



USER MANUAL

# Netti 4U comfort|FA

**ALU\_REHAB™**  
Thinking ahead - moving forward

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## 1. INTRODUCTION

Netti 4U comfort|FA is a comfort wheelchair meant for both indoor and outdoor use. It is tested to DIN EN 12183:2009. The tests were carried out by TÜV SÜD Product Service GmbH in Germany.



In Alu Rehab we believe that wheelchairs should be chosen based on a thorough assessment focusing on the needs of the user and demands from the environment. Therefore it is important to know about the possibilities and restrictions of the wheelchair. Netti 4U comfort|FA is a wheelchair designed for users with the need for comfort and relief. The combination between the seating system and the ergonomical solutions in the frame construction, offers many possibilities for adaptation and adjustments.

The wheelchair is constructed for indoor and outdoor use, and offers the possibility to vary the sitting position from activity to rest using tilt and recline functions.

Max user weight: 140 kg.

⚠ When mounting accessories such as power kit etc, the weight of the accessories must be subtracted from the max user weight.

ℹ Specifications varies between countries.

## 1.1 Areas of use/indications for Netti 4U comfort | FA

Netti 4U comfort|FA is a multi-function wheelchair for partially or fully immobile persons with physical and/or mental disabilities. These disabilities may have multiple causes. Netti 4U comfort|FA has an adjustable seat and back angle, thus facilitating for the user change of position, mobilisation or posture correction (stabilisation), wherever the following functional impediments with their multiple possible causes are present:

- limited or lacking mobility
- limited or lacking muscle power
- limited movement range
- lacking or limited trunk and body stability
- hemiplegia
- rheumatic-type disorders
- craniocerebral injuries
- amputations
- other neurological or geriatric disorders

## 1.2 Contraindications

Netti 4U comfort|FA is not suited for persons with a strongly enhanced muscular spasticity. In this case we recommend the Netti III, which offers a version with reinforced frame and leg rests for this particular need. Ignoring this advice could in unfavourable circumstances lead to the deformation or fracture of metal parts in the area of the back tube, the leg rests or the arm rests.

## 1.3 Quality and durability

The Netti 4U comfort|FA wheelchair is tested at TÜV SÜD Product Service GmbH in Germany, following the European Standard DIN EN 12183:2009. As manufacturer, Alu Rehab A.S evaluates the test to be equal to 5-6 years of normal use of the chair. The disability of the user as well as the level of maintenance done foremost decides the durability of the wheelchair. Thus, the durability will vary depending on these two factors.

## 1.4 The environment and waste disposal

Alu Rehab and its suppliers wish to protect the environment.

This means:

- That we avoid using environmentally harmful substances and processes to the greatest extent possible.
- That Alu Rehab's products are ensured a long service life and a high degree of flexibility - to benefit the environment and economy.
- That all packaging can be recycled.
- That the wheelchair was designed to be separated into its component materials - to make recycling easier.



**i** Contact your local recycling agent to get correct information how to handle in you area.

## 1.5 Information for re-use

All products from Alu Rehab are designed to give years of maintenance-free service. All products can be adapted for re-use by an authorised dealer. In order to guarantee performance and safety, Alu Rehab recommends the following tests prior to any re-use.

Please examine the following components for function, integrity etc. and replace parts as necessary:

- Wheels (tyre tread)
- Wheelchair frame
- Cushions
- Hubs
- Brake function
- Headset bearings: test for wear lubrication
- Directional stability of wheels
- Bearings

Please also note the content of chapter 10.2 Cleaning and washing

### Anti-tip

Correctly fitted, the anti-tip will secure the chair from tipping backwards. We strongly recommend use of the anti-tips.

## 1.6 About this manual

In order to avoid damages while using the Netti 4U comfort | FA wheelchair, please read this manual carefully before starting to use the chair.



**Symbol of forbidden actions.**  
No warranty can be claimed whenever these actions are implemented.



**Symbol of warning.**  
Whenever this symbol is used, caution has to be taken.



**Symbol for important information.**



**Symbol for useful tips.**



**Symbol for tools.**

## 1.7 Vital measures

Netti 4U comfort|FA is a comfort wheelchair designed for both outdoor and indoor use.

 Specifications varies between countries.

| Model      | Weight |
|------------|--------|
| 35 - 44 cm | 33,5kg |
| 44 - 53 cm | 34,5kg |

**Total weight: 34,5 Kg**  
(440 mm width chair)

**Seat width:**



350 - 440 & 440-530 mm

**Seat depth:**



(From back rest cushion to front of seat plate)

390, 415, 440, 465, 490, 515 mm

**Seat height:**



(From floor to top seat plate using 24" main wheels in upper hole position).

497 mm\*

\*By changing position of main wheels, it is possible to achieve seat height of 500 mm.

**Backrest height:**



520 mm


| Specification                           | min.    | max.   |
|---|---------|--------|
| Overall length with foot support        | 1130 mm | -      |
| Overall width                           | 700 mm  | -      |
| Folded length                           | 660 mm  | -      |
| Folded width                            | 630 mm  | -      |
| Folded height                           | 600 mm  | -      |
| Total mass                              | 34,5 kg | -      |
| Mass heaviest part                      | 2,5 kg  | -      |
| Static stability uphill                 | 0°      | 28°    |
| Seat plane angle                        | -5°     | 20°    |
| Effective seat depth                    | 425 mm  | 550 mm |
| Effective seat width                    | 390 mm  | 540 mm |
| Seat surface height at front            | 465 mm  | 500 mm |
| Backrest angle                          | 92°     | 137°   |
| Backrest height                         | 480 mm  | -      |
| Foot support to seat distance           | 280 mm  | 770 mm |
| Leg to seat surface angle               | 105°    | 182°   |
| Arm support to seat distance            | 260 mm  | 355 mm |
| Front location of arm support structure | 290 mm  | 410 mm |
| Push rim diameter                       | 535 mm  | -      |
| Horizontal axle location                | -50 mm  | 25 mm  |

Model width: 50 cm.


Measured without cushions.


## 2. QUICK REFERENCE


The content of this page is a summary of the whole manual. It gives a brief introduction to the use and care of the Netti 4U comfort|FA wheelchair.


 The quick reference is not a replacement for the manual, only a reminder/check list.


