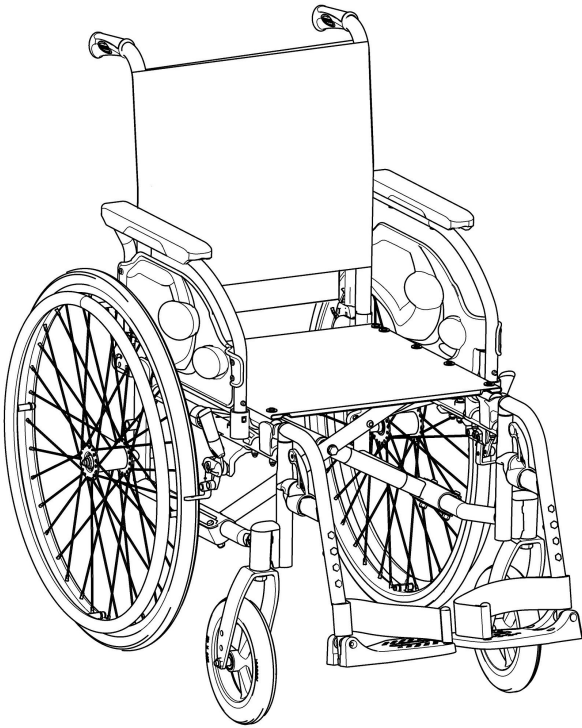


# Invacare® Action 1 R

en Low active wheelchair  
User Manual



This manual **MUST** be given to the user of the product.  
**BEFORE** using this product, this manual **MUST** be read and saved for  
future reference.



***Yes, you can.®***

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# Contents

<b>1 General</b>	<b>5</b>
1.1 Introduction	5
1.2 Symbols in this Document	5
1.3 Warranty Information	5
1.4 Limitation of Liability	6
1.5 Compliance	6
1.5.1 Product-specific standards	6
1.6 Service Life	6
<b>2 Safety</b>	<b>7</b>
2.1 Safety information	7
2.2 Safety Devices	9
2.3 Labels and symbols on the product	9
<b>3 Product Overview</b>	<b>11</b>
3.1 Product Description	11
3.2 Intended use	11
3.3 Main parts of the wheelchair	12
3.4 Parking brakes	13
3.5 Backrest	14
3.5.1 Standard Backrest Cover	14
3.6 Armrests	15
3.6.1 Armrest foldable and removable	15
3.7 Leg rests	15
3.7.1 Swing away leg rests	16
3.7.2 Swing away, angle adjustable leg rests	16
3.8 Anti-tipper	17
3.9 Seat cushion	19
<b>4 Options</b>	<b>20</b>
4.1 Transit version	20
4.2 Posture belt	21
4.3 Tipper aid	22
4.4 Table tray	22
4.5 Standard backbrace for the backrest	23

4.6 Drip stand	24
4.7 Passive illumination	25
4.8 Cane holder	25
4.9 Transfer kit wheels	25
<b>5 Setup</b>	<b>27</b>
5.1 Safety information	27
<b>6 Using the wheelchair</b>	<b>28</b>
6.1 Safety information	28
6.2 Braking during use	29
6.3 Move to/from the wheelchair	30
6.4 Driving and Steering the Wheelchair	31
6.5 Negotiating steps and kerbs	32
6.6 Going up and down stairs	33
6.7 Negotiating Ramps and Slopes	34
6.8 Stability and balance when seated	36
<b>7 Transport</b>	<b>37</b>
7.1 Safety information	37
7.2 Folding and unfolding the wheelchair	37
7.3 Lifting the wheelchair	38
7.4 Removing and fitting the rear wheels	39
7.5 Transporting the Mobility Device without Occupant	39
<b>8 Maintenance</b>	<b>41</b>
8.1 Safety information	41
8.2 Maintenance Schedule	41
8.3 Cleaning and Disinfection	43
8.3.1 General Safety Information	43
8.3.2 Cleaning Intervals	44
8.3.3 Cleaning	44
8.3.4 Disinfection	44
<b>9 Troubleshooting</b>	<b>45</b>
9.1 Safety information	45
9.2 Identifying and repairing faults	46
<b>10 After Use</b>	<b>47</b>
10.1 Storage	47

10.2	Disposal . . . . .	47
10.3	Reconditioning . . . . .	47
<b>11</b>	<b>Technical Data . . . . .</b>	<b>48</b>
11.1	Dimensions and weight . . . . .	48
11.2	Tyres. . . . .	49
11.3	Materials. . . . .	50
11.4	Environmental conditions. . . . .	50

# 1 General

## 1.1 Introduction

This user manual contains important information about the handling of the product. To ensure safety when using the product, read the user manual carefully and follow the safety instructions.

Note that there may be sections in this document, which are not relevant to your product, since this document applies to all available models (on the date of printing). If not otherwise stated, each section in this document refers to all models of the product.

The models and configurations available in your country can be found in the country-specific sales documents.

Invacare reserves the right to alter product specifications without further notice.

Before reading this document, make sure you have the latest version. You find the latest version as a PDF on the Invacare website.

If you find that the font size in the printed document is difficult to read, you can download the PDF version from the website. The PDF can then be scaled on screen to a font size that is more comfortable for you.

For more information about the product, for example product safety notices and product recalls, contact your Invacare distributor. See addresses at the end of this document.

In case of a serious incident with the product, you should inform the manufacturer and the competent authority in your country.

## 1.2 Symbols in this Document

Symbols and signal words are used in this document and apply to hazards or unsafe practices which could result in personal injury or property damage. See the information below for definitions of the signal words.



### WARNING

Indicates a hazardous situation that could result in serious injury or death if it is not avoided.



### CAUTION

Indicates a hazardous situation that could result in minor or slight injury if it is not avoided.



### IMPORTANT

Indicates a hazardous situation that could result in damage to property if it is not avoided.



### Tips and Recommendations

Gives useful tips, recommendations and information for efficient, trouble-free use.

## 1.3 Warranty Information

We provide a manufacturer's warranty for the product in accordance with our General Terms and Conditions of Business in the respective countries.

Warranty claims can only be made through the provider from whom the product was obtained.

## 1.4 Limitation of Liability

Invacare accepts no liability for damage arising from:

- Non-compliance with the user manual
- Incorrect use
- Natural wear and tear
- Incorrect assembly or set-up by the purchaser or a third party
- Technical modifications
- Unauthorised modifications and/or use of unsuitable spare parts

## 1.5 Compliance

Quality is fundamental to the company's operation, working within the disciplines of ISO 13485.

This product features the CE mark, in compliance with the Medical Device Regulation 2017/745 Class I. The launch date of this product is stated in the CE declaration of conformity.

We are continuously working towards ensuring that the company's impact on the environment, locally and globally, is reduced to a minimum.

We only use REACH compliant materials and components.

### 1.5.1 Product-specific standards

The wheelchair has been tested in accordance with EN 12183. It includes testing for flammability.

For further information about local standards and regulations, contact your local Invacare representative. See addresses at the end of this document.

## 1.6 Service Life

The expected service life of this product is five years when used daily and in accordance with the safety instructions, maintenance intervals and correct use, stated in this manual. The effective service life can vary according to frequency and intensity of use.

## 2 Safety

### 2.1 Safety information

This section contains important safety information for the protection of the wheelchair user and assistant and for safe, trouble-free use of the wheelchair.



#### **WARNING!**

##### **Risk of death or serious injury**

In case of fire or smoke, wheelchair occupants are at particular risk of death or serious injury, when they are not able to move away from the source of fire or smoke. Lighted matches, lighter and cigarettes can cause an open flame in the wheelchair surroundings or on clothes.

- Avoid using or storing the wheelchair near open flames or combustible products.
- Do not smoke while using the wheelchair.



#### **WARNING!**

##### **Risk of accidents and serious injury**

Accidents with resulting serious injury can occur if the wheelchair is wrongly adjusted.

- Adjustments at the wheelchair always must be carried out by a qualified technician.



#### **WARNING!**

##### **Risk due to driving style being unsuitable for the conditions**

There is a risk of skidding on wet ground, gravel or uneven terrain.

- Always adjust your speed and driving style to the conditions (weather, surface, individual ability, etc.).



#### **WARNING!**

##### **Risk of injury**

In a collision you could sustain injury to parts of your body that extend beyond the wheelchair (e.g. feet or hands).

- Avoid an unbraked collision.
- Never drive into an object head-on.
- Drive carefully through narrow passages.



#### **WARNING!**

##### **Risk due to wheelchair being out of control**

At high speed you could lose control of your wheelchair and overturn.

- Never exceed a speed of 7 km/h.
- Avoid collisions in general.



### **WARNING!**

#### **Risk of tilting**

The position of the rear wheel axle and the angle of your wheelchair's backrest are two of the key adjustments that can affect your stability whilst sitting in the wheelchair.

- These changes, any front wheels position and/or angle fork adjustments to the set-up of your wheelchair must only be performed at the direction of a qualified technician who has fully risk assessed the implication of any changes to the wheelchair configuration. Therefore, consult with your authorized provider.



### **CAUTION!**

#### **Risk of burning**

The wheelchair components can heat up when exposed to external sources of heat.

