

# Webster Wheelchairs

Official Supplier of Dash To The NHS

## TECHNICAL INFORMATION MANUAL

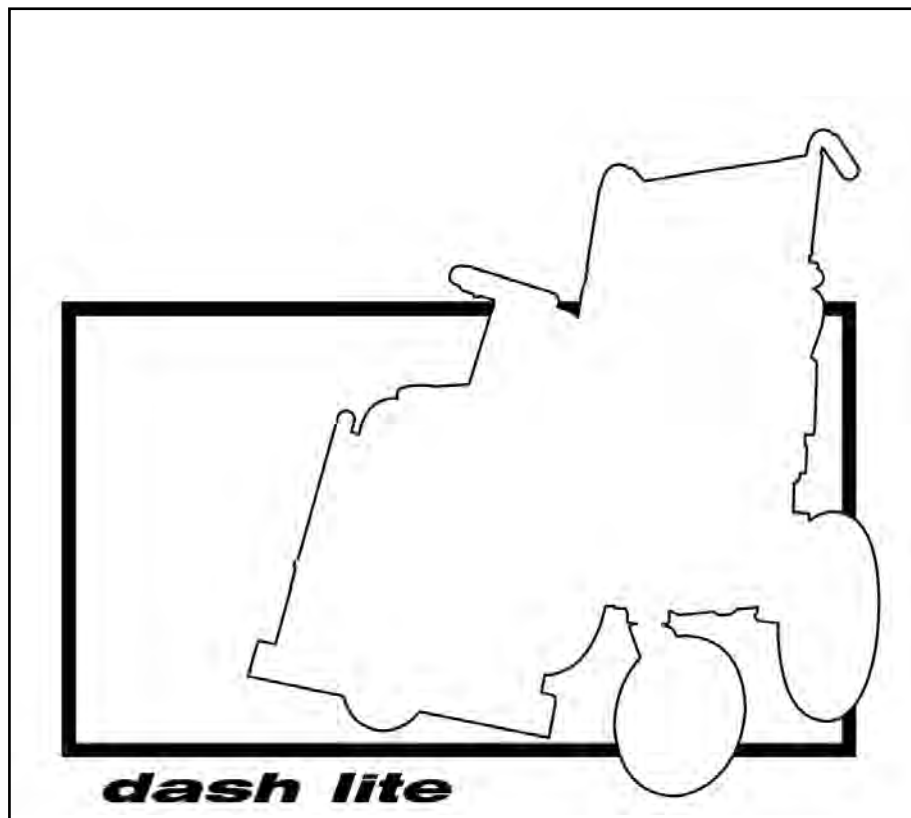
(Incorporating technical, service, spares and accessory information)

### Dash Series Wheelchairs

**DASH LITE AP – Attendant Propelled**

**DASH LITE SP – Self Propelled**

© November 2013



## TECHNICAL AND SERVICE INFORMATION FOR DASH SERIES WHEELCHAIRS



This manual is part of a technical file, which has been designed specifically for the use of trained and competent, **Service Technicians and Healthcare specialists**, to enable technical, service and maintenance information to be available and informative, at time of publication.



Where there are omissions, errors or areas of improvement, R Healthcare would be pleased for the Service Technicians and Healthcare specialist's advice in such instances.

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- **Also please refer to User guide**
- **Also please refer to Transportation guide**



# **WHEELCHAIR TECHNICAL INFORMATION MANUAL (Incorporating service and accessory information)**

## **FOREWORD**

Our products are designed and tested to ensure fitness for purpose. Wheelchairs generally comply with BS EN 12183 and BS EN 12184. All our manufacturing sites operate Quality Systems approved to ISO 9001. 2008

The European Medical Device Directive 93/42/EEC defines the responsibilities for all manufacturers of medical products in ensuring that risks to the health of users, and those associated with providing a product service, are minimised to acceptable levels. As a wheelchair manufacturer we recognise the demands of users for greater freedom and independence, and our products continually evolve to meet these changes.

We have applied our unique workplace experience with disabled people and combined this with our technical expertise, and feedback from users, carers and rehabilitation professionals to produce the R Healthcare Wheelchair Information Manual.

Our intention is to provide a practical reference for Rehabilitation Professionals in the Assessment, Servicing and Application of the full range of R Healthcare Wheelchairs. The information is presented in a positive sense, and includes practical recommendations for achieving the most effective and safe application and service of our products.

This edition of the R Healthcare Wheelchair Information Manual is an intrinsic part of our structured product information programme. We hope that the information it provides is useful and of benefit, and we welcome feedback, and partnership involvement so that we can update bulletins of product and application changes, to maintain the practical relevance of information provided with respect to current and evolving best practice.

## WARRANTY POLICY

1. It is the R Healthcare policy to guarantee our products for a period of “24” months from their placement into service. The warranty applies to any defects in workmanship or materials, which renders the product unfit for its intended use. R Healthcare wheelchairs must be used in accordance with the information provided, with service work carried out through an NHS approved service agent in accordance with the R Healthcare wheelchair information manual. The wheelchair information guide includes service record information, which should remain with the wheelchair.

### 2. Defective Parts / Sub-Assemblies / Assemblies

In the event of a defective part / sub assembly or assembly that requires replacement(s) the preference is that only genuine R Healthcare components shall be utilised. The fitting of other industry standard components is acceptable when fitted as recommended in our technical manual. Unsupported modifications shall render the warranty void and any subsequent losses or claims shall be the liability of the organisation undertaking such repairs or modifications.

R Healthcare will not be liable for consumable items at any stage during the warranty period unless defects in workmanship or materials have caused a product failure. Such consumable items include tyres, inner tube, handgrips, tipping sleeves, footplate mats, upholstery, fabrics, belts etc.

### 3. Spares

All orders for warranty replacement parts shall be processed by R Healthcare within 4 working days or as stock levels permit. All parts will be supplied and invoiced under normal trading terms. All genuine R Healthcare Spares carry 12 months warranty from the date it is put into service.

4. All warranty claims, spare parts returns and relevant queries relating to this warranty procedure should be addressed to:

Customer Services,  
Sheffield Road  
Whittington  
Chesterfield  
Derbyshire  
S41 8NJ

Telephone. 0870 609 0600.

Fax. 01685 881 755

R Healthcare Internet site [www.rhealthcare.co.uk](http://www.rhealthcare.co.uk) gives further details of Healthcare products.



Important

**R Healthcare recommend that reconditioning or service of spare parts and accessories is not carried out, the advice is to purchase new approved R Healthcare parts.**

## 1.0 Data Sheet

	16" x 16"	17" x 17"	18" x 17"
Max occupant weight ( advised )	127Kg	127Kg	127Kg
Stump Support	YES	YES	YES
Elevating Legrest	YES	YES	YES
<b>Seating area dimensions</b>			
seat width	405mm(16")	430mm (17")	455mm (18")
seat depth	405mm(16")	430mm (17")	430mm (17")
effective width	415mm	440mm	465mm
effective depth	415mm	440mm	440mm
backrest canvas height	450mm	450mm	450mm
backrest frame angle from vertical	10 degrees	10 degrees	10 degrees
seat frame angle from horizontal	5 degrees	5 degrees	5 degrees
side transfer by swivelling arms upwards	ALL MODELS	ALL MODELS	ALL MODELS
compact outward swivelling footrest	ALL MODELS	ALL MODELS	ALL MODELS
height of armrests	222 mm	222 mm	222 mm
occupant leg to seat angle	90 degrees	90 degrees	90 degrees
footrest to seat adjustable height	310 / 420mm	310 / 420mm	310 / 420mm
seat front edge to ground	480 mm (19")	480 mm (19")	480 mm (19")
seat inside height	934 mm	934 mm	934 mm
<b>Corridor widths to turn (316mm wheel)</b>			
through 360 degrees between walls ( Includes attendant )	1430 mm	1430 mm	1430 mm
<b>Corridor widths to turn (24" wheel)</b>			
through 360 degrees between walls ( Includes attendant )	1540mm	1540mm	1540mm
<b>Overall dimensions (316mm)</b>			
open width	600 mm	625 mm	650mm
open length	958mm	958mm	958mm
open height	934mm	934mm	934mm
folded width	275mm	275mm	275mm
folded length	692mm	692mm	692mm
folded height	705mm	705mm	705mm
frame wheelbase	410 / 460mm	410 / 460mm	410 / 460mm
<b>Overall dimensions (24")</b>			
open width	600mm	625mm	650mm
open length	1080mm	1080mm	1080mm
open height	934mm	934mm	934mm
folded width	350mm	350mm	350mm
folded length	1080mm	1080mm	1080mm
folded height	705mm	705mm	705mm
frame wheelbase	370mm / 420mm	370mm / 420mm	370mm / 420mm
<b>Rear wheel</b>			
Quick Release	ALL MODELS	ALL MODELS	ALL MODELS
diameter	315mm / 610mm (24")	315mm / 610mm (24")	315mm / 610mm (24")
width	40mm / 35mm / 35mm	40mm / 35mm / 35mm	40mm / 35mm / 35mm
<b>Front castor one type only</b>			
diameter	190 mm	190 mm	190 mm
width	25 mm	25 mm	25 mm
Total weight for lifting (Frame only 316mm)	8.0Kg	8.1Kg	8.2Kg
Total weight for lifting (316mm, including all det components)	12.4 Kg	12.5 Kg	12.6 Kg
Total weight for lifting (Frame only 24")	7.3Kg	7.3Kg	7.5Kg
Total weight for lifting 24", (including all det components)	13.6 Kg	13.8 Kg	14.0 Kg
Dynamic test ISO 7178-8 ( Kerb Drop )	6666 Drops	6666 Drops	6666 Drops
<b>Static stability (316mm)</b>			
forwards	7.0degrees (Wheels Slid)	7.0degrees (Wheels Slid)	7.0degrees (Wheels Slid)
backwards	14.5 degrees	14.5 degrees	14.5 degrees
sideways	11.0 degrees	11.0 degrees	11.0 degrees
<b>Static stability (24")</b>			
forwards	8.5 degrees (Wheels Slid)	8.5 degrees (Wheels Slid)	8.5 degrees (Wheels Slid)
backwards	10.0 degrees	10.0 degrees	10.0 degrees
sideways	13.0 degrees	13.0 degrees	13.0 degrees

## 2.0 Packing and Handling

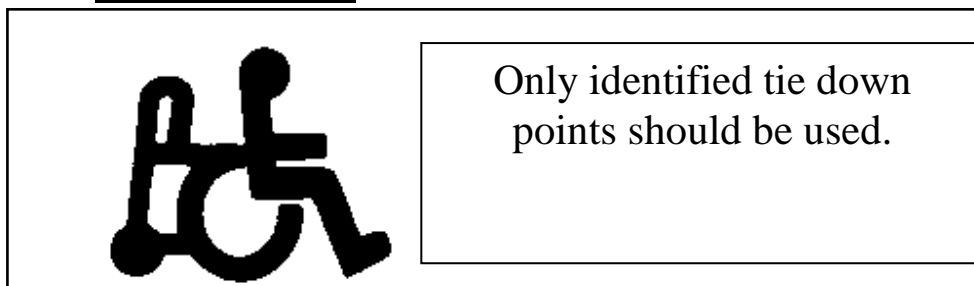
### **Packing, Handling and identification.**

For protection during transit your manual wheelchair is packed in a polythene bag, or a cardboard carton when requested, together with the User Guidance Information. The packaged manual wheelchair contents weigh approximately 20 Kg. Care should always be taken when handling.

Each wheelchair has its own specific identification code (serial number), which is on a label at the back of the chair and on the outside on any packaging. This code should also be noted on the Wheelchair Service Record included in the information package supplied with the product. Take care that all information supplied is kept in a safe place for your future reference, with the Service Record available for the Approved Distributor to endorse at the recommended service interval. Other cautionary information labels secured to the wheelchair are reminders for the user, not to be removed without reference to the Approved Distributor.

Packaging should be disposed of carefully and safely after initial period of use.

## 3.0 Tie Down Points



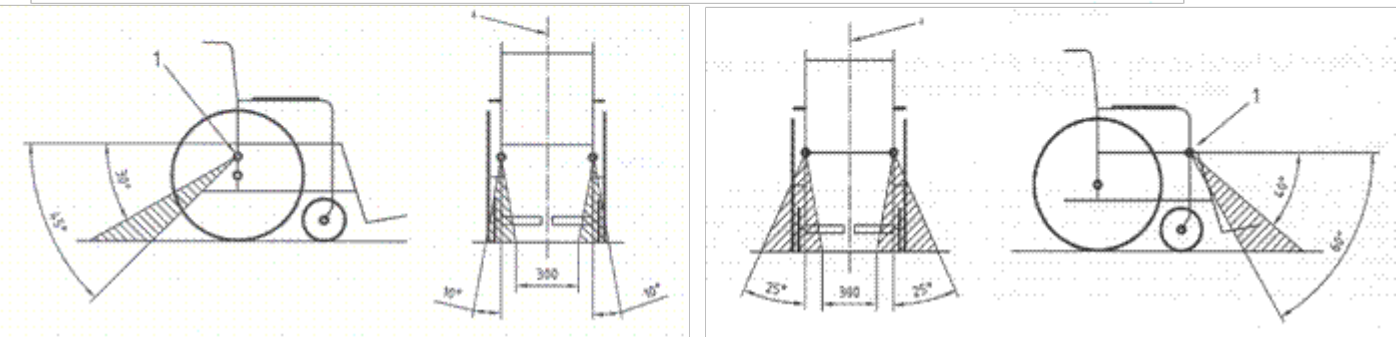
the side-view projected angle for the rear tiedown straps is between 30° and 45° from the horizontal

the side-view projected angle for the front tiedown straps is between 40° and 60°

the rear-view projected angle of the rear tiedown straps is within 10° of the wheelchair reference plane, and

the front-view-projected angle of the front tiedown straps is within 25° of the wheelchair reference plane, but angled so as to provide some lateral stability to the wheelchair.

