

FLEX-MATE[®] S500

User's Manual

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FLEX-MATE® S500

USER'S MANUAL

IMPORTANT SAFEGUARDS

When using electrical products, especially when children are present, basic safety precautions should always be followed, including the following:

READ ALL INSTRUCTIONS AND WARNINGS PRIOR TO OPERATION.

DANGER: TO REDUCE THE RISK OF ELECTROCUTION:

- Always unplug this product immediately after using.
- Do not use while bathing.
- Do not place or store product where it can fall or be pulled into a tub or sink.
- Do not place in or drop into water or other liquid.
- Do not reach for a product that has fallen into water. Unplug immediately.

WARNING: TO REDUCE THE RISK OF BURNS, ELECTROCUTION, FIRE, OR INJURY TO PERSONS:

- A product should never be left unattended when plugged in.
- Close supervision is necessary when this product is used by, on, or near children or invalids.
- Use this product only for its intended use as described in this manual. Do not use attachments not recommended by the manufacturer.
- Never operate this product if it has a damaged cord or plug. If it is not working properly, if it has been dropped or damaged, or dropped into water.
- Return this product to a service center for examination and repair.
- Keep the cord away from heated surfaces.
- Never use while sleeping or drowsy.
- Never drop or insert any object into any opening or hose.
- Do not use outdoors or operate where aerosol (spray) products are being used or where oxygen is being administered.
- Connect this product to a properly grounded outlet only. Use only the approved power source (GlobTek, Model GTM375-24-800D) that has been supplied with the CPM unit. See grounding instructions.

CAUTION: Federal law restricts this device to sale by or on the order of a licensed health care practitioner.

CAUTION: Work in a range of motion as instructed by your healthcare practitioner.

CAUTION: If changing chair height between uses, the unit must be re-calibrated per the hand-held controller instructions.

CAUTION: If you experience increased pain, swelling, or any adverse reactions while using this product, immediately consult your health care practitioner.

WARNING: Set up and use of this equipment should be in a low traffic location and away from children and pets. Warn children—this apparatus is not designed for hanging, climbing, or any type of child play. It may tip over or collapse with misuse.

WARNING: Pinch points exist during assembly; use caution and assemble pursuant to the instructions.

WARNING: Make sure the hand control is accessible to the operator before starting this equipment. The stop button on the hand control is the only way of stopping the motion for disabled patients or children using the unit. Other users can stop the motion by standing and removing weight from the unit.

WARNING: Maximum rated load is 30 lbs.

CONTRAINDICATIONS:

USE OF CPM THERAPY IN GENERAL SHOULD BE AVOIDED OR DISCONTINUED, AT LEAST TEMPORARILY, IF SIGNS OF HYPERTHERMIA, IRRITATION, SWELLING, BLEEDING, OR INCREASED OR PERSISTENT PAIN ARE OBSERVED. ACUTE INFLAMMATORY CONDITIONS, SUCH AS ACUTE ARTHRITIS, OR DESTRUCTIVE BONE OR JOINT DISEASES, SHOULD NOT BE TREATED WITH CPM. PRODUCT IS LATEX FREE.

CAUTION: It is important to install and use this equipment in accordance with the instructions, to prevent harmful interference to other devices in the vicinity. If this equipment does cause harmful interference to other devices, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the other device(s).
- Increase the separation between the equipment.
- Connect this equipment into an outlet on a circuit different from that to which the other device(s) are connected.
- Consult the manufacturer or field service technician for help.



SAVE THESE INSTRUCTIONS



UL/C-UL Classification with respect to electric shock, fire, and mechanical hazards only in accordance with UL 2601-1/CAN/CSA C22.2 No. 601.1. Meets UL 1431 Standards for Personal Hygiene and Healthcare Appliances.

Product Description:

The purpose of the *FLEX-MATE® S500* is to provide continuous passive motion to the shoulder joint to increase circulation, range of motion, and to prevent scarring in the joint. The *FLEX-MATE® S500* is designed to passively move the shoulder through the three main planes of movement.

Safety Precautions:

- Use only manufacturer approved parts and maintenance procedures to service the unit. Refer to the *FLEX-MATE® S500* Service Manual.
- Read and adhere to all warnings and instructions listed on the *FLEX-MATE® S500* and this Users Manual.
- If you suspect the *FLEX-MATE® S500* is not working properly, unplug the unit and refer to the Service Manual.
- If you detect a flaw of any type in the power cord, immediately unplug the transformer from wall.
- Use only the external power supply provided with the *FLEX-MATE® S500* in order to meet the requirement of UL 2601-1.