- Do not expose the wheelchair to strong sunlight before use.
- Before usage, check all components that come into contact with your skin for their temperature.



### **CAUTION!**

#### **Risk of getting fingers caught**

There is always a risk of getting, e.g. fingers or arms, caught in the moving parts of the wheelchair.

- Make sure when activating the folding or insertion mechanisms of moving parts, such as the removable axle of the rear wheel, folding backrest or anti-tipper, that nothing becomes caught.



### **CAUTION!**

#### **Risk of tipping**

The hanging of additional load (back pack or similar items) onto your chair backposts can affect the rearward stability of your wheelchair, especially when used in combination with angle adjustable backrests.

- Invacare strongly recommend the use of anti-tipper (available as an option) when using your backposts with additional load.



### **CAUTION!**

#### **Risk of injury**

- In case of pressure sore or injured skin, protect your injury to avoid a direct contact with the fabrics of the device. Refer to a healthcare professional for medical advices.



**CAUTION!****Risk of injury**

When combining the wheelchair with another device, the restrictions of both devices apply for the combination. E.g. the maximum user weight of the device may be lower.

- Only use combinations with other devices which are allowed by Invacare. Contact your authorized provider for more information.
- Before use, read the user manual of each device and check the restrictions.

## 2.2 Safety Devices

**WARNING!****Risk of accidents**

Safety devices that are incorrectly set or no longer working (brakes, anti-tipper) can cause accidents.

- Always check that the safety devices are working before you use the wheelchair and have them checked regularly by a qualified technician or your authorized provider.

**CAUTION!****Risk of Injury**

Non-original or wrong parts may affect the function and safety of the product.

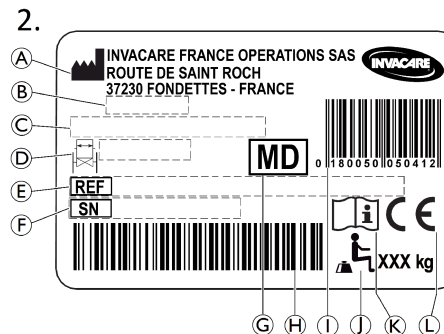
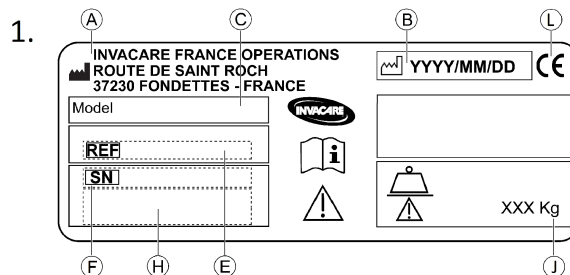
- Only use original parts for the product in use.
- Due to regional differences, refer to your local Invacare catalog or website for available options or contact your Invacare distributor. See addresses at the end of this document.

The functions of the safety devices are described in chapter 3 *Product Overview*, page 11.



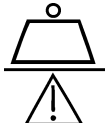
## 2.3 Labels and symbols on the product

### Identification label

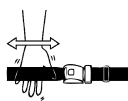
The identification label (1. or 2.) is attached to the frame of your wheelchair and gives the following information:




- Ⓐ Manufacturer's address
- Ⓑ Date of manufacture
- Ⓒ Product description
- Ⓓ Seat width
- Ⓔ Reference number
- Ⓕ Serial number
- Ⓖ Medical device
- Ⓗ Serial number barcode
- Ⓘ EAN/HMI barcode
- Ⓢ Maximum user weight
- Ⓚ Read user manual
- Ⓛ European conformity

	Read user manual
	Indicates a hazardous situation that could result in serious injury or death if it is not avoided.
	Indicates maximum user weight

### Posture belt information label

	The posture belt has the good length, when there's just sufficient space for a flat hand between body and belt.
-----------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------

### Snap hook symbols

	<b>WARNING Symbol</b> This wheelchair is not configured for passenger transport in a motor vehicle. This symbol is attached to the frame close to the identification label.
-----------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

## 3 Product Overview

### 3.1 Product Description

This is a medium active wheelchair with crossbar folding mechanism and swing-away leg rests.

**IMPORTANT!**

The wheelchair is manufactured and configured individually to the specifications in the order. The specification must be performed by a healthcare professional according to the user's requirements and health condition.

- Consult a healthcare professional if you intend to adapt the wheelchair configuration.
- Any adaptation should be performed by a qualified technician.

### 3.2 Intended use

The medium active wheelchair is intended to provide mobility to persons limited to a sitting position, who are propelling the wheelchair themselves frequently.

The wheelchair is intended for persons ages 12 and up (adolescents and adults). The weight of the wheelchair occupant must not exceed the maximum user weight as stated in the Technical Data section and on the identification label.

The intended user is the wheelchair occupant and/or an assistant.

The user should physically and mentally be able to use the wheelchair safely (e.g. to propel, steer, brake).

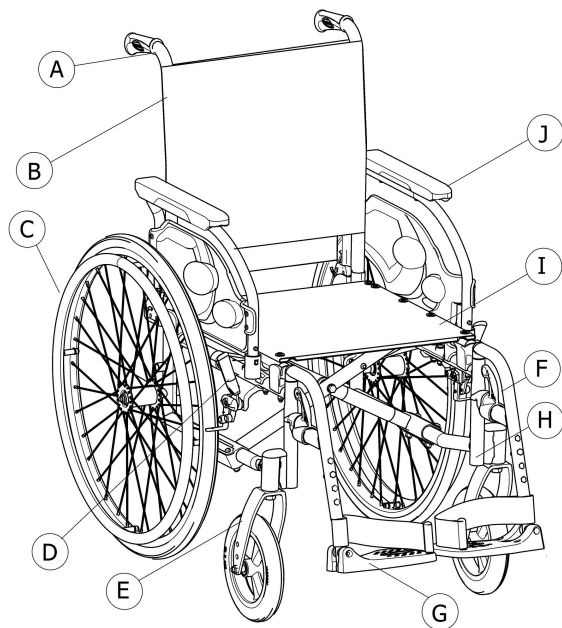
The wheelchair may be used indoors and outdoors on level ground and accessible terrain.

### Indications

- Considerable to complete impairment of mobility due to structural and/or functional damage to the lower extremities.
- Sufficient strength and gripping function of arms and hands to propel the wheelchair.

There are no contraindications known, when using the wheelchair as intended.

### 3.3 Main parts of the wheelchair



- Ⓐ Push handle
- Ⓑ Backrest
- Ⓒ Rear wheel with handrim
- Ⓓ Parking brake
- Ⓔ Front fork with castor
- Ⓕ Leg rests, swiveling
- Ⓖ Footrest
- Ⓗ Frame
- Ⓘ Seat
- ⓵ Armrest



The equipment of your wheelchair may differ from the diagram as each wheelchair is manufactured individually to the specifications in the order.

### 3.4 Parking brakes

The parking brakes are used to immobilize the wheelchair when it is stationary to prevent it from rolling away.



#### **WARNING!**

##### **Risk of overturning if you brake sharply**

If you engage the parking brakes while you are moving, the direction of movement can become uncontrollable and the wheelchair may stop suddenly, which can lead to a collision or to you falling out.

- Never engage the parking brakes while you are moving.



#### **WARNING!**

##### **Risk due to wheelchair being out of control**

- The parking brakes must be operated simultaneously.
- Do not engage the parking brakes to slow down the wheelchair.
- Do not lean on the parking brakes for support or transfer.



#### **WARNING!**

##### **Risk of overturning**

The parking brakes will not operate correctly unless there is sufficient air in the tyres.

- Ensure the correct tyre pressure, *11.2 Tyres*, page 49.



#### **CAUTION!**

##### **Risk of pinching or crushing**

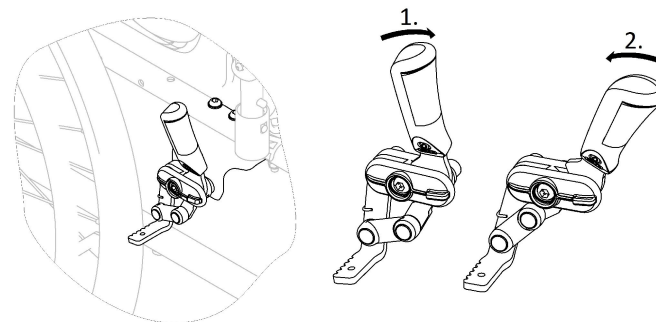
There may be a very small gap between the rear wheel or the armrest front socket and the parking brake with the risk that you could trap your fingers.

- Keep your fingers away from movable parts when using the brake, always keep your hand on the brake lever.





The distance between the brake shoe and the tyre can be adjusted. The adjustment must be carried out by a qualified technician.

#### **Standard brake**



1. To engage the brake, push the brake lever forwards with the palm as far as possible.
2. To disengage the brake, pull the brake lever backwards with the low fingers.

 The lever of the push handle can be folded back to facilitate transfers. To do so, pull up the lever and fold it backwards.

 An assistant's brake (drum brake) is available as an option, the assistant can brake the wheelchair while it is moving, please read section 6.2 *Braking during use*, page 29.

## 3.5 Backrest

Fixed backrest do not require adjustment.