- Unpack the wheelchair (Chapter 6.1)
- Adaptation & adjustment (Chapter 7)
- Mount the main wheels (Chapter 6.2)
- Mount the front castors (Chapter 6.3)
- Put the back rest back, and mount the recline gas strut to the back rest using the locking bolt. (Chapter 6.5)
- Mount the foot supports (Chapter 6.10)
- Mount the head support (Chapter 6.11)
- Mount the arm support (Chapter 6.12)
- Mount accessory. (See chapter 5 for more information. Mounting descriptions will accompany the accessory.)

 For troubleshooting, see chapter 11. For mounting and adjustments see chapter 6 and 7.


 Drive carefully!


 Be aware that friction against push rims can create a warm surface.


 Salt water can increase risk of corrosion. Further precautions related to environmental conditions not needed.


 When the chair is tilted rearwards, the anti tips and brakes should always be in use.


 Be sure to lock all handles properly.


 The anti-tips should always be used for the safety of the user.

 Surface temperature of metal parts in frame structure might increase when exposed to direct sunlight.

 Never stand on the foot supports due to risk of tipping forwards.

 Never lift the wheelchair by the foot supports or arm supports.

 Product configuration may vary between different countries.

 For visually impaired people, manuals and catalogues can be downloaded at [www.alurehab.com](http://www.alurehab.com)

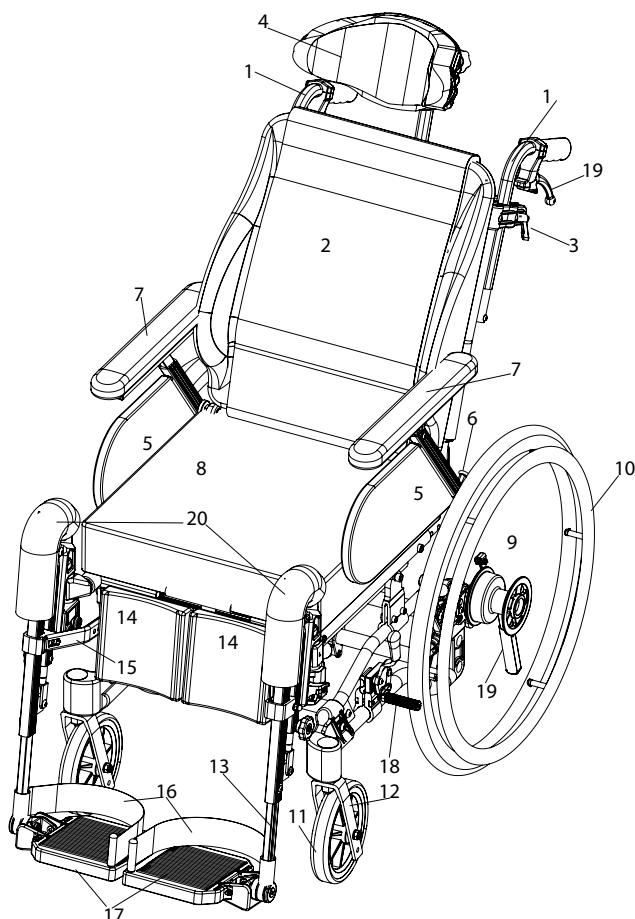
 If in doubt – contact your dealer!



## 3. DESCRIPTION

### Standard version\*

1. Push handles
2. Back cushion
3. Locking lever for push handles
4. Head support
5. Comfort pads for arm support
6. Release handle arm support
7. Arm support with pad
8. Seat cushion
9. Main wheel
10. Push ring
11. Front castors
12. Front fork
13. Foot support
14. Calf support
15. Calf support bracket
16. Heel strap
17. Foot plate
18. Brakes
19. Anti tip
20. Knee upholstery



**i** If any of these parts are missing, please contact your dealer.

\* Product configuration may vary between different countries.

## 4. FEATURES OF NETTI 4U COMFORT | FA

### Standard

#### SEAT

- Width adjustable seat and cushion
- Tilt -5° to +20°

#### WHEELS

- 24" x 1" Puncture proof main wheels
- Push rim: Aluminium
- 7" Puncture proof front castors with quick release axle

\* Standard main wheels may vary between countries.

#### BACK REST

- Recline angle: 88° to 128°
- Width adjustable back rest cushion

#### FOOT SUPPORT

- Angle adjustable foot support
- Height- and angle adjustable foot plates
- Removable

#### ARM SUPPORT

- Height and depth adjustable
- Removable

#### HEAD SUPPORT

- Height, depth and angle adjustable
- Removable

#### ANTI TIP

- Height adjustable
- Removeable

### Accessories

#### SEAT

- Trays & reading stand for trays (See chapter 5)
- Hip belts (See chapter 5)

#### WHEELS

- Puncture proof main wheels 12" and 16" with drumbrake
- 24" x 1" puncture proof main wheels with drum brake
- 6" puncture-proof front castors

#### BACK REST

#### FOOT SUPPORT

- Universal foot support
- Amputation support

#### ARM SUPPORT

#### HEAD SUPPORT

- Different head support models (See chapter 5)

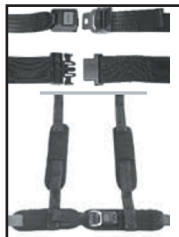
#### ANTI TIP WITH PEDAL

- Height adjustable
- Removeable

## 5. Accessories

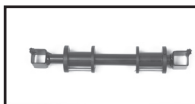
### Belts

Several variants:  
Hip belt and H-Belts  
with or without  
upholstery and with  
plastic lock or car lock  
(See chapter 5.1 for  
mounting)



### H-Belt attachment bar

Telescopic bar for  
optimum position-  
ing of the H-Belt.  
Two sizes:  
25-38 cm Et 40-60 cm



### Trays

3 models:  
Swing-able, lockable  
and standard "push on"  
model.



### Upholstery for tray

Offers a soft base for  
the arm resting on the  
tray.



### Armrest pads

Sizes:  
Wide: 415x80 mm  
Long/Wide: 525x80 mm  
Long: 445x70 mm  
Standard: 385x58 mm  
Small: 333x58 mm



### Hemi arm support

Offers extra support for  
the affected arm. Can  
be set in fixed positions.



### Hemi cushion

An accommodating  
support for hemiplegic  
users.



### Head support

Support C Large.  
Support A Side support  
Support B Small



### Side support Correction

Meant for correction of  
bad postures in the  
upper trunk.

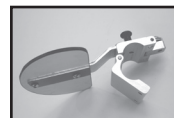


### Pad for side support Correction



### Side support Stable

Meant for users with de-  
creased stability of the  
upper trunk. For optimal  
function use together  
with Stable cushion.



