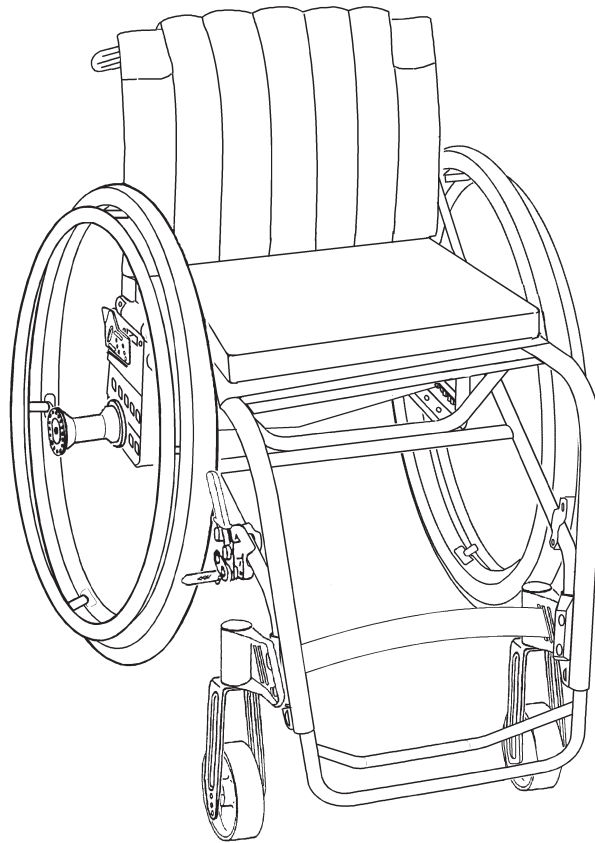


# Act

## Manual English

etac®

74066H 2014-06-09



CE

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# 1 General

The manual must be read thoroughly to avoid damage when handling and using the Act chair.



Is a warning triangle to indicate that special care should be taken.

(!) Provides advice and tips worth considering

Anti-tips available as an accessory. At the correct setting they will prevent the wheelchair from tipping backwards. We recommend all users to use the anti-tip devices, unless you are an experienced user with absolute control over your wheelchair.

Act is a manual, light, rigid-frame titanium wheelchair for active users with a large number of adjustment possibilities. Its design is particularly well suited to enable users to easily put it in and out of cars on their own. It has been tested and approved for a user weight of 100 kg, and is intended for use both outdoors and indoors. The seat is adjustable in height, angle and depth. The backrest is adjustable in angle and contour and is cut to the height required.

Act can be supplemented and adjusted if needs change. A large range of options and accessories are available: Sideguards, anti-tips, various types of handrims etc.

Act has the best prerequisites to create comfort, functionality and good manoeuvrability.

## Testing

Act (serial no. 21A) is tested in accordance with ISO 7176:19 and ISO 10542. These ISO standards specify requirements for the design of the wheelchair's restraint points, how the wheelchair and the user are secured in the vehicle, and also describe how tests should be carried out and how the test results should be interpreted. Etac's wheelchairs are crash tested at the Technical Research Institute of Sweden. The tests were carried out with normal settings on the wheelchairs (see manual for the respective wheelchair) and with an UNWIN\_WWR/ATF/K/R restraining device and an UNWIN\_WWR/HD/ATF/K/R 3-point belt.

**Seat widths:** From 35 cm to 45 cm.

**Seat depth:** Short frame: 33-39 cm. Long frame: 39-45 cm.

**Max. user weight:** 100 kg

Act is supplied with the rear wheels unmounted.

**Service life:** The product is tested and fulfils the demands stated in EN 12183. The main product's durability and lifetime is at least five years when used in accordance with intended use, the safety instructions, the reconditioning manual and instructions for use in the user manual. The main product consists of the chassis for seat and back support. Additional parts/accessories are handled in accordance with the manual and reconditioning manual. The actual lifetime can vary, depending on how much and how intensively the product is being used, but a maximum of 10 years. Thereafter the product must be decommissioned.

The following methods of surface treatment have been used:

Lacquered surfaces=Polyester powder coating

Non-lacquered aluminium parts=Anodized coating

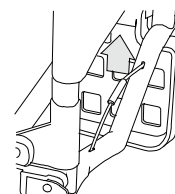
Non-lacquered steel surfaces=Galvanized

The tool kit contains: 5 Allen keys: 2, 3, 4, 5 and 6 mm  
2 Ring spanners: 10 and 8 mm  
1 Socket spanner: 24/19 mm

## 2 Handling/Transport

### 2:1 Folding

- Remove any armrests or sideguards.
- Remove the rear wheels.
- Fold down the backrest by pulling upwards on the cord.

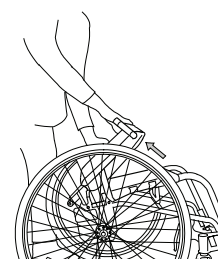


### 2:2 Unfolding

- Attach the rear wheels
- Fold up the backrest
- Attach any armrests or sideguards required.



When attaching the rear wheels, always check that they are securely mounted. The button in the hub should pop out completely.

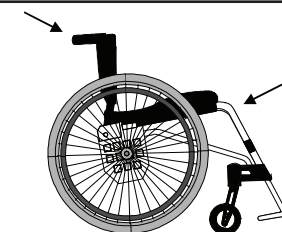


### 2:3 Lifting the wheelchair

- Lift using the push handles and the front part of the frame.



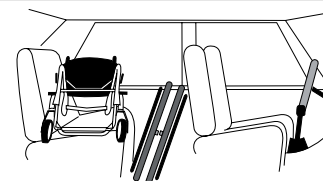
Before lifting, ensure that the push handles are securely fastened.



### 2:4 Transportation in vehicles

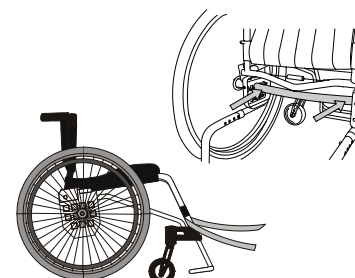
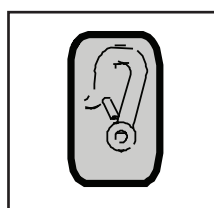
*Private car/taxi:* The wheelchair can be placed in the car boot. If this is not possible, ensure that the wheelchair is

placed safely in a seat, so that it cannot overturn or roll. If possible secure the wheelchair with the car's safety belt.



### 2:5 Securing

The wheelchair must be secured as follows, the straps must not be put through the wheels or around the back tubes.

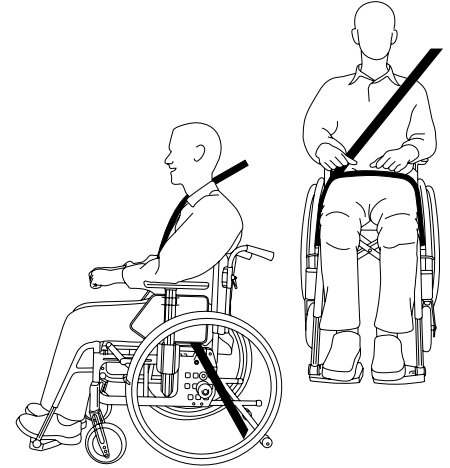


## 2 Handling/Transport

### 2:6 Seat belt

If the wheelchair is used as a seat for travel, Etac recommends that the user wears the 3-point belt that is fitted in the vehicle.

It is important that the 3-point belt is fitted correctly, as in the illustrations:



### 2:7 Recommendations

Etac recommends in the following order:

1) The user transfers to a seat in the vehicle and uses the vehicle's 3-point belt while travelling. The wheelchair is then placed in the boot or safely in the back seat so that it cannot overturn or roll.

2) The wheelchair is secured facing forwards in the vehicle as per this manual, the user uses a separate 3-point belt that is secured in the vehicle. This is the way in which the wheelchair is tested and approved according to the ISO-standard for crash testing of wheelchairs in vehicles.

3) According to directive 2001/85/EC, appendix VII, point 3.8.3. there are specially marked wheelchair locations in vehicles that permit transport with a wheelchair facing in the opposite direction of travel. If this means of travel is used, the user/carer must be aware while travelling, prepared for sudden movements and have the capacity to maintain a safe sitting position throughout the entire journey. The user's disabilities must not be of such an extent that he/she is not able to hold onto the handles fitted in the vehicle when there are changes of speed or direction.

