











contents

1.	Introduction	3
Deli	very of the wheelchair	3
Usa	ge and safety instructions	3 - 6
Fig.	1 Model overview	7
1.1	Unfolding the wheelchair	
1.2	Attaching the foot rests	
1.3	Folding the wheelchair	8
2.1	Removing the arm rests	<u>c</u>
2.2	Inserting the arm rests	
2.3	Setting the height adjustable arm rests	9
2.4	Setting the splash guard	
2.5	Removing the foot rests	10
2.6	Folding the foot supports	10
2.7	Setting the foot rest height	10
2.8	Setting the elevating leg rests	11
3.1	Operating the parking brake	11
3.2	Setting the parking brake	12
3.3	Operating the drum brake (attendant operation)	12
3.4	Adjusting the drum brake	12
3.5	Removing the drive wheels with quick release axles	13
3.6	Adjusting the steering wheels	13
3.7	Adjusting seat height	14
3.8	Fitting and adjusting the anti-tip arms	15
3.9	Adjusting the anti-tip arms vertically	15
4.1	Adjusting the seat depth	15-16
4.2	Frame number	17
4.3	Transport Kit for vehicles	17-18
4.4	Maintenance of your wheelchair	18-19
4.5	Technical data	19
War	ranty	20
Not	es	21-22

Owner's Manual



introduction

The new generation of UNIROLL modular heavy duty wheelchairs from SUMED.

Through innovation and technological development Uniroll have developed a new generation of modular heavy duty wheelchairs.

Using advanced materials and specialised components our wheelchairs represent cutting edge design, setting new standards in wheelchair manufacture. With a high level of adaptability our wheelchairs can be tailored to suit the needs of a wide range of clients.

We are delighted that you have chosen a Uniroll Goliath wheelchair from Sumed. You can be certain that it has been built with not only safety in mind, but for your comfort and ease of use.

Before using your wheelchair for the first time please read this owner's manual and keep for future use. Sumed International (UK) Ltd.

delivery

All wheelchairs are quality inspected throughout the manufacturing process, with a final inspection before shipment to ensure that your wheelchair reaches you in perfect condition.

If after unpacking you find any fault with your wheelchair please immediately contact:-

Sumed International (UK) Ltd Telephone: 01457 890980

Fax: 01457 890990

Email: sales@sumed.co.uk

Note : Office hours 8.30am – 5pm, Monday – Friday

usage

Your wheelchair is designed to assist mobility for indoor and outdoor use. It is only supplied as a self propelled option although all models have attendant drum brakes. This wheelchair is suitable for people with a wide range of medical conditions, but it is not suitable for self propelling for people with certain medical conditions e.g. extreme vertigo, double arm amputee, muscular dystrophy or blindness.

If you are unsure of the suitability of the wheelchair please seek professional advice.

Your wheelchair is designed only to be used on firm surfaces such as pavements and at a walking pace.

safety instructions

- 1) Before using your wheelchair for the first time read the user manual carefully.
- Only use the wheelchair for its intended purpose.
- 3) Check all parts of the wheelchair for damage before each use.
- 4) Practice handling your new wheelchair on level ground and with a friend, take extra care until your are confident handling your wheelchair.
- 5) Users of the wheelchair must exercise extreme caution when faced with obstacles. Ramps or other suitable equipment should be used whenever possible. If the wheelchair (with an occupant) needs to be lifted over an obstacle this should only be attempted with at least two helpers. The maximum safe slope for this wheelchair is 10°, a slope of approximately 1 in 6.
- 6) Wheelchairs **MUST NOT** be used on escalators.
- 7) Exercise caution when parking your wheelchair on hills or steep gradients. **BOTH BRAKES** must be applied to avoid **ROLLING** and **TIPPING**.
- 8) The wheelchair must not be used as a shower chair or to pull or transport goods and **MUST NOT** be exposed to sea water and sand.
- 9) The maximum body weight of the user is 300kg.

Please note: When folding/unfolding the wheelchair, when fitting or removing the foot rests or when adjusting arm rests or applying the parking brake, there is a danger of entrapment for fingers and other body parts. When removing the foot rests, please ensure that the black plastic caps are inserted in to the foot rest mounting to prevent entrapment. See section 1.2.

ALWAYS TAKE GREAT CARE WHEN PERFORMING THESE OPERATIONS.