### Pad for side support Stable



### Universal

Adjustable in fixed positions  
between 33° to 105° using an  
adjustment wheel.



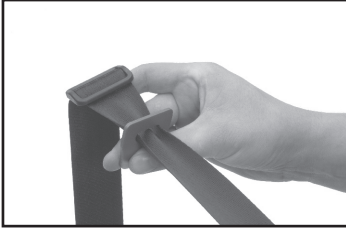
### Amputation support



## 5.1 Assembling of hip belt

### Illustration 5.1.1

- Pull the belt through the hole in the hip belt bracket.



III. 5.1.1

### Illustration 5.1.2

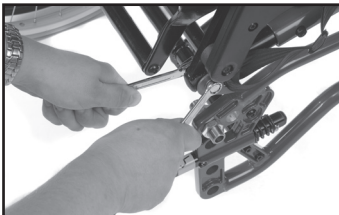
- Thread the belt back through the belt clamp.



III. 5.1.2

### Illustration 5.1.3

- Fix the hip belt bracket to the back rest hinge in the rearmost hole, using the enclosed screws and nuts.



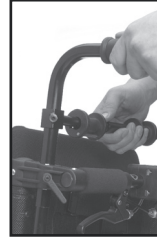
III. 5.1.3

✂ 2 pcs 13 mm open-end spanner

## 5.2 Assembling

### Illustration 5.2.1

- Remove the push handles, and pull the H-belt attachment bar onto the push handles from the lower end.



III. 5.2.1

### Illustration 5.2.2.

- Fix the push handles in correct position and lock firmly. Then fix the bar at the right position/height. The height should be level with the shoulders of the user.



III. 5.2.2

### Illustration 5.2.3

- Thread the belt through the rolls and lock the belt by pulling the belt through the belt clamp. Adjust to the requested length of belt.



III. 5.2.3

## 6. ASSEMBLING AND ADJUSTMENT

- i** Netti 4U comfort |FA has various adjustment and positioning possibilities. See chapter 7 for individual adjustment.
- i** Main wheels, front castors and arm supports are pre-mounted from the factory.

### 6.1 Unpacking

1. Unpack all the parts, and check that everything is there according to the packing list.
2. Mount the main wheels (Chapter 6.2)
3. Mount the front castors (Chapter 6.3)
4. Check and adjust the seat depth (Chap. 6.6)
5. Mount the back rest (Chapter 6.5)
6. Place cushions (7.2 & 7.3)
7. Mount the foot supports (Chapter 6.10)
8. Mount the head support (Chapter 6.11)
9. Mount any accessories (Chapter 5).

**Weight of components (44 cm width chair):**

Main wheels: 1,9 kg each

Anti tip: 0,1 kg each

Front castors: 0,8 kg each

Foot support angle adj.: 2 kg each

Cushions: app.1 kg

Head support A: 1 kg

Head support C: 0,9 kg

### 6.2 Main wheel

To mount the main wheel remove the quick release bolt from the hub bushing, lead it through the centre of the main wheel and into the hub bushing while pressing the knob in center.



- ⚠** To check that the main wheel is properly attached to the hub, remove the finger from the central knob and pull at the main wheel.
- ⚠** If the main wheel doesn't lock, don't use the wheelchair but contact your dealer.
- ⚠** Sand and sea water (salt used for gritting in the winter) can damage the bearings of the main wheels and front castors. Clean the wheelchair thoroughly after exposure

### 6.3 Front castors

**To take off**

- Press the release button under the front fork.

**To mount**

- Lead the quick release axle into the bearing house. Pull the fork slightly to ensure that the fork is fully locked.

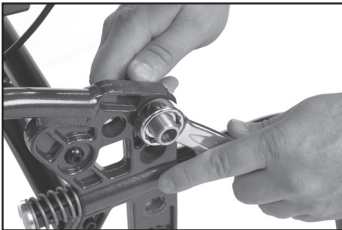



## 6.4. Seat height adjustment

The seat height at the rear depends on:

- Size of main wheel.
- Position of main wheel.
- Using 24" main wheels in the upper hole, the seat height is 49.7 cm from the floor to the seating plate.
- Using 24" main wheels in the next upper position, the height will measure 53,4 cm to the seating plate.
- Using 12" and 16" main wheels the seat height is 47.9 cm from the floor to the seating plate.

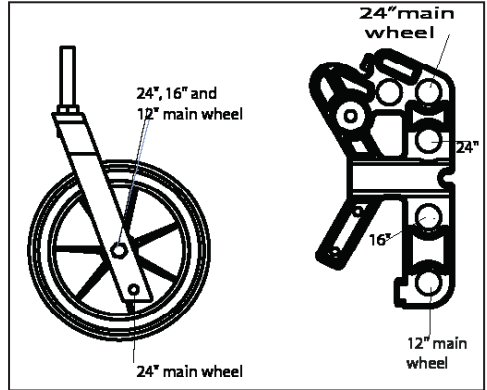
If it is required to change position of the main wheels or to change to a different size of main wheels, unfix the hub bushing including washer and nut. Remove the hub bushing and mount it in the required position.



 2 pcs. 24 mm open-end spanner.

Main wheels and front castors should be mounted according to the description - next column.

- ⚠ When the seat height is changed ensure that the front castors are placed so that the lower frame tube is parallel with the ground.



- ⚠ Check the position of the anti tip and readjust the brakes after mounting the main wheels or changing the main wheel position.

## 6.5 Backrest

- To mount the gas spring, lift the push bow with one hand, and lead the gas spring locking head into the plastic bracket (Ill. 6.5.1).
- Check that the hole in the locking head is parallel with the open holes in the plastic bracket.



Ill. 6.5.1

- Lock the back rest by pushing the locking bolt through the plastic bracket and gas spring locking head (III. 6.5.2.)



III. 6.5.2.

- ⚠** To check that the back rest is locked, grip the push bow and press the back rest forward. If the back rest falls forward – repeat the locking procedure or contact your dealer.