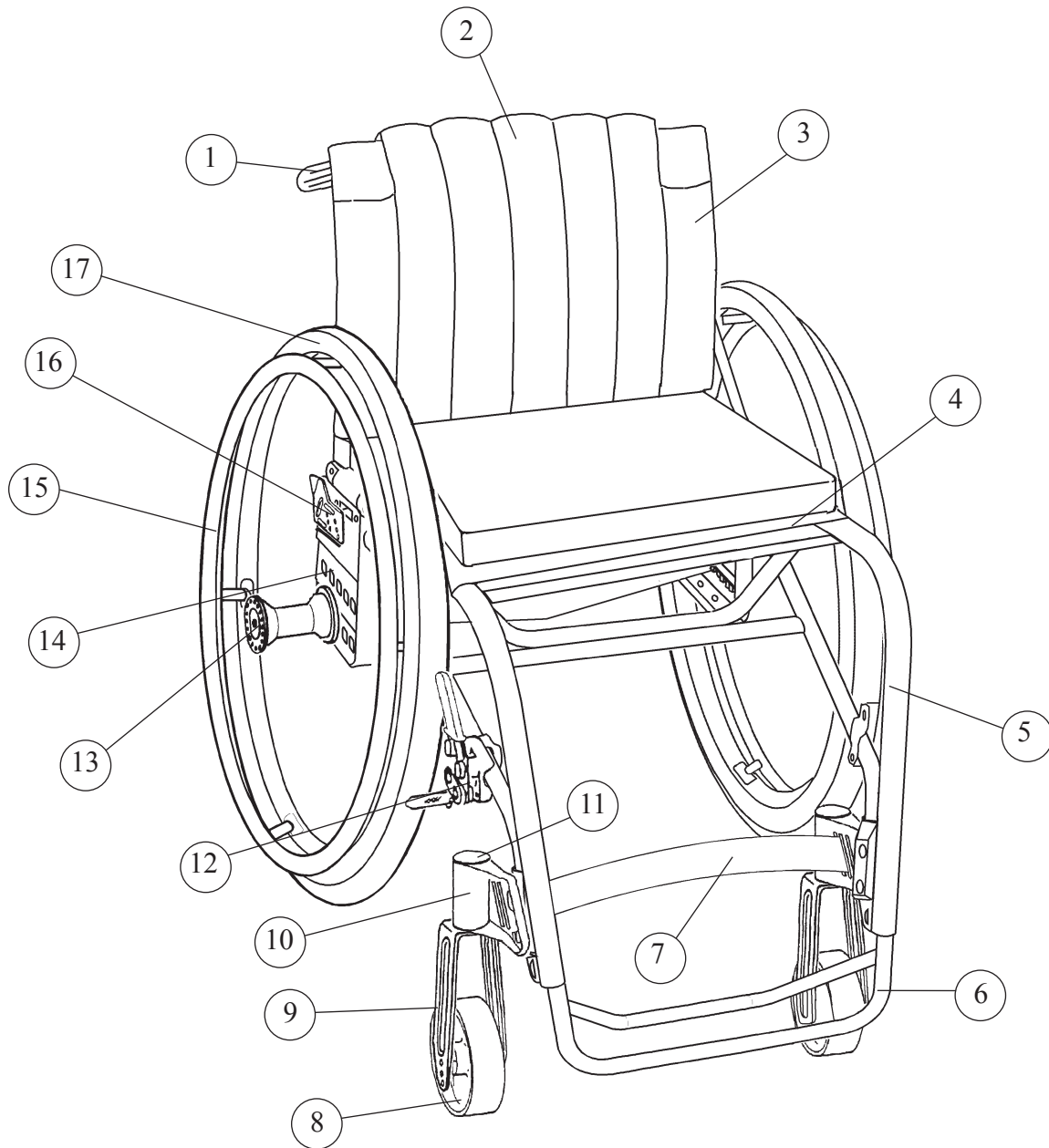
In conjunction with points 2 and 3:

- a 25668 positioning belt should be used
- a correctly adjusted headrest should be used
- the backrest should be level with or above the user's shoulders
- the parking brake should be used
- the anti-tips should be lowered

### 2:8 Warning

- The wheelchair's positioning belt is not sufficient to prevent the user from being thrown out of the wheelchair in the event of sudden braking.
- The restraining device must not be passed through the wheels or around the back tubes.
- Options/accessories that can be removed without tools must be removed and secured or placed where they cannot fly around inside the vehicle in the event of a collision.
- If the wheelchair has been involved in a collision in a motor vehicle, it should be inspected at a Technical Aids Centre or by Etac before it is used again.

### 3 Product description Act



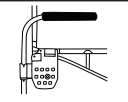




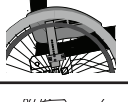
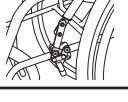
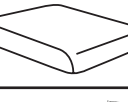

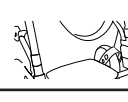
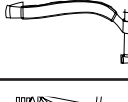
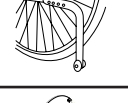
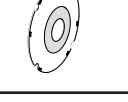



- |   |                     |    |                       |
|---|---------------------|----|-----------------------|
| 1 | Push handles        | 10 | Front fork attachment |
| 2 | Backrest cover      | 11 | Protective stopper    |
| 3 | Backrest upholstery | 12 | Brake                 |
| 4 | Seat upholstery     | 13 | Quick release hub     |
| 5 | Frame               | 14 | Wheel mounting        |
| 6 | Footrest            | 15 | Handrim               |
| 7 | Calf strap          | 16 | Backrest angle plate  |
| 8 | Castor wheel        | 17 | Rear wheel            |
| 9 | Front fork          |    |                       |

## 4 Model Act

<p><b>Seat settable in height and angle</b></p> <p>Front seat height set at 48 cm</p> <p>5" allround castors</p> <p>Front fork short with 3 alternative height settings for the castor wheels</p> <p>Rear seat height set at 41 cm</p> <p>Seat depth adjustable 5 cm (upholstery folded in)</p>	<p><b>Seat settable in height and angle</b></p> <p>Front seat height 44-54 cm</p> <p>Front fork medium or long with 3 alternative height settings for the castor wheels</p> <p>Rear seat height 41-45 cm</p>
<p><b>24" rear wheel, quick release hub</b></p> <p>1" high pressure tyre (with inner tube)</p> <p>Handrims: aluminium</p> <p>Camber angle 3°</p>	<p><b>24" rear wheel, quick release hub</b></p> <p>1" high-pressure tyre (with inner tube); 24"</p> <p>Handrims: stainless, titanium, cellular rubber or plastic coated</p> <p>Camber angle 0° or 6°</p>
<p><b>Backrest settable in angle and shape, foldable</b></p> <p>Backrest standard height 40 cm</p> <p>Backrest angle set at -8°</p> <p>Adjustable backrest upholstery in velour and plush</p>	<p><b>Backrest settable in angle and shape, foldable</b></p> <p>Backrest height cut to 38, 36, 34, 32, and 30 cm</p> <p>Backrest angle in alternative positions -3°, -5°, -8°, -10°, 12° and -15°</p>
<p><b>Footrest</b></p> <p>Footrest height infinitely variable</p> <p>Calf strap, adjustable in length</p>	<p><b>Footrest</b></p>
<p><b>High mounted brakes</b></p>	<p><b>Brake with long handle and short swing</b></p> <p><b>Hub brake</b></p>

## 5 Accessories



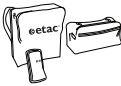


<b>Push handle kit</b> removable	
<b>Push handle</b> height adjustable	
<b>Armrest</b> swing-away and settable in height. Not in combination with height-adjustable push handles	
<b>Side guard</b> hard, black	
<b>Side guard</b> hard, plexi	
<b>Mudguard</b> folds with the backrest	
<b>Mudguard</b> soft, black	
<b>Mudguard</b> right, left	
<b>Brake lever extension</b> for standard brakes	
<b>Seat cushion</b> dark grey plush and black velour, 56 cm, cut according to seat depth set, washable	
<b>Back wedge</b> length 15 and 30 cm, attached with Velcro	
<b>Footplate</b> mounted on footrest	
<b>Padding</b> for calf strap	
<b>Anti-tip</b> settable in height and adjustable in length, detachable	
<b>Spoke guard</b> with grey or yellow print	
<b>Tetra quick release adapter</b> for persons with reduced hand function	

Settable= Adjusted using tools.

