



Tendercare

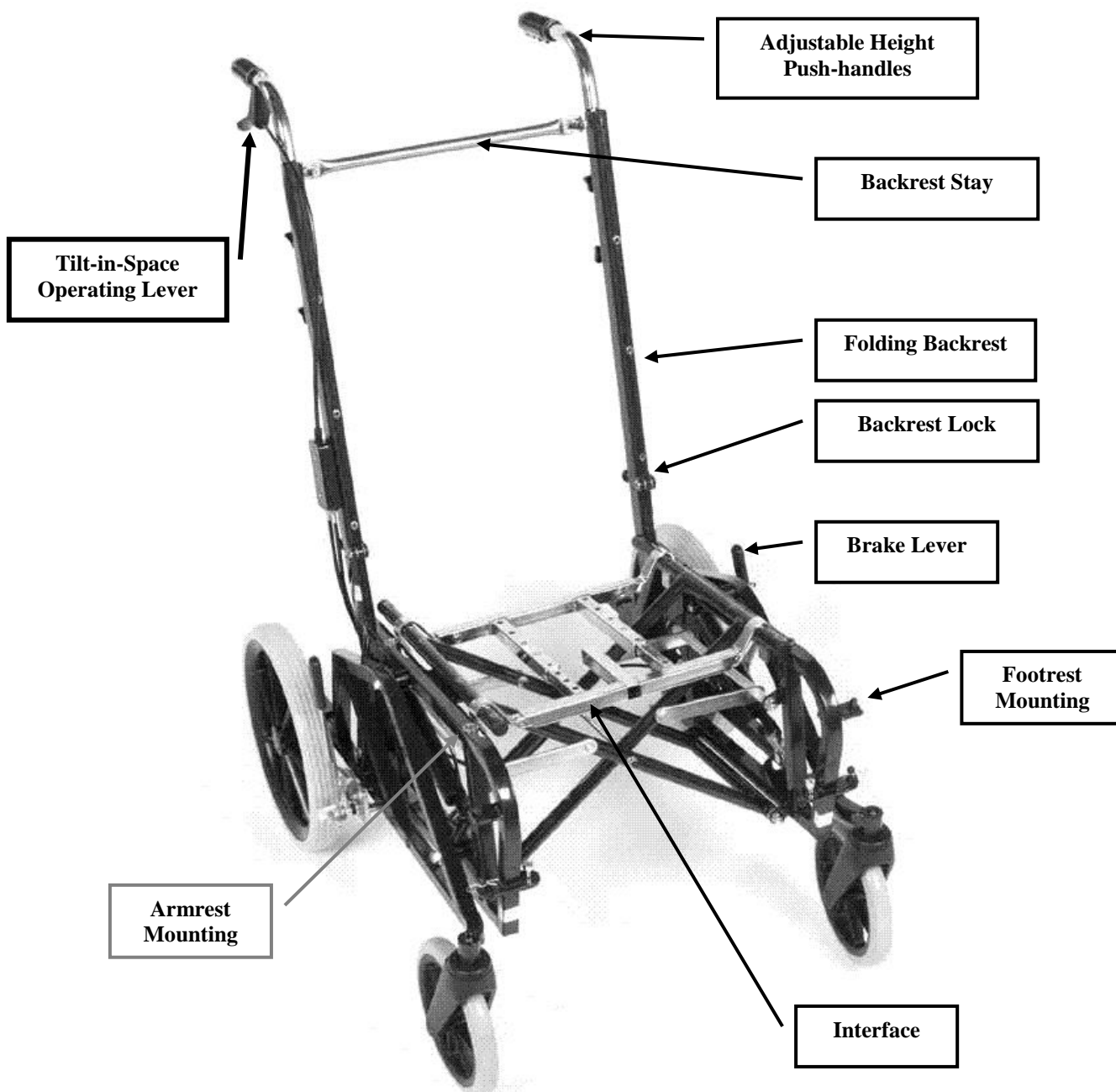
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WORKSHOP MANUAL

TILT and FOLD WHEELBASE

IMPORTANT

Please read these instructions carefully
Before attempting to maintain the Wheelbase



TENDERCARE

TILT & FOLD WHEELBASE

With

TENDERCARE SEATING INTERFACE

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1. Your Tilt & Fold Wheelbase Manual

The purpose of this manual is to help you get the best from your wheelbase. It does this by telling you how to complete those maintenance tasks that can be carried out by a competent person. The manual also tells you when you should contact the manufacturer who is: -

Tendercare Ltd
PO Box 3091, Littlehampton, BN16 2WF
Tel (01903) 726161 Fax (01903) 734083
Email: info@tendercareltd.com
www.tendercareltd.com

2. Transit Packaging

Warning the transit carton is heavy, moving and unpacking must be done with care. Observe all lifting and handling regulations.