### **WARNING!**

#### **Risk of injury to the assistant and damage to the wheelchair**

Tilting the chair with a heavy user can hurt the assistant's back and damage the chair.

- Make sure to be able to safely control the wheelchair with a heavy user before performing a tilting maneuver.



### **WARNING!**

#### **Risk of tipping**

The hanging of additional load (back pack or similar items) onto your wheelchair back posts can affect the rearward stability of your wheelchair. This can cause the chair to tip backwards causing injury.

- Therefore, Invacare strongly recommend the use of anti-tippers (available as an option) when using your back posts with additional load (back pack or similar items).

### 3.5.1 Standard Backrest Cover



A standard backrest cover is available for all backrest types. These covers are not adjustable.



### **WARNING!**

#### **Risk of tipping**

If the standard backrest cover become slack, the tipping point of your wheelchair is changed for the worse.

- Slack standard backrest cover must be replaced by a qualified technician.

## 3.6 Armrests



### **WARNING!**

#### **Risk of injury**

The side rests are not locked and can be easily pulled out upwards.

- Do not lift or transfer the wheelchair using the side rests.
- Do not use the side rests for transportation when carrying the wheelchair up- or downstairs.

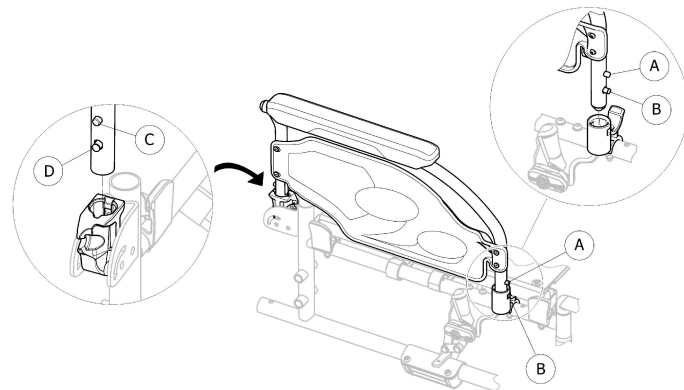


### **CAUTION!**

#### **Risk of pinching**

- Keep your fingers away from movable parts during removing, fitting or adjusting the armrest.

### 3.6.1 Armrest foldable and removable



## Folding

1. Apply the parking brake on both sides.
2. Grip the armrest by the armpad or by the front curve and fold it back.

## Front removing

1. Press and hold the armrest release push pin (A) at the front.
2. Remove armrest from armrest socket by pulling straight up and fold it back.

## Front fitting

1. Push the armrest down and until the front release button (B) snaps into its armrest socket hole.
2. Ensure button protrudes fully through socket hole.

## Rear removing

1. Press and hold the armrest release push pin (C) at the rear.
2. Remove armrest from armrest socket by pulling straight up on the armrest.

## Rear fitting

1. Position armrest over rear armrest socket.
2. Push the armrest down until the rear release button (D) snaps into its armrest socket hole.

## 3.7 Leg rests



### **WARNING!**

#### **Risk of injury**

- Never lift the wheelchair by the footrest supports or leg rests.



### CAUTION!

#### Risk of pinching or crushing fingers

There are swing mechanisms where you could trap your fingers.

- Be careful when using, swinging, disassembling or adjusting these mechanisms.

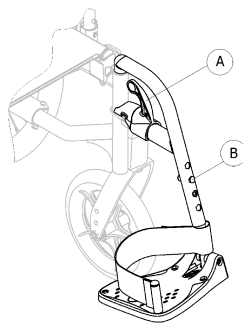


### IMPORTANT!

Risk of damage to the leg rest mechanism

- Do not place anything heavy, or let children sit on the leg rest.

## 3.7.1 Swing away leg rests



### Swing outwards

1. Activate the release lever ① and swing the leg rests to the outside.

### Swing forwards

1. Swing the leg rest forwards until it engages.

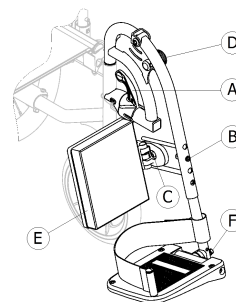
### Unhinging

1. Activate the release lever ①.
2. Pull the leg rest upwards.

### Hinging

1. Hinge the leg rest on the front of the frame and swing it forwards until it engages.

## 3.7.2 Swing away, angle adjustable leg rests



### Swing outwards

1. Activate the release lever ① and swing the leg rests to the outside.

### Swing forwards

1. Swing the leg rest forwards until it engages.

### Unhinging

1. Activate the release lever ①.
2. Pull the leg rest upwards.



## Hinging

1. Hinge the leg rest on the front of the frame and swing it forwards until it engages.

## Angle adjustment

There are nine preset positions available for angle adjustment.

1. Loosening the knob ⑤ and pull it up with one hand while supporting the leg rest with your other hand.
2. Adjust into one of nine preset positions, downwards the knob ⑤ into the desired position and firmly tighten the knob.

## Calf pad adjustment

The calf pad ⑥ swings away during transfers and has three depth adjustment options.

Depth adjustment:

1. After loosening the fixing screw ③ adjust to the desired depth and firmly tighten the fixing screw.

Invacare recommends that depth adjustment is carried out by a qualified technician.

## Foot plate adjustment

There are two different foot plates available.

- Height adjustable foot plates
  1. Loosening the fixing bolt ⑧ with 10 mm spanner.
  2. Adjust into one of four preset positions and tighten the fixing bolt (5 Nm) ⑧ into the desired position.

- Height, depth and angle adjustable foot plates
  1. Loosening the screw ⑦ with 5 mm Allen key.
  2. Adjust into the depth and angle positions and firmly tighten the screw (12 Nm) ⑦ into the desired position.

Invacare recommends that foot plate adjustment is carried out by a qualified technician.



To ensure a good position of the feet the heel strap is attached to the leg rest support and adjustable by hook and loop fasteners.

## 3.8 Anti-tipper

An anti-tipper prevents the wheelchair from tipping backwards.



### WARNING!

#### Risk of overturning

Anti-tippers that are incorrectly set or no longer working can lead to overturning.

- Always check that the anti-tipper is working before using the wheelchair and have it set or readjusted by a qualified technician when required.
- In some configurations, the static stability of the wheelchair may be lower than 10°; Invacare strongly recommends the use of anti-tipper (available as an option).



### **WARNING!**

#### **Risk of overturning**

On uneven or soft ground, the anti-tipper can sink into potholes or directly into the ground, thereby curtailing or eliminating its safety function.

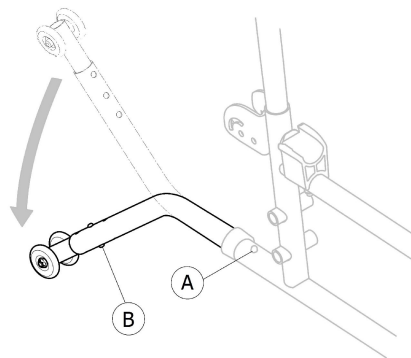
- Only use the anti-tipper when travelling on even and firm ground.



### **IMPORTANT!**

#### **Risk of damage**

- Never step on the anti-tipper or use it as a tipping aid.



### **Activating the anti-tipper**

1. Release the spring button Ⓐ and swivel the anti-tipper downwards until it engages.
2. Ensure the spring button Ⓐ protrudes fully through frame hole.



### **WARNING!**

#### **Risk of tipping**

An activated anti-tipper can catch when negotiating a step or an edge.

- Always deactivate the anti-tipper before driving over a step or kerb.

### **Deactivating the anti-tipper**

1. Release the spring button Ⓐ and swivel the anti-tipper upwards until it engages.
2. Ensure the spring button Ⓐ snaps into the frame hole.



### **WARNING!**

#### **Risk of overturning**

- Always advise the user if you deactivate the anti-tippers.

### **Setting the height**



### **WARNING!**

#### **Risk of overturning**

- The adjustments of the anti-tipper must be carried out by a qualified technician.



This adjustment is required with reference to the position and diameter of the rear wheel as well as the user conditions and his particular safety limits.



Make sure that the anti-tipper device is fitted correctly on each side (if applicable). The spring buttons Ⓐ and Ⓑ must protrude fully through their respective hole.

### 3.9 Seat cushion

A suitable cushion is recommended to provide an even pressure distribution on the seat.

**CAUTION!****Risk of instability**


Adding a cushion to the seat will raise your height above the ground and can affect your stability in all directions. If a cushion is changed it may also change the user's stability.

- If the thickness of the cushion is changed, a complete set up of the wheelchair need to be done by a qualified technician.
- We recommend to use an Invacare or Matrx cushion with anti-slip base cover in order to prevent sliding.

