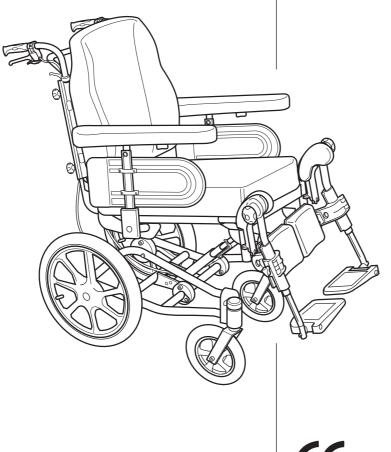


# Rea® Assist Manual







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# **Product description**

# Rea® Assist

Rea<sup>®</sup> Assist is a wheelchair with many adjustment options and accessories. To ensure that you benefit as much as possible from Rea<sup>®</sup> Assist , and in order to do its options justice, the chair must be tested and adjusted by competent personnel. We hope that you have also received instructions for using your Rea<sup>®</sup> Assist in everyday life.

This manual includes a description of the parts of the chair, simple adjustment options, how to use the Rea Assist safely and how to transport it. The manual must be read thoroughly before the chair is used.

Also included in this manual is a description of how all accessories are fitted and slightly more advanced settings.

As the Rea® Assist has many different components and accessories, the appearance of the accessories you have for your chair may differ from those shown.

The Rea® Assist's wheels, seat frame, push handles and certain other components subjected to strain are made of steel. Legrests and backrest shafts are made of high quality aluminium.

Castor suspension and the jointed parted of the frame are made of polyamide reinforced with fibreglass. The armrests are made of ABS plastic and steel. The seatplate is made of vacuum formed ABS-plastic ande the backrest plate is made of wood and the upper part of plastic. Plastic details are marked for recycling. Seat and backrest cushions are made of polyether, and the upholstery is made of washable plush or elastic polyurethane cloth.

The Rea® Assist is a carer-operated wheelchair with an angle-adjustable seat unit. The angle of the backrest unit can be adjusted independently of the seat. The controls for the seat and backrest angle adjustment are included on the push handles. The Rea® Assist is available in two seat widths. The seat width, seat depth, backrest height, armrest height, legrest height and legrest width of each chair can be adjusted.

The rear wheels are 16" with carer-operated brakes and the castors are 140-200 mm. The wheels can be pneumatic or semi solid. Brake handles are fitted on the push handles.

The seat and backrest cushions have been ergonomically designed for the user. They are to provide as much stability and comfort as possible, as well as good pressure distribution.

### NB!



# This symbol means warning.

Here below a number of points affecting your personal safety are shown. Read it carefully!

Invacare $^{\circledR}$  is only responsible for product changes carried out by personnel who we authorise. We reserve the right to make any changes to equipment and specifications without prior notice.

Failure to comply with instructions given may result in personal injury and/or product damage.

- · Check each of the following before using the wheelchair:
  - that all parts are attached securely to the frame
  - that all wheels, screws and nuts are properly tightened
  - that all brakes and anti-tip devices function correctly
- Never lift the wheelchair by the detachable armrests, footrests, backbrace or by the adjustable push handles.
- Always apply the brake before getting into or out of the chair.
- Never stand on the footplates when getting into or out of the chair, because
  of the risk of tipping.
- · Changing the seat angle gives an increased risk of tipping over.
- The handrims may become hot due to friction, which may cause injury to your hands.
- · Use extensively the anti-tip device
- Remember that the effectiveness of the carer-operated brake is reduced in wet and slippery conditions, as well as when on a slope.
- Be careful to ensure that the drive wheels are securely attached.
- Drive wheels are not to be detached while the user is sitting in the chair.
- There is a risk of tipping and injury if the velcro straps on the backrest become too slack. Always check the tension.
- Surfaces of the wheelchair like frame parts or upholstery, with long time sun shining on them, can reach temperature > 41 degrees C.
- There is always an increased risk of trapping parts of your body when tilting the wheelchair's back and seat.
- When mounting accessories etc. be careful not to trap your fingers.
- The width of the seat should never be adjusted so much so that the inside of the armrests press against the side of the pelvis.
- We recommend that the chair should be fitted with castor adapters when the seat is located in its most forward position

# **Delivery check**

Check that all components match the delivery note. Any transport damage must be reported immediately to the transport company. Remember to keep the packaging until the transport company has checked the goods and a settlement has been reached.

# **Daily performance check**

Check that the following parts are still currently assembled on the wheel-chair:

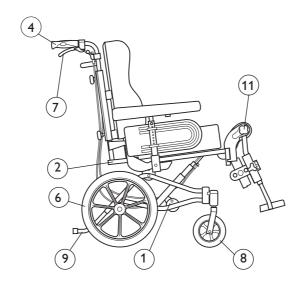
- Wheels
- Backrest
- · Anti-tip device
- · Push handles
- Footrests

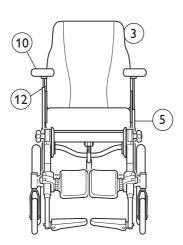
# Intended use

The Rea® Assist is a manual wheelchair, intended for users who have a low level of activity and who sit in the chair for long periods. The comprehensive comfort and stability provided by the backrest and the option of seat unit and backrest angle adjustment provide the user with relaxed and comfortable rest.

- Regarding both operation and manual adjustment of the seat unit the Rea®
   Assist is intended for operation by the carer. The user can operate the
   electrical angle adjustment. The user must, however, be fully aware of the
   effects of changes made to the seating position.
- The Rea® Assist is mainly intended for indoor use. 140 mm castors are recommended. 140-200 mm castors are recommended for outdoor use of the wheelchair.
- The Rea® Assist must be used with its seat and backrest cushions.
- The max. user weight is 125 kg
- The service life of the chair depends on its application, the user's degree of activity as well as care and maintenance.

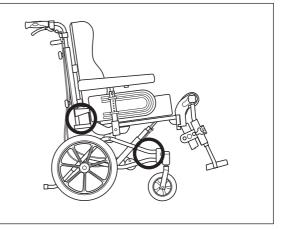
# Parts of the wheelchair





- 1. Frame, lower section
- 2. Seat frame
- 3. Backrest
- 4. Push handles
- 5. Seat
- 6. Rear wheel
- 7. Brake handle
- 8. Castors
- 9. Step tube/Anti-tip device
- 10. Armrests
- 11. Legrests
- 12. Tools (behind the back rest cushion)

Always lift the wheelchair by gripping the frame at the points shown in the diagram. Never lift the wheelchair by the removable armrests or the foot-rests. Ensure that the backrest and push handles are securely in place. Also read the chapter Safety instructions/Propelling techniques.



