



Invacare® Action Vertic

en Medium 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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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 price lists.

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 representative. 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 manual

Symbols and signal words are used in this manual 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.



This product complies with Directive 93/42/EEC concerning medical devices. The launch date of this product is stated in the CE declaration of conformity.



Manufacturer of the product.

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 Standards and Regulations

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

The vehicle was successfully tested according to international standards as to its safety. It satisfies the requirements according to RoHS 2011/65/EU, REACH 1907/2006/EC, EN 12183 including a test for flammability (EN 1021-2 or ISO 8191-2) and ISO 7176-14. It was also tested successfully according to EN 60529 IPX4 as to its resistance to spray water, and is therefore well suited for weather conditions such as typical European weather conditions.

1.6 Intended use

The medium active wheelchair is propelled manually and should only be used for independent or assisted transport of a disabled person with mobility difficulties. This manual wheelchair is intended to provide mobility to persons ages 15 and up (adolescents and adults) with a maximum weight capacity of 115 kg. The device is indicated to provide mobility to persons limited to sitting position. It is intended for active users who wish to position themselves vertically during the day for medical or professional reasons. When used without an assistant, it should only be used by persons who are physically and mentally able to use the wheelchair safely (e.g. to propel themselves, steer, brake). The wheelchair should only be used on level ground and accessible terrain, as well as indoors.



This medium active wheelchair needs to be subscribed and fit to your specific health condition.



It is important that you comply with the vertical positioning protocol (duration, frequency, posture, maximum verticality angle, ...) which has been prescribed by your physical therapist.



WARNING!

Any other or incorrect use could lead to hazardous situations.

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

**CAUTION!**

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



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

1.7 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 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 an authorized dealer.



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 competent person who has fully risk assessed the implication of any changes to the wheelchair configuration. Therefore, consult with your distributor.



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.

**WARNING!****Risk of injury during transport**

The wheelchair is not approved to be transported in vehicles, using the ordinary attachment points.

- Do not transfer the wheelchair either occupied or unoccupied in vehicles using the ordinary attachment points.
- Transport the wheelchair as luggage, for example in the trunk of a vehicle.

**WARNING!****Wheelchair Tie Down Restraints**

- Wheelchair users should NOT be transported in vehicles of any kind while in wheelchairs. As of this date, the Department of Transportation has not approved any tie-down systems for transportation of a user while in a wheelchair, in a moving vehicle of any type.
- It is Invacare's position that users of wheelchairs should be transferred into appropriate seating in vehicles for transportation and use be made of the restraints made available by the auto industry. Invacare cannot and does not recommend any wheelchair transportation systems.

**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 antitipper, 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 chair, especially when used in combination with recliner backrests.

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

2.2 Safety information on electromagnetic interference

This wheelchair was successfully tested in accordance with International standards as to its compliance with Electromagnetic Interference (EMI) regulations. However, electromagnetic fields, such as those generated by radio and television transmitters, and cellular phones can influence the functions of wheelchairs with electric device. Also, the electronics used in our wheelchairs can generate a low level of electromagnetic interference, which however will remain

within the tolerance permitted by law. For these reasons we ask you to please observe the following precautions:



WARNING!

Risk of malfunction due to electromagnetic interference

- Do not switch on or operate portable transceivers or communication devices (such as radio transceivers or cellular phones) when the electric device is switched on.
- Avoid getting near strong radio and television transmitters.
- Adding electrical accessories and other components or modifying the electric device in any way can make it susceptible to electromagnetic interference. Keep in mind that there is no sure way to determine the effect such modifications will have on the overall immunity of the electronic system.
- Report all occurrences of unintentional movement of the electric device to your authorized dealer.

2.3 Safety information on changes and modifications



WARNING!

Risk of serious injury or damage

- Use of incorrect or improper replacement (service) parts may cause injury or damage
- Replacement parts **MUST** match original Invacare parts.
 - Always provide the wheelchair serial number to assist in ordering the correct replacement parts.

**CAUTION!****Risk of injuries and damage due to unapproved components and accessory parts**

Seating systems, additions and accessory parts which have not been approved by Invacare for use with this mobility device can affect the tipping stability and increase tipping hazards.

- Only ever use seating systems, additions and accessory parts which have been approved by Invacare for this mobility device.

Seating systems which are not approved by Invacare for use with this mobility device do not, under certain circumstances, comply with the valid standards and could increase the flammability and the risk of skin irritation.

- Only use seating systems that have been approved by Invacare for this mobility device.

Electrical and electronic components which have not been approved by Invacare for use with this mobility device can cause fire hazards and lead to electromagnetic damage.

- Only ever use electrical and electronic components which have been approved by Invacare for this mobility device.

Batteries which have not been approved by Invacare for use with this mobility device can cause chemical burns.

- Only ever use batteries which have been approved by Invacare for this mobility device.

**CAUTION!****Risk of injuries, and damage, if unapproved backrests are used**

A retrofitted backrest which is not approved by Invacare for use with this mobility device may overload the backrest tube and thus increase the risk of injuries and of damage to the mobility device.