Table 1. Symbols Used on the *FLEX-MATE® S500*

Symbol	Description
	Direct Current
	Attention: Consult User's manual before use.
	Class I, Type B, Continuous Operation. Not suitable with flammable anesthetics.

Table 2. Physical and Electrical Specifications

Size Setup for Use:	
Length	33"
Width	31"
Height	80"
Weight:	
Without accessories	33 lbs.
With accessories	35 lbs.
Fully packaged	45 lbs.
Electrical Specifications:	
Voltage and current	24 VDC @ 750 mA
Environmental Requirements:	
Temperature:	
Operating	50° F to 95° F (10° C to 35° C)
Transport & Storage	-40° F to 158° F (-40° C to 70° C)
Humidity:	
Operating	30 – 75% R.H.
Transport & Storage	10 – 100% R.H., non-condensing
Standards Compliance	
Designed to conform to applicable requirements of: UL 2601-1, UL 1431 CSA C22.2 / No. 601.1	

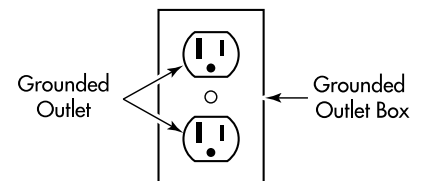
Grounding Instructions:

This product should be grounded. In the event of an electrical short circuit, grounding reduces the risk of electric shock by providing an escape wire for the electric current. This product is equipped with a cord having a grounding wire with a grounding plug. The plug must be plugged into an outlet that is properly installed and grounded.

DANGER—Improper use of the grounding plug can result in a risk of electric shock.

Check with a qualified electrician or serviceman if the grounding instructions are not completely understood, or if in doubt as to whether the product is properly grounded.

This product is factory equipped with a specific power supply to permit connection to a proper electric circuit. Make sure that the product is connected to an outlet having the same configuration as the plug. No adaptor should be used with this product. Do not modify the plug provided—if it will not fit the outlet, have the proper outlet installed by a qualified electrician.



Package Contents:

- 1 *FLEX-MATE® S500* CPM
- 1 Users Manual
- 1 Service Manual
- 1 71660 Patient Kit (*S500 Handle*)

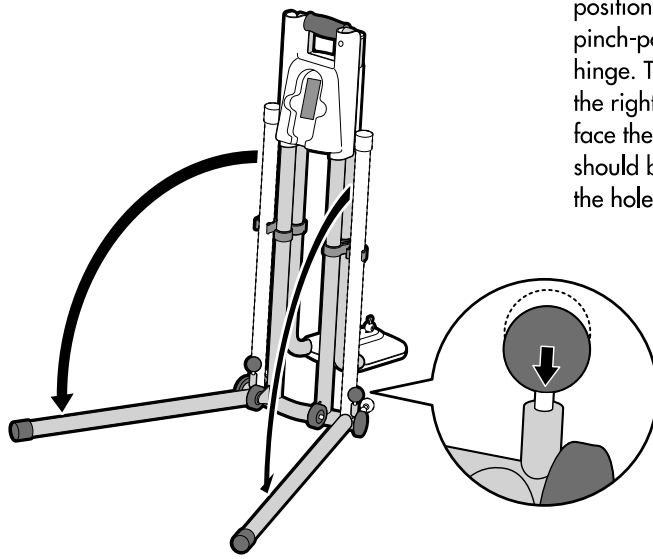
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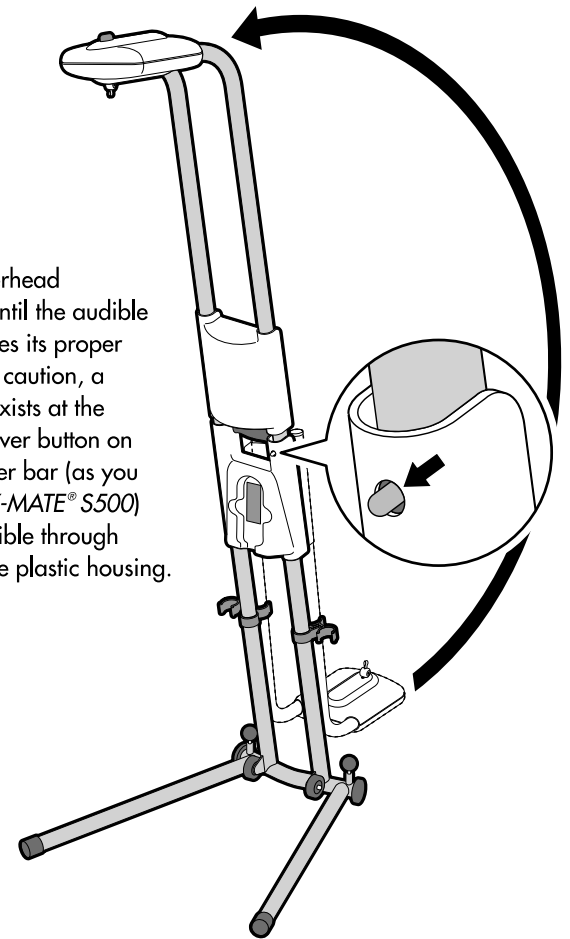
Set Up Instructions:

Open the shipping box, lift the *FLEX-MATE® S500* from the box and wheel it to where it is to be used.

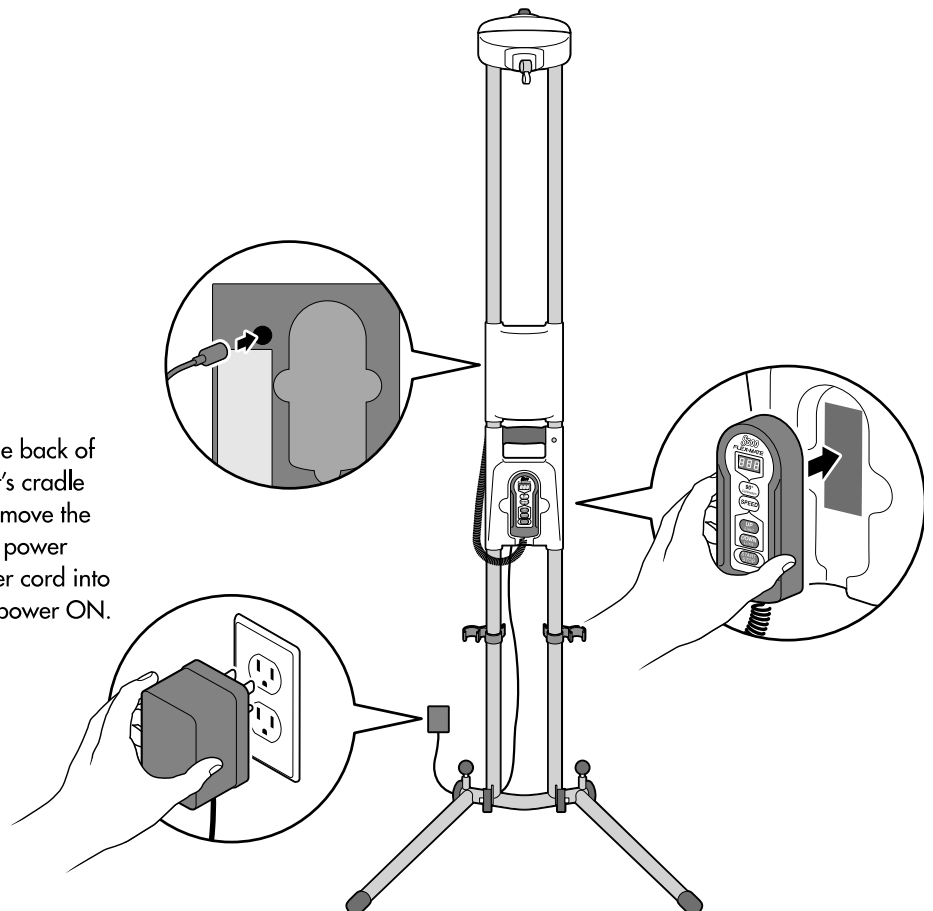
- 1 To assemble the *FLEX-MATE® S500*, pull the legs down, be sure the knobs click into place.