Dimensions in millimetres




## 4.0 Clinical Assessment & Service Check Recommendations

The Dash series is a manual wheelchair and is intended to meet the needs of a clinical assessment. The tubular folding Aluminium frame, is available in various sizes and build configurations to meet the assessed needs of the user.

All versions of the Dash Lite and Dash Life wheelchair have transportation tie down points.

Please refer to user suitability guide for further guidance.

<p><b>USER</b></p> <p><b>SUITABILITY</b></p> 	<ul style="list-style-type: none"> <li>• Occupant or Attendant Dash wheelchairs suitable for people who cannot, or find it difficult to walk</li> <li>• Occupant or Attendant Dash wheelchairs suitable for people with mobility issues requiring improved comfort levels</li> <li>• Occupant or Attendant Dash wheelchairs suitable for trained confident users</li> <li>• Occupant or Attendant Dash wheelchairs suitable for transportation (crash tested) in approved or adapted vehicles</li> <li>• Occupant or Attendant Dash wheelchairs suitable for the use of lap straps in environments, where clinical assessment indicates a practical safe use for the benefit of the occupant</li> <li>• Occupant or Attendant Dash wheelchairs suitable for use with Dash spares or accessories, supplied by R Healthcare Ltd. Other adaptations may be suitable dependent upon clinical assessment</li> <li>• Occupant or Attendant Dash wheelchairs suitable for people who require an elevating leg rest / stump support fitted to support the underside of the calf in a range of extended angular positions (please note: adaptations of this nature will affect the stability of the manual wheelchair), also during movement indoors there will be more restrictive limitation on turning or movement owing to the positioning of adaptations.</li> <li>• Attendant propelled Dash wheelchairs are suitable for occupants with limited comprehension, a carer needs to be suitably trained and in control.</li> <li>• Attendant propelled Dash wheelchairs suitable for occupants with visual impairment, where corrective vision is not optional, a carer needs to be suitably trained and in control.</li> <li>• Attendant propelled Dash wheelchairs <b>Not</b> suitable for occupants to use on flights of steps without two competent and trained attendants available.</li> <li>• Occupant propelled Dash wheelchairs <b>Not</b> suitable for occupants with limited comprehension.</li> <li>• Occupant or Attendant Dash wheelchairs <b>Not</b> suitable for use on slopes greater than 8 degrees.</li> <li>• Occupant or Attendant Dash wheelchairs <b>Not</b> suitable on soft, wet, uneven or bumpy surfaces.</li> <li>• Occupant or Attendant wheelchairs <b>Not</b> suitable for bi-lateral amputees above the knee, (except for Dash Life, double amputee wheel position).</li> <li>• Where powered assistance is required using items such as power packs these should only be fitted after a risk assessment and by qualified personal.</li> <li>• User weight must be suitable for rated carrying capacity of chair.</li> </ul>
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## Service checks

Manual wheelchairs will require periodic service checks, at least every twelve months, or more frequently when the usage criteria is more complex.

Service review periods should be determined by the Clinical Assessment and Technical Service Team, as proposed for example, by using the recommended scoring procedures, or a similar objective method. By using this Wheelchair Service Guideline in conjunction with the critical component replacement schedule a sensible service schedule can be achieved.

### WHEELCHAIR SERVICE GUIDELINES

**Service Ref No.**

This assessment to be completed by Rehabilitation Specialist prior to issue of wheelchair to end user.  
This form to be retained at distribution point for service reference.  
A review of this information is recommended at least every two years

<b>Client Name</b> .....			
<b>Address</b> .....			
.....			
<b>Batch Code</b>	<b>Wheelchair Serial Number</b>	<b>Issue Date</b>	<b>Review Date</b>
SCORES BELOW ARE GUIDELINES PATIENT NEEDS TAKE PRECEDENCE OVER THIS.			
	<b>ASSESSMENT CRITERIA</b>	<b>SCORE</b>	
OCCUPANT WEIGHT	V.HEAVY (OVER 100Kg)	4	
	HEAVY (75-100Kg)	3	
	MEDIUM (50 - 75Kg)	2	
	LIGHT (UNDER 50Kg)	1	
OCCUPANT/ USER ACTIVITY AND ENVIRONMENT	ROUGH	4	
	MEDIUM	2	
	LIGHT	1	
OCCUPANT LEVEL OF WHEELCHAIR DEPENDENCY	HIGH	6	
	MEDIUM	2	
	LOW	NIL	
OCCUPANT / USER SAFETY AWARENESS	LOW	3	
	HIGH	1	
	<b>TOTAL SCORE</b>		
<b>GRADING RESULT</b>	<b>RECOMMENDED SERVICE INTERVAL</b>		
SCORES 12 TO 17	3 MONTHS		
SCORES 9 TO 11	6 MONTHS		
SCORES 7 TO 8	12 MONTHS		
SCORE 5 TO 6	18 MONTHS		
SCORE 3 TO 4	24 MONTHS		

R HEALTHCARE

A controlled service programme will improve safety and performance of wheelchairs.  
Lack of maintenance may affect warranty.

00 08 73 00. MAR 2003. Rev B

Signed.....  
Rehabilitation Specialist.

USER REFERENCE					SERIAL NUMBER OF WHEELCHAIR				
					TYPE OF WHEELCHAIR				
<b>CRITICAL COMPONENT REPLACEMENT SCHEDULE FOR MANUAL WHEELCHAIR PREVENTIVE MAINTENANCE</b>									
<b>PLANNED ECONOMIC WHEELCHAIR SERVICE LIFE OVER MAXIMUM OF FIVE YEARS</b>									
<b>USER GUIDELINE SCORE</b>	<b>12 Months</b>	<b>18 Months</b>	<b>24 Months</b>	<b>30 Months</b>	<b>36 Months</b>	<b>42 Months</b>	<b>48 Months</b>	<b>54 Months</b>	<b>60 Months</b>
<b>12 to 17</b>	CASTORS WHEELS BRAKES FUNCTION CHECK REVIEW	CASTORS WHEELS BRAKES UPHOLSTERY FUNCTION CHECK REVIEW	CASTORS WHEELS BRAKES FUNCTION CHECK REVIEW	REVIEW AND REPLACE WHEELCHAIR					
<b>9 to 11</b>		CASTORS WHEELS BRAKES UPHOLSTERY FUNCTION CHECK REVIEW		CASTORS WHEELS BRAKES UPHOLSTERY FUNCTION CHECK REVIEW	REVIEW AND REPLACE WHEELCHAIR IF REQUIRED				
<b>7 to 8</b>		CASTORS WHEELS BRAKES FUNCTION CHECK REVIEW		CASTORS WHEELS BRAKES UPHOLSTERY FUNCTION CHECK REVIEW	CASTORS WHEELS BRAKES FUNCTION CHECK REVIEW		REVIEW AND REPLACE WHEELCHAIR IF REQUIRED		
<b>5 to 6</b>			CASTORS WHEELS BRAKES FUNCTION CHECK REVIEW		CASTORS WHEELS BRAKES UPHOLSTERY FUNCTION CHECK REVIEW			REVIEW AND REPLACE WHEELCHAIR IF REQUIRED	
<b>3 to 4</b>					CASTORS WHEELS BRAKES UPHOLSTERY FUNCTION CHECK REVIEW				REVIEW AND REPLACE WHEELCHAIR
<b>NOTES</b>	Function check review process may indicate replacement of wheelchair, or other component of wheelchair, or change to maintenance plan specific to a particular user component replacement periods assume that general maintenance checks are carried out between times to assessed guideline criteria when a wheelchair is recycled between users upholstery change and thorough cleaning is required								

## **5.0 Introduction and Service Need Assessment**

### **Economic Service Life**

Recycling a wheelchair between users is a significant aspect of the NHS wheelchair service. The basic utility type wheelchair is capable of continual recycling over an economic life period.

For safety and economic reasons, it is recommended that the service life and requirement for spare parts is planned.

### **Service check and method of use**

We recommend that wheelchairs and their method of use are service checked on a regular basis, irrespective of maintenance free features, because accidental damage can never be ruled out.

A scheduled preventive visit by a service technician may find a problem which would otherwise go unnoticed, preventative action by component replacement or repair is a reduction of potential risk to users.

Below is a general guide to assist Healthcare professionals inspect wheelchairs, with a view to Potential fault finding, it is best practice to change any damaged or suspect components with new parts.

### **Preservation and Storage**

Where ever possible as a minimum store the wheelchair in garage type conditions, away from wet or damp areas.

During the course of general use, the wheelchair may become wet, due to rain and such events. When practical the wheelchair should be wiped down with a dry cloth, this is to reduce the risk of corrosion.

Where wheelchairs are stored in the back of cars and similar transportation vehicles, there are occasions especially in hotter climatic conditions such as summer, it is advisable to cover the wheelchair with a suitable cover. This will reduce the risk of the wheel becoming hot, having an effect on user or carer handling the chair out of the vehicle.

When a doubt exists, where the wheelchair has suffered constant miss use of storage, the wheelchair should be removed from the client, and disposed of.

## Action – Aid to detection of defects

Stand at the rear of the chair, raise both **Push handles** and engage **thumb catches**.  
Ensure both push handles are secure, there is minimal movement, there are no signs of component damage and the push handles work as expected.

Visually check that both **Push handles** are correctly aligned front to rear and that both **Handgrips** are also correctly aligned (i.e. are not rotated around push handle) and are butted tightly against the end of the push handle.

Test that the **Handgrips** are securely fixed. (With one hand, grasp each handgrip in turn and try to rotate the grips around each push handle).

Visually check the **Back canvas** for splits in the material, shading of colour, excessive dust, grease or any other signs of staining. Check the stitching carefully, particularly for missed stitches.  
Replacement is advised on any damaged or contaminated canvas.

Visually check the **Seat canvas** for splits in the material, shading of colour, excessive dust, grease or any other signs of staining. Check the stitching carefully, particularly for missed stitches.  
Replacement is advised on any damaged or contaminated canvas.

Lightly run your fingertips along the tops of the **Seat canvas** and **Back Canvas** fixing screws to detect any sharp burrs caused by screwdriver slip. Visually check that there are no missing screws or cup washers. Test for loose screws by pushing each cup washer from the side using light pressure from a fingertip.

With the **Arm rests** in position, firmly grasp each **Arm pad** in turn and attempt to rock them from side-to-side. If movement is detected this will indicate that the arm pad screws need further tightening.

Check that the **Arm locks** are in the "engaged" position, grasp each arm in turn at the front, on the bend in the tube, and pull upwards to check that the arm locking mechanism is properly engaged.

Fully rotate both **Footrest** hangers to the front position and engage both latches, ensure both brakes are in the "off" position. Ensure both outriggers lock to position, with limited to no "rattle", and that there is no sign of damage to fixings, such as latches, springs etc.

The **Footplates** and hangers should be latched in the forward operating position. Fold down both footplates and first test each footplate is securely clamped into the hangers by grasping each footplate in turn and with hand pressure attempt to rotate it forwards and rearwards. Looking vertically down at the footplates, ensure that they are in line at the front and square with each other.  
Test the operation of the folding up and down of the footplates by raising each one in turn to the vertical and just with a finger tip, tap the top of the plate several times until it is fully down. Neither plate during this test should drop down under its own weight.

Disengage the latch on each **Footrest** hanger in turn and whilst disengaged, "flick" the latch several times. Now rotate the hanger to the front position and engage to the front frame. Check for full engagement between the two.

Fold the **Footplates** to the vertical. Tip the chair onto its back, until it is resting on its push handles.  
Ensure the footplates are not damaged, and that there are no missing fixings, and that they are set to the correct height to meet the user needs.

Now conduct a general inspection of the following.  
a) On each **Footrest** hanger, disengage the latch, rotate the hanger to the rear of the chair, check that the screws on the front frame are tight using fingers only.

Test both **Castors** by spinning each castor wheel in turn, and first listen to the sound of the needle bearings in the wheels for signs of dryness or grating.

Whilst the wheel is spinning, look for excess out of true running of both the periphery of the tyre (0.060" – 1,5mm total) and side-to-side run out of the tyre (0.030" – 0,75mm total).

Any damaged castor must be replaced, R Healthcare recommend these are replaced in pairs.

On each **Castor** in turn grip the wheel firmly through the spokes and attempt to rock the wheel on its bearings looking for excess movement of the wheel and also excess lateral movement of the wheel along its centre pivot bush. There should be no excess movement. Test both **castors** for any sign of head bearing rock by gripping the castor fork with both hands and rock the fork up and down. There should be no excess movement.

With one finger raise the wheel to 90 degrees then take the finger away. The castor should drop under its own weight – should the castor stall, tap the wheel sharply with one finger. If the castor still fails to drop, then the head bearings should be adjusted accordingly.

**N.B.** Visually check that the wheel centre bush and the castor fork inside faces are in contact with each other. If there is a gap between the two, this indicates that the wheel centre bolt is insufficiently tightened.

Any damaged castor must be replaced, R Healthcare recommend these are replaced in pairs.

**Wheels.** Test the tyre pressure on pneumatic tyres to ensure correct inflation pressure (correct pressure can normally be found moulded into the side wall of the tyre).

Now, using the push handle, lift the R.H. rear wheel off the ground, gently spin the wheel backwards and visually check that:

- a) The wheel rim is running "true" in both planes.
- b) The tyre is running "true" in both planes.
- c) On S.P. chairs also check that the hand-rim is running "true" in both planes.

**N.B.**

315 dia. wheels should not deviate from true (side to side) by more than 1.5mm (.060").  
and 24" wheels should not deviate from true (side to side) by more than 2.5mm (.100")

Check that **Hand-rims** are fixed firmly to the wheel rim especially with slotted cleats. Test each fixing by grasping the hand-rim adjacent to the cleat, brace thumb against sidewall of tyre and with the thumb pushing against the tyre, try to pull the hand-rim sideways. Repeat on all cleats on both wheels. There must be no sharp edges or protrusions. There should be no paint chips, which can result from impact when going through doorways. Chipped hand-rims should be replaced in pairs.