# Standard equipment

**Seat width** 40-50 cm, 45-55 cm

Seat depth 42-52 cm

**Backrest height** 62,5+20 cm without seat cushion

# **Upholstery and frame colours**

**Upholstery** Grey plush,TR32

Grey dartex, TR23

Frame colours Pearl Grey

# **Accessories**

The Rea® Assist has a wide range of accessories and options. Some of the accessories may not be available in certain countries.

Backrest type | Backrest plate

Backrest tension adjustable

Backrest cushion Laguna (lateral support)

Mistral 2 (waist support)
Passad 2 (shoulder support)

Shoulder High 05 Vicair Multifunctional

Backrest cover Cover Thin, 04

Cover, Lateral 05

**Seat** Standard

Seat cushions Tromb (positioning support)

Bris (preventive) Vicair Multifunctional

Seat and Carer operated

backrest angle Electrically operated by carer/user adjustment

**Legrests** Angle adjustable

Fixed 80 degrees Legrest amputee Central legrest

Footrests Fixed footplate

Angle-adjustable and depth-adjustable

7

Foot plate extender

Heel strap

Armrests Height adjustable armrest

Hemiplegic Autolock armrest

Castors 140–200 mm, pneumatic or solid, wide or narrow

Rear wheels

16", pneumatic or solid

**Brakes** 

Hand operated assistance brake

**Others** 

Several types of hand rim

Reflectors Kit

Table Tray

Pump

Cane holder

Headrest

Headrest with cheek support

Neckrest

Push bar

Push handles braced

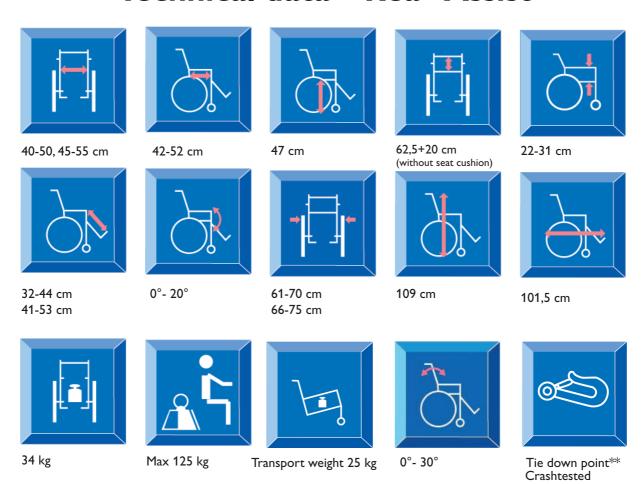
Pelvic Belt

Abduction cushion

Incontinence cover

Trunk support

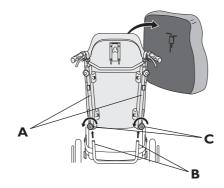
# Technical data - Rea® Assist



Our wheelchairs comply with ISO norm 7176-19 and have been tested in a basic configuration. The use in other configurations has not been tested. See section "Test report from dynamic safety restraint test", for test configuration. Wheelchair users should however transfer to the vehicle seat and use the vehicle installed restraint system whenever it is feasible.

# **Assembly**

1.



2.



3a.





When you receive your wheelchair, you must fit the backrest, armrests and legrests onto the chair. The assembly is simple and does not require any tools.

#### 1. Backrest

The backrest is fitted onto the wheelchair by feeding the shafts (A) of the backrest onto the tubes of the chair (B). **Ensure that you push the backrest down as far as possible.** Secure into place by tightening the knobs (C). Secure the backrest pad using the Velcro strips.



Now check that the backrest is secured firmly in position!

### 2. Armrests

The armrests are fitted onto the wheelchair by pushing them down into their attachments on the edge of the chair seat.

#### 3. Legrests/footrests

The wheelchair can be equipped with either legrests or footrests.

#### 3a Legrests

Attach the legrests by pushing the tube at the upper part of the legrests down into the tubes on the wheelchair. You must angle the legrests outwards when inserting them.

Lock the legrests by turning them inwards. The legrests are automatically locked so there is no risk of them coming off the wheelchair.

# 3b.



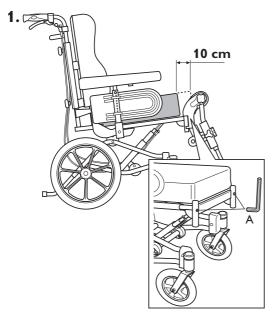


### **3b Footrests**

Attach the footrests by pushing the tube at the upper part of the footrests down into the tubes on the wheelchair. You must angle the footrests outwards when inserting them.

Lock the footrests by turning them inwards. The footrests are automatically locked so there is no risk of them coming off the wheelchair.

# **Adjustments**



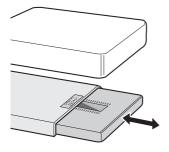
Tools: 5 mm Allen key.

The seat depth of the chair can easily be adjusted to provide good support. The width between the armrests and the height of the armrests can also be adjusted.

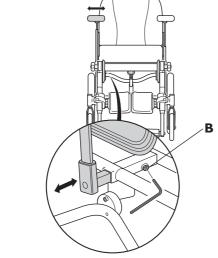
#### 1. Depth adjustment

Loosen the catches of the legrests and swing them outwards towards the sides. Then loosen the two screws (A) using an Allen key. Note that the screws must only be loosened a few turns, not unscrewed completely. Lift up the seat cushion slightly. Take hold of the front edge of the seat frame and pull the frame and cushion to the new position. Then retighten both screws (A). To retain the stability of the chair when the cushion is moved forwards by a large amount, extension tubes are available as an accessory to the castors

# 2.



# 3.



Tools: 5 mm Allen Key

#### 2. Seat depth

To obtain a precise setting for the seat depth, there is a cm scale on the frontal seatplate enabling you to set the correct seat depth easily. You also get a reminder that the risk of tipping forwards increases if you increase the seat depth.

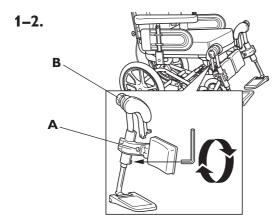
# 3. Seat width adjustment of the width between the armrests.

Loosen the Allen screw (B), pull the armrest to the right position and then re-tighten the screw. Note that the screw is placed under the seat on the front of the tube by the right-hand armrest and on the back of the tube by the left-hand armrest.