- Please contact your authorized dealer who will perform risk analyses, calculations, stability checks etc. to ensure that the backrest can be used safely.

**CE marking of the mobility device**

- The conformity assessment/CE marking was carried out in accordance with Directive 93/42 EEC and only applies to the complete product.
- The CE marking is invalidated if components or accessories are replaced or added that have not been approved for this product by Invacare.
- In this case, the company that adds or replaces the components or accessories is responsible for the conformity assessment/CE marking or for registering the mobility device as a special design and for the relevant documentation.

2.4 Safety devices



WARNING!

Risk of accidents

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

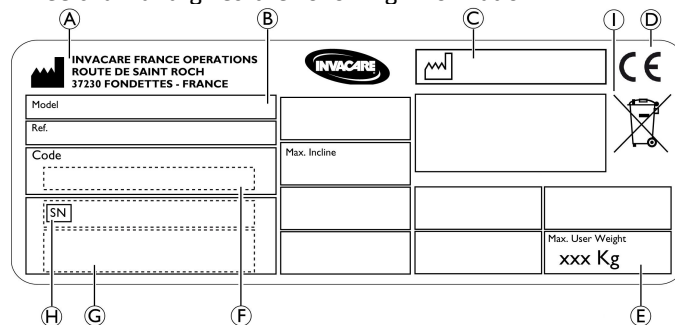
- Always check that the safety devices are working before you use the wheelchair and have them checked regularly by the authorized dealer.

The functions of the safety devices are described in chapter *Product Overview*.



2.5 Labels and symbols on the product

Identification label


The identification label is attached to the frame of your wheelchair and gives the following information:




(A)	Manufacturer's address
(B)	Product description
(C)	Date of manufacture
(D)	CE mark
(E)	Maximum user weight
(F)	Part number
(G)	Serial number barcode
(H)	Serial number
(I)	"crossed out wheelee bin"

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


Snap hook symbols

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

	<p>This product may contain substances that could be harmful to the environment if disposed of in places (landfills) that are not appropriate according to legislation.</p> <p>The “crossed out wheelie bin” symbol is placed on this product to encourage you to recycle wherever possible.</p>
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Electrical shock protection

	<p>Type B applied part</p> <p>According to IEC60601–1, comply with protection against electrical shock specified requirements</p>
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3 Components and their functions

3.1 Overview



Ⓐ	Chest cushion
Ⓑ	Back
Ⓒ	Rear wheel with handrim
Ⓓ	Parking brake
Ⓔ	Frame
Ⓕ	Front wheel fork with front wheel
Ⓖ	One piece footboard
Ⓗ	Knee cushion
Ⓘ	Seat/Cushion
Ⓙ	Raising/lowering button
Ⓚ	Tubular Armrest

Short description

This is a medium active wheelchair with stand up mechanism and folded backrest.



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

3.2 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 apply 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 apply 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 apply 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 tires.

- Ensure the correct tire pressure, *3.9 Tires, page 21*.



CAUTION!

Risk of pinching or crushing

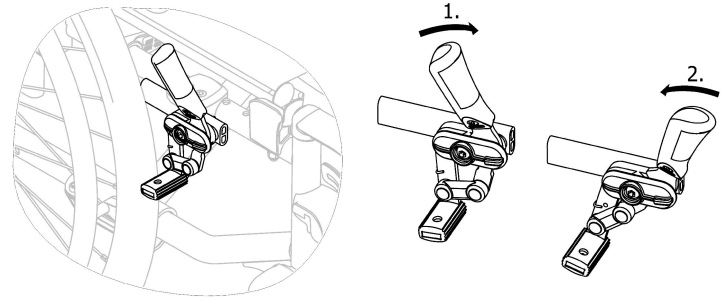
There may be a very small gap between the rear wheel and the parking brake with the risk that you could trap your fingers.

- 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 tire can be adjusted. The adjustment must be carried out by an authorized dealer.

Standard brake



1. To apply the brake, push the brake lever forwards as far as possible.
2. To release the brake, pull the brake lever backwards.



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

3.3 Backrest

Fixed backrest do not require adjustment.



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).

3.3.1 Backrest cover

You can adjust the tension of the backrest cover as required.

Adjusting the backrest cover



1. Remove the backrest cushion **A**.
2. Loosen the hook and loop strips **B** on the rear of the backrest cover by simply pulling on them.
3. Tighten or loosen the strips as required then reattach them.



WARNING!

Risk of tipping

If the bands are set very loose, the tipping point of your wheelchair is changed for the worse.

- Ensure that the bands are set correctly.



IMPORTANT!

- Do not overtighten the bands; this is to ensure that the geometry of the wheelchair is not changed.

3.4 Armrests



WARNING!

The armrest does not engage into the wheelchair.
– Therefore do not hold it in order to lift the wheelchair.



CAUTION!

Risk of pinching

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

3.4.1 Tubular armrest



Folding

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

Setting the height

1. Loosening the 2 screws (A) with 5 mm Allen key.
2. Slide tubular armrest support to the desired height and firmly tighten the 2 screws (10 Nm) (A).
3. Adjust other side accordingly, if required.

