

Rea® Clematis®



en Manual wheelchair passive
Service Manual



DEALER: Keep this manual.
The procedures in this manual MUST be performed by a qualified technician.



Yes, you can.

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1 General

1.1 Introduction

This document contains important information about assembly, adjustment and advanced maintenance of the product. To ensure safety when handling the product, read this document and the user manual carefully and follow the safety instructions.

Find the user manual on Invacare's website or contact your Invacare representative. See addresses at the end of this document.

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.

For pre-sale and user information, see the user manual.

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.

1.2 Delivery check

Any transport damage must be reported immediately to the transport company. Remember to keep the packaging until the transport company has checked the goods and a settlement has been reached.

1.3 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

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



Tools

Identifies required tools, components and items which are needed to carry out certain work.

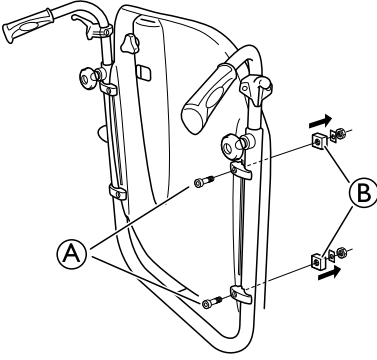
1.4 Limitation of liability

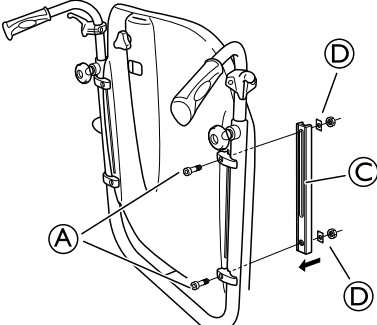
Invacare accepts no liability for damage arising from:

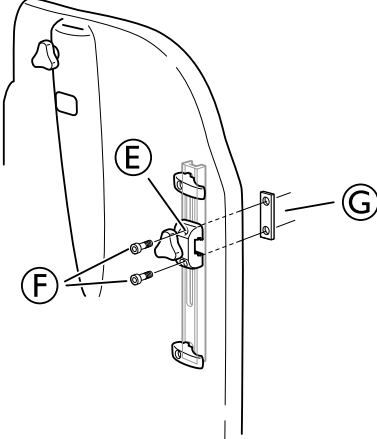
- Non-compliance with the user manual
- Incorrect use
- Natural wear and tear
- Incorrect assembly or set-up by the purchaser or a third party
- Technical modifications
- Unauthorised modifications and/or use of unsuitable spare parts

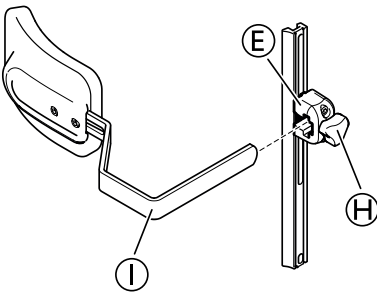
2 Assembly

2.1 Mounting the trunk support

- 

Loosen the screws **A** and remove the locking nuts **B**.
- 

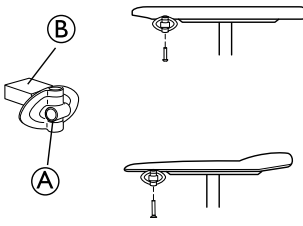
Mount the trunk support bar **C** with the screws **A** and the washers and nuts **D**.
- 

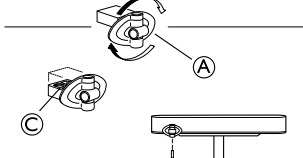
Mount the trunk support holder **E** with the screws **F** and the attachment washer **G**.
- 

Mount the trunk support **I** in the trunk support holder **E** and tighten the hand wheel **H**.

 Screwdriver

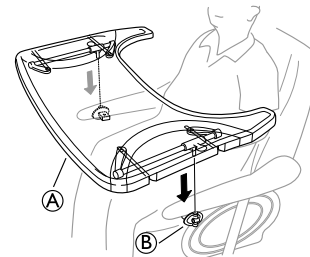
2.2 Mounting the attachment for table tray

- 

Mount the table attachment **A** with the attachment part facing outwards. The plain surface **B** of the attachment should be placed upwards when using the table on the thin armrests.
- 

To fit the table attachment **A** to the wide armrest, turn the attachment around, the patterned surface **C** should now be facing upwards.

