

# Plinth | Medical



## Model 502T Traction Couch

Models: 502TE & 502TH

# USER MANUAL

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Plinth Medical Ltd is an ISO Audited company to ISO9001:2008



Our products are CE marked in conformity with the EC Directive MDD 93/42/EEC

## 1. Introduction

Thank you for purchasing a product from Plinth Medical Ltd. We use the highest quality components and manufacturing techniques to ensure that our products are simple to use and will last a long time. It is recommended that all users read and retain this User Manual for reference.

Throughout this manual notice is made of a Warning and Caution system to highlight to the user practices, procedures or conditions that should either not be allowed to happen or happen with caution.

**Warnings are in a box with bold type and identify potential hazards, procedures or conditions which could result in death, injury or serious damage.**

Cautions are in a box with plain type and identify conditions or procedures where if caution is not taken it may result in damage or failure of equipment.

### General Warnings

#### **WARNING**

**Maximum Load (SWL) is 250kg distributed evenly.**

**Do not use flammable gasses in proximity to an electrically operated couch.**

**Do not concentrate weight on either side or either end of the couch.**

**Use only accessories approved for use with this couch.**

**Disconnect power supply before moving couch.**

**Children must be adequately supervised in the presence of the couch.**

**Do not allow children to play with the couch at anytime.**

## 2. Installation

Although this couch comes complete and is virtually ready to use it is important to remove all packaging and read the following before use.

### Retractable Castors

The castors can be operated from either side of either end of the couch. Press the pedal down to engage the castors and lift the pedal to retract the castors.

Please refer to the Operation section on page 7 for further details.

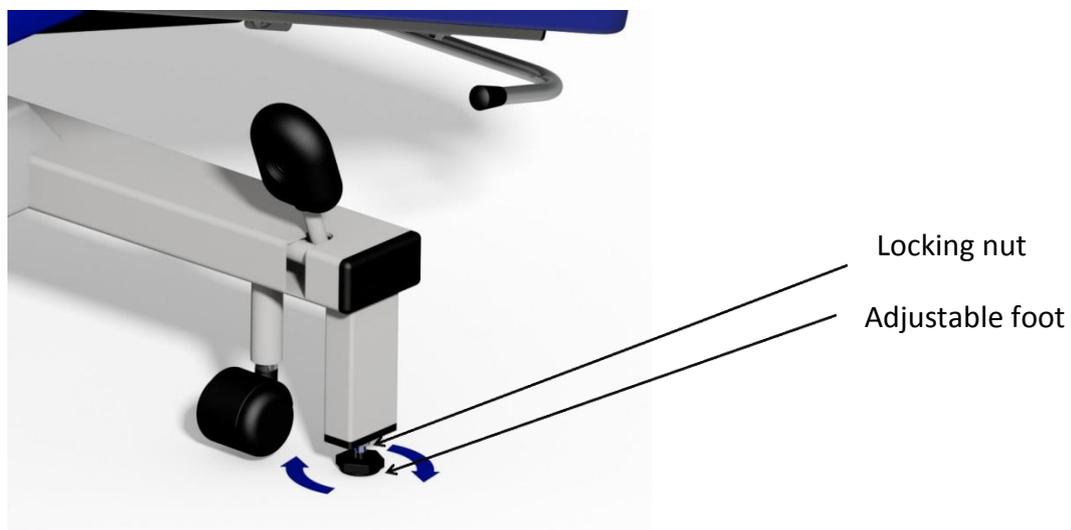
### **WARNING**

**Castors must be retracted before the couch is used and whilst patients get on or off the couch.**

**Care should be taken to ensure patients do not trip over any part of the couch when getting off.**

### Adjustable Foot

Fitted to the head end of the couch is an adjustable foot. This is designed to stabilise the couch and must be set before use. The foot should be wound in/out until it is firmly in contact with the floor whilst the castors are retracted. Check that the couch is firm and stable and then adjust the lock nut back up against the couch leg to lock the adjustable foot in position. Incorrect adjustment will result in the couch being unstable and the wheel pedals difficult to operate.