Invacare recommends that tubular armrest adjustment is carried out by an authorized dealer.

3.5 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.

3.5.1 One piece footboard



Angle and depth adjustment

The one piece footboard has 2 angle positions.

1. Unscrew the lower locking screws (A) with 4 mm Allen key.
2. Remove the upper locking screws (A) with 4 mm Allen key, sideways.
3. Position the one piece footboard assembly into the one of the two angle positions.
4. Insert the upper locking screws (A) into the pre-set holes and firmly tighten upper and lower screws (10 Nm).

Depth adjustment.

1. Remove the two locking screws (A) with 4 mm Allen key, sideways.
2. Position the one piece footboard assembly forwards or backwards to the appropriate depth.
3. Insert the two locking screws (A) into the pre-set holes and firmly tighten the screws (10 Nm).

Height adjustment

The one piece footboard has three height adjustment options.

1. Remove calf strap if necessary.
2. Remove the two locking screws (A) with 4 mm Allen key, sideways.
3. Position the one piece footboard assembly into one of three preset positions.
4. Insert the two locking screws (A) into the pre-set holes and firmly tighten the screws (10 Nm) into the desired position.

Invacare recommends that angle and depth adjustment are carried out by an authorized dealer.

Calf strap adjustment



To ensure a good position of the feet the calf strap (A) is attached to the leg rest support and adjustable by hook and loop fasteners, make sure they perfectly overlap.

3.6 Chest and Knee cushions

Chest and knee cushions contribute to comfort and good posture during verticalization.



WARNING! **Risk of falling**

Chest and knee cushions that are incorrectly set or fixed can lead to falling.
– Always check that the cushions are correctly fitted before using the wheelchair and have them set or readjusted by an authorized dealer when required.

**WARNING!****Risk of discomfort**

- When adjusting the tension of the chest strap, make sure the rib cage is not compressed based upon user's morphology.



Always check that hook and loop fasteners are well positioned and make sure they perfectly overlap.

**Chest cushion**

Chest cushion (A) and its strap (B) installation and assessment, must be carried out by an authorized dealer.

**WARNING!****Risk of injury**

- The adjustments of the chest cushion must be carried out by an authorized dealer.

Knee cushion

Knee cushion (C) and its strap (D) installation and assessment, must be carried out by an authorized dealer.

**WARNING!****Risk of injury**

- The adjustments of the knee cushion must be carried out by an authorized dealer.



These adjustments are required with reference to the user's morphology and his particular physical limits.



Make sure that the knee cushion is fitted correctly on each side. The fixations (E) must be locked into position.

3.7 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 an authorized dealer 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).

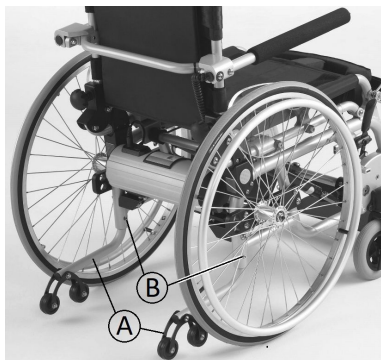


WARNING!

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.



Anti-tipper installation

Anti-tipper **A** installation must be carried out by an authorized dealer.



WARNING!

Risk of tipping

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

- Only use the anti-tipper when travelling on level ground and flat surfaces.

Setting the height



WARNING!

Risk of overturning

- The adjustments of the anti-tipper must be carried out by an authorized dealer.



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. The fixations **B** must be locked into position.

3.8 Push handle



IMPORTANT!

- Always check the push handles before using the wheelchair, as to whether the hand grips are secure, cannot be turned and cannot be pulled off.



CAUTION!

- If the fixing screws are not correctly tightened, the push handle could accidentally come off the backrest tube while pushing it upwards.
- Make sure that the fixation is firmly tightened.

Push handle installation


Push handles **A** installation must be carried out by an authorized dealer.




3.9 Tires

The ideal pressure depends on the tire type:

Tire	Max. pressure		
Solid tire: 610 mm (24")	-	-	-
Pneumatic tire: 610 mm (24")	4 bar	400 kPa	58 psi
Non marking pneumatic tire: 610 mm (24")	7 bar	700 kPa	101 psi
Solid tire: 150 mm (6")	-	-	-

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

 The size of the tire is mentioned on the sidewall of the tire. The change of appropriate tires must be carried out by an authorized dealer.



CAUTION!

– The tires 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.

3.10 Seat cushion

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



CAUTION!

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 an authorized dealer.

– We recommend to use an Invacare or Matrix cushion with anti-slip base cover in order to prevent sliding.

4 Accessories

4.1 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.

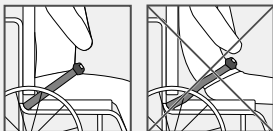


WARNING!