Smaller width for seat pad

When the seat width is small, i.e. when the armrest attachments are push in, we recommend a seat cushion that is smaller than the one supplied as standard.

#### **LEGRESTS/FOOTRESTS**



Tools: 5 mm Allen Key

3. C

Tools: 5 mm Allen Key

It is important to adjust the legrests, footrests, footplates and calf pads to obtain a good seating position.

#### 1. Legrests height adjustment

Adjust the height of the legrests by loosening the screw (A) one turn with an Allen key. Pull the legrest until you have obtained the correct height and the screw is caught by one of the recesses on the legrest tube. Then retighten screw.

#### 2. Legrests angle adjustment

The angle of the legrest is adjusted using the handwheel (B).

Loosen the handwheel approx. one turn. The angle can be set in intervals from 80° to 0°. Retighten the handwheel when the correct angle is obtained. The distance between the lowest part of the footrest and the ground must be at least 40 mm.

#### 3. Footrests height adjustment

Adjust the height in the same way as the legrests above.

**NOTE!** Don't touch the upper screw (C).

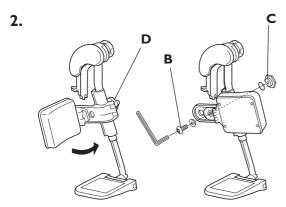


The distance between the lowest part of the footrest and the ground must be at least 40 mm.

#### **FOOTPLATES/CALF PADS**

1.

Tools: 5 mm Allen Key



Tools: 5 mm Allen key.

#### 1. Angle-adjustable footplates

Adjust the angle and the depth by loosening the screw (A) at the footplate attachment with a 5 mm Allen key. Adjust the footplate to the correct position and retighten the screw.



Do not place anything on the footplate when the screw is loose.

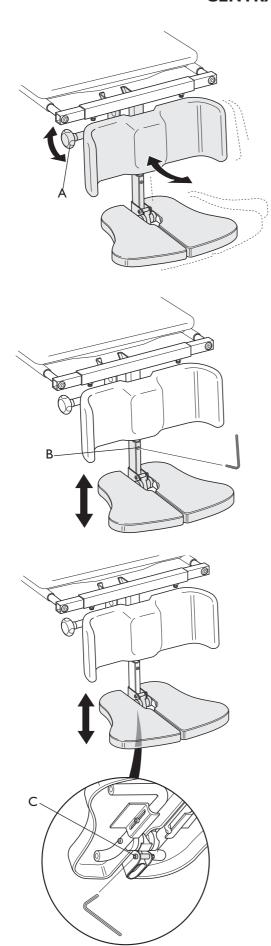


Other pin positions can be used if there is a risk that the user could injure themselves, just adjust the footplate to a more suitable position,

#### 2. Calf pads

The calf pads can be fitted in four different depth positions. Swing the pad forwards. Unscrew screw (B) using an 5 mm Allen key. Remove the large nut (C) on the reverse side and place it in the other attachment hole. Move the calf pad to the new position and secure it into place with the screw. The height of the calf pads can easily be adjusted using the handwheel (D).

### **CENTRAL LEGREST**



**1.** Adjust to the appropriate leg angle using knob (A).



When adjusting the angle of the central legrest, loosen the adjustment knob with one hand and hold the foot plate with the other hand to avoid trapping yours or anyone else's fingers etc.

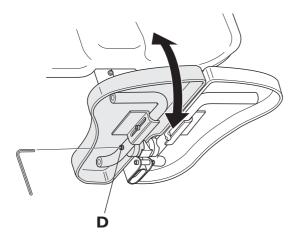


When the seat is tilted forwards on a chair with a long legrest length and low seat height, there is a risk of the legrest hitting the floor and causing damage.

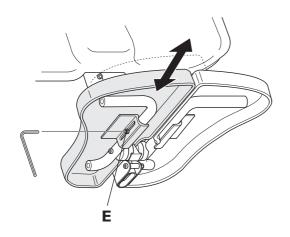
**2.** You can adjust the height of the legrest in the following two ways:

Alternative 1: Loosen the Allen screw (B) using a 5 mm Allen key on the front of the telescopic tube, place the legrest in the desired position and secure it into place using the Allen screw.

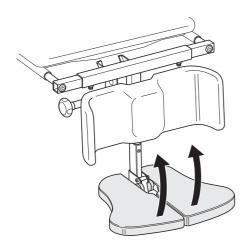
Alternative 2: Loosen the Allen screw (C) by the legrest attachment as shown in the diagram. Adjust to the desired height and then retighten the screw.



3. Loosen the rear screw (D) on the side of the tube and adjust the legrest to the desired angle. Retighten the screw. Repeat this procedure to adjust the angle of the other legrest.



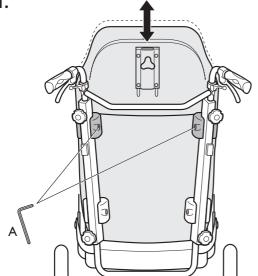
**4.** Loosen the frontal screw (E) on the side of the tube to adjust the depth of the legrest. Tighten the screw when you have found the desired depth. Repeat this procedure to adjust the depth of the other legrest.



**5.** The angle of the legrests can be adjusted upwards if required.

# **BACKREST**

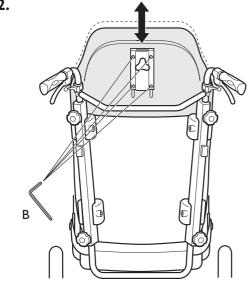
1.



**Backrest plate** 

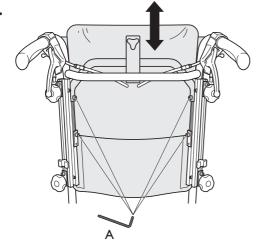
 You can easily adjust the backrest plate (+ 10 cm) by loosening the two upper screws (A) with a 5-mm Allen key. Set at the required height and re-tighten.

2.



2. The upper section has two height levels and is as well removable, (for lower backrest cushions). Loose screws (B) with an 5-mm Allen key and raise it to its heighest position. For removal, remove the screws (B). Then put the neckrest attachment back in place and re-tighten the screws (B).

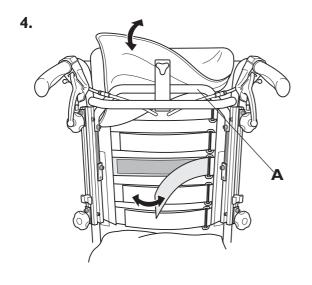
3.