Standing at the rear of the chair, lean forward and apply **Right Hand brake**. Grasping the hand-rim, push and pull hard on the rim to test brake effectiveness. If movement of the wheel is detected, adjust brake shoe towards the tyre until all movement of the wheel is eliminated.

On Attendant Propelled, where no hand-rim is fitted to wheels, pull and push the wheels by grasping the tyre periphery. Leave brakes in the "on" position. Wheels must remain firm to position and not turn.

Repeat operations above on **Left Hand brake**.

Inspect between rear wheels and test that the tipping sleeves are securely fixed (grasp each sleeve firmly and try to rotate the sleeve).

Tip chair forward and visually check underneath, look for missing or loose nuts, paint damage, linkage fracture or dust.

Ensure any suspect or damaged parts are replaced.

Ensure all service information is completed for ongoing service and maintenance information

**This completes the defect detection checklist**

The economic service life of a wheelchair is dependent upon several factors, and the **Critical Component Replacement Schedule** included with this manual, suggests a Framework for management of this type of service plan.

The service life of a wheelchair is dependant upon frequency of use, environment and occupant characteristics as indicated in previous examples.

Preventive maintenance and repair to parts which become worn out by normal usage will ensure that the service life of the wheelchair is economically and safely extended over several years.

It is not uncommon for heavy or active users to require a replacement chair after 18 months hard use. The level of activity which such a chair has undergone may mean that recycling is not a viable or safe option.

During the lifetime of the chair, service and repair may take the form of a major parts replacement process, which involves a total rebuild and repainting. This work should be carried out in accordance with the recommendations of this manual and the original factory built product performance specification.

R Healthcare encourages the use of computer data as a means of improving the effectiveness of wheelchair service providers in keeping a track of wheelchairs and the users.

Comprehensive records of the service history of the wheelchair together with occupant information will allow more accurate planning of the economic service life.

### **Recycle or Replace**

When deciding whether to recycle or replace with new, consideration should be given to the usage history of the chair. In the event of historical usage information not being available, or upon reaching the maximum service life of five years, wheelchairs should be replaced.

### **Recycling and Quality Standards**

A full range of R Healthcare approved spare and accessories are available. Revised spares lists will continue to be issued, separate to this manual as we extend and improve what is available.

### **Approved spare parts**

Approved spare parts specifications from R Healthcare incorporate continuous improvement and best practice developments where possible.

When R Healthcare Manufactured spare parts are fitted to R Healthcare chairs, R Healthcare fully support their function, quality, workmanship and reliability.

The fitting of third party (industry standard) spare parts should be authorised by qualified rehabilitation engineer and fitted to an authorised procedure. R Healthcare have no control on spares manufactured by outside organisations, and therefore cannot support the quality and reliability of third party spares.

We have made reference to functional checks on wheelchairs, which in a service workshop situation, are more practical than complex measurements which demand calibrated inspection equipment and detailed part drawings. Service departments and maintenance workshops carrying out repairs, adaptations and routine checks on wheelchairs, as outlined in this manual, are expected to have all the facilities required and a quality system in line with ISO 9000 2008.

## Recycling and Repainting

Personnel involved in the service and repair of wheelchairs should be fully trained to use tools and workshop equipment and have an appreciation of the special needs of disabled people, together with technical knowledge to the equivalent trade standard.

## Recycling – cleaning and use of PPE

The risk of infection from a contaminated wheelchair which is being recycled should be considered in the suitability of a wheelchair before the recycling process is implemented. We recommend that gloves are worn by operatives handling all wheelchairs received for recycling prior to them being thoroughly cleaned. Any component which shows signs of severe soiling, such as body fluids or long standing dirt residue should be disposed of, with due consideration to the environmental implications. Before anyone attempts to handle any wheelchair returned for recycling, the complete unit should be thoroughly steam cleaned or cleaned, in a controlled washing process with the use of detergent.

## Paint Preparation

Preparation for high quality repainting of wheelchair Frames, as is required in a remanufacturing operation requires the removal of all previous paint.

R Healthcare have found that chemical stripping is the most successful method of paint removal, as this does not affect the structure and function of the substrate steel structure.

Surface blasting the old paintwork off is an acceptable alternative, but we recommend that this operation is only carried out once in the lifetime of the wheelchair, as the continuous abrasion of this process is not controllable, and its excessive use, weakens the structure.

Our assessment of risk has highlighted the potential of incorrect function of moving parts, which are safety critical, due to ingress of paint during a superficial cover up repair. Our recommendation is that the functional area of the wheelchair Frame should be fully disassembled for painting, degreased, dry, and drained free of chemical or dust residue.

Due to the high tolerances required when repainting a frame we recommend that painted sub-assemblies be sourced from R Healthcare.



Information

## Stoving temperatures

Paint thickness should be a minimum of 25 microns, stoving time and temperature should be those recommended by the paint manufacture, for paint adhesion etc.

## Crack detection spray

The use of crack detection spray on wheelchair Frame components which have been stripped prior to painting is recommended if there is any doubt about their suitability.

Frames which are found to have cracks should be disposed of, under no circumstances should attempts be made to bodge weld and recycle Frames or other wheelchair components which are found to have cracks.

## Plating

Any plated components on R Healthcare chairs, should be masked during a Frame repaint. Frame pre-treatment with a sealer, followed by none toxic (TGIC and lead free) exterior quality polyester powder paint.

## **Nyloc nuts**

Nyloc type nuts should not be subjected to paint stoving temperatures, and should be replaced along with other fasteners when the chair components are re assembled.

## **Transfer of wheelchair**

When wheelchairs are recycled from one user to another, the second user should receive the same level of specification, and protection, as when the wheelchair was first supplied new.

## **Information and Labelling**

Labelling which is applied to the product is intended to raise the safety awareness of users, and reduce the risk of misuse. Labels should not be removed.

If during a service check it is apparent that labels are damaged or missing, these should be replaced. A missing label may be an indication of careless use; any other indications of this should be checked and noted in the service report.

We also recommend that a service should include a check on the availability, and possible update, where appropriate, of instructions for use. The most recent and current available data is on the Internet at [www.rhealthcare.co.uk](http://www.rhealthcare.co.uk)

A component strip down and repaint may require the removal of caution and information labels. R Healthcare have reduced direct chair labelling to a minimum for practical reasons, but as a result of our experiences of actual incidents in the field, we believe that some important permanent caution labelling to particular features of a wheelchair is still necessary to remind users of important safety aspects.

User Guides are available. These should be supplied with recycled chairs to reduce risk of user injury through lack of knowledge or experience, the R Healthcare website [www.rhealthcare.co.uk](http://www.rhealthcare.co.uk) has updated user information which can be downloaded and used as a reference. R Healthcare wheelchairs which have been reconditioned should still continue to be maintained and serviced according to the routines outlined in this manual.

## **Push handle grips**

Of particular significance from a safety aspect is the replacement of push handle grips. Important information on the fitting of push handle grips is advised in section 11. of this manual.

## **Customised wheelchairs**

As a general rule, a wheelchair which has been customised for the first user, by the removal of safety components, such as anti tip stabilisers, Armrests, brakes or spoke guards etc, and is then required for recycling, should be brought back to the original specification as when first supplied. Any exception to this should be through clinical assessment by the rehabilitation team, to determine an alternative build specification.



## **6.0 General Service and maintenance routines**

The detailed information provided in the accompanying text contains practical advice for use by Technicians in Wheelchair Servicing Departments.

This should be followed when carrying out routine checks and replacement of damaged component parts. Particular advice given covers enhancements which will extend the service life of wheelchairs.

### **Wheelchair Service Record**

The Wheelchair Service Checklist, detailed within the **User Guide**, provides an outline schedule of the areas on the wheelchair which require routine checks and attention. Required frequency of checks should be determined by assessment as described previously. Records of service work should be kept at the wheelchair service dept.

It is also recommended that the Wheelchair Service Record documentation is retained by the user who should take responsibility for ensuring that the wheelchair is available for service at the recommended interval.

### **Service interval review, attendant and occupant controlled**

Most carers will be able to adapt to the correct use of an attendant controlled wheelchair, but occupant controlled models may require careful evaluation of user needs and abilities. If there is a doubt about this, we recommend a review period of three months from initial issue. At this stage, and prior to establishing the regular service interval, the wheelchair may be examined, and the user given the benefit of direct expert advice and training which could improve long term reliability and safety.

Many standard service routines are applicable to all of R Healthcare wheelchair models, both Attendant and Occupant Controlled, and are detailed in this manual.

### **Moving parts or mechanisms**

Typically, for moving pivots and mechanisms which require adjustment of a self locking nut to achieve operating clearance, the nut are to be tightened up and then backed off quarter a turn. This creates a joint clearance of 0.10mm.

Wheelchairs make frequent use of fasteners, e.g. 8mm and 6mm nyloc nuts. This type of fastener in particular should not be used again after a chair has been stripped down. It is recommended that all approved repair contractors maintain adequate replacement supplies of new nuts and fixings.

Our recommendation is that these are obtained from proprietary local fastener suppliers, in the local area concerned, who can maintain deliveries as demand requires.

### **Cleaning materials**

When using proprietary cleaners, always read the instructions provided by the manufacturer. Do not use anything which may leave a residue and cause a problem for the user afterwards.

### **Tools & Equipment**

The following list covers tools and spanner sizes for the standard routines.

For more specific information of when and how these are applicable, see the appropriate sections of the manual covering detailed servicing operations.

The use of regulated torque spanners is recommended to ensure that screw fixings are tightened to the specified figure on production assembly.

## WHEELCHAIR ASSEMBLY TORQUES AND TOOLS

AREA OF WHEELCHAIR	TYPE OF WHEELCHAIR	NM	FT LBS	ADDITIONAL ASSY INFO	TOOLING REQUIRED
LUBRICATED MOVING PART ASSEMBLY	GENERAL FOLDING FEATURES	7	5	BACK OFF HALF TURN	VARIOUS SPANNERS TO SUIT
TYPICAL FIXED PART ASSEMBLY	GENERAL FRAME FITTINGS	7	5	NONE	VARIOUS SPANNERS TO SUIT
UPHOLSTERY AND ARMREST SCREWS	GENERAL	7	5	NONE	No 3 POZIDRIVE
UPHOLSTERY AND ARMREST SCREWS	GENERAL FROM JULY 2002	7	5	NONE	3mm A/F ALLEN KEY
WHEEL MOUNTING BLOCK TO FRAME	ACCESS, DASH LITE	7	5	NONE	4mm A/F ALLEN KEY
HANDRIM ATTACHMENT	GENERAL OCCUPANT PROPELLED	7	5	SHAKEPROOF WASHER	8mm A/F HEX SPANNER or POZI DRIVE
FOOTREST CLAMP TO STEM	GENERAL	10	7	NONE	10mm A/F HEX SPANNER
BRAKE CLAMP TO FRAME	ACCESS	10	7	NONE	10mm A/F HEX SPANNER
BRAKE CLAMP TO FRAME	DASH LITE	7	5	NONE	10mm A/F HEX SPANNER
BACKREST HINGE MOUNTING	DASH LIFE, DASH LITE	7	5	NONE	10mm A/F HEX SPANNER OR No 3 POZIDRIVE
FRAME STRUTS	DASH LIFE	7	5	NONE	4mm A/F ALLEN KEY
FRAME STRUTS	GENERAL	7	5	NONE	13mm A/F HEX APANNER
ADAPTOR TO MOUNTING BLOCK	ACCESS QUICK RELEASE ALL MODELS	30	22	SAFETY WASHER	22mm A/F HEX SOCKET
WHEEL TO MOUNTING BLOCK	127Kg, 140Kg, 160Kg MAXIMUM LOAD ACCESS FIXED WHEEL	30	22	SAFETY WASHER	19mm A/F HEX SPANNER
CASTOR WHEEL CENTRE BOLT	GENERAL	7	5	NONE	13mm A/F RING SPANNER x2
CASTOR HOUSING TO FRAME	DASH LIFE, DASH LITE, STOWAWAY	7	5	LOCTITE 245	4mm A/F ALLEN KEY
CASTOR HEAD PIVOT	DASH LIFE, DASH LITE, STOWAWAY	20	14	SET TO SUIT ROTATION	19mm A/F HEX SOCKET
CASTORS TO FRAME	MANUALLY PROPELLED BASIC FIXED	47	35	LOCTITE 270	24mm A/F HEX SOCKET

## DASH LIGHTWEIGHT MODULAR WHEELCHAIRS

This range of wheelchairs has the **option** to be purchased for both attendant and occupant controlled use, the lightweight hand tig welded, seamless Aluminium frame has mounting locations for either 315mm (12.5inch) and 610mm ( 24inch ) diameter wheels, and is suitable for occupants from 50 Kg up to 127Kg in weight.

This design, combined with the ease of use of a lightweight and compact specification, which provides Dash with the ability to negotiate through narrow openings compared to other designs with similar occupant seat width. This means that the Dash wheelchairs will come in for a diverse and demanding type of use, both indoors and out, being subjected to the low level demands of lightweight occasional users, up to the high level demands of heavy and active independent users.



The type and frequency of service and preventive maintenance required for a wheelchair is dependant on the type and environment of use, and should be assessed according to a standard maintenance procedure and critical component replacement schedule similar to that included in this manual.

The Dash construction incorporates easily serviceable features allowing service requirements and spare part replacements, to be managed according to the wheelchair application. Service frequency assessment information should be included in the service documentation and user information at the time the chair is issued to a particular user. We recommend that users, even experienced users, receive some training in use and maintenance responsibilities before a chair is issued. For safety reasons, service department staff, need to be aware of signs of misuse to allow corrective and preventive action to be taken.

A typical Dash user could be a self propelling independent adult who has previously had a less manoeuvrable and less compact heavy lifting weight chair, and who would benefit from an ability to manoeuvre indoors in tight spaces, and is dependant on a wheelchair at work. In this application and environment the wheelchair would be occupied for long periods of time, and typically, frequency of service checks could be six months.