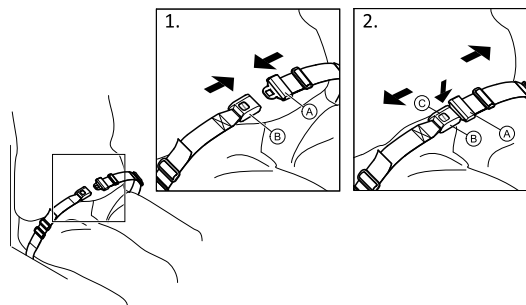
Risk of serious injury / strangulation

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



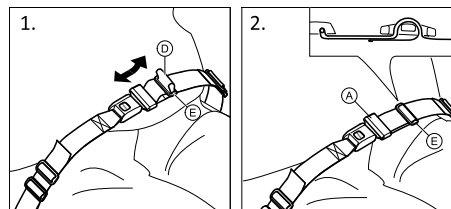
Ensure that you are sitting fully back in the seat and that the pelvis is as upright and symmetrical as possible.

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

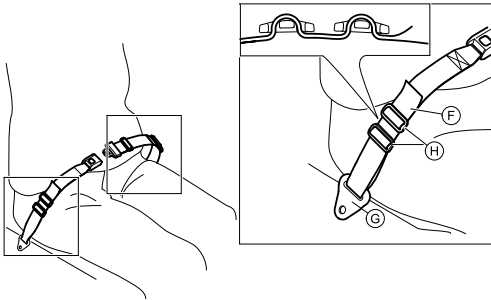
If this adjustment is not sufficient, it might be required to re-fit the posture belt at the fixations.

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 ③ and then through BOTH plastic buckles ④.

4.2 Table tray



WARNING!

Risk of tipping / injury

- Max load on the table: 5 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.

Table tray installation

Table tray ① installation must be carried out by an authorized dealer.

Depth adjustment



Slide the table tray ① 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.



The table tray  reduces accessibility to the raising/lowering button.

4.3 Air pump

The air pump is fitted with a universal valve connection. Using the correct valve connection depends of the inner tube valve type.

1. Remove the dust cap from the valve connection.
2. Push the valve connection onto the open valve on the wheel and pump the wheel up.



There are two types of pumps available:

- Low pressure <6 bars
- High pressure >6 bars

Instruction for use printed on the packaging.

4.4 Passive illumination

You can attach reflectors to the rear wheels.

5 Setup

5.1 Safety information

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

- Before using the wheelchair, check its general condition and its main functions, 8.2 *Maintenance Schedule, page 42.*

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

Adjustments of the axle position and the front wheel supporters must be carried out by an authorized dealer.

If you receive your wheelchair folded, please read section 7.2 *Folding and unfolding the wheelchair, page 39.*

6 Using the wheelchair

6.1 Safety information



WARNING!

Risk of accidents

Uneven tire pressure can have a huge effect on handling.

- Check the tire 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/ 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 apply 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 apply the parking brakes while you are moving.



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.

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 release 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. Apply the parking brakes.
3. Remove the armrests or move them upwards out of the way.
4. Detach the legrests or swing them outwards (if so equipped).
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.

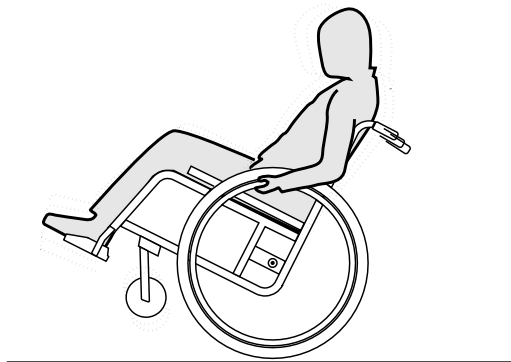


CAUTION!

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.

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!

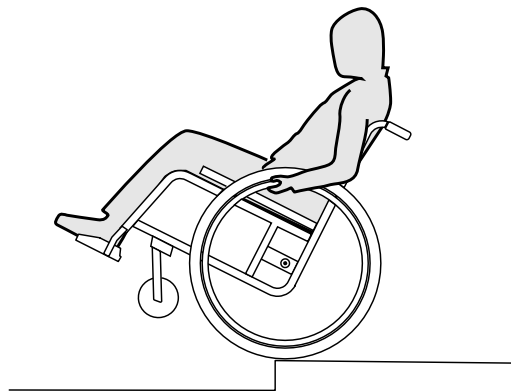
Risk of serious injuries

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 28.*

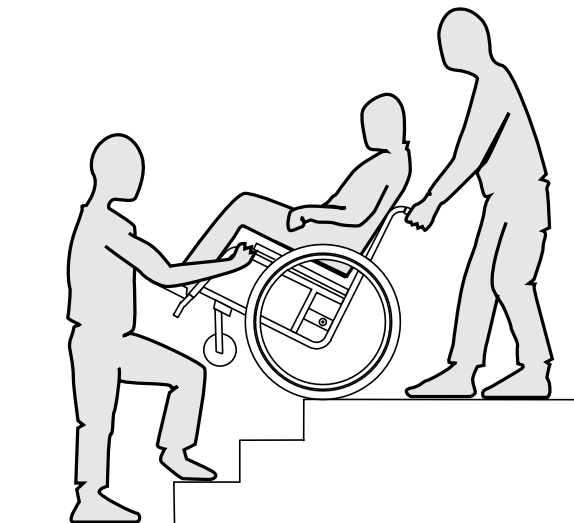
1. Move the wheelchair right to the kerb, lift the front wheels and keep the wheelchair balanced.
2. Now slowly roll both rear wheels over the kerb. While doing this, hold the handrims firmly with both hands until the front wheels are back on the ground.