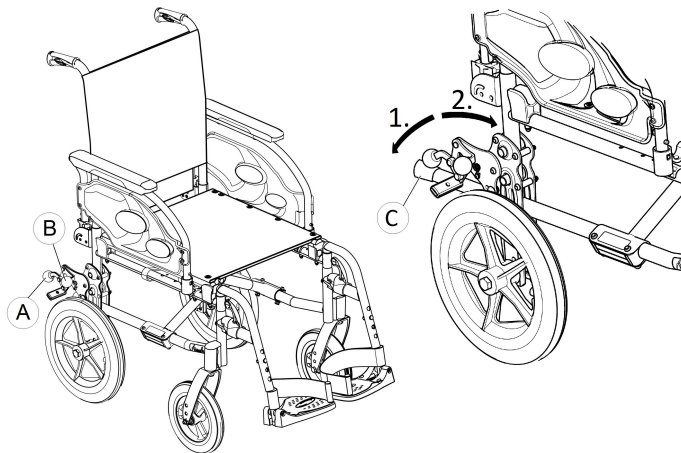
## 4 Options

### 4.1 Transit version

The transit version is designed to be driven only by the attendant. To facilitate sideways transfers and save space, the wheelchair is equipped with rear wheels of 305 mm (12").

-  The distance between the brake shoe and the solid tyre can be adjusted. The adjustment must be carried out by a qualified technician.


The parking brakes are only accessible to the attendant; operate the handles **A** to lock or **B** to unlock the wheelchair in parking position.



1. To engage the brake, push the brake lever **A** downwards as far as possible.
2. To disengage the brake, pull or push the brake lever **B** upwards.

For detailed information on parking brake, please read section 3.4 *Parking brakes*, page 13.

### Tipper aid

-  With the tipper aid **C**, an assistant can tip the wheelchair more easily, in order to navigate steps for example.



### **WARNING!**

#### **Risk of overturning**

- Ensure that the tipper aid does not project beyond the external diameter of the rear wheel.

1. Hold the wheelchair by the push handles.
2. Press the tipper aid on the right side **C** with your foot and hold the wheelchair in the tipped position until you have overcome the obstacle.

## 4.2 Posture belt

The wheelchair can be equipped with a posture belt. It prevents the user from sliding downward in the wheelchair or from falling out of the wheelchair. The posture belt is not a positioning device.

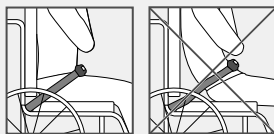


### **WARNING!**

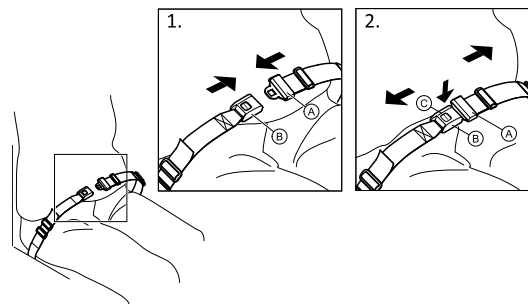
#### **Risk of serious injury / strangulation**

A loose belt can allow the user to slip down and create a risk of strangulation.

- The posture belt should be mounted by a qualified technician and fitted by the responsible prescriber.
- Always make sure that the posture belt is tightly fitted across the lower pelvis.
- Each time the posture belt is used, check if it fits properly. Changing the seat and/or backrest angle, the cushion and even your clothes influence the fit of the belt.



## Closing and opening the posture belt



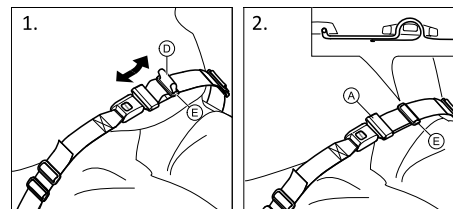
Ensure that you are sitting fully back in the seat and that the pelvis is as upright and symmetrical as possible.

1. To close, push the catch (A) into the buckle clasp (B).
2. To open, push the Press button (C) and pull the catch (A) out of the buckle clasp (B).

## Adjusting the length



The posture belt has the good length, when there's just sufficient space for a flat hand between body and belt.



1. Shorten or extend the loop ⑤ as required.
2. Thread loop ⑤ through catch ④ and plastic buckle ⑥ until the loop is flat.

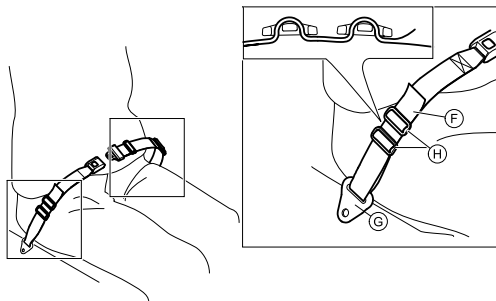
If this adjustment is not sufficient, it might be required to re-fit the posture belt at the fixations.

### Fitting the posture belt at the fixations



#### CAUTION!

- Thread the belt loop through both plastic buckles to avoid the belt from loosening.
- Do the adjustments on both sides equally, so that the buckle clasp remains in a central position.
- Make sure that the belts do not get caught in the spokes of a rear wheel.



1. Thread the loop ⑥ through the fixation on the chair ④ and then through BOTH plastic buckles ⑦.

## 4.3 Tipper aid

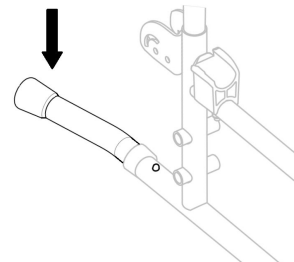
With the tipper aid, an assistant can tip the wheelchair more easily, in order to navigate steps for example.



#### WARNING!

##### Risk of overturning

- Ensure that the tipper aid does not project beyond the external diameter of the rear wheel.



1. Hold the wheelchair by the push handles.
2. Press the tipper aid with your foot and hold the wheelchair in the tipped position until you have overcome the obstacle.

## 4.4 Table tray



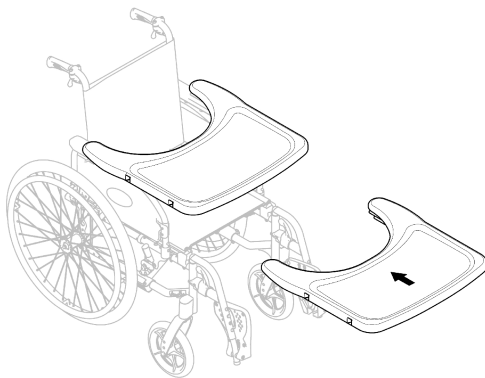
#### WARNING!

##### Risk of tipping / injury

- Max load on the table: 8 kg

**CAUTION!****Risk of discomfort / minor bruises**

- Make sure that the elbows of the user are placed on the table when pushing the wheelchair. If the elbows protrude from the table while pushing the wheelchair, there is a risk of discomfort or minor bruises.

**Depth adjustment**

Slide the table tray forwards or backwards to adjust to the required depth.

**CAUTION!****Risk of discomfort**

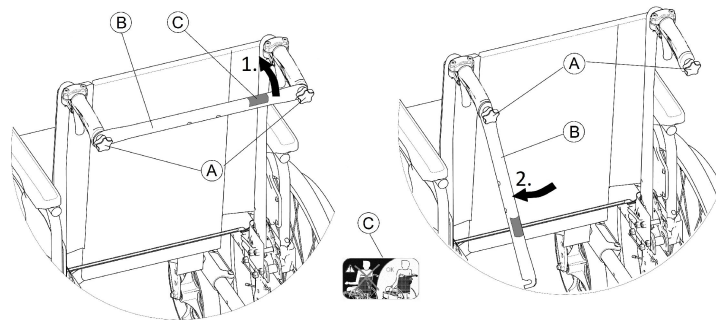
- When adjusting the depth of the table, make sure not to squeeze the stomach of the user.

**4.5 Standard backbrace for the backrest**

The backbrace links the two push handles, provides tension to the backrest upholstery and must always be in position on recliner versions.

**CAUTION!**

- Do not use the backbrace to push the wheelchair. The backbrace is not a push bar!
- Do not attempt to lift the wheelchair using the backbrace; it may come loose and it could break.
- Keep your fingers away from movable parts and sharp edges to prevent injuries.

**Folding the backbrace**

1. Slightly loosen the two hand screws (A), pull up the backbrace (B) and swivel it downwards along the backrest (on right or left hand).
2. Fold the backbrace (B) until it is in vertical position.

## Unfolding the backbrace

1. Fold the backbrace ⑥ upwards.
2. Align the backbrace ⑥ with the push handle and push it down on the hand screw ⑤.
3. Firmly tighten the hand screw ⑤ and make sure that the TWO hand screws ⑤ are properly tightened.



It is important to ensure that the backbrace is correctly fitted and engaged at all times when the chair is in use. It should not be left hanging loose (see label ③ on the backbrace).



## 4.6 Drip stand



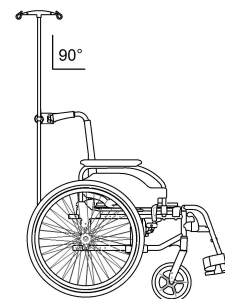
### WARNING!

**Risk of tipping / injury**

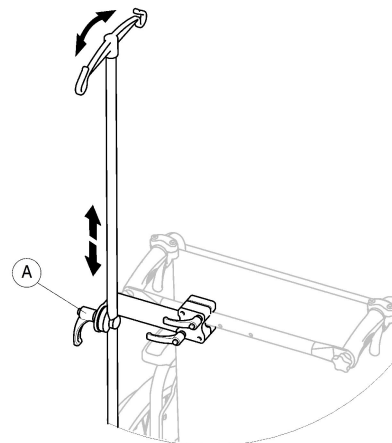
– Max load on the drip stand: 4 kg (2 x 2 kg)



The rod of the drip stand must always be placed in a vertical position, i.e in a 90 degree angle to the ground, no matter the position of the wheelchair.