Adjustable= Adjusted without tools.



## 5 Accessories

<b>Castor pin lock</b>		
<b>Tool kit</b>		
<b>Bags</b> front bag backpack mobile holder		<b>Leg warmer Proof</b> Information is available at <a href="http://www.etacbutiken.com">www.etacbutiken.com</a>
<b>Rain cape Proof</b> Information is available at <a href="http://www.etacbutiken.com">www.etacbutiken.com</a>		<b>Gloves</b> Information is available at <a href="http://www.etacbutiken.com">www.etacbutiken.com</a>
<b>Weather protector Proof</b> Information is available at <a href="http://www.etacbutiken.com">www.etacbutiken.com</a>		<b>Bags Case Logic</b> Information is available at <a href="http://www.etacbutiken.com">www.etacbutiken.com</a>

Settable= Adjusted using tools.

Adjustable= Adjusted without tools.

## 6 Settings: seat

### 6:1 Front seat height

The front seat height (settable 44-54 cm) is dependent on:

Castor wheel 5".

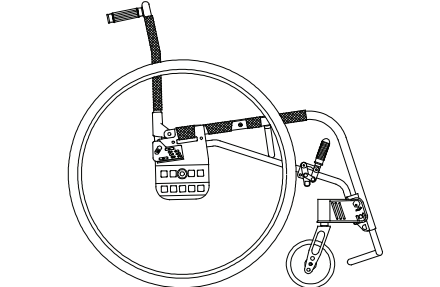
Front fork attachment

Settable in angle.  
Short, medium or long with three alternative height positions for the castor wheel.



Risk of tipping: Always check the positioning of the anti-tips.

(!) See also point 13: "Alternative seat heights/angles".



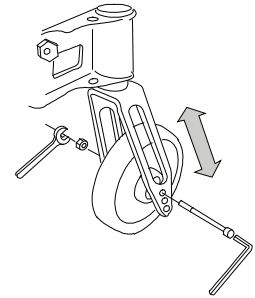
### 6:2 Castor wheel

The height may be adjusted by changing the castor wheel itself or by changing its position in the fork. Unscrew the castor wheel and place it at the desired height in the front fork.



Tools: 5 mm Allen key and 10 mm U-spanner.

(!) Also adjust the angle of the front fork attachment, see point 6:4.



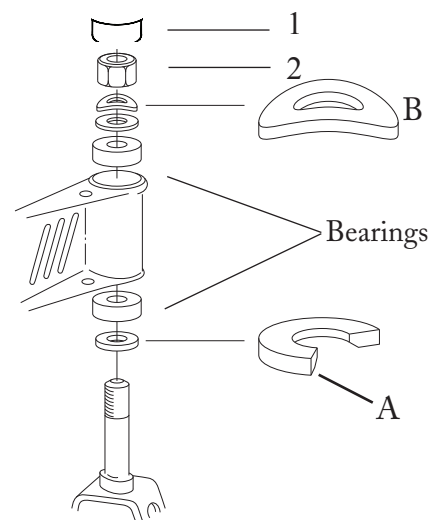
### 6:3 Changing front fork

Unscrew the protective stopper (1) on the front fork attachment to reach the retaining nut (2). Unscrew the nut and pull out the front fork. Take the washer from around the fork axle and put it on the new fork (the bevelled side (A) towards the fork). It is also important to ensure that the washers in the attachment (under the retaining nut) are placed in the right order, with the spring washer (B) on top. Tighten the retaining nut until it cannot be turned any more. Loosen it 1/2-1 turn. The spring washer then has the correct tension. It reduces the risk of the castor starting to "wobble".



Tools: 19 mm socket spanner.

(!) Also adjust the angle of the front fork attachment, see point 6:4.



## 6 Settings: seat

### 6:4 Angle setting of front fork attachment

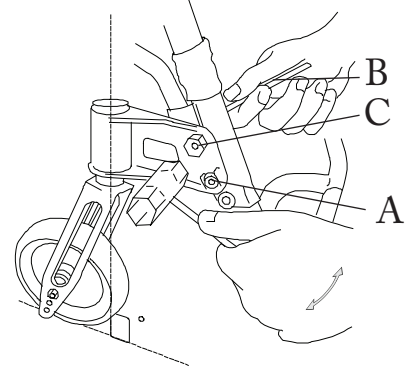
The correct angle setting is important for the wheelchair's manoeuvrability.

- Unscrew the lower attachment screw (A) 1/2-1 turn and the upper screw (B) 1/2 turn.
- Turn the eccentric nut (C) until the attachment is perpendicular to the floor.
- Hold the nut in place with a spanner whilst the retaining screws are tightened.



Tools: 6 mm Allen key and a 19 mm socket spanner (a spirit level might be useful).

- (!) Keep your eye on something vertical, e.g. a door frame or table leg while setting the angle. This adjustment must be made when the seat height is changed at the front or rear in order to retain manoeuvrability.



### 6:5 Rear seat height

The rear seat height is dependent on:

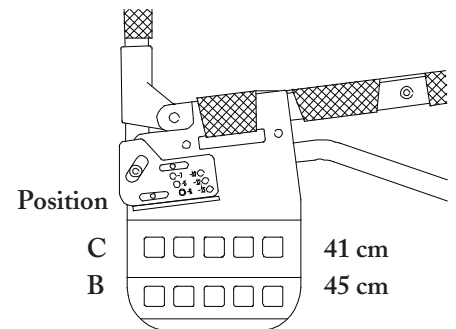
The size of the rear wheel 24"

The height setting of the rear wheel  
2 alternative height positions: B-C



Risk of tipping: Always check the positioning of the anti-tips.

- (!) See also point 13: "Alternative seat heights/angles".

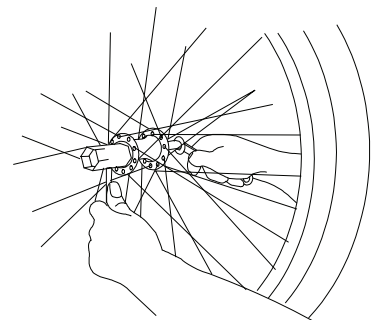


### 6:6 Rear wheels with quick-release hubs

The shaft axle is movable and can also be adjusted in length. Turn the nut on the axle inwards/outwards while at the same time holding the axle with an adjustable spanner.



When attaching the rear wheels, always check that they are securely mounted. The button in the hub should pop out completely.



## 6 Settings: seat

### 6:7 Height adjustment of the rear wheels

Unscrew the axle sleeves and washers, tilt the rear axle to free it and mount it at the required height. Mount the rear axle with the large bevelling towards the right wheel attachment. At the same time as the rear seat height is being adjusted you should make sure you have set the correct centre of balance. See point 9:8.

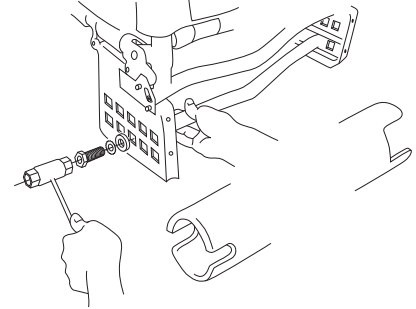


Tools: 21 mm socket spanner.



Check that the rear wheels are correctly mounted, see point 6:6. Always check the position of the anti-tips. Always adjust the brakes after re-positioning the rear wheels.

(!) Also adjust the angle of the front fork attachment.



### 6:8 Adjusting the brakes

The brakes are infinitely adjustable.

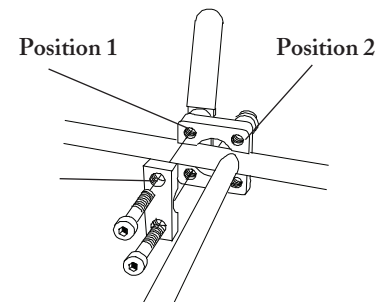
- Loosen the screws a couple of turns and slide the brake until the brake block is about 20 mm from the tyre when the brake is not applied.
- If the locking bracket comes into contact with the crossbar, move it from position 1 to position 2.
- Test the brakes.



