

**USER / MAINTENANCE MANUAL INDEX**

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**PROBLEMS OR QUESTIONS???**

**PARTS & SERVICE POINT**

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**GENERAL RECOMMENDATIONS - PAL HOME STAND**

The PAL Home Stand was designed specifically to assist persons to a standing position. Once the person is in a standing position, a number of care tasks can safely be performed. The Pal Home Stand may also be modified to be used as a walking device.

Because the Pal Home Stand was designed as an assistive device, it requires more advanced motor skills than a traditional lift such as our PAL Home Lift. It is important to first determine the appropriateness of this piece of equipment for any person.

The PAL Home Stand is intended for persons who are semi weight-bearing and require some lifting to perform the activities of daily living.

**MECHANICAL OPERATION AND LOCATION REFERENCE  
VOLARO MANUAL HOME STAND - SM115**

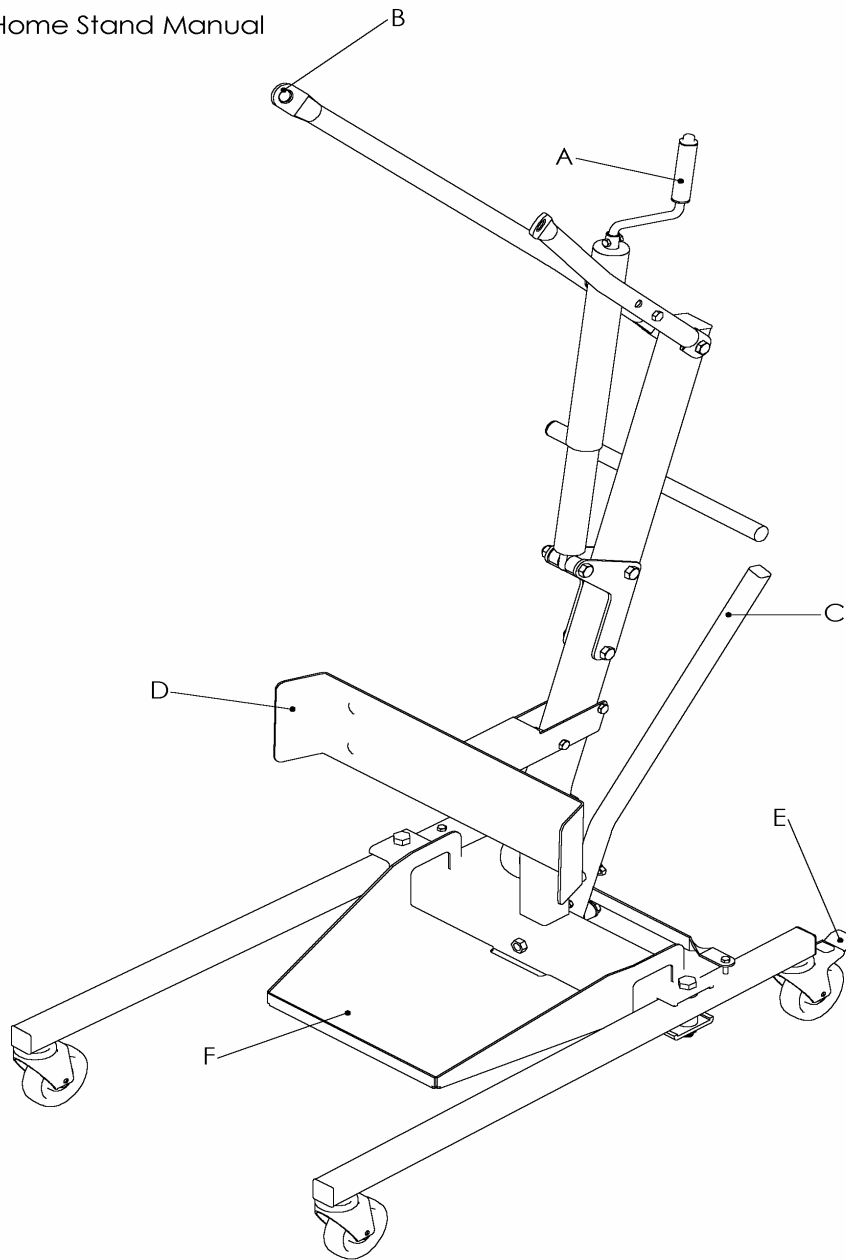
- A. The manual stand is operated with the **crank handle** at the top of the lift.
- B. The sling is attached by the silver clips to the **sling mount**.
- C. The **leg adjuster handle** opens and closes the legs. The plastic stop on the handle needs to be replaced if worn or missing.
- D. The **shin rest** provides support for the lower legs while lifting to a standing position.
- E. The **brakes** are located on the rear casters.
- F. The **removable foot board** can be removed for ambulating and standing if needed; otherwise, the person's feet rest on it for transfers.