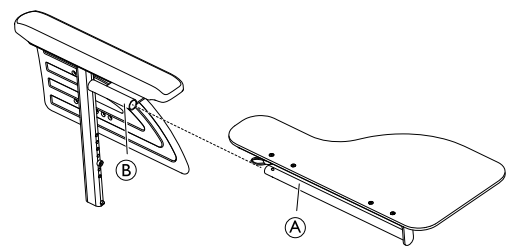
2.3 Mounting the table tray



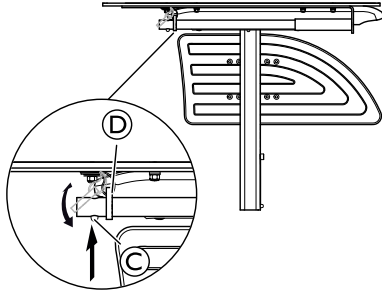
Mount the table tray **A** in the table tray attachments **B**.

2.4 Mounting the half tray

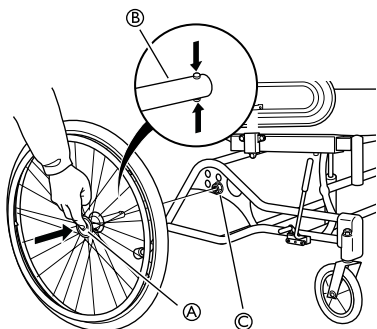
Mounting the half tray



- Insert the tube of the half tray **A** into the attachment **B** under the arm pad.


- Push on the push pin **C** and insert the ring **D** on the tube **A**.
- Release the push pin **C**.

2.5 Rear wheels



1. Press and hold in the quick-release button (A).
2. Place the rear wheel axle (B) in the rear wheel attachment (C).
3. Pull the wheels outwards to check that the wheel is securely locked in position.

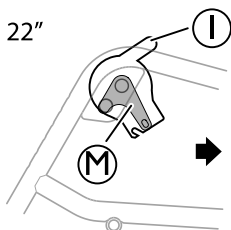


WARNING!
Risk of injury

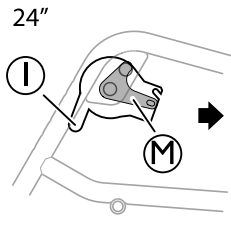
– It is really important to check that the rear wheel is securely locked in position! It should not be possible to remove the wheels when the quick-release button (A) is inactivated.

2.6 Drum brake for 22–24”

i The position of the brake unit differs depending on the rearwheel size.



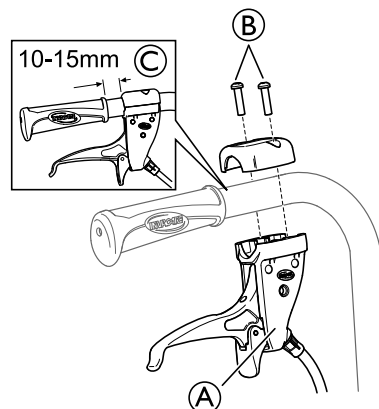
22” wheels = The wire holder (I) should be placed upwards and the attachment plate (M) as shown on the picture.



24” wheels = The wire holder (I) should be placed downwards and the attachment plate (M) as shown on the picture.

Mounting

1.



Mount the handle for the assistant maneuvered drum brake (A) on the push handle and attach the screws (B).

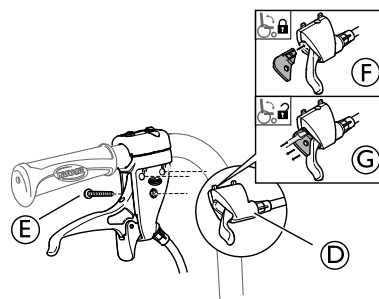


Torx T20



The distance between the handle and the handle for the assistant maneuvered drum brake must be 10 – 15 mm (C).

2.



Mount the tilt handle (D) on the brake handle unit and tighten the screw (E).