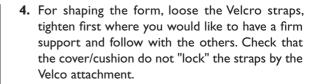


Tools: 5 mm Allen key.

# Tension adjustable

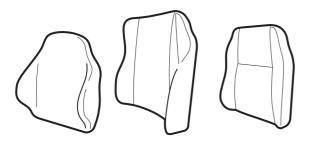
**3.** For raising the height (+12,5cm), loose screw (A) and lift the backrest frame up.







Please ensure that the velcro straps are not too loose, as this will result in your back coming into contact with backrest bow (A), and could result in injury.

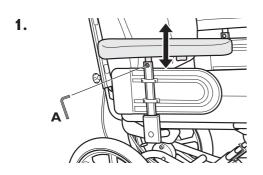


#### **Backrest cushions**

The three backrest cushions support waist, shoulders or latheral, and all of them fits on the backrest plate and the tension adjustable back.

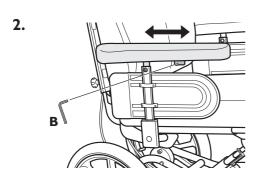
Note that they should as well as the covers for tension adjustable back cover the upper part of the backrest tube.

#### **ARMRESTS**



# 1. Armrest height

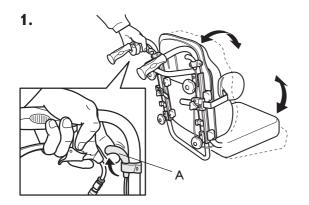
Adjust the height of the armrests by turning the allen screw (A), setting the required height and then re-tightening the knob.

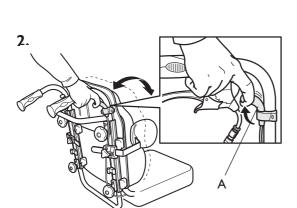


# 2. Armrest depth

You can also adjust the depth of the armrest pad. Loosen the knob (B), set the pad in the required position and re-tighten the knob.

# Seat unit CARER-OPERATED ANGLE ADJUSTMENT





The wheelchair is equipped with carer-operated controls. You can adjust the angle of the backrest forwards or backwards and tilt the whole seat unit including the backrest. These two functions can either be controlled manually or electrically. Be careful when adjusting the angle of the backrest so that you do not trap your or the user's fingers between the backrest and the armrest.

# 1. Tilt adjustment

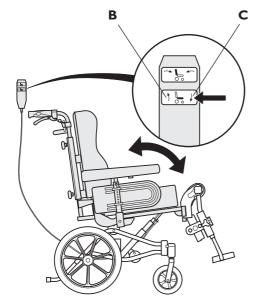
Tilt of the seat unit (seat and backrest) by pulling the **left-hand** lever (A) upwards and keeping it there whilst you tilt the seat unit to the required position. Release the lever (A).

### 2. Backrest, angle adjustment

Adjust the angle of the backrest by pulling the right-hand lever (A) upwards and keeping it there whilst you push the backrest away from you or pull it towards you until you have obtained the required position. Release the lever (A).

#### **ELECTRICALLY OPERATED CHAIR**

1.



#### 1. Tilt adjustment

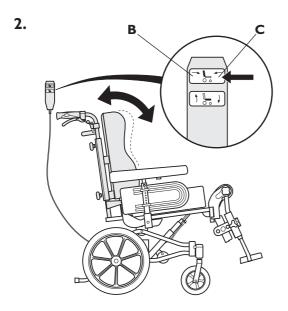
Tilt the seat unit (seat and backrest) by using the lower part of the control panel. Press (B) to adjust the angle of the seat unit backwards or press (C) to adjust the angle forwards.



The hand control should only be used by authorised personell.



The risk of trapping fingers, etc, is greater in electric adjustments than in user-operated adjustments. Bear in mind, for example, that a child may get hold of the controls and get trapped, or trap the user.



#### 2. Backrest angle adjustment

Adjust the angle of the backrest by using the upper part of the control panel. Press (B) to adjust the angle of the backrest forwards or press (C) to adjust the angle backwards.

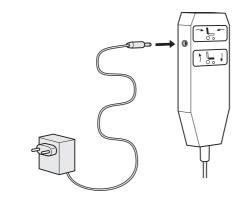


The risk of trapping fingers, etc., is greater in electric adjustments than in user-operated adjustment. Bear in mind, for example, that a child may get hold of the control box, press the controls and get trapped, or trap the user



The hand control should only be used by authorised personnel..

3.



#### 3. Charging the battery

If your wheelchair has electrical angle adjustment the battery needs to be charged. If the angle adjustment function has been used during the day, it is a good idea to leave the charger on overnight.

Charge the battery by plugging the battery charger supplied with the chair into a wall socket. Then connect the charger cable to the output on the side of the control box. It takes about 12 hours to charge a battery that has been used 50% of its capacity.

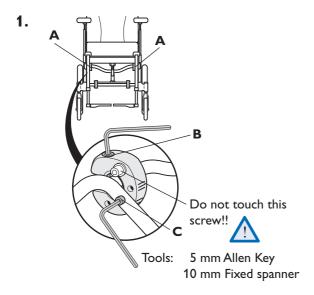


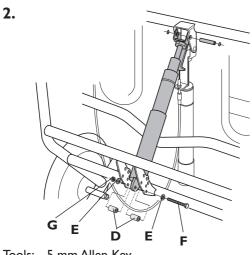
Work on the handset should only be carried out by properly trained personell.

#### **BALANCE AND STABILITY**

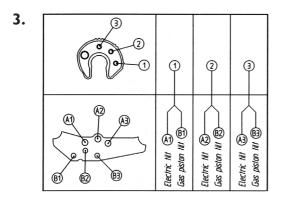
Each attachment can be adjusted in three positions: I = the chair becomes easy to propell, less stable II = middle position

III = the chair becomes stable, less easy to propel





Tools: 5 mm Allen Key 13 mm Spanner Circlip pliers



Check the stability with the user in the chair when the chair has been adjusted. Adjust the angle of the seat and backrest backwards to their maximum setting. Check the risk of tipping. Re-adjust the balance of the chair and/or anti-tip devices to obtain a chair that is stable in all situations.

By moving the seating section (seat plus backrest) either backwards or forwards, in relation to the lower frame (and also in relation to the rear wheel and castors) you also alter the chairs manoeuvrability and stability.

