to drive and swivel, but the tendency to tilt

backwards increases.

See section "Changing the rear wheel position".



The centre of gravity also changes when changing seat angle and/or back angle.



Use of anti-tip guards is recommended.



When assembling rear wheels, always make sure that the quick-release button in the hub springs out properly. Test by pulling the wheel.

#### Toe-in, toe-out

Due to the design there is no need for a toe-in correction. Even when the rear wheel position is adjusted in height or centre of balance the rear wheel attachment makes sure that the adjustment of the toe-in is always correct.

**The arm support attachment** can be mounted in two different positions in height, and two different positions in depth. In height position 1 the arm support height is adjustable from 18 to 26 cm and in position 2 (standard) from 24 to 31 cm. In depth the arm support is adjustable 14 mm.

The square nut determines both the height of the arm support and attaches the side plate:

- Loosen the screw holding the square nut.
- Slide the side plate up or down to the desired height.
- Tighten the nut again on the side plate.

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



Do not lift the wheelchair using the arm supports.

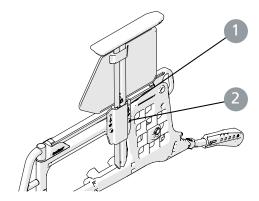


With 24" low pressure or solid tyres in pos. F1 & E1, the arm support side cover does not cover the front of the rear wheel.

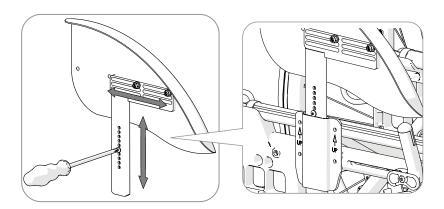


With  $24^{\prime\prime}$  rear wheels, the arm support attachment cannot be mounted in the rear position.





**Mudguard** can be adjusted in height and depth.



### 14. Settings, accessories

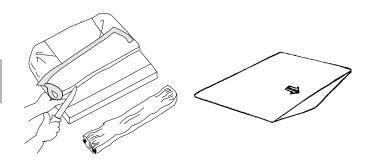
Installation instructions are always included with the accessories when delivered from Etac. Instructions are also available on our website www.etac.com

**The seat cushion** is cut to the set seat depth at the front or rear edge. Make sure that the cushion fits properly between the back posts with the rounded corners backwards when measuring the length.



The cushion is a standard type and not intended for users with bed sores.

The cushion can be supplemented with a **comfort wedge**. It flattens out the front seat, which significantly improves seating comfort. Place the comfort wedge in the inner pocket of the pillow case on the underside of the cushion. The arrow on the comfort wedge should be facing up and pointing forwards.



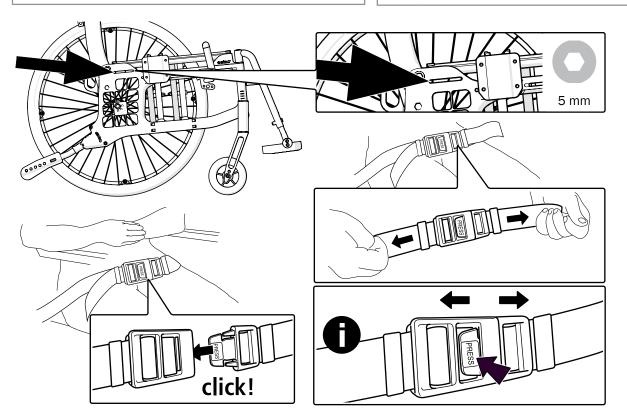
**The positioning belt** is two-piece, adjustable in length and has a snap-fit buckle. It is mounted in the groove just in front of the back support, above the rear wheel mount.



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



Ensure that the user does not slide forwards on the seat as the belt tightens the blood supply in the hip/waist region.



# 14. Settings, accessories

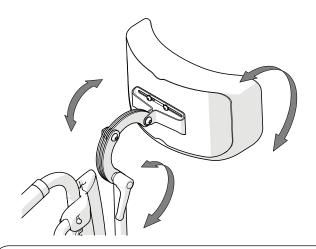
**Head support** is mounted on a separate head support mount or on a bow handle (optional). The head support is adjustable in height, depth, angle and sideways and detachable.

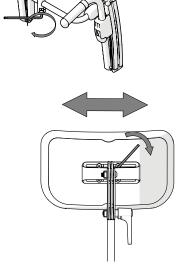


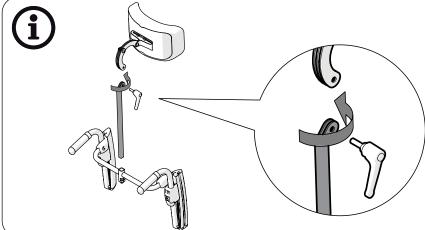
Before adjusting the head support, make sure that the user has a good sitting position and is seated firmly.

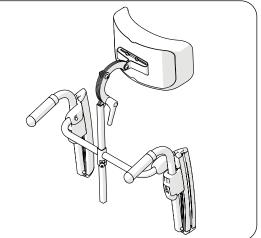


Check the wheelchair balance when the user leans his head against the head support. Use of anti-tip guards is recommended.





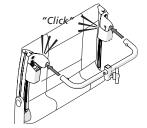




**Head support mount** is used for mounting head supports.



Do not lift the wheelchair by the head support mount.



**Crossbar** is used when the back chassis needs to be reinforced.



Do not lift the wheelchair by the crossbar.