## Height/Angle adjustment



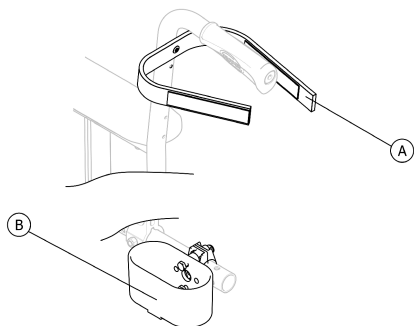
1. Loosen the lever ①.
2. Adjust the drip stand to the desired height or/and angle.
3. Firmly tighten the lever ①.



## 4.7 Passive illumination

You can attach reflectors to the rear wheels.

## 4.8 Cane holder



### **WARNING!** **Risk of overturning**

- Ensure that the cane holder does not project beyond the external diameter of the rear wheel.

1. Place the cane in the holder (B).
2. Fix the top of the cane to the backrest (A).

## 4.9 Transfer kit wheels

If your wheelchair is too wide for certain applications, e.g. trains/aeroplanes, narrow passageways, narrow doors, the transfer kit wheels can be used.



### **WARNING!**

- When using transfer kit wheels, the parking brakes no longer have any effect and you cannot control your wheelchair via the handrims.

The transfer kit wheels are attached directly to the rear frame as an option.



### **WARNING!**

#### **Risk of tipping sideways**

- Make sure that anti-tippers, if present with transfer kit wheels, are installed on both sides of the wheelchair.

### **Switching to Transfer kit wheels**

1. Activate the anti-tippers, if present with transfer kit wheels, on both sides,  
→ 3.8 *Anti-tipper*, page 17.
2. With the help of an assistant, remove the rear wheel,  
→ 7.4 *Removing and fitting the rear wheels*, page 39 and lower the wheelchair to the transfer kit wheel.
3. Repeat the process on the other side.

### Switching from Transfer kit wheels to rear wheels

1. With the help of an assistant, fit the rear wheel back onto the removable axle,  
→ *7.4 Removing and fitting the rear wheels, page 39*  
and lower the wheelchair to the rear wheel.
2. Repeat the process on the other side.

---

## 5 Setup

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### 5.1 Safety information

**CAUTION!****Risk of injury**

- Before using the wheelchair, check its general condition and its main functions, 8 *Maintenance, page 41.*

Your authorized provider will supply your wheelchair ready for use. Your provider will explain the main functions and ensure that the wheelchair meets your needs and requirements.

Adjustments of the axle position and the castor supporters must be carried out by a qualified technician.

If you receive your wheelchair folded, read section 7.2 *Folding and unfolding the wheelchair, page 37.*

## 6 Using the wheelchair

### 6.1 Safety information



**WARNING!**

**Risk of accidents**

Uneven tyre pressure can have a huge effect on handling.

- Check the tyre pressure before each journey.



**WARNING!**

**Risk of falling out of the wheelchair**

When using too small front wheels the wheelchair could get stuck at curbs or in floor grooves.

- Make sure that the front wheels are suitable for the surface you're driving on.



**CAUTION!**

**Risk of crushing**

There may be a very small gap between the rear wheel and the mudguard or armpad with the risk that you could trap your fingers.

- Ensure that you always propel your wheelchair using the handrims only.



**CAUTION!**

**Risk of crushing**

There may be a very small gap between the rear wheel and the parking brake with the risk that you could trap your fingers.

- Ensure that you always propel your wheelchair using the handrims only.

## 6.2 Braking during use

Whilst you are moving, you brake by transferring force to the handrim with your hands.



### **WARNING!**

#### **Risk of overturning**

If you engage the parking brakes while you are moving, the direction of movement can become uncontrollable and the wheelchair may stop suddenly, which can lead to a collision or to you falling out.

- Never engage the parking brakes while you are moving.



### **WARNING!**

#### **Risk of falling out of the wheelchair**

If the wheelchair is rapidly decelerated by an assistant pulling at the push handles, the user may fall out of the wheelchair.

- Always apply the posture belt if present.
- Make sure your assistant is qualified in transferring occupied wheelchairs.
- Operate the two brakes simultaneously and do not take slopes exceeding 7° to ensure perfect control of the wheelchair steering.
- Always use the parking brakes to secure the wheelchair during short or long stops.



### **CAUTION!**

#### **Risk of burning your hands**

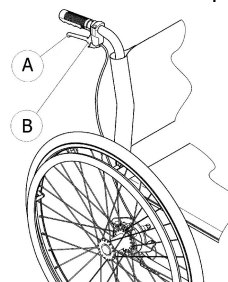
If you brake for a long time, a lot of frictional heat is produced at the handrims (especially anti slip handrims).

- Wear suitable gloves.

1. Hold the handrims and press evenly with both hands until the wheelchair stops.

### **Braking with an assistant**

With an assistant's brake (drum brake) an assistant can brake the wheelchair while it is moving. The assistant's brake can also be used as a parking brake.



1. To brake, pull the brake lever (A) on the push handle.
2. To park, pull the brake lever firmly until the safety lever (B) engages.
3. To release, pull the brake lever and release the safety lever underneath the brake lever.

## 6.3 Move to/from the wheelchair



### **WARNING!**

#### **Risk of overturning**

There is a high risk of overturning during the transfer.

- Only get in and out without assistance if you are physically able to do so.
- When transferring, position yourself as far back as possible in the seat. This will prevent damaged upholstery and the possibility of the wheelchair tipping forward.
- Make sure that both castors are facing straight to the front.



### **WARNING!**

#### **Risk of overturning**

The wheelchair could tip forwards if you stand on the footrest.

- Never stand on the footrest when getting in and out.



### **CAUTION!**

If you disengage or damage the brakes the wheelchair could roll away out of control.

- Do not support yourself on the brakes when getting in and out.



### **IMPORTANT!**

The mudguards and armrests could become damaged.

- Never sit on the mudguards or armrests when getting in and out.



1. Propel the wheelchair as near as possible to the seat that you want to move to.
2. Engage the parking brakes.
3. Remove the armrests or move them upwards out of the way.
4. Detach the leg rests or swing them outwards.
5. Place your feet on the ground.
6. Hold the wheelchair and, if necessary, also hold a fixed object in the vicinity.
7. Move slowly to chair.

## 6.4 Driving and Steering the Wheelchair

You drive and steer the wheelchair using the handrims. Before driving without an assistant you must find your wheelchair's tipping point.



### **WARNING!**

#### **Risk of Tipping**

The wheelchair can tip backwards if it is not fitted with an antitipper. When finding the tipping point, an assistant must stand immediately behind the wheelchair to catch it if it tips over.

- To prevent tipping, install an antitipper device.



### **WARNING!**

#### **Risk of Tipping**

The wheelchair can tip forwards.

- When setting up your wheelchair, test its behavior in terms of tipping forward and adjust your driving style accordingly.

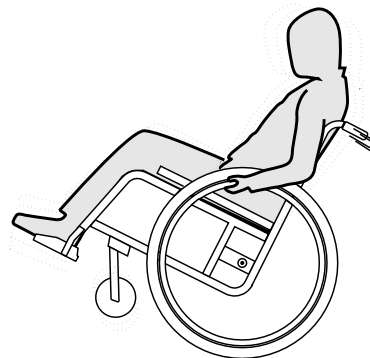


### **CAUTION!**

A heavy load hanging on the backrest can affect the wheelchair's centre of gravity.

- Change your driving style accordingly.

## Finding the Tipping Point



1. Release the brake.
2. Roll backwards a short distance, grasp both handrims firmly and push forwards with a slight kick.
3. The shift in weight and steering in opposite directions with the handrims will enable you to identify the tipping point.

## 6.5 Negotiating steps and kerbs



### **WARNING!**

#### **Risk of overturning**

When negotiating steps you could lose your balance and tip the wheelchair over.

- Always approach steps and kerbs slowly and carefully.
- Do not go up or down steps that are higher than 25 cm.



### **CAUTION!**

An activated anti-tipper prevents the wheelchair from tipping backwards.

- Deactivate the anti-tipper before going up or down steps or kerbs.



### **WARNING!**

#### **Risk of injury to the assistant and damage to the wheelchair**

Tilting the chair with a heavy user can hurt the assistant's back and damage the chair.

- Make sure to be able to safely control the wheelchair with a heavy user before performing a tilting maneuver.

## Going down a step with an assistant



1. Move the wheelchair right up to the kerb and hold the handrims.
2. The assistant should hold both push handles, place one foot on the tipper aid (if installed) and tilt the wheelchair backwards so that the front wheels lift off the ground.
3. The assistant should then hold the wheelchair in this position, push it carefully down the step and then tilt it forwards until the front wheels are back on the ground.