Special precautions on uneven ground

The wheelchair is for indoor and outdoor use on a flat and firm surface. Caution must be exercised when using on slippery surfaces such as wet or icy pavements or when using on ramps or steps. Seek help when travelling over difficult surfaces.

Always be aware of risks when travelling over uneven surfaces and assess safety before attempting.



safety instructions cont.

Transportation

Transporting your wheechair must be by the frame only and in no case should the wheelchair be carried using the foot rests, the arm rests or the back rest. With a seated occupant, obstacles such as staircases should only be attempted with assistance. Swivel the anti-tip arms on the rear of the wheel chair through 180° (see section 3.7 on anti-tip arms). Once the steps are traversed the anti-tip arms must be replaced to their original position and secured.

Please see section 4.3 for vehicular transportation.

Brakes

Before every use test the brakes to ensure that they are working correctly. To ensure the safety of your wheelchair the braking system should only be serviced by authorised service personnel.

Setting instructions for parking brake

If the axis position of the rear wheels has been modified, the brakes must be checked to ensure correct function.

Correctly adjusted brakes to the rear wheels will, when applied, prevent the rear wheels from rotating. If for any reason the wheels can rotate you MUST check brake shoes for wear or incorrect adjustment. DO NOT use your chair with faulty brakes. Consult a qualified service engineer if in any doubt.

If the braking effect of the drum brakes decreases noticeably it may mean that the brakes need adjusting or shoes may need replacing. The wheelchair must not be used and must be repaired by an authorised dealer/qualified engineer.

Operating forces of the parking brake

Ensure the brake levers are adjusted to enable the user to operate them easily on both sides. If the user experiences difficulties, brake levers can be extended by up to 4cm which will significantly reduce the operating force required (see section 3.2). Ensure that the brake levers are used only for the purpose of operating the brakes.



safety instructions cont.

Adjusting the drum brakes

To set the drum brakes, remove the wheel and unscrew the locking nut on the end of the brake cable where it passes through the brake drum assembly (see section 3.4). Operate the brake lever, so that the brake shoes in the brake drum are centred in the assembly. Replace the wheel and adjust the brake cable half a turn at a time to ensure that the wheel can turn freely with no brake pressure applied. Test the brake system by applying the brake to ensure that the wheel cannot revolve. Remove the wheel and check that the brake shoes both move evenly when operating the brake and tighten the locking nut in position. Ensure all fixings on the brake system are secure and the brake system is fully functional.



Adjustment of brakes should only be done by qualified personnel

Adjusting rear wheels

The wheel mountings for the rear wheels can be adjusted vertically and horizontally, to suit the wheelchair user's needs and preferences. Vertical adjustment will change the seat height and the seat angle. It is important to note that if the wheelchair height is adjusted by altering the rear wheels, the front wheels must also be adjusted to maintain stability, (see section 3.4).

If the rear wheels are moved forward i.e. horizontal direction adjustment (to suit certain clients), the centre of gravity of the wheelchair will be altered. There will be an increased risk of tipping and the anti-tip system should be fitted to avoid this happening.



Increased risk of tipping due to wheel repositioning

Rear wheels with anti-tip kit fitted

Before using your wheelchair ensure the anti-tip kit is securely attached and mounted correctly.

Front wheel settings

Different diameters of front wheels are available. It is important to ensure that the control heads on the front wheel forks are vertical.



Note: If smaller front wheels are used, the position of the rear wheels must be adjusted forward to align vertically. It may also be necessary to adjust the rear wheel dimensions.