Another application would be an occupant who just about has the ability to self propel, and sits comfortably in the wheelchair seat, but who, in the longer term, may benefit from a wheelchair configuration change to a simple attendant controlled chair with a 315mm maintenance free tyre type wheel for convenience in transit storage.

Dash has the capability of accepting occupants of 127Kg. The additional loading at this weight places stress on the frame structure at critical points, such as latched pivot points and where the frame interfaces with load bearing attachments. The need for critical component inspection and general service replacement during the life of the chair can be executed simply on Dash using workshop hand tools.

Irrespective of the user, we recommend that a service check six months after initial issue is made on all Dash chairs to determine the individual pattern of use which each user has developed. After this initial time of use, it should be possible to review and give objective advice about possible settings or adaptations which will help the user to improve independence, or highlight potential problem areas caused by the way that the wheelchair has been used or misused, so that these do not escalate into major difficulties and higher rectification costs, at a later stage during the life of the chair.

The information in this service section, assumes that the department staff carrying out the work are familiar with standard routine procedures for modular type wheelchairs, as described in the general service part, of this manual, and that these routines will be applied where applicable on the Dash

This section includes general illustrations, listings of available spares, is available for Customer services or from Spares and Accessories guide. Spares come complete with new fixings where appropriate. Where spares are advised as LH and RH these definitions are taken from a seated wheelchair occupant aspect.

**R HEALTHCARE RECOMMENDS THAT RECONDITIONING OR SERVICE OF SPARE PARTS AND ACCESSORIES IS NOT CARRIED OUT, THE ADVICE IS TO PURCHASE NEW APPROVED R HEALTHCARE PARTS.**



**Important**

## 7.0 WHEELS AND TYRES :

The wheels used on Dash have been specifically developed for the intended area of application. They include several features not previously available on basic R Healthcare wheelchairs.

All Dash wheelchairs have QD (Quickly detachable) rear wheels. The QD hub and spindle on Dash is 12mm diameter. This is a European standard size.



Occupant propelled Dash chairs have and 610mm (24inch) diameter QD wheels and lightweight profile high strength aluminium rims, which are suitable for use with pneumatic or puncture free polyurethane tyres. The narrow tyre width on Dash wheels is 25mm (1 Inch), and it is acceptable to inflate to the manufacturer's instruction (usually on the wall of the tyre)

The effect of the lower coefficient of friction of the puncture free polyurethane tyre, compared to that of the natural rubber pneumatic, effectively causes puncture free tyres to have less grip on the floor.

On active user occupant propelled wheelchairs, particularly with heavyweight occupants, or where ride performance is a priority, we recommend rubber pneumatic tyres. If there is a preference for reduced tyre maintenance, we recommend that polyurethane puncture free tyres are fitted. Users should be advised of the importance of frequent wheel and spoke security checks, and service staff should pay special attention to spoke security and condition of wheels fitted with puncture free polyurethane tyres.

The hard anodised aluminium hand rims on Dash occupant propelled wheels are of round section 20mm in diameter, a convenient size for gripping during occupant hand propulsion. The hand rims have screw holes and are attached via brackets on the rim, by M6 pozidrive screws and spacers, at six equal spaced points.

Security of hand rims should be checked at regular service intervals. From a service aspect, wheelchair hand rims can come in for a hard time, as they are the widest part of the wheelchair, and are often impacted on narrow doorway frames as an occupant manoeuvres to gain Dash. This type of usage should be expected on wider seat width Dash chairs, and service requirements should reflect an increased risk of handrim damage.

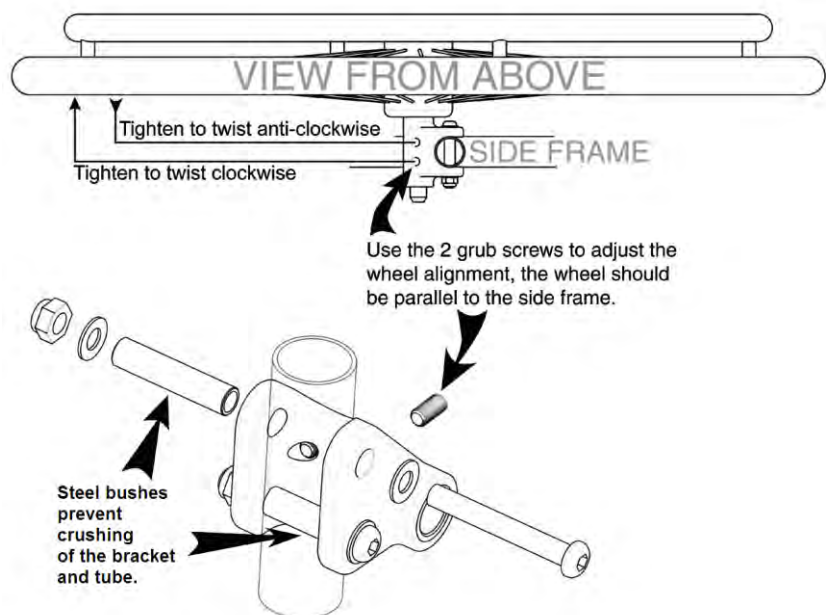
Damaged hand rims can be a cause of injury to the user, and should be replaced if they have been scuffed to an extent where sharp edges, such as may be caused by scuffing, are in contact with the propelling occupant hand. Continual handrim damage over a short period may be an indication of an environment or Accessibility concern. This should be noted and referred for review and assessment by the rehabilitation engineer or professional.

Attendant propelled Dash chairs have injection moulded 315mm (12.5 inches) diameter QD wheels, all with puncture free polyurethane tyres. These wheels and tyres are relatively maintenance free, they are ideal for occasional use situations, when the chair may be used less frequently, and eliminate the need for tyre pressure checks. Under normal circumstances, this wheel will last for many years.

It has been our experience that wheels on chairs used as occupant seats in vehicles in conjunction with WTORS (wheelchair tie down occupant restraint systems) are often subjected to additional loads due to the excessive force applied by clamps. Service staff should be aware of this, and look for signs of premature buckling or distortion, which may demand wheel replacement and corrective action with regard to the area of application.

Dash frames accommodate either occupant or attendant propelled wheel position options. The rear wheel mounting is an injection moulded unit with a fixed spindle receiver tube integrated into it, and fits snugly around the rear frame tube, and accepts the QD spindle of both attendant and occupant propelled wheels. This mounting unit has two screwed fixing points for M6 cap head screws.

Wheel mounting units may require replacement during the life of the chair, if the usage levels are demanding, and are available as spares.

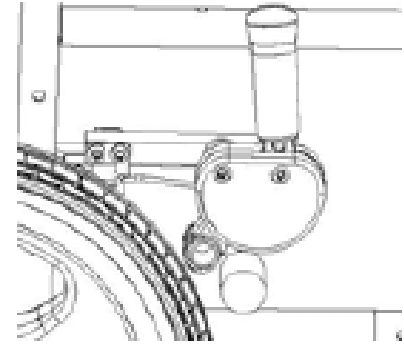


## 8.0 BRAKES :

All Dash wheelchairs have the same specification clamp on brakes, LH and RH, for round tube, with an adjustable mounting arm which allows accurate positioning to suit the tyre and wheelchair build configuration. The brake shoe is a knurled cylinder which provides efficient tyre contact to prevent wheel rotation.

Correct setting of the brake is with the shoe acting on the surface of the tyre sufficient to hold the occupied wheelchair on an 8 degree slope in all directions.

Care should be taken when positioning the brake not to make it impinge to such an extent into the tyre surface, that it makes a permanent deep depression, or causes excessive strain on the brake operation, as this may result in loss of braking function over a period of use. The brakes fitted to a basic Dash are parking brakes, to be applied when the chair is not in motion.



A typical misuse of parking brakes is that they are applied when the wheel is still turning, acting as retardation brakes. This imposes heavy wear on the tyre surface and brake mechanism. Brakes acting on pneumatic tyres depend upon tyre pressure to be effective. Many reported instances of brake malfunction are actually a result of insufficient tyre pressure; these must be inflated to manufactures recommendations – details on wall of tyre. Puncture free tyres are more consistent in this respect.

When wheelchairs are used in transportation, the reliable operation of parking brakes during transfer to and from the vehicle is very important. Particular attention should be made to brakes on wheelchairs which are used in this type of environment.

Service staff should note the condition of brakes at each service, adjusting the brake function, and resetting where appropriate. Replacement of brakes is necessary when wear is excessive and function is affected. Frequent misuse or excessive wear and damage should be noted. The brake or tyre specification should be reviewed in the light of such service experience.

## 9.0 CASTORS :

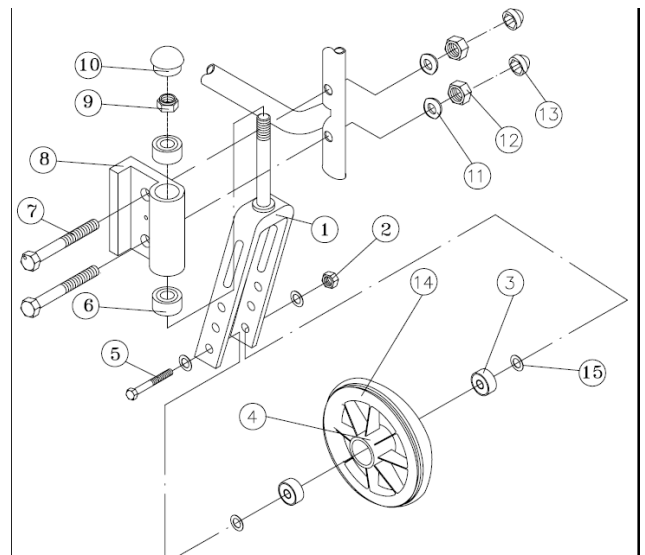
The Dash castor consists of an aluminium fork with a fixed pivoting spindle which locates in a housing bolted to each side of the front of the tubular chair frame.

The castor housing body is a two piece construction. An aluminium base plate locates on the frame tube, and upon this is mounted an injection moulded castor head bearing housing. This housing can be angle adjusted to suit the required inclination of the wheelchair frame. The castor fixing nut is accessed by removal of the dust cap in the top of this housing.

The castor mounting is fixed to the bottom element of the rigid front frame. When wheels positions or specifications are changed or reconfigured, it is necessary to check for correct alignment of the castor. Dash has the facility for optimising the castor angle in line with this requirement.

See section 3.12.3. for details.

Service staff should be aware of the need for assessment by a rehabilitation engineer or healthcare professional prior to making such changes to a chair



This adjustment is achieved by means of hexagonal screw head fittings. These locate in the moving element of the castor housing, and are eccentric about their mounting screw point, allowing the housing to be located at different angles by turning the hexagon and securing at the fixing screw at a required setting.

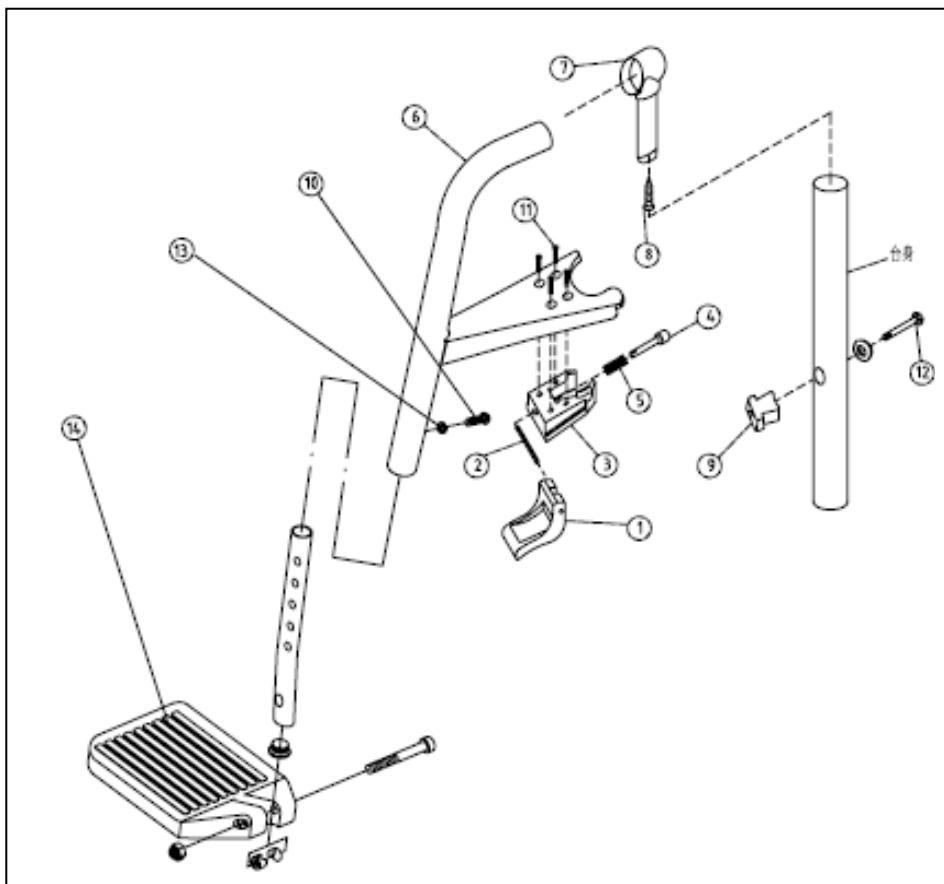
Correct function of the castor is with the spindle vertical or inclined within one degree from vertical in the trailing direction. When adjusting castor positions it is essential that they are the same for each side of the wheelchair. After any adjustment, the castor mounting screws should be fully tightened.

The castor fork has three hole positions for different types of wheel and angle settings. The standard wheel position for the 190mm castor is in the centre hole. Alternative positions can be used at the discretion of the authorised rehabilitation engineer (see user guide), but the vertical alignment of the castor should be maintained for all options by resetting the mounting angles equally on both sides of the wheelchair.

## 10.0 FOOTRESTS :

These are detachable, and height adjustable.