If the seating section is located in the forward position (III) the chair is more stable (in regard to tipping backwards), though slightly less manoeuvrable. However, the chair also becomes somewhat more susceptible to tipping forwards. This can be countered by fitting extended (forwards) castor mountings.

If the seating section is located in the rear position (I) the chair becomes more manoeuvrable, though somewhat less stable (in regard to tipping backwards). This can be countered by lowering the anti-tip device, with which the chair is fitted. Subsequently, you have a wheelchair that is both manoeuvrable and safe.

If you want to alter the balance of the wheelchair it is necessary to adjust the upper fittings (A), and the lower(picture 2)The upper two are used to move the chairs seating section forwards and backwards and the lower enable you to move the fitting for the chairs angle adjustment mechanism.

It is important that all four fittings are adjusted and secured in the same relative positions (table 3).

#### 1. Adjust the upper attachment.

Take away the seatcushion, seat plate and legrests. Put the chair on it's backrest. Adjust each of the fittings in this way: Slacken the screw (B) on the upper side of the fitting by a couple of turns, but do not unscrew it completely. Unscrew screw (C) and turn the fitting until the correct position (I, II or III) is aligned with the screw hole in the frame and then re-tighten screw (C). Then, re-tighten screw (B).

#### 2. Adjust the lower attachment.

Put the gas piston in poistion. To get right poisition look in table (3). Put the distance (D) between the gas piston and the attachment. Asselmble the screw (F) and the washers (E). Tighten the nut (G).



NB – There is a greater risk of forward tipping when the seat is extended to the front.

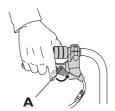
### **CARER-OPERATED BRAKES**

1.



**1.** Brake when the wheelchair is moving: squeeze both brake handles upwards and the brake will be applied.

2.



2. Lock the brakes: squeeze the handle upwards and move the lock catch (A) upwards. Then release the handle.

3.

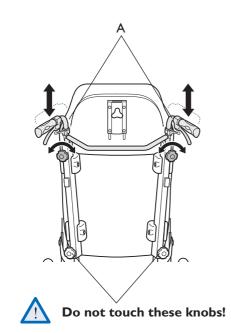


**3.** Release the brakes: squeeze the handle upwards and the lock catch will release automatically.



Incorrect setting or use of the brakes will reduce the braking effect.

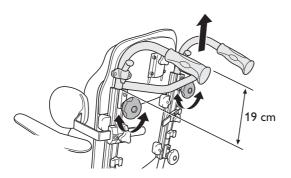
#### **PUSH HANDLES BRACED/PUSHBAR**



Loosen the knobs (A). The height of the pushhandles braced/pushbar can be adjusted simply by pulling the handles upwards or pushing them downwards. Adjust it to the height that you require and tighten it.



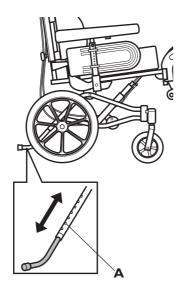
It is important that you **do not mix up the upper and lower knobs** on the back of the backrest. The lower knobs lock the backrest to the chair, and if these are loosened by mistake, the safety of the chair may be jeopardised!



**^** 

The pushhandles braced/pushbar must not be pulled up so that it protrudes more than 19 cm over the top edge of the attacthment. Do not trap your fingers between the push handles brace and the neckrest attachment. (If you have tension adjustable.)

## **ANTI-TIP DEVICES**



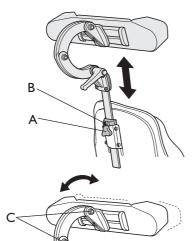
The anti-tip devices also act as step tubes. They are height-adjustable and can easily be set in six different positions as well as a parking position. The parking position must be used when the wheelchair is pulled up a kerb or a step. This prevents the anti-tip devices catching the edge of the kerb or step.

Adjust the anti-tip devices by pressing the spring-loaded buttons (A) and then raising or lowering the anti-tip devices until you obtain the required position.

Ensure that both anti-tip devices are adjusted to the same position and that the spring-loaded buttons pop back into place in their new position.

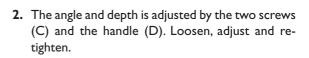
# Accessories HEAD REST

1.

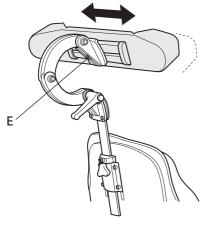


1. The height adjustment and removal is operated by the handwheel (A). The bar is equipped with a "memory" stay. Loosen screw (B) adjust and, retighten.

2.

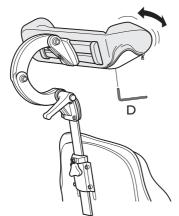


3.



**3.** The sidewise adjustment is made by loosening screw (E). Adjust and re-tighten.

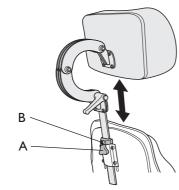
4.



**4.** The angle of the wings is adjustable by loosening screws (D). Adjust and re-tighten.

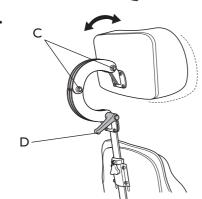
# **NECK REST**

1.



1. The height adjustment and the removal is operated by the handwheel (A). The bar is equipped with a "memory" stay. Loose screw (B) and adjust, re-tighten.

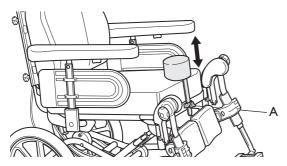
2.



The angle and depth is adjusted by the two screws
 (C) and the handle (D). Loose then and adjust.

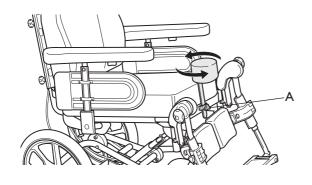
# **ABDUCTION CUSHION**

1.



1. The height adjustment and removal is operated by the handwheel (A).

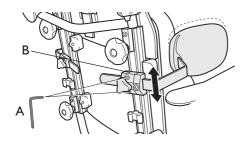
2.



2. The depth is adjusted in a forward or backward position. Loosen handwheel (A) and turn.

### TRUNK SUPPORT

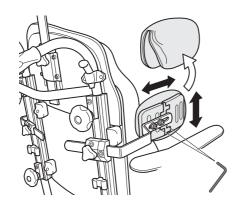
1.