- 2 Raise the overhead mechanism until the audible "click" signifies its proper position. Use caution, a pinch-point exists at the hinge. The silver button on the right upper bar (as you face the *FLEX-MATE® S500*) should be visible through the hole in the plastic housing.



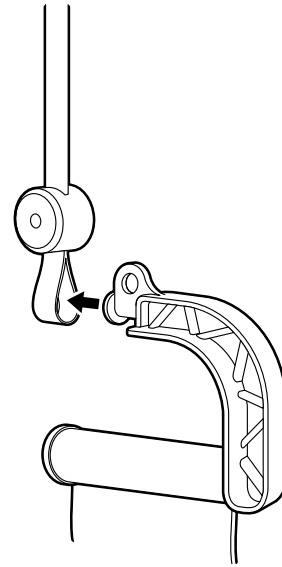
- 3 Remove the hand-held controller from the back of the *FLEX-MATE® S500* and place it into its cradle on the front of the *FLEX-MATE® S500*. Remove the transformer and plug it into a grounded power outlet. Plug the opposite end of the power cord into the *FLEX-MATE® S500*. This will turn the power ON.



Hand-Held Controller Instructions:



- 1 Place a chair under the raised overhead mechanism. Position the chair so when sitting, the patient's **non-involved shoulder** is directly under the tape.



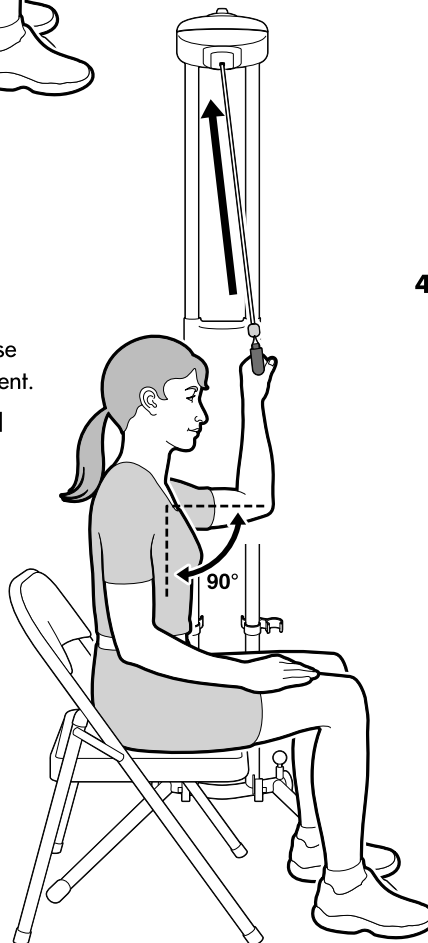
- 2 With the patient seated in the chair, press and release the START/STOP button to lower the tape to approximately shoulder level, then press the START/STOP button again to stop the movement.

Grasp the S500 Handle with the **non-involved hand**. Slide the S500 Handle through the loop at the bottom of the tape.

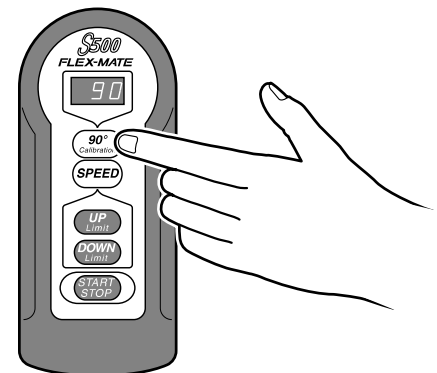
Note: It is not necessary to attach the S500 Handle straps at this time.

- 3 Press and **hold** the UP Limit button until the upper arm is parallel to the ground. Release the button to stop the movement.