- 1) The wheelbase is supplied in a cardboard carton of approximate size and weight 800 mm wide x 350 mm deep x 870 mm high. Weight of carton 28 kg
- 2) Stand the Carton upright making sure it is supported and cannot fall over. Open the carton and remove any packages or packing, which could obstruct the removal of the frame.
- 3) When you have checked you have all the items listed below you should dispose of the packaging at your local recycling centre.

Item	Component	Number	Yes	No
1.	Tilt and Fold wheelbase	1		
2.	Push handles	2		
3.	Thumb Screws (<i>for push handles</i>)	4		
4.	User Manual	1		
Accessories if ordered with Wheelbase				
5.	Footrests	2		
6.	Armrests	2		
7.	Self Propelling wheels & fixing kit	1		
8.	Backrest Upholstery	1		
9.	Play Tray	1		
10.	Padded Pelvic Strap	1		

Check all items for damage to paintwork, alignment, welds etc.

If any items are damaged or missing please contact Tendercare,
Preferably by fax 01903-734083 within 36 hours of delivery.

The general assembly of the Tilt & Fold wheelbase is illustrated on page 2.
A parts list is given on page 16.

3. Tools and Torque Settings

The following tools are required to dismantle and reassemble the wheelbase: -

Spanners and sockets: - 7mm, 8mm, 10mm, 13mm, 19mm, 22mm, 24mm, $\frac{3}{16}$ Whitworth.

Hexagon Keys: - 2.5mm, 3mm and 4mm.

Torque Wrench: - range 0 to 60 Nm.

Screwdrivers: - Phillips and Flat Blade.

Torque Settings: -

Spanner Size	Torque Nm
7 mm	8
8mm	10
10mm	15
13mm	25
17mm	30
19mm	45
22mm	50
24mm	54
$\frac{3}{16}$ Whitworth (<i>Footplate angle adjustment</i>)	8

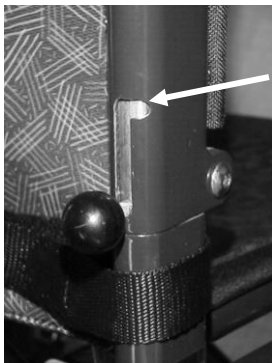
4. Preparing for use

The wheelbase is supplied ready for use. The following pre-delivery procedures should be carried to check that the wheelbase has not suffered damage during transit and that all features operate satisfactorily.

Warning: - When opening or folding the wheelbase, ensure that you hold the frame so that you avoid any danger of catching your fingers in moving parts.

4.1 Unfolding and folding: - make sure all items below are working properly

4.1.1 Backrest supports: - Make sure the locks operate positively and freely



Standing behind the wheelbase lift the backrest locking pins using the ball shaped handgrips at the bottom of the backrest tubes. Turn them so that they lock into the groove arrowed opposite

Lift backrest supports vertical.

Lock the supports in position by moving the handgrips out of the arrowed groove (*see photo*) and making sure they have moved to the bottom of the slot in the backrest tube.

4.1.2 Push handles: - Check adjustment and security.

The push handles are fitted to the wheelbase prior to delivery. Make sure that they are in place and that two thumbscrews are fitted to each push handle.

To adjust the height of the push handles unscrew (*turn anti clockwise*) the two thumbscrews at either side and near the top of the backrest. Lift or lower the push handles to the height required then retighten (*turn clockwise*) the thumbscrews.

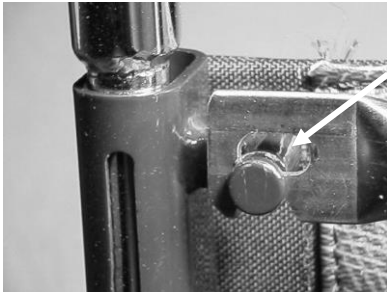
To prevent the push handles moving in use these screws must be tight. Check tightness daily.

