

R82<sup>®</sup> 

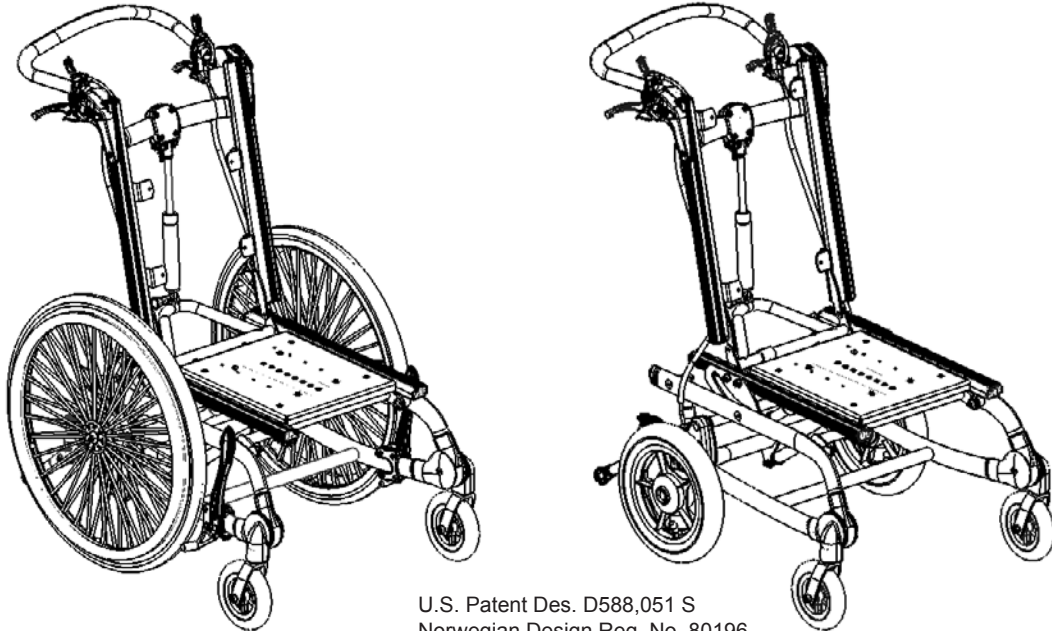
# combi frame<sup>™</sup>

**English user manual**

G  
B

## **GB** CONTENTS

Safety .....	4
Product liability .....	4
Tools .....	4
Warranty .....	5
Maintenance .....	5
Preparation for use .....	6
T-tool.....	6
Sitting and Transferring from the Combi Frame .....	6
Negotiating obstacles 1/3 .....	7
Negotiating obstacles 2/3 .....	8
Negotiating obstacles 3/3 .....	9
Angling the seat & back.....	10
Adjustment of back.....	11
How to mount a seat.....	12
Gas spring adjustment.....	13
Quick release wheels .....	14
Spoke protectors .....	14
Adjustment of the push brace.....	15
Anti-tip device .....	16
Fix-locks .....	16
Seat height adjustment.....	17
Seat angle adjustment.....	17
Wheel lock .....	18
Drum brake.....	18
Wheel combinations .....	19
Angling the front fork .....	19
Changing the centre of gravity.....	20
Wooden back.....	21
Mudguard .....	21
Head support fitting .....	22
Head support fitting on cross bar.....	22
Leg rests and foot plates .....	23
Mounting of foot support.....	24
Mounting of non-R82 foot supports .....	24
Transportation in motor vehicles 1/3 .....	25
Transportation in motor vehicles 2/3 .....	26
Transportation in motor vehicles 3/3 .....	27
Product identification .....	28
Measurements.....	29
Technical data.....	30
Manufacturer .....	30
Dealer .....	30
Care and maintenance .....	31
Troubleshooting.....	32



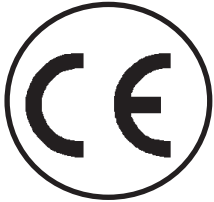
U.S. Patent Des. D588,051 S  
Norwegian Design Reg. No. 80196

## **GB** COMBI FRAME

The Combi Frame is a unique wheelchair frame for customized seating systems. The Combi Frame is ideal for both indoor and outdoor use.

The frame comes in either blue, red or silver with either 12½", 20", 22" or 24" rear wheels and 6" front wheels.


This user manual is a guide to assist in gaining the full benefits of the options offered by the Combi Frame. Therefore, we recommend you read this manual before using the frame.





## **GB** SAFETY


The Combi Frame has earned the CE-mark. This certifies that it meets all relevant European safety requirements. The Combi Frame is approved according to ISO 7176-19 and the manual according to ISO 7176-15.


The durability of this product is 5 years when it is used on a daily basis. Hereafter the product must be renovated (by R82 personnel) to extend the lifetime.

 Remove the CE-mark, when rebuilding the product or when using other than original R82 spare parts and fittings.


 Never leave your child unattended in this product. Ensure constant supervision by an adult. Incorrect use of the product may cause serious injury to the user. Ensure that the belt is securely fixed to the product before every use.

 The Combi Frame is constructed for one user only. Do not place more than one user in the Combi Frame

 The anti-tip device must be activated when the frame is tilted and if the Combi Frame is parked on roads with a gradient greater than 10°.

 The latest version of the manual is always available online:  
**[www.R82.com](http://www.R82.com)**

## **GB** PRODUCT LIABILITY

 You should remove the CE-mark, when rebuilding the product or when using other than original R82 spare parts.

## **GB** TOOLS

There is a tool bag at the back of the chair with 3, 4, 5 and 6 mm Allen keys. Also included 1 pcs. of T-tool. Use these tools for the adjustments described in the manual.

## **GB** WARRANTY

R82 offers a 2-year warranty against defects in workmanship and materials and a 5-year warranty on breakage of the metal frame caused by defects in welds. The warranty would be adversely affected if the customer's responsibility of servicing and/or daily maintenance is not carried out according to the guidelines and intervals prescribed by the supplier and/or stated in the manual. For further information, we refer to the R82 homepage/download. The warranty can only be sustained if the R82 product is in use in the same country where it was purchased and if the product can be identified by the serial number. The warranty does not cover accidental damage, including damage caused by misuse or neglect. The warranty does not extend to non-durable parts, which are subject to normal wear and tear and need periodic replacement. The warranty is null and void if non-original R82 parts/accessories are used, or if the product is repaired or altered by anyone other than an authorised R82 representative or by trained personnel officially recognised by R82 for repair and maintenance of R82 products. R82 reserves the right to inspect the product being claimed for and the relevant documentation before agreeing to the warranty claim, and to decide upon whether to replace or repair the defective product. It is the customer's responsibility to return the item being claimed for under warranty to the address of purchase. The warranty is given by R82 or, subsequently, an R82 dealer.

## **GB** MAINTENANCE

- Check the tire pressure regularly.  
Air pressure: 55 PSI/3,8 bar/380 kPa.
- Check the function of the wheel lock regularly. For safety routinely check to make sure the distance between the wheel and the wheel lock block is: 6-8 mm
- Do not expose the gas spring to pressure, high temperatures or perforation.



Oil the swing away parts occasionally. We recommend using a synthetic teflon oil.



Clean the frame on a regular basis, especially when it has been in contact with rainwater / salt water. Do not use any cleaning materials containing chlorine or methylated spirit or which is abrasive.



The Combi Frame has to be checked and serviced by a qualified technician at least every 6 months to avoid possible failures.



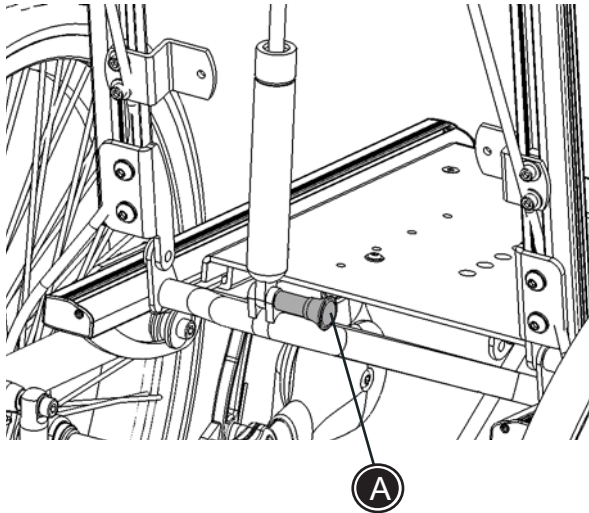
If drum brakes are mounted, the cables have to be adjusted, to ensure the brakes are working properly. Make sure the wheels can not be turned around when the brakes are activated. A qualified technician must check and tighten the brakes at least every 6 months.



Regularly the spokes need to be adjusted by an expert. For instance by your local bicycle engineer.



Adjustments which are not described in this manual, must only be made by authorized R82 personnel.



## GB PREPARATION FOR USE

The Combi Frame is shipped folded so that it takes up as little room as possible during transport.

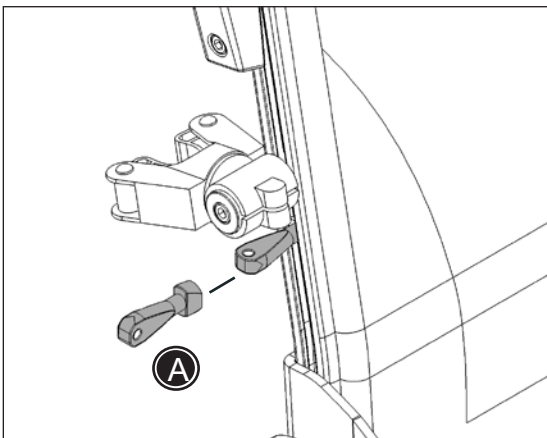
To use the Combi Frame, please follow the instructions below.

- 1) Pull out the handle (A).
- 2) Mount the gas spring in the fitting and let go of the handle. Make sure it clicks fully back into place.

## GB T-TOOL

The T-tool (A) helps to maintain the square plates in the slot, when mounting or adjusting eg. side support etc.

Insert tool into slot, twist 90° and tip down to support the plate.



## GB SITTING AND TRANSFERRING FROM THE COMBI FRAME

Before placing the user into the Combi Frame the wheel locks must be locked in place and the footplates lifted to the sides or the leg rests removed.

Place the user into the Combi Frame and adjust the accessories to achieve the optimal seating for the user.

It is not necessary to remove the leg rests if the user is transferred in or out of the Combi Frame using a sling.