**NOTE:** *The above Home Stand parts are identical on the manual stand and on the electric stand; they are not all listed separately on the electric stand reference picture (p. 6-7).*

# **VOLARO** **MANUAL - SM115**

## **REFERENCE PICTURE OF MECHANICAL OPERATION SM115 - MANUAL HOME STAND**

SM115 Home Stand Manual



# **VOLARO**

## **ELECTRIC - SE115**

### **MECHANICAL OPERATION AND LOCATION REFERENCE** **PAL ELECTRIC HOME STAND - SE115**

**NOTE:** *“A” - “F” on p. 4-5 are identical on the Home Manual Stand and on the Electric Home Stand*

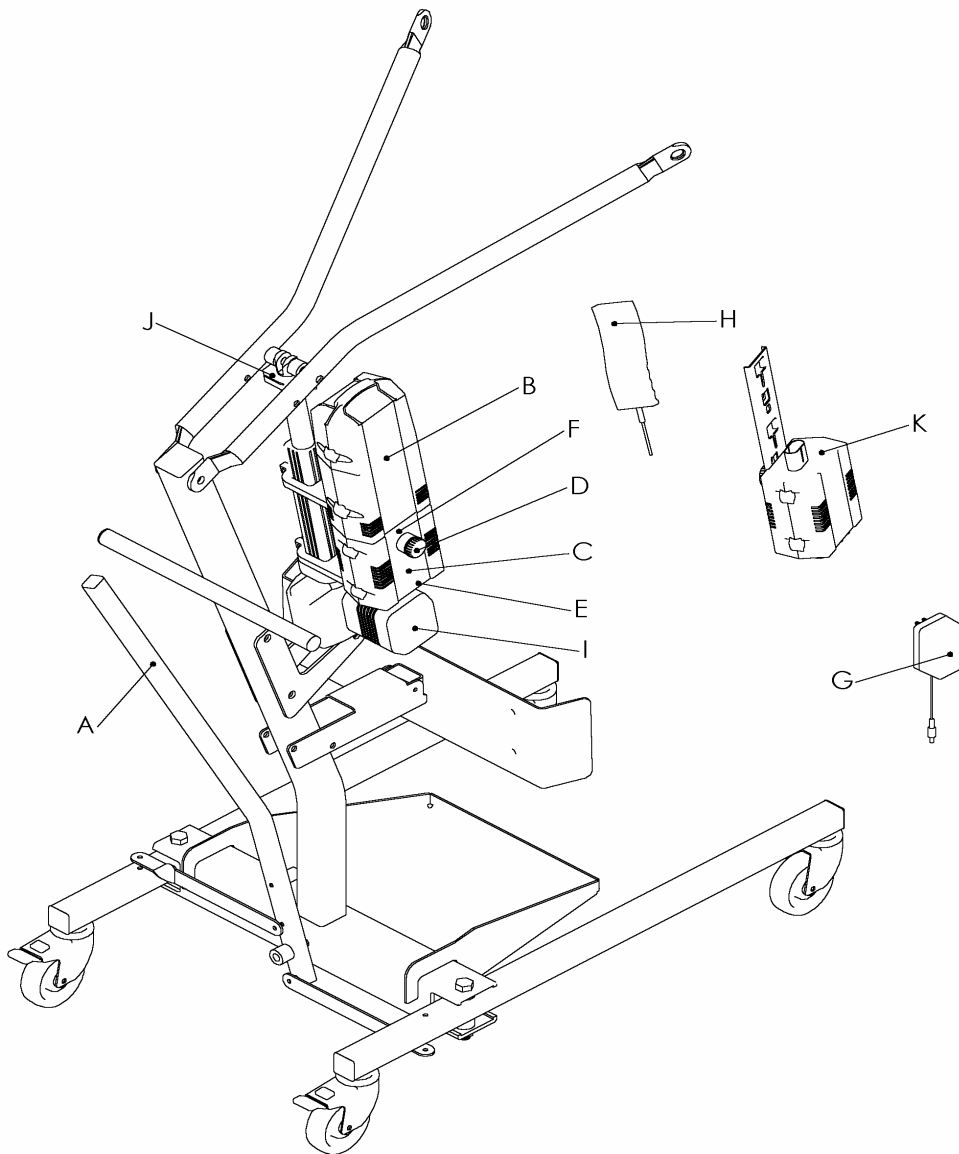
- A. The leg adjuster handle opens and closes the legs. The plastic stop on the handle needs to be replaced if worn or missing.
- B. The electric stand is powered by a 24 VDC battery pack. The service life of the battery is dependent upon the load and the state of charge.
- C. If the battery indicator is flashing orange during rotation of the actuator, this means there is approximately 20% capacity left in the battery. If a beep tone is heard, there should be sufficient charge for one double stroke. The battery must be charged as soon as possible.
- D. The Emergency Off button isolates the actuator from the power supply and immediately comes to rest. To unlock, turn red knob the direction of arrows.
- E. The Emergency Down switch is located on the bottom of the control box in front of the hand control jack. In the event the hand control or the control unit fails, by depressing the switch (yellow) they are bypassed and the actuator can be electrically lowered.