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.



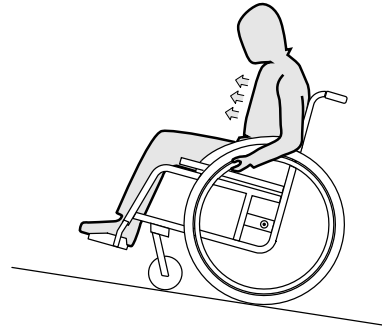
CAUTION!

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

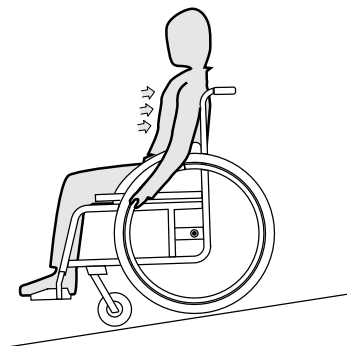
To go up a slope, you must create some momentum, keep up the momentum and control the direction at the same time.



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

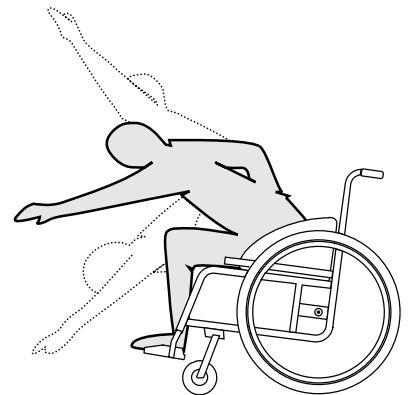


WARNING!

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.

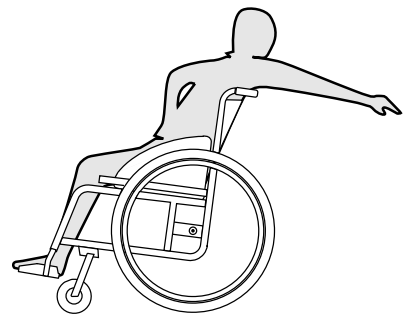
Reaching backwards



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.

6.9 Vertical positioning



WARNING!

Safety procedures

- Always operate both manual brakes to locked the rear wheels.
- Check that the chest and knee cushions, posture belt and calf straps used to support the body, are in place and well adjusted. These adjustments must be carried by an authorized dealer.
- Always make sure that no obstacle or persons (like child) interferes during the raising/lowering process as there is a risk of serious injury in case of body jamming in moving mechanical device.
- Ensure that you have the possibility of calling for assistance in case of trouble during stand up process (cell phone or alarm necklace/bracelet at hand).



CAUTION!

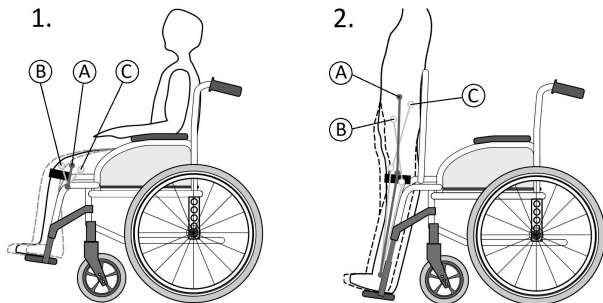
- Not operate the raising/lowering function when the charger is connected, unless battery is at very low capacity and cannot drive lowering operation.
- Battery at its maximum capacity allows about 150 cycles, depending on user's weight, before recharging.

- i** Always make sure that the ground where you want to stand up is perfectly flat and firm, without obstacle or object which might damage stability of the wheelchair and safety of the user.

Seating and standing assessment

Please comply with the vertical positioning protocol which has been prescribed by your physical therapist. It is essential that your Action Vertic is perfectly adapted to your morphology. All necessary adjustments are describe in the Service Manual, contact your authorized dealer for complete assessment.

1. Seat depth adjustment: correct position of center of knee **A**, seat depth too short **B**, seat depth too long **C**.
2. Stand up position adjustment: correct alignment of ankle/knee/hip joint **A**, knee joint hyper extended **B**, incomplete knee extension **C**.



- i** All the seating and standing assessment, the chest and knee cushions, posture belt and calf straps adjustment must be carried out by an authorized dealer with assistance of a multi-disciplinary team of qualified health advisors.

Standing up

After applying the safety procedures, you can stand up.

1. Position your forearms on armrest tubes
2. Operate raising/lowering button **A** upwards.
3. Stand up progressively (in stages) until the prescribed vertical angle.

- i** The persons around you and yourself will be advised that you are using the stand up function by a long “beep” (one tone).