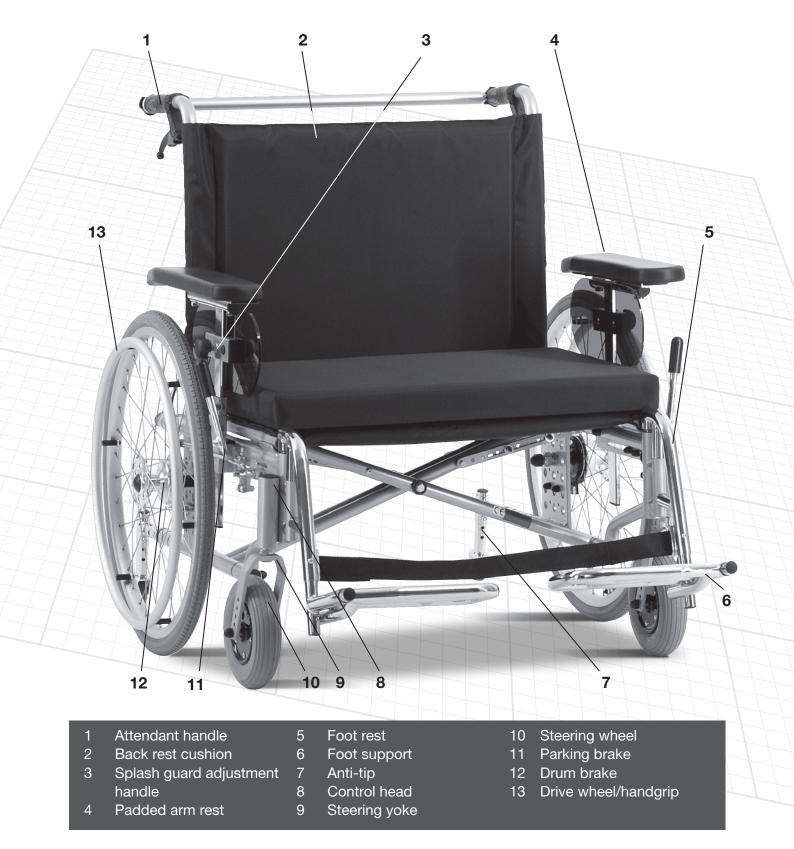
Be careful when driving on a gradient

Different gradients and obstacles can create problems and lead to a risk of tipping and falling. Changing the posture of the user in the chair can help increase stability. Sitting back in the chair when descending a gradient and leaning forward when climbing up a gradient can also help improve stability but care must always be taken to ensure user safety.



Be aware of potential accident risk when driving on steep gradients and assess for safety before attempting

Fig. 1 - Goliath model overview



Owner's Manual



1.1 Unfolding the wheelchair

The wheelchair is designed so that it can easily be unfolded. To do this place one hand on each side of the raised seat and press down until the seat is horizontal and clicks in to place (see fig. 2). Place the hard based cushion with the hook and loop tapes on to the seat, the tapes will hold the cushion in place.

Note: the Goliath should not be used without the seat cushion provided (or a suitable base board under an alternative cushion) being on the chair.

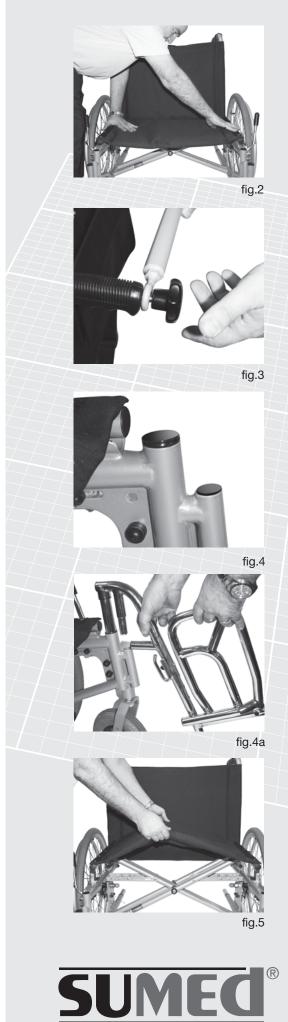
Fix the rear push bar in place by attaching to the handles at the rear of the wheelchair (see fig. 3).

1.2 Attaching the foot rests

To attach the foot rests, first remove the black caps from the foot rest mounting brackets (see fig. 4). IMPORTANT: Retain in a safe place as these must be replaced if foot rests are removed, to avoid entrapment. Place foot rests directly in to mounting points to ensure they are located securely. Note: the foot supports must be pointing inside the frame (see fig. 4a).

1.3 Folding the wheelchair

Release the rear push bar by unscrewing the black caps screwed in to the handles at the rear of the chair. Fully remove one screw cap but only loosen the other. The horizontal push bar will then drop in to a vertical position to allow the wheelchair to be folded. The rear push bar can be fully removed if required by removing both black screw caps from the handles. Ensure the foot rests and seat cushion are removed. Grasp the chair at the front and back of the seat and pull upwards and the wheelchair should fold easily (see fig. 5).





2.1 Removing the arm rests

To remove the arm rests loosen the lower knurled bolt, the arm rest will slide up and out of the housing (see fig. 6).

2.2 Inserting the arm rests

To insert the arm rests first ensure the allen bolt and knurled boltare not protruding through the arm rest mounting, then insert the arm rest. The arm rest should slide down into the mounting. Tighten the allen bolt and knurled bolt when the arm rest is fully inserted, the arm rest should then be locked in place (see fig. 7).