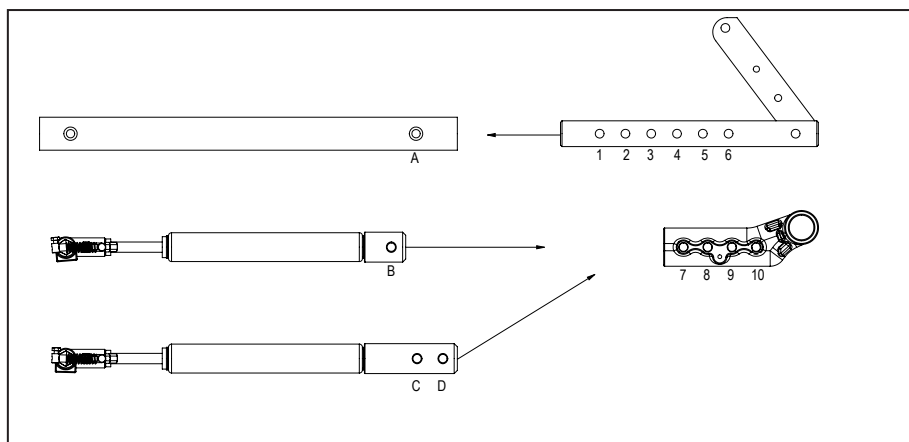
## 6.6 Seat depth general

- The wheelchair is set to a standard seat depth and the plastic bracket has 4 holes of which three are temporarily blocked with plastic plugs (III. 6.5.3).



III. 6.5.3

- Netti 4U comfort | FA is delivered with two locking head. An extra locking head is placed under the seat frame between the two silver coloured cross bars. This locking head shall be used when the seat depth have to be changed to 49 or 51.5 cm. When this shall be used – remove the I locking head that is mounted and replace it with this.
  - The short locking head shall be used on the seat depth 39, 41.5, 44 and 46,5 cm.
  - The long locking head shall be used on the seat depth 49 and 51.5 cm
- Look at the table on next page about what locking head that shall be mounted in what hole.



III. 6.5.4



- The back rest hinge has 6 holes (Ill. 6.5.4) and the chairs are delivered with two locking heads. What hole that should be used together with what locking head are described in the following table in accordance with ill. 6.5.4

| Seat depth | Hole position |
|------------|---------------|
| 39.0 cm    | A6 - B10      |
| 41,5 cm    | A5 - B9       |
| 44,0 cm    | A4 - B8       |
| 46,5 cm    | A3 - B7       |
| 49,0 cm    | A2 - C7       |
| 51.5 cm    | A1 - D7       |

## 6.7 Seat depth adjustment at the rear.

- If the seat depth should be adjusted at the rear, release the locking bolt from the plastic bracket (Ill. 6.5.2.).
- Find the required position for the locking head in the plastic bracket, and remove the plastic plug from this hole.
- Lock the back rest by pushing the locking bolt through the plastic bracket and the gas spring locking head.
- After changing the hole position in the plastic bracket, the hole position in the back rest hinge must be changed into the parallel position.

- ⚠ Check that the hole in the back rest hinge and the plastic bracket are mounted in parallel position.

🔧 6 mm Allen-key

## 6.8 Seat depth adjustment in front

It is possible to adjust the seat depth with up to 10 cm in front. Do the following

- Screw out the screws in the adjustment piece.
- Place the adjustment piece in the wanted position
- Replace and tighten the screws



🔧 6 mm Allen-key

- ⚠ If the user has spastic tendencies the adjustment piece should not be pulled out more than 5 cm

## 6.9 Anti tip

The anti tips should be mounted according to the mounting description which is enclosed with the chair upon arrival.

Use of the anti tip

- Pull the anti tip out
- Turn it up or down 180°.
- Lock it in position





## Adjusting the height of the anti tip

The anti tip can be adjusted in two fixed positions. The short position is for 12" & 16" main wheels and 24" in upper position. The long position is for 24" main wheels in lower position.

- Unfix the screw in the adjustable extension piece as shown in picture page 16
- This extension piece has two holes. Place it in the required position and tighten the screw.

 5 mm Allen key



## 6.10 Foot support



### Angle adjustable foot support

The Angle adjustable foot support is freely adjustable in angle. It is also swingable and removeable. The foot plates are foldable and can be angled in fixed positions. Delivered with height and depth adjustable calf support

### Mounting of foot support

- Grip the foot support in the hinge point. Hold it in an angle of app. 20° to the side frame. Put it into the plastic lock attached to the extractable adjustment bar. Swing it in and push down.



### Adjusting the angle

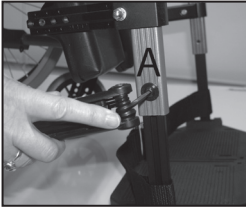
- The angle of the foot support can be adjusted using the star wheel.
- Loosening this star wheel enables you to adjust the foot support to the required angle.
- Fix the angle by tightening the star screw.



- ⚠ Squeeze hazard.** When adjusting foot supports in angle, do not put the fingers in the adjusting mechanism between the moving parts.

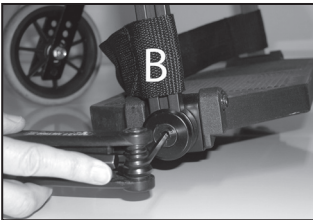
## Adjusting the length of the foot support

- Untighten the screw (A) to make the adjustment tube move
- Adjust the foot support in required position and fix the screw properly.



## Adjusting the angle of the footplate

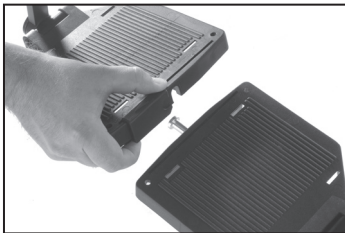
- The foot plates can be adjusted in angle.
- Untighten the screw (B) and adjust the foot plate to the required angle. Fix the screw properly




 5 mm Allen key.


## Locking and releasing the foot plates

- The foot plates come with a locking bolt which makes the plates stronger



- To lock the foot plates pull the plastic lock on the right foot plate and place the lock over the bolt on the left foot plate.
- To release the foot plate pull the plastic lock and lift the right foot plate up.

 For outdoor use, there should be a clearance of 4-5 cm between the foot plate and the ground.

 While making the adjustment there must be no load on the foot plates

## Removing the foot support:

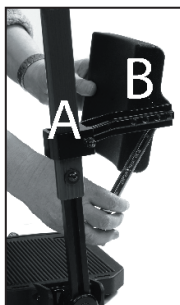
- Pull the plastic lock on the foot plate rearwards, so that the pin is released, and the foot plate can be folded up.
- Raise the foot support a few degrees.
- Release the foot support by pulling it slightly straight up.
- Swing the foot support outwards.
- Lift and remove the foot support.