CAUTION!

Risk of blockage in stand up or seating position.

During standing/seating process, you can break the raising/lowering button (A), this can cause a overly long blockage in position.

- Do not hit an obstacle with the raising/lowering button (A).



Operate raising/lowering button (A) upwards to stand up or downwards to sit back.

Sitting down

1. Keep your forearms on armrest tubes
2. Operate raising/lowering button (A) downwards.
3. Go down progressively (in stages) to the initial seating position (beeping will stop).



After no use during 30 minutes, one tone warns you the setting go in a stand-by mode.



6.10 Battery charging

Light bars (led) on battery box display A	Charging time
First use, even if any led are lighted	8 hours
The orange led just disappears	5 hours
The red led are lighted, a noise alerting the battery empty starts	8 hours



WARNING!

Risk of damage the battery

The battery can not reach its optimal load capacity.

- Do not let in charge the battery more than 10 hours.



WARNING!

Risk of electrocution, explosion and destruction of the battery or charger

- Always use the charger (HP 1202N2) supplied with wheelchair as there is a risk of explosion or destruction of the battery if poor quality or incompatible charger is used.
- Always protect the charger against humidity as there is a risk of electrocution and destruction of the charger if it is wet.
- Do not use the charger if it has been dropped or damaged as there is a risk of short-circuit and electrocution.

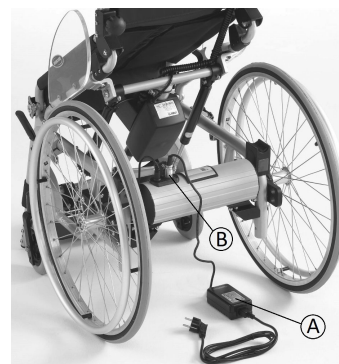


CAUTION!

Risk of fire and/or injury

- Only use an extension lead if it is absolutely necessary as there is a risk of fire or injury if a damage one is used.
- If there is no other choice, make sure the extension lead is in good condition and compatible with the charge power.
- Not operate the raising/lowering function when the charger is connected, unless battery is at very low capacity and cannot drive lowering operation.

Battery charge

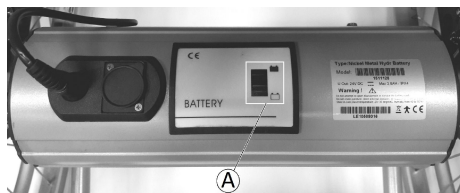


1. Connect the charger **A** using the charger plug **B** to the battery box.
2. Plug the charger into the mains, it starts automatically.
3. The red light on top of the charger turns orange.

4. The warning light on top of the charger is green, charging is finished.
5. First unplug the charger from the mains and then the charger plug **B** from the battery box.

i Warning lights on the top of the charger: red flashing = low charge load capacity, orange flashing = tension of the battery in low or overheating. Restart the charging process from step 1.

Battery box display



Light signals signification

Light bars (led) on battery box display A	Battery load level
All the green led are lighted	100%
The first green led disappears	90 – 95%
The orange led disappears, red led are lighted, a noise alerting the battery empty starts	5 – 10%

Storage and transport of the battery

i Only store battery when it is completely charged. Battery can be stored at a temperature from – 40° C to + 65° C. If the battery is stored for more than four weeks, it must be recharge once a month. This to keep full charge and prevent any deterioration by spontaneous discharge.

i The wheelchair is equipped with battery which are not considered as “dangerous equipment”. The battery conforms to regulation on dangerous goods air freight (IATA/DGR).

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

The wheelchair has a rigid frame. Nevertheless, the backrest can be folded forwards.

Folding the wheelchair



1. Remove the seat cushion, if present.
2. Loosening both knobs Ⓐ without forcing.
3. Position the two tubular armrests close to the backrest tube.
4. Pull the backrest upwards and fold it forwards on the seat.



Unfolding the wheelchair



CAUTION!

Risk of getting fingers caught

There is a risk of getting your fingers caught between the tubular armrest and the backrest.

- Never clasp the tubular armrest with your fingers.



IMPORTANT!

Risk of falling out

- Check that the backrest is completely engaged on the frame, before using the wheelchair again.

1. Position the wheelchair next to you.
2. Tilt the wheelchair, if possible, gently towards you.
3. Pull the backrest upwards and push it downwards into its bracket.
4. Tightening firmly both knobs (A).
5. Position the two tubular armrests downwards.

7.3 Lifting the wheelchair



IMPORTANT!

- Never lift the wheelchair by removable or mobile parts (rear wheels, tubular armrests).
- Ensure the backrest posts are securely in place.



1. Fold the wheelchair, see chapter 7.2 *Folding and unfolding the wheelchair*, page 39.
2. Always lift the wheelchair by gripping the frame at points (A).



Two assistants are required to lift the wheelchair, for example in the trunk of a vehicle, as the heaviest part is about 27.2 kg.