Ensure the arm rests are securely fixed in place

2.3 Setting the height adjustable arm rests

You can adjust the arm rest to suit your requirements. Loosen the allen bolt (using a 4mm allen key) and knurled bolt and raise or lower to the desired position. Once in position, tighten the allen bolt and knurled bolt to secure (see fig. 8).



Ensure that the arm rests are securely locked in position before using chair

2.4 Setting the splash guard

To adjust the position of the splash guard, unscrew the handle on the splash guard mounting (see fig. 9), the splash guard will slide out vertically. Once in the desired postion, re-tighten the handle to secure.



Ensure that splash guard is securely locked in position before using chair



fig.6



fig.7



fig.8

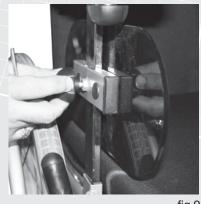


fig.9





2.5 Removing the foot rests

There are times when the foot rests should not be used, e.g. when transporting the wheelchair. To remove the foot rests first swivel the foot supports vertically so they are facing upwards. To do this, press the silver quick release button on the foot support (see fig.10). Grasp the foot rest firmly and pull it vertically upwards, the foot rest will slide out of the mountings. Repeat the process to remove the other foot rest.



Important: replace black caps to foot rest mountings to prevent entrapment

2.6 Folding the foot supports

In order to enter or leave the wheelchair you can fold the foot supports vertically. To do this ensure that the brakes are applied to prevent the wheelchair rolling, press the silver quick release button (see fig. 11) on the foot support and swivel each foot support vertically so they are facing upwards.

2.7 Setting the foot rest height

The foot rest is fitted with a telescopic adjustment of approximately 12cm to allow the foot support to be positioned to suit the user's needs. Before adjusting ensure the brakes are applied to prevent the wheelchair rolling. Using an allen key (4mm) and 10mm spanner remove the allen head bolt on the foot rest (See fig. 12). Adjust the height of the foot support in 3cm stages to suit your requirements. Ensure allen head bolts are tightened once adjustment is complete.



Ensure all bolts are secured before using foot rests and that both foot rests have been adjusted correctly







2.8 Setting the elevating leg rests.

The procedure for attaching, removing or setting the height is identical to that for standard leg rests.

Before adjusting, ensure the brakes are applied to prevent the wheelchair rolling. With the aid of an assistant to adjust the elevation of the leg rests, slacken the handle (shown in fig. 13) at the top of the elevating foot rest. This will allow the foot rests to be raised or lowered. Once the desired position is achieved, tighten the handle. A calf support can be moved up or down by slackening the cap head bolts with a 5mm allen key. The foot support can be easily adjusted up to 20cm by slackening the cap head bolt and re-tightening after adjustment.



Care should be taken to avoid entrapment in the mechanism when adjusting

3.1 Operating the parking brake

The brakes are one of the most important safety elements of your wheelchair. You must always make sure that they are functioning correctly. Braking can be affected by damaged tyre tread, wet tyres, or by a loose brake mechanism. To operate the parking brake press both brake levers forward to apply the brakes. To release the brakes simply pull back on both brake levers (see fig. 14).







3.2 Setting the parking brake

Ensure that the parking brake is in the OFF position. Loosen both 10mm nuts using a ring or open ended spanner. Re-position as required re-tighten both and check that when brake handle is pushed forward, the rear wheel does not rotate. (see fig. 15).



Note this must be checked after any adjustment of seat height, seat tilt or width, repositioning of rear wheels or replacement of tyres

3.3 Operating the drum brake

There are two positions in which the brakes can be locked. The first position applies a light braking force and in the second position the brakes are fully applied.

The carer/attendant can operate the drum brakes by pulling lightly upwards on the rear brake handles (see fig. 16). A light braking force can be continuously applied (when on slopes or uneven surfaces to control walking speed) by pulling the brake levers lightly and pressing the locking mechanism in the first position. To release the locking mechanism simply pull the brake levers upwards (the locking mechanism is automatically released).

To stop the wheelchair fully, pull firmly upwards on the brake levers and at the same time press the locking mechanism. This will set the brakes in the second position and the wheelchair brakes will be fully locked.