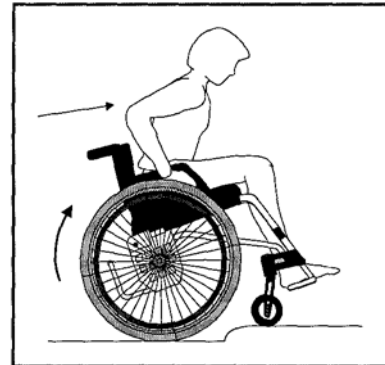
**GB** NEGOTIATING  
OBSTACLES 1/3

**Driving UP kerbs (max. 10 cm)**

**Forwards**

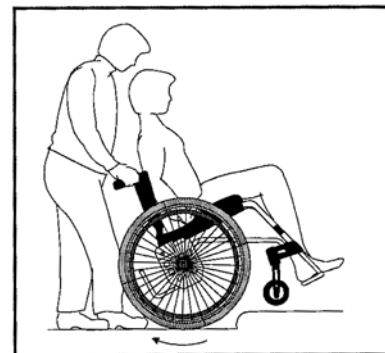
This technique is recommended for experienced users.

- \* Make sure the anti-tip device is deactivated
- \* Drive forward towards the kerb
- \* Balance on the rear wheels and lift the front wheels from the ground. Bend forward and push hard on the hand rims.



**Forwards, with assistance**

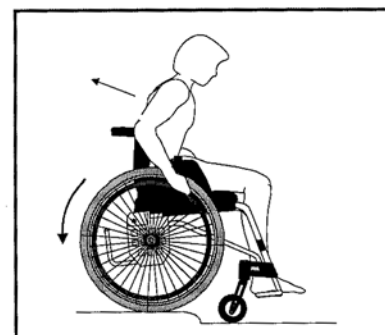
- \* Make sure the anti-tip device is deactivated
- \* Drive forward towards the kerb
- \* Tilt the chair backwards to lift the front wheels above the kerb.
- \* Assist the user by aiding the rear wheels over the kerb but not by lifting on the push handles but by lifting using the frame.



**Backwards**

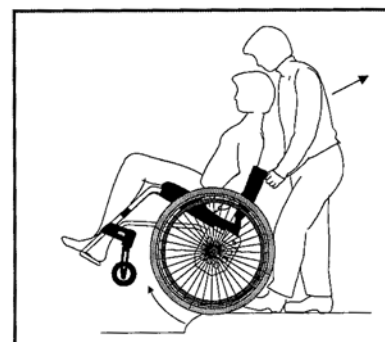
This technique is only to be used at low edges and is dependent on the height of the foot-plate.

- \* Make sure the anti-tip device is deactivated
- \* Drive backwards towards the kerb
- \* Bend forward and pull hard on the hand rims.



**Backwards, with assistance**

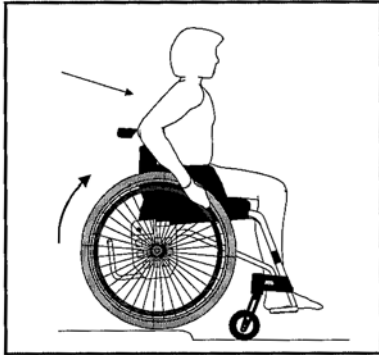
- \* Make sure the anti-tip device is deactivated
- \* Drive backwards towards the kerb.
- \* Tilt the chair backwards to lift the front wheels.
- \* Lift on the frame to pull the chair up. Pull the chair away from the kerb and lower down the front wheels.





## **GB** NEGOTIATING OBSTACLES 2/3


### Driving DOWN kerbs (max. 10 cm)

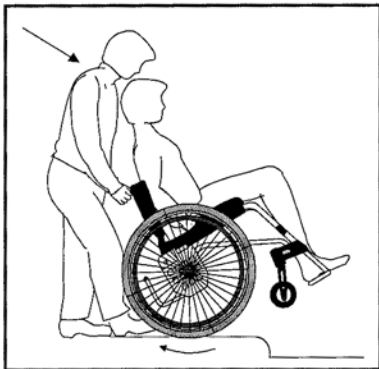


#### **Forwards**

This technique is recommended for experienced users.

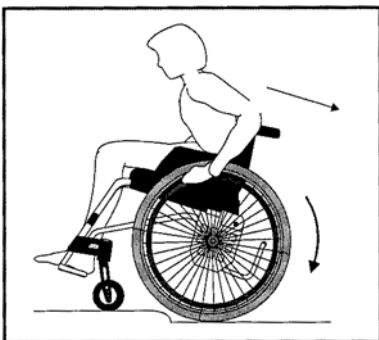
- \* Make sure the anti-tip device is deactivated
- \* Drive forward towards the kerb
- \* Push hard on the hand rims and drive forward. All wheels should touch the ground at the same time.

 High tilting risk with this technique



#### **Forwards, with assistance**

- \* Make sure the anti-tip device is deactivated
- \* Drive forward towards the kerb.
- \* Tilt the chair backwards to lift the front wheels whilst holding on to the frame.
- \* Drive carefully down the kerb and lower down the front wheels to the ground.



#### **Backwards**

This technique must never be used if the height difference is more than 10 cm and only by experienced users.

- \* Make sure the anti-tip device is deactivated
- \* Drive backwards towards the kerb
- \* Bend forward and drive carefully down the kerb.

 High tilting risk with this technique




#### **Backwards, with assistance**


- \* Make sure the anti-tip device is deactivated
- \* Drive backwards towards the kerb.
- \* Drive carefully down the kerb and pull the chair away from the kerb whilst holding onto the frame.
- \* Lower the front wheels to the ground.




## **GB** NEGOTIATING OBSTACLES 3/3

### Driving UP stairs

 Always ask for help.

 Never enter an escalator even with help from others.


 Do not lift **ONLY** in the push handle!


Backwards, with assistance:

- \* Make sure the anti-tip device is deactivated and the handles is tightned securely.
- \* Drive backwards toward the first step.
- \* Tilt the chair and pull up the chair one step at a time. Make sure to keep balance on the rear wheels.
- \* Pull the chair away from the last step an put down the front wheels.


### Driving DOWN stairs


Forward, with asistance:

 Always ask for help.

 Never enter an escalator even with help from others.

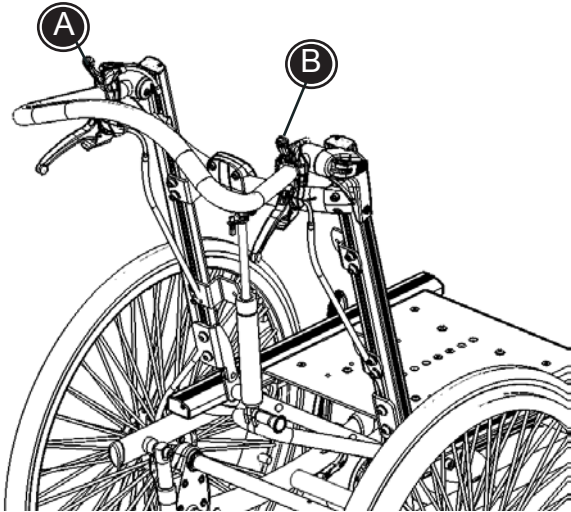
- \* Make sure the anti-tip device is deactivated
- \* Drive towards the first step and tilt the chair.
- \* Drive down one step at a time. Make sure to keep balance on the rear wheels.
- \* Put down the front wheels after the last step.

 If two helpers are present, one can assist by lifting at the front.

 The helpers need to make sure to lift the correct way - with the strength from the legs and not from the back.



## **GB** ANGLING THE SEAT & BACK



### Angling the seat (tilt in space):

Activate the left handle (A) on the push handle to adjust the angle of the seat. Once the desired angle has been reached release the lever to lock back into place

The Combi Frame can be ordered with or without a gasspring for reclining the back. Please follow the description below to angle the back on your Combi Frame:

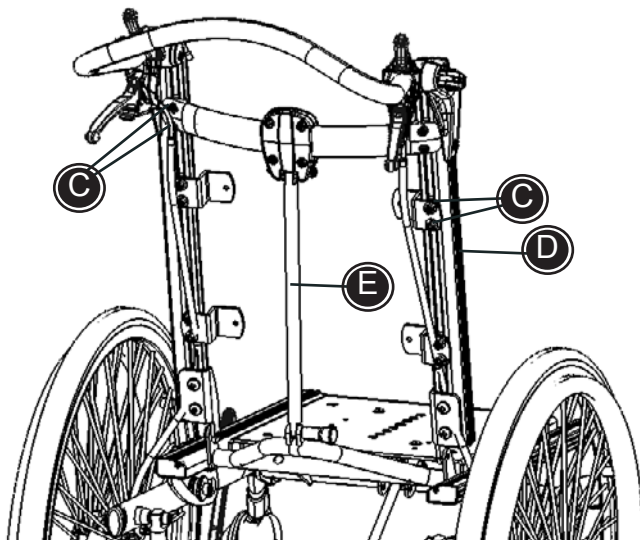
### Angling the back (with gasspring mounted):


Activate the right handle (B) on the push handle to adjust the angle of the back, once the desired angle has been set release the lever to lock into the desired position.

The angling adjustments should be easiest with a user sitting in the chair.

### Angling the back (with fixed bar mounted):

Loosen the screws (C) using a 5 mm Allen key and adjust the height of the cross bar. When adjusting the height of the bar the angle of the back will automatically change. Fasten the screws in the desired position.





 The angling with fixed bar (E) is limited by the length of the back bearers (D).


## GB ADJUSTMENT OF BACK

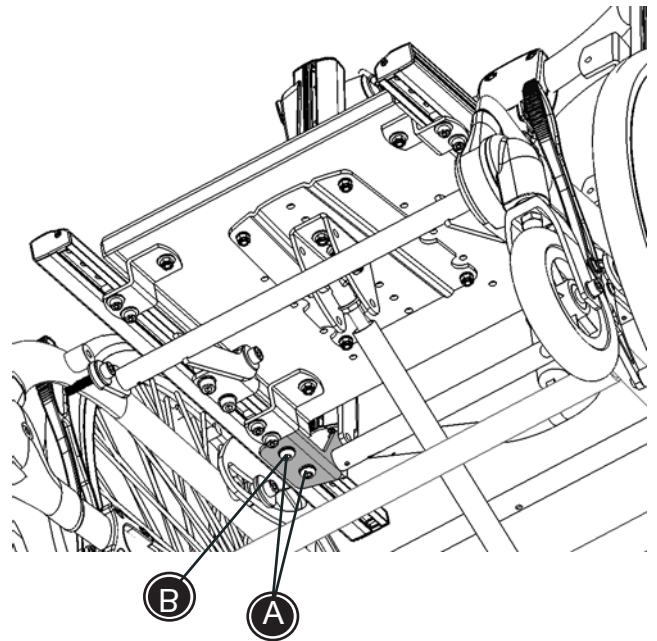
It is possible to adjust the back unit independently of the seat. At delivery the back can be moved up to 10 cm backwards. The back profiles are mounted with fittings beneath the seat profiles.