To make it easier for some people to push the wheelbase when the backrest is in its lowest position the push handles can be reversed so that the handgrips are pointing forwards. Simply unscrew the thumbscrews, turn the push handles so they are pointing forwards and refit the thumbscrews. Take care not to get the screws cross-threaded when refitting them

4.1.3 Unfolding the wheelbase: - Check operation of folding mechanism

Standing in front of the wheelbase place palms of hands on each side of the seat rails then press down to open the wheelbase. Take care to hold your fingers towards the centre of the seat to avoid catching them on the wheelbase frame.

4.1.4 Backrest spreader bar: - check operation



Standing behind wheelbase lift the chrome “spreader” bar, which is on the right hand backrest support, upwards and place its slotted end onto the peg on the left hand backrest support (*arrowed*). It may be necessary to push the backrest supports apart when doing this.

4.1.5 Armrests: - Check fitting

Note: - *Only applies when armrest is supplied as an optional extra.*



Standing at the side of the wheelbase place each armrest into the holes in the wheelbase frame. (*See photo*). Make sure they are pressed into the wheelbase frame properly.

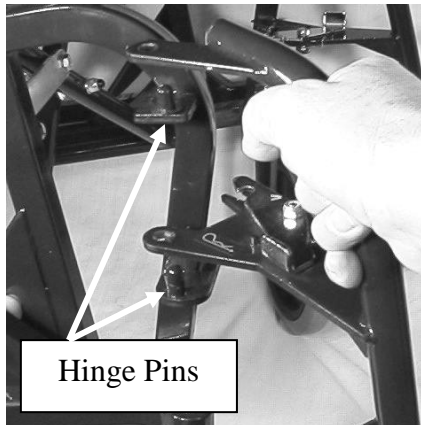
Make sure that the tube supporting the armpad extends to the rear of the wheelbase.

To fold the wheelbase, reverse the above.

4.2 Fitting and removing footrests

4.2.1 Fit the footrest: - check operation

Note: - *Only applies when footrests are supplied as an optional extra.*

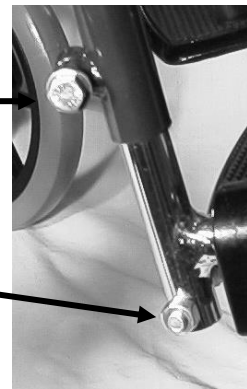


To fit the right hand footrest, stand in front of the wheelbase. Remove the spring clip from the lower hinge pin on the side of the wheelbase. Making sure the footplate is facing in towards the centre of the wheelbase place the footrest onto the hinge pins. (*See Photo opposite*). Replace the spring clip. Swing the footrest towards the centre of the wheelbase until it locks in place.

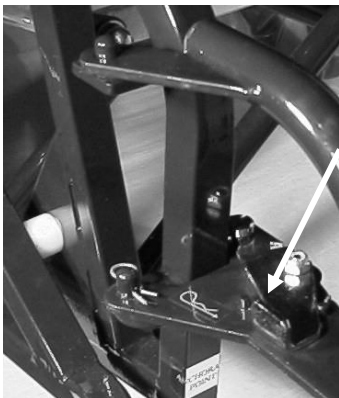
Repeat for the right hand footrest.

Adjust the height of the footrest by loosening the nut on the support tube using a 10 mm spanner. Move the footrest to the desired height then retighten the clamp nut. (*See picture opposite*).

The angle of the footplate can be adjusted by loosening the lock nut, which is at the bottom of the footplate support tube. Screw in or out the footplate stop; until the desired angle is obtained then retighten the lock nut. (*See picture opposite*).



4.2.2 To fold footrests back against the wheelbase frame.



Lift up the footplate so that it is vertical then push on the silver catch on the footrest. The Footrest will then swing back. (*See picture opposite*).

To return the footrest ready for use simply swing the footrest forwards, the catch will lock automatically, and lower the footplate.

4.2.4 To remove footrests.

Remove the spring clip from the lower hinge pin. Swing the footrest to the side and holding the curved part of the support tube lift upwards.

Note: - *The spring clip prevents the footrests being lost. However, if the user needs to regularly remove the footrests the spring clip can be discarded.*

4.3 Tilt in Space

Check Tilt mechanism: - Move the seat through its full range of adjustment.

The angle of the seat and backrest can be adjusted to any angle between the upright and fully reclined position.

To recline the seat, put the brakes on and stand behind the wheelbase. Holding both push handles squeeze the operating lever (*see photo opposite*) and push down evenly on both handles. Release the lever when the seat is at the desired angle.