7.4 Removing and fitting the rear wheels

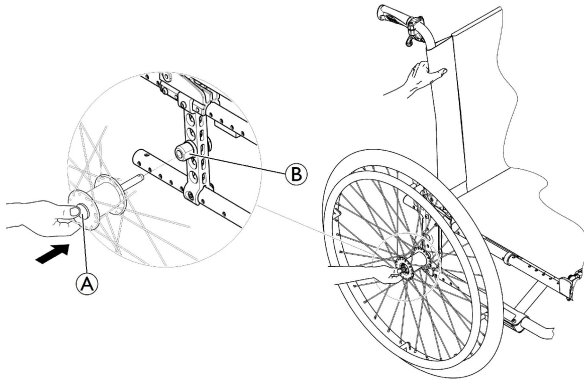


WARNING!

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 and hold it down.
5. Push the axle into the adapter sleeve (B) up to the stop.
6. Release the removable axle button and make sure that the wheel is secure.

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 authorized dealer at least once a year or if it has not been used for a long period.



Your Invacare authorized dealer can provide help in carrying out regular maintenance. To find an authorized dealer near you, contact the Invacare distributor for your country (end of this document).



Packaging for return

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

8.2 Maintenance Schedule

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

	weekly	monthly	annually
Check the tire pressure	X		
Check rear wheels are seated correctly	X		
Check posture belt	X		
Check battery load level	X		
Visual check		X	
Check stand up mechanism		X	
Clean front wheels		X	
Check bolts		X	
Check spokes		X	
Check parking brakes		X	
Have wheelchair checked by an authorized dealer			X

Check the tire pressure

1. Check the tire pressure, *3.9 Tires, page 21*.
2. Inflate the tires to the required pressure.
3. Check the tire tread at the same time.
4. If necessary, change the tires.

Check 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 an authorized dealer.

Check posture belt

1. Check that the posture belt is adjusted correctly.



IMPORTANT!

- Loose posture belts must be adjusted by an authorized dealer.
- Damaged posture belts must be replaced by an authorized dealer.

Check battery load level

1. Check that the battery load level is at 100%.

Visual check

1. Examine your wheelchair for loose parts, cracks or other defects.
2. If you find anything, have your wheelchair checked immediately by an authorized dealer.

Check stand up mechanism

1. Check that the stand up mechanism is easy operating.

Clean front wheels

1. Check that the front wheels turn freely.
2. Remove any dirt or hair from the front wheel bearings.

Check the bolts

Bolts can work loose through constant use.

1. Check that the bolts are tight (on the footrest, 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.



IMPORTANT!

- Safety nuts and bolts lose their effectiveness as a result of repeated loosening and tightening.
 - Safety nuts and bolts must be replaced by an authorized dealer.

Check the spoke tension

The spokes should not be loose or distorted.

1. Loose spokes must be tightened by an authorized dealer.
2. Broken spokes must be replaced by an authorized dealer.

Check the parking brakes

1. Check that the parking brakes are positioned correctly. The brake is set correctly if the brake shoe depresses the tire by a few millimeters when the brake is applied.
2. If you find that the setting is not correct, have the brakes correctly set by an authorized dealer.

! **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 an authorized dealer 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 tire wall away from the rim using a bicycle tire lever. Do not use sharp objects such as a screwdriver which could damage the inner tube.
3. Pull the inner tube out of the tire.
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 tire (the tube should lie right round the tire with no creases).
7. Lift the tire wall over the edge of the rim. Start close to the valve and use a bicycle tire lever. When doing this, check all the way round to ensure that the inner tube is not trapped between the tire and the rim.
8. Inflate the tire to the maximum operating pressure. Check that no air is escaping from the tire.

Spare parts

All spare parts may be obtained from an Invacare authorized dealer. A current list of spare parts is available on the internet at www.invacare.eu.com.

8.3 Cleaning

Your wheelchair will serve you well for many years if you clean it regularly.


! **IMPORTANT!**

- 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.

! **IMPORTANT!**


- Do not use coarse abrasives, aggressive cleaning products or high-pressure cleaners. Never use acids, alkalines or solvents such as acetone or cellulose thinner.
- Always use ordinary household cleaning agents.

1. Clean the cushions and metal parts with a soft, damp cloth.
2. Dry the wheelchair carefully with a cloth after using it in the rain.
3. If the wheelchair is dirty, wipe off the dirt as soon as possible with a damp cloth and dry it carefully.

 Regular cleaning will reveal loose or worn parts and enhance the smooth operation of your wheelchair. To operate properly and safely, your wheelchair must be cared for just like any other vehicle. For upholstery that is severely stained or surface finish that is badly damaged, contact an authorized dealer for further information.

Cleaning upholstery

For cleaning upholstery refer to the instructions on the label on 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.

Cleaning metal surfaces

Hot water and mild detergent on soft cloth should be use to cleaning metal surfaces.

1. Wipe down with damp cloth.
2. Dry surface by wiping down with dry cloth.

Car polish and soft wax can be used to remove abrasions and restore gloss.

Cleaning plastic surfaces

Plastic surfaces must be cleaned with soft cloth, mild detergent and hot water.



IMPORTANT!