- \* Loosen the two screws (A) beneath the seat profile.
- \* Move the back profiles to the desired position and refasten again with the screws.

 Please be aware that the front screw (B) is for security only and this **MUST** fit into one of the holes in the seat profile.

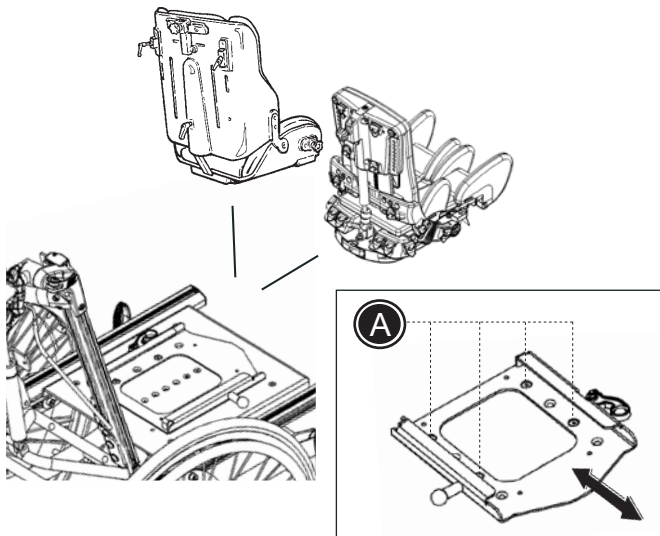
 Please ensure that the back profiles are mounted at same position in both sides.

 If the center of gravity is adjusted towards the front of the chair, the chair may become tippy. We recommend activating the anti-tips.



## **GB** HOW TO MOUNT A SEAT

The Combi Frame can be equipped with almost any other manufacturers seat unit. We recommend to mount a Panda Futura or an x:panda seat from R82. Follow the below description to mount the seat on the Combi Frame.

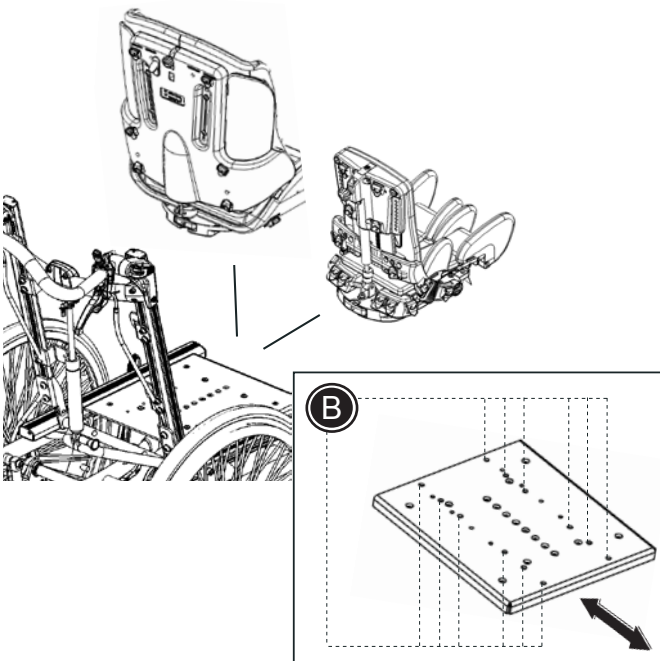


- \* Place the interface on the seat base and mount the enclosed bolts, washers and nuts (A). Fasten all bolts securely using a 4 mm Allen key and a 10 mm spanner. Place the interface in such way that you obtain the correct centre of gravity for the seat.
- \* Place the seat in the interface and push it all the way back, until it „clicks” into place.
- \* Lock the red handle on the side, when the chair is placed.

**!** Do not use the first hole it „clicks” into. This is just the „safety hole” which will „catch” the seat if the knob accidentally should pop out of its correct hole.

### **Mounting without adaptor**

(only x:panda sz. 3+4 or Panda 5 on either Combi Frame sz. 3 or 4)



- \* Place the seat on the seat base of the frame and mount the enclosed bolts and washers beneath the seat base (B). Fasten all bolts securely using a 6 mm Allen key. Place the seat in such way that you obtain the correct centre of gravity for the seat.

**!** It is important to consult authorised R82 personnel before making any adjustments/ fittings if other manufacturers seats needs to be mounted.

**!** Do not place an user in the seat if the chair has been exposed to sun. For the safety and comfort of the user the chair must be cooled before use.

## **GB** GAS SPRING ADJUSTMENT

Occasionally the gas spring may need to be adjusted.

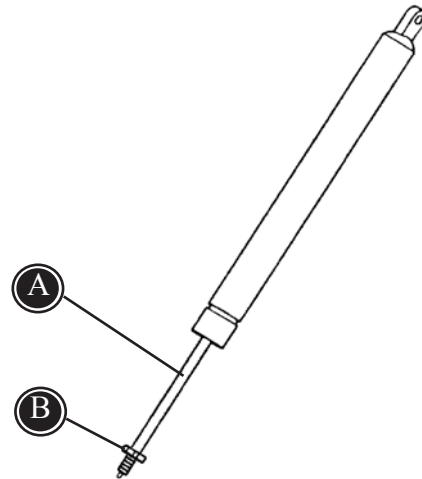
Try adjusting by the cable tightener. If this does not work, proceed as follows:


The adjustment is only necessary when:


- the gas spring releases itself slowly
- the gas spring can not be released at all

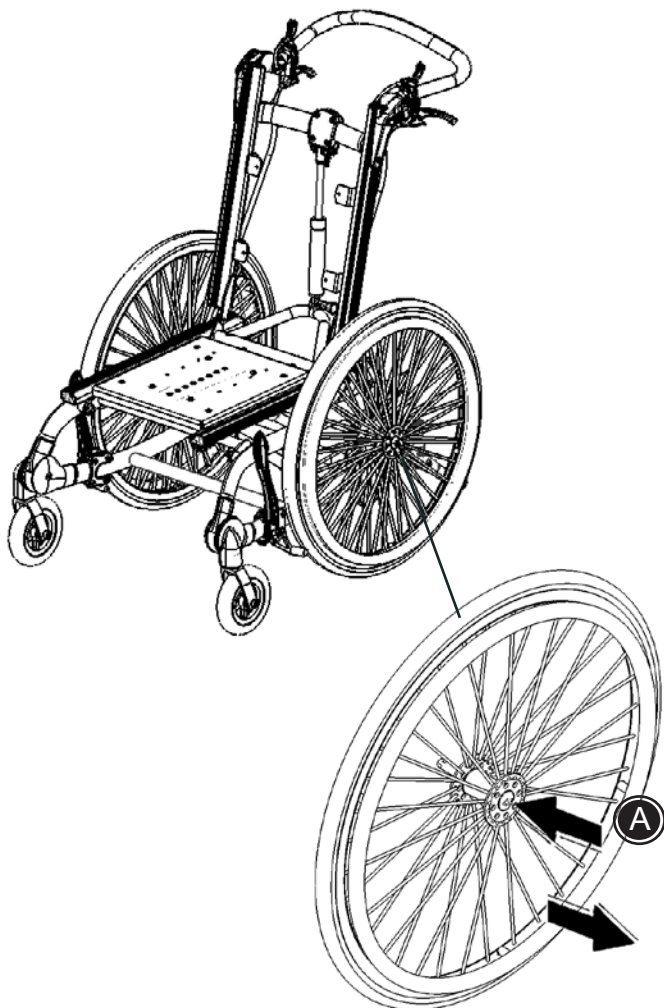
If the gas spring releases itself; loosen the nut (B) with a 17 mm wrench. Next turn the piston rod (A) counter clockwise to tighten. Then fasten the nut (B) again.

If the gas spring can not be released at all; loosen the nut (B) with a 17 mm wrench. Then turn the piston rod (A) clockwise to loosen. Fasten the nut (B) again.



 Do not expose the gas spring to pressure or high temperatures. DO NOT puncture.

 Do not expose the piston rod to scratches ect. It is important to use a cloth or the like, if tools are used to adjust the gas spring.



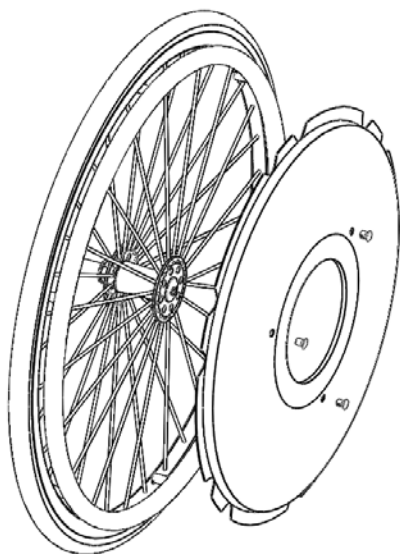
## **GB** QUICK RELEASE WHEELS

Quick Release axle pins on the rear wheels is a standard feature of the Combi Frame - This aids in quick and easy removal (A): Push the release mechanism in the middle of the wheel and pull to remove the wheel.

To remove the wheel depress the release mechanism (A) located in the middle of the wheel. Slide the axle pin with the wheel away from the chair.

**!** When replacing the wheels please make sure that the release pin head (A) clicks back out to lock the wheel to position.

**!** Pull on the wheel to confirm that the axle pin has locked back into position.



## **GB** SPOKE PROTECTORS

Follow the description below to mount spoke protectors on the Combi Frame:

- \* Place the protector on the spokes
- \* Mount the enclosed clips through the holes in the spoke protectors and click into place on the spokes.



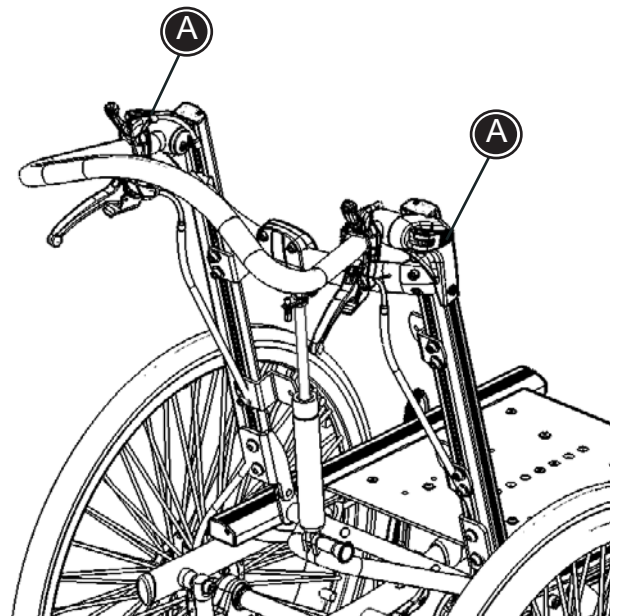
## **GB** ADJUSTMENT OF THE PUSH BRACE

The angle of the push brace is easy to adjust so that it can be used by carers of different heights.

