



## OPERATION MANUAL FOR

# xRover – model S



The exclusive manufacturer and originator is the company:

**Volter s.r.o., ID: 29051886,** E-mail: info@volter.cz.

Made in the Czech Republic

**Thank you for purchasing the multifunctional medical xRover medical stroller/trolley. We believe that it will serve you for a long time.**

**Medical stroller xRover - model S can be used as:**

1. Implementation - medical trolley
2. Implementation - medical trolley for usage in a rough terrain

Product – model S complies with the norms:

- ČSN EN 1888:2012 - as baby stroller/trolley
- ČSN EN 15918:2013 - as trolley behind bicycle
- ČSN EN 12189:2014 - as medical trolley

### NOTICE !

**Please read this operation manual carefully  
before using the xRover REHA S.**

## xRover REHA – model S - description of main parts



**A** – adjustable handle height

**B** – parking lever with locking pin

**C** – foam cover - handle

**D** – place to attach additional bags (bum bag / hand bag)\*

**E** – joint to adjust tilt of the handle

**F** – rear reflector

**G** – protective sides with reflective tapes and inner pockets

**H** – rear bag to transport components and accessories

**CH** – rear wheel 20" with drum brakes

**I** – rear wheel hub 20" with spirit level

**J** – towing bar to connect to a bike (with mudguard)\*

**K** – stroller seat with clips for attachment

**L** – clips to attach mosquito net and windstopper

**M** – element to fasten front axis and towing bar

\*these parts might not be included in some modifications as a basic component of a model or they can be of different type

**N** – front axle hub – front wheels

**O** – front wheel fork 14"\*

**P** – front wheel - immovable 14"\*

**Q** – front safety arch with footrest

**R** - cyclocomputer

**S** – safety 5-point buckle  
with shoulder straps

**T** – inner fixation insert with head rest\*

**U** – inside zippers on canopy to attach  
mosquito net, windstopper and shield

**V** – removable canopy

**W** – rear safety arch

## CONTENTS

## page

General description	1
Description of main parts	2
Contents of manual	3
General notices	4
Purpose and Technical data	5
Maintenance, care and storage of medical stroller/trolley	7
Safety instructions	8
1. Assembly/disassembly of medical stroller/trolley	10
1.1 Rear axle	10
1.2 Front axle	13
2. Adjusting the required wheel alignment of medical stroller/trolley	15
3. Brake adjustment	17
3.1 Additional parking brake	19
4. Handle	20
4.1 Handle with plastic joints	20
4.2 Handle with metal joints	21
5. Canopy	21
6. Fastening the transported person	22
7. Carrying the stroller/trolley with load	23
8. Connecting medical stroller/trolley to a bicycle - Cycloset	23
8.3 Connecting pole (draw bar) of the medical stroller/trolley to hitch mounted on a bicycle	25
9. Other accessories	28
9.1 Cyclocomputer	28
9.2 Mosquito net, windstopper and raincoat	28-31
9.3 Rear bag	31
9.4 Safety hand strap	32
9.5 Fixation insert	33
9.6 Winter bag	35
9.7 Additional bags – bum bag / hand bag	35
9.8 Transport bag	37
9.9 Special headrest	38

## **GENERAL NOTICES !**

This manual contains a number of WARNINGS and NOTICES. Incorrect assembly or incorrect use of the medical stroller/trolley may lead to serious or fatal injuries of passengers or operating persons.

- Car seats placed inside the medical stroller/trolley and any other seats must be fixed with additional straps.
- Do not make any modifications on the medical stroller/trolley.
- The medical stroller may become unstable if a bag or net not approved by the manufacturer is attached to it.
- Avoid contact of the moving parts of the medical stroller/trolley with any part of childrens' and other passengers' bodies, clothes, laces or toys.
- Never leave children and other passengers in the medical stroller/trolley unattended.
- Failure to follow the instructions may lead to a serious or fatal injury of you or your passengers.
- The maximum load capacities of medical strollers are described in chapter "Technical data", page 5.
- Do not use individual models for passengers exceeding the specified weight and height limit.
- Passengers must always use the straps and sit in the middle of the medical stroller/trolley.
- Do not use chemical cleaning agents. Only clean with mild soap and water.
- The maximum tyre inflation pressure is shown in the technical specification; lower tyre pressure (20" and 14") may cause worse driving properties, inadequate effectiveness of parking and operating brakes brzd and quick wear of tyres, higher pressure can cause a flat tyre or damage to the způsobit defekt duše či poškození pláště.
- Be careful during assembly and disassembly and avoid squeezing your fingers, parts of clothing or other undesired objects.
- If it is necessary to consult an „OPERATING MANUAL xRover REHA S“ for persons with impaired eyesight, reading or other cognitive impairment use either modern online/offline tools to render this version of MANUAL in desired form or contact the manufacturer or your dealer.

### **When using the medical stroller/trolley in the version for movement in a rough terrain, hiking and other activities with a front wheel 14", pay attention to the following:**

- Always use a safety hand strap which must be tightly attached to the handle of the medical stroller/trolley.
- When it is not in motion always apply the parking brake. See page 19, Fig. 26.
- Maximum load of the rear bag is 5 kg + other components of the medical stroller/trolley.  
If the bag is overloaded, the medical stroller/trolley can become unstable.
- For children (persons), that cannot sit upright without support, always use additional inserts.
- After any manipulation and adjustment of the front axle of the medical stroller/trolley, always check and make sure that the rear axle meets the required alignment as well, see chapter 2, page 15.

### **When using the medical stroller/trolley xRover REHA S as a trolley behind a bicycle, pay attention to the following:**

- Reflectors, reflecting and signalling elements meeting the regulations must not be removed from the medical stroller/trolley and must be in original positions at all times.
- Before very ride make sure that the attached trolley or its parts do not influence or touch the brakes, or get in a way when pedalling or steering the bicycle.
- Never go anywhere at night without adequate lighting conditions. Always observe local laws, directives and regulations regarding trolley behind the bicycle.
- Ride with the utmost caution so that you are always able to adjust the speed to the conditions of the road or the terrain.
- When using the medical stroller/trolley behind a bicycle, the stability and the braking and riding properties of the bicycle change.
- Always use a flag for better visibility.
- Always use the mosquito net correctly attached to the medical stroller/trolley.
- For children (persons) that cannot sit upright without support, always use additional inserts.
- We recommend the passengers to wear helmets that are approved by CPSC or CE.

## DESIGNATED USE OF THE MEDICAL STROLLER/TROLLEY

Medical stroller/trolley xRover REHA S is intended for transport of persons with impaired physical mobility via self-help manner. It is a compensative equipment used for transport of persons with impaired movement apparatus or with inability to control it. The medical stroller/trolley is intended for nearly all persons suffering from basic or extended types of impairments – visual, hearing, mental, internal. It can be used for transport of persons with cognitive impairment, mental illnesses and other types of disorders.

**Always consult with your doctor the suitability to use xRover REHA S for given type of diagnosis.**

## TECHNICAL DATA

The medical stroller is primarily designed for transport of persons, but it can also be used for transport of loads up to the weight according to the technical data for the given size of the medical stroller/trolley. The drive or movement is provided solely by another person (other persons), preferably by pushing (using the handle of medical stroller/trolley) or pulling (towing bar behind a bicycle, towing rope attached to the eye of the front axle for summer or winter use); the frame of medical stroller/trolley is designed also for option to be carried using the outer tubes (after removing the cloth fenders).