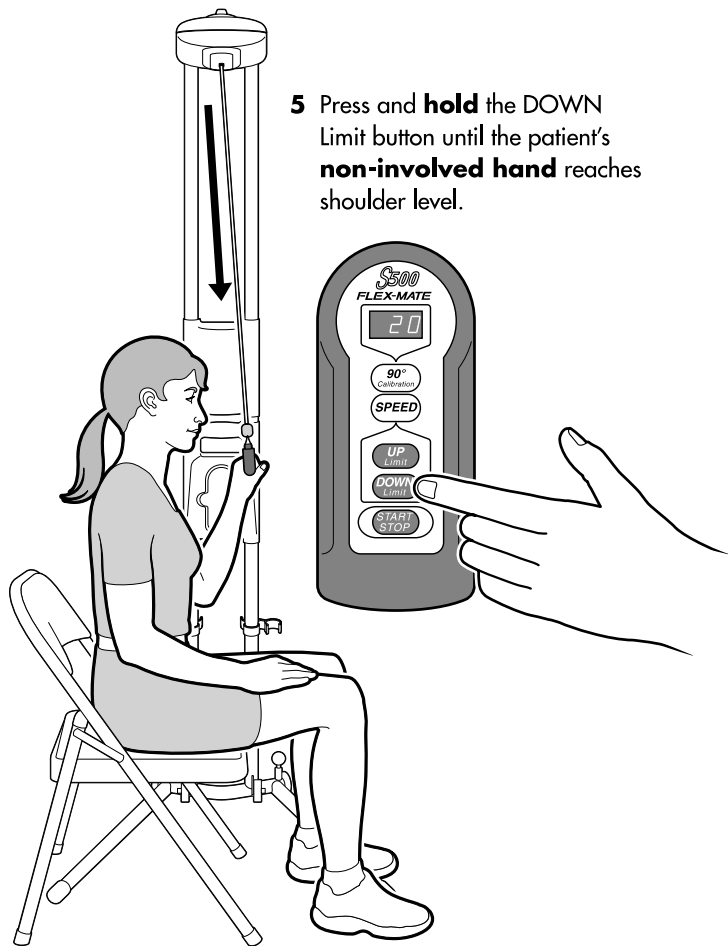
The patient's **non-involved upper arm** should now be parallel to the ground. The patient's shoulder is now at 90° of elevation.



- 4 Press the 90° CALIBRATION button to calibrate the machine.

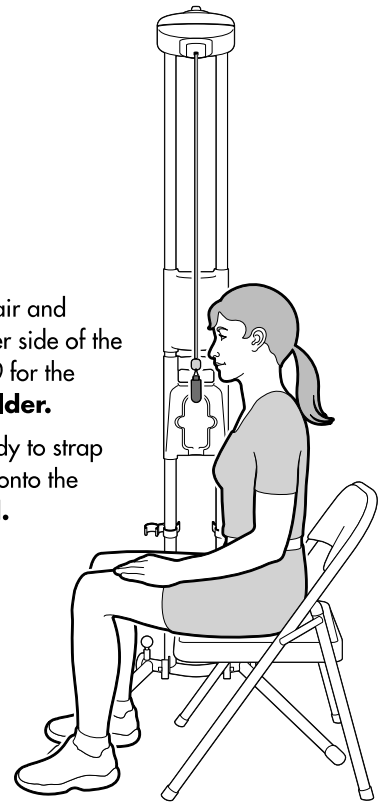


Hand-Held Controller Instructions continued:

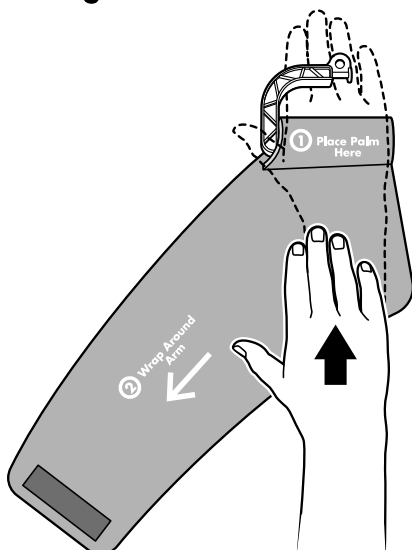


- 6 Reposition the chair and patient to the other side of the FLEX-MATE® S500 for the **involved shoulder**.