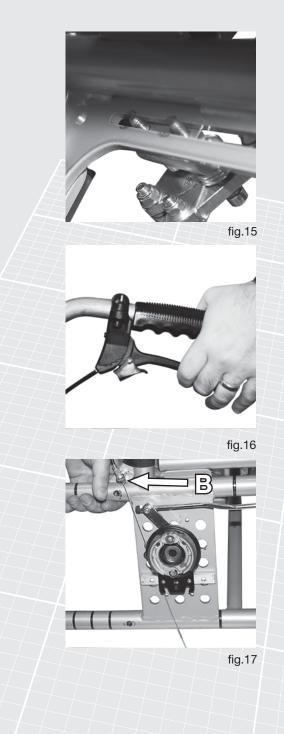
3.4 Adjusting the drum brake

Drum brakes are fitted as standard (for use by both the occupant and/or carer/helper) and it is important to ensure that they are functioning correctly. Problems can occur due to worn brake shoes, or other damage to the brake mechanism. The drum brakes can be adjusted by simply unscrewing the locking screw (B) and adjusting the cable tensioning (see fig. 17).



Ensure that the wheels run freely with no brake applied and are locked when the brake is applied

Owner's Manual





3.5 Removing the drive wheels

You can remove the drive wheels. First remove black plastic dust cap from the nut on the end of the axle mounting frame on the inside of the wheelchair and black plastic dust cap on outside of wheel. Next, using a 19mm open end or ring spanner and a 20mm socket, remove the 19mm nut on the inside of the frame. The wheel and shaft will then slide horizontally out from the frame (see fig. 18). To reinstall the wheels, reverse the procedure.

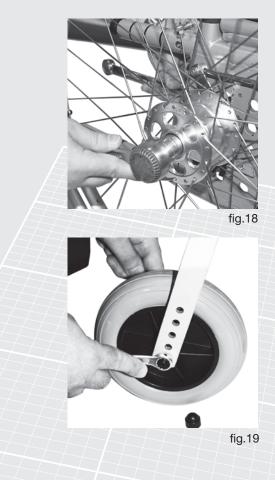
After reinstalling wheels always check that they are correctly fixed in position and secured.



When fitting or removing the wheels, make sure that the brakes are released. Ensure all fixings are secure

3.6 Adjusting the steering wheels

If the seat height is adjusted (3.7) the steering wheel height should also be adjusted. Before adjusting, ensure the brakes are applied to prevent the wheelchair rolling. With two ring, or open-ended spanners (13mm) undo the wheel axle. Remove and reposition the steering wheel by using one of the additional fixing holes (see fig. 19). Once in position refasten all fixings. Repeat for the other wheel.







3.7 Adjusting seat height

The seat height on the Goliath wheelchair can be adjusted from 45cm – 54cm in 3cm steps. To adjust the seat height first remove both wheels (see section 3.5), the drum brake assembly will now be visible. Remove the circlip at the bottom of the brake shoes. This will allow the brake shoes to separate and provide access for a 22mm open ended spanner to be applied to the wheel mounting hub. Using a 24mm ring or open ended spanner on the nyloc nut on the inside of the frame (see fig. 20) and a 22mm open ended spanner on the inside of the drum brake assembly remove the wheel mounting hub and drum brake assembly.

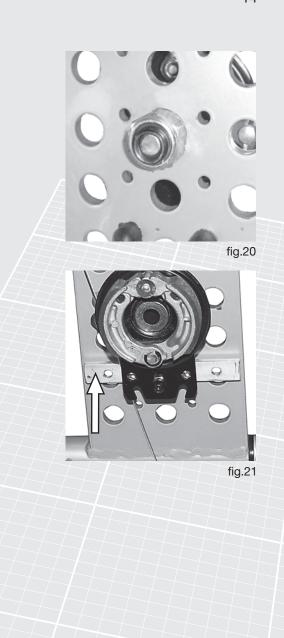


Note: Do not remove any of the brake linkage attachments

When re-positioning the wheel mounting hub, the bracket that prevents flexing of the brake drum assembly must also be repositioned (see arrow on fig. 21). To re-position the anti-flex bracket, slacken the black allen head bolt on the brake drum assembly (using 4mm allen key and 10mm open ended spanner). Next remove the two cap head bolts from the aluminium anti flex bracket (using 4mm allen key and 10mm ring or open ended spanner) and remove the bracket. Once the position of the wheel mounting hub has been decided, fix the anti-flex bracket in the corresponding position, replace and tighten cap head bolts, re-attach the wheel mounting hub and fasten securely. Fix the brake shoe assembly in position using the circlip. Re-attach and secure the black cap head bolt from the drum brake assembly to the anti-flex bracket. Ensure all fixings are tightened and secured and check to ensure the drum brakes are functioning. Replace the drive wheels as in section 3.5.