### **Power Supply (electric version only)**

Ensure that hand or foot switch leads are clear of the moving parts of the couch before operation. Connect the couch to a normal domestic type power supply observing the following notes.

#### **WARNING**

**Ensure that the mains lead, plug and socket are in good condition before connecting the equipment.**

**Ensure that the mains cable has a clear run and is not stretched when connected and that no one can fall over the cable.**

#### **CAUTION**

When couch is not in use switch off power supply.

### **Lifting and Moving**

Should the couch need to be moved or lifted (for example to remove it from its packaging) then a minimum of two people are required. The couch must only be lifted by the metal base frame near the wheels. If the couch is upside down then it may be carried by holding it underneath the upholstery. When turning the couch over, please make sure the frame and upholstery are supported at all times, otherwise damage may occur to the upholstery and gas springs.

#### **CAUTION**

Under no circumstances lift the couch by the upholstery or top sections as damage will occur to the gas spring mechanisms.

### 3. Operation

Plinth Medical offers 2 models of 502T; 502TE being the electric version and 502TH being the hydraulic version.

#### Electrical Operation General

##### **WARNING**

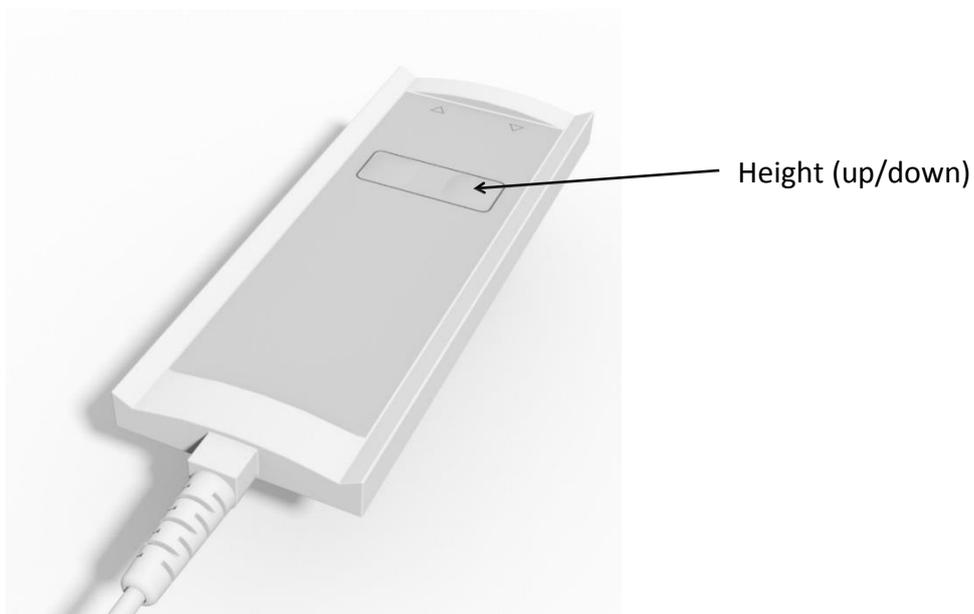
**Safely position patient before operating any functions.**

**Position the switch in a place where it is clear of the moving parts of the couch and where accidental operation is not possible.**

**Ensure that all electrical cables are clear of the moving parts of the couch.**

#### Electrical Operation (hand single motor)

For model 502TE electric couches the standard hand switch fitment is a pneumatically operated rocker switch as shown below.

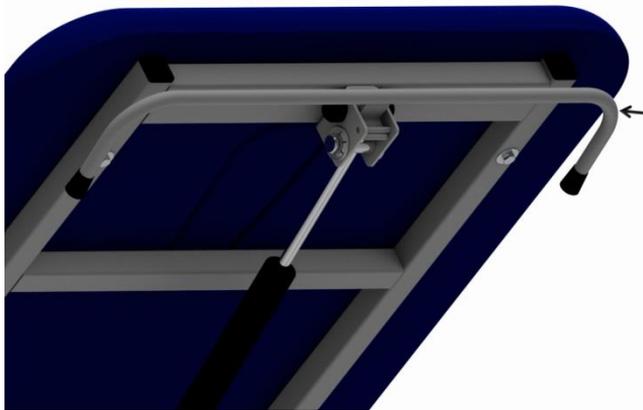


#### Electrical Operation (foot)

As an option this couch may be supplied with a foot switch to operate the electrical functions. It will operate in the same way as the hand switch but must be placed on the floor and operated by foot. For further information see page 10.