To bring the seat upright put the brakes on and stand behind the wheelbase. Holding both push handles squeeze the operating lever (*see photo opposite*) and lift evenly on both handles. Release the lever when the seat is at the desired angle.



Important: - *Always hold and move both push handles together when adjusting the seat angle.*

4.4 Tyres and Brakes

The tyres do not require any attention other than being cleaned with a damp cloth when dirty.

Test brake operation by moving both levers forward as far as they will go. The wheels should now be locked. If the wheels move the brakes need adjusting. Adjust them as instructed in section 7.3 below.

To avoid making flat sections on the tyre never leave the brakes on for long periods i.e. overnight or during storage.

5. Cleaning

Make sure the wheelbase is clean and well presented. If there is any dirt it should be cleaned off using a damp cloth and then dried thoroughly.

For more stubborn stains wipe with a damp cloth using a mild solution of warm water and soap.

Never use furniture polishes or spirit to clean the frame.

The Fabric parts of the Wheelchair are made from Ambla fabric. Ambla is resistant to most mild acids, alkalis, drinks and household stains. Clean with a damp soapy cloth and rinse well with clean water. A soft brush can be used for heavy soiling. Do not use solvents, bleaches, abrasives, synthetic detergents, wax polishes or aerosol sprays.

6. Maintenance

Should a problem be found when carrying out the regular checks, it should be immediately reported to the issuing authority or repairer.

6.1 Routine maintenance

The user or their family can easily carry out the following tasks. No tools are required.

- 1) Always wipe the wheelbase dry. Never put it away damp.
- 2) Check that all four push-handle retaining knobs are in place and are hand tight (daily).
- 3) Check brake operation (weekly).
- 4) Check operation of Tilt and Fold mechanism (weekly).
- 5) Clean frame when necessary (we suggest at least once a week).

6.2 Recommended maintenance procedure - 6 monthly

Someone who is a competent tradesman or repairer should only carry out this work. If a major problem is found do not allow the wheelbase to be used until it has been corrected.

- 1) Fold and open the wheelbase. Check that all movements through the folding range are free. Examine frame for any damage.
- 2) Examine nuts, bolts, pivots, sliders and frame plugs for tightness and general condition.
- 3) Examine push handle retaining knobs and check they are hand tight.
- 4) Examine footrest heel loops (*If fitted*) for damage or excessive wear and that the retaining nuts are tight.
- 5) Examine brake assemblies for wear, damage and adjustment.
- 6) Examine Tilt and Fold mechanism and check operation of reclining mechanism.
- 7) Examine front castors and rear wheels for free rotation and security.

7. Repairs

Repairs: - for all repairs contact your issuing Authority or Tendercare Ltd.

Only an authorised repairer should carry out the following repairs.

Major repairs: - for all major repairs e.g. bent or damaged frame. The equipment should be returned to the factory. Contact Tendercare Ltd Customer Services on telephone 01903-726161.

Factory replacement components should be used in all repairs, these are available from Tendercare.

7.1 Front castors: - Replace the complete assembly if damaged or worn.

- 1) Using a 24mm spanner unscrew the hexagon nut at the top of the castor swivel until the castor is removed.
- 2) Before fitting new castor apply LOCTITE thread locking compound grade 241 to the thread on the castor stem. Screw the stem into the wheelbase mounting and tighten to 54Nm.
- 3) The castor should rotate under its own weight if it does not, rotate the castor forks a number of times to ease the mechanism.

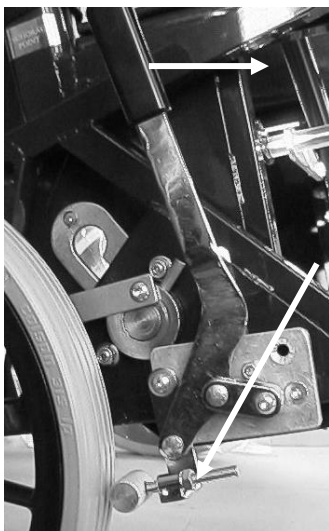
7.2 Rear Wheels: - Replace if damaged or worn.

- 1) Unscrew the axle retaining nut using 19mm spanners. Remove the washers and pull the wheel assembly from the wheelbase.
- 2) Place the spacer taken from the old wheel onto the axle of the new wheel. Insert axle into the wheelbase-mounting hole then fit a new 12mm friction washer onto the axle. Apply LOCTITE thread locking compound grade 241 to the axle thread and secure with a new M12 nut. Tighten to 45Nm. When fitted make sure the wheel rotates freely and the brakes operate properly.