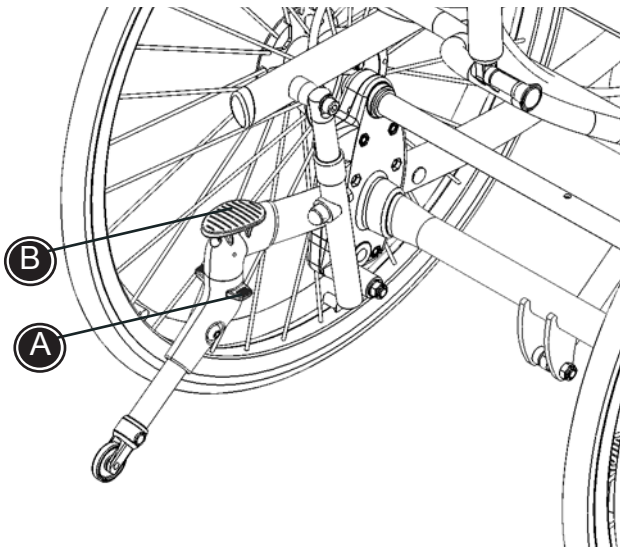
- \* Press down the locking pin (A) and pull the handle to release the push brace.
- \* Adjust the angle.
- \* Push in the handle and make sure the locking pin "clicks" into place.



Do not pull/lift the chair with the push brace, especially on stairs.







## **GB** ANTI-TIP DEVICE

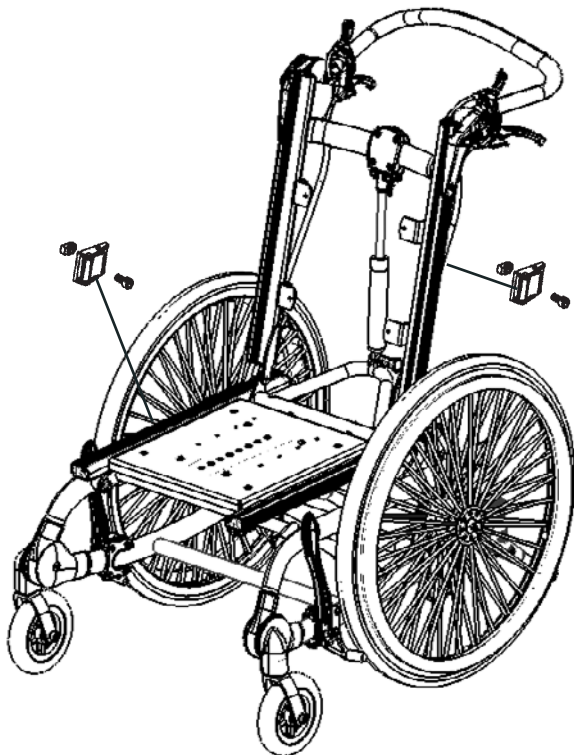
Anti-tips are standard equipment on the Combi Frame. The anti-tip devices are mounted on the back of the chair beneath the seat.

Activate the anti-tip device with the foot at position (A). To deactivate, turn it around 180°.

**!** When assisting the wheelchair over a kerb etc., the assistant **MUST** step on the pedal (B) on the anti-tip device.

**!** The anti-tip device must be activated when the frame is tilted and if the Combi Frame is parked on roads with a gradient higher than 10°.

**!** We recommend periodically checking the anti-tip devices to make sure they are in proper working condition.




## **GB** FIX-LOCKS


Fix-locks can be mounted in the rails of both the seat and the back. The fix-lock with the thread block is placed in the rail. Turn the thread block 90°. Pull the fix-lock outwards while it is fastened with the enclosed 3 mm Allen key.


## GB SEAT HEIGHT ADJUSTMENT

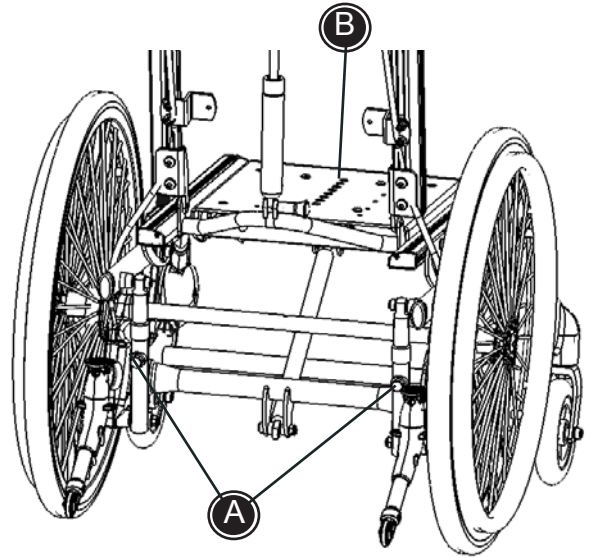
Follow the directions below to adjust the seat height of the Combi Frame:

- \* Remove the bolts (A) from the frame.
- \* Adjust the height to the required position.
- \* Replace the bolt and fasten.

 Make sure that the seat height is the same at both sides of the frame.

 Be aware that the seat angle will change when adjusting the seat height.

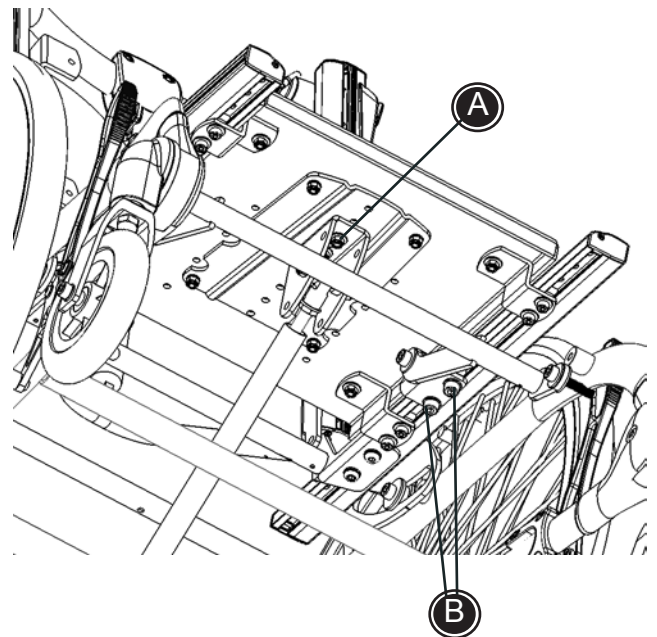
 The user must not be in the chair while the height adjustment is made.

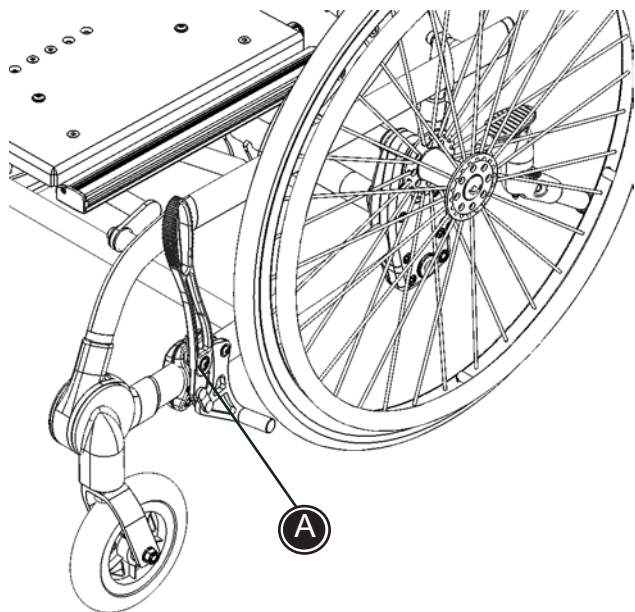


## GB SEAT ANGLE ADJUSTMENT

Push the seat plate down to the horizontal position to compress the gas spring to give the correct starting angle.

- \* Demount the mounting holding the gas spring under the seat, by loosening the 2 screws (A).
- \* Remount the mounting in the holes giving the required seat angle.
- \* Retighten the screws A).
- \* Loosen the 2 screws (B) in each side with a 6mm allen key.
- \* Push the seat back to the starting point.
- \* Tighten the 2 screws (B) in each side.





## GB WHEEL LOCK

Wheel locks are mounted on the lower frame and can be operated by either user or helper.

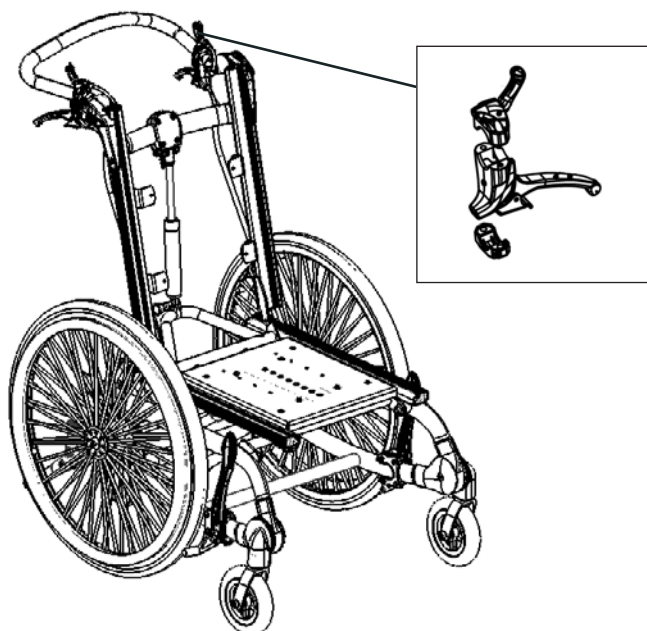
- \* Push the handle forward to lock the wheel
- \* Pull the handle backward to loosen the wheel lock

The wheel locks are installed on the frame and can be moved forward and backward, depending on wheel size and brake efficiency. Move the fittings backward and the chair will be locked more. Move the fittings forward and the chair will be locked less efficiently.

Loosen the screws (A) with the enclosed 4 mm Allen key to adjust the placement of the wheel lock. Fasten the screws in the desired position.