## **Manual Head & Foot Sections**

For versions that do not have a motorised head section. The operation is via a gas spring mechanism triggered with a lever as shown below:

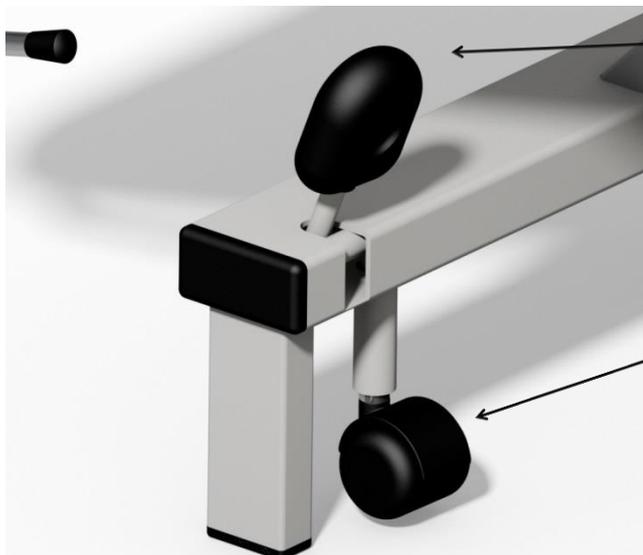


Press the lever to adjust the section. Support the section whilst adjusting and release the lever to lock in the desired position.

## **Retractable Castor Operation**

The castors fitted to this couch are 50mm retractable castors. They are operated individually at each corner of the couch via the wheel pedals.

**NOTE – the castors are not designed for patient transport.**



Press the pedal down fully to operate the castors and lift the pedal to retract the castors.

Castor

### **WARNING**

**Castors must be locked before the couch is used and whilst patients get on or off.  
Disconnect and coil electrical leads and switch away from the couch mechanism  
prior to moving the couch.**

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## **4. Traction Operation**

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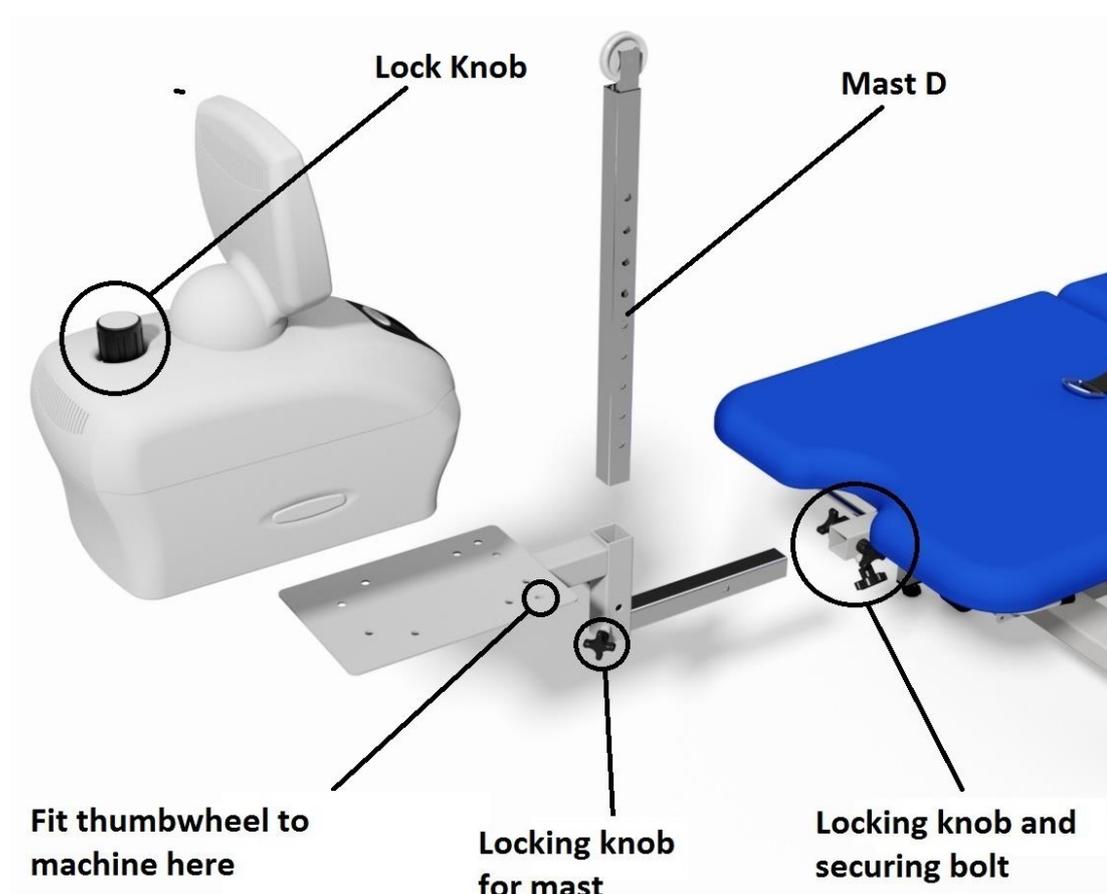
This section provides key information in setting up the traction table for Lumbar and Cervical traction. Please check that you have all of the following items (bear in mind that if you did not buy a Traction Package direct from Plinth Medical, then some of the items marked with a star (\*) may not be present. Please also note that we supply the Traction Machine Table to fit the TruTrac Traction Machine and other machines may not fit, or may fit with modification. Please contact us if you require assistance.