Important – Always fit new steel locking washer and nut.

7.3 Brake adjustment

The tyres are made from a solid material and do not require any attention other than being cleaned with a damp cloth when dirty.



Test brakes by moving both brake levers forward as far as they will go. (See Picture opposite) The wheels should now be locked. If the wheels move the brakes need adjusting.

Adjust the brakes by loosening the nut (*arrowed*) locking the brake pad in place, then turn the pad so that it is near to, but not touching, the tyre. Retighten the locking nut.

Always adjust both brakes at the same time and recheck that the brakes work properly.

Note: Don't leave the brakes ON for a long period. If you do a flat section may appear on the tyre. When not using the wheelbase i.e. overnight or during storage, make sure the brakes are OFF.

7.4 Replacing the gas struts.

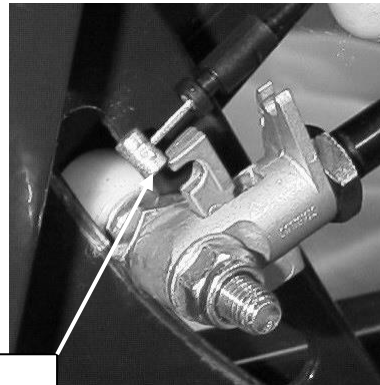
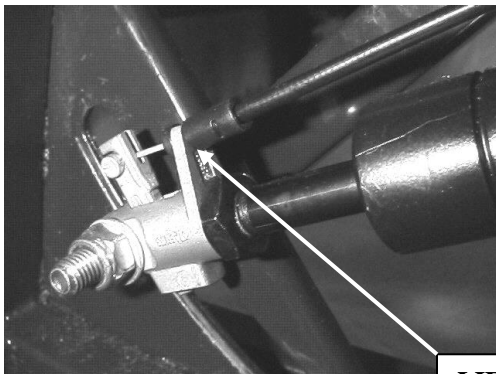
The wheelbase is fitted with two gas struts one either side of the seat between the inner and outer frame. A single lever located on the push handle and a cable linkage operates both gas struts.

WARNING: - *The gas struts are pressurised devices and therefore, are potentially dangerous if mishandled. Do not attempt to dismantle or repair them. They must always be replaced as a complete unit.*

Important: - *When removing or replacing the gas struts take care not to accidentally operate the release lever in order to prevent the strut extending to its full length. When fully open the gas strut length is longer than the fixing centres and it is difficult to close them by hand.*

7.4.1 Removal

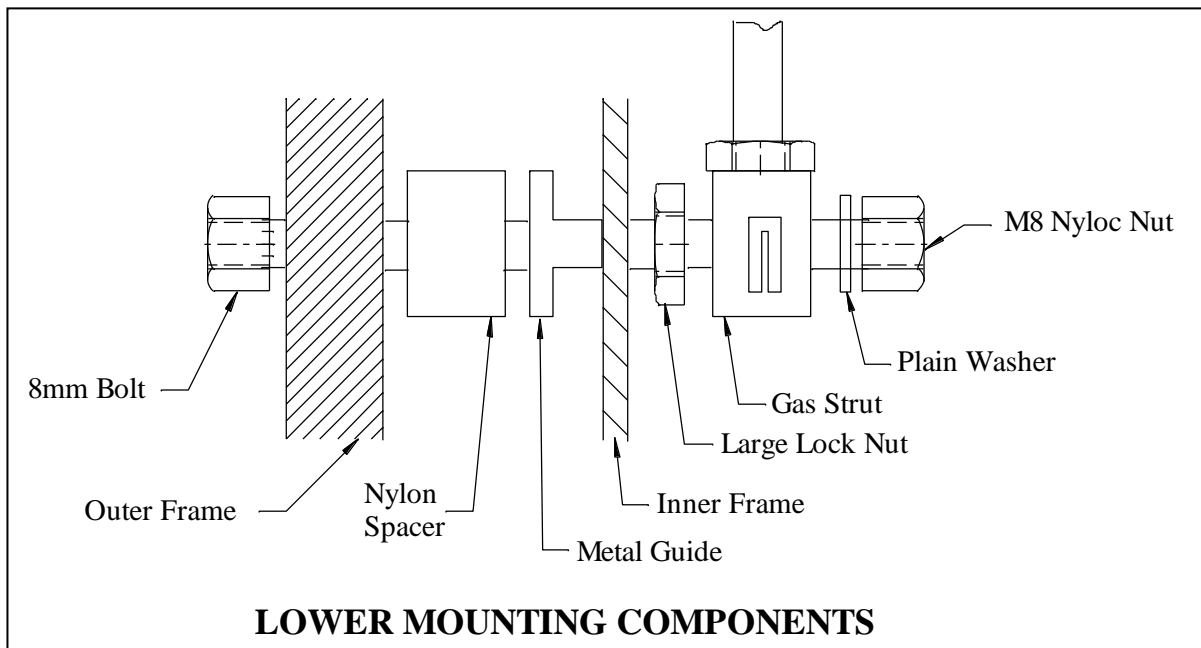
- 1) Recline the seat to its mid position (*See section 4.4*).
- 2) Remove the operating cable from the strut by lifting it off the locating lug and fork. (*see pictures below*).