Note: There is an increased risk of tipping, reposition front wheel to suit new seat height. Ensure brake system is still functioning correctly







3.8 Fitting and adjusting the anti-tip arms

To install the anti-tip arms on to the lower shafts at the rear of the wheelchair frame, press the silver quick release button on the anti-tip arm (see fig. 22). To adjust ant-tip arms horizontally, press silver quick release button until it passes through the mounting. The anti-tip arm can now be moved horizontally.

N.B. there are 3 possible positions, 3cm apart allowing a total of 9cm horizontal adjustment. Once adjustment has been made, ensure the quick release button is clearly showing through the frame and the arm cannot be moved.

3.9 Adjusting the anti-tip arms vertically

Using a 4mm allen key and 10mm ring or open ended spanner remove the allen bolt (see fig. 23). With the allen bolt completely removed slide the arm up or down to the required location. There are 5 possible locations 2cm apart (do not use the uppermost location).

4.1 Adjusting the seat depth



Caution: Two operatives required

The seat depth can be adjusted from 45cm – 54cm in 3cm increments. To adjust the seat depth, remove the anti-tip arms (see section 3.8). On the upper and lower shafts (see fig. 24) remove the allen head bolts using 5mm allen key and 12mm ring or open ended spanner (this must be done on both side of frame).





fig.23



fig.24





At the rear of the shafts remove the black open ended clips by placing fingers either side of the clip opening and pulling outwards (see fig. 25). Clips should detach from the shafts. Repeat on all four shafts. Next, remove all grey spacer blocks from the shafts (see fig. 26) and set aside. Remove parking brake assembly brackets from the frame (using 5mm allen key and 10mm ring or open ended spanner) (see fig. 27). Place the wheelchair on its back so that the push handle is against the floor. Grasp the chair firmly by the front steering wheel and pull vertically upwards (you may need a second person to assist by holding the cross frame in place). The steering wheel and shafts will slide out of the frame (see fig. 28). Repeat on other side of chair. Once steering wheels and shafts have been removed from the frame seat adjustment is possible.

Adjustment can be made in 3cm increments using the grey spacers removed from the rear of the shafts above. For each 3cm of adjustment 4 spacers are required one on each of the four shafts. Therefore if the chair is set at 45cm and 48cm is required, use 4 spacers. Place one spacer on top of each of the four openings on the cross brace. For 6cm use two spacers on each shaft and for 9cm 3 spacers on each shaft (see fig 29).

Note: Spacers not used at the front of the cross bar must be replaced at the rear once the drive wheels and shafts have been reinstalled i.e. For 3cm adjustment, 1 spacer at the front and 2 spacers behind the cross brace on each shaft. For 6cm adjustment, 2 spacers at the front and 1 spacer behind the cross brace. For 9cm adjustment, 3 spacers in front, no spacers behind the cross brace on each shaft.

Once the drive wheels and spacers have been repositioned, place the chair back on its wheels, re-fix the black open ended clips on the rear of the shafts and re-fix the bolts through each shaft. Re-fix the parking brake assembly then re-fix the anti-tip arms.



Check to ensure that parking brake functions correctly and that all fixings are secure





fia.25



fig.26



fig.27



fig.28



fig.29



4.2 Frame number

To ensure the effective continuing service of your wheelchair and to ensure your guarantee remains in place you must only use authorised spare parts. The model and specification for your wheelchair is on the label located on the lower part of the left frame (see fig. 30).

4.3 Transport Kit for vehicles

Your Goliath Wheelchair is suitable for use in an appropriate vehicle providing the correct equipment is used to secure the chair.

You can purchase a Transport Kit from Sumed International (UK) Ltd. (see page 3 for contact details). This will provide the necessary parts required for compliance with safety standards in transportation of wheelchairs. The kit comprises of:

- 2 brackets which bolt to the front posts of the wheelchair (see fig. 31).
- 2 brackets which bolt on to the rear posts of wheelchair (see fig.32).
- Lap belt with steel quick release mechanism.
- Shin/leg straps which go across front of shins secured to the front posts.