### **Traction Package Contents:**

1. Traction Couch
2. Traction Machine Table
3. Lumbar Traction Mast
4. Set of three masts for cervical in sitting
5. Spreader Bar
6. Traction extension rope (included in machine)\*
7. Head Halter
8. Pelvic Belt
9. Thoracic Harness
10. Counter Traction Straps
11. Traction Machine (TruTrac)\*
12. Flexion Stool\*

## **Traction Machine**

The standard fitment with the Plinth Medical Traction Package is the TruTrac Traction Machine which is one of the world's leading units. It is supplied with full user instructions in the packaging and is fixed to the machine table as follows:



**Fit machine table to couch** - first loosen the locking knob and remove fitting bolt on the traction couch before sliding the machine table in and re-fitting fitting bolt and tightening graunch knob.

**Fit traction machine to machine table** - insert the hook on the bottom of the traction machine over the machine table and tighten using the lock knob on top of the unit. Then fix the other end in place using the thumb wheel provided with the traction machine. Check the traction machine is secure.

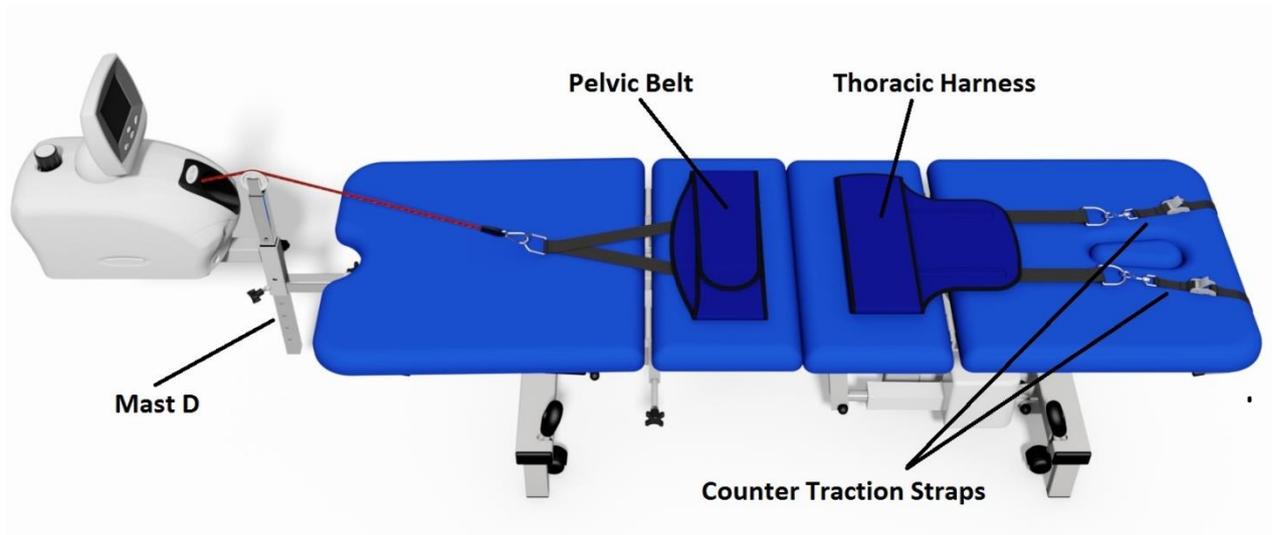
**Fitting mast** - slide Mast D into the machine table, adjust with the plunger mechanism and secure with the locking knob.