LIFT OFF CABLE

- 3) Remove the lower mounting components using 13mm and 17mm spanners. Make sure you take note of the position of the components as you remove them. (*See sketch below*).





- 4) Remove the upper mounting bolt using a 10mm spanner and 4mm Hexagon Key. Make sure you take note of the position of the components as you remove them. Remove the gas strut from the wheelbase.



- 5) Loosen the locknut holding the operating catch assembly to the shaft of the gas strut using a 13mm spanner. Unscrew the operating catch. (*see picture opposite*).

7.4.2 **Re-assembly**

- 1) Screw lock nut onto the new gas strut.
- 2) Screw the gas strut onto the operating lever assembly until the operating lever is almost but not quite touching the operating pin that extends from the gas strut.
- 3) Tighten the lock nut against the release operating lever housing.

- 4) Mount the gas strut following the removal instructions in reverse order.

7.4.3 Adjusting the operating cables

- 1) The assembly consists of the hand-operated lever on the push handle, one cable leading to an equaliser block mounted on the backrest tube and two cables leading to the two gas struts.
- 2) After fitting a new gas strut always test the operation of the strut as per section 4.3 above and if necessary adjust the operating cables.
- 3) The cables to individual gas struts should be adjusted first and the final adjustment made to the single cable leading to the hand lever.



- 4) The cables should be adjusted so all slack is taken up between the gas strut operating lever on the end of the gas strut and the operating pin that extends from the gas strut. *It is important to make sure the operating lever is just touching the gas strut pin but not depressing it.*

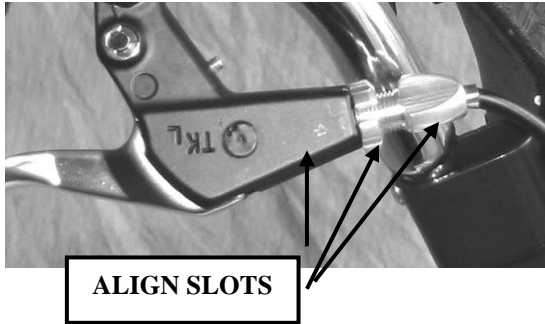
- 5) Adjust the lower cables as follows. Loosen the lock nut "A" then turn the cable end piece "B" clockwise to loosen the cable and anti clockwise to tighten the cable.
- 6) Adjust the upper cable so that all slack is taken up and the gas strut operating lever begins to move as soon as the lever on the push handle is squeezed.

7.4.4 Replacing lower operating cables

- 1) Remove cable from the gas strut. See 7.4.1 Removal above.
 - 2) Loosen Locknut "A" (*See picture opposite*) and unscrew the cable end from the equaliser bracket.
- 3) Using a 2.5mm Hexagon key remove the cover from the equaliser block and remove the cable.
 - 4) To fit the new cable, reverse the procedure.

7.4.5 Replacing upper operating cable

1. Loosen Locknut and unscrew the cable end from the equaliser bracket.
2. Using a 2.5mm Hexagon key remove the cover from the equaliser block and remove the cable.



3. Loosen locknut on hand lever and align slots in the locknut and cable socket with the slot in the handle.
4. Pull cable through slot and disconnect from the handle.
5. To fit the new cable, reverse the procedure.