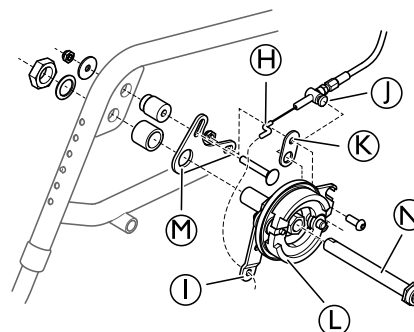


Screwdriver



There is a locking function on the tilt handle, insert the locking key (F) to lock the tilt function. Remove the locking key (G) in order to unlock the tilt function.

3.

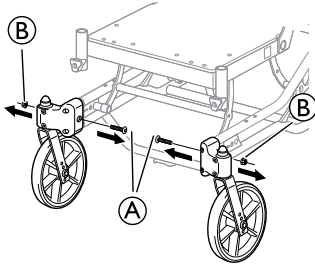


Mount the wire hook from the brake handle (H) in the wire holder (I).

4. Mount the wire (J) in the attachment washer (K) and mount the attachment washer (K) on the brake unit (L).
5. Tighten the screw.
6. Mount the attachment plate (M) on the frame of the wheelchair.
7. Mount the brake unit (L) and the rearwheel axle (N) on the attachment plate.
8. Tighten the screws.

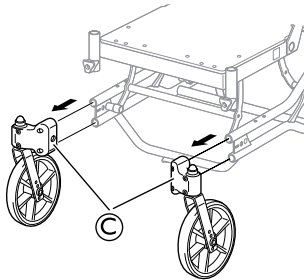
2.7 Mounting the chassis extender

1.



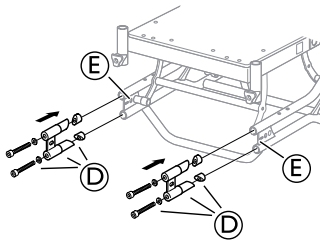
Loosen the screws **A** and the nuts **B**.

2.



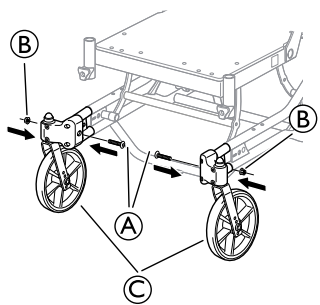
Remove the castor attachments **C**.

3.



Mount the chassis extender **D** in the chassis tubes **E** and tighten the screws.

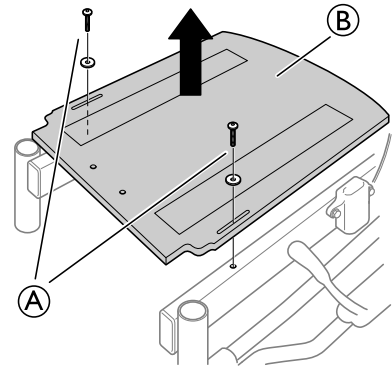
4.




Re-mount the castor attachment **C** and tighten the screws **A** and the nuts **B**.

2.8 Mounting the pommel

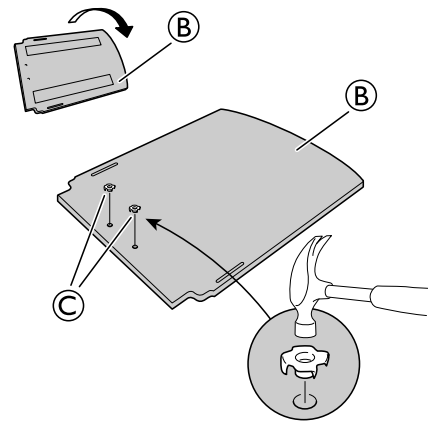
1.




Loosen the screws **A** and remove the seat plate **B**.

 5 mm allen key

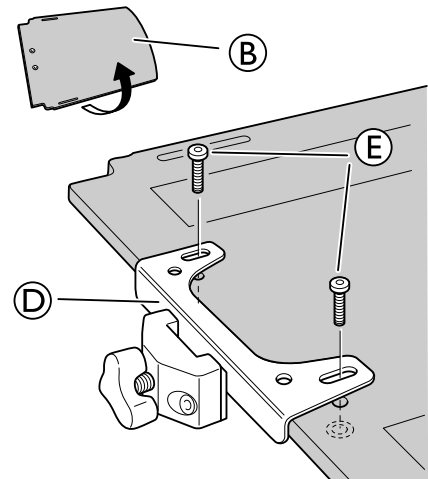
2.