### **WARNING**

**Ensure that the Traction Machine is properly fixed before use.**

## **Lumbar Traction**

The picture below shows the traction couch set up for lumbar traction. Only one mast is required for this procedure (Mast D), this has a pulley on the top and several adjustment holes for different angles of flexion. The mast is fitted into the Machine Table and adjusted with the small index plunger in the Machine Table.



The Pelvic Belt is attached directly to the rope from the traction machine and the Thoracic Harness is attached to the back frame of the couch using the adjustable Counter Traction Straps provided.



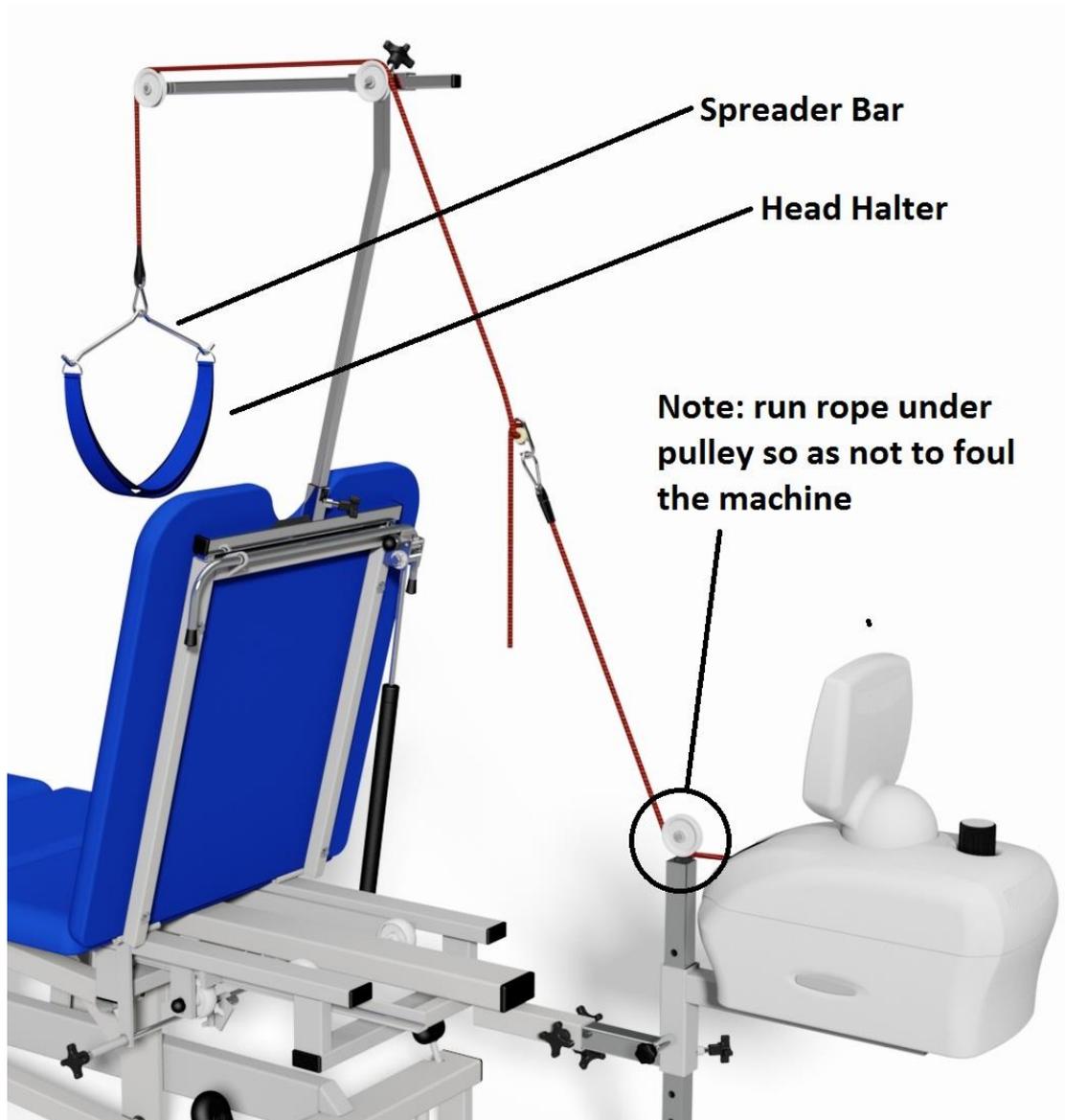
The clips on the end of the straps should be securely fixed on to the bracket on the back frame of the couch.