Your medical stroller/trolley model is size "S" – small xRover REHA S. The manufacturer also provides models "M" - medium and "L" - large. The sizes only differ in frame and cloth covering, the other components remain identical in all sizes.

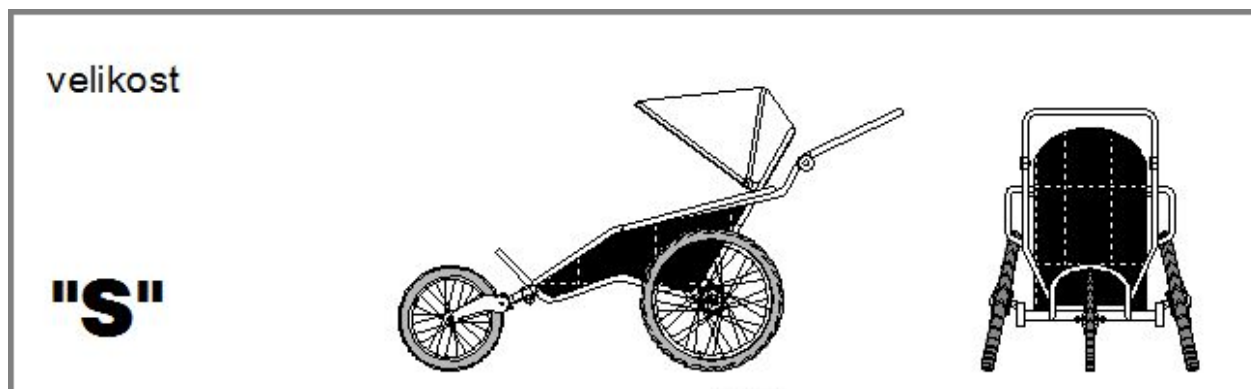


Figure 1

Frame weight:	S - 3,6 kg
Frame material:	- aluminium alloys EN AW 6060,6061,6082
Curb weight:	depending on installed components and equipment (example: size "S" + front wheel 6" + canopy - 13,4 kg)
Wheel gauge (track width):	76 cm (guaranteed passage through 80 cm door frame)
Wheel-base (rear axle – cross tube of front axle):	S - 645 mm
Parameters of transported person: (load weight)	S - up to 44 kg/ up to 120 cm (tested up to 70 kg)
Maximum load of the trolley:	70 kg (transported person + other items in additional bags or directly inside the stroller/trolley (max. payload). Weight or load distribution of the stroller/trolley must be divided in proportion max. 30/70 %, 70 % of the weight must be in the rear part (in the centre of the seat above the rear wheel axle)
Rear wheels:	- 20" with integrated 70 mm drum brakes

Wheel material:	<ul style="list-style-type: none"> <li>- aluminium hub and rim, steel wire spokes (for S, M, L)</li> <li>- plastic (for S only)</li> </ul>
Rear wheel tyre:	20x1,75 (47-406)
Rear wheel tyre inflation pressure:	3,1-4,2 bar, car tyre valve. Max. pressure in one tyre 4,2 bar!
Front wheel 1:	14"
Wheel material:	<ul style="list-style-type: none"> <li>- aluminium hub and rim, steel wire spokes (for S, M, L)</li> <li>- plastic (for S only)</li> </ul>
Front wheel tyre 1:	14x1,75 (47-254)
Front wheel inflation pressure 1:	2,8 bar, car tyre valve. The max. pressure in one tyre 2,8 bar!
Front wheel fork 1:	fixed around vertical axis – suitable for rough terrain, jogging, in-line skating etc. and for higher speed
Fork material 1:	- aluminium alloy EN AW 2017
Front wheel 2:	- 6"
Wheel material:	- aluminium hub
Front wheel tyre 2:	- solid rubber (not inflated)
Front wheel fork 2:	- rotating around vertical axis – suitable as a medical trolley on hard surfaces and for lower speeds
Fork material 2:	<ul style="list-style-type: none"> <li>- aluminium alloy</li> <li>- glass-filled plastic</li> </ul>
Other important properties:	<ul style="list-style-type: none"> <li>- the front and rear frame arches protect the transported person's head and body in case the medical stroller/trolley is overturned or tipped over</li> <li>- the rear axle wheel camber by 10° ensures extreme stability against side overturn of the medical stroller/trolley</li> <li>- safety belts with five-point safety buckles</li> <li>- to achieve the maximum lifetime, all fastening materials are made of stainless steel A2</li> <li>- an installed and integrated bag for accessories and personal items; it can be removed and used as a regular rucksack (including shoulder straps)</li> <li>- attached wireless cyclocomputer (8 functions) it can gauge corresponding speed or travelled distance</li> <li>- possibility to modify the hand brake - right or left version</li> </ul>
Suitable conditions for use:	- stroller/trolley is intended for use on even and uneven surface or terrain, it can be used for ride on pavement or road, on asphalt and also on unpaved roads, rural roads or forest roads, it can be used to ride on snow, even on more extreme terrain – stones, gravel etc., it is possible to use it while it rains
Expected lifespan:	- expected lifespan of the product „Medical stroller/trolley xRover REHA S“ is 8 years
Temperature range:	- medical stroller/trolley can be used at outside temperatures from -15 to +40 °C
Optional accessories:	<ul style="list-style-type: none"> <li>- mosquito net</li> <li>- windstopper – protective covering against adverse weather conditions (wind, snow, dust etc.)</li> <li>- transport bags to transport folded medical stroller/trolley and removed wheels</li> <li>- bum bag, hand bag</li> <li>- winter sleeping bag</li> <li>- brake lever version on the right (standard) or on the left (optional)</li> <li>- folding handle in standard version or extended (optional)</li> <li>- adjustable protective sun shield</li> <li>- special head rest</li> <li>- other accessories can vary according to the manufacturer's current offer</li> </ul>
Serial number	- every stroller/trolley has a product tag which is located on the right side close to the rear axle (see Fig. page 9), the tag includes a serial number, for example 17 L 0029, the first two digits show production year, letter is the size and the last four digits indicate a unique serial number

## MAINTENANCE, CARE AND STORAGE OF MEDICAL STROLLER/TROLLEY

### A. *Maintenance of the wheel hitch*

- Before each ride make sure that the hitch and safety strap are connected properly.
- Regularly check that the hitch is not damaged, broken, etc. Replace it in case of the first sign of damage.
- Any damage to any part or any broken part of the xRover medical stroller/trolley should be repaired/replaced immediately to prevent any personal injuries.

### B. *Care for the covering/canopy*

- Your xRover medical stroller is made of a durable, strong, waterproof fabric – Kortexin™ or Cordura™. Clean the covering only with ordinary soap or a mild cleaner and warm water. Let air dry.

### NOTICE !

Colours of the covering and other parts of the medical stroller/trolley may change due to weather conditions and sunlight!

### C. *Wheels and central axes*

- We recommend to have the wheels (rear 20" and front 14") checked by a standard bicycle repair shop at least twice a year. For safety reasons, make sure that the wheel spokes or central axis are not loose before each use of the medical stroller/trolley, make sure that wheels are properly inflated.

### D. *Wheel frame and mounting*

- Regularly check that all nuts and bolts are tightened properly.