The footrest mounting is a single location point on the front tube of the frame. The footrest tube is a fabricated handed assembly with one mounting plate and a top moulding that inserts into the frame front tube from above which allows the footrest assembly to lift and be swivelled to one side when mounted on the wheelchair frame, for occupant access to the chair.





The footrest mounting plate incorporates a latch hole which engages with a sprung loaded locking plunger in the wheelchair frame bracket when the footrest is swivelled into the forward support position.

Footrest height adjustment is by a series of holes in the internal stem tube which slides inside the bracket tube, to be secured at the required height by fixing screws.

When adjusting the footrest height, the screws should be removed, and the stem height adjusted to a new hole position.

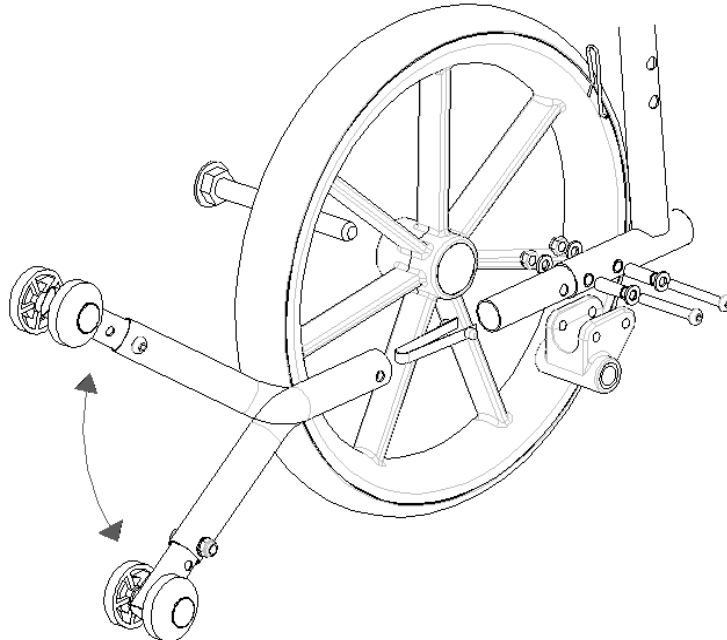
The footplate on Dash is an handed injection moulding, available in two width sizes.

The footplate moulding incorporates a location feature which engages snugly with the stem, to eliminate vibration and take the load of the occupant's foot at the required support position. The footplate can be swivelled from the support position, upwards against the stem and bracket to allow compact folding and occupant Dash.

When obtaining spares or replacement footrests it is necessary to specify the chair seat width, as this determines the required footplate width.

## STABILISERS

The lower rear frame on standard build of Dash has a tipping lever feature with a protective sleeve fitted. When stability is an issue or an inexperienced user who is developing skills, or as part of a training programme, we recommend that the chair is supplied with anti tip stabilisers.



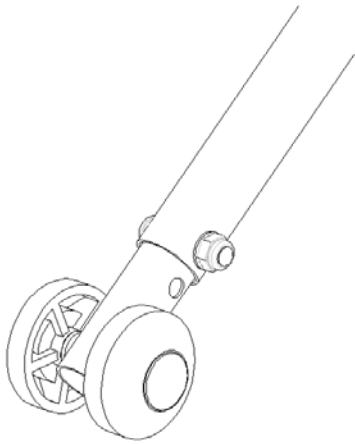
TIP LEVERS SHOULD ONLY BE SET IN THE UPWARD POINTING POSITION WHEN THERE IS AN ATTENDANT IN CONTROL OF THE WHEELCHAIR AND NO REQUIREMENT FOR KERB LIFTING



To fit anti tip stabilisers it is necessary to remove the tipping lever sleeve. The frame tube under the sleeve has a fixing hole, the anti tip assembly incorporates a quick release sprung location pin

which engages with this hole. This is a departure from previous R Healthcare risk assessment policy which maintained the anti tip stabiliser in a fixed position.

The Dash anti tip release feature allows it to be swivelled to a non active position for storage or to prevent interference with manoeuvres when negotiating kerbs. If this anti tip releasable facility is thought to be unsuitable for a particular user, it is possible to revert to the previous R Healthcare practice of securing the anti tip in position using a more permanent M6 screw fixing.

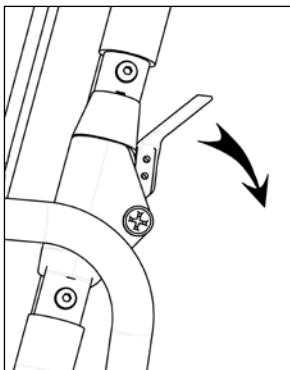
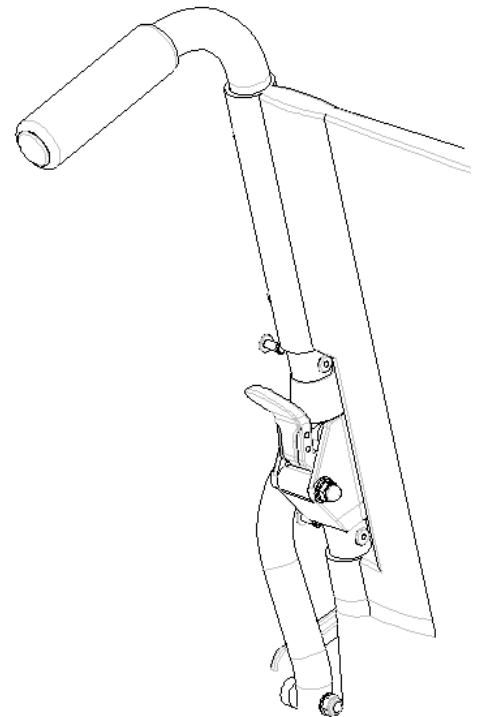


The anti tip construction has a telescopic rear section secured in position by an M6 screwed fixing. This allows it to be set permanently at different heights such that the chair can be operated effectively with different wheel configurations and in different environments. As a general rule the fitting of an anti tip should still allow the front castor wheel to rise 125mm from the ground. This will allow the wheelchair to climb a kerb.

The use of anti tip stabilisers is an important safety feature and permanent removal should not be taken lightly, but it should nevertheless be an objective for a fully competent and independent user.

## PUSH HANDLE

The backrest tube has a folding push handle feature which is an injection moulded assembly incorporating a locking hinge with sprung loaded release latch. The lower element of the hinge is fixed to the lower back frame, and the upper element to the push handle.



This hinge to tube assembly involves plain rivets with a push on star-cap fixing, to facilitate service part replacement.

The upper push handle tube material is lightweight aluminium. This locates into a recess in the upper hinge moulding providing strength to the assembly by distributing the applied load of an attendant manoeuvring the chair.

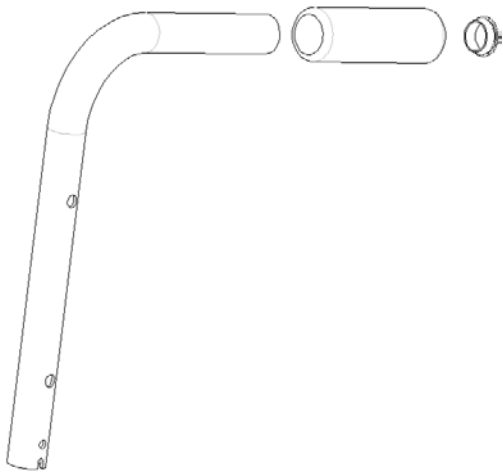
With a heavy occupant it is possible that extremely high loads can be applied to the push handle area as an attendant tips the chair to overcome obstacles such as kerbs. Service staff should check the folding push handle frequently, particularly in heavy occupant use, or misuse, situations.

THE CORRECT USE OF TIPPING LEVERS MUST BE COMMUNICATED TO THE CARER OR USER – IMPROPER USE COULD CAUSE ADDITIONAL STRAIN ON THE PUSH HANDLE HINGE SECTION.

**CAUTION**

Components showing signs of deformation or wear should be replaced. If it is apparent that the attendant is not using the tipping levers to assist the tipping operation, this should be noted, so that the rehabilitation engineer or therapist responsible can take corrective action and advice to the user.

Preventive maintenance by replacement of both LH and RH push handle and hinge assemblies every two years on a chair used by an occupant over 110Kg is recommended. Spare replacement push handles are supplied complete with injection moulded hinge unit assembly and fixings.



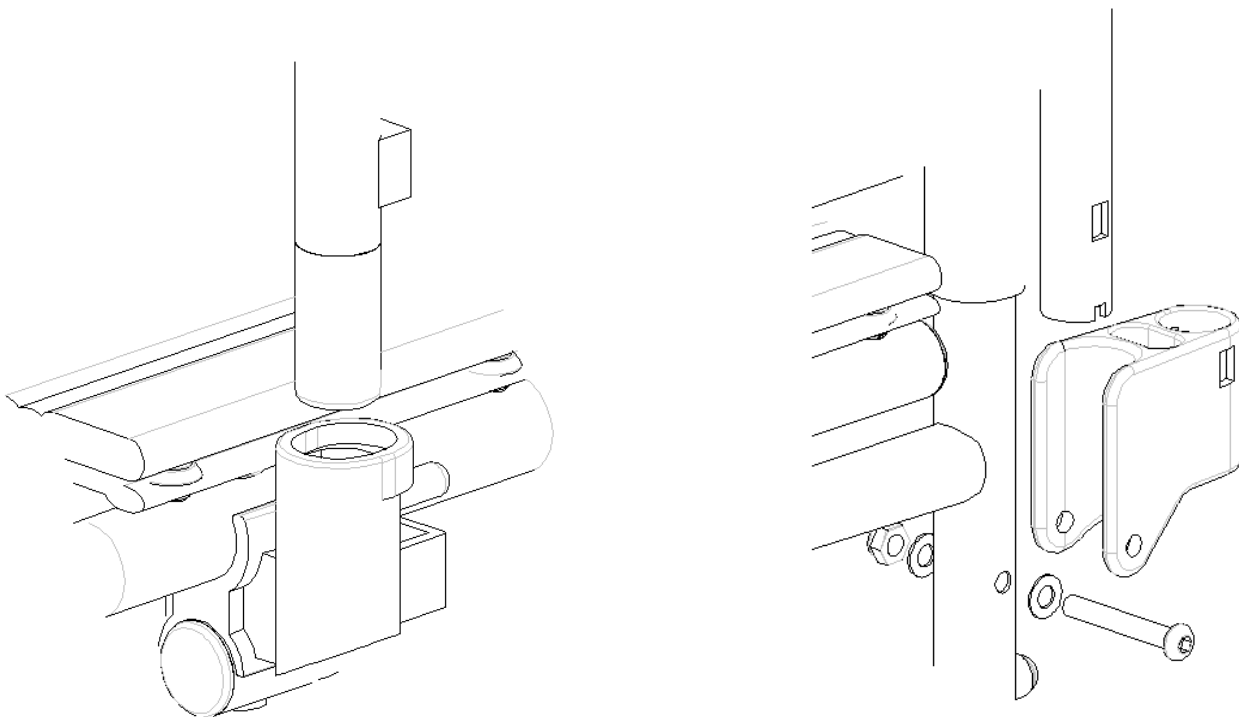
The push handle grips on Dash are manufactured from PU. Push handle grips can become damaged in use due to attachment of other equipment or rough handling.

**NOTE**

Please also refer to dry fit PU grip which is available, using this proven hand grip negates the use of adhesive.

## 12.0 Armrests

The Dash armrest consists of a front and back locking full length swing away and detachable armrest.



This front socket has a sprung loaded latch pin which can be operated by a finger release catch to lock or release the armrest frame from the front socket for side transfer.

The armrest rear socket fitting on the Dash frame is an injection moulding, swivel mounted and attached to the side frame.

The single screw fixing acts as a pivot when the armrest is moved from its working position, allowing the armrest to be swivelled to the rear, away from the occupant for side transfer. The rear socket moulding has a location hole which engages with a sprung pin in the armrest frame to locate it in the socket. This feature allows armrest removal from the socket, and completely detached from the frame for minimum weight lifting, if this is necessary.

These injection moulded frame components facilitate accurate positioning and trouble free operation, with a significantly reduced risk of problems arising from the effects of corrosion due to wear during normal use. It should be understood however that they may become damaged in the event of misuse, typically if the user attempts to force an armrest into the wrong position, or applies loading when the arm is not correctly located. However, unlike with a fabricated assembly, replacement of damaged components is simple, from a service aspect, and they are available as spares in chair sets.

Replacement armrests and armrest component parts are available as spares.

### **13.0 UPHOLSTERY :**

The upholstery seat on Dash is either padded on self-propelled and unpadded on occupant propelled as standard, with both alternative types of canvas available as options.

The backrest upholstery on Dash wraps around the backrest frame tubes, and is secured to the upper section by two M5 pozi head screws from each the side. The backrest upholstery features a central hinge cut out . In order to fit replacement backrest upholstery it is necessary to first remove the push handle by removing the screw and disconnecting it at the hinge pivot point.

The upholstery on Dash is very strong and durable, and will take a great deal of heavy use. However if a wheelchair is being recycled from one user to another as is frequent practice in NHS service centres, it is recommended that all upholstery, and body contact fittings such as armpads are replaced.

Seat cushions can be included in an original specification of Dash, or supplied subsequently as individual spares as indicated in the table below.

Note that when replacing screw on type upholstery, this also requires replacement of the securing screws, as already described for general routines.

Lap straps are standard in an original specification of Dash, and supplied subsequently as spares, as indicated below.

The strap is attached by means of a bracket.

## **Upholstery cleaning**

Maximum washing temperature 30 deg. C, using water only, to remove stubborn stains a little mild detergent is useful, but must be wiped clean with warm water. Above this temperature can damage the canvas and leave residue. If desired cleanliness is not achieved R Healthcare advises the canvas is replaced.

To remove sever stains and potential contamination, from such things as bodily fluids, R Healthcare suggest steam clean. This type of cleaning in down to local risk analysis and infection control.

After any type of cleaning we recommend the wheelchair is thoroughly dried and inspected to ensure, parts such as wheel and castors, have not been damaged and are still functional.