- F. The control box receives the battery, hand control plug, actuator plug, and transformer for charging.
- G. The transformer plugs into the control box or optional wall mount charger. If the indicator is orange, the battery is being charged. When indicator turns green, the battery is charged.
- H. The hand control operates the lift up and down. The buttons are labeled. The green indicator light on the hand control should light when a switch is pressed and there is power to the controller.
- I. The actuator is a 24VDC ball screw actuator.
- J. The actuator also has the capability to be manually lowered in the event there is no power to the actuator. By releasing the red lever at the top of the actuator, the actuator tube can be turned down by hand. The lever should remain in the locked position during normal use.
- K. Optional wall mount charger.

# **VOLARO**

## **ELECTRIC - SE115**

### **REFERENCE PICTURE OF MECHANICAL OPERATION SE115 - ELECTRIC HOME STAND**

SE115 Home Stand Electric



# VOLARO

## MANUAL - SM115 ELECTRIC - SE115

### LIFTING SLING AND ACCESSORIES:



#### **BFS115: BUTTERFLY SLING**

The butterfly sling offers comfortable support for patients / residents in transfers as well as ambulation.



#### **51137-1: FLEECE COVER**

The fleece cover offers extra comfort and softness for people with soft or delicate skin.



#### **10026-1: SEAT/THIGH STRAP**

The seat/thigh strap is designed for use with the butterfly sling during a transfer to minimize pressure around the torso.



#### **10234-1: WRIST ASSIST**

The wrist assist provides comfortable support and assistance in gripping the lift handle bars.