Turn the seat plate **B** upside down and mount the tee nuts **C**.


 Hammer

3.

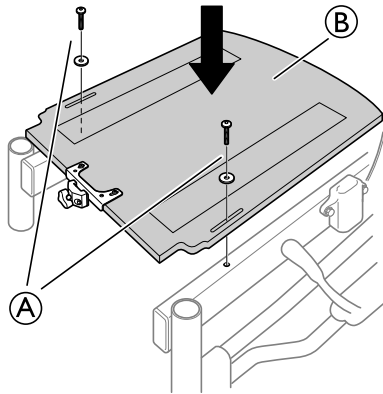


Turn the seat plate **B** back again and mount the attachment for the pommel **D**.


4. Attach the screws **E**.

 5 mm allen key

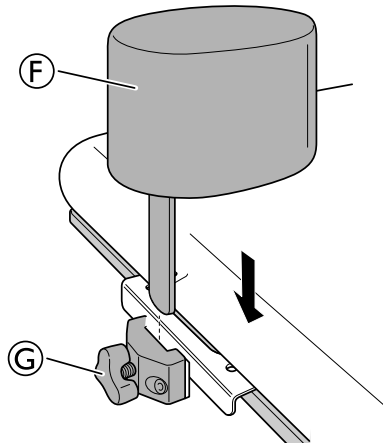
5.



Re-mount the seat plate (B) on the seat frame and tighten the screws (A).

 5 mm allen key

6.



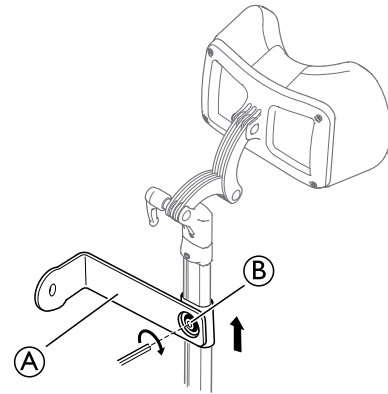
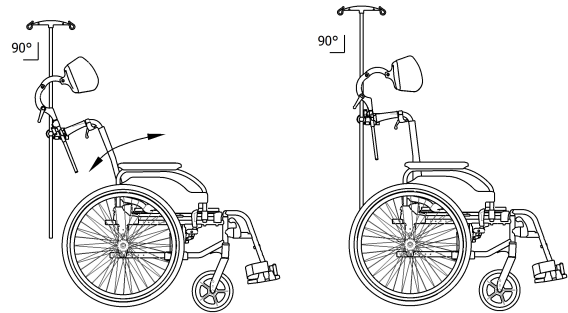
Place the pommel (F) in the attachment and tighten the handwheel (G).

2.9 Mounting the Drip stand




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 backrest or the wheelchair.

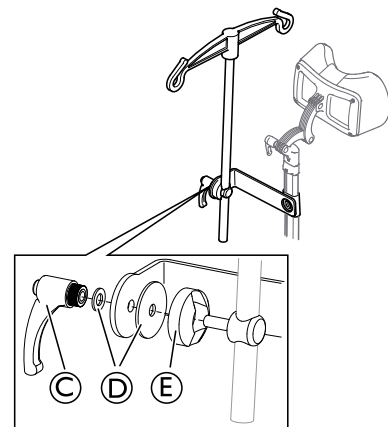
1.



Mount the holder for the drip stand (A) on the neckrest holder and tighten the screw (B).

 allen key 5 mm

2.

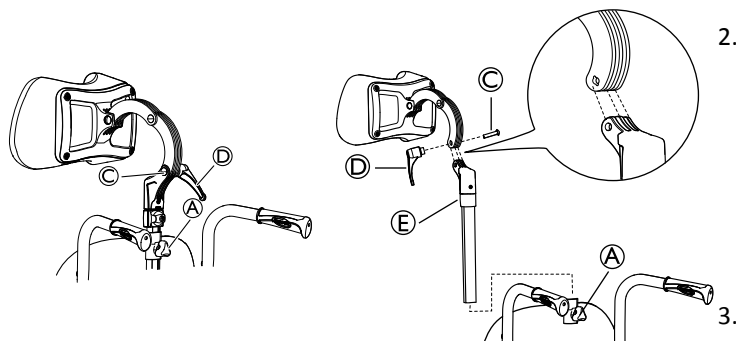


Mount the lever (C), the washers (D) and the holder with the drip stand (E) in the attachment and tighten the lever.