### E. *Storage*

- Store the medical stroller/trolley in a dry and well-ventilated place. Before storing, make sure that the medical stroller/trolley is dry; this will prevent it from becoming mouldy. If the stroller is not in use, protect it from sunshine; this will prevent it from discolouring. Do not store the medical medical stroller/trolley if it is still connected to the bicycle. If you store it in an inappropriate environment for longer time, it does not have any negative effect on function of the medical stroller/trolley.

Check all parts of your medical stroller/trolley before each use!!



## NOTICE !

### SAFETY INSTRUCTIONS

#### Important rules for safe use of your xRover REHA S.

1. Read carefully all instructions before using the medical stroller/trolley! Incorrect understanding and failure to follow these instructions may lead to an otherwise avoidable accident during which you and/or your passengers may sustain a serious or fatal injury.
  2. Safe and correct use of this product is your responsibility! Before using your medical stroller/trolley, take a trial bike ride, go for a walk or run, or hike with the medical stroller loaded (loaded to more than the expected weight of passengers with load) to assure that you will handle the loaded medical stroller/trolley during each of these activities. Be extremely careful when operating the medical stroller/trolley off roads. Apart from the safe ride principles, always follow the rules stated below.
  3. Make sure that your bike is in good operating condition. We recommend carrying out regular safety checks by a certified bicycle mechanic.
  4. Do not modify the stroller and bike. If you are not sure whether your bike is compatible with the stroller, contact the manufacturer – Volter s.r.o.
  5. Transported persons must be fixed appropriately in relation to their age, handicap or physical needs. If required, the manufacturer can modify the medical stroller according to passengers' individual needs.
  6. Do not exceed the maximum allowable loads of medical stroller/trolley – this applies to each model separately, see page 5, Technical data. This weight is the highest allowable load capacity of the seat including load. Objects transported in the medical stroller/trolley must be properly fixed to prevent them from moving during ride. An unstable load and overloading of the medical stroller/trolley cause worsening of the stability and driving.
  7. Always safely and firmly fasten the straps around the shoulders, waist and crotch of the passengers. Regularly check the position of the shoulder strap. Make sure that passengers cannot put their fingers in the wheel spokes. Passengers must not jump, swing and lean in the stroller/trolley.
  8. Keep an eye on the passengers in the stroller/trolley at all times.
  9. For a smooth ride, keep the tyre-tubes of the medical stroller/trolley inflated to the recommended pressure shown on the tyre side or on page 5, Technical data. Check the pressure in the tyre-tubes before each use. Over-inflated tyre-tubes may break and cause an accident of the medical stroller/trolley. Under-inflated tyre-tubes wear significantly and change the driving properties of the medical stroller/trolley moreover they can cause ineffective parking brake.
  10. Use the medical stroller/trolley only with non-motorized (human-powered) bicycles that are suitable enough for carrying the weight of the passenger and the medical stroller/trolley as well. Do not use the medical stroller/trolley behind electric bicycles, motorcycles, mopeds, cars and any other motorized vehicles.
  11. If you want park to the bicycle, never lean it against or put it on a bike stand or never use any other parking aid. The connected medical stroller/trolley can change and lose balance and the stand can become non-functional. If the bicycle falls over, the medical stroller/trolley as well as bicycle can get damaged.
  12. If the medical stroller/trolley is used behind the bicycle, always use the flag for better visibility. It is supplied with the cycloset.
- Do not presume your right of way. Do not use your medical stroller/trolley in areas with heavy traffic such as busy streets or in any places where riding the stroller/trolley could be unsafe.
13. Avoid riding at night. Your ability to see or be seen is significantly worse. If you have to ride at night, use sufficient and adequate light on your bicycle and wear bright reflective clothes.



14. Cyclists and passengers should always wear approved bike helmets.
15. When using the medical stroller/trolley on public roads, always observe all traffic rules and use correct signalling. You are required to observe Law on road traffic (Act No. 361/2000 Coll., directive concerning road traffic).
16. Every time you stop the medical stroller/trolley, secure it against movement by applying the additional parking brake and handbrake, see page 17, chapter 3 and 3.1.
17. Always use the protective mosquito net when using behind the bicycle, see chapter 9.2
18. Textile, plastic and rubber components of the medical stroller/trolley can catch fire if they are in contact with open fire. Avoid open fire and do not make fire near the medical stroller/trolley. The medical stroller/trolley is tested and it is resistant to fire according to norms ČSN EN 1888:2012 and ČSN EN 15918:2013, however it is not completely fire resistant!

## WARNING!

The medical stroller/trolley can fall over and cause a serious injury to a passenger/ cyclist.  
If the medical stroller/trolley runs into some obstacle it can overturn even at minimal speed.

## NOTICE !

**YOU WILL ALWAYS FIND ALL IMPORTANT NOTICES ON THE MEDICAL STROLLER/TROLLEY IN THIS AREA!  
SYMBOLS CONCERNING MAINTENANCE ARE ON EVERY SEPARATE PIECE OF THE STROLLER/TROLLEY.  
SERIAL NUMBER IS ON THE BOTTOM RIGHT SIDE NEAR THE REAR AXLE!**





## 1. ASSEMBLY AND DISASSEMBLY OF THE MEDICAL STROLLER/TROLLEY

The medical stroller uses quick-mounting components so both its assembly and disassembly can be performed in a few dozens of seconds.

### 1.1 Rear axle

The rear wheels are fixed using quick-mounting half-axes. By pressing the cap at one end of the axle the lock on the opposite side is released and the axle can be slid in/out the rear wheel hub.



1 – Push

2 – Locking balls release

Figure 2

#### 1.1.1 Assembly

is to be started by inserting the half-axe in the rear wheel hub – slide the axle fully in the rear wheel hub.



Figure 3



Figure 4

**A** - Press the cap to unlock the lock and **B** - slide the axle in to rear axle block.



Figure 5



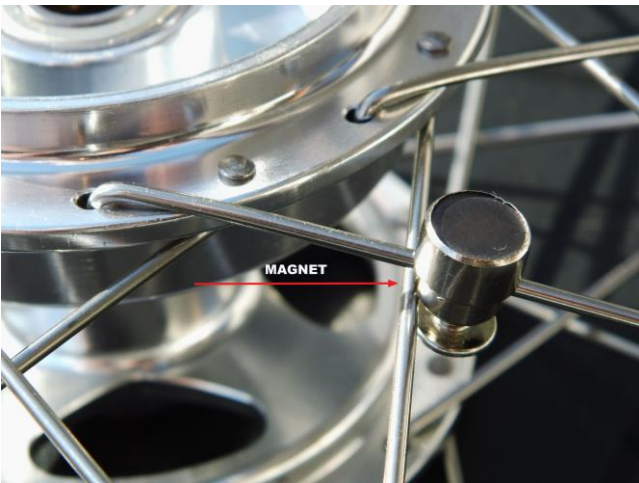
Figure 6

Insert the assembly fully into the block, release the cap and make sure that the wheel is secured in the block safely.



**Figure 7**

Use the same procedure to install the other rear axle wheel. Both rear wheels are fully interchangeable; if you have a cyclocomputer installed, the wheel with the magnet must be installed on the left-hand side (when looking from the back).



**Figure 8**



**1.1.2 Disassembly** is to be performed in reversed order; **A** – grasp the rear wheel at the central hub, **B** – press the half-axle cap and **C** – fully release the wheel by pulling.



Figure 9

For the subsequent transport, both dismantled rear wheels can be jointed together using one half-axle; keep the other half-axle carefully not to lose it, preferably in one of the storage bags on the medical stroller/trolley.