**!** Keep the recommended air pressure, 55 PSI/3,8 bar/380 kPa in the rear wheels, to make sure the brakes work properly.

**!** To ensure the safety of the user, we strongly recommend distance of 6-8 mm, between the wheel and the wheel lock block.



## GB DRUM BRAKE

The drum brake levers are installed on the push brace and are operated by the helper.

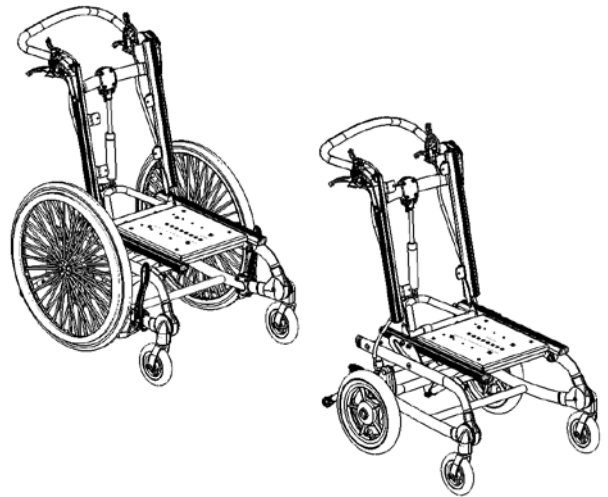
- \* Squeeze the lever to activate the brake.
- \* Pull the red lever to disengage the brake.

## GB WHEEL COMBINATIONS

The recommended wheel combinations on the Combi Frame are described below. If another seat height is desired, use the seat height adjustment described elsewhere in this manual.

Possible wheel combinations:

	12½"	20"	22"	24"
6"	✓	✓	✓	✓
8"	✓	-	✓	✓

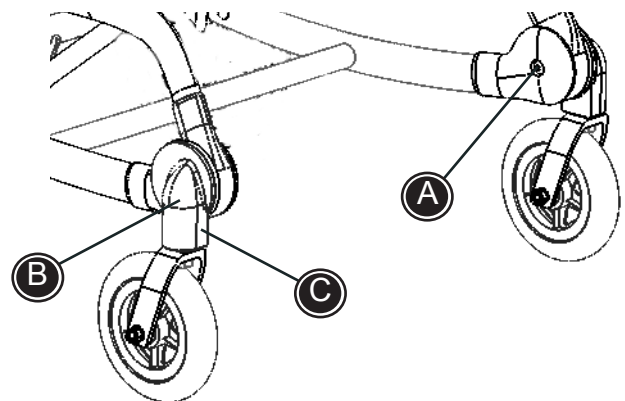


**!** It is important to adjust the angle of the front fork if the wheel size is changed (see description below.) To ensure proper rolling and tracking keep the front forks perpendicular to the floor and both front forks at same angle.

**!** Changing the size of the wheels, changes the seat height and angling of the forks.

## GB ANGLING THE FRONT FORK

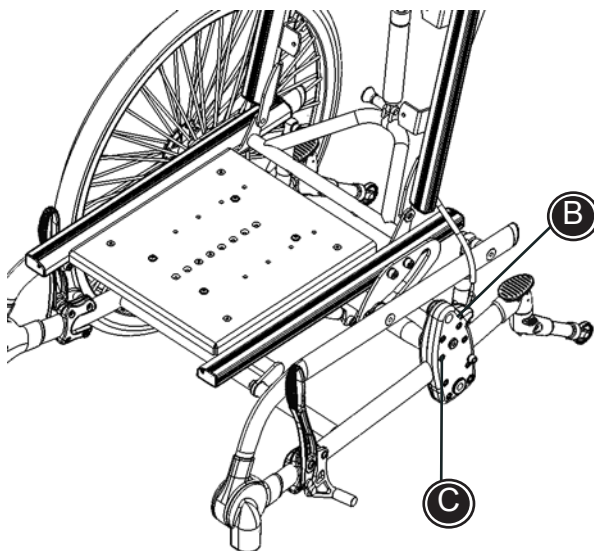
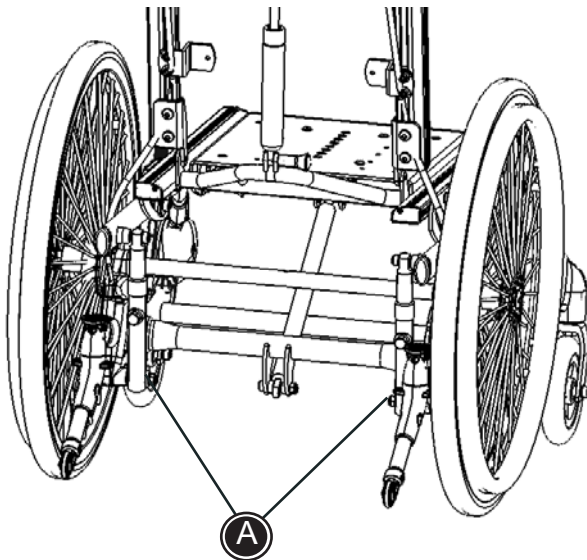
- \* Loosen the screws (A) with a 5mm allen key.
- \* Pull out the plastic mounting (B) and turn it, until the front (C) is at an angle of 90° with the floor.
- \* Fit the plastic mounting (B) again.
- \* Retighten the screws (A) and check that they are secure.





## **GB** CHANGING THE CENTRE OF GRAVITY


The point of gravity can be changed on the Combi Frame by changing the wheel placement.





- 1) Remove the rear wheels. Dismount the height adjustment (A) in both sides
- 2) Dismount the wheel suspension (B) in both sides.
- 3) Dismount the gas cylinder under the seat.
- 4) Flip the seat unit away from the frame and remove the 7 screws from the plastic part (C). The outer cover plate can now be removed. Remove the small plastic plugs from the holes on the inside of the frame.
- 5) Now the wheel suspension on the cross bar can be moved into the desired position. Pull slightly the frame to the sides and move the wheel suspension forward or backward. Make sure the wheel suspension "clicks" into place in the desired position.
- 6) Remount the screws and the cover plate. The plastic plugs are remounted in the holes in the seat unit and flipped back into place. Remount the wheel suspension and the rear wheels.
- 7) Remount the gas cylinder, so that the seat is located at the correct angle.

The Combi Frame is ready for use.

Remember that the wheel locks also need to be moved forwards or backwards.

 We recommend that the seat placement adjustment is made by a skilled technician.

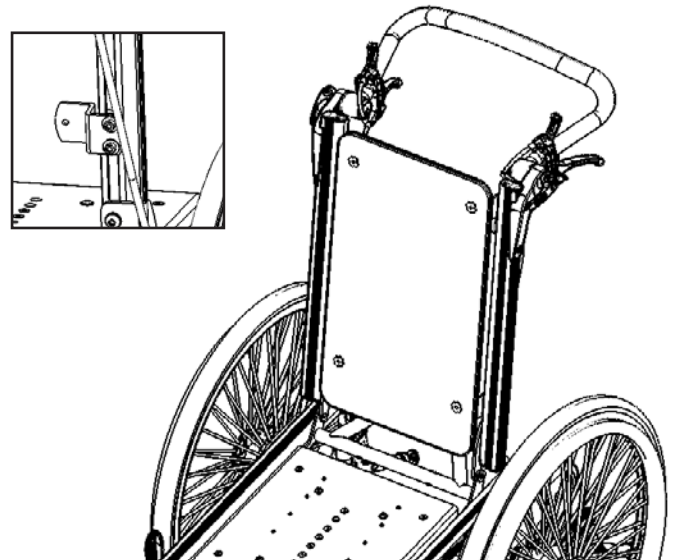
 It is important to tighten all screws securely and inspect them regularly, especially after adjustment of the center of gravity.

 If the center of gravity is adjusted towards the front of the chair, the chair may become tippy. We recommend activating the anti-tips.

## **GB** WOODEN BACK

The Combi Frame can be equipped with a wooden back plate. Mount the fittings in the rails on the back and mount the back plate with the enclosed screws and bolts.

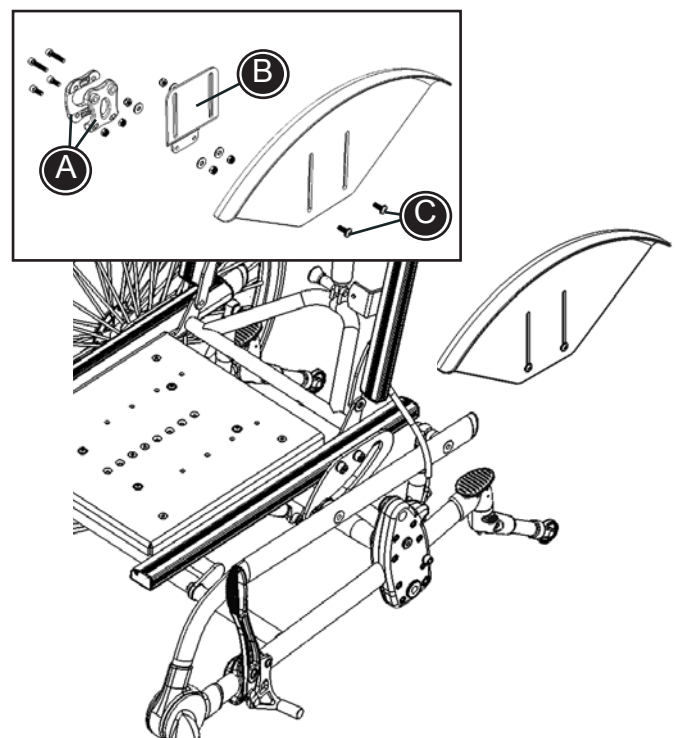
Fittings for curved wooden back can be ordered separately and can be used for other manufacturers curved backs.

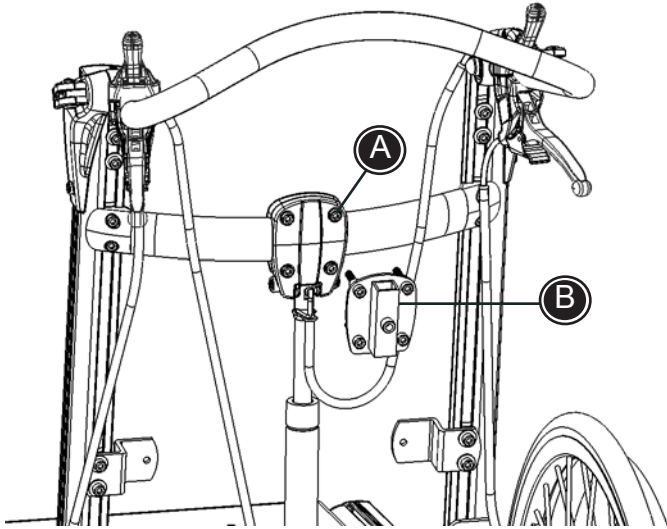


## **GB** MUDGUARD

Mudguards can be mounted on the Combi Frame. Follow the below description to mount the mudguards correctly:

- \* Mount the fitting (A) on each side of the frame bar and mount with the enclosed screws. Make sure the fitting (B) is mounted in the top holes.
- \* Place the mudguard on the fitting (B) and fasten with the screws (C).
- \* Place the mudguard correctly over the wheel and tighten the screws.