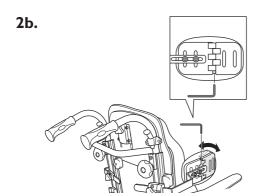
# TRUNK SUPPORT Multi adjustable

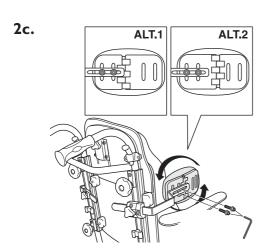
1. You adjust their height by first loosening the screws (A) whilst moving the attachment (B) upwards or downwards.Re-tighten the screws (A).

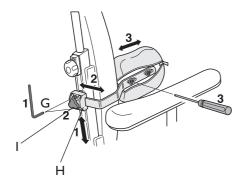
2a.



- 2a. Remove the cover and see illustrations to the left for suggestions of:
- · height adjustment







Tool: 5 mm Allen Key



2b

• angle

2c

- small side support / large trunk support Alt.1
- large side support / small trunk support Alt.2

#### **TRUNK SUPPORT**

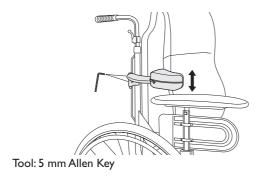
The trunk supports can be adjusted in height, depth and sideways.

- You adjust their height by first loosening the screws (G)whilst moving the attachment (H)upwards or downwards.Re-tighten the screws (G).
- 2. You adjust the trunk supports sideways by loosening the knob (I), moving the support sideways to the required position and then re-tightening the knob (I).
- 3. To adjust the depth of the trunk supports, first unzip the trunk support cover to reveal the screws inside. Unscrew them using a screwdriver, and move the trunk support forwards or backwards. Retighten the screws and zip up the cover.
- Remove the trunk support by loosening knob (I) and pulling the trunk support sideways and outwards.



Be careful not to trap your arm between trunksupport and armrest when changing the angle of the backrest.

### 1.



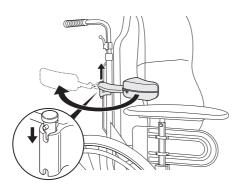
2.



3.



4.



### **TRUNKSUPPORT Swing away**

It is possible to adjust the height, depth and sideways position of the trunk support.

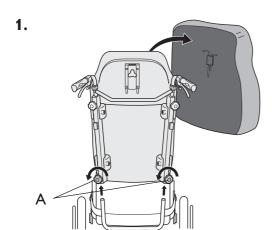
1. Adjust the height by first slackening the Allen screws (A) while simultaneously moving bracket (B) up or down. Re-tighten Allen screws (A).

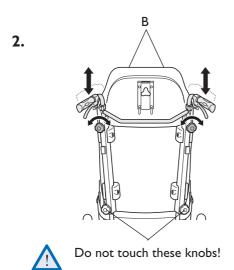
**2.** The sideways position of the trunk support is adjusted by slackening the three screws (C). Next, move the support sideways until the desired position is found and re-tighten screws (C).

3. In order to adjust the depth of the trunk support; first undo the zipper on the support, to expose the screws (D). Use a screwdriver to slacken these and slide the trunk support backwards or forwards. Re-tighten the screws and do up the zipper.

**4.** The trunk support can be folded away so that they do not obstruct the user when he or she gets into or out of the chair.

# **Transport**





3. c

The Rea® Assist is easy to prepare for transport.

#### 1. Backrest

Remove the back cushion by pulling it forwards, thus separating the Velcro strops.

Loosen both knobs (A) and pull the backrest directly upwards. Lay the backrest on the seat, where it can remain during transport of the wheelchair. Where applicable, detach the push handles. Be careful with the cables that run from the rear wheel to the push handles.

When detaching the backrest and placing it on the seat, try to make sure that the cables hang freely.

#### 2. Push handles braced.

Loosen the two knobs (B). The height of the handles can be adjusted simply by pulling the handles upwards or pushing them downwards.



It is important that you **do not mix up the upper and lower knobs** on the back of the backrest. The lower knobs lock the backrest to the chair, and if these are loosened by mistake, the safety of the chair may be jeopardised!

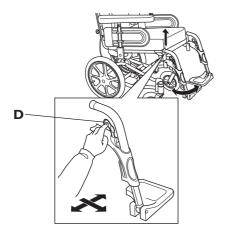


The push handles brace must not be pulled up so that it protrudes more than 19 cm over the top edge of the attacthment.

### 3. Legrests

The legrests are loosened by pushing the lever (C) forwards whilst turning the legrests outwards. You can then simply lift off the legrests.

# 4.



# 4. Footrests

The footrests are loosened by pushing the handle (D) forwards or sidewards whilst turning the footrests outwards. You can then simply lift off the footrests.

# **5**.



# 5. Armrests,

Pull them staight up

# Transport of wheelchairs in vehicles

The Rea® Assist has been tested for safety in collisions according to ISO 7176-19:1999. The Rea® Assist can be used for transport in vehicles that have been specially adapted for this purpose. The wheelchair must be securely fastened in the vehicle according to the methods described on the following page. Remember that the best solution is always to move the user from the wheelchair into a normal car seat.

# TEST REPORT FROM DYNAMIC SAFETY RESTRAINT TEST (ISO 7176-19:1999)

Test no: 09KM02 Customer: Invacare® Rea ®AB

**Date:** 00/03/07

Test no: P302416B Customer: Invacare® Rea® AB

**Date:** 03-06-12

**Test no:** F415424 Customer: Invacare® Rea® AB

**Date:** 04/08/24

Testing to be carried out

Pulse specification ISO/CD 7176-19-1 (januari 97), frontal collision

ISO/DiS 7176-19 and ISO 10542 (June 2003) (Rea® Assist) ISO/DiS 7176-19 and ISO 10542 (August 2004) (Rea® Assist)

**Wheelchair** Manufacturer: Invacare® Rea® AB

Model: Rea® Assist
Weight: 40,6 kg
Configuration: Forward facing

Safety restraint device Manufacturer: Unwin Safety Systems

Model: 4 Pt WWR/ATF/K/R
Attachment device: Unwin Low Profile Rail

Configuration: 4 Pt. Restraint

**User safety belt:** Manufacturer: Unwin Safety Systems

Model: Double inertia, ATF, Pt Assy with short third point for Intertia

and Stalk

Testdummy HB III

wheelchairs.