Important: - *Always check the adjustment of cables after replacing them.*

7.5 Replacing armpads

Note: - *Only applies when armpads are supplied as an optional extra.*

- 1) Remove armrest from the wheelbase and turn upside down.
- 2) Using a screwdriver remove the armpad retaining screws. Remove the armpad.
- 3) Hold a new armpad against the support making sure that the large overhang is towards the outside of the armrest.
- 4) Insert the fixing screws and tighten.

7.6 Replacing backrest upholstery

Note: - *Only applies when backrest upholstery is supplied as an optional extra.*

- 1) Partially fold the wheelbase seat to take the pressure off the upholstery.
- 2) Unfasten the Hook & loop loops, one each side at the bottom of the backrest upholstery.
- 3) Using a screwdriver remove the eight retaining screws and washers (four each side of the upholstery).
- 4) Remove the two reinforcing strips from the loops on each side of the upholstery and fit these strips into the new upholstery.
- 5) Refit the upholstery to the wheelbase using the eight screws and washers. Make sure the screws are properly tightened.
- 6) Pass the Hook & loop loops around the bottom of the backrest tubes and refasten on the back of the upholstery.

8. Important Points

- 1) *Do not reuse Nyloc nuts. Always replace with a new Nyloc nut.*
- 2) *Always use Loctite thread locking compound Grade 241.*
- 3) *Always use recommended components and parts available from Tendercare Ltd.*
- 4) *Do not modify or repair the frame*

9. Dimensions and Weights

SEAT SIZE	380 mm (15 inch)	430 mm (17 inch)
Item	mm	mm
Overall Length	1100	1100
Overall width (<i>inc. wheels</i>)	630	690
Overall height	1030	1030
Length folded (<i>ex Footrests</i>)	900	900
Width folded	360	360
Height folded	735	735
Seat rail width	380	430
Seat rail depth	410	430
Backrest height (<i>above seat rail</i>)	560	560
Standard armrest height (<i>above seat rail</i>)	240	240
Seat rail to footrest	370 / 450	450/370
Seat rail angle from horizontal	10° to 27°	
Rear Wheel Diameter	305	305
Castor wheel diameter	200	200
Track rear	620	640
Track front	555	575
Wheel base castors trailing (<i>rear wheel in forward position</i>)	540	540
Weights		
Total weight excluding all detachable items	kg 20	
Footrests (<i>both</i>)	2.0	
Armrests (<i>both</i>)	1.8	

10. Parts List

GENERAL ASSEMBLY PARTS LIST

Ref No.	Description	Qty	Part No.
<u>SIDES; HANDED FROM REAR OF WHEELBASE</u>			
1	Outer Frame – LH	1	TTF003
2	Inner Side Frame – L/H	1	TTF004
3	Outer Side Frame – R/H	1	TTF005
4	Inner Side Frame – L/H	1	TTF006
5	Backrest Tube – L/H inc. Spring Locks	1	TTF007
6	Backrest Tube – R/H inc. Spring Locks	1	TTF008
7	Push Handles & Thumbscrews	2	TTF009
8	Push Handle Grips	2	TTF010
9	Backrest Spreader Bar	1	TTF011
10	Pantograph Assembly inc. Bushes / Spindles	1	TTF012
11	Parallel Bars (Pantograph)	2	TTF013
12	Hinge Bolts / Washers (Back Rest)	2	TTF014
13	Brake Assembly – L/H	1	TTF018
14	Brake Assembly – R/H	1	TTF019
15	Castors – Front 200NP	2	TTF020
16	Wheels – 315 Pneumatic	2	TTF021
17	Wheel Spacer – Rear	2	TTF022
18	Wear Pads – Rear	2	TTF002
19	Top Pivot Bush – Nylon	2	TTF029
20	Front Tilt Location Bush – R/H	2	TTF030
21	Front Tilt Location Bush – L/H	2	TTF031
22	Brass Armrest Bushes	4	TTF054
23	Gas Spring	2	TT7740
24	Complete cable mechanism	1	TT7300
25	Backrest Locking pin	2	TTF0088
<u>OPTIONAL EXTRAS</u>			
26	Armrest Assembly – L/H	1	TTF023
27	Armrest Assembly – R/H	1	TTF024
28	Footrest – L/H	1	TTF025
29	Footrest – R/H	1	TTF026
30	Wheelbase Footrest Hanger Mounts – R/H	1	TTF027
31	Wheelbase Footrest Hanger Mounts – L/H	1	TTF028
32	Back Canvas Insert Bars	2	TTF033
33	Armrest Pads	2	TTF001