## Adjusting the calf support

The calf support is height and depth adjustable. To adjust height unfix the nut on the outside of the calf support bracket, find the required height and fix the nut again (III. A – next page)


## 10 mm open-end spanner



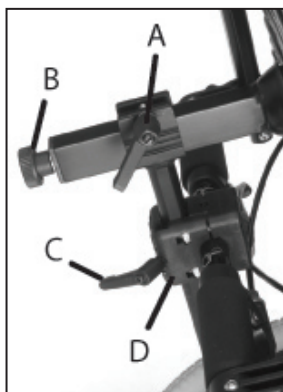
To adjust in depth, the calf pad is removed from the bracket by using an open-end spanner between the pad and the bracket. Find the required position and refix it (III.B)

## 13 mm open-end spanner

 Never stand on the foot supports!

 Never lift the wheelchair by the foot supports

## 6.11 Head support



- A - Lever for depth adjustment
- B - Wheel for angle adjustment
- C - Lever for height adjustment
- D - Head support bracket



- Place the squared nut in the trace of the head support bracket as shown above.
- Place the head support in the head support bracket.
- The height and the depth of the head support is set to the required positions and tightened.



- The head support bracket is fixed by tightening the four screws two by two diagonally so the bracket is fixed with the same strength divided on the four screws.

## Adjusting the head support in depth:

- Release the locking lever on top of the vertical bar (A).
- Adjust the head support and fix it in required position.

## Adjusting the head support in height:

- Release the locking lever on the head support adapter (C).
- Adjust the head support and fix it in required position.

## Adjusting the head support in angle:

- Release the adjustment wheel at the rear of the horizontal bar (B).
- Adjust the head support and fix it in required position.

## Adjusting the head support sideways:

- The head support adapter can be moved both to the right and left, giving the possibility to accommodate special needs for head support.
- Untighten the four screws holding the adapter together.
- Move the adapter to the required position and fix the adapter by tightening the screws diagonally.

- ⚠ Remember to release the levers when adjusting the head support.

- ℹ If the head support stand does not fit the bracket perfectly the bracket is probably fixed too tight or unevenly.

- ℹ After fitting the head support fix it properly by tightening the little set screw in the centre on top of the head support bracket using an Allen key.

- 👍 If the head support seems to short in height, it can be turned 180° by releasing the adjustment wheel at the rear of the horizontal bar (B)

## 6.12 Arm support



- The arm supports are removable, height- and depth adjustable.
- ⚠ Please be aware while mounting that there is a left-side and a right-side arm support.



III. 6.12.1

## Mounting the arm support

- Grip the arm support (ill. 6.12.1) and place the rear end of the arm support onto the plastic bracket of the back rest hinge (ill. 6.12.2). Push it downwards until it clicks into position. Give the arm support a slight push in horizontal direction to make sure that it is locked.



III. 6.12.2

## Remove the arm support

- Pull the locking knob at the rear of the arm (ill. 6.12.3) support and lift the arm support up.



III. 6.12.3

## Adjusting the height of the arm support

- Untighten the screw on the arm support (III. 6.12.4) using a 4mm Allen key.
- Raise or lower stem
- Tighten the screw



III. 6.12.4



Never lift the chair holding onto the arm supports.

## 6.13 Adjusting the brakes

- The brakes are freely adjustable along the frame tube.

- To activate the brake, push the handle forward. (III. 6.13.1).



III.6.13.1

- To release the brake, pull the handle rearwards (III. 6.13.2).



III. 6.13.2

- To reposition the brake, loosen the two screws on the outside of the brakes (III. 6.13.3)
- Adjust the brake position and tighten the screws.




III. 6.13.3


- For fine adjustment, loosen the screw on the inside of the brakes (III. 6.13.4)
- Adjust the brake position and tighten the screw.




III. 6.13.4

 5 mm Allen key

 Check that the brakes are correctly adjusted by activating the brakes and be sure that the wheelchair doesn't move.

 The brakes are constructed as parking brakes and shall not be used as driving brakes.

 Be aware of potential squeeze hazard between brake and tyre.



## Drum brake




### If the brake doesn't brake properly:


To adjust the wire on one or both sides, adjust the foot screw 2-4 rounds out. Then re-check the brakes.

### If the wire is too loose:

Adjust the foot screw all the way in. Tighten the wire by loosening the wire clamp before pulling the wire further through it. Tighten the wire clamp, and adjust the foot screw out again

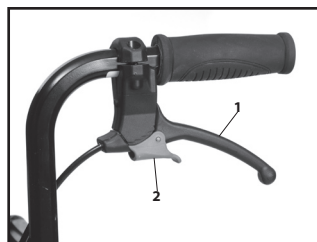


 1 pc 10mm open-end spanner.


 To ensure the correct functions of the wire, these must never be taut.


## Operating and applying the brake

The wheelbase in drum brake is fitted with hand operated hub brakes to allow regulation of speed on hills and whilst travelling along. These are located on the push handles.



- To apply the brakes, pull the brake levers (1) evenly and smoothly towards handle and bring the wheelbase to a stop.
- For to put on and lock the parking brake (2) press the lever (1) against the push handle and lock the parking brake with the finger. Be sure that both parking brakes are locked.
- The parking brake will be released when you press the lever (1) against the push handle. It is locked with a spring and this will in this way be released.

 It is extremely important that the parking brakes are locked when the user is left sitting in the wheelchair.

 Don't leave the user in the wheelchair without to put the parking brake in function.

## 6.14 Push handles

Adjustment of push handles:

- Release the lever on the side and lift the handle all the way up.
- Turn the handles into required position.
- Adjust height.
- Lock the handle in required position by tightening the lever.



- ⚠ Be sure to lock the handle properly.
- ⚠ Check that the safety screw is properly tightened.
- ℹ To remove the handles, the safety screw at the bottom also has to be removed.

## 6.15 Tilt and recline function

The stepless recline and tilt function is regulated by using the release handles on the push bar



The release handles have the following label



Recline



Tilt

- ⚠ Risk for tipping.  
Check the position of anti tip.
- ⚠ Don't leave a user in the wheelchair when it is tilted forward.

## 7. ADAPTATION & ADJUSTMENT

- ℹ We strongly recommend that this chapter is followed carefully before you start using the wheelchair

### 7.1 Adjustment of seat width

1. Pull back arm support using the release handle at the rear





2. Take the seat cushion out



3. Take the back rest cushion out.



4. Release the velcro straps on the back of the back rest



5. Remove the plastic hand grips



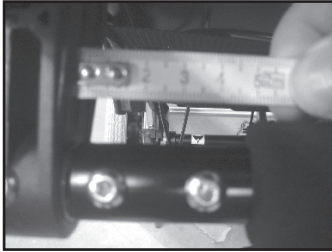
6. Release the two screws on each side using an allen key.