Weight: 76 kg

**Test configuration** Chassie: 41-50

Backrest: Backrest shell 41-50, Adj. backrest,

Lateral cover

Seat: Bris. Tromb

Armrest: Height adjustable Assist
Legrest: Angle adjustable Alu
Rear wheel: 16" pneumatic
Castor: 140 x 37 mm

Accessories: Chassi extender calfpads.heelstraps
Tested: 2000-03-07, 2003-06-12, 2004-08-24

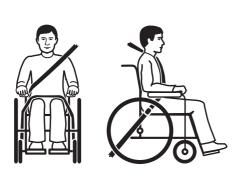
The safety restraint devices used in this test must be approved according to ISO10542. We have chosen to work with Unwin, a well-known quality manufacturer of safety restraint devices for

# OBSERVATIONS BEFORE TRANSPORT OF WHEELCHAIRS IN VEHICLES



- We recommend that wheelchair users should transfer to the seat of the vehicle and use the installed restraint system of the vehicle whenever feasible.
- The wheelchairs are tested in a basic configuration. The use in other configurations has not been tested. See user manual, section "Test report from dynamic safety restraint test", for test configuration.
- Auxiliary wheelchair equipment is either secured to the wheelchair or removed from the wheelchair and secured in the vehicle during transit. (i.e. table trays, etc.). Pommels and crotch straps are not recommended during transport as they can cause injury to the groin and genitals if the vehicle brakes suddenly.
- Alterations or substitutions are not to be made to points of the wheelchair or to structural and frame parts without the written consent of Invacare<sup>®</sup>.
- A wheelchair-anchored pelvic belt must be fitted across the wheelchair occupant in addition to the lap and diagonal and restraint (3-point belt).
- Belt restraints are not to be held away from the body by wheelchair components or parts such as armrests, postural restraints, wheels, etc. (See illustration below.)
- The wheelchair must be securely fastened in the vehicle with an ISO 10542-2 approved 4-point belt system, according to the methods described in the manual.
- The occupied wheelchair must be tied down in an forward-facing configuration, with the parking brake applied
- The test dummy weight is 75 kg, according to ISO 7176-19, although the chairs are approved for users up to 125 kg.
- The wheelchair backrest should be positioned as close as possible to 90 degrees.
- If possible, a headrest should be used during transit, in order to reduce the risk of neck unjury. The headrest should be placed as high as possible.

Please observe that even if these products and recommendations are provided in order to increase security and safety, injury to vehicle occupants still might occur in the event of a collision or **other accidents and no guarantee is given in this respect.** 

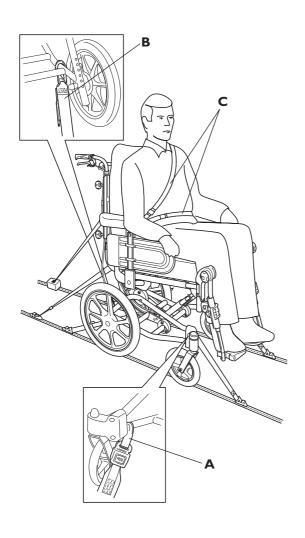




**Correct placement of belt** 

Incorrect placement of belt

#### **RESTRAINT METHODS**



### A. Frontal restraints with straps

- Connect the frontal straps around the lower frontal frame of the wheelchair, behind the castor attachments
- Release brakes and tension front straps by pulling the wheelchair backwards from the rear. Re-apply wheelchair brakes.

#### **B.** Rear restraints

- 1. Attach the snap hooks on the rear straps to the frame, behind the rear horizontal frame.
- 2. Tighten the straps.

# C. Fastening of pelvic belt and safety belt

- 1. Check that the pelvic belt on the wheelchair is correctly fastened.
- 2. Fasten the 3-point safety belt over the user.



If pelvic belt on the wheelchair is missing we recommend the user to transfer to the seat of the vehicle. If it is possible.



The safety belt should not be kept from the user's body by the parts of the wheelchair.

# Safety instructions/propelling techniques

We recommend that you have the chair tested by the qualified person who has prescribed the wheelchair, after he or she has made the adjustments that you request, taking your build and needs into account. We hope that you have also received help in learning how best to use the wheelchair. Start by practising carefully until you are familiar with the wheelchair's possibilities and limitations.

#### Move to/from the wheelchair



Propel the wheelchair as near as possible to the seat that you want to move to. Apply the brake. Remove the armrests or move them upwards out of the way, and detach the legrests or swing them outwards. Do not support yourself on the footplates as this may cause the chair to tip forwards.

### Stretching and leaning



Propel the wheelchair as near as possible. When stretching and bending, do always have full contact between the backrest and the back otherwise the wheelchair may tip over. Stretching behind the back is not recommended.

### Propelling up a slope

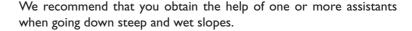


Many experienced users can propel themselves up a slope. In order not to lose control of the steering and to avoid tipping backwards, you should always lean forwards whilst propelling up a slope. Propel the wheelchair forwards using short, quick strokes applied to the hand rims, in order to maintain speed and steering control.

Generally, help is needed on steep slopes.

If you have to stop on a slope, it is particularly important to ensure that you do not make any sudden or unexpected backward movements when you start moving the wheelchair forwards again. As the wheelchair is already leaning backwards, such a movement may cause the wheelchair to tip backwards. The maximum gradient of slopes that can be attempted is varied between 3° and 13,5° depending on the user weight and the adjustments of the wheelchairs.

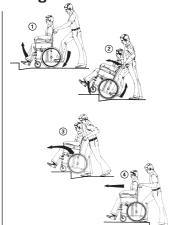
#### Propelling down a slope





First check the slope to see if there are any particular hazards, potholes, slippery sections, etc. Never use the user-operated brake to slow down. When you apply the brake on a downward slope, the wheels lock and the wheelchair can suddenly pull to one side, tip sideways or stop immediately, which may cause you to be thrown out of the chair. Always control the speed with the hand rims. Remember that the hand rims may become hot due to friction, and this may cause injury to your hands. Try to propel down the slope in a straight line as much as possible.

# Climbing a kerb



This method is for when the assistant is always behind the wheelchair and it creates the greatest safety for the user.

The following advice is for the assistant:

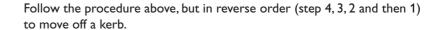
Illustration 1) Adjust the anti-tip devices upwards. Ensure that the user's feet rest securely on the footrests and cannot slide off. Then tilt the wheelchair backwards and push it forwards against the kerb.

Illustration 2) Lower the frontal part of the wheelchair onto the pavement and place yourself as close to the chair as possible, before you lift up the whole wheelchair.

Illustration 3) Lean forward and lift/roll the wheelchair over the pavement edge.