Tools: 5 mm Allen key



The braking effect is dependent on the air pressure in the tyres. The brakes are parking brakes and should not be applied during use.



Brake lever extensions are available as accessories, see point 10:8.

## 6 Settings: seat

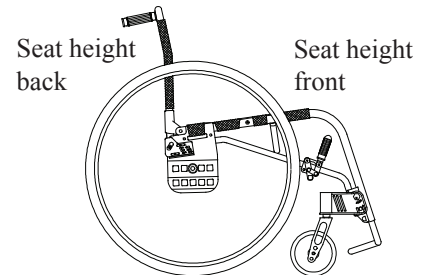
### 6:9 Seat angle

The seat angle is dependent on the difference between the front and the rear seat heights. The seat angle is settable between  $-5^{\circ}$  - $15^{\circ}$  backwards inclination (0-5 cm).



Bear in mind the risk of tipping, always adjust the setting of the anti-tips.

- (!) If the seat angle is changed:
- Adjust the angle of the front fork attachment.
  - Also check the angle of the backrest.



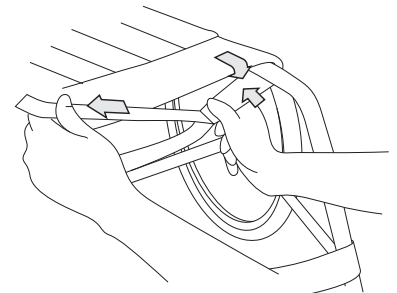
### 6:10 Seat depth

The seat depth can be adjusted 5 cm by tucking in the front part of the seat upholstery.

Short frame: 34-39 cm (measured from the backrest).

Long frame: 39-45 cm (measured from the backrest).

- (!) The functional seat depth can be up to 6-7 cm longer depending on the settings of the backrest upholstery, see point 7:4.



## 7 Settings: backrest

### 7:1 Backrest

The backrest is settable in angle and has adjustable upholstery.



**Risk of tipping:** Always check the position of the anti-tips after adjusting the backrest.

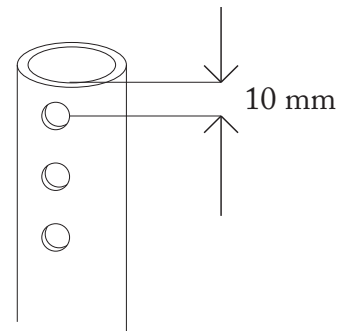
### 7:2 Backrest height

The height of the backrest is adjustable by cutting the back tubes. When using the push handles the back tubes should be cut 10 mm above the upper attachment holes. Alternative heights: 40, 38, 36, 34, 32 and 30 cm.



Tools: Hacksaw

- (!) When the push handles are fitted the back tubes are 3 cm lower. If it should be necessary to extend a backrest which has previously been cut, a backrest extension is available with attachments for push handles. Max. height of a backrest incl. extension is 40 cm.



### 7:3 Backrest angle

The backrest angle has fixed positions at  $-3^\circ$   $-5^\circ$   $-8^\circ$   $-10^\circ$   $-12^\circ$   $-15^\circ$ . Remove screw (A) completely, loosen screws (B) one turn. Set the desired angle by inserting screw (A) into the angle indicator required. Tighten the screws again.

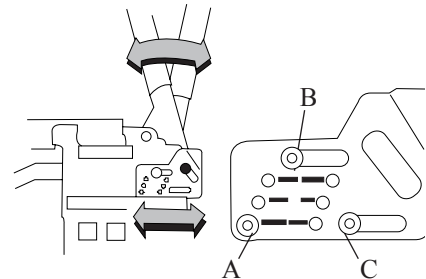


Tools: 4 mm  
Allen key

- (!) Fold the backrest down onto the seat whilst adjusting the angle. Allow plenty of room for the backrest cover between the seat and the backrest.



**Risk of tipping:** Always check the positioning of the anti-tips when adjusting the backrest angle.



### 7:4 Backrest upholstery

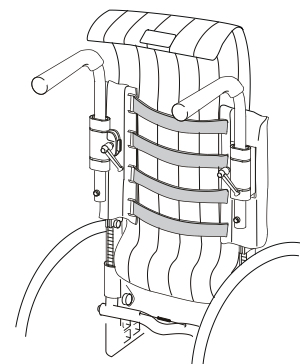
The contour of the backrest upholstery is individually adjustable by using the four Velcro straps and the backrest cover.

- Allow the cover plenty of room between seat and backrest, so that it is possible to "sit in" against the backrest.
- Loosen all the straps and ensure that the user is sitting as far back in the seat as possible.

- Tighten the straps in such a way that they follow the contours of the user's back and give plenty of support to the lumbar region.



**Risk of tipping:** Always check the positioning of the anti-tips when adjusting the backrest upholstery.



## 8 Settings: footrests

### 8:1 Height of the footrest

Act is supplied with a footrest that is settable in height.

*Height* Loosen the screw (A) on the rear of the footrest attachment on both the right and left sides. Set the footrest at the height required. Tighten securely. Max. height: 9 cm from floor level. Min. height: 4 cm from floor level.

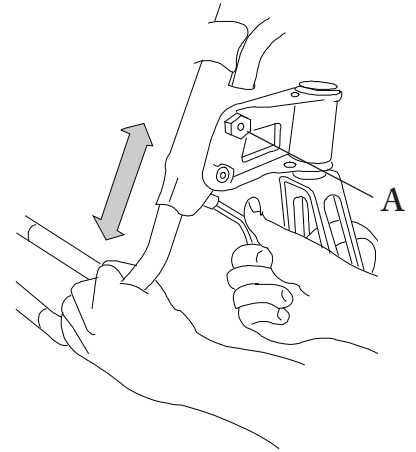


Tools: 6 mm Allen key

(!) A raised footrest is available if one is required that is higher than standard.



For outdoor use the footrest should be 5 cm above the ground. Never stand on the footrest as there is a risk of tipping!



## 9 Driving technique, settings manoeuvring

### 9:1 Driving technique

Weight distribution is the decisive factor when it comes to operating conditions. It is in part dependent upon the user's weight, size and seating position and in part upon the position of the rear wheels longitudinally. The more weight that is placed over the rear wheels, the easier the wheelchair is to manoeuvre. The more weight over the castors wheels, the heavier the chair becomes to operate. The Act standard model is supplied with a 3° camber angle. This means that the wheels are a little closer to the seat/backrest on top and are wider apart at floor level. This gives several advantages. The wheelchair:

- turns more easily
- holds a steady course
- has a broader support base

Allows the user to hold his/her arms closer to the body when driving forwards, giving more strength to each push.

If you require a chair that is slightly narrower, Act can be ordered with a straight back axle (0° camber angle). Act can also be supplied with double back axles).

Care giver: If the user is left alone in the wheelchair, ensure that the brakes are applied and that the anti-tip is swung down.

Parking: Increase the overall support base of the wheelchair by reversing for about 10 cm, thereby ensuring that the castors wheels swing forwards.

### 9:2 Driving technique, kerbs and raised thresholds: up

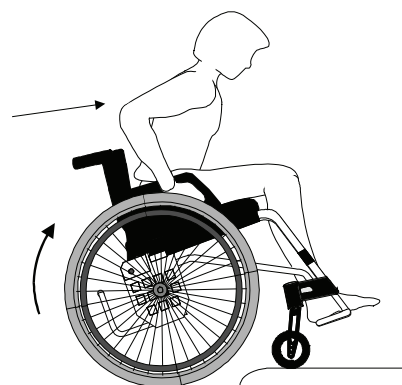
*User, driving up forwards:*

This technique is recommended only for experienced wheelchair users.

- Ensure that the anti-tips are turned upwards.
- Drive forward to the kerb/threshold.
- Balance the wheelchair on its rear wheels so that the castors lift high enough to come up on the pavement. Grasp the handrims firmly, while at the same time leaning forwards with your upper body.



Be sure to turn the anti-tips back to the down position.