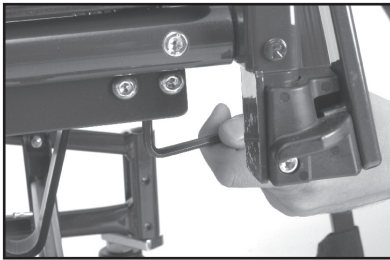
7. Release the two screws on the bottom of the back rest on both sides using an allen key.



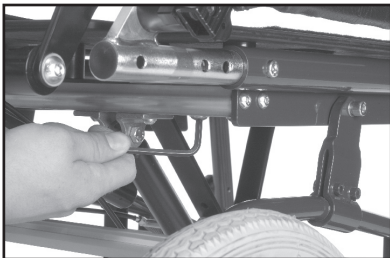
8. Use a measuring tape for correct adjustment of width on top of the back rest



9. Release the two screws under the seat plate at the front on both sides using an allen key.



10. Release the two screws under the seat plate at the rear on both sides using an allen key



11. Pull the chair out, one side at a time, to the required width



12. Go through the procedure once again and tighten the screws



- ⚠** Changing seat width also requires you to change the footplate to correct size.

## 7.2 Adjusting the back rest cushion.



After to have loosen the back rest cushion and taken it out of the chair.

- Move away the front part of the cushion
- Take the two back parts from each others and adjust to the correct seat width
- Place the front part over the other parts and fasten it.
- Fasten the cushion in the chair again.

- The seat cushion consist of three parts. Separate the wedges to the same width as the seat plate. Place the wide foam layer on top of the wedges and mount the outer cover.

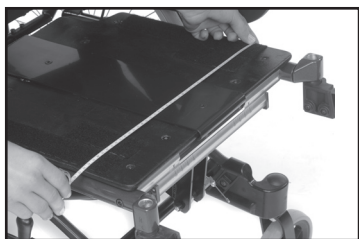


- Place the cushion on the seat plate



## 7.3 Adjusting the seat cushion

- Measure width of seat plate.



## 8. MANOEUVRING

### 8.1 General techniques

The weight and balance of the chair influences the manoeuvring qualities of the wheelchair. The weight, size and sitting position of the user are also influencing factors. The position of the wheels will in addition influence the manoeuvring qualities. The more weight placed over the main wheels, the easier it is to manoeuvre. If heavy weight is placed over the front castors, the chair will be heavy to manoeuvre.

## Companion:

If the user is left alone in the wheelchair, always lock the brakes and check that the anti tips are turned down.

## Parking:

Increase the underneath support of the wheelchair by moving the chair about 10 cm rearwards making the front castors turn forward.

## How to use the companion brakes:

- To lock: Pull the handle upwards and push the red handle into locking position.
- To open: Pull the handle a little more up until the red handle is released and the handle can be slipped back into position.

## 8.2 Driving techniques

### - Step up-

Companions, drive up a step forwards:

- Check that the anti tip is turned up.
- Angle the wheelchair backwards.
- Balance the chair on the mainwheels and push it forward until the front castors are on the step.
- Lift the push handles while pushing the chair onto the step.

⚠ Turn the anti tip downwards.

Users, drive up a step backwards:

This technique is only useful if the step is very low. It also depends on the clearance between the footplates and the ground.

- Check that the anti tip is turned up.
- Drive the chair backwards towards the step
- Make a firm grip on the push rims and move the body forward while pulling.

⚠ Turn the anti tip downwards.

## Companions, drive up a step backwards:

- Check that the anti tip is turned up
- Pull the chair backwards next to the step
- Angle the wheelchair backwards, moving the front castors slightly up in the air.
- Pull the wheelchair up the step and go backwards long enough to put down the front castors on the step.

## 8.3 Driving techniques

### - Step down-

Companions, drive down a step forwards:

- Check that the anti tip is turned up
- Angle the wheelchair backwards, moving the front castors slightly up in the air.
- Drive carefully down the step and angle the wheelchair forward putting the front castors back on the ground.

⚠ Turn the anti tip downwards.

## Companions, drive down a step backwards:

- Check that the anti tip is turned up.
- Move the wheelchair backwards to the step.
- Drive carefully down the step and move the wheelchair backwards on the main wheel until the front castors have come away from the step.
- Put the front castors down on the ground.

⚠ Turn the anti tip downwards

## 8.4 Driving techniques

### - Slope -

Important advice for driving down and up hill avoiding the risk of tipping.

- ⚠️ Avoid turning the wheelchair in the middle of a slope.
- ⚠️ Always drive as straight as possible.
- ⚠️ It is better to ask for assistance than taking risks.



#### Driving uphill:

Move the upper part of the body forwards in order to maintain the balance of the chair.

#### Driving downhill:

Move the upper part of the body backwards to maintain balance of the chair. Control the speed of the chair by clutching the push rims. Do not use the brakes.

## 8.5 Driving techniques

### - Up stairs -

- ⚠️ Always ask for assistance.
- ⚠️ Never use escalators, even if assisted by a companion.

With assistance, backwards.

- Check that the anti tip is turned up,
- Pull the wheelchair backwards to the first step of the stairs.
- Angle the wheelchair backwards on the main wheels.
- Pull the wheelchair slowly up the stair, one step at the time keeping the balance on the main wheel.
- Reaching the top of the stair, pull the wheelchair backwards far enough to put the front castors safely down on the floor.
- ⚠️ Turn the anti tip downwards.



If two companions are present, one person can assist lifting in the front of the frame.



Do not lift the wheelchair holding onto the foot supports.



Do not lift the wheelchair holding onto the arm supports.



The companions should use the strength in their legs carrying the chair, avoiding unnecessary stress on the back.

## 8.6 Driving techniques

### - Down stairs -

- ⚠️ Never use escalators, even if assisted by a companion.

## With assistance, forwards

- Check that the anti tip is turned up
- Drive the wheelchair forward to the first step of the stair.
- Angle the wheelchair backwards on the main wheels.
- Have a firm grip on the push bow, and keep the balance on the main wheel taking one step at the time
- Reaching the bottom of the stair, put the front castors safely down on the floor.