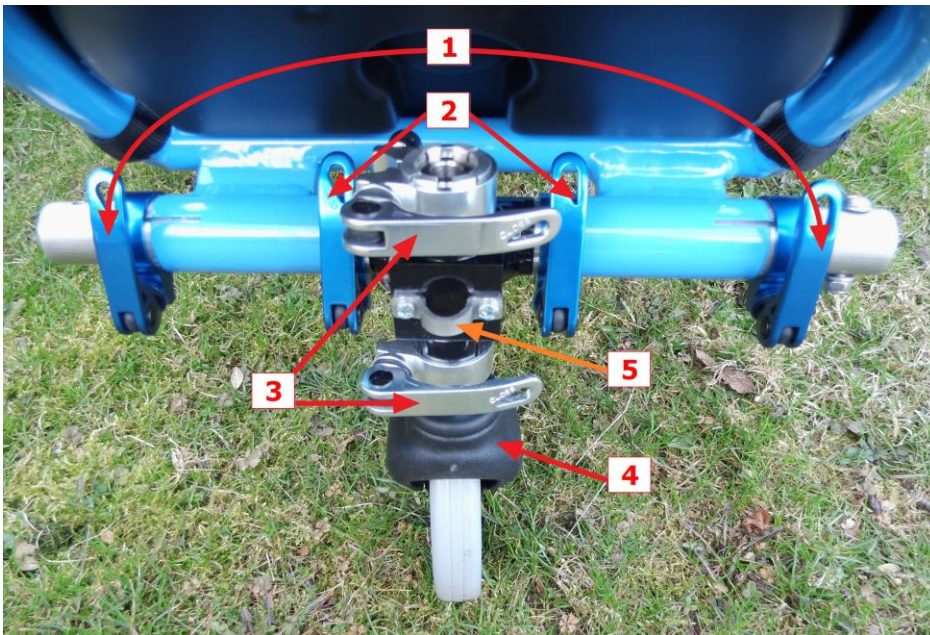
Figure 10



## 1.2 Front axle

The front wheels with forks are fixed to the medical stroller/trolley with quick-mounting clamps. Loosen the lever to unlock the clamp, tighten it to lock the clamp; locking can be regulated by tightening or loosening the nut on the opposite end of the bolt. Handle the nut only by hand when the clamp is unlocked.

The front axle assembly contains six quick-mounting clamps; the two horizontal ones serve for fixing the fork with the front wheel, the inner vertical pair serves for adjusting the fork tilt and the outer vertical pair serves for fixing and adjusting the cross tube of the front axle. Additional towing devices can be fixed to the outer ends of this tube. The entire product is delivered in assembled and adjusted state; the owner only fixes the selected front wheel with fork and adjusts the required fork tilt.



- 1 – fixing the position of the front axle cross tube
- 2 – adjusting and fixing the front fork tilt
- 3 – front fork attachment
- 4 – front fork with 6" swing wheel
- 5 – towing eye

Figure 11

### 1.2.1 Assembly of the front fork with wheel

Loosen both horizontal clamps on the front axle block and slide the fork extension in the hole in the block. The clamps are fixed to the block also in loosened state with the mount engaged in the block slot. This prevents the clamp from slipping off or loosening. The clamp can only be removed from the block using a special tool.



Figure 12

Turn the extension in the hole so that the pin (protruding dowel screw, Fig. 13 and Fig. 14, point **2**) engages in the recess in the front axle block (Fig.14, point **1**) and fully slide the extension in the block.



Figure 13

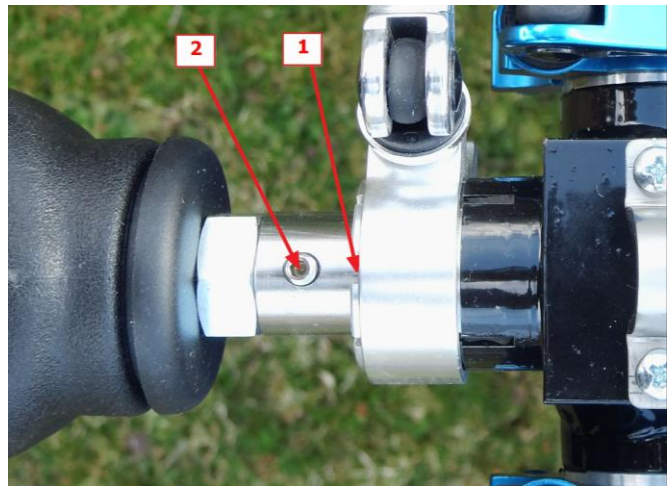


Figure 14

Turn both horizontal clamps to the appropriate position so that the levers do not collide with the levers of vertical clamps. Lock both horizontal quick-mounting clamps.

### **1.2.2 Disassembly** of the front fork with wheel

Loosen both horizontal quick-mounting clamps (Fig. 11, point **3**) and (Fig. 12). Take the front fork extension out of the front axle block.

### **1.2.3 Removing the front wheel from the fork**

The 14" front wheel is fixed to the fork with a quick-mounting axle. For transport or service reasons, it may be necessary to remove the wheel from the fork.



Figure 14

LOCKED



Figure 15

RELEASED

Loosen the lever of the quick-mounting axle. The axle ends engage in the recess in the fork, so even if the lever loosens accidentally during ride, the wheel will not fall out of the fork.



To loosen the wheel it is also necessary to loosen the nut on the opposite side of the axle by a few turns. The wheel can then be removed from the fork. The place for storing this wheel with fork is in the rear pocket of the rear bag on the medical stroller/trolley.



Figure 16



Figure 17



Perform assembly in reverse order.

The 6" wheel is fixed in the fork with an Allen head bolt with nut which serves also as the axle. If necessary, this bolt can be loosened and the wheel removed.

## **2. Adjusting the required alignment of the medical stroller/trolley**

Select the required **front wheel** and fix it along with the fork to the front axle block (for the procedure see above). The block is symmetrical, it can be used from both sides if necessary.

Loosen the inner pair of vertical quick-mounting clamps on the front axle.

Turn the wheel with fork to the required position. The tilt of the whole medical stroller/trolley can be changed by selecting the wheel size and turning the fork. In this way the maximum comfort of the transported person can be ensured.

Turn the inner pair of vertical quick-acting clamps so that their levers do not collide with the vertical clamps.

Lock the levers of the inner pair of vertical quick-acting clamps. The front block is now firmly fixed to the cross axis of the front axle.

The 6" front wheel can be positioned in the following range:



Figure 18



The 14" front wheel can be fixed in the following range:



Figure 19 – stroller seat tilt      1 – sitting position

2 – lying position

The alignment of the rear axle must be adapted to the set tilt of the medical stroller/trolley to compensate for the possible toe-in or toe-out of the rear wheels. The wrong alignment causes an increased exertion and an increased wear of the rear wheel tyres; in addition, an asymmetrical adjustment could cause slide-slipping when moving forwards or other problems with the traction of the medical stroller/trolley.

Place the stroller on a **hard level** surface.

The rear axle block is fixed with a quick-mounting clamping bolt on the axle. Loosen the clamping bolt lever.