3 Settings and Adjustments

3.1 Positioning the headrest/neckrest to the front

i This additional depth adjustment will move the headrest another 7 cm forward.



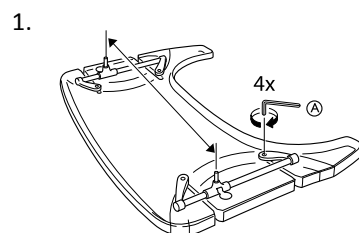
i You can also adjust the angle and depth by turning the attachment for the headrest / neckrest.

1. Loosen the handwheel (A).
2. Remove the headrest / neckrest.
3. Loosen the handle (D).
4. Remove the screw and the handle.
5. Rotate the headrest / neckrest attachment pole including the attachment (E).
6. Return the headrest / neckrest to the attachment.

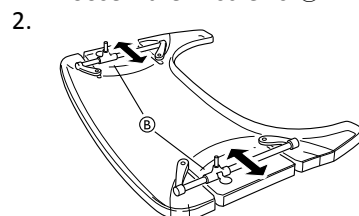
i Note that the screw to the headrest / neckrest attachment (C) and the handle (D) must be mounted on the opposite side due to the groves in the screw hole.

7. Return the headrest / neckrest to the attachment on the backrest.
8. Re-tighten the handle (D).

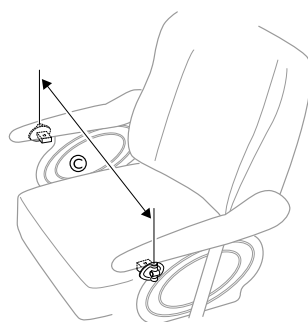
3.2 Width adjustment



Loosen the 4 screws (A).



Adjust the attachment bars (B) in order to fit the table to the desired width. Re-tighten the screws.



Fit the table to fit the width of the chair (C).

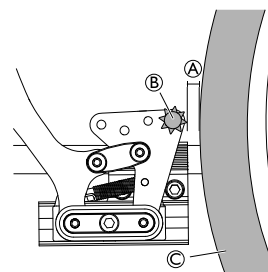
3.3 Adjusting the leg rests

To adjust the leg rests, refer to the User Manual, paragraph:

1. Swing away, angle adjustable leg rest.
2. Swing away leg rest (fixed).

i Tools: 5 mm Allen key

3.4 Adjusting the brake effect



i The distance (A) between the pin (B) and the tire (C) should be max. 2 mm.

3.4.1 User brake — adjustment

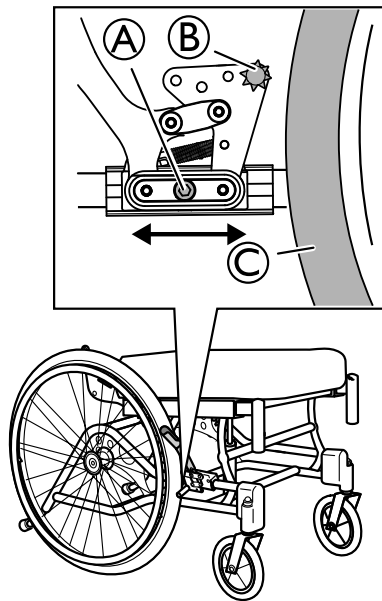
To attain the correct braking effect, the brake pin should press into the tire when you apply the brake. The brake may therefore require depth adjustment.



WARNING!

Risk of reduced brake effect

– Incorrect setting or use of the brake reduces the braking effect.



Tool: 5 mm Allen key

1. Loosen the screw (A).
2. Move the brake to the required position.
3. Re-tighten the screw (A).



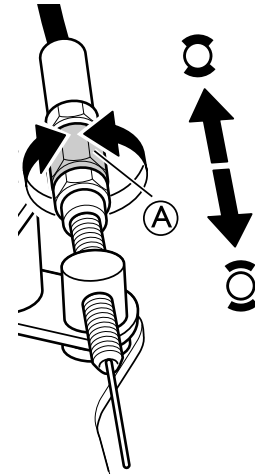
CAUTION!

Risk of trapping fingers

– Be careful not to trap your fingers between the brake pin (B) and rear wheel (C).