### **APPLYING BUTTERFLY SLING TO PERSON**

The most important part of the lifting experience is applying the butterfly sling properly. The first step is to lean the person slightly forward just enough to insert the sling behind the back. **NOTE: Place the sling as far down as you can.** Position the wings of the sling under the arms and make sure they are centered. Secure the buckle as low as possible around the lower abdomen. Fasten the buckle and pull snug. Don't hold onto the buckle and pull. Sometimes it binds and feels snug when it truly is not. As a person sits, the abdomen is wide. As a person stands, the abdomen will become more narrow; therefore you must tighten the security strap as you lift the person. This procedure will help keep the strap in proper alignment.

### **ATTACHING BUTTERFLY SLING TO STAND**

Once the butterfly sling is applied, lock the brakes on the wheelchair. This will minimize having to slide the person down and onto the board. Present the lift to the person you are lifting. Assist the person's feet onto the foot board. Now the lift can be pushed forward until the person's knees touch the shin rest. Adjust the shin rest up or down. Locate the top of the shin rest two inches below the knee cap. At this point you can lock the brakes on the lift to prevent the person from pushing the lift away from them. Be sure the person's arms are located outside the fabric of the sling. With the VOLARO Home Stand, the person being transferred **does need some body strength**. We encourage anyone being lifted with the VOLARO Stand to use their legs and arms as the lift is doing its work. If you find that the person you are lifting is either less ambulatory than you originally thought, or if the person is just not cooperative, use the VOLARO HOME Lift, VOLARO Lift Series 3 , or VOLARO Lift Series 4.

### **TRANSFERRING FROM CHAIR TO COMMODE**

After “Applying BFS to Person” and “Attaching BFS to Stand” segments, you are now ready to lift. When the Stand begins lifting and the abdomen becomes increasingly flat, snug the security strap. This will make the transfer much more comfortable for the person being transferred.

Now that the person being transferred is clear of chair, unlock the brakes and roll them to the commode or bathroom. Once in position, lock the brakes and attend to the person’s needs. Then lower them down onto the seat. **NOTE: Be sure to loosen the buckle as they are seated.** If you wish, you may leave the Stand with the person for added support.

### **TRANSFERRING FROM CHAIR TO BED**

After “Applying BFS to Person” and “Attaching BFS to Stand” segments, you are now ready to lift. The VOLARO HOME STAND can be used to transport a person back to bed. Lift the person to a standing position. Now transport the person to the side of the bed. Center them and make sure the backs of their legs are touching the bed. Lower the person down until they are seated. Be sure to leave slack. This will make it much easier for you to remove the silver clips. Unbuckle their legs from the shin rest safety strap, *if applicable*. Unbuckle the security strap around their abdomen. Remove the BFS. You may push the Stand away. You may have to assist the person’s feet off the foot board. Be sure to use proper body mechanics by assisting the person to a lying position.

### **TRANSFERRING FROM BED TO CHAIR**

When transferring from bed to wheelchair, it is required that the person be assisted to a seated position on the edge of the bed. It is very important to use proper body mechanics. In some cases you may wish to do this transfer with the VOLARO HOME LIFT, the VOLARO LIFT Series 3, or the VOLARO LIFT Series 4, and use the VOLARO HOME STAND to go back to bed. It is recommended to use a two-person transfer when performing this particular activity. A person who has demonstrated to you their ability to stay seated on the edge of the bed without help may not need much assistance with proper placement of the BFS. For someone with little ability, apply the sling while they are in a lying position by raising the shoulders and inserting the sling behind the back. Attach the security strap, then bring them to a seated position on the edge of the bed. This will shorten the time you will have to support the person in a seated position before you hook them up.

**AMBULATING AND STANDING WITH THE SM115 / SE115**

The PAL HOME STAND allows a person to be lifted to a standing position with their feet flat on the floor. This provides an opportunity for the therapist to ambulate or perform standing exercises. Some therapists utilize the PAL Seat Strap as an assist to help support the person while they are ambulating, standing, or resting. If you have questions regarding the need for and proper use of the Seat Strap, please contact your PAL Representative.