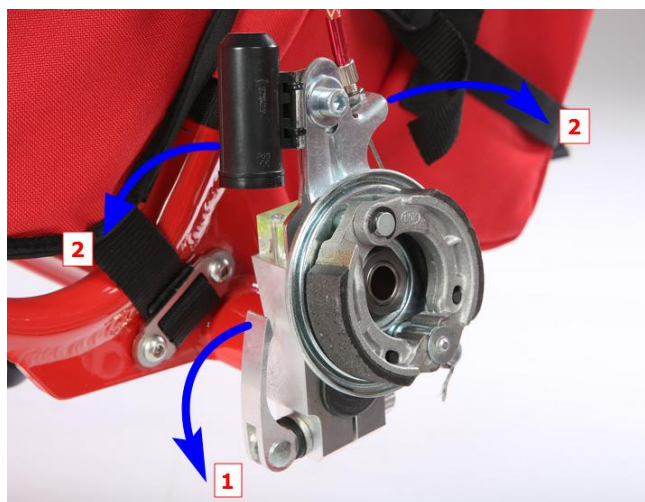
Figure 20



Turn the block with the brake on the rear axle in such a way that the bubble in the built-in spirit level is between the marks. The spirit level is on the top of the block behind the brake carrier and is best accessible when looking from the back of the medical stroller/trolley.

Owing to precise manufacturing tolerances, it is relatively hard to turn the rear axle block even with the quick-mounting clamping bolt loosened; when the lever is locked, the block is then fixed on the axle firmly and reliably.

When checking the block position setting, the medical stroller must stand stably on all three wheels.



1 – rear axle block/hub lock release

2 – rear axle block trimming

Figure 21



After the block is set to the correct position, lock again the lever of the quick-mounting clamping bolt. Repeat the same procedure with the other wheel.

Finally, recheck the alignment according to the spirit levels on the left and right blocks. The correct alignment is a guarantee of excellent driving properties of the medical stroller/trolley.

### **3. Brake adjustment**

Both drum brakes are operated simultaneously with one double brake lever; its locking pin enables you to use the brake also as a parking brake. The brake lever is located on the handle of the medical stroller/trolley. Adjustment of the same effect of both brakes is very important to maintain the straight travel direction of the medical stroller/trolley when braking. Due to long-term use, the cable lengths change and it is necessary from time to time to adjust the brakes individually to the same braking action on both wheels. Significantly worn cables must be replaced.

The basic adjustment is performed with the clamp bolt with nut on the brake moving lever.

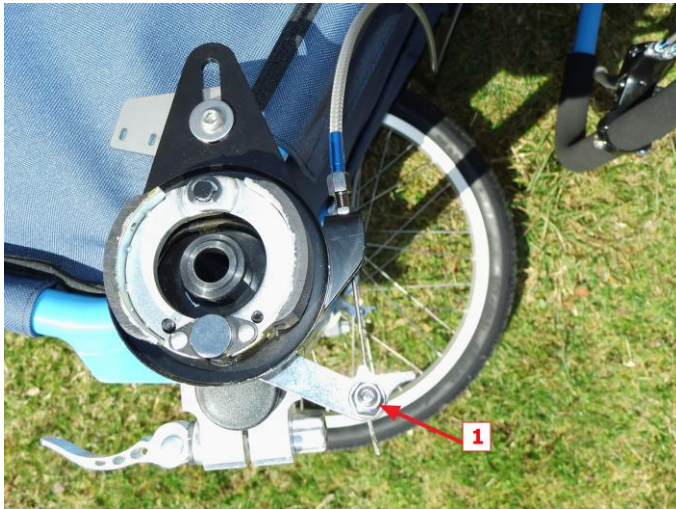


Figure 23

**1** – bolt for brake adjustment

Fine adjustment can be carried out **1** - with the locking ends on both ends of the outer sheath of the brake line.

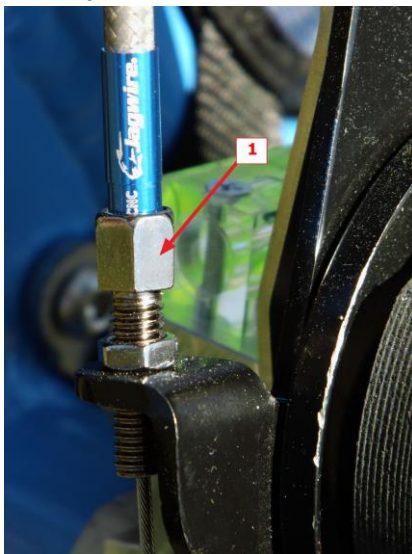


Figure 24

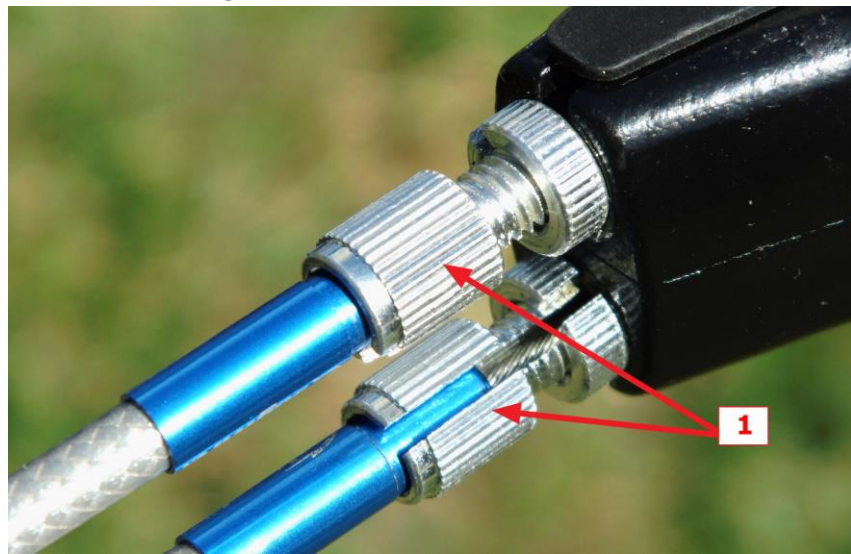


Figure 25

The braking action is controlled by the force of pressing the brake lever. Drum brakes provide a wide range of braking action from gentle braking to adjust speed to strong braking to quickly stop the medical stroller/trolley.

By strongly pressing both the brake lever (Fig. 26, point **1**) and the locking pin (Fig. 26, point **2**) simultaneously the brake will be blocked and the medical stroller is braked permanently (parking brake). This mode prevents the medical stroller/trolley from starting spontaneously.

By strongly pressing the brake lever (Fig. 26, point **1**) again, the locking pin and thus the whole system is released; after releasing the brake lever the brake of the medical stroller is fully released and can move freely.



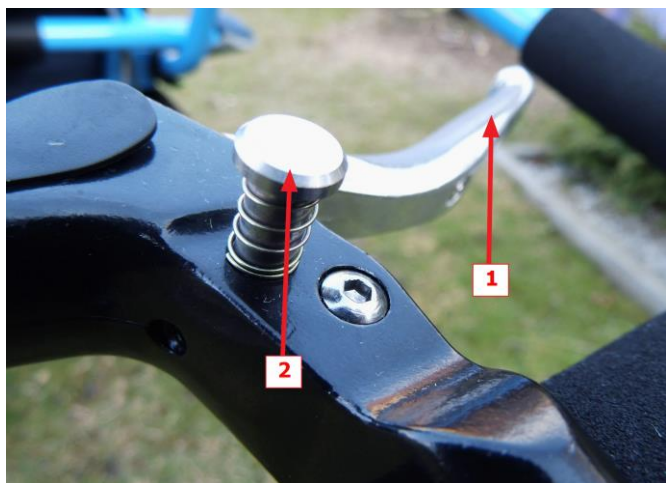


Figure 26 A – parking brake deactivated



B – parking brake activated

### 3.1. Locking additional parking brakes

To ensure maximum stability of the medical stroller/trolley in parking/stationary position (mainly if transported person is inside) it is always necessary to use additional parking brakes, which are located on frame tube on both sides above rear 20" wheels, Fig. 27.