## 9 Driving technique, settings manoeuvring

### Care giver, driving up forwards:


- Ensure that the anti-tips are turned upwards.
- Tilt the wheelchair, if necessary with help from the tilter, so that the castors come up on the pavement.
- Lift by the push handles to help the rear wheels up

 Be sure to turn the anti-tips back to the down position.

### User, driving up backwards:


This technique only works if there is a low kerb/threshold, relative to the installed height of the footrests.

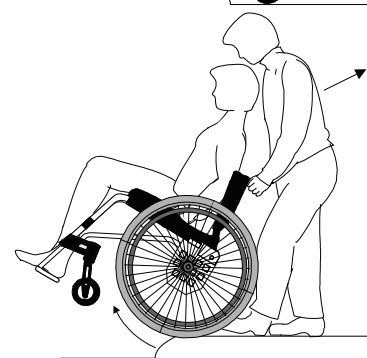
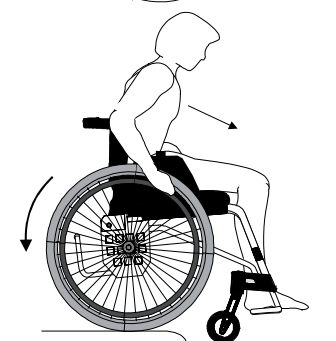
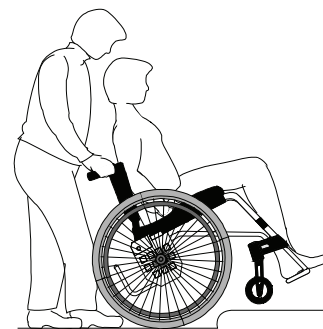
- Ensure that the anti-tips are turned upwards.
- Reverse to the edge of the kerb/threshold.
- Take a firm hold of the handrims while at the same time leaning forwards.

 Be sure to turn the anti-tips back to the up position.

### Care giver, driving up backwards:

- Reverse the chair to the edge of the kerb/threshold.
- Tilt the wheelchair up, if necessary with help from the tilter, so that the castor wheels are in the air.
- Pull the wheelchair upwards and backwards, ensuring that the castor wheels have cleared the edge before setting down the wheel chair onto all four wheels.

 Be sure to turn the anti-tips back to the down position.




### 9:3 Driving technique, kerb: down

#### User, driving down forwards:


This technique is recommended only for experienced wheelchair users.

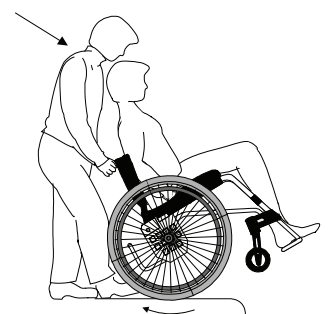
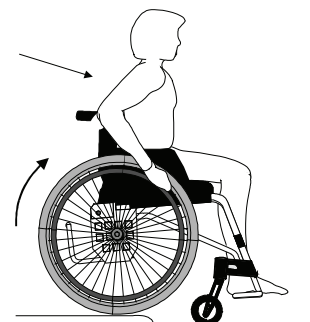
- Ensure that the anti-tips are turned upwards.
- Drive forward to the edge of the kerb.
- Take a firm hold on the handrims and drive "straight out" so that the wheelchair lands on all 4 wheels simultaneously.

 Be sure to turn the anti-tips back to the down position.

#### Care giver, driving down forwards:

- Ensure that the anti-tips are turned upwards.
- Tilt the wheelchair up, if necessary with help from the tilter, so that the castor wheels are in the air.
- Drive carefully down the kerb and set down the castor wheels onto the ground again.

 Be sure to turn the anti-tips back to the down position.



## 9 Driving technique, settings manoeuvring

*User, driving down backwards:*

This technique is not recommended for differences in level of over 10 cm.

- Ensure that the anti-tips are turned upwards.
- Reverse to the edge of the kerb.
- Reverse carefully down while at the same time leaning forwards.



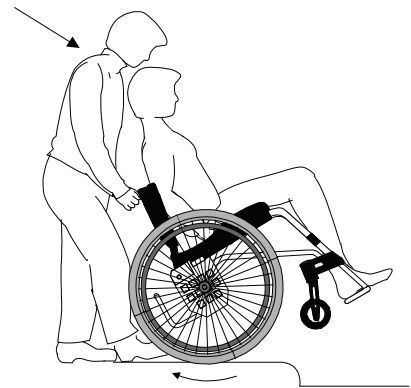
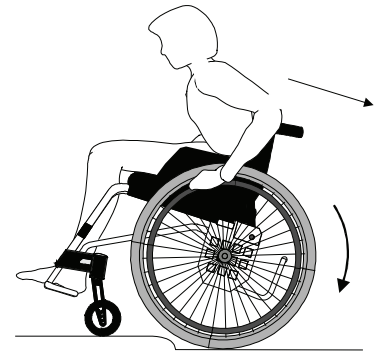
There is a greater risk of tipping during this manoeuvre. Be sure to turn the anti-tips back to the down position.

*Care giver, driving down backwards:*

- Ensure that the anti-tips are turned upwards.
- Reverse the wheelchair to the edge of the kerb.
- Drive carefully down the kerb, and reverse the wheelchair on the rear wheels until the castor wheels have cleared the obstacle.
- Set down the wheelchair once again on all four wheels.



Be sure to turn the anti-tips back to the down position.



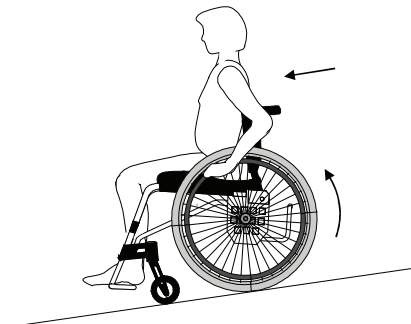
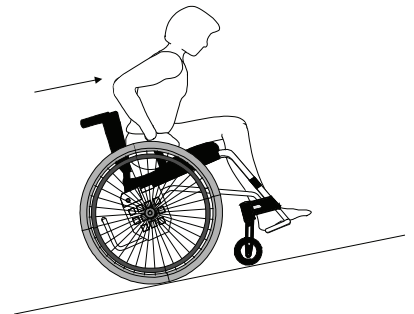
### 9:4 Driving technique inclined surface

The following constitutes important advice for driving up or downhill to avoid the risk of tipping.

- (!) Avoid turning round in the middle of a hill. Always drive as straight up/down as possible. It is better to ask for help than to take a risk on your own.

*Uphill driving:* Lean forwards to correct your centre of balance.

*Downhill driving:* Lean against the backrest to correct your centre of balance. Control your speed using the handrims, not the brakes!



## 9 Driving technique, settings manoeuvring

### 9:5 Driving technique, stairs: up

△ Always ask for help. Never use an escalator, even if a care giver is available. We always recommend using two carers for this transfer. One who walks behind and holds on to the push handle and one who walks in front and holds on to the frame (or in the legrests if these are lockable).

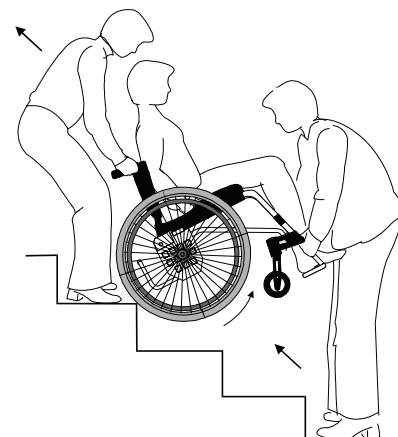
*With care giver, backwards:*

- Turn the anti-tips upwards and ensure that the push handles are securely tightened.
- Reverse the wheelchair to the first step.
- Tilt the wheelchair onto its rear wheels.
- Pull the wheelchair slowly upwards, one step at a time, keeping it balanced on its rear wheels at all times.

- When the last step has been cleared, continue backwards so that the castors are on the ground before setting down the wheelchair on all four wheels.

△ Be sure to turn the anti-tips back to the down position after completed transfer.

- (!) The care givers should remember to use the strength in their legs and to keep their backs as straight as possible while lifting.