## Going up a step with an assistant



### **WARNING!**

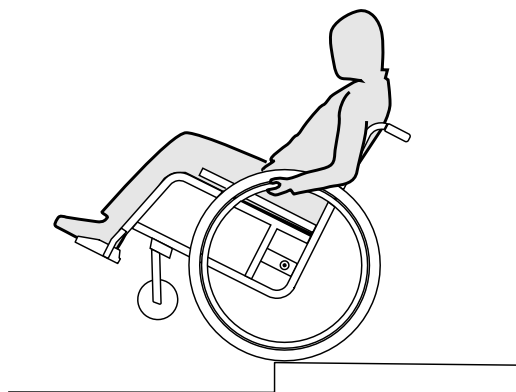
#### **Risk of serious injuries**

Going up steps and kerbs frequently can result in earlier than expected fatigue break of the wheelchair backrest. The user might fall out of the wheelchair.

– Always use a tipper aid when going up steps or kerbs.

1. Move the wheelchair backwards until the rear wheels touch the kerb.
2. The assistant should tilt the wheelchair using both push handles so that the front wheels lift off the ground, then pull the rear wheels over the kerb until the front wheels can be placed back on the ground.

## Going down a step without an assistant



### **WARNING!**

#### **Risk of tipping**

When going down a step without an assistant you could tip over backwards if you cannot control your wheelchair.

- First learn how to go down a step with an assistant.
- Learn how to balance on the rear wheels, *6.4 Driving and Steering the Wheelchair, page 31.*

1. Move the wheelchair right to the kerb, lift the front wheels and keep the wheelchair balanced.
2. Now slowly roll both rear wheels over the kerb. While doing this, hold the handrims firmly with both hands until the front wheels are back on the ground.

## 6.6 Going up and down stairs



### **WARNING!**

#### **Risk of overturning**

When negotiating stairs you could lose your balance and overturn your wheelchair.

- Always use two assistants when negotiating stairs with more than one step.



1. You can go up and down stairs by taking them one step at a time, as described above. The first assistant should stand behind the wheelchair holding the push handles. The second assistant should hold a solid part of the front frame to steady the wheelchair from the front.

## 6.7 Negotiating Ramps and Slopes



### **WARNING!**

#### **Risk due to wheelchair being out of control**

When negotiating slopes or gradients your wheelchair could tip backwards, forwards or sideways.

- Always have an assistant behind the wheelchair when approaching long slopes.
- Avoid lateral slopes.
- Avoid slopes of more than 7°.
- Avoid jerking when changing direction on a slope.



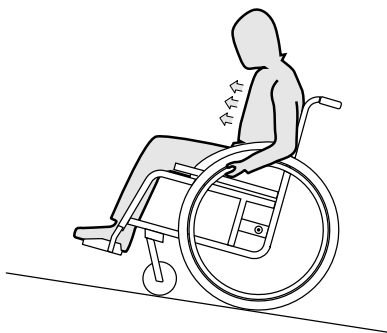
### **CAUTION!**

Your wheelchair could run away even on slightly sloping ground if you do not control it using the handrims.

- Use the parking brakes if your wheelchair is stationary on sloping ground.

### **Going up slopes**

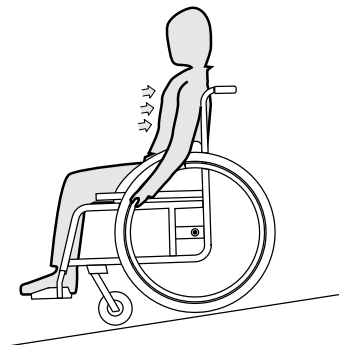
To go up a slope, you must create some momentum, keep up the momentum and control the direction at the same time.



1. Bend your upper body forwards and propel the wheelchair with quick, powerful strokes on both handrims.

### Going down slopes

When going down slopes, it is important to control your direction and particularly your speed.



1. Lean back and carefully allow the handrims to run through your hands. You should be able to stop the wheelchair at any time by gripping the handrims.



### CAUTION!

#### **Risk of burning your hands.**

If you brake for a long time, a lot of frictional heat is produced at the handrims (especially anti slip handrims).

– Wear suitable gloves.

## 6.8 Stability and balance when seated

Some everyday activities and actions require you to lean forwards, sideways or backwards out of the wheelchair. This has a major effect on the wheelchair's stability. To keep your balance at all times, proceed as follows:

### Leaning forwards



#### **WARNING!**

##### **Risk of falling out**

If you lean forwards out of the wheelchair you could fall out of it.

- Never bend too far forwards and do not shift forwards in your seat to reach an object.
- Do not bend forwards between your knees to pick up something off the floor.



1. Point the front wheels forwards. (To do this, move your wheelchair forwards slightly then back again.)
2. Apply both parking brakes.
3. When leaning forwards your upper body must remain over the front wheels.

### Reaching backwards

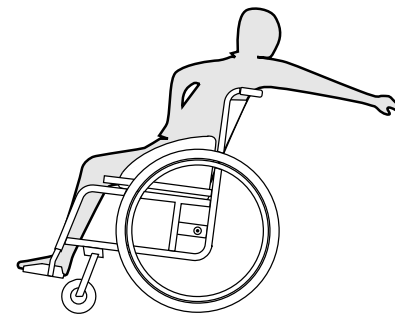


#### **WARNING!**

##### **Risk of falling out**

If you lean too far backwards you could tip your wheelchair over.

- Do not lean out over the backrest.
- Use an antitipper device.



1. Point the front wheels forwards. (To do this, move your wheelchair forwards slightly then back again.)
2. Do not apply the parking brakes.
3. When reaching backwards do not reach so far that you have to change your sitting position.

## 7 Transport

### 7.1 Safety information



#### **WARNING!**

**Risk of injury if the wheelchair is not properly secured**

In the event of an accident, braking manoeuvre, etc. you may suffer serious injuries from flying wheelchair parts.

- Always remove the rear wheels when transporting the wheelchair.
- Firmly secure all wheelchair components in the means of transport to prevent them from coming loose during the journey.



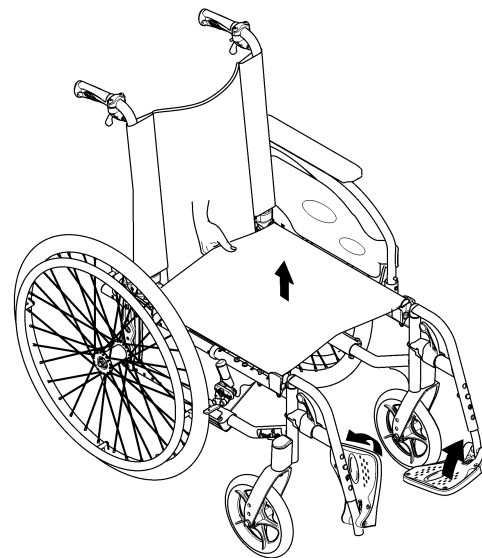
#### **IMPORTANT!**

Excessive wear and abrasion could affect the strength of load-bearing parts.

- Do not pull your wheelchair across abrasive surfaces without the wheels fitted (e.g. pulling the frame over tarmac).

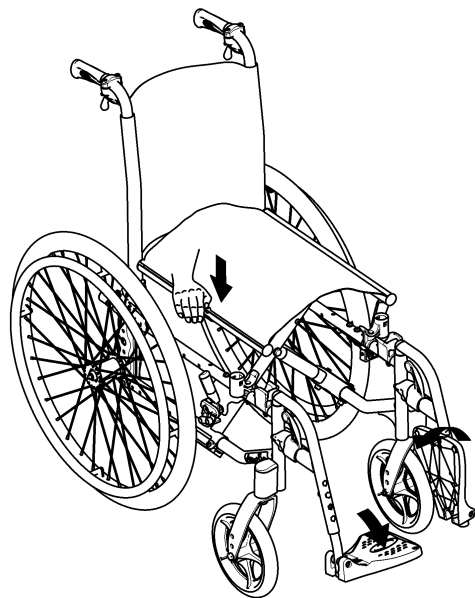
### 7.2 Folding and unfolding the wheelchair

#### Folding the wheelchair



1. Remove the seat cushion, if present.
2. Fold the backbrace, if present.
3. Fold the foot plates upwards.
4. Pull the seat cover upwards.

## Unfolding the wheelchair



### CAUTION!

#### Risk of getting fingers caught

There is a risk of getting your fingers caught between the seat edge and the frame.

- Never clasp the seat edge with your fingers.

1. Position the wheelchair next to you.
2. Tilt the wheelchair, if possible, gently towards you.
3. With your hand flat, press the seat edge closest to you, so that the seat surface flattens out.

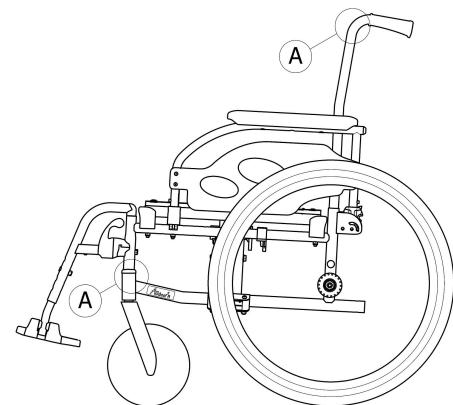
4. Put the wheelchair back completely on the floor and check that the seat edges on both sides are in the guide components.
5. Fold the foot plates down.
6. Unfolding the backbrace, if present.