**They work independently, therefore it is always necessary to apply both brakes (right and left).**

Parking stability of the medical stroller/trolley is not guaranteed if only one brake is engaged or if brakes are not locked correctly.

In order to apply the brake, grasp it (Fig. 28, point 1) and by moving the lever UPWARD the brake locks in (Fig. 28, point 2). You will hear a click of the blocking pin on the tyre. Pull firmly the lever until it stops, it locks in as you hear the click.

By moving the lever DOWN the brake releases/unblocks and the tyre is free to turn (Fig. 28, point 3).

Press the lever all the way until the blocking pin of the tyre is in maximum open position.

**Always press the lever to the maximum in both directions.**



Figure 27 A – additional parking brake LEFT



B – additional parking brake RIGHT



Figure 28      1 – grip additional parking brake      2 – brake is fully engaged      3 – brake is released

## NOTICE !

Always ensure that it is braked correctly! Especially when there are passengers inside and you leave the stroller without direct attendance and without the strap fixed on your wrist.

## 4. Handle

### 4.1. Handle with plastic joints

The medical stroller is equipped with a height adjustable handle. In the area of contact of hands with the handle, it is provided with foam covering for comfortable handling. To transport the medical stroller/trolley or to use towing devices, the handle can be folded down fully to lower the outer profile dimensions of the medical stroller/trolley.

The setting can be changed by simultaneously pressing BOTH grey buttons on the sides of the handle joint. The joint has several fixed positions; after releasing the grey buttons, the handle will be fixed in that position. The handle position does not affect the brake function.

**NOTICE:** Because the handle and tilt can be individually adjusted it is equipped with robust adjustable plastic joints. These joints can have slight slack in both directions. This slack is not a production flaw and it does not impede when the medical stroller/trolley is in full use.



Figure 29      Stroller with plastic joints



## 4.2. Handle with metal joints TH 88

On request, as option, model xRover Reha S can be equipped with more robust metal joints. This option is often recommended if the medical stroller/trolley is frequently used especially in rough terrain or while hiking or skating. Joints TH 88 will provide high degree stability, with minimum or almost no slack.

It is therefore possible to use the medical stroller/trolley under extreme conditions. Thanks to so called Hirth joint, the position of the joint can be set virtually at any degree.

Fastening is achieved by turning and tightening butterfly nut. When both butterfly nuts are loosened any desired angle can be achieved. The handle is then again secured and fastened by tightening both butterfly nuts.



Figure 30 Stroller with metal joints TH 88

## 5. Canopy

The stroller is equipped with a removable canopy to increase the comfort of transported persons and their protection against adverse environmental effects (rain, wind, snow, sunshine, etc.).

The canopy frame shape can be adjusted; the shape can be changed by simply pressing by hand in the required direction.



Figure 31

The canopy can be removed completely; this is done by simultaneously pressing the red button on the side of the canopy joint and pulling the frame upwards in the direction of the guide rail.



Figure 32



Remounting the canopy is done by placing the joint in the rail lead and moving the frame downwards until the red lock engages in the rail recess. Jumping-out of the red button indicates that the limit position has been reached and that the joint is locked in this position.

Mounting of the canopy is easier when it is folded up. It is important that the cloth covering of the canopy is mounted from the rear of the upper arch of the frame of the medical stroller/trolley and before it is unfolded the covering position is adjusted so that the covering can be stretched correctly.

## **6. Fastening the transported person**

For this purpose the medical stroller is equipped with safety straps fixed to the frame of the medical stroller/trolley. For a better comfort, the shoulder straps are provided with soft sleeves; the position of these sleeves is adjustable from the back of the medical stroller/trolley by extending or shortening the connecting strap.

All straps are connected with a certified 5-point buckle which can only be unbuckled by successively pressing individual circular elements on its body. This significantly reduces the risk of undesired complete unfastening of the transported person.



Figure 33

**WARNING:** Incorrectly fastened straps may lead to a serious or fatal injury of passengers in the case of an accident.



## **7. Carrying the medical stroller/trolley with load**

If necessary (heavy terrain, damage of wheels, emergency situation, etc.), the outer protective frame can be used as a handle for carrying the medical stroller/trolley with load; the frame is dimensioned for this use. The suitable length of handles allows finding the optimum balance for grasping and carrying the medical stroller/trolley. It is not necessary to install any wheels in this type of use. Two persons are required to carry the medical stroller/trolley.

Remove the cloth fenders from the medical stroller/trolley from the inside of the medical stroller/trolley outwards. Release all Velcros and straps with clips and remove the fenders. Dismantle the wheels, if necessary.

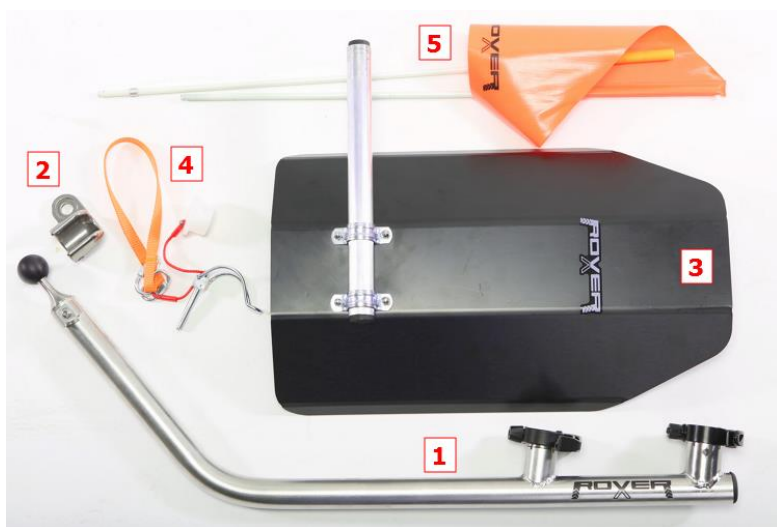
Each person stands on one side of the medical stroller/trolley. Transport can be started by grasping and lifting the medical stroller/trolley.



Figure 34

## **8. Connecting medical stroller/trolley to a bicycle - Cycloset**

The medical stroller/trolley can be equipped with attachment to connect it to a bicycle. It consists of these components.



- 1 – towing bar to connect to a stroller/trolley
- 2 – hitch for a bicycle (2 pieces in the set)
- 3 – protective mudguard
- 4 – latch to connect to a bicycle
- 5 – folding flag

### **8.1 Tow hitch for a bicycle**

The hitch is fastened on the LEFT rear fork of the bicycle and it is possible to connect it under the quick-mounting axle, as well as under the axle which is fastened by nuts. Loosen the axle completely and fasten the hitch in a way that the fixing hole of the ball joint is pointed to the front.



**Figure 35**

We will make sure after inserting hitch, that the axis is long enough and reliably fastens the wheel in the fork of the frame. If the axis is too short, it is necessary to buy a new, longer one (in case of quick-mounting axis only inner connecting rod). Most types of bicycles do not have this problem and do not need any additional connecting rod.