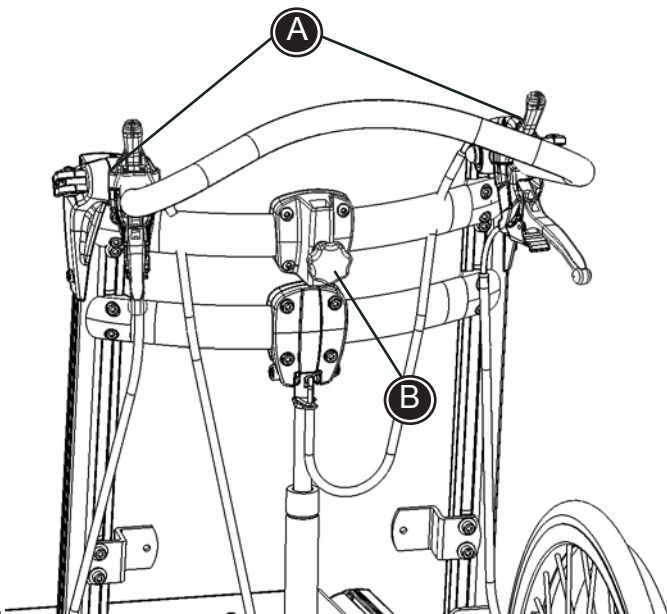


## **GB** HEAD SUPPORT FITTING

Mount the head support fitting on the gaspring fitting on the back.

- \* Remove the four screws (A) from the fitting
- \* Place the head support fitting (B) and fasten with the new longer screws. Remember the distance bush between the 2 mountings.

Your head support can now be mounted in the fitting. Fasten with an Allen key.



## **GB** HEAD SUPPORT FITTING ON CROSS BAR

Mount a cross bar with a head support fitting mounted.

- \* Remove the top parts (A) from the back rails using a screwdriver.
- \* Mount the cross bar in the rails and fasten in the desired height with a 5 mm allen key.

Your head support can now be mounted in the fitting. Fasten with the fingerscrew (B).



Make sure that the bar is straight by measuring the distance on each side to the top of the bearer.



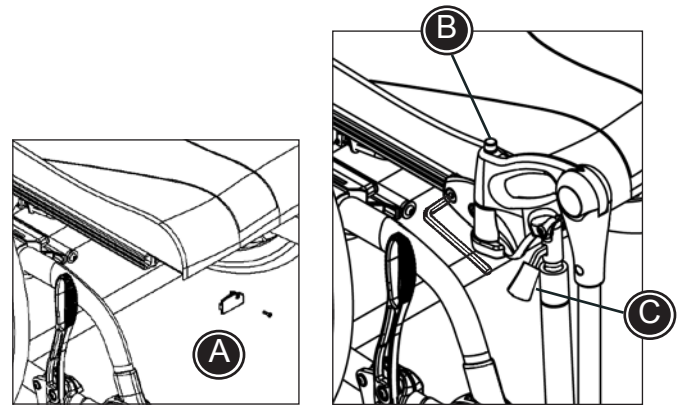
## **GB** LEG RESTS AND FOOT PLATES

These leg rests and foot plates cannot be used on Combi Frame size 1. See next page.

Follow the directions below to install leg rests on the Combi Frame:

1) Installation of the leg rests:

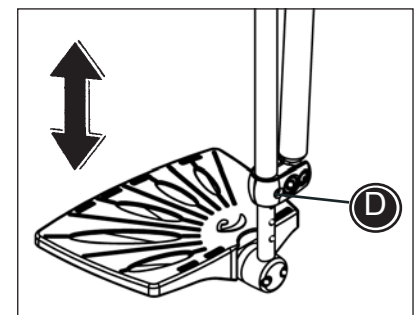
Remove the end-piece (A) by using a screwdriver. Install the fittings for leg rests and fasten with the enclosed 5 mm Allen key. Reinstall the end-piece. Place the leg rest in the fitting. Push down the release button (B) when installing/removing the leg rest. Make sure the release button clicks into place.



2) "Swing-away" function:

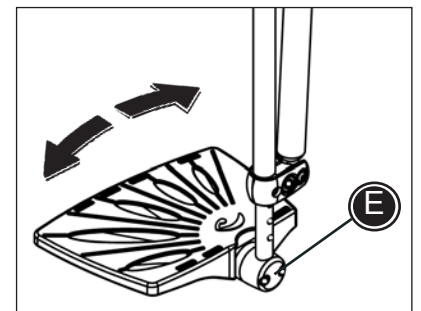
Push down the release button (B) and pull the leg rest up a little to be able to swing it to the side.

Turn the leg rest into place and make sure the release button (B) clicks into place for use.



3) Angle adjustable leg rests:

Push down the handle (C) to angle the leg rests individually.



4) Height adjustable foot plate:

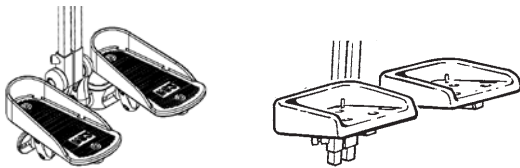
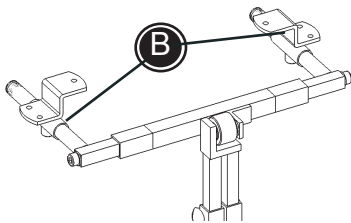
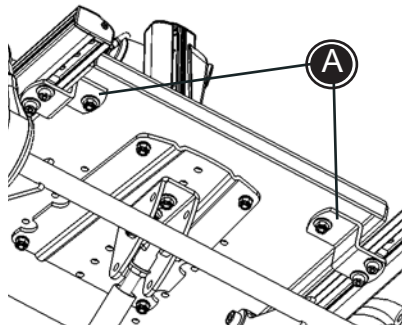
Remove the screw (D) by using the enclosed 5 mm Allen key. Adjust the height of the foot plate and replace the screw.

5) Angle adjustable foot plate:

Use the enclosed 5 mm Allen key to loosen the screws (E). Adjust the angle of the foot plate individually and fasten the screws.



This leg rest can not be used together with transport fittings for transporting children in vehicles. We recommend to use the foot supports described on the next page.



## GB MOUNTING OF FOOT SUPPORT

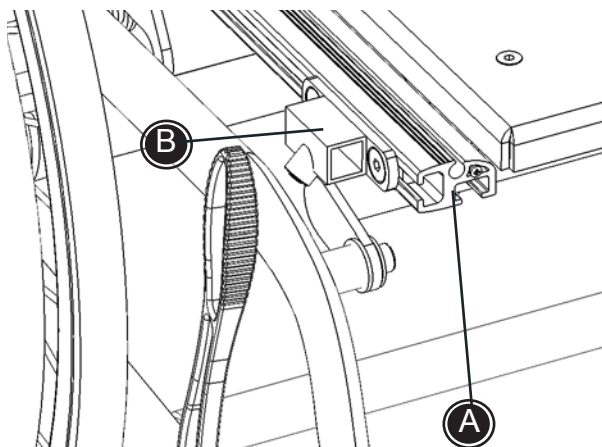
The Combi Frame can be equipped with various foot supports and foot support bars. Follow the description below for correct mounting:

- \* Dismount the fittings (A) under the seat and mount the new fittings (B).
- \* Place the footrest mounting in the tubes on the fittings (B).
- \* Mount the desired foot support bar and foot supports/footplate, and the Combi Frame is ready for use.

## GB MOUNTING OF NON-R82 FOOT SUPPORTS

The Combi Frame can be equipped with foot supports not made by R82. Follow the description below to mount a fitting (B) for foot support bar:









- \* Remove the end piece (A) from the seat rail
- \* Mount the fitting (B) in the rail and fasten in the desired position.
- \* Remount the end piece.

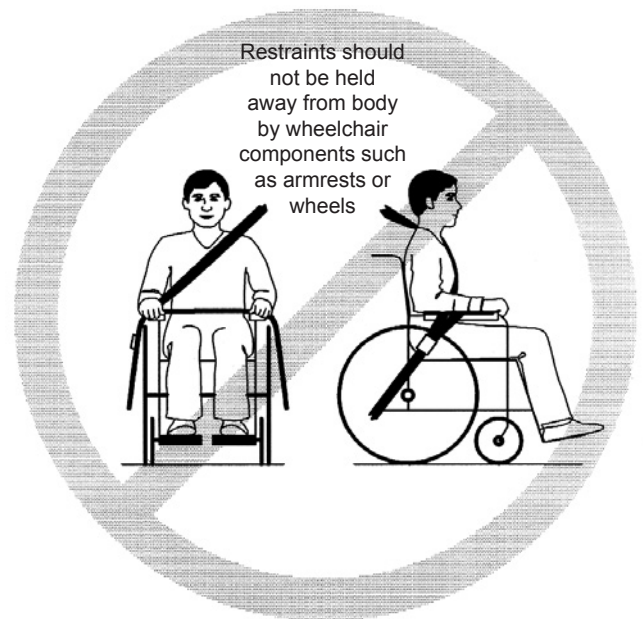


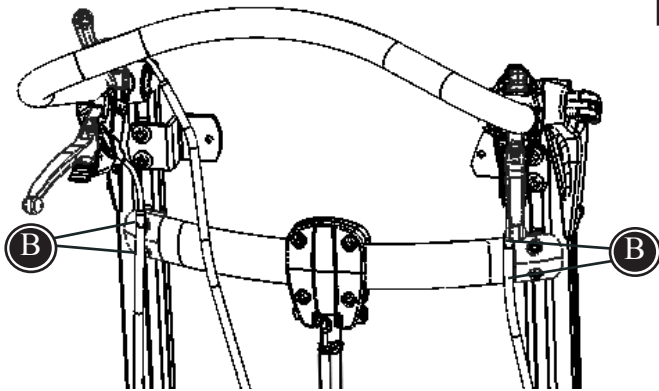
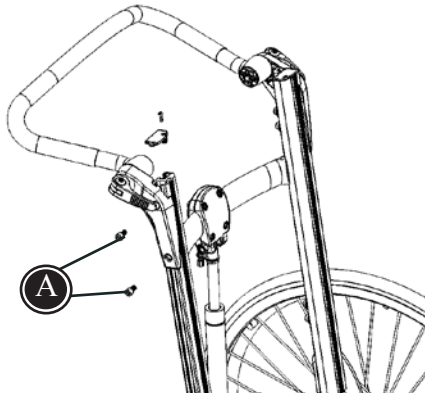
## GB TRANSPORTATION IN MOTOR VEHICLES 1/3

Combi Frame is dynamically tested according to ISO 7176-19.