# MANUAL WHEELCHAIR SERVICE RECORD

**Service Ref No.**

This form to be completed at time of issue by approved distributor.

It is essential for specification of any spare parts.

This form to be included, and retained, with user guide information.

Users should be made aware of service requirements : Non completion of this form may affect warranty

**Client Name** .....

**Address**.....

Batch Code	Wheelchair Serial Number	Service Issue Date

**TYPE/MODEL**.....

**OTHER FEATURES**.....

**RECOMMENDED SERVICE INTERVAL.....MONTHS : SIGNED** .....

To ensure that your wheelchair remains in first class working order please ensure that the following checks are carried out at recommended service intervals by an approved distributor/service agent.

CHECKLIST	SERVICE NUMBER				TICK BOX IF CHECKED AND OK PLACE "R" IN BOX IF REPLACED					
	1	2	3	4	5	6	7	8	9	10
<b>WHEELS</b>										
<b>TYRES</b>										
<b>HANDRIMS</b>										
<b>CASTORS</b>										
<b>BRAKES</b>										
<b>FOOTRESTS</b>										
<b>FRAME</b>										
<b>ARMRESTS</b>										
<b>PUSH HANDLES</b>										
<b>HANDGRIPS</b>										
<b>PAINTWORK</b>										
<b>CUSHION</b>										
<b>UPHOLSTERY</b>										
<b>ATTACHMENTS</b>										
<b>TIE DOWN POINTS</b>										
<b>OCCUPANT BELT</b>										
<b>GENERAL CONDITION</b>										

<b>CHECKERS INITIALS</b>			
<b>DATE</b>			

REMPLOY HEALTHCARE (MOBILITY)      00 08 71 00. Aug 2003. Rev E

DETAILS OF SPARES AND ACCESSORIES ARE AVAILABLE FROM CUSTOMER SERVICE DEPARTMENT. INFORMATION IS ALSO AVAILABLE FROM THE SPARES AND DASHORY MANUAL



**INFORMATION**

## Fitting Instruction – Pneumatic tyres

### Part number

Various

### Where used

Various

### Tools and Techniques

The following tool will be required;

Tyre Levers x 3

File if needed

Inflator



### Service and maintenance

At each service check for:

- Tread must be visible, not badly worn
- Tread inclusions or visible damage to tyre walls or tread.
- Tyres are inflated to recommended pressures – valves are not damaged.

Damaged or worn, components need to be replaced, if assembled in pairs Remploy Healthcare recommends replace both assemblies, for continuity of wheelchair in use.



### Method

1. Deflate current fitted tyre, by depressing valve components to expel any air.
2. Remove the existing tyre using the tyre levers, lifting the tyre gradually from the rim by slipping the tyre levers gradually around the rim.
3. Do this for both walls. If the inner tube is also to be replaced remove it after the first wall is removed from the wheel rim (see instructions supplied with Inner Tube).
4. Ensure that the wheel is clean and has no sharp edges; any burrs should be removed with the suitable file.
5. Place one tyre loosely on the wheel then using the Tyre Levers gradually fit the tyre onto the wheel hub.
6. Then fit the inner tube into the wheel (see instructions supplied with Inner Tube). Repeat the procedure to fit the second wall of the tyre onto the wheel, ensure fingers or inner tube do not become trapped between the tyre and tyre rim, as this can become a pinch point area if care is not taken.
7. Inflate the tyre to 45lbs and ensure that the brake operates correctly by applying pressure to ensure the wheel does not turn when the brake is applied.

Spares and Options should only be fitted by a trained and competent person



[www.rhealthcare.co.uk](http://www.rhealthcare.co.uk)  
Post code S41 8NJ

Weight excluding packaging: 0.6kgs max. Per tyre



## Fitting Instruction – puncture free tyres

### Part number

Various

### Where used

Various

### Tools and Techniques



The following tool will be required;  
Round Bar ¼" Diameter 6" Long (minimum)  
Bench Vice  
Stanley Knife  
File if needed



### Service and maintenance



At each service check for:

- Tread must be visible, not badly worn
- Tread inclusions or visible damage to tyre walls or tread.

Damaged or worn, components need to be replaced, if assembled in pairs Remploy Healthcare recommends replace both assemblies, for continuity of wheelchair in use.



### Method

8. Remove the existing puncture free tyre by cutting it from the rim using the Stanley Knife, extreme care should be taken to ensure that the person does not cut them selves.
9. If a pneumatic tyre is being replaced, deflate the tyre by depressing the valve, then cut the tyre from the wheel and remove the inner tube by unscrewing the securing nut that holds the valve to the outside face of the wheel-rim. Again extreme care must be taken when cutting away the tyre.
10. Clamp the Round Bar in the bench vice.
11. Warm the tyre by sitting it in a bath of water at 50 degrees centigrade, care should be taken when using hot water to avoid scolding. By warming the tyre it expands and makes fitting onto the rim easier.
12. Place as much of the tyre as possible around the wheel-rim with the Round Bar located between the tyre and the wheel rim.
13. Turn the wheel, using the Round Bar to guide the remaining tyre onto the wheelrim. Be careful when doing this to make sure that your fingers or other items are not caught between the tyre and the wheelrim and this is a pinch point.
14. Pull the wheel upwards so that the Round Bar is removed from the wheel assembly.
15. Check that the tyre is securely fitted to the wheelrim.
16. If the wheel has been changed from pneumatic to puncture free care must be taken to ensure the brakes operate correctly. To check the brake works correctly engage the brake and ensure that the wheel does not turn when force is applied.

Spares and Options should only be fitted by a trained and competent person



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Post code S41 8NJ

Weight excluding packaging: 0.6kgs max. per tyre

## Fitting Instruction – Inner Tube

### Part number

Various

### Where used

Various

### Tools and Techniques



The following tool will be required;

Tyre Levers x 3

Inflator



### Service and maintenance

At each service check for:

- Punctures or poorly inflated tyres
- Tread inclusions or visible damage to tyre walls or tread.



Damaged or worn, components need to be replaced, if assembled in pairs Remploy Healthcare recommends replace both assemblies, for continuity of wheelchair in use.

**⚠ WARNING**

### Method

17. If necessary deflate the tyre by depressing the valve
18. Remove one of the tyre walls from the wheel-rim using the Tyre Levers, lifting the tyre gradually from the rim by slipping the tyre levers gradually around the rim
19. Remove the existing inner tube, by removing the securing nut from the valve which secures the rim onto the outside of the wheel-rim.
20. Insert the new Inner Tube by placing the valve through the hole in the wheel-rim and securing the nut, tighten the nut using finger pressure only. Do not over tighten.
21. Make sure the replacement inner tube runs smoothly around the wheel-rim with no kinks.
22. Refit the tyre wall back into the wheel-rim using the tyre levers. Ensure fingers or inner tube do not become trapped between the tyre and tyre rim as this can become a pinch point area if care is not taken.
23. Inflate the tyre to 45lbs and ensure that the brake operates correctly by applying pressure to ensure the wheel does not turn when the brake is applied.

Spares and Options should only be fitted by a trained and competent person

**⚠ CAUTION**



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Post code S41 8NJ

Weight excluding packaging: 0.6kgs max. per tyre

## Fitting Instruction – quick release wheels

### Part number

Various

### Where used

Various

### Tools and Techniques

The following tool will be required;

19mm A/F Hex Spanner

11mm open end



### Service and maintenance

At each service check for:

- Broken, loose or damaged spokes
- Damaged hub or spindle
- Wheel rim out of true, signs of buckle.
- Tread must be visible, not badly worn
- Tread inclusions or visible damage to tyre walls or tread.
- Tyres are inflated to recommended pressures – valves are not damaged were applicable.

Damaged or worn, components need to be replaced, if assembled in pairs Remploy Healthcare recommends replace both assemblies, for continuity of wheelchair in use.



1. Remove the current QD wheel by depressing the centre button, located on the outside of the wheel, this will release the bearings, allowing the wheel to be removed outwards, place wheel aside for disposal.
2. Remove existing receiver from wheel mounting block and replace with new receiver
3. Using a new QD wheel, align the spindle to the receiver.
4. Press in the button at the centre of the wheel spindle, which will allow the spindle to pass through the receiver.
5. Release the button, which will release the 2 bearings inside the wheelchair, locking the QR wheel to position.
6. Gently pull the wheel to ensure the 2 ball type bearings have engaged, through the receiver.
7. Remove any side ways motion "play" in the wheel by removing the wheel
  - remove spindle from wheel,
  - Using 19 mm open end spanner on adjusting nut at top end of spindle hold firmly
  - Using 11mm open end spanner on adjustment nut, turn 1/4tr turn at a time, dependent on amount of adjustment.
  - Continually replace wheel to remove "play" – ensuring wheel cannot come out of receiver.
8. Spin the wheel to ensure alignment is a max. of 1/8<sup>th</sup> inch and there is no buckle
9. Check the brakes still function in the on / off position, when engaged the wheel must not move.
  - Wheels must not move when 30 lbs force applied
  - Brakes engagement between 5 and 10 lbs force approximately – to suit the occupant

**Ensure that the brake works correctly by engaging the brake and ensuring that the wheel does not turn when force is applied.**

Spares and Options should only be fitted by a trained and competent person



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Post code S41 8NJ

Weight excluding packaging: 0.5 kgs max. Per wheel

## Fitting Instruction – 6 point fixing Handrim

### Part number

Various

### Where used

Various

### Tools and Techniques

The following tool will be required,  
No 3 Pozidrive Screw driver.  
Torque Spanner with 3mm Pozidrive fitment



### Service and maintenance

At each service check for:

- Damaged or badly worn hand rims
- Loose fitting hand rims
- Loose or flaking paint, which may cause sharp edges.



Damaged or worn, components need to be replaced, if assembled in pairs R Healthcare recommends replace both assemblies, for continuity of wheelchair in use.



### Method

24. Using the No 3 Pozidrive Screwdriver remove the screws that lock the hand-rim on to the wheel.
25. Discard the old hand-rim and its fixings.
26. Replace the handrim, locating it using the 6 new plastic spacers and screws, through the fixing points that are attached to the wheel-rim, to 7nm using Torque spanner.
27. Ensure the has no sharp protrusions and is securely fixed to the wheel-rim

Spares and Options should only be fitted by a trained and competent person



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Post code S41 8NJ

Weight excluding packaging: 0.650 kgs max. per hand rim

## Fitting Instruction – Seat Canvas

### Part number

Various

### Where used

Various

### Tools and Techniques

The following tool will be required  
No 3 Pozzi-Drive Screw Driver or  
3mm Allen Key



### Service and maintenance

At each service check for:

- Any damaged or contaminated canvas must be replaced – cross contamination could occur, or there may be an effect on stability. – it is advisable to also replace the hand grips as part of this process.
- Maximum washing temperature 30 deg. C, using water only, to remove stubborn stains a little mild detergent is useful, but must be wiped clean with warm water. Above this temperature can damage the canvas and leave residue. If desired cleanliness is not achieved Remploy advises the canvas is replaced.

Damaged or worn, upholstery needs to be replaced, if assembled in pairs Remploy Healthcare recommends replace both seat, back canvas and hand grips, for continuity of wheelchair in use.

**⚠ WARNING**

### Method

1. Remove the existing seat canvas by turning anti-clockwise the 8 securing canvas screws.
2. Retain the Canvas Bar, Canvas Screws and Cup Washers.
3. Insert the Canvas Bar into the new Canvas, and locate the Canvas Screws and Cup Washers through the holes.
4. Open the wheelchair and locate one side of the Canvas Assembly over the Nut Inserts in the chair..
5. Loosely tighten the screws to secure the canvas, repeat the operation on the other side.
6. Tighten the screws to 7nm.
7. Make sure the canvas screws are free of any burrs.
8. Ensure the seat canvas sits in or above the seat keps (saddles) a maximum of 5mm.
9. Ensure the seat canvas sits square to the seat tubes, level with the plastic end caps.
10. Ensure the seat canvas deflection is 10mm maximum from the horizontal.
11. Consider the use of lap straps, as they may need fitting as part of this process.

Spares and Options should only be fitted by a trained and competent person

**⚠ CAUTION**



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Post code S41 8NJ

Weight excluding packaging: 500 grms per canvas

## Fitting Instruction – Back Canvas

### Part number

Various

### Where used

Various

### Tools and Techniques



The following tool will be required  
No 3 Pozi-Drive Screw Driver or  
3mm Allan Key  
10mm A/F Hex Spanner  
4mm A/F Allen Key

### Service and maintenance



At each service check for:

- Any damaged or contaminated canvas must be replaced – cross contamination could occur, or there may be an effect on stability. – it is advisable to also replace the hand grips as part of this process.
- Maximum washing temperature 30deg. C, using water only, to remove stubborn stains a little mild detergent is useful, but must be wiped clean with warm water. Above this temperature can damage the canvas and leave residue. If desired cleanliness is not achieved Remploy advises the canvas is replaced.

Damaged or worn, upholstery needs to be replaced, if assembled in pairs Remploy Healthcare recommends replace both seat, back canvas and hand grips, for continuity of wheelchair in use.

**⚠ WARNING**

### Method

12. Remove the existing seat canvas by turning anti-clockwise the securing canvas screws.
13. Remove the securing bolt that allows the push handle to pivot on the LH and RH sides.
14. Pull the push handle through the upper fixing loop of the canvas and pull the lower loop of the canvas over pivot boss. This removes the canvas from the chair
15. Taking the new canvas, slide the push handles through the upper fixing loops RH and LH, making sure that the seams are towards the back of the canvas.
16. Ensure the canvas is not overtight, as this may pull the push handles inwards and effect manoeuvrability and stability.
17. Slide the lower loops of the canvas RH and LH onto the lower back tube.
18. Secure the push handles to the chair by reattaching the securing bolt and tightening to 7nm, back off ¼ turn.
19. Secure the canvas to the push handle by reattaching the canvas screws and cup washers. Tighten to 7 nm.
20. Ensure at any burrs on the canvas screws are removed.