## 7.3 Lifting the wheelchair



### IMPORTANT!

- Never lift the wheelchair by removable parts (armrests, footrests).
- Ensure the backrest posts are securely in place.



1. Fold the wheelchair, see chapter 7.2 *Folding and unfolding the wheelchair*, page 37.
2. Always lift the wheelchair by gripping the frame at points A.

## 7.4 Removing and fitting the rear wheels

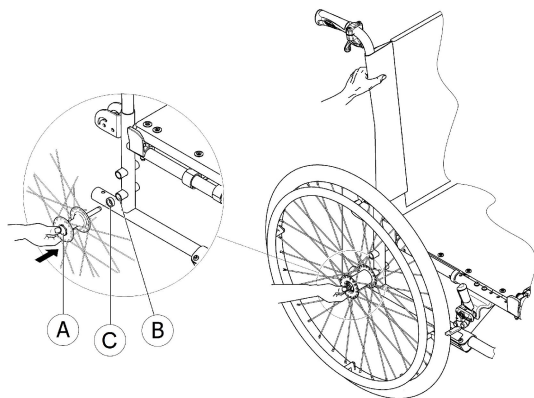


### WARNING!

#### Risk of overturning

If the removable axle of a rear wheel is not fully engaged, the wheel can become loose during use. This can lead to overturning.

- Always ensure that the removable axles are fully engaged whenever you fit a wheel.



### Removing the rear wheels

1. Release the brakes.
2. With one hand, hold the wheelchair upright.
3. With the other, hold the wheel through the external spoke rim around the wheel hub.
4. Using your thumb, press the removable axle button (A). Keep it pressed and pull the wheel out of the adapter sleeve (B).

### Fitting the rear wheels

1. Release the brakes.
2. With one hand, hold the wheelchair upright.
3. With the other, hold the wheel through the external spoke rim around the wheel hub.
4. Using your thumb, press the removable axle button (A) and hold it down.
5. Push the axle into the adapter sleeve (B) up to the stop.
6. Make sure that the spacer (C) is in place, if present.
7. Release the removable axle button and make sure that the wheel is secure.



### IMPORTANT!

- Always make sure that the spacer (C) is in place with standard rear wheels (Not present with drum brake rear wheels).

## 7.5 Transporting the Mobility Device without Occupant



### CAUTION!

#### Risk of injury

- If you are unable to fasten your mobility device securely in a transport vehicle, Invacare recommends that you do not transport it.

Your mobility device may be transported without restrictions, whether by road, rail or by air. Individual transport companies have, however, guidelines which can possibly restrict or forbid certain transport procedures. Please ask the transport company regarding each individual case.

- Invacare strongly recommends securing the mobility device to the floor of the transporting vehicle.



## 8 Maintenance

### 8.1 Safety information


**WARNING!**

Some materials deteriorate naturally over time. This could result in damage to wheelchair components.

- Your wheelchair should be checked by a qualified technician at least once a year or if it has not been used for a long period.


**Packaging for return**

The wheelchair shall be sent to the authorized provider in an appropriate packaging to avoid damage during the shipment.

### 8.2 Maintenance Schedule

To ensure safe and reliable operation, carry out the following visual checks and maintenance regularly or have it carried out by another person.

	weekly	monthly	annually
Check the tyre pressure	x		
Check that rear wheels are seated correctly	x		
Check posture belt	x		

	weekly	monthly	annually
Check the folding mechanism		x	
Check the castors		x	
Check bolts		x	
Check spokes		x	
Check parking brakes		x	
Have wheelchair checked by a qualified technician			x

**General visual check**

1. Examine your wheelchair for loose parts, cracks or other defects.
2. If you find anything, stop using your wheelchair immediately and contact an authorized provider.

**Check the tyre pressure**

1. Check the tyre pressure, see section “Tyres” for more information.
2. Inflate the tyres to the required pressure.
3. Check the tyre tread at the same time.
4. If necessary, change the tyres.

### Check that rear wheels are seated correctly

1. Pull on the rear wheel to check that the removable axle is seated correctly. The wheel should not come off.
2. If the rear wheels are not engaged properly, remove any dirt or deposits. If the problem persists, have the removable axles re-fitted by a qualified technician.

### Check posture belt

1. Check that the posture belt is adjusted correctly.



#### **IMPORTANT!**

- Loose posture belts must be adjusted by an authorized provider.
- Damaged posture belts must be replaced by a qualified technician.

### Check the folding mechanism

1. Check that the folding mechanism is easy operating.

### Check the castors

1. Check that the castors turn freely.
2. Remove any dirt or hair from the castor bearings.
3. Faulty or worn out castors must be replaced by a qualified technician.

### Check the bolts

Bolts can work loose through constant use.

1. Check that the bolts are tight securely and without free play (on the footrest, castor, castor housing, seat cover, sides, backrest, frame, seat module).
2. Tighten any loose bolts with the suitable torque. Therefore refer to the Service Manual, available on the internet at [www.invacare.eu.com](http://www.invacare.eu.com).



#### **IMPORTANT!**

- Self-locking screws/nuts or thread-locking adhesive are used for several connections. If these are loosened, they must be replaced by new self-locking screws/nuts or they must be secured using new thread-locking adhesive.
- Self-locking screws/nuts must be replaced by a qualified technician.

### Check the spoke tension

The spokes should not be loose or distorted.

1. Loose spokes must be tightened by a qualified technician.
2. Broken spokes must be replaced by a qualified technician.

### Check the parking brakes

1. Check that the parking brakes are positioned correctly. The brake is set correctly if the brake shoe depresses the tyre by a few millimeters when the brake is engaged.
2. If you find that the setting is not correct, have the brakes correctly adjusted by a qualified technician.

**IMPORTANT!**

The parking brakes must be reset after replacing the rear wheels or changing their position.

**Checking after a heavy collision or blow****IMPORTANT!**

The wheelchair can sustain visibly undetectable damage as a result of a heavy collision or hard blow.

- It is essential to have your wheelchair checked by a qualified technician after a heavy collision or hard blow.

**Repairing or changing an inner tube**

1. Remove the rear wheel and release any air from the inner tube.
2. Lift one tyre wall away from the rim using a bicycle tyre lever. Do not use sharp objects such as a screwdriver which could damage the inner tube.
3. Pull the inner tube out of the tyre.
4. Repair the inner tube using a bicycle repair kit or, if necessary, replace the tube.
5. Inflate the tube slightly until it becomes round.
6. Insert the valve into the valve hole on the rim and place the tube inside the tyre (the tube should lie right round the tyre with no creases).
7. Lift the tyre wall over the edge of the rim. Start close to the valve and use a bicycle tyre lever. When doing this, check all the way round to ensure that the inner tube is not trapped between the tyre and the rim.
8. Inflate the tyre to the maximum operating pressure. Check that no air is escaping from the tyre.

**Spare parts**

All spare parts may be obtained from an Invacare authorized provider.

**8.3 Cleaning and Disinfection****8.3.1 General Safety Information****CAUTION!****Risk of Contamination**

- Take precautions for yourself and use appropriate protective equipment.

**IMPORTANT!**

Wrong fluids or methods can harm or damage the product.

- All cleaning agents and disinfectants used must be effective, compatible with one another and must protect the materials they are used to clean.
- Never use corrosive fluids (alkalines, acid etc.) or abrasive cleaning agents. We recommend an ordinary household cleaning agent such as dishwashing liquid, if not specified otherwise in the cleaning instructions.
- Never use a solvent (cellulose thinner, acetone etc.) that changes the structure of the plastic or dissolves the attached labels.
- Always make sure that the product is completely dried before taking it into use again.



For cleaning and disinfection in clinical or long-term care environments, follow your in-house procedures.

### 8.3.2 Cleaning Intervals



#### IMPORTANT!

Regular cleaning and disinfection enhances smooth operation, increases the service life and prevents contamination.

Clean and disinfect the product

- regularly while it is in use,
- before and after any service procedure,
- when it has been in contact with any body fluids,
- before using it for a new user.

### 8.3.3 Cleaning



#### IMPORTANT!

Dirt, sand and seawater can damage the bearings and steel parts can rust if the surface is damaged.

- Only expose the wheelchair to sand and seawater for short periods and clean it after every trip to the beach.
- If the wheelchair is dirty, wipe off the dirt as soon as possible with a damp cloth and dry it carefully.

1. Remove any options fitted (only options which do not require tools).
2. Wipe down the individual parts using a cloth or soft brush, ordinary household cleaning agents (pH = 6 - 8) and warm water.

3. Rinse the parts with warm water.
4. Thoroughly dry the parts with a dry cloth.



Car polish and soft wax can be used on painted metal surfaces to remove abrasions and restore gloss.

### Cleaning upholstery

For cleaning upholstery refer to the instructions on the labels of the seat, cushion and backrest cover.



If possible, always overlap hook and loop strips (the self-gripping parts) when washing, to minimize lint and thread build-up on hook strips and prevent damage to upholstery fabric by these.

### 8.3.4 Disinfection

The wheelchair may be disinfected by spraying or wiping with tested, approved disinfectants.



Spray a soft cleaning and disinfecting product (bactericidal and fungicide meeting the EN1040 / EN1276 / EN1650 standards) and follow the instructions given by the manufacturer.