**Lifting a person with their feet on the floor:** After “Applying BFS to Person” and “Attaching BFS to Stand” segments, open the legs and remove the foot board. Place the BFS behind the person and hook them up, lock the brakes and adjust the shin rest. Make sure their feet are located on a non-slippery surface. Their legs should be at a 90-degree angle. Adjust the shin rest. Hold onto the lift and begin to lift until the person is standing. Make sure they are straight and not leaning back before you begin ambulation. Handles are located on each side of the BFS. The handles work well when the person you are ambulating needs extra support. If the person becomes fatigued, just lower them into a chair.

**PAL SLING LAUNDERING INSTRUCTIONS  
PA600 / VS105 / SM115 / SE115(STANDS)  
Butterfly Sling - BFS900 / BFS115**

Sling material and webbing are made of nylon. The padding is neoprene and polyfill. Because of sling rigidity, recommended washing instructions are as follows:

- Brush with warm, soapy water and non-chlorine bleach disinfectant
- Rinse
- Drip dry

The sling rigidity makes it more difficult to machine wash. Care should be taken if attempting to machine wash. Make sure the sling fits properly into the machine. If the sling rides on lip of drum, the sling could be damaged. If possible, put the sling in a mesh bag to protect the buckles and to keep the straps from becoming tangled.

**WARNING: EXCESSIVE HEAT AND/OR BLEACH WILL  
SHORTEN THE SERVICEABLE LIFE OF THE SLING.  
IF THE SLING IS DAMAGED DUE TO  
IMPROPER LAUNDERING,  
THE WARRANTY IS VOID.**

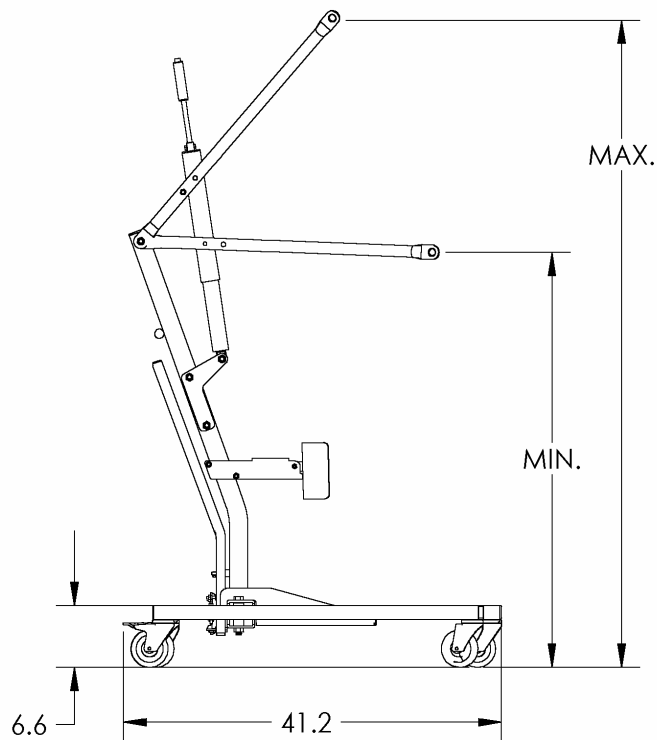
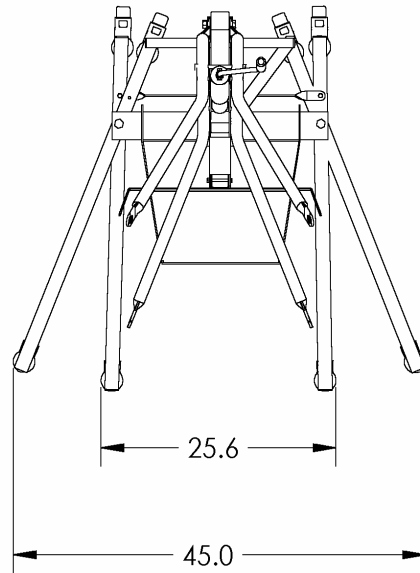
**CHARGING PROCEDURE**

1. The lift has a battery indicator located on the control box. During operation of the lift, if the orange light flashes, there should be approximately 20% capacity left in the battery. The battery should be charged. If beep tone sounds, there should be sufficient charge left for one double stroke. The battery must be charged.
2. The battery can be charged through the control box on the lift. With the transformer plugged into an outlet, plug the cable into the corresponding jack in the bottom of the control box.
3. With the battery properly inserted, a steady orange light means the battery is charging.
4. When the light turns green, the charging is complete.