Spares and Options should only be fitted by a trained and competent person

**⚠ CAUTION**



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Post code S41 8NJ

Weight excluding packaging: 500 grms per canvas

## Fitting Instruction – Back Rest Extension

### Part number – request information from customer services

6" x Width  
9" x Width  
12" x Width

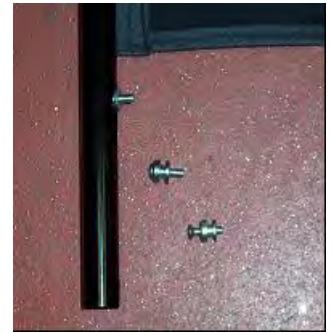
### Where used

8TRL, 9TRL, AP100, SP100, ACCESS, ACCENT, DASH LITE, DASH LIFE

### Tools and Techniques



The following tool will be required;  
Pozi screw driver  
Mallet – soft head



### Service and maintenance



At each service check for:

- Any damaged or contaminated canvas must be replaced – cross contamination could occur, or there may be an effect on stability.

Damaged or worn, components need to be replaced, if assembled in pairs Remploy Healthcare recommends replace both assemblies, for continuity of wheelchair in use.

**⚠ WARNING**

### Method

10. Canvas height and width
  - Select height of extended back rest canvas, 6, 9, or 12 inch to suit assessment needs.
  - Width of canvas will vary dependent upon the width of the wheelchair.
11. Back rest canvas screws
  - Remove 4 off back rest canvas screws – discard.
12. Bobbins for retaining back rest extension.
  - Fit 2 off 12 mm bobbins to each push handle tube, using the screws holes vacated by the previous canvas screws.
  - Tighten each bobbin using the 5mm x 20 mm Pozi head screw, approx torque of 7NM.
13. Fit Back Rest Extension
  - Side the 2 back rest extensions over the bobbins, ensuring the push handle tube aligns firmly in the key way
  - Fit plastic end caps to each back rest extension tube at the top.

Ensure there is no rattle and movement in the assembled back rest assembly when fitted to wheelchair.

Spares and Options should only be fitted by a trained and competent person

**⚠ CAUTION**



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Weight excluding packaging: 1.0. Kgs max. Per wheelchair

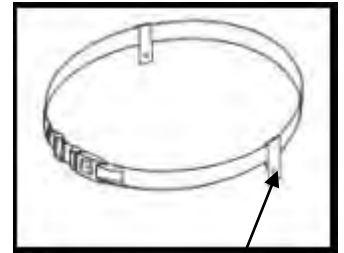
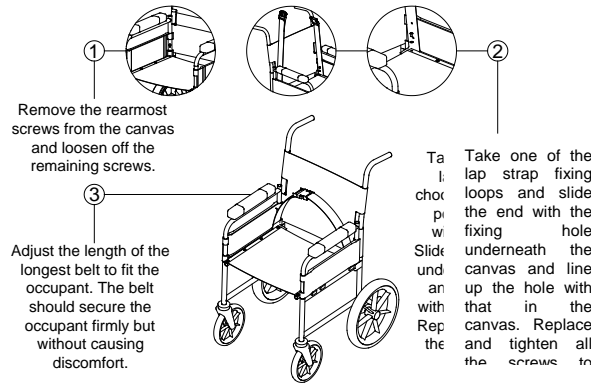
## Fitting Instruction – Lap Belt (posture belt)

### Part number

Various

### Where used

Various



Fixing Loop

### Tools and Techniques

The following tool will be required;  
No 3 Pozidrive Screwdriver  
Torque Driver with No3 Fitment

Damaged or worn, lap strap, fittings and fixings need to be replaced.



### Lap strap fitting

- Using the No 3 Pozidrive Screwdriver remove the rear seat canvas screw and washer on the LH and RH side.
- Loosen but do not remove the middle two seat canvas screw and washer on the LH and RH side.
- Slide the fixing loop of the Lap Belt Between the seat tube and the seat canvas bar and position the hole in the fixing loop so that when the canvas screw is reinserted it will go through the hole.
- Make sure that the Lap Belt is wrapped around the outside of the chair so that the backrest tube takes the load when applied by the user and that it comes into the chair between the backrest tube and the armrest tube.
- Check that the Lap Belt is not jammed or fouled by the frame of the chair.
- Tighten the Seat Canvas Screw to 7nm.
- Each maintenance check – the seat belt and locking snap buckles are not damaged or have signs or wear.

### Occupant safety and comfort

- Occupant to position themselves comfortably in the wheelchair, ensuring there is no loose clothing that could interfere with the occupants own comfort or the wheelchairs general use.
- Holding the end of each lap strap, bring to the front of the chair, explaining to the occupant method of fitting for comfort, security and releasing methods for transfer. **NOTE**, it is good practice for the occupant to be clearly made aware that, once the lap strap adjustment sliding mechanism is set, the sliding mechanism position should not be adjusted without the specific advice on a healthcare professional.
- Using the sliding mechanism adjust one side of the lap strap to approximate length, to suit the occupant, try the fit of the snap buckle, adjust to suit occupants torso and disposition.
- Ensure the occupant lap strap is at an angle of approximately 45 degrees across the midriff area of the body.
- Once the occupant feels comfortable with the lap strap and securing methods, the healthcare professional must ensure the lap strap is secure, cannot slip and cause discomfort to the occupant.
- Using the 2 part male and female ends of the lap straps snap buckle, push together, pull the locked buckle gently, to ensure the integrity of the complete assembled lap strap is in place. Reassure the occupant of the lap straps use, describe by pushing the top and bottom snap buckle clips downwards, how to release the buckle, allowing the lap strap to come away from around the torso.
- It is advisable for the occupant or carer to retain the lap strap to the correct position at all times, especially in outdoor conditions.

Spares and Options should only be fitted by a trained and competent person



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Post code S41 8NJ

Weight excluding packaging: 0.35kgs max. per belt.



## Fitting Instruction – Push Handle Grip 24 rib type

### Part number

Various

### Where used

Various

### Tools and Techniques

The following tool will be required

Stanley Knife

White Spirit



### Service and maintenance

At each service check for:

- Loose hand grips – are potentially dangerous and must be replaced
- Damaged or badly scuffed hand grips

Damaged or worn, components need to be replaced, if assembled in pairs Remploy Healthcare recommends replace both assemblies, for continuity of wheelchair in use.

**⚠ WARNING**

21. Remove the existing hand grip and all traces of adhesive from wheelchair push handle. Use extreme care when using the knife to remove the existing hand grip.
22. Clean surface where grip is intended to fit, using white spirit type cleaner.
23. Ensure the hand grip areas are dry and clean
24. Prepare grip for fitting preferably by applying warm heat to each hand grip.
25. Ease grip onto push handle with finger features underneath and press home, ensuring that push handle is entered all the way to the end.
26. Check alignment of grip
27. Leave to cool for thirty minutes.
28. Check security by holding and pulling hard.
29. Each time the wheelchair is used - ensure the hand grips feel securely attached.
30. Ensure at each maintenance or service, the hand grips are checked for wear and they are secure to position.

Spares and Options should only be fitted by a trained and competent person

**⚠ CAUTION**



[www.rhealthcare.co.uk](http://www.rhealthcare.co.uk)

Post code S41 8NJ

Weight excluding packaging: 50 gms per hand grip

## Fitting Instruction – castor assembly c/w housing

### Part number

Various

### Where used

Various

### Tools and Techniques

The following tools will be required;  
10mm open ended spanner



### Service and maintenance check

At each service check for:

Damaged or broken spokes

Wheel wobble – must not rock sideways in castor fork

Stiff castor fork – castor fork and wheel must rotate 360 deg. freely

Inclusions in castor tyre – causes poor wheelchair control extra tyre wear or damage

Castor head rock – castor pintle must not move sideways when attached to castor boss type housing.



Damaged or worn, components need to be replaced, if assembled in pairs R Healthcare recommends replace both assemblies, for continuity of wheelchair in use.



### Removal method

- Tip chair backwards so resting on push handle grips.
- Loosen 2 x M6 Nyloc nuts
- Pull out fastenings and release castor assembly from main frame, aside for disposal.

### Fitting method

- Pick up correct handed castor assembly.
- Pick up 2 x M6 concentric bolts, onto the bolts 2 x 'U' bent washers, one on each bolt. Ensure head of bolt fits inside 'U' section of washer.
- Assemble these bolt sub assemblies through the castor assembly from the outside in.
- Pick up and assemble onto the bolts the long concaved black spacer.
- Offer this sub assembly through the relevant holes in the side frame on the outside face of the chair.
- Pick up and load 2 x black curvy washers
- Apply Loctite 245 to bolt threads
- Pick up and assemble 2 x M6 Byloc nuts. Tighten using 10mm spanner to 7NM / 10ft/lbs Torque

### Checking method

- Holding castor fork with both hands, move side ways – there should be no head rock seen or felt.
- Holding castor fork, spin castor – this should run smoothly
- Holding castor fork, check for wheel movement – these should not move from side to side along its axle.
- Ensure the bolts are secure to the wheelchair frame – screw threads should protrude through the nuts on the inside of the frame.
- Castor fork and wheel must rotate freely 360 deg. On the pintle in the castor housing boss.

Spares and Options should only be fitted by a trained and competent person



[www.rhealthcare.co.uk](http://www.rhealthcare.co.uk)  
Post code S41 8NJ

Weight excluding packaging: 800 grams each

## Fitting Instruction – Armpad

### Part number

Various

### Where used

Various

### Tools and Techniques



The following tool will be required;  
No 3 Pozidrive Screw driver or  
4mm Allen Key



### Service and maintenance



At each service check for:

- Damaged or badly worn armpads
- Loose fitting armpads
- Damaged underside – due to “picking” on pad
- Contaminated armpads

Damaged or worn, components need to be replaced, if assembled in pairs R Healthcare recommends replace both assemblies, for continuity of wheelchair in use.

**⚠ WARNING**

35. Remove the existing armpad from the wheelchair using the necessary tool, turning anticlockwise.
36. Position the Armpad on the armrest frame ensuring that the armrest tray plug is secured between the rear armrest frame hole and the armpad and lightly secure the pad using the new armpad screws.
37. Tighten the armpad screws using the necessary tool, to either 7nm or by turning until tight and then turning back ¼ turn. Do not over tighten.
38. Ensure there are no sharp edges on the screw heads after tightening to position

Spares and Options should only be fitted by a trained and competent person

**⚠ CAUTION**



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Post code S41 8NJ

Weight excluding packaging: 350 Gms max. Per armpad inc.screws

## Fitting Instruction – Tipping Sleeve

### Part number

Various

### Where used

Various

### Tools and Techniques

The following tool will be required

Stanley Knife

White Spirit



### Service and maintenance

At each service check for:

- Loose tipping sleeves
- Damaged or badly secured tipping sleeves



Damaged or worn, components need to be replaced, if assembled in pairs Remploi Healthcare recommends replace both assemblies, for continuity of wheelchair in use.



### Method

31. Remove the existing tipping sleeve and all traces of adhesive from wheelchair tipping lever. Use extreme care when using the knife to remove the existing hand grip.
32. Clean surface where tipping lever is intended to fit, using white spirit
33. Prepare grip for fitting preferably by applying heat.
34. Ease grip onto tipping lever with flat features upwards and press home, ensuring that tipping lever is entered all the way to the end.
35. Check alignment of tipping lever.
36. Leave to cool for thirty minutes.
37. Check security by holding and pulling hard.
38. Ensure occupant or carer is aware of using the tipping levers when negotiating steps or similar obstacles.

Spares and Options should only be fitted by a trained and competent person



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Post code S41 8NJ

Weight excluding packaging: 50 Gms max per sleeve

## Fitting Instruction – Push handle and hinge assembly complete left and right hand.

### Part number

Various

### Where used

Various

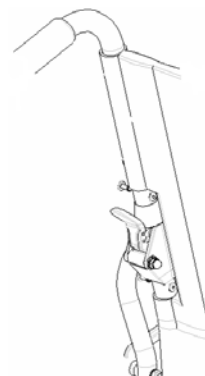
### Tools and Techniques

The following tools will be required;



### Service and maintenance check

At each service check for:



1. Remove Existing Push Handle
2. Remove the existing push handle by first removing the two canvas screws and washers on each push handle
3. Remove the M6 Nyloc Nut from the pivot point half way down the backrest tube,. Discard
4. Disengage the push handle from the chair frame and feed the push handle grip through the back canvas, this is tight but there is no need to cut the canvas.
5. Fit to Chair
6. Fit the new Push Handle grip through the loops on the upper half of the canvas
7. Locate the Push Handle on the pivot point, securing into place with the new M6 bolt, washer and nyloc nut.
8. Secure the canvas to the Push Handle using the M5 canvas screw and washers removed at point 1.
9. Make sure there is no excessive play and that all moving components can move freely.

Damaged or worn, components need to be replaced, if assembled in pairs Remploy Healthcare recommends replace both assemblies, for continuity of wheelchair in use.

**⚠WARNING**

## Fitting Instruction – Anti tip stabilisers - pair

### Part number

Various

### Where used

Various

### Tools and Techniques

The following tools will be required;  
None needed



### Service and maintenance check

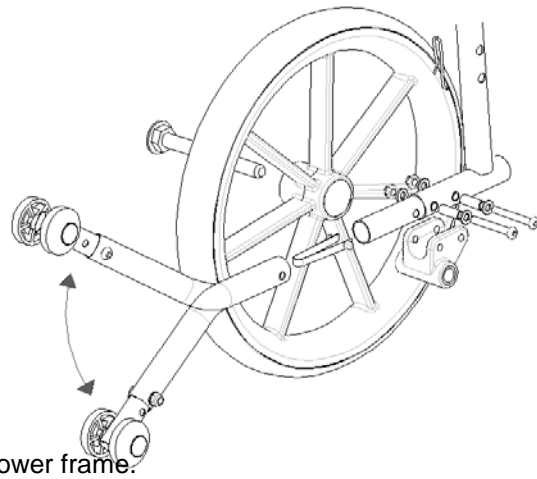
At each service check for:

Bent or damaged tube

Broken nylon wheels

Jammed or poor locating retaining clips – retains stabilisers to lower frame.