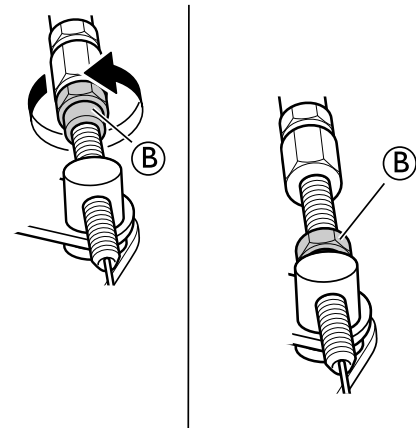
3.4.2 Drum brake — adjustments

1.



Adjust the brake effect with the adjustment nut (A) on the wire.

2.



When the desired brake effect is achieved, fixate the brake wire with the fixation nut (B).



WARNING!

Risk of injury

Poor brake effect


– Check the brake effect after mounting or adjusting the brake.

4 Maintenance


4.1 Safety information

Regular checks and maintenance of the wheelchair ensure the user's safety and the expected lifetime of the chair.

4.2 Flat tire


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

4.3 Cleaning


- Wipe metal parts and the upholstery regularly with a damp cloth.
 - A mild detergent may be used.
 - If necessary, the upholstery can be washed at 60° C.
 - Normal washing powder/liquid may be used.
-  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.

4.4 Washing

1. Remove all loose and removable covers and wash them in a washing machine according to the washing instructions for each cover.
2. Remove all padded parts such as seat cushions, armrests, headrest/neckrest with fixed padded parts, calf pads and so on and clean them separately.

 The padded parts can not be cleaned with a high-pressure cleaner or water jet.
3. Spray the wheelchair chassis with detergent, for example a car-cleaning agent with wax, and leave on to work.

4.6 Reconditioning

Components	
 Lubricate all removable parts with a dry Teflon® based spray, e.g. "Viso 900-B5".	
Chassis	All parts must be checked for cracks or other damages. Pay special attention to areas close to welds. If damages are discovered, the chassis must be discarded.
Backrest angle	Check that the angle is easy to adjust, it should be easy to fold and the locking mechanism must function properly.
Push handles / Push bar	Check that the push handles / push bar works properly. They should be firm and the screws must be tightened properly.
Back- and seat covers	<ul style="list-style-type: none"> • Check that the self-gripping strips are intact and can be fixed properly. • Check that the covers are intact and clean, if not see section: "Washing" and "Disinfection" • If the fabric is torn, replace the cover.

4. Rinse the wheelchair chassis with a high-pressure cleaning or ordinary jet of water depending on how dirty the wheelchair is. Do not aim the jet towards bearings and draining holes. If the wheelchair chassis is washed in a machine the water must not be hotter than 60° C.


 Only use water and soft soap to clean the table!

5. Leave the wheelchair to dry in a drying cabinet. Remove parts where water has collected for example in end tubes, ferrules etc. If the wheelchair has been washed in a machine, blow-drying with compressed air is recommended.

Dartex®


Lighter stains on the fabric may be neutralized with a soft damp cloth and some neutral detergent. To neutralize larger, more persistent stains, wipe the fabric with alcohol or turpentine substitutes, and wash with hot water and a neutral detergent.




The fabric can be washed at temperatures up to 71° C (160° F). Normal detergents can be used.


 All parts of the wheelchair with Dartex® upholstery, such as armrest pads, calf pads, headrest/neckrest, should be cleaned according to the instruction above.

4.5 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.