### **NOTE:**

Correct fitting of the harnesses to the patient is crucial to achieve the best results. The harnesses should fit as snugly as possible to minimise any potential slipping during treatment.

## **Cervical Traction (sitting)**

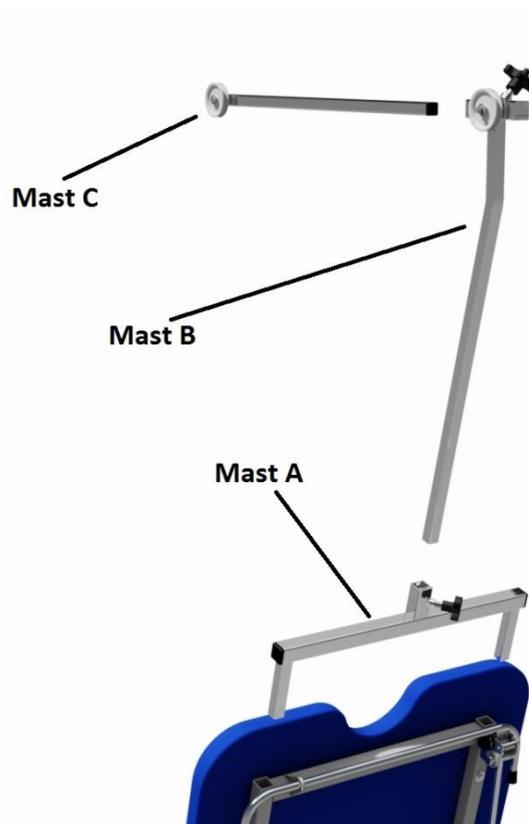
The picture shows the traction couch set up for cervical in sitting traction.



### **WARNING**

**Ensure that the Traction Machine is properly set for cervical traction before use see Traction User Manual for details.**

**Fitting Masts** – all three cervical masts (Masts A, B & C) are fitted as follows:



**Mast A** fits into the backrest of the couch. Elevate the backrest, check that there are no caps fitted which would prevent the mast fitting and slide the mast in. Ensure that the locking knob is facing you otherwise it will foul with the upholstery.

**Mast B** fits into the socket of Mast A. The curve in the mast should face towards the patient and the pulley will be on the left hand side (looking from the machine towards the patient).

**Mast C** plugs into the socket on Mast B. Ensure that both pulleys line up (again the pulley should be on the left side as above). This mast is adjustable for different angles of flexion.

**Connecting Machine** - The machine may now be connected using the spreader Bar and Extension Rope (included with the traction machine).



The extension rope is attached to the end of the traction machine as shown and should be adjusted to run smoothly over the pulleys before attaching to the spreader bar.