Chair restraints and client restraints are not supplied but can be obtained from Unwin Safety Systems. They should always be used in accordance with instructions supplied with the restraints

A range of wheelchair tie downs to suit your vehicle may be found on the Unwin Safety Systems website by following the link on the Sumed website (www.sumed.co.uk) or typing the details below in to a web browser:

http://unwinsafety.com



We recommend that chairs are forward facing during transportation in a vehicle and that all straps and brackets are used



fig.31



fig.32





The lap belt, with steel quick release mechanism attached to your chair should be loosely fitted.

Your wheelchair should be secured front and back using the appropriate restraints through the brackets front and back. They should be tightened in accordance with the manufacturer's instructions.

Three point patient restraints should be used and threaded inside the back posts, straps should be tightened and adjusted in accordance with the manufacturer's instructions.

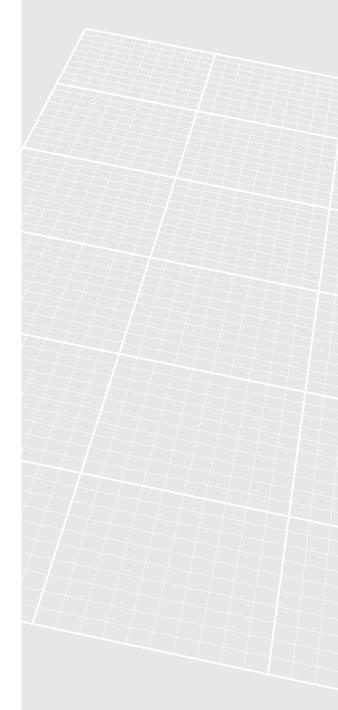
4.4 Maintenance of your wheelchair

Before using:

- Check that the brakes are working correctly. Do not use the chair if the brakes are not working
- · Check for damage to the wheelchair
- Check the tyres for damage

Monthly:

- Lightly oil all of the moving parts with one or two drops of light machine oil (the ball bearings in the wheels on both sides are sealed and do not need to be greased)
- Check all screws and bolts for tightness







Regularly clean your wheelchair using warm water and soap solution, or a commercially available cleaner.

Clean the plastic parts with commercially available cleaners. The seat and back rest cover should be cleaned using warm water and soap solution, or commercially available cleaning agents.

To remove stubborn stains use a commercially available stain treatment. Check the suitability of the cleaning agent prior to full cleaning by testing a small area of fabric for colour fastness.

The wheelchair can be disinfected with household disinfection agents.



Maintenance, adjustment and repairs may only be performed by authorised professionals

4.5 Technical data

Seat width: not adjustable	55	60	65	70	75	80	85	cm
Total Weight	37.5	38	38.5	39	39.5	40	40.5	kg
Weight without AR and FR	31.4	31.6	31.8	32	32.2	32.4	32.6	kg
Seat height: adjustable	45 - 48 - 51 - 54cm 45 - 48 - 51 - 54cm							
Seat depth: adjustable								
Back rest height: not adjustable	42 or 46cm							
Overall width:	Seat	Seat width + 24cm						
Overall height: (= Seat height + back height + 2cm)	From 89cm to 102cm							
Total length with foot rests:	118c	118cm						
Total length without foot rests:	88cm	88cm						
Load Capacity Max.:		300kg						
Material:		Frame and cross strut made from high- quality steel, powder coated						
Back angle:	7.4 °							
Seat angle:	3.8 °							

AR = Arm Rests • FR = Foot Rests





warranty

Five years warranty on crossbar and frame (other parts 2 years for manufacturing defects). In case of complaint please send us your justification (within the warranty period), stating your full complaint and quoting model name, frame number and the delivery date.

To obtain the model name and the frame number please refer to the name plate on the left hand side of the frame (see fig. 30).

Caution:

Failure to follow the owner's manual, as well as incorrectly performed maintenance, technical changes or modifications without the consent of Sumed International (UK) Ltd., will void both the warranty and product liability in general.

Note for re-use:

The wheelchair is suitable for re-use.

The wheelchair should be cleaned and disinfected by the distributors and checked for damage prior to being released and all safety and technical information must be reissued with the wheelchair.

WARRANTY						
Model name:						
Frame No.:	Delivery date:					
Supplied by:	Dealer Address:					
Sumed International (UK) Ltd. Integrity house Units 1-2 Graphite Way Hadfield Glossop Derbyshire SK13 1QH						



notes

notes