## **8.2 Drawbar of the medical stroller/trolley**

The pole (draw bar) of the medical stroller/trolley is during everyday use (if permanently connected), pushed under the stroller/trolley. Because of construction design to enable rear wheels of a bigger diameter to be used, the position of the mudguard was changed and it is necessary to take it off before you move down the pole (draw bar). Take off the mudguard after loosening corresponding quick-mounting axle and put it inside the rear bag of the medical stroller/trolley.



**Figure 36**

In order to lower the draw bar it is necessary to release all four vertical quick-mounting sockets on the front axle.



**Figure 37**

Turn the draw bar in the forward direction by about 180° and fix by locking the outer pair of quick-mounting sockets. Set appropriate position of the block of the front axle and also lock the inner pair of quick-mounting sockets. Leave the front wheel off; turning 6" wheel can be transported mounted as well as tilted flat below the medical stroller/trolley.





**Figure 38**

Move the mudguard in suitable position or take it off.



**Figure 39**

### **8.3 Connecting pole (draw bar) of the medical stroller/trolley to hitch mounted on a bicycle**

Take the draw bar of the medical stroller/trolley and slide the ball joint in a hitch on a bicycle. It is necessary to find proper and suitable position and align the medical stroller/trolley and a bicycle so that the ball of the joint can move in the hitch.



**Figure 40**

Fasten screw-in snap hook set onto drawbar of fixative joint - front cap of tow and safety pin. **1** – Put cap from front onto tow so both slots from tow and cap align, **2** – insert steel pin from above. **3** – Secure the pin by snapping safety spring downwards. **4** – Take the safety band and wrap it around the rear fork of the wheel and put the snap hook back into the safety loop. When dismantling proceed in reverse order.



**Figure 41**

**Note:** hitch of the medical stroller/trolley (dimension) is entirely compatible with trolley Chariot/Thule (known until production year 2016).

## NOTICE !

Movement range of the ball joint of the medical stroller/trolley is sufficient for standard use. Avoid excessive load or pressure behind outer positions of the range!

### 8.4 Flag

It is necessary to equip the medical stroller/trolley with a safety flag. Attaching hole for the flag is near canopy joint on both sides of the medical stroller/trolley. Place for the flag if the medical stroller/trolley is not used behind a bicycle.



Figure 42

1 – folding away the flag



2 – place during transport



Figure 43

1 – left hole for flag



2 – right hole for flag

The flag rod is from two parts; slide one part into the other and put the bottom part of the rod inside the hole which is on the frame of the medical stroller/trolley.





Figure 44



**The entire set bike-trolley is ready to be used**



Figure 45

## **9. Other accessories**

### **9.1 Cyklocomputer - speedometer**

The medical stroller/trolley is regularly equipped with wireless cyclocomputer with 8 functions. Cyclocomputer can be used when the medical stroller/trolley is behind the bicycle and also when it is pushed by another person. The rear wheels have to turn in order to function properly.



**Figure 46**

Extra large display allows to constantly monitor the relevant speed and it also provides the following information:

- current time
- time elapsed after last reset ("trip duration")
- total accomplished distance (ODOMETER)
- distance elapsed after last reset ("trip duration")
- maximum reached speed
- average speed

Function SCAN enables automatically show all this information on display – it is shown successively.

Transmitting part with motion sensor is attached on the LEFT block of the rear axle (pages 17, 18; Fig. 20, 21)

The cyclocomputer itself with a handle is placed in the inner pocket of the left small mudguard of the medical stroller/trolley and it can be individually turned and tilted for easier data monitoring by a transported person.

Transmitting part is powered by 2 batteries LR 44, cyclocomputer is powered by 1 battery CR 2032.

Cyclocomputer is factory calibrated for the wheel dimension 1520". In case you need to set new calibration of the cyclocomputer, use constant reading 1520. You will find more information in the manual on [www.xrover.cz](http://www.xrover.cz).

## **9.2 Mosquito net, windstopper and waterproof**

### **9.2.1. Mosquito net (Tropico)**





It is possible to fix a mosquito net, windstopper and waterproof to each stroller. The mosquito net is fixed with Velcro the other end of which is on the bottom part of the front edge of the canopy. Place the mosquito net on the inner other part of the Velcro on the canopy (Fig. 47, point 1). Then place the front side over the front arch of the stroller frame (Fig. 48) and fix the rear corners by turning the end tapes around the stroller frame (the vertical part of the extended handle frame) and snap (Fig. 47). In the middle of the longest sides of the mosquito net, snap the snap on the tape onto the counterpart located on the side of the stroller seat (Fig. 48).

The manufacturer supplies a uniform model for all S size stroller/trolley variants.

**WARNING:** An absence of the mosquito net may expose the passengers to insects, flying stones or other debris.



Figure 47



Figure 48

### 9.2.2. Windstopper





The windstopper is fixed on the stroller in the same way as the mosquito net. Snap it (Fig. 47, point 2) to the outer other part of the Velcro on the canopy edge. So the windstopper is stretched over the mosquito net. The order of fixing these parts can be combined arbitrarily.



Figure 49



Figure 50

The manufacturer supplies a uniform model for all S size medical stroller/trolley variants.

**WARNING:** The windstopper protects transported persons against wind and partly against snow. However, it does not fully substitute the waterproof function and it is not water-impermeable in a longer stay in rain.

### **9.2.3. Raincoat**

The stroller waterproof is to be placed over the canopy and seat. (It can be also placed over the fixed mosquito net with windstopper.) Fix it in the back with the Velcro around the stroller frame (Fig. 51), in the front, stretch it over the front arch of the stroller frame. Stretch it on the sides over the handrails (sides) of the medical stroller/trolley. Open the vent holes on the waterproof for a better transport comfort of passengers (Fig. 52).



Figure 51

Velcros for easy attachment on the frame of the stroller/trolley



Figure 52

Vent – 2x on each raincoat

The manufacturer supplies a uniform model for all S size medical stroller/trolley variants.

### 9.3 Rear bag

The rear bag serves for transport of components of the stroller (14" front wheel with fork, waterproof, mosquito net, windstopper, 6" front wheel, and others). The rear pocket of the bag is used for wheels and other "dirty" components. Use the front part of the bag for other accessories and personal items.



Figure 53



The rear bag can be removed from the medical stroller/trolley (by unclipping the clips that fix the bag to the stroller frame). Remove the shoulder straps from the pocket on the bag back and connect the straps to the clips on the lower edge of the bag. The bag can be used as a hand rucksack.



Figure 54



Figure 55

Always use all provided straps to close the rear bag, including the central strap which fixes the bag against falling down.

Do not let any objects protrude out of the bag. They could make the medical stroller/trolley unstable, an object could fall out (get lost), but also the medical stroller/trolley could crash. The bag is made in the respective colour combinations like stroller models.

## NOTICE !

Never overload the bag, it is not designed for the transport of material, only for personal items and stroller accessories. Overloading the bag could cause a turnover of the stroller/trolley and an injury. Maximal load of the Rear

### 9.4 Safety hand strap

To have a better control of the medical stroller/trolley, it is always useful to have the safety strap mounted as it prevents the medical stroller/trolley pulling away by itself and thus it increases the safety.

The strap can be mounted on the handle permanently and if used it is put on the wrist of the person who will operate the medical stroller/trolley.



Figure 56

**NOTICE:** You should always use the safety strap when performing such activities with the medical stroller/trolley at which the operating speed exceeds 6 km/h, i.e. the speed of walk, or when you are in a terrain or environment with an increased risk of unstable movement.