Sharp protrusions



Damaged or worn, components need to be replaced, if assembled in pairs Remploy Healthcare recommends replace both assemblies, for continuity of wheelchair in use.



### Removal method

- Remove locking pin
- Carefully pull away from the back of the wheelchair until free from the bottom tube, the stabilisers should now be discarded.

### Fitting method

- Fit new stabilisers with the wheels pointing down locate the stabiliser into the lower tube at the rear of the wheelchair
- Insert quick release locking pin through pre-drilled hole in frame and through stabiliser tube.

### Checking method

- Ensure the stabilisers are locked to position.
- Carefully hold the stabiliser and pull away from the wheelchair.
- Ensure the stabiliser is set to prescription or users assessed requirements

Spares and Options should only be fitted by a trained and competent person



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Post code S41 8NJ

Weight excluding packaging: 204 grams per stabiliser.

## Fitting Instruction – footplate and stem assembly

**Part number**  
Various

**Where used**  
Various

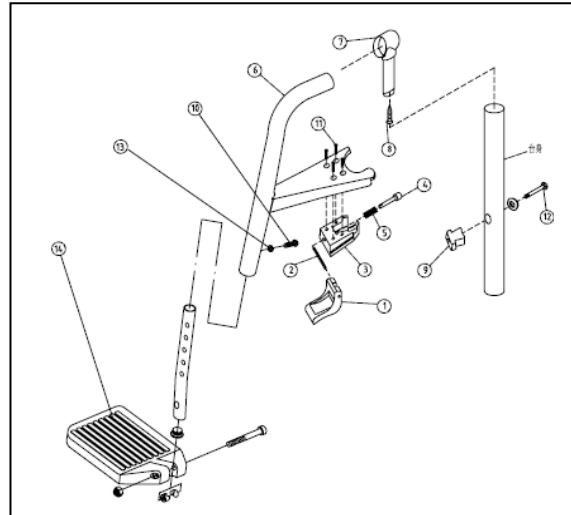
**Tools and Techniques**



The following tools will be required;  
Allen key 4mm  
Open ended spanner 10mm

**Service and maintenance check**

At each service check for:  
Wear and damage to footplate  
Corrosion areas to tube section



Damaged or worn, components need to be replaced, if assembled in pairs Remploy Healthcare recommends replace both assemblies, for continuity of wheelchair in use.

**⚠ WARNING**

**Removal method**

- Use specified tools to loosen fastening point between stem and parent assembly. Remove fastening .
- Remove footplate and stem assembly from parent swinger and discard.

**Fitting method**

- Offer replacement handed footplate and stem assembly to parent swinger, slide up to required height setting and align holes.
- Pick up replacement screw and washer, fit through footrest into footstem, securing footstem at desired height.

**Checking method**

- Ensure footplate and stem assembly does not rotate.
- Ensure footplate does not fall under own weight.
- Ensure footplate height is set to occupant requirement are symmetrical through centre line of chair.

Spares and Options should only be fitted by a trained and competent person

**⚠ CAUTION**



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Post code S41 8NJ

Weight excluding packaging: 360grams per side

## Fitting Instruction – footrest bracket assembly

### Part number

Various

### Where used

Various

### Tools and Techniques



The following tools will be required;  
None

### Service and maintenance check

At each service check for:  
Wear and damage to assembly  
Corrosion areas to tube section  
Sharps  
Bends and twisting of tubing



Damaged or worn, components need to be replaced, if assembled in pairs Remploy Healthcare recommends replace both assemblies, for continuity of wheelchair in use.



### Removal method

- Depress thump trigger located on under side of mounting plate in order to release lock.
- Lift and remove from frame and discard

### Fitting method

- Offer replacement handed swinger bracket tube sub assembly to the front tube.
- Locate moulding into front tube and rotate as far as possible so that the swinger bracket tube is in line with the side frame.
- Release the thumb trigger so that the bracket locks in position.

### Checking method

- Twist footrest from side to side to ensure it is locked into position.

Spares and Options should only be fitted by a trained and competent person



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Weight excluding packaging: 220grams per handed assembly (excluding footplate and stem sub assembly)



## Fitting Instruction – Elevating Leg Rest, (ELR) right hand, left hand.

### Part number

Various

### Where used

Dash Lite

### Tools and Techniques

No tools required;



### Service and maintenance check

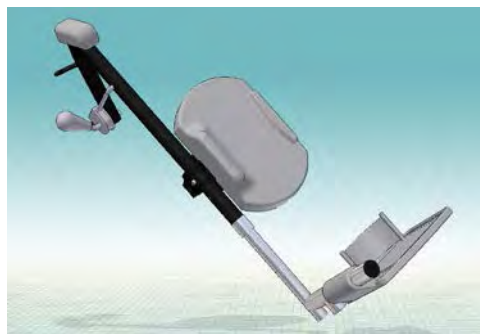
At each service check for:

Sharp Edges

Contamination

Footplate and calf pad damage

Assy fit for purpose



Damaged or worn, components need to be replaced, if assembled in pairs R Healthcare recommends replace both assemblies, for continuity of wheelchair in use.



When these are fitted to a wheelchair, they provide support to the underside of the user's calf, at a range of angular positions. They fit into the standard footrest bracket swivel points at the front of the wheelchair, and can be released and swung away or removed during side transfer or other manoeuvres in the same way as the standard type footrest.

R Healthcare recommends that because of possible finger trap areas, that an attendant locates releases or adjusts the leg rest to required position as advised by assessor. Movement of Elevating Leg rests should be controlled from the outside of the chair using both hands to steady the assembly during assembly or adjustment.



The calf support pad can be swivelled through 90 degrees for sideways folding of the wheelchair. Carer's should ensure that the locking latch is fully engaged the when refitting the Legrest or any similar adaptation prior to use. Angular calf support adjustment is by means of a sprung release trigger, which locks along a fixing bar at any preferred position within the adjustment range. Operation of this requires a degree of finger strength, and it is recommended that this is carried out by a carer or trained attendant. Users and carer's are reminded that when the Elevating Legrest is adjusted to a high position, the swing away action requires greater space. The footplate is adjusted and secured using the same method as standard Dash Lite footrest.

When the E.L.R is adjusted to suit it's most upright setting the assembly needs to be disconnected and removed from the main body of the wheelchair for transfer of occupant, or in a transit situation.



Note that the fitting and position of the Elevating Legrest can alter the balance of the chair. This is particularly significant when the Legrest is fully extended, and supporting a large heavy limb. In this position, weight distribution may be such that the wheelchair is balanced towards the front wheels, with the rear wheels taking only a nominal weight. This affects general chair control and also effectiveness of brakes.

### Cleaning Method

Wipe clean and dried using warm soapy water and cloth.

### Use Assessment & Training

To be provided for use after assessment by clinically qualified therapist, healthcare professional or rehabilitation engineer

**When weight is on the front wheels, control of the wheelchair in an outdoor environment particularly when going downhill, can become impossible, and this should always be avoided. Adverse weather conditions must be avoided, such as wet leafy weather, because control of the wheelchair will be very difficult, putting the occupant into a potentially harmful position.**

Spares and Options should only be fitted by a trained and competent person



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Weight excluding packaging 2.2Kg:

## **Fitting Instruction – Stump support right hand, left hand.**

Originally developed for post operative below knee amputee care where keeping the stump horizontal improves the natural healing process. This support also provides a comfortable long term option for some amputees who may continue to use a wheelchair for mobility, in some circumstances.

### **Part number**

Various

### **Where used**

Dash Lite

### **Tools and Techniques**



The following tools will be required;  
None required

### **Service and maintenance check**

At each service check for:

Worn, Damaged or contaminated pad

Poor location to side frame, indicating loose or worn fittings

Sharps or damaged tube

Corrosion areas on tube



**Damaged or worn, components need to be replaced, if assembled in pairs Remploy Healthcare recommends replace both assemblies, for continuity of wheelchair in use.**



### **Removal method**

- Depress thump trigger located on under side of mounting plate in order to release lock.
- Lift and remove from frame and discard

### **Fitting method**

- Offer replacement handed stump support to the front tube.
- Locate moulding into front tube and rotate as far as possible so that the stump support is in line with the side frame.
- Release the thumb trigger so that the stump support locks in position.

### **Checking method**

- Twist Stump Support from side to side to ensure it is locked into position.
- Minimal sideways movement on assembly.
- Check that height adjustment has been set correctly for end user
- 

**Users and occupants should note that leg and stump supports should not be used as seat extensions, or occupant Transfer support aides.**



### **Cleaning Method**

Wiped clean and dried using warm soapy water and cloth,

### **Use Assessment & Training**

To be provided for use after assessment by clinically qualified therapist or rehabilitation engineer

**When weight is on the front wheels, control of the wheelchair in an outdoor environment particularly going downhill can become impossible, and this should always be avoided.**



### **Caution and Limitations**

1. Care should be taken when mounting or removing the stump support to the metal frame
2. Care should be taken when used outdoors, avoid obstacles and bumpy surfaces.
3. Should only be used on clinically assessed patients.

**Adjustment however should only be carried out by an authorised professional who understands the clinical requirements**



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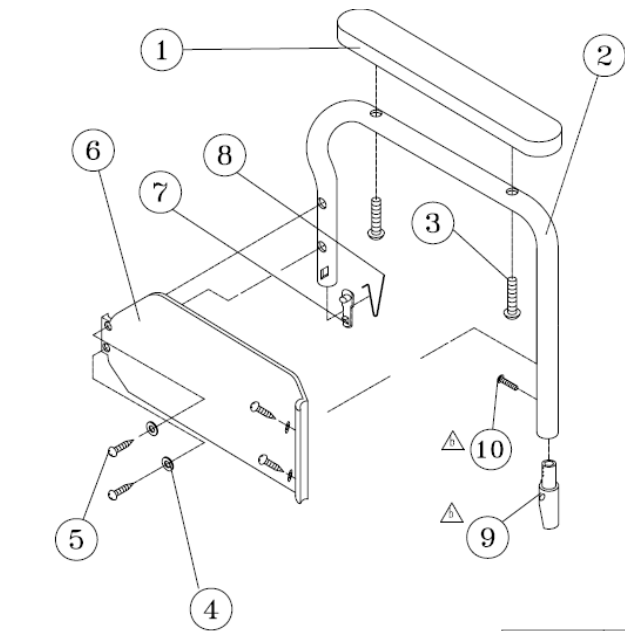
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Weight excluding packaging: 2kgs per assembly.

## Fitting Instruction – Armrest Assembly both long and short, left and right handed

### Part number

Various



### Where used

Various

### Tools and Techniques

The following tools will be required;

None

### Service and maintenance check

At each service check for:

Side panels for any signs of damage

Armrest pads for damage, contamination

Secure location into front and rear armrest pivot mouldings

Damaged or worn, components need to be replaced, if assembled in pairs R Healthcare recommends replace both assemblies, for continuity of wheelchair in use.



### Method

#### 39. Remove existing armrest assembly

- Turn armrest locking lever front and back to unlocked position.
- Remove armrest from front and back mouldings.

#### • **Armrest replacement**

- Using new stock, insert armrest assembly into rear pivot moulding, using locking lever to lock into position.
- Pivot armrest towards the front of the chair to locate and locate front spigot moulding into available socket, on the side frame moulding, ensuring the 1/4rt turn latch operates correctly.

#### 40. Replacement Armrest check

- Pull armrest upwards to ensure it is locked into position.

Spares and Options should only be fitted by a trained and competent person



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Weight excluding packaging: Short: 782 grams LONG: 763 grams per armrest assembly.

## Fitting Instruction – Tray

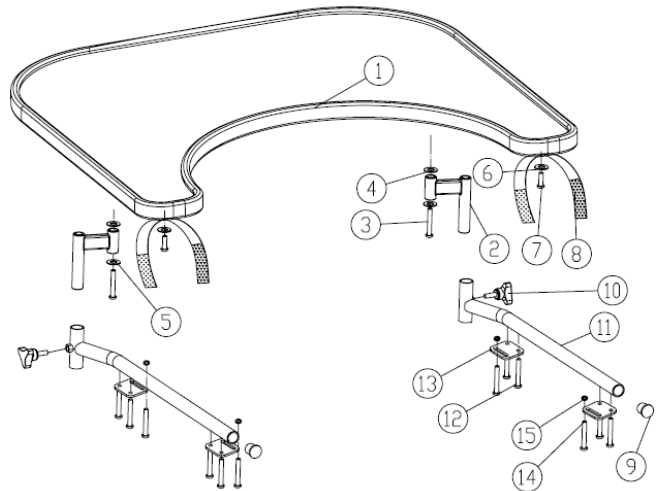
### Part number

Various

### Where used

Various

### Tools and Techniques



Damaged or worn, components need to be replaced, if assembled in pairs R Healthcare recommends replace both assemblies, for continuity of wheelchair in use.

**⚠ WARNING**

### Fitting

- 1 Turn Tray (1) upside down and secure pivot mounting bracket (2) to the tray using screw (3) washers (4,5) into pre-drilled holes (using holes that suit the chair width)
- 2 Remove armrests from chair, loosen arm pad screws from armrest and remove.
- 3 Take universal tray bracket (11) and attach to underside of armrest on the outside, securing with screw (14) and washer (15) through slotted hole in plate (13) through armrest frame and into arm pad.
- 4 Replace armrests on chair
- 5 Fit tray into universal bracket by securing pivot mounting bracket (2) into front tube of universal bracket (11)
- 6 Secure using thumb screw (10)
- 7 For extra security use Velcro strap (8) to secure tray to rear of armrest.

### Check

- 1 Apply pressure to tray to ensure it is secure.

Spares and Options should only be fitted by a trained and competent person

**⚠ CAUTION**



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Weight excluding packaging: 1 kg per wheelchair excluding tray fittings