### 9:6 Driving technique, stairs: down

△ Always ask for help. Never travel on an escalator, even if there are care givers available. We always recommend using two carers for this transfer. One who walks behind and holds on to the push handle and one who walks in front and holds on to the frame (or in the legrests if these are lockable).

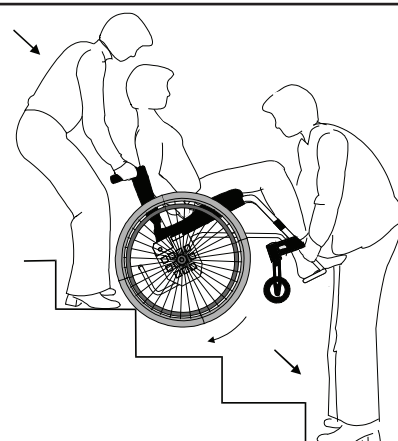
*With care giver, forwards:*

- Be sure to turn the anti-tips upwards and ensure that the push handles are securely tightened.
- Drive forwards to the first step and tilt the wheelchair onto its rear wheels.

- Descend carefully one step at a time, keeping the wheelchair balanced on its rear wheels at all times.
- After the last step, set down the wheelchair on all four wheels.

△ Be sure to turn the anti-tips back to the down position after completed transfer.

- (!) The care givers should remember to use the strength in their legs and to keep their backs as straight as possible while lifting.



## 9 Driving technique, settings manoeuvring

### 9:7 Manoeuvring, transferring into/out of the wheelchair

The technique for transferring a user should be practised with trained personnel. All that is provided here is some important advice to consider in conjunction with transferring a user into or out of the wheelchair.

*With or without a care giver, sideways.*  
Before transferring:

- Reverse the wheelchair 5-10 cm before stopping so that the castors are turned forwards. The wheelchair should be positioned as near to the place where the transfer is going to take place as possible.
- Apply the brakes, remove the armrest/sideguard on the side where the transfer is to take place.

*With or without a care giver, from the front.*

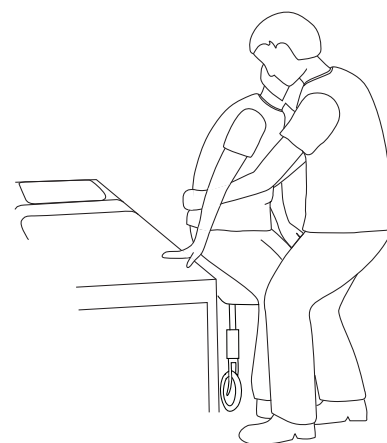
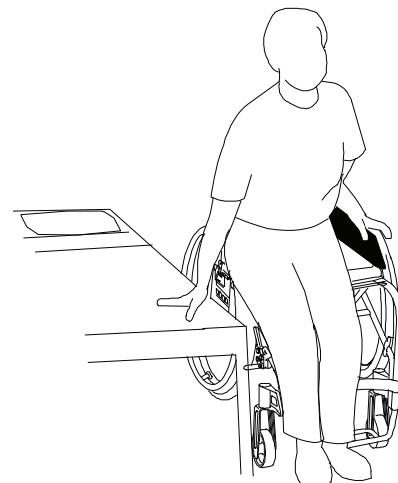
Before transferring:

- Reverse the wheelchair 5-10 cm so that the castors are turned forwards. The wheelchair should be positioned close to where the transfer is to take place.
- Apply the brakes.



Never stand on the footrest or the footrests as the chair may tip!

- (!) The care givers should remember to use the strength in their legs and to keep their backs as straight as possible while lifting.



## 9 Driving technique, settings manoeuvring

### 9:8 Adjusting the centre of balance

The centre of balance can be adjusted by changing the position of the rear wheels.

- Remove the axle shaft and its washers and move the back axle forwards or backwards, as per point 6:7.



The brakes must also be adjusted, see point 6:8.



Tools: 21 mm socket spanner

When the position of the rear wheels is moved forwards the wheelchair becomes much more manoeuvrable, but the tendency to tip backwards increases.

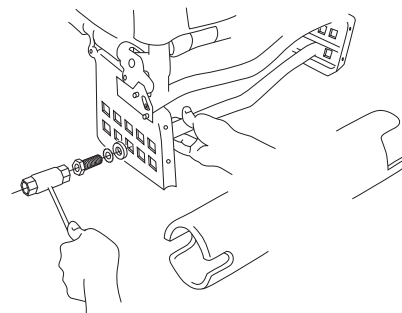
- (!) The centre of balance is also altered when the seat and/or backrest angle is adjusted.



We recommend the use of anti-tips.



Check carefully that the rear wheels are securely mounted, see point 6:6.



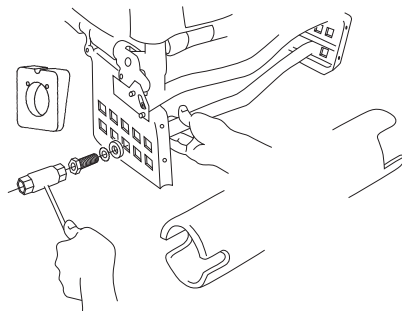
### 9:9 Changing the camber angle (option)

The rear wheels are mounted with a standard 3° camber angle. You can change the camber angle to 0° or 6° by replacing the back axle and the washers that sit between the hub casing and wheel mounting.



Tools: 21 mm socket spanner.

- (!) The marker on a 0° camber washer is mounted pointing upwards and downwards on a 6° back axle.



## 9 Driving technique, settings manoeuvring

### 9:10 Handrims

Act is delivered as standard with aluminium handrims. The way in which the user is able to grip the handrims is influenced by the handrim's material and its distance from the wheel.

Titanium, stainless, friction-coated, cellular rubber and plastic coated handrims are available as options.

△ The optional handrims give a better grip, but also increase friction. It is therefore important to remember that when stopping suddenly friction burns (e.g. blisters) can occur.

△ Be aware that when passing through narrow spaces there is a risk of getting your fingers caught. There is also a risk of fingers getting caught in the spokes.

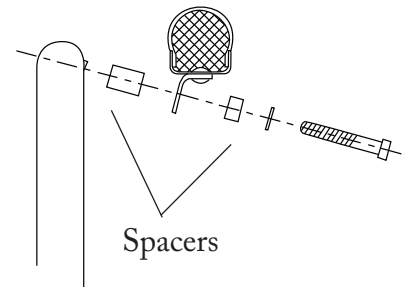
△ If there is a risk of the user's fingers getting caught in the spokes we recommend the use of spoke guards.

### 9:11 Adjusting the distance of the handrim

The distance between the wheel and the handrim can be adjusted by adding or removing spacers.



Tools: 4 mm Allen key.



## 10 Assembly instructions: accessories

Assembly instructions are always provided with accessories when they are delivered from Etac.

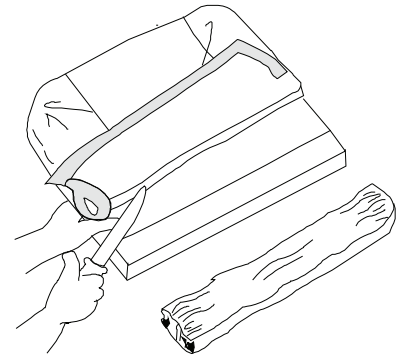
Instructions are also available on our website [www.etac.com](http://www.etac.com)

### 10:1 Cushion

The cushion is delivered 56 cm long. It can be cut to the desired depth either at the front or back edge. When measuring the length, ensure that the cushion is properly positioned between the back tubes with the rounded corners to the rear.



The cushion is a standard model and is not suitable for users with sitting sores.



### 10:2 Armrest, swing away

Height adjustable in 3 positions: 19 cm, 23 cm and 27 cm. To adjust the height: Loosen the screw (2). Remove the locking nuts (3) and (4). Move to the desired height.

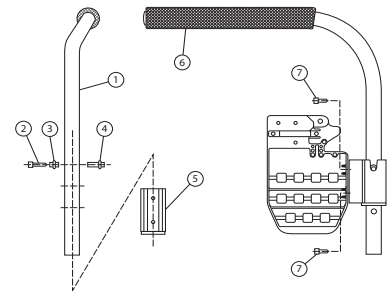
- 1) Armrest tube right/left
- 2) Screw
- 3) Locking pin (unthreaded)
- 4) Locking pin M5
- 5) Armrest attachment fitting
- 6) Push handle grip cover
- 7) Screw



Tools: 5 mm Allen key



Never use the armrests to lift the wheelchair. Anti-tips cannot be combined with armrest.