## 9.5 Fixation insert

The fixation insert is used to reduce the internal space of the medical stroller/trolley seat. It is recommended to use it when transporting children up to about 2 years of age, for whom it provides a better comfort in the seat. At the same time, additional fixation inserts better stabilize childrens' bodies and their heads when sitting in the medical stroller/trolley.

The elements are variable and can be adapted to the needs of a given person.

Unbuckle the 5-point buckle (Fig. 58). Remove the red connecting element of the buckle from the middle strap and take the strap out of the loops on the seat (Fig. 57, point **1**).

Release the zipper (Fig. 57, point **2**) on the external side of the medical stroller/trolley and loosen the protective coverings (pads) of the shoulder straps. Lower them as much as possible. Then insert the fixation insert in the medical stroller/trolley seat. Pull the shoulder straps including pads through the selected holes on the fixation insert (Fig. 58). Pull through the lower middle strap in the same way.

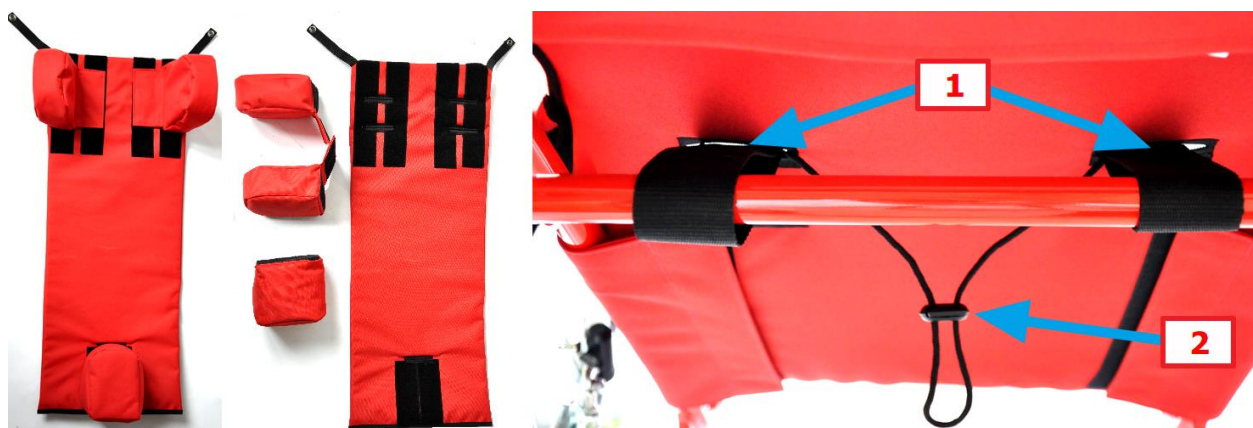


Figure 57

1 - shoulder straps fixed on the frame tube



## 2 - zipper on shoulder straps



Figure 58

With the upper two snaps (Fig. 58) fix the insert on the counterparts (Fig. 59) which are located on the rear side of the flap of the medical stroller/trolley seat. As necessary, select the fixation height of the shoulder straps and lower middle strap. The shoulder straps have 2 adjustment heights, the lower middle strap also has 2 variants. Before the final pull-through and mounting of the straps back on the stroller construction, seat your child inside the seat to find out the correct adjustment of these straps and to choose the correct holes for straps.

Then pull over the shoulder straps (pads) and with the zipper on the external side of the seat tighten them so that they cover the straps and buckles well and do not slide down on the straps.

With other snap hooks you can adjust the required ranges of individual fixation strap parts. Place the protective and fixation pads in the stroller so that they fix the head of the transported person well, and the middle wedge to prevent the person from slipping off. All must be adjusted in such a way that the transported person has the maximum comfort. The transported person must be fixed firmly, but the strap must not clasp or otherwise limit them. A slight movement of the fixed person is possible and desirable (Page 22, Fig. 33).

The manufacturer supplies fixation inserts in the respective colour combinations like the stroller models.



Figure 59

**NOTICE:** When handling the medical stroller/trolley and mounting or removing the fixation insert, always follow all instructions for operation of the medical stroller/trolley. Only perform it if you are absolutely sure that the medical stroller/trolley cannot start spontaneously, overturn or otherwise threaten your baby or operating persons.

## 9.6 Winter bag



Figure 60

A

B

C

The winter bag is an accessory to the stroller/trolley equipment and it can be added to any variant of model S. It is comprised of two parts (Fig. 60, **A**). The main upper part with zipper and holes for 5-point straps (Fig. 60, **B**) and the lower part (feet bag) which serves for extending the bag for bigger children. It is fully removable and can be cleaned by washing according to the symbols on the attached label. Owing to this, babies can be transported in the bag with shoes, which increases the operating comfort.

Mount the bag in the same way as the fixation insert, Chapter 9.5. of this manual. Fix the upper side fixing straps on the bag by wrapping around the stroller construction (in the same way as in the fixation insert) and fix on the counterpart of the snap on the rear side of the seat. If the fixation insert is installed in the stroller, fix this snap on the counterpart on the rear side of the canopy.

If the medical stroller/trolley is equipped with a fixation insert, the winter bag can only be fixed onto the side straps if the canopy is mounted on the medical stroller/trolley.

The upper part of the bag can also be cleaned by washing according to the symbols on the attached label.

## 9.7 Additional bags

### 9.7.1. - bum bag / hand bag







Figure 61

The sports bum bag / hand bag can be worn also separately around the waist. It has an insulated drink bottle pocket, a double zipped pocket and a fastening strap. It can also be easily placed on the medical stroller/trolley handle. It is made in the respective colour combinations like the stroller models.

#### 9.7.2. - Hand bag







Figure 62

The sports bag can be worn also separately over the shoulder. It has two inner pockets, a Velcro flap and an adjustable shoulder strap. With the side Velcros it can be easily fixed onto the medical stroller/trolley handle. It is made in the respective colour combinations like the stroller models.

## **9.8 Transport bag**

The manufacturer supplies a special strengthened transport bag for the whole medical stroller/trolley and all accessories. This bag is ideal for easy manipulation, transport or you can use it if you want to store the medical stroller/trolley only for a few days in the garage for example. The bag has side and carrying straps, reflective and compressive elements and handles for easy manipulation by hand, but it is also possible to attach it to a roof rack of the car.

Open the bag by opening zippers to the maximum. Put on an even surface/ground and open the sides of the bag towards outside. Put the entire medical stroller/trolley in the middle of the bag and pull the sides in direction up. Close zippers, ideally on both sides at the same time. For ideal position of the medical stroller/trolley in the bag it is necessary to „shake“ it a bit when closing.

Then fasten compressive straps until the medical stroller/trolley is tightly fixed (Fig. 63).



Figure 63

## **9.9 Special head rest**

To improve comfort of the transported person you can provide head and body bolsters on fixation insert also with a special head rest. It can be attached to stripes of Velcro on fixation insert (Chapter 9.5) at any chosen height. It can also be combined with existing bolsters and thus achieve a better head support of the transported person or use it separately.



Figure 64





This PRODUCT OPERATION MANUAL was issued on July 1, 2017 as a version 2.1 2017 and it is applicable until a new one is issued.

The manufacturer reserves the right for changes in individual components due to the technical development of the product and accessories.

**Volter s.r.o., Žitná 26/570, Praha 2, 120 00, Česká republika**  
**info@volter.cz, www.volter.cz**

All rights reserved.