Components	
Seat angle	<p>Check the function by changing the angle from the lower to the highest position.</p> <p>Risk of damage</p> <p>– The gas piston must not be opened, it contains oil and gas under high pressure.</p> <div style="background-color: #e0e0e0; padding: 5px;">  <p>CAUTION! Risk of damage</p> <p>– The gas piston must not be opened, it contains oil and gas under high pressure.</p> </div>
Carer-operated brakes	<p>Check that the brake function is good, if not:</p> <ol style="list-style-type: none"> 1. Check that the wire is intact, if not, it must be replaced. 2. Check that the wire cover is intact, if not, the wire must be replaced. 3. Adjust the wire at the handle and/or at the wheel hub. 4. Tighten the wire until the optimal brake function is achieved.
Armrests / side rests	<p>Check that the armrests / side rests are intact, they should be easy to detach / attach.</p>
Leg rests	<p>Check that the leg rests are:</p> <ul style="list-style-type: none"> • Easy to detach • Easy to attach • Easy to adjust in height and angle
Anti-tip device	<ul style="list-style-type: none"> • Check that the anti-tip device is easy to adjust and fold. • Check that the screws are tight, if not, retighten.
Rear wheels	<ul style="list-style-type: none"> • Change the tires if the pattern is worn. • Replace missing spokes and tighten loose spokes. • Fasten the hand rim if it is loose. • Check that the hand rim is smooth and that there are no cracks or sharp edges. If so, replace the hand rim. • Check the rear wheel axle, it should be completely inserted into the axle housing. Check that the rear wheel axle locks properly. Pull on the rear wheel to check that the removable axle does not come off. • Check the air pressure — recommended max air pressure is written on the tires.
Rear wheel attachment	<p>Check:</p> <ul style="list-style-type: none"> • That the screws on the rear wheel attachment are tight. • That the axle housing is correctly placed. <p> The axle housing should be tightened with a manual and dynamometric wrench calibrated to 40 Nm.</p>
Brakes	<ul style="list-style-type: none"> • Check that the hub brakes work properly on both tires. • Check the positioning of the user brakes. • Check that the brake pin is not worn down. If so, replace it. • Check that the screws are tightened. • Test the brake function. When braking, the brake pin should press the tire down by 5 mm. <p> Make sure that you have the correct air pressure in the tires to attain the optimal brake effect.</p>
Castors	<ul style="list-style-type: none"> • Detach the castors and clean the castor forks. • Remove any dirt or hair from the castors. • Attach the castors again and check that the castors turn freely. • If the castors are air filled, check the pressure — recommended max air pressure is written on the tire. • If the castors are solid, check the tires for cracks. If the tires are dry and filled with cracks, they need to be replaced.
All fasteners for wear and tightness	<p>Bolts and other fasteners can come loose due to constant use:</p> <ol style="list-style-type: none"> 1. Check that the fasteners are tight on the castor forks, footrest, seat, side rests, backrest, handles etc. 2. Tighten any loose bolts or screws.

Accessories	
 Lubricate all removable parts with a dry Teflon® based spray, e.g. “Viso 900–B5”.	
All fasteners for wear and tightness	Bolts and other fasteners can come loose due to constant use: <ol style="list-style-type: none"> 1. Check that the fasteners are tight on the castor forks, footrest, seat, side rests, backrest, handles etc. 2. Tighten any loose bolts or screws.
Headrest	<ul style="list-style-type: none"> • Check that the side- and angle adjustment for the “wings” works properly. • Check that the angle adjustment works and that there is a memory function.
Neckrest	<ul style="list-style-type: none"> • Check that the angle adjustment works and that there is a memory function.
Trunk support “Multi functional”	<ul style="list-style-type: none"> • Check that the angle adjustment works properly and that there is a memory function.
Abduction cushion	<ul style="list-style-type: none"> • Check that the depth adjustment works.
Table tray	<ul style="list-style-type: none"> • When re-mounting the table tray, try to find the thread manually before fastening the screws with tools. This spare the threading.

4.6.1 Checklist for reconditioning

	OK	NOTE	SIGN
WASHING			
RECONDITIONING:			
Chassis			
Backrest angle			
Push handles / Push bar			
Backrest cover			
Seat cover			
Seat angle			
Carer-operated brake			
Armrests / Side rests			
Legrests			
Footrests			
Anti-tip device			
Rear wheels			
Rear wheel attachment			
Brakes			
Castors			
Fasteners for wear and tightness			
Headrest			
Neckrest			
Trunk support			
Abduction cushion			
Table tray			
TEST:			
Chair rolls in straight line			
Easy to propel			
DELIVERY CHECK:			
Include a user manual			

5 After Use

5.1 Recycling

The wheelchair can be divided into the following main components:

- Chassis
- Plastic parts
- Upholstery
- Wheels, tires and tube
- Packing

5.2 Waste disposal

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

Waste disposal must comply with the laws and regulations pertaining waste handling in each country.

Invacare® is continuously working towards ensuring that the company's impact on environment, locally and globally, is reduced to a minimum. We only use REACH compliant materials and components.