**VOLARO HOME  
LIFTS/STANDS**

**MANUAL — SM115  
ELECTRIC— SE115**

**SM115 / SE115 SPEC SHEET**



**TROUBLESHOOTING GUIDE**

<b><u>PROBLEM</u></b>	<b><u>POSSIBLE CAUSE</u></b>	<b><u>SOLUTION</u></b>
<b>1. LIFT/STAND</b>		
1. Lift won't go up or down.	<ol style="list-style-type: none"> <li>1. Dead battery. (Display flashes yellow, control unit signals audibly when switch is pushed.)</li> <li>2. Emergency Off switch activated (pushed in).</li> <li>3. Battery is not making connection.</li> <li>4. Actuator cable is not plugged in properly or cable is damaged.</li> <li>5. Actuator is not working.</li> <li>6. Hand control is not connected properly or hand control is damaged.</li> </ol>	<ol style="list-style-type: none"> <li>1. Switch battery or charge battery. Replace if defective.</li> <li>2. Turn red knob direction of arrows to unlock.</li> <li>3. Place battery correctly and check connectors.</li> <li>4. Check cable and connection. Replace if necessary.</li> <li>5. Replace actuator.</li> <li>6. Check connection. Replace if necessary.</li> </ol>
<b>2. ACTUATOR</b>		
<ol style="list-style-type: none"> <li>1. Actuator makes noise.</li> <li>2. Actuator shuts down during operation.</li> </ol>	<ol style="list-style-type: none"> <li>1. Faulty/worn out actuator.</li> <li>2. Batteries low.</li> <li>3. Actuator overloaded.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace actuator.</li> <li>2. Charge battery.</li> <li>3. Check to make sure not over weight capacity.</li> </ol>
<b>3. BATTERY PACK</b>		
<ol style="list-style-type: none"> <li>1. Battery wears out quickly.</li> <li>2. Low battery indicator on constantly (flashing orange light).</li> </ol>	<ol style="list-style-type: none"> <li>1. Battery worn out.</li> <li>2. Battery not charged properly.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace battery if necessary.</li> <li>2. Make sure battery charger is working properly.</li> </ol>
<b>4. BATTERY CHARGER</b>		
<ol style="list-style-type: none"> <li>1. Battery charge light (orange light) does not come on when plugged in.</li> <li>2. Battery does not charge. (Green light on)</li> </ol>	<ol style="list-style-type: none"> <li>1. Transformer bad.</li> <li>2. Electric outlet not working.</li> <li>3. Battery not placed correctly.</li> <li>4. Battery worn out.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace transformer if necessary.</li> <li>2. Use different outlet.</li> <li>3. Check battery position.</li> <li>4. Replace battery if necessary.</li> </ol>