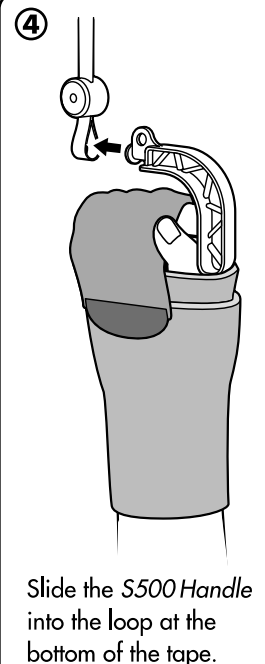
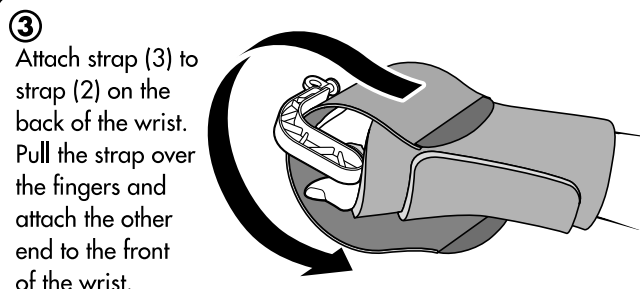
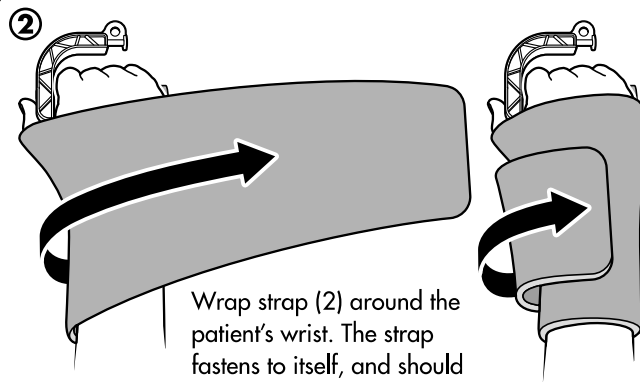
The patient is ready to strap the S500 Handle onto the **involved hand**.



① Using the S500 Handle:



Remove the S500 Handle from the tape. Place the palm of the patient's **involved hand** directly over the "Palm" label (1) on the foam wrap.

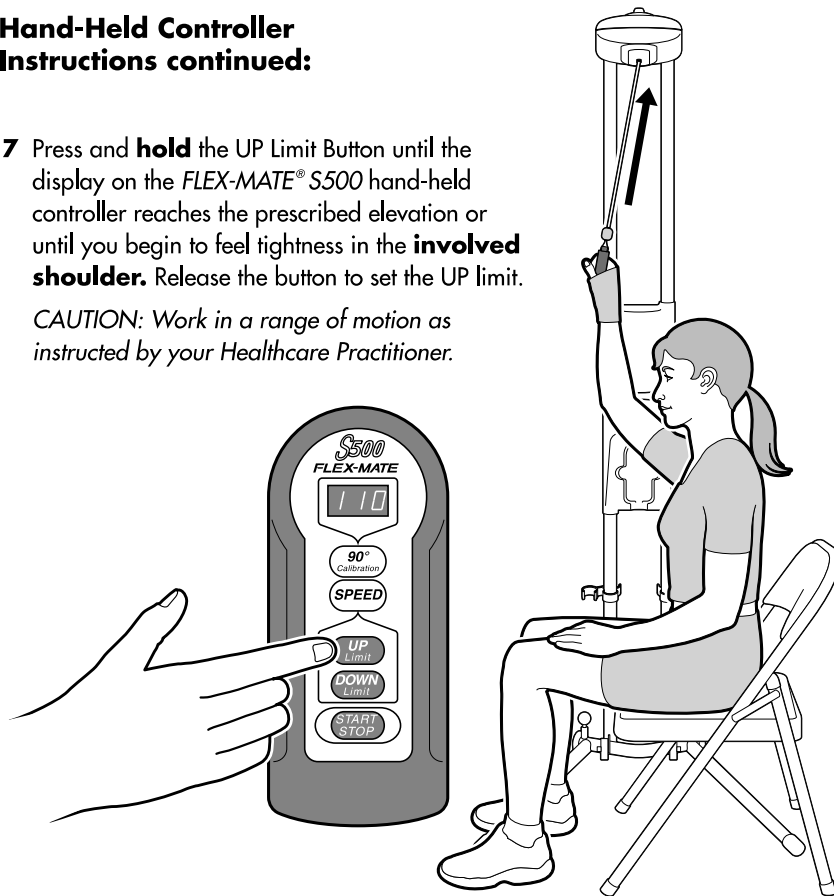


Hand-Held Controller

Instructions continued:

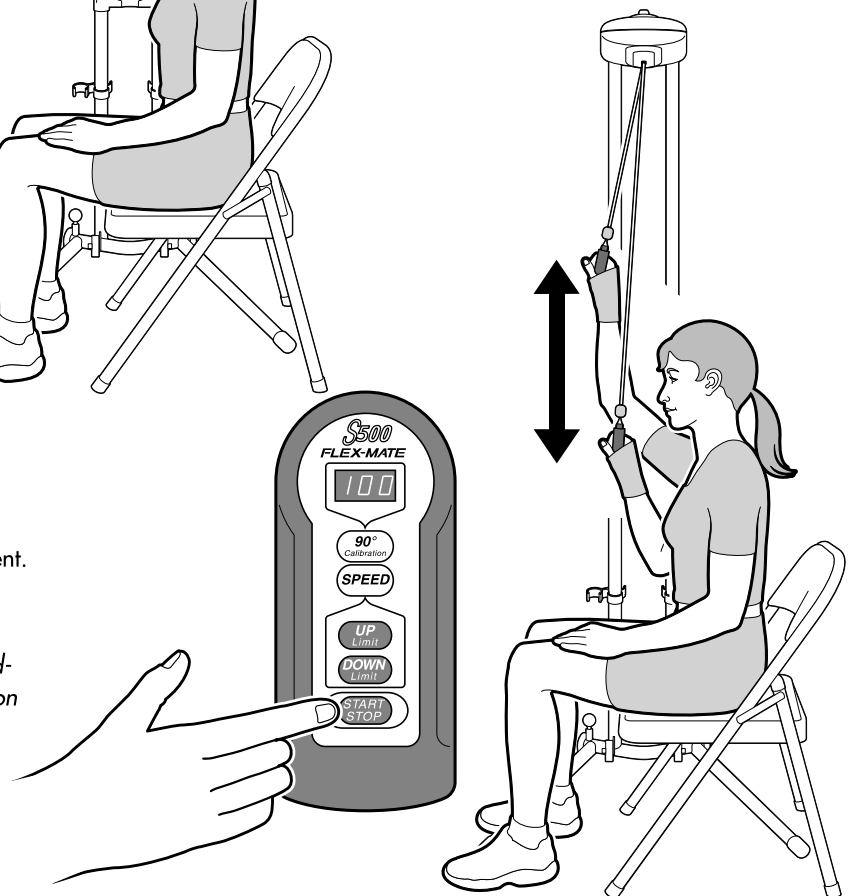
- 7 Press and **hold** the UP Limit Button until the display on the *FLEX-MATE® S500* hand-held controller reaches the prescribed elevation or until you begin to feel tightness in the **involved shoulder**. Release the button to set the UP limit.

CAUTION: Work in a range of motion as instructed by your Healthcare Practitioner.



- 8 Press the START/STOP Button to begin treatment. The *FLEX-MATE® S500* will cycle up and down between the set limits at the preset speed.

Note: The range of motion angles on the hand-held controller are approximate and depend on the degree of accuracy of the 90° calibration.



- 9 To adjust the speed setting on the *FLEX-MATE® S500*, press and release the SPEED Button on the hand-held controller to toggle through the 1 (Slow), 2 (Medium), and 3 (Fast) settings.

Note: The default speed is 2 (Medium). Adjust the speed to accommodate patient comfort.

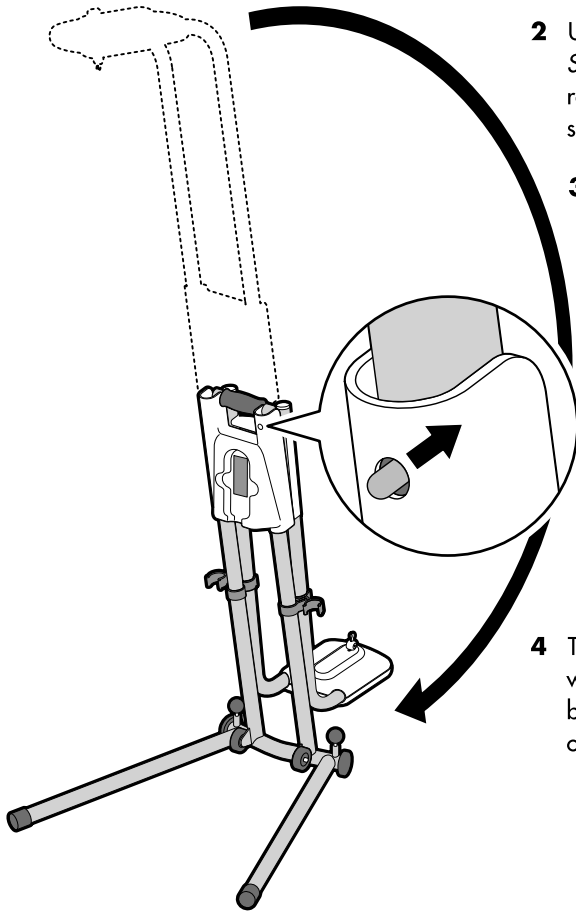
- 10 To discontinue treatment, press the START/STOP when the patient's hand is at the bottom of the cycle. Remove the *S500 Handle* from the tape and unstrap to remove the patient's hand.