The following instructions must be followed to maintain the safety.


-  The approval is not valid on special made chairs.
-  Combi Frame is approved for transporting the user in motor vehicles. Please look at MEASURES in the back of this manual for the max load. indication.
-  The user should transfer to the vehicle seat and use the vehicle-installed restraint system whenever possible.
-  The Combi Frame must be placed in a forward-facing position, when used as a seat in a motor vehicle. Use an approved 4-point strap-type tiedown system according to ISO 10542-2.
-  Use an approved 3-point belt according to ISO 10542-1 in the wheelchair. Restraints should not be held away from the body by wheelchair components such as armrests or wheels. It is not enough ONLY to use a hipbelt.
-  All accessories must be removed from the wheelchair and secured separately in the vehicle. Accessories which can not be removed, must be secured to the wheelchair but positioned away from the user with energy-absorbing padding placed between the accessories and the user.
-  The Combi Frame should be inspected by the dealer before reuse following involvement in any type of vehicle collision.
-  The following instructions on how to prepare the seat and chair, must be carried through before transportation.





## GB TRANSPORTATION IN MOTOR VEHICLES 2/3

 The fitting **MUST** be mounted for transportation.

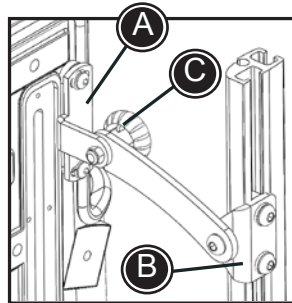
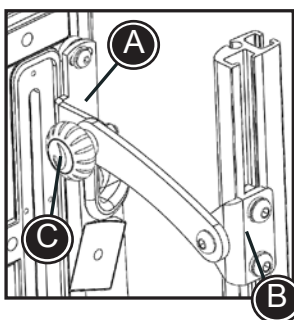
 Combi Frame size 3 with Panda Futura size 4, the fitting is placed above the back brace. Skip step 1 and 2, and go to step 3 on next page.

1. Remove the push brace by loosening the 2 bolts (A) on each side.
  - \* Pull up the push brace.
2. Remove the top back brace by loosening the 4 screws (B).
  - \* Tilt back the vertical bars.
  - \* Slide up the back brace.

Combi Frame size 1 with  
Panda Futura seat size 2½  
Combi Frame size 2 with  
Panda Futura seat size 2½ and 3

Combi Frame size 1 with  
Panda Futura seat size 1 and 2

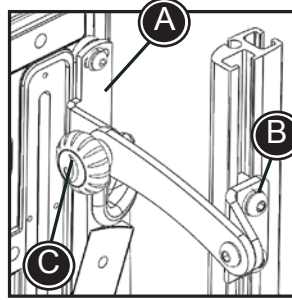
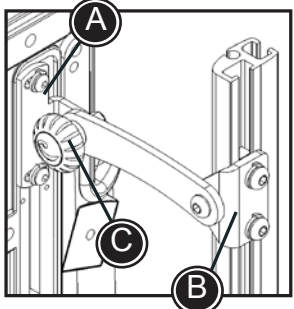
Choose your combination on the right according to size on frame and size on seat?



3. Make sure that the seat back and the back of the frame runs parallel in a vertical position.
  - \* Mount fitting (A) on the Panda Futura back, as shown on the drawing.
  - \* Mount fitting (B) on the Combi Frame profile.
  - \* The fingerscrew (C) is screwed into the fitting (A). Fasten the nut at the end of the fingerscrew.
  - \* The brace mounted on the fitting (B) is brought over the fingerscrew (C).
  - \* Tighten the fingerscrew.
  - \* The fitting (B) can be loosened for final adjustments.

Combi Frame size 3 with  
Panda Futura seat size 3

Combi Frame size 3 with  
Panda Futura seat size 4




The seat can easily be removed by loosening the fingerscrew (C) and lifting the brace mounted on the fitting (B).

## GB TRANSPORTATION IN MOTOR VEHICLES 3/3

Placing the Combi Frame in the vehicle:

1. By use of a 4-point strap system, the frame is secured in the vehicle. (Follow instructions from the manufacturer of the vehicle).

 A 4-point strap-system, approved according to ISO 10542-2, must be used.

On the rear of the frame, fitting A:

2. \* Remove the plugs.  
\* Place the fittings (A) on the rear bar.  
\* Mount with the enclosed 6 mm long bolts and nuts. (Note the placement for the different sizes.)

On the front of the frame, fitting B:


3. \* Remove the plugs (D) in the side rails.  
\* Slide the thread block into the side rails.  
\* Mount the plugs (D) again.  
\* Place the fitting (B) over the thread block.  
\* Tighten with the enclosed 6 mm. bolts and washer through the holes in the thread block. It is important that the 'legs' on the fitting (B) is placed in the holes in the side rails.  
The fitting (B) can be turned upwards (as on the drawing) or downwards if you wish.


4. The wheelchair is fastened in the vehicle by use of a 4-point strap-system. Either a hook or a strap can be used for fastening the fittings (A) and (B).

Stick the enclosed stickers (C) on the four fittings (A) and (B).

Secure the user in the wheelchair:

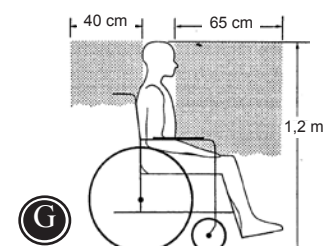
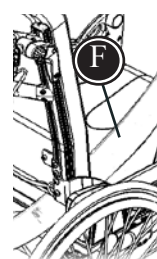
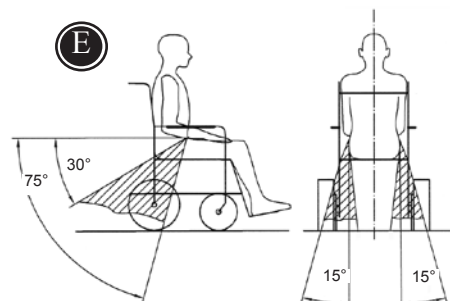
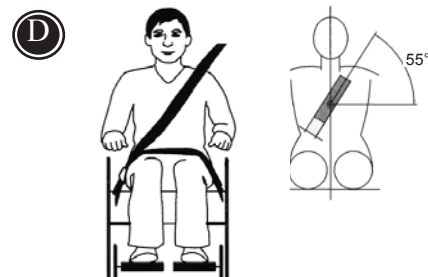
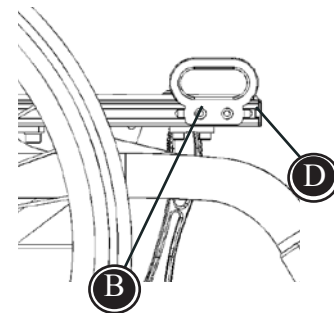
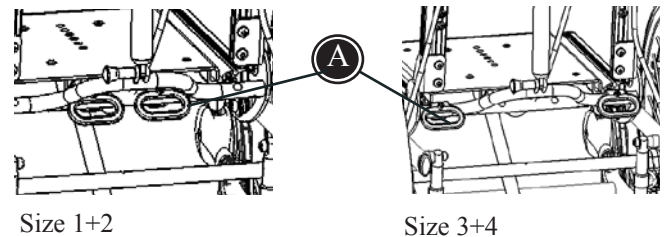
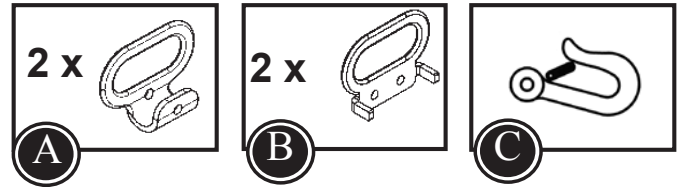
5. Use the 3-point belt as shown on drawing (D).
6. The angle on the 3-point belt must be as shown in drawing (E).
7. The belt restraints should be adjusted as tightly as possible, consistent with user comfort. Also the belt webbing should not be twisted when in use.
8. We recommend a seat angle of 90° and 3° for the back,

 The 3-point belt must be installed on the inside of the side rails. See drawing (F)

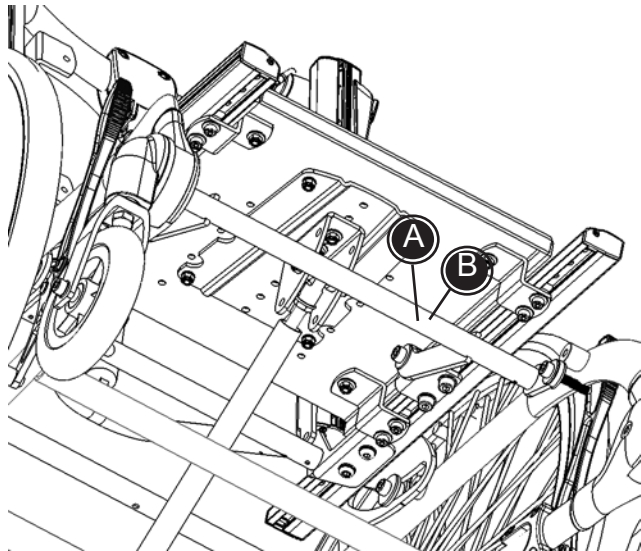
 Use a 3-point belt wich conforms the requirements according to ISO 10542-1.

9. Transportation:  
\* Remove all accessories from the wheelchair before transportation.  
\* Place the user in a forward-facing position.  
\* The wheelchair is approved for transporting a maximum user load of 100 kg.

 Be aware of the recommended safety zone (G) when transporting wheelchair-users in vehicles.







## **GB** PRODUCT IDENTIFICATION

### A) Serial number

The label is placed left on the front cross bar beneath the seat.