Illustration 4) Lower the wheelchair onto the pavement so that the weight is divided on all four wheels. Ensure that the wheelchair does not roll backwards.

#### Dismounting a kerb



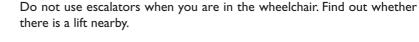
#### Kerbs - alternative method



This method is generally used by experienced assistants who are stronger than average. It can also be used when the kerb or step is low and only constitutes a minimal obstacle.

The assistant steps backwards onto the pavement and pulls the wheelchair up onto the pavement. It is important for the assistant to use his or her body correctly to prevent injury. Tip the wheelchair backwards and roll the chair over the kerb onto the pavement. Take particular care if the kerb is wet or slippery.

#### **Escalators**



# **Stairs**



We advise you to avoid using stairs when you are in your wheelchair, where possible. Choose an alternative route instead.

We recommend that you receive help from two assistants to get up and down stairs. One assistant walks in front of the chair holding the frame of the wheelchair, whilst the other assistant walks behind the chair, holding the push handles. Check that the push handles/push bar are securely fixed in place before you start. Fold the anti-tip devices upwards. Balance the wheelchair on the rear wheels until the balance point is found. The wheelchair is then rolled down the stairs, step by step, by letting the rear wheels roll over the edge of each step. Assistants must not lift by gripping the removable armrests or legrests. They must remember to lift the chair at the correct points, to use their legs and to keep their backs as straight as possible.

#### Guarantee

We provide a 3-year guarantee from the delivery date. The guarantee is valid from the day of delivery to the paying customer. Wear of parts is not included in the guarantee, for example upholstery, tyres, tubes, hand rims, castors etc. Damages, caused by physical violence, carelessness or abnormal usage are excluded. Damages, caused by heavier users than stated on the model plate, are excluded.

#### **Maintenance**

It is easy to keep your Rea® Assist wheelchair clean and in good condition.

#### **Cleaning**

Wipe metal sections and the upholstery regularly with a damp cloth. A mild detergent may be used. If necessary, the upholstery can be washed at 40°C. Ordinary washing powder/liquid can be used.

#### Wheels and tyres

- · Wheel axles are to be wiped clean and lubricated with a drop of oil.
- Pneumatic tyres have valves similar to those on a car tyre, and the tyres can be pumped up using the same type of pump used for cars. The recommended air pressure for drive wheels is:

Standard tyres: 3.5 bar 50 psi
Low profile tyres 7.0 bar 90 psi
Recommended air pressure for castors is:

(200 mm) 8" 4,0 bar (150 mm) 6" 2,5 bar

#### **Technical servicing**

- · Only original parts or those approved and fulfilling Invacare's specifications may be used.
- All technical servicing is to be carried out by an authorised wheelchair technician or by Invacare's service department. The wheelchair should be checked by authorised wheelchair technicians or Invacare's service department once a year. The address and telephone number are on the back cover of the manual.
- Examine all parts of the wheelchair once a week to check for cracks or other damage. If you discover damage, please contact Invacare immediately. The address and telephone number are on the back cover of this manual.
- Screws and nuts are to be checked regularly and tightened securely (this applies to all loose parts).

#### Service life

We estimate that Rea<sup>®</sup> Assist has a service life span of 5 years. It is difficult to state the exact length of the service life of our products, and the length stated is an estimated average life span based on normal use. The life span may be considerably longer if the wheelchair is used to a limited extent, and if it is used with care, maintained and handled properly. The life span may be shorter if the wheelchair is subjected to extreme use.

#### **Accidents/Near-accidents**

Please inform your Invacare sales company (phone number is on the back cover) of any accidents/near-accidents that were caused by this wheelchair and that have led to/could have led to personal injury. The relevant authority in your country must also be notified.

#### **Testing**

Rea® Assist has been tested and approved by The Swedish Handicap Institute and is CE-marked according to the Medical Device Directive.

#### Recycling

The wheelchair Rea® Assist can be divided into the following main components:

- Chassis
- · Plastic parts
- Upholstery
- Wheels, tyres and tube
- Packing

#### Chassis

The chassis is produced in steel and is fully recyclable. Recycling of steel requires only 20-25% of the energy compared to new produced steel.

Assist has two gas pistons and they contain oil and must be disposed according to national requirements. Be aware of that the gas pistons contains high pressure and must be handle with care during destruction.

#### **Plastic parts**

The plastic parts in the chairs are produced of "Thermoplastic" and are marked with recycling symbols (where it is possible due to part size). The main plastic material is polyamide. This material can be recycled or burned in approved facilities.

#### **Upholstery**

Upholstery is produced of polyester fibres, PUR or PVC. The efficient way to recycle the parts is to burn them in approved facilities.

#### Wheels, tyres and tubes

- The hand rim, rim, spokes and hub are made of steel, stainless steel or aluminium and can be recycled according to above.
- Tyres and tubes are made of rubber and can be recycled according to above.

#### **Packing**

All Invacare Rea AB packing material is developed to fit the products in an optimal way to reduce unnecessary material waste. All boxes are recyclable.

Contact your local recycling agent to obtain the correct information on how to handle the above mentioned materials.

### **Manufacturer:**



### Invacare Rea AB Växjövägen 303 S-343 71 DIÖ SWEDEN

### Sales companies:

## Belgium:

Invacare n.v. Autobaan 14 B-8210 Loppern, Brügge Tel. +32 - 50 83 10 10 Fax. +32 - 50 83 10 11

#### Denmark:

Invacare A/S Sdr. Ringvej 39 DK-2605 Brøndby Tel. +45 - 36 90 00 00 Fax. +45 - 36 90 00 01

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Invacare Poirier S.A.S La Perrée Route de St. Roch (RD 36) F-37230 Fondettes Tel.: (33) (0)2 47 62 64 66 Fax: (33) (0)2 47 42 12 24

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Eastern Europe Invacare Deutschland GmbH Kleiststraße 49 D-32457 Porta Westfalica Tel. +49 - 57 31 754 0 Fax. +49 - 57 31 75 45 21 91

Austria, Switzerland and

#### **Nederland:**

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#### Portugal:

Invacare Lda Rua Senhora de Campanhâ 105 PT-4369-001 Porto Tel. +35 - 12 510 59 46 Fax. +35 - 12 510 57 39

#### Spain:

Invacare S.A C/Areny, s/n Polígon Industrial de Celerá S- 17460 Celrá (Girona) Tel. +34 - 972 493200 Fax. +34 - 972 493220

#### Sweden

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