– Do not use solvents or kitchen cleaners to clean plastic surfaces.

1. Rinse surface with clean water.
2. Dry surface by wiping down with dry cloth.

8.4 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.

9 Troubleshooting

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 tire pressure on one rear wheel	Correct tire pressure, → <i>3.9 Tires, page 21</i>
	One or more spokes broken	Replace faulty spoke(s), → authorized dealer
	Spokes tightened unevenly	Tighten loose spokes, → authorized dealer
	Front wheel bearings are dirty or damaged	Clean or replace the bearings, → authorized dealer
The brakes are gripping poorly or asymmetrically	Incorrect tire pressure in one or both rear tires	Correct tire pressure, → <i>3.9 Tires, page 21</i>
	Brake setting incorrect	Correct the brake setting, → authorized dealer
Rolling resistance is very high	Tire pressure in rear tires is too low	Correct tire pressure, → <i>3.9 Tires, page 21</i>
	Rear wheels not parallel	Ensure the rear wheels are parallel, → authorized dealer
The front wheels wobble when moving fast	Too little tension in front wheel bearing block	Tighten the nut on the bearing block axle slightly, → authorized dealer
	Front wheel has worn smooth	Change front wheel, → authorized dealer
The front wheel is stiff or stuck	Bearings are dirty or faulty	Clean or replace the bearings, → authorized dealer

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 *11.3 Environmental conditions, page 50*.

After long-term storage (more than four months) the wheelchair must be inspected in accordance to chapter *8 Maintenance, page 42*.

10.2 Re-use

The wheelchair is suitable for re-use. The following actions should be taken:

- Cleaning and disinfection, *8.3 Cleaning, page 44* and *8.4 Disinfection, page 45* in this manual.
- Inspection, *8.2 Maintenance Schedule, page 42* in this manual.
- The wheelchair should be adapted for the new user in accordance with the service documentation (available from the Invacare authorized dealer in your country).

10.3 Disposal

Be environmentally aware and dispose of your wheelchair properly. Disposal is subject to national and local regulations.



For correct disposal, contact your specialist dealer or ask your town or district council about local waste management companies.

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. In some configurations, the wheelchair exceed the recommended dimensions for a wheelchair.

Electrical system	
Raisin/lowering button	< 5 N (operating force)
Actuator Linak	4500 N
Battery pack	NI-MH 24 V 3.8 Ah (about 150 full lifts, depends of user's weight)
Main fuse	24 V T2A/250 V
Insulation class	Class II equipment
Protection class	IPX4 , the electrical system is protected against spray water

Charger HP 1202N2	
Output voltage	24 V DC
Voltage supply	100 – 240 V AC 50/60 Hz (1.0 A)

Overall length with leg rests	840 – 980 mm, one piece footboard frontwards 915 – 1040 mm, one piece footboard backwards
Overall width	570 – 670 mm in increments of 25 mm
Folded length	—
Folded width	—
Folded height	590 – 610 mm
Total mass	from 30.5 kg
Mass of the heaviest part	27.2 kg
Static stability downhill	23°
Static stability uphill	7°
Static stability sideways	16°
Seat plane angle	4°
Effective seat depth	410 – 460 / 460 – 510 mm, in increments of 25 mm
Effective seat width	380 – 480 mm, in increments of 50 mm
Seat surface height at front edge	470 / 520 mm
Seat surface height at rear edge	430 / 480 mm
Backrest angle (fixed)	0°

Backrest height	320 / 380 – 480 mm, in increments of 20 mm
Footrest to seat distance	410 – 460 mm, in increments of 25 mm
Leg to seat surface angle	75°
Armrest to seat height	150 – 230 mm, step less
Front location of armrest structure	—
Hand rim diameter	535 mm
Horizontal location of axle	10 – 50 mm
Minimum turning radius	810 mm
Stowage width	400 – 500 mm
Stowage height	500 mm
Stowage length	840 – 1040 mm
Overall length without leg rests	—
Overall height	820 – 980 mm Stand up position: from 1360 mm
Maximum user weight	115 kg
Pivot width	1265 mm
Maximum slope angle brake	7°

11.2 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 accessories	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 and RoHS compliant materials and components.

11.3 Environmental conditions

Temperature limitation	– 20° C to + 40° C
Relative humidity	20% to 75%
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 42 before use.

12 Service

12.1 Inspections performed

It is confirmed by stamp and signature that all jobs listed in the inspection schedule of the service and repair instructions have been properly performed. The list of the inspection jobs to be performed can be found in the service manual which is available through Invacare.

Delivery Inspection	1st Annual Inspection
Stamp of authorized Invacare dealer / Date / Signature	Stamp of authorized Invacare dealer / Date / Signature
2nd Annual Inspection	3rd Annual Inspection
Stamp of authorized Invacare dealer / Date / Signature	Stamp of authorized Invacare dealer / Date / Signature

4th Annual Inspection	5th Annual Inspection
Stamp of authorized Invacare dealer / Date / Signature	Stamp of authorized Invacare dealer / Date / Signature

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1648806-B.00 2019-04-10



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