**⚠** Turn the anti tip downwards.

**👍** If two companions are present, one person can assist lifting in the front of the frame.

**⚠** Do not lift the wheelchair holding onto the foot supports.

**⚠** Do not lift the wheelchair holding onto the armrests.

## 8.7 Transfer

Techniques for transferring to/from the wheelchair should be practiced well with the persons involved. Here, we give some important advices for preparation of the chair.

### With or without companion – sideways.

#### Before transfer:

- The wheelchair should be placed as close as possible to the destination of the transfer.
- Pull the wheelchair backwards 5-10 cm in order to make the front castors turn forward.

- Lock the brakes.
- Remove foot support and arm support on the side of the transfer.

### With or without companion – forwards. Before transfer:

- The wheelchair should be placed as close as possible to the destination of the transfer.
- Pull the wheelchair backwards 5-10 cm in order to make the front castors turn forward.
- Lock the brakes.
- Tilt chair forward



### Using a lift:

#### Before transfer to chair:

- Tilt the chair back
- Remove the head support
- Remove the foot supports
- Open the back rest angle slightly
- Replace the components when transfer is finished.





- ⚠ Never stand on the foot plates without making sure that they are touching the ground due to the risk of tipping the chair forwards.

## 8.8 Lifting the wheelchair

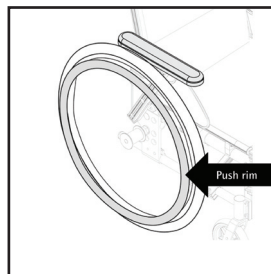
- The wheelchair should be lifted in the frame, and push bow only.



- ⚠ Never lift the wheelchair by the foot supports or arm supports
- ⚠ Don't lift the wheelchair with a user in it.

## 8.9 Push rim

Netti 4U comfort|FA is delivered with aluminium push rims as standard. The material and distance to the main wheel influences the ability of the user to grip. Contact your dealer to get information about push rims that fit your chair.



- ⚠ Alternative push rims may give a better grip, but the friction may increase. When using the hands to stop the chair, the risk for burning of the hands increases.
- 👍 A squeezing and trapping hazard of the fingers may occur when passing through narrow passages and if the fingers come between the spokes. To avoid this risk, we recommend spoke protectors as accessory.
- 📄 If you want/need to change push rims or increase/decrease the distance between the push rims and the wheel, please contact your dealer

## 9. TRANSPORT

Netti 4U comfort|FA is tested and approved to crash test ISO 7176-19.

### 9.1 Folding for transport

When wheelchair is unoccupied, fold as described below. Put wheelchair in trunk or back seat. When placed in back seat, secure frame using safety belt

- Remove the head support (Chapt. 6.11)
- Turn the anti tips upwards (Chapt. 6.9)
- Remove the foot supports (Chapt. 6.10)
- Swing the push handles in (Chapt. 6.14)
- Remove the arm support (Chap. 6.12)
- Remove the back cushion (Chap. 7.2)
- Pull out the locking bolt for the back rest, and place the backrest forward in the seat (Chapt. 6.5)
- Remove the main wheels (Chapt. 6.2)
- Remove the front castors (Chapt. 6.3)

### 9.2 Transport in car

If the head support is mounted correctly it is very stable but does not replace the need for an external neck support mounted in the car.

The chair is marked with stickers in 4 positions, showing where to fix the straps



Netti 4U comfort|FA has been successfully tested according to the requirement of ISO 7176-19 using a combined wheelchair an occupant restraint system W120/DISR

developed by Unwin Safety Systems. For further information:  
www.unwin-safety.com



In front: Use hook or strap attachment.

Mount an "eye-bolt" in one of the holes in the wheel frame bracket. Hook on a hook/ carabine hook in the "eye-bolt"



Item number 1 pair eye bolts with bushing: 21074



The angle of the straps should be 0-45°



- ⚠ Netti 4U comfort|FA has been crash tested without any power kit etc. If, at a later point of time a power kit, stair climber etc. is mounted this must be dismantled if the wheelchair is to be transported



## 10. MAINTENANCE

### 10.1 Maintenance instructions

The Netti chairs are built of modules. Alu Rehab carries stock of all parts and is ready to supply these on short notice. Necessary instructions for mounting will follow the parts.

Parts to be handled by user are defined in spare part catalogues that can be downloaded at [www.alurehab.com](http://www.alurehab.com). These parts can, if needed, also be removed and sent to manufacturer/distributor upon request.

Parts related to wheel frame construction must be handled by manufacturer or authorized service facility.

- ⚠ You can order original paint from Alu Rehab to repair scratches and minor damages to the paint: Please contact your dealer to order.
- ⚠ If defects or damages occur, please contact your dealer.
- ⚠ Check/re-adjust screws and nuts at regular intervals.
- ⚠ Sand and sea water (salt used for gritting in the winter) can damage the bearings of the front castors and main wheels. Clean the wheelchair thoroughly after use.

| Frequency  | Weekly | Monthly |
|--|--------|---------|
| Check defects/damages<br>E.g. breakage/missing parts | X      |         |
| Washing of wheelchair                                |        | X       |
| Oiling of bearings*                                  |        | X       |
| Washing of cushions                                  |        | X       |
| Check anti tip function                              |        | X       |
| Check brake adjustment                               |        | X       |
| Check tyre wear                                      |        | X       |

\* As a rule of thumb, use oil on movable parts and all bearings. Alu Rehab recommends use of ordinary bicycle oil

### 10.2 Cleaning and washing

1. Remove cushions before washing the wheelchair.
2. Clean cushion and cover according to instructions printed on cushions.

Cushion cleaning procedures

|              |                           |
|--------------|---------------------------|
| CORE         |                           |
| Washing      | Hand wash 40°C            |
| Disinfection | Virkon S                  |
|              | Auto clave 105°C          |
| Drying       | Squeeze                   |
|              | Air dry standing edgewise |
| OUTER COVER  |                           |
| Washing      | Machine wash 60°C         |
| Drying       | Tumble dry max 85°C       |

3. Clean frame using water and a rag.
4. If jet water washing, avoid pointing directly towards gas springs, labels and back cushion.
5. We recommend using soft soap.
6. Wash the wheelchair well using clean water to remove all the soap.
7. Use methylated spirit to remove any dirt left.

- ❗ We recommend washing the wheelchair in washing chamber at >85°C.
- ❗ For small damages to the surface, original surface paint can be ordered from the manufacturer.