### 10:3 Sideguard, hard, transparent

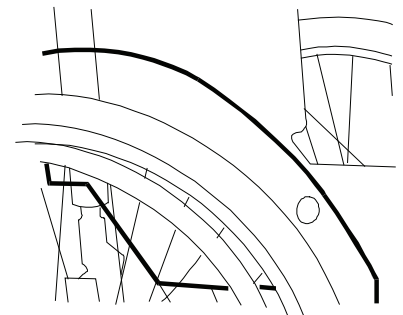
The sideguard is made of polycarbonate and mounted on the wheelchair by means of a clamp that can be fixed to the back tube. The sideguard is designed so that it is easily removable from the wheelchair. Assembly instructions are provided with the sideguards.



Tools: Phillips screw driver, 5 mm and 3 mm Allen keys.



Never use the armrests to lift the wheelchair.



## 10 Assembly instructions: accessories

### 10:4 Mudguard

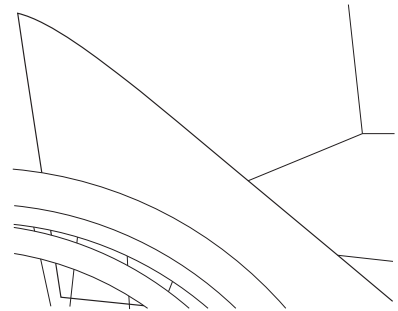
The mudguard is made of polyester and is fitted by means of two screws in the back tube. First make a hole in the backrest upholstery using an awl or something similar. Ensure that the hole you make corresponds to the drilled hole in the back tube. The front edge of the mudguard is attached to the seat upholstery using Velcro straps.



Tools:  
Phillips screwdriver



Never use the mudguards to lift the wheelchair



### 10:5 Mudguard, folds with the backrest

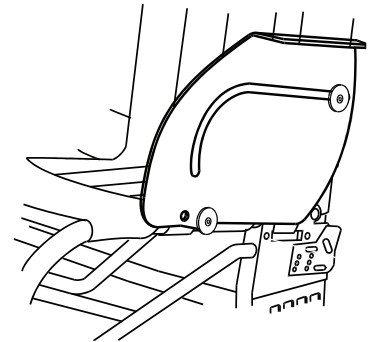
The mudguard is made of transparent polycarbonate and need not be detached when the backrest is folded down. The mudguard is fixed by a screw on the back tube and a screw on the seat frame.



Tools: 3 mm and 4 mm  
Allen key



Never use the armrests to lift the wheelchair.



### 10:6 Anti-tip, mounting

The anti-tip consists of four parts:

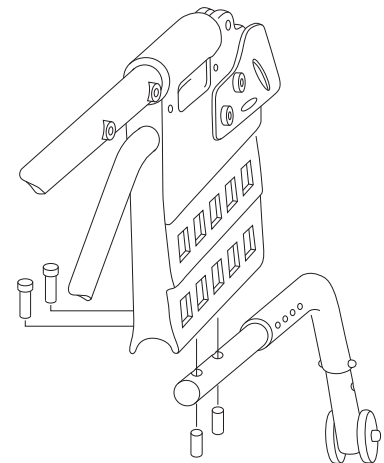
- The attachment bar is mounted under the wheel-mount (see illus.)
- The anti-tip bar snaps onto the attachment bar at the required length.
- The extension with the stabiliser wheel is fixed to the anti-tip bar by means of a screw and nut at the desired height.



Tools: 4 mm Allen key,  
8 mm spanner. 2 x 5 mm  
Allen keys for affixing to  
chassis.



After adjusting the seat height, centre of balance or backrest angle, always ensure that you check the positioning and function of the anti-tip.



To allow you to negotiate thresholds and the edges of thick carpets, a distance of 3-5 cm from floor level is recommended.

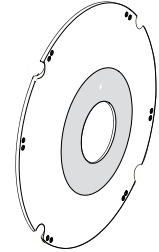


## 10 Assembly instructions: accessories

### 10:7 Spoke guards

The spoke guards prevent your fingers from becoming entangled in the spokes and also give some protection against splashing.

Assembly instructions are provided with the spoke guards.



### 10:8 Brake extension arm

The brake lever extension can be fitted to a standard brake. Remove the rubber hand grip. Attach the extension arm by means of the 2 screws. Place the rubber hand grip onto the extension arm.

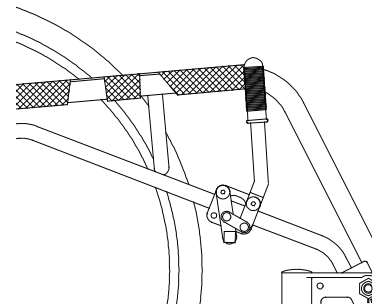


Tools: 4 mm Allen key,  
8 mm spanner



The braking effect is dependent on the air pressure in the tyres.

The brakes are parking brakes only, and should never be applied when the wheelchair is in motion.



### 10:9 Push handle kit

The push handle attachments are mounted in the predrilled holes in the back tubes by means of two screws. The push handle attachments extend the backrest height by 3 cm. The push handle is screwed into the attachments after the upholstery has been fitted.

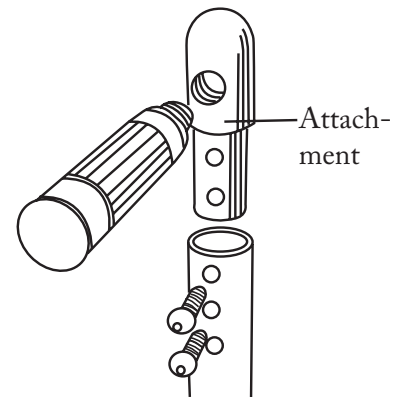


Check and re-tighten the screws after one week of use.



Tools: 4 mm Allen key

(!) Push handle attachments are also available in two longer versions.



## 10 Assembly instructions: accessories

### 10:10 Tetra quick-release adapter

Adapters makes it possible for users with reduced hand/finger strength to use the quick release system. They can also be useful for helpers who have to frequently remove/replace the wheels. Assembly instructions are provided with the tetra quick release adapter.



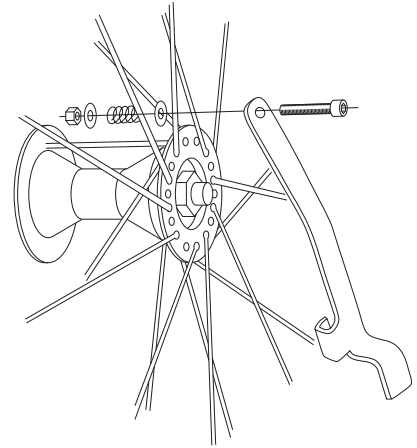
Tools: 8 mm spanner and screwdriver



When the wheel is in position the adapter should be pushed to one side and fastened with its hook to a spoke.



When attaching the rear wheels, always check that they are securely mounted. The button in the hub should pop out completely.



# 11 Care and maintenance

## Upholstery

The upholstery is made of two-ply polyester or coated fabric. The seat upholstery is secured by means of straps around the seat frame. The upholstery can easily be removed from the chassis by loosening the straps under the seat.

The backrest upholstery is removed by loosening the cover, detaching the elastic band and any accessories, and then pulling the upholstery upwards. Wash seat and backrest upholstery according to the washing instruction.

## Rear wheel/castor, front fork attachment

**Tyre/inner tube:** Check the tyre pressure (see side of tyre) at least once a month; also check the tread.

**Spokes:** Loose spokes can lead to wheel wobble. Consult a cycle dealer or your Technical Aids Centre if it is necessary to adjust the spokes.

**Wheel axles:** Clean the wheel axles from hair and dirt as necessary.

**Ball bearings:** Require no maintenance.

**Handrims:** If a handrim should be damaged in such a way that it could lead to injury, it should be replaced.

**Front fork attachment:** To achieve the best operating conditions, the attachments should be installed at 90°. Check also that the front forks are tightened according to instructions, see point 6:3.