1. Wipe down all generally accessible surfaces with a soft cloth and ordinary household disinfectant.
2. Allow the product to air-dry.

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## 9 Troubleshooting

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### 9.1 Safety information

Faults may arise as a result of daily use, adjustments or changing demands on the wheelchair. The table below shows how to identify and repair faults.

Some of the actions listed must be carried out by a qualified technician. These are indicated. We recommend that *all* adjustments are carried out by a qualified technician.

**CAUTION!**

- If you notice a fault with your wheelchair, e.g. a significant change in handling, stop using your wheelchair immediately and contact your provider.

## 9.2 Identifying and repairing faults

Fault	Possible cause	Action
The wheelchair does not travel in a straight line	Incorrect tyre pressure on one rear wheel	Correct tyre pressure, → <i>11.2 Tyres, page 49</i>
	One or more spokes broken	Replace faulty spoke(s), → qualified technician
	Spokes tightened unevenly	Tighten loose spokes, → qualified technician
	Castor bearings are dirty or damaged	Clean the bearings or replace the castor, → qualified technician
The brakes are gripping poorly or asymmetrically	Incorrect tyre pressure in one or both rear tyres	Correct tyre pressure, → <i>11.2 Tyres, page 49</i>
	Brake setting incorrect	Correct the brake setting, → qualified technician
Rolling resistance is very high	Tyre pressure in rear tyres is too low	Correct tyre pressure, → <i>11.2 Tyres, page 49</i>
	Rear wheels not parallel	Ensure the rear wheels are parallel, → qualified technician
The castors wobble when moving fast	Too little tension in castor bearing block	Tighten the nut on the bearing block axle slightly, → qualified technician
	Castor has worn smooth	Change castor, → qualified technician
The castor is stiff or stuck	Bearings are dirty or faulty	Clean the bearings or replace the castor, → qualified technician

## 10 After Use

### 10.1 Storage

- ! IMPORTANT!**
- Risk of damage to the product
    - Do not store the product near heat sources.
    - Never store other items on top of the wheelchair.
    - Store the wheelchair indoors in a dry environment.
    - Refer to temperature limitation in chapter 11 *Technical Data, page 48.*

After long-term storage (more than four months) the wheelchair must be inspected in accordance to chapter 8 *Maintenance, page 41.*

### 10.2 Disposal

Be environmentally responsible and recycle this product through your recycling facility at its end of life.

Disassemble the product and its components, so the different materials can be separated and recycled individually.

The disposal and recycling of used products and packaging must comply with the laws and regulations for waste handling in each country. Contact your local waste management company for information.

### 10.3 Reconditioning

This product is suitable for reuse. To recondition the product for a new user, carry out the following actions:

- Inspection
- Cleaning and disinfection
- Adaptation to the new user

For detailed information, see 8 *Maintenance, page 41* and the service manual for this product.

Make sure that the user manual is handed over with the product.

If any damage or malfunction is detected, do not reuse the product.

## 11 Technical Data

### 11.1 Dimensions and weight

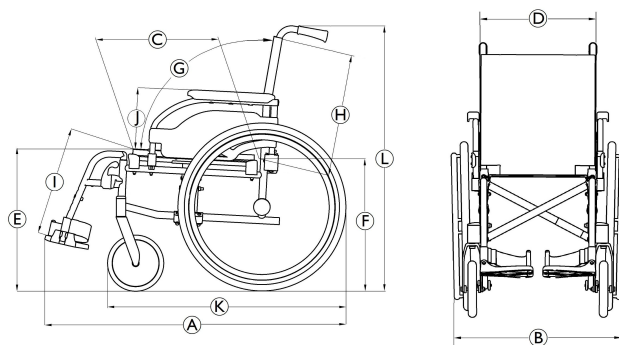
All dimension and weight specifications refer to a wide range of the wheelchair in a standard configuration. Dimension and weight (based on ISO 7176-1/5/7) may alter according to different configurations.

Dimensions of unloaded wheelchair in brackets.



#### IMPORTANT!

- In some configurations, the overall dimensions of the wheelchair when it is ready for use exceeds the authorised limits and the access to emergency escape routes is not possible.
- In some configurations, the wheelchair exceeds the size recommended for travelling by train in the EU.



	Maximum user weight	125 kg
Ⓐ	Overall length with leg rests	1085 – 1125 mm
Ⓑ	Overall width	608 – 700 mm
	Folded length	1025 mm
	Folded width	250 mm
	Folded height	735 – 950 mm
	Total mass	from 17,5 kg
	Mass of the heaviest part	10 – 14 kg
	Static stability downhill	0° – 18°
	Static stability uphill	0° – 9°
	Static stability sideways	0° – 19°
	Seat plane angle	3° – 7° (3°)
Ⓒ	Effective seat depth	450 – 470 (425) mm
Ⓓ	Effective seat width	355 – 480 (380 – 505) mm, in increments of 25 mm
Ⓔ	Seat surface height at front edge	438 – 488 (495) mm, in increments of 50 mm
Ⓕ	Seat surface height at rear edge	416 – 436 mm, in increments of 50 mm
Ⓖ	Backrest angle (fixed)	9° (0° - 7°)
Ⓗ	Backrest height	450 – 470 (430) mm



①	Footrest to seat distance	335 – 460 (330 – 455) mm, in increments of 25 mm
	Leg to seat surface angle	106° / 0° – 80° (70°)
①	Armrest to seat height	251 – 265 (240) mm
	Front location of armrest structure	290 – 305 mm
	Hand rim diameter	535 mm
	Horizontal location of axle	10 – 47 mm
	Minimum turning radius	915 mm
	Stowage width	250 mm
	Stowage height	735 – 1050 mm
	Stowage length	1025 mm
Ⓚ	Overall length without leg rests	835 – 875 mm
Ⓛ	Overall height	950 mm
	Pivot width	1280 mm
	Maximum slope angle brake	7°

## 11.2 Tyres

The ideal pressure depends on the tyre type:

Tyre	Max. pressure		
Solid tyre: 610 mm (24"); 305 mm (12")	-	-	-
Pneumatic profiled tyre: 610 mm (24")	4.5 bar	450 kPa	65 psi
Solid tyre: 200 mm (8")	-	-	-



The compatibility of the tyres listed above depends on the configuration and/or model of your wheelchair.



In case of a tyre puncture consult a suitable workshop (e.g. bike repair shop, bicycle dealer ...) to have the tube replaced by a skilled person.



The size of the tyre is mentioned on the sidewall of the tyre. The change of appropriate tyres must be carried out by a qualified technician.





### CAUTION!

– The tyres pressure have to be equal in both wheels to avoid a less driving comfort, to keep the brakes efficiency and an easy propelling of the wheelchair.

### 11.3 Materials

Frame/backrest tubes	Aluminum, Steel
Upholstery (seat and backrest)	Foam PUR, Fabric Nylon and Polyester
Push handles	PVC
Plastic parts like brake handles, clothes guards, foot plates, armpads and parts of most options	Thermoplastic (e.g. PA, PP, ABS and PUR) according to marking on the parts
Folding mechanism / vertical brace / clamping parts / castor forks	Aluminum, Steel
Screws, washers and nuts	Steel

 All materials used are protected against corrosion. We use only REACH compliant materials and components.

 Theft and metal detection systems: in seldom cases the materials used in the wheelchair may activate theft and metal detection systems.

### 11.4 Environmental conditions

	Storage and transportation	Operation
Temperature	-20 °C to 40 °C	-5 °C to 40 °C

Relative humidity	20 % to 90 % at 30 °C, not condensing
Atmospheric pressure	800 hPa to 1060 hPa



Be aware that when a wheelchair has been stored under low temperatures, it must be adjusted to chapter 8 *Maintenance*, page 41 before use.



## Invacare distributors

### United Kingdom:

Invacare Limited  
Pencoed Technology Park, Pencoed  
Bridgend CF35 5AQ  
Tel: (44) (0) 1656 776 222  
Fax: (44) (0) 1656 776 220  
uk@invacare.com  
www.invacare.co.uk

### Ireland:

Invacare Ireland Ltd,  
Unit 5 Seatown Business Campus  
Seatown Road, Swords, County Dublin  
Tel : (353) 1 810 7084  
Fax: (353) 1 810 7085  
ireland@invacare.com  
www.invacare.ie

### Australia:

Invacare Australia Pty. Ltd.  
1 Lenton Place, North Rocks NSW 2151  
Australia  
Phone: 1800 460 460  
Fax: 1800 814 367  
orders@invacare.com.au  
www.invacare.com.au

### New Zealand:

Invacare New Zealand Ltd  
4 Westfield Place, Mt Wellington 1060  
New Zealand  
Phone: 0800 468 222  
Fax: 0800 807 788  
sales@invacare.co.nz  
www.invacare.co.nz

### Asia:

Invacare Asia Ltd.  
1 Lenton Place, North Rocks NSW 2151  
Australia  
Phone: (61) (02) 8839 5333  
Fax: (61) (02) 8839 5343  
asiasales@invacare.com  
www.invacare.com



Invacare France Operations SAS  
Route de St Roch  
F-37230 Fondettes  
France

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