### B) Manufacturer

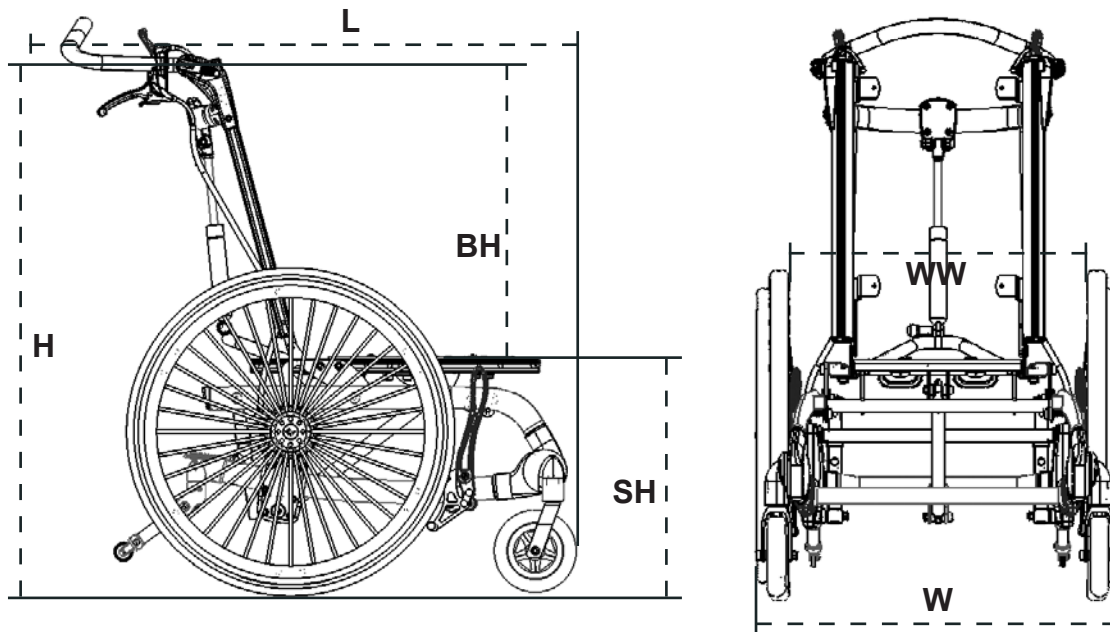
The label is placed far left on the front cross bar beneath the seat.

**A**



**B**





## GB MEASUREMENTS

	Size 1 cm (inch)	Size 2 cm (inch)	Size 3 cm (inch)	Size 4 cm (inch)
Width, base plate	22 (8 <sup>1</sup> / <sub>2</sub> "	27 (10 <sup>1</sup> / <sub>2</sub> "	32 (12 <sup>1</sup> / <sub>2</sub> "	37 (14 <sup>1</sup> / <sub>2</sub> "
Depth, base plate	25 (9 <sup>3</sup> / <sub>4</sub> "	30 (11 <sup>3</sup> / <sub>4</sub> "	35 (13 <sup>1</sup> / <sub>2</sub> "	40 (15 <sup>1</sup> / <sub>2</sub> "
Back height *	44 (17 <sup>1</sup> / <sub>4</sub> "	47 (18 <sup>1</sup> / <sub>4</sub> "	56 (21 <sup>3</sup> / <sub>4</sub> "	66 (25 <sup>3</sup> / <sub>4</sub> "
Seat height above floor	44 (17 <sup>1</sup> / <sub>4</sub> "	44 (17 <sup>1</sup> / <sub>4</sub> "	44 (17 <sup>1</sup> / <sub>4</sub> "	46 (18")
Width, with 22" wheels	57 (22 <sup>1</sup> / <sub>4</sub> "	62 (24 <sup>1</sup> / <sub>4</sub> "	67 (26 <sup>1</sup> / <sub>4</sub> "	74 (28 <sup>3</sup> / <sub>4</sub> "
Length, without leg rests *	78 (30 <sup>1</sup> / <sub>2</sub> "	78 (30 <sup>1</sup> / <sub>2</sub> "	83 (32 <sup>1</sup> / <sub>4</sub> "	86 (33 <sup>1</sup> / <sub>2</sub> "
Height, to the top of back rails *	87 (34")	93 (36 <sup>1</sup> / <sub>4</sub> "	102 (39 <sup>3</sup> / <sub>4</sub> "	114 (44 <sup>1</sup> / <sub>2</sub> "
Width between wheels	44 (17 <sup>1</sup> / <sub>4</sub> "	49 (19")	56 (21 <sup>3</sup> / <sub>4</sub> "	60 (23 <sup>1</sup> / <sub>2</sub> "
Folded without leg rests:				
Height, to the top of back rails *	62 (24 <sup>1</sup> / <sub>4</sub> "	62 (24 <sup>1</sup> / <sub>4</sub> "	62 (24 <sup>1</sup> / <sub>4</sub> "	62 (24 <sup>1</sup> / <sub>4</sub> "
Length, without leg rests *	78 (30 <sup>1</sup> / <sub>2</sub> "	78 (30 <sup>1</sup> / <sub>2</sub> "	83 (32 <sup>1</sup> / <sub>4</sub> "	94 (36 <sup>3</sup> / <sub>4</sub> "
Weight, without leg rests	22 kg (48,5 lb)	23 kg (50,5 lb)	24 kg (53 lb)	27 kg (59,5 lb)
Max. load	60 kg (132 lb)	75 kg (165 lb)	75 kg (165 lb)	100 kg (220 lb)
Max. load at transportation	60 kg (132 lb)	75 kg (165 lb)	75 kg (165 lb)	100 kg (220 lb)
Angling	Tilt in space: 0-40° (5-45°) Back: 30°			

The Combi Frame is measured with the following wheel combination, placed in the standard wheel position: 22" rear wheel and 6" front wheel. The Combi Frame is measured with the seat in horizontal and back in vertical position. Different settings may result in different measurements.

\* The height and length may vary according to the choice of seat and back rails. The Combi Frame is measured with the following combinations; size 1 and 2 chair with size 2 seat and back rails, size 3 chair with size 3 seat and back rails, size 4 chair with size 4 seat and back rails.



Further information regarding max. load/user weight and transportation:  
[www.R82.com/archive/Publications/Pdf/Chart\\_transport.pdf](http://www.R82.com/archive/Publications/Pdf/Chart_transport.pdf)



## **GB** TECHNICAL DATA

Frame: Powder painted aluminium tubes  
Plastic parts: Glass fibre strengthened Nylon

## **GB** MANUFACTURER

R82 A/S  
Parallevej 3  
8751 Gedved  
Denmark

## **GB** DEALER

*Den Vertreiber finden Sie unter [www.R82.com](http://www.R82.com)*

## **GB** CARE AND MAINTENANCE

### WHEELS

Tires: Check the air pressure (recommended: 55 PSI/3,8 bar/380 kPa) and tread at least once a month.

Wheel axles: The axles should be kept free of dirt. Clean as frequently as necessary.

Ball bearings: The ball bearings require no maintenance.

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

### BRAKES

The function of the brakes is dependent upon tire pressure. Caked on dirt can have a negative effect on the brake mechanism. The brakes should be checked at least once a month.

### FRAME

Tighten all screws on the chair on a regular basis, especially when the chair has been adjusted. Also, it is important to keep the wheelchair clean, both for the users comfort and the longevity of the chair. It is very important to clean the holes for the back angle. Wash the chair with car shampoo or dishwashing liquid. If the chair is especially dirty, a grease remover may be used.

### INSPECTION

It is important to tighten all screws on the chair on a regular basis. The screws in the back and seat must be checked when adjustments to the width have been made. All screws which secure the accessories must be checked, at least once a month. To avoid sharp edges, it is important to check all rail-ends have end caps. Also, it is important to be aware of any cracks or faults in the frame, PVC parts, etc.

### REPAIR

If there is a problem with your wheelchair you should contact your dealer at once. Defective chairs should not be used. If your chair needs reconditioning or repair, only original R82 parts may be used. Accessories or available spare parts which are broken can be forwarded to R82 for repair. If there is a problem with any basic parts, the whole chair must be returned to R82 for repair. R82 will not be held responsible for damage or injury caused by use of non-original parts or repairs made by a non-authorized R82 person.

## **GB** TROUBLESHOOTING

<u>Problem*</u>	<u>Solution</u>
Wheelchair will not hold a straight steer	<ul style="list-style-type: none"> <li>- Inflate the tires</li> <li>- Check the front fork attachment angle</li> <li>- Make sure that the front fork attachments are installed at the same height</li> <li>- Make sure the user is distributing weight evenly</li> <li>- Is more strength being used on one side than the other when propelling the chair? Check the tires.</li> </ul>
Wheelchair feel heavy to propel	<ul style="list-style-type: none"> <li>- Inflate the tires</li> <li>- Make sure that the castor axles are free from dirt etc.</li> <li>- Too much weight over the castors. Adjust the centre of gravity.</li> <li>- The brakes have been tightened too much.</li> <li>- Something is stuck to the wheels. Remove any obstructions.</li> </ul>
Wheelchair feels difficult to turn	<ul style="list-style-type: none"> <li>- Inflate the tires</li> <li>- Adjust the angle of the front fork attachments</li> <li>- Make sure that the castor axles are free from dirt etc.</li> <li>- Too much weight over the castors. Adjust the centre of gravity.</li> </ul>
Brakes not effective	<ul style="list-style-type: none"> <li>- Inflate the tires</li> <li>- Adjust the distance between wheel lock and tire</li> <li>- Replace the wheel locks if they are worn out</li> <li>- The cables for drum brake may need tightening</li> <li>- The cables for drum brake may be bent</li> <li>- The hub for drum brake may need to be cleaned</li> </ul>
Rear wheels loose	<ul style="list-style-type: none"> <li>- Make sure that the axle-shaft washer is in place</li> <li>- Adjust the length of the axle shaft</li> </ul>
Rear wheel hard to remove/ replace	<ul style="list-style-type: none"> <li>- Clean and lubricate quick release</li> <li>- Adjust the length of the axle shaft</li> </ul>
Castor wobbles	<ul style="list-style-type: none"> <li>- Front forks are not tightened properly</li> <li>- Check that the front fork attachments are mounted at the same height</li> <li>- Adjust the angle of the front fork attachment</li> <li>- Too much weight over the castors. Adjust the centre of gravity</li> </ul>
Wheelchair feels awkward	<ul style="list-style-type: none"> <li>- Inflate the tires</li> <li>- Check that all screws, nuts and bolts are properly fastened/tightened</li> </ul>
Seat/back seems bent	<ul style="list-style-type: none"> <li>- Make sure the cross bar on the back is horizontal.</li> </ul>
The point of gravity function does not run smoothly	<ul style="list-style-type: none"> <li>- Contact an authorized R82 dealer. Do NOT try to separate anything without guidance .</li> </ul>

\* The user may experience several of these problems in a wheelchair that is incorrectly adjusted or is being used incorrectly.