### **Cervical Traction (lying)**

In addition to cervical in sitting, cervical in a lying position may also be used on this equipment. There is no need to use the three masts as above, nor the extension rope; instead the spreader bar fits straight onto the traction machine rope system.

## 5. Accessory Operation

A range of accessories are available as options to expand the use of the couch. The standard recommended accessories are detailed below. Many of these can be fitted retrospectively if required.

### Paper Roll Holder



Paper roll is replaced by removal of one or the other of the plastic knobs, sliding the bar partially through the leg of the holder and then fitting the tube over the bar. Refit in the reverse order.

### Flexion Stool



As part of the Traction Package a flexion stool is included but may also be purchased separately. It is simply adjusted for height using the locking knob as show.

### Cervical Pillow

A cervical pillow providing additional support and comfort for the patient is available.

## 6. Cleaning and Decontamination

### WARNING

If contamination is suspected then decontaminate the couch before use.

Torn or damaged upholstery should be replaced immediately.

### CAUTION

Do not use Alkalis or other organic solvents for routine cleaning.

Always cover the vinyl with paper towelling or couch covers if it can come into contact with bare skin.

### Cleaning

Always wear suitable protective clothing before carrying out this procedure.

Disconnect the mains supply to the couch and move it to a suitable cleaning area and lock the castors.

**Step 1.** Using warm water and soap on a damp cloth, carefully wipe the couch over from top to bottom. Take great care around electrical components.

**Step 2.** Wipe the couch carefully from top to bottom using a clean damp cloth and soap free water.

**Step 3.** Carefully dry the couch from top to bottom with clean lint free paper towels.

### Decontamination

To decontaminate the couch repeat the above steps but using a dilute solution of Hypochlorite and warm water (10,000ppm) instead of warm water and soap. At the end of the procedure discard all cleaning materials in a safe manner and wash hands thoroughly.

## 7. Troubleshooting

In the unlikely event of the couch failing to operate and having carried out the normal practical fault finding steps below then please contact our Customer Service Team on +44 (0)1449 767887 or email [customerservice@plinthMedical.com](mailto:customerservice@plinthMedical.com). **Please have the serial number to hand before making contact so we can help you more efficiently.**

Fault	Possible Cause	Remedy
Couch is unstable	Uneven floor	Move couch to flat floor
	Adjustable foot	Check presence, condition and adjustment of foot
All motors will not work (502TE only fitted with optional motor back)	Power disconnected	Connect power supply
	Fuse Blown	Replace fuse in plug
	Hand/ Footswitch disconnected	Check the switch is fully connected to the motor
One motor will not work but others working (502TE only fitted with optional motor back)	Lead from height motor/control box not connected to slave motor	Check and connect all leads
	Fault with switch	Replace switch
	Fault with control box	Replace control box
	Fault with motor	Replace motor
Motor sinks (502TE only)	Switch permanently operated	Unplug and re-connect switch
	Motor fault	Replace motor
Hydraulic pump will not work (502TH only)	Pump fault	Replace pump
Hydraulic pump sinks (502TH only)	Valve stuck	With couch at max height pump pedal for a further 20-25 strokes to clear valve
Backrest will not work (manual versions)	Gas spring incorrectly adjusted (not being triggered)	Rotate gas spring until the pin is just in contact with the lever (2-3mm play required)
	Gas spring faulty	Replace gas spring
Backrest sinks under load (manual versions)	Gas spring incorrectly adjusted (permanently triggered)	Rotate gas spring until the pin is just in contact with the lever (2-3mm play required)

## 8. Maintenance

Plinth Medical Ltd products are designed to be maintenance free. However keeping your Plinth products clean and regularly checked will assist in prolonging their working life. The following is a guide of simple checks that the user can carry out on a six monthly basis. We would also recommend an annual service visit by a Plinth Medical trained engineer.

### **WARNING**

**Disconnect couch from electrical supply before commencing any of the following checks.**

Examine the couch for any signs of damage. Pay particular attention to all nuts, bolts and fasteners to check they are present and tight but not over tight.