The wheelchair can be divided into the following main components:

Chassis

- The chassis is produced in steel and is fully recyclable.
- Recycling of steel requires only 20-25% of the energy compared to new produced steel.
- The wheelchair has two gas pistons and they contain oil and must be disposed according to national requirements.



Be aware of that the gas pistons contains high pressure and must be handled with care during destruction.

Plastic parts

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

Upholstery

- Upholstery is produced of polyester fibres (PUR) and Dartex®.
- The efficient way to recycle the parts is to burn them in approved facilities.

Wheels, tires and tubes

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

Packing

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

End of life

At the end of this products life, it should be recycled according to laws and regulations for waste handling in each country.



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

6 Technical Data

6.1 Dimensions and weights

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.



WARNING!

Limited access to emergency escape routes

- In some combinations, the total width and length of the wheelchair exceeds the recommended measurements for emergency escape routes.
- The recommended values concerning access to emergency escape routes are: Length max. 1200 mm and width max. 700 mm.

	CLEMATIS
Effective seat width *	390 / 440 / 590 mm
Seat depth	420–480 mm
Seat height *1	400–450 mm
Backrest height *1 / *2	600–710 mm
Armrest height (Armrest to seat distance) *1	230–340 mm
Legrest length (Footrest to seat distance)	362–627 mm
Overall width *4	SW +230 mm
Tilt adjustment (seat plane angle)	-1° – +19°
Total height	960–1120 mm
Total length (Overall length with legrests)	1120–1495 mm
Weight	30 / 32 / 33,5 kg
Max. user weight	125 kg
Transport weights *3	20,5 / 21 / 21,5 kg
Backrest adjustment	-1° – +32°
Folded length	840 mm
Folded width	585 / 635 / 685 mm
Folded height	535 mm
Static stability uphill	12° – 18°
Static stability downhill	10° – 18°
Static stability sideways	12°
Maximum slope with parking brake	7°
Leg to seat surface angle	105° – 180°
Front location of armrest structure	343 – 571 mm
Handrim diameter	450 – 540 mm
Horizontal location of axle	-35 – 35 mm
Minimum turning radius	820 mm



* +20 mm with spacers

*1 Measured from seat plate.

*2 Excluding neckrest and push handles

*3 Without rear wheels, neckrest, armrests, legrests, trunk supports and seat cushion

*4 Overall width + 10 mm (when equipped with hub brake 22" or 24")



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


	305 mm (12")	515 mm (20")	560 mm (22")	600 mm (24")
Width of the wheels	45 mm (1 3/4")	35 mm (1 3/8")	25 mm (1") - 35 mm (1 3/8")	25 mm (1") - 35 mm (1 3/8")
Wheel inclination	0° (Wheelchair without load)			

6.2 Material

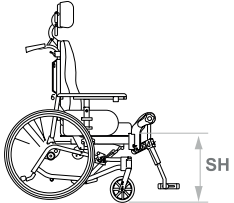
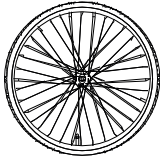
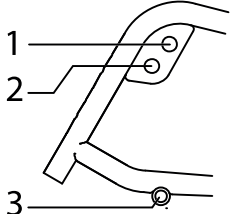
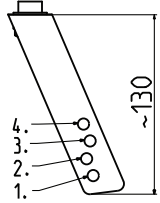
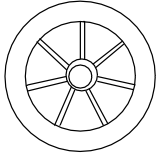
Chassis, backrest tubes	Steel, powder coated
Plastic parts like push handles, brake handles, foot plates and parts of most accessories	Thermoplastic (e.g. PA, PE, PP, ABS and TPE) according to marking on the parts
Upholstery (seat and backrest)	Foam PUR and Polyether, fabric Dartex® and plush
Table	ABS
Seat plate	Coated Birch plywood
Other metal parts	Zink alloys, aluminium alloys and steel
Screws, washers and nuts	Steel, corrosion free

6.3 Environmental conditions

	Long term / Short term storage and transportation	Operation
Temperature	-10° C to +50° C	-5° 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 operating conditions before use.

6.4 Seat height table

Seat height *	Rear wheel	Rear wheel position	Fork 110	Castors
				
400	560 (22")	1	3	150
450	305 (12")	3	1	200
450	600 (24")	2	1	200

* All measurements are in mm

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