## 11. TROUBLESHOOTING

| Symptom   | Reason/Action  | Reference in manual |
|---|--|---------------------|
| The wheelchair is going askew                         | <ul style="list-style-type: none"> <li>• The main wheel hubs might be incorrectly mounted</li> <li>• One of the brakes might be too tight</li> <li>• The user is sitting very askew in the chair</li> <li>• The user might be stronger on one side than the other</li> </ul> | 6.4<br>6.13         |
| The wheelchair is heavy to manoeuvre                  | <ul style="list-style-type: none"> <li>• The main wheel hubs might be incorrectly mounted</li> <li>• Clean the front castors and forks for dirt</li> <li>• Too much weight over the front castors</li> </ul>   | 6.4                 |
| The front castors are wobbling                        | <ul style="list-style-type: none"> <li>• Too much weight over the front castors<br/>(Adjust point of balance by moving the main wheel back)</li> </ul>   | 6.3                 |
| The main wheels are difficult to take off and put on. | <ul style="list-style-type: none"> <li>• Clean and grease the quick release</li> <li>• Adjust hub bushing further out from the frame</li> </ul>  | 6.4<br>6.4          |
| The brakes are not functioning well                   | <ul style="list-style-type: none"> <li>• Adjust the brake</li> <li>• Check wire socket and that the wire is tight</li> </ul>   | 6.13                |
| The wheelchair feels "shaky"                          | <ul style="list-style-type: none"> <li>• Check screws and adjustment points in general</li> </ul>  |                     |

- ❗ Please contact your dealer for information about authorized service facilities that can give support if solution is not reached in this form.
- ❗ When in need of spare parts, please contact your dealer.
- ❗ When making changes affecting frame construction, contact dealer / manufacturer for confirmation.

## 12. TESTS & WARRANTY

### 12.1 Tests

Netti 4U comfort|FA is tested and has been approved for usage both indoors and outdoors. The chair is CE marked.

Maximum user weight: 140 kg

It is tested by TÜV SÜD Product Service GmbH according to DIN EN 12183: 2009.



Crash tested at Millbrooke Proving Ground, Bedford UK, according to ISO 7176-19

Seating system is tested for fire resistance according to: ISO 7176-16


### 12.2 Guarantee


Alu Rehab is providing you with a 5-year guarantee on all frame components and on the cross-tube assembly. There is a 2-year guarantee on all other components except batteries. Alu Rehab is not responsible for any damage resulting

from inappropriate or unprofessional installation and/or repairs, neglect, wear, from changes in wheelchair assemblies or institutions not approved by Alu Rehab or by use of spare parts delivered or produced by third parties. In such cases, this guarantee shall be considered null and void.

### 12.3 Claim

- Claim is to be addressed to the sales agent of the wheelchair. Please note that sales documentation has to be filled in and signed correctly in order to document time and place of the purchase of the wheelchair.
- Generally, defects are accepted as reason for claims. The sales agent and Alu Rehab are to decide whether a defect has to be repaired, or the customer is entitled to a reduced prize due to the defect.
- This decision is based on an evaluation of defect. 14 days after receiving a claim, the customer receives a report from the sales agent and/or Alu Rehab are going to handle the defect.
- Claim are to be forwarded as soon as a defect is discovered.

 **Normal wear, incorrect use or incorrect handling is not a reason for claims.**

 **The user is to use, maintain and handle the wheelchair as described in the user manual.**

## 12.4 Spare part guarantee

- Alu Rehab offers a 5-year guarantee (as a minimum) for spare parts. The period of guarantee is defined as beginning at the date, Alu Rehab cancels the production of a specified type of chair.
- During the period of spare part guarantee, spare parts are delivered within 14 days.
- During the period of spare part guarantee, Alu Rehab offers a 1 year guarantee for defect spare parts.

## 12.5 Special adjustment/ adaptations

Special adjustments/adaptations are defined as all adjustments that are not included in this manual. Wheelchairs that are especially adjusted/adapted by the customer can not keep the CE mark given by Alu Rehab A.S Norway. If this is the case, the warranty given by Alu Rehab A.S Norway will not be valid. If any uncertainty about special fitting and adaptations, please contact Alu Rehab A.S.

## 12.6 Combinations with other products

Combinations of Netti and other products not manufactured by Alu Rehab A.S Generally in these cases, the CE mark of all the products involved will not be valid. However, Alu Rehab A.S has made agreements with some manufacturers about some combinations.

- ❗ For further information, please contact your dealer or Alu Rehab A.S Norway directly.

## 12.7 Service and repair

Information about service and repair services in you area, please contact your local dealer.

- ❗ A unique identification number / serial number is to be found on the bottom frame on left side of the chair.
- ❗ A spare part catalogue for the wheelchair can be obtained through your local dealer or downloaded at [www.alurehab.com](http://www.alurehab.com)
- ❗ A refurbishment manual for the wheelchair can be obtained through your local dealer or downloaded at [www.alurehab.com](http://www.alurehab.com)

## 13. MEASURES & WEIGHT

| Seat width* | Seat depth (3 pos.)**      | Seat height *** | Back height **** | Total width |
|-------------|----------------------------|-----------------|------------------|-------------|
| 35 - 44 cm  | 39-41,5-44-46,5-49-51.5 cm | 52 cm           | 59.5 cm          | 53-62 cm    |
| 44 - 53 cm  | 39-41,5-44-46,5-49-52,5 cm | 52 cm           | 59.5 cm          | 62-71 cm    |

\* Measured between edges of seat plate. There is an additional 2 cm from edge of seatplate to skirt guards on each side.

\*\* Measured from back rest tube to front seat plate. App. 3 cm can be subtracted when including standard backrest cushion.

\*\*\* Measured from ground to seat plate without cushion. Standard cushion measures app. 7,5 cm.

\*\*\*\* Measured from seatplate to top backrest tube without cushion. Standard cushion measures app. 7,5 cm.

**i** Max user weight is 140 kg.

**⚠** When mounting accessories such as power kit etc, the weight of the accessories must be subtracted from the max user weight.

**Total weight of Netti 4U FA including standard equipment.**  
(Cushions, foot supports, main wheels, front castors, push handles and anti tip)

| Model      | Weight  |
|------------|---------|
| 35 - 44 cm | 33.5 kg |
| 44 - 53 cm | 34.5 kg |

|                       |  |
|-----------------------|--|
| <b>Dealer:</b>        |  |
| <b>Serial no.:</b>    |  |
| <b>Date supplied:</b> |  |
| <b>Dealer stamp:</b>  |  |







AUTHORIZED DEALERS

**ALU\_REHAB™**

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