Upholstery bolts should all be checked (each section has between 2 and 6 No. M6 bolts), they should all be present and tight.

Check gas struts (if fitted) and ensure that they operate through the full range of movement and lock fully.

Check hinge pins are lubricated.

Check main couch nylon pivot bearings are lubricated sufficiently.

Examine mains and switch cables for any damage, cuts, kinks, abrasions etc. These must be replaced if necessary.

Check mains lead, switch cables and slave motor leads are all correctly and securely attached.

Check correct plug fuse is fitted (5A).

### **WARNING**

**Any electrical checks or work other than the visual inspection above must be performed by a qualified electrician.**

**Do not connect BLUE or BROWN wires to the earth terminal of a plug.**

## 9. Guarantee and Service (UK only)

Plinth Medical Ltd offer a 5 year parts guarantee on all 500 Range products delivered from January 2013 and a lifetime frame guarantee. The only exclusion to this guarantee is for negligent damage or damage to upholstery coverings. This guarantee does not require registration of the product as we can trace it from its serial number, however in the event of the serial number being removed, missing or unreadable then this may void the guarantee. These terms do not affect your statutory rights.

**In addition to the above Plinth Medical Ltd can offer both extended warranties and service contracts. For further information about either of these please contact:**

Customer Service  
Plinth Medical  
Barric Lane  
Occold  
Eye  
Suffolk  
IP23 7PX  
Tel: 01449 767887  
Mail: [customerservice@plinthMedical.com](mailto:customerservice@plinthMedical.com)

In the event of returning a product or part to us then please follow the instructions for cleaning under section 5 before enclosing it in suitable packaging and returning it to the above address. In addition please ensure there is a statement confirming that it has been decontaminated and what the fault is along with relevant contact details.

### **Worldwide**

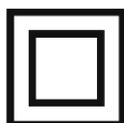
Please contact the distributor you purchased the couch from for service and support in your country. If you are unable to do so then please contact us in the UK and we will refer you to our local representative.

## 10. Technical Specifications

	502TH	502TE (1 motor)	502TE (2 Motor)	
Head Length (cm)	63	63	63	
Seat Length1 (cm)	31	31	31	
Seat Length2 (cm)	31	31	31	
Foot Length (cm)	71	71	71	
Width (cm)	63	63	63	
Overall Length (cm)	198	198	198	
Height Range (cm)	47-97	47-97	47-97	
Max Working Load	250kg	250kg	250kg	
Control	Pedal	Hand switch	Hand switch	
Hydraulic Pump	Roemheld	N/A	N/A	
<b>Electrical Data 220/240v</b>				
Motor(s)	N/A	Linak LA31 x 1	Linak LA31 x 2	
Control Box	N/A	Linak CB09	Linak CB09	
Current	N/A	1.5A	1.5A	
Power	N/A	360W	360W	
Mains Plug Fuse	N/A	5.0A x 1	5.0A x 1	
Internal Fuse	N/A	1.5A x 1	1.5A x 1	
System Voltage	N/A	24v	24v	
IP Rating	N/A	IPX4	IPX4	
<b>Electrical Data 110/120v</b>				
Motor(s)	N/A	Linak LA31 x 1	Linak LA31 x 2	
Control Box	N/A	Linak CB09	Linak CB09	
Current	N/A	2.7A	2.7A	
Power	N/A	360W	360W	
Mains Plug Fuse	N/A	5.0A x 1	5.0A x 1	
Internal Fuse	N/A	3.0A x 1	3.0A x 1	
System Voltage	N/A	24v	24v	
IP Rating	N/A	IPX4	IPX4	

### IEC 601-1 Electrical Safety Classification

All electric models are double insulated Type B equipment and marked as such.



Double Insulated



Type B Equipment

## 11.Revisions to Manual

Pages	Issue No	Name	Date
All	Manual - 01	Niall Dyer	15.10.12
All	Manual - 02	Niall Dyer	07.11.14
6, 18	Manual – 03	Martin Lankester	23.11.16

**Plinth Medical**  
**Barric Lane**  
**Occold**  
**Eye**  
**Suffolk**  
**IP23 7PX**  
**ENGLAND**

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