- 11 To disconnect the power from the *FLEX-MATE® S500*, unplug the power cord at the rear of the control panel. The current settings will be automatically restored when the power is turned ON again.

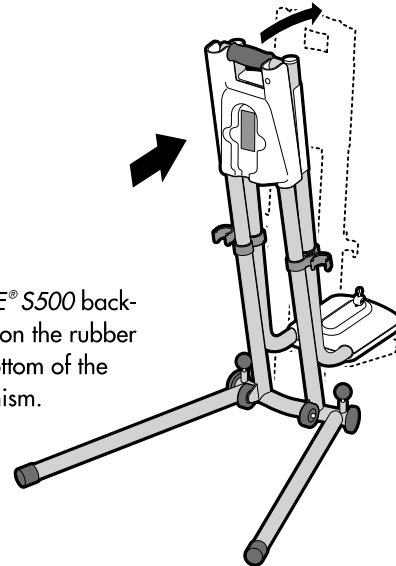
CAUTION: If at any time, a different height chair is used, the 90° Calibration and UP and DOWN limits must be reset as described above.

Note: When there is no weight on the handle and the START/STOP button is pressed with the power connected, the handle automatically lowers to the full DOWN position and stops. The display on the hand-held controller reads 'LO'.

Preparing for Transport:

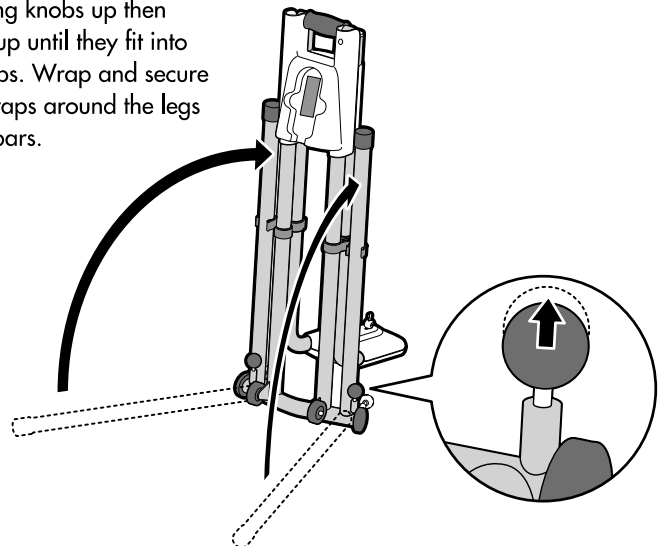


- 1 Press the START/STOP button to retract the tape into the overhead mechanism.
- 2 Unplug the transformer from the wall and the back of the *FLEX-MATE® S500*. Place the hand-held controller and the transformer in their respective compartments on the back of the *FLEX-MATE® S500*. Be sure the cords are completely tucked away in the cavities provided.
- 3 Push in the silver button on the right upper bar. Carefully lower the overhead mechanism down until the bars fit into the plastic clips.
CAUTION: The overhead mechanism is heavy, lower slowly to avoid injury.



- 4 Tilt the *FLEX-MATE® S500* backward until it rests on the rubber bumper on the bottom of the overhead mechanism.

- 5 Pull the locking knobs up then fold the legs up until they fit into the plastic clips. Wrap and secure the rubber straps around the legs and vertical bars.



Cleaning and Maintenance:

With unit unplugged, clean housing and upper and lower frames with mild soap solution and dry thoroughly. Refer to the Service Manual for recommended maintenance frequency.



CAUTION: Avoid getting water inside the housing as it may damage the electrical components.