## Brakes

The braking effect is dependent on the air pressure in the tyres. Encrusted dirt can have a negative effect on the brake mechanism. Check the functioning of the brakes

once a month. In the event of adjustments, see point 6.8.

## Washing the frame

It is important to keep the wheelchair clean, both for your own comfort and the longevity of the chair. It is equipped with drainage holes which ensures that it is easy to wash and dry.

Clean the frame with a non-abrasive cleaning agent with a pH level between 5 and 9, or with a 70% disinfectant solution. Rinse and dry.

## Touch-up paint

Touch-up paint is available for minor scratches and chips in all the frame colours available for Etac wheelchairs.

## Miscellaneous

If there is a fault in your wheelchair you should contact your dealer or Technical Aids Centre.

Defective wheelchairs should not be used. If your chair needs reconditioning or repair, only original parts from Etac or components with equal quality, as specified in Act diagrams, should be used. Etac will not be held responsible for damage or injury caused by use of non-original parts.

(!) When necessary, lubricate moving parts/joints with bicycle oil or similar.

# 11 Care and maintenance

## Fault-finding chart

Problem\*

Solution

<b>The wheelchair pulls to the side</b>	<ul style="list-style-type: none"> <li>- Inflate the tyres</li> <li>- Adjust the front fork attachment's angular setting</li> <li>- Check that the front fork attachments are mounted at the same height.</li> <li>- Rear wheel mountings are incorrectly fitted</li> <li>- The user is distributing weight unevenly</li> <li>- More strength being used on one side than the other when propelling the chair</li> </ul>
<b>The wheelchair feels "heavy" to manoeuvre</b>	<ul style="list-style-type: none"> <li>- Inflate the tyres</li> <li>- Rear wheel mountings are incorrectly fitted</li> <li>- Clean the castor axles from hair and dirt</li> <li>- Too much weight over the castors. Adjust the centre of balance</li> </ul>
<b>The wheelchair feels "heavy" to turn</b>	<ul style="list-style-type: none"> <li>- Inflate the tyres</li> <li>- Check that the front forks are not too tight.</li> <li>- Adjust the front fork attachment's angular setting</li> <li>- Clean the castor axles from hair and dirt</li> </ul>
<b>Brakes not effective</b>	<ul style="list-style-type: none"> <li>- Inflate the tyres</li> <li>- Adjust the distance between brake and tyre</li> </ul>
<b>Rear wheels "loose"</b>	<ul style="list-style-type: none"> <li>- Adjust the length of the axle shaft</li> </ul>
<b>Rear wheels hard to remove/replace</b>	<ul style="list-style-type: none"> <li>- Clean and lubricate the quick release with cycle oil or similar</li> <li>- Adjust the length of the axle shaft</li> </ul>
<b>The castor wheels "wobble"</b>	<ul style="list-style-type: none"> <li>- The front forks are not tight enough</li> <li>- Check that the front fork attachments are mounted at the same height</li> <li>- Adjust the front fork attachment's angular setting</li> <li>- Too much weight over the castors. Adjust the centre of balance</li> </ul>
<b>The wheelchair feels "awkward"</b>	<ul style="list-style-type: none"> <li>- Inflate the tyres</li> <li>- Check that screws, nuts and bolts are properly tightened</li> </ul>

(!) When necessary, lubricate moving parts/joints with bicycle oil or similar.

\* The user may experience several of these problems if the wheelchair is incorrectly adjusted or is being incorrectly used.

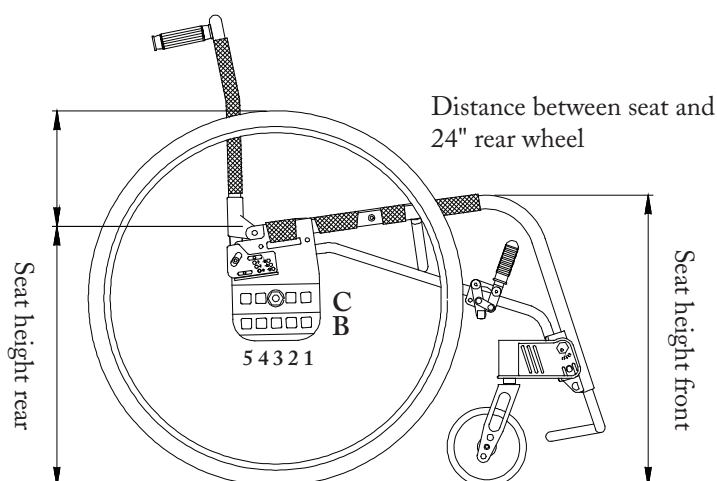
## 12 Tests and guarantees

- Act** is tested and approved for use indoors and outside and is CE marked.  
Max. user weight is 100 kg.
- (!) Non-standard combinations: Higher user weight. Contact customer service
- The Swedish Institute of Assistive Technology** carries out both functional and technical tests.  
Testing methods conform to ISO standard 7176.
- CE marking:** The product has passed all tests and met all criteria set by European standards for specific product groups.
- A proof that the product meets national and EU MDD (Medical Device Directive) requirements.
- Gives customers the chance to choose the right product by comparing test data.
- Guarantee:** 5 year guarantee against material and manufacturing defects.  
For terms and conditions, see [www.etac.com](http://www.etac.com)
- Special adaptations** comprise everything that falls outside the instructions and settings in this Manual.
- Wheelchairs specially adapted by customers are not eligible for Etac's CE marking.  
Etac's guarantee no longer applies.  
If in the least doubt about the validity of adjustments, please contact Etac for advice.
- Combining** Act with others product, not manufactured by Etac:  
In general neither of the products will retain their CE marking.

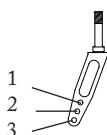
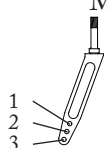
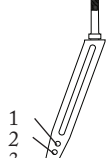
## 13 Alternative seat heights/angles

Rear seat height table (Measurements given can vary  $\pm 2\%$  depending on tyre type and seat angle)










24"	Rear wheel pos.	Rear seat height Seat angle 5°	Distance rear wheel-seat
	B 1-5	45 cm	15 cm
	C1-5	41 cm	19 cm



Front seat height table

		Castor
Fork	Position	5"
Short 	S 1	44 cm
	S 2	46 cm
	S 3	48 cm
Medium 	M 1	41-45 cm
	M 2	-
	M3	51 cm
Long 	L1	53 cm
	L2	54 cm
	L3	-

## 14 Weights and dimensions, standard models

Type of chair	Art. no.	Seat depth from backrest	Seat height front, without cushion	Seat height rear, without cushion	Backrest height	Total width	Transport width	Weight without rear wheels
								
35 cm short	13100101-	34-39 cm	44-54 cm	41-45 cm	30-40 cm	55.5 cm	46.5 cm	5.4 kg
35 cm long	13100102-	39-45 cm	44-54 cm	41-45 cm	30-40 cm	55.5 cm	46.5 cm	5.4 kg
37.5 cm short	13100103-	34-39 cm	44-54 cm	41-45 cm	30-40 cm	57.5 cm	49 cm	5.4 kg
37.5 cm long	13100104-	39-45 cm	44-54 cm	41-45 cm	30-40 cm	57.5 cm	49 cm	5.4 kg
40 cm short	13100105-	34-39 cm	44-54 cm	41-45 cm	30-40 cm	60.5 cm	51.5 cm	5.5 kg
40 cm long	13100106-	39-45 cm	44-54 cm	41-45 cm	30-40 cm	60.5 cm	51.5 cm	5.5 kg
42.5 cm short	13100107-	34-39 cm	44-54 cm	41-45 cm	30-40 cm	63 cm	54 cm	5.5 kg
42.5 cm long	13100108-	39-45 cm	44-54 cm	41-45 cm	30-40 cm	63 cm	54 cm	5.5 kg
45 cm short	13100109-	34-39 cm	44-54 cm	41-45 cm	30-40 cm	65.5 cm	56.5 cm	5.6 kg
45 cm long	13100110-	39-45 cm	44-54 cm	41-45 cm	30-40 cm	65.5 cm	56.5 cm	5.6 kg

Choice of frame colours: 01= black, 02= red, 22= grey texture, 30= blue texture, 33= sea green texture, 34= plum texture, 37= blue chrome/black blaster, 38= black graphite/gold.

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