**VOLARO ROUTINE MAINTENANCE**

<b><u>Every Day</u></b>	<b><u>Every 3 Months</u></b>	<b><u>Periodic Testing</u></b>
<ul style="list-style-type: none"> <li>• After each person you lift, you should inspect sling, and wash if necessary. Refer to VOLARO laundering instructions.</li> <li>• Check the condition of all slings; if you are in doubt of its ability to safely lift a person, then discard the sling and order a new one.</li> <li>• Check the lift; if the orange light is flashing, or tone sounds when switch is pushed, recharge the battery.</li> <li>• Keep your VOLARO lift clean by wiping it down with a damp cloth. Use a mild detergent if needed. <b>NOTE:</b> Do not use petroleum-based solvent on paint, plastic or decals. It will damage them.</li> <li>• When cleaning the control unit, don't allow fluids to ingress into case. This could permanently damage control unit. Isopropyl alcohol should only be used as a disinfectant.</li> </ul>	<ul style="list-style-type: none"> <li>• Lube pivot points on lift.</li> <li>• Check all external hardware and tighten if necessary.</li> <li>• Check the leg adjuster stop for signs of wear. Replace if worn or broke.</li> <li>• Check the casters brakes and movement and remove hair if necessary.</li> <li>• Check leg covers and replace if cracked or broken.</li> <li>• Check vinyl covers and replace if worn or missing.</li> <li>• Inspect control unit for signs of damage (cracks). Also, make sure hand control and actuator plugs are properly installed.</li> </ul>	<ul style="list-style-type: none"> <li>• General lift condition: A general visual inspection of the external parts and all functions should be carried out to insure no adverse damage has occurred. If in doubt, with draw the equipment from use and call the VOLARO Service Department. (800) 725-7761</li> </ul>

THIS IS A SUGGESTED MAINTENANCE SCHEDULE - DEPENDING UPON USE OF THE LIFT(S). THE EQUIPMENT MAY NEED TO BE INSPECTED MORE FREQUENTLY.

# WARRANTY

**ONE (1) YEAR LIMITED WARRANTY ON ALL PARTS ONLY UNDER CONDITIONS OF NORMAL AND INTENDED USE. ONE (1) YEAR WARRANTY ON THE MAIN STRUCTURE OF THE LIFT. MISUSE, DAMAGE, OR ALTERATION OF THE LIFT OR ANY OF ITS PARTS VOIDS THE WARRANTY. NO OTHER WARRANTIES - WRITTEN, VERBAL, IMPLIED, OR OTHER THAN LISTED HERE WILL BE HONORED.**

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# MECHANICAL SIT TO STAND TYPE LIFTS GENERAL PROCEDURE GUIDE

This form is intended as a guide to help you develop a procedure sheet that will fit your specific application in your facility. It is recommended that everyone be inserviced by the company representative or use the manufacturer's inservice video before operating any mechanical lift.

**Staff Name:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Checked Off By:** \_\_\_\_\_

## General Preparation:

- | Yes                      | No                       |  |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | 1. Identify the resident.  |
| <input type="checkbox"/> | <input type="checkbox"/> | 2. Explain what you are going to do.                                     |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. Wash hands.   |
| <input type="checkbox"/> | <input type="checkbox"/> | 4. Get supplies ready: sling, wheelchair, blanket or lap robe.           |
| <input type="checkbox"/> | <input type="checkbox"/> | 5. Get help from experienced team member for this procedure.             |
| <input type="checkbox"/> | <input type="checkbox"/> | 6. Have assistant stand on opposite side of bed to assist with transfer. |
| <input type="checkbox"/> | <input type="checkbox"/> | 7. Provide privacy. Pull curtain all around the bed.                     |

## General Procedure:

- | Yes                      | No                       |   |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | 1. Position wheelchair or commode at foot of bed.                                 |
| <input type="checkbox"/> | <input type="checkbox"/> | 2. Adjust bed to working level.   |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. Make sure battery indicator does not indicate a low battery. (If so, replace.) |
| <input type="checkbox"/> | <input type="checkbox"/> | 4. Examine lift sling for any damage: tears, frays, or weak areas.                |

- | Yes                      | No                       |  |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | 5. Lower side rails.   |
| <input type="checkbox"/> | <input type="checkbox"/> | 6. Raise head of bed to upright position.  |
| <input type="checkbox"/> | <input type="checkbox"/> | 7. Ask the resident to lean slightly forward, then slide the sling harness behind the back and around the torso so the top is just under the arms and the bottom is just above the buttocks. |
| <input type="checkbox"/> | <input type="checkbox"/> | 8. Fasten the safety belt and pull it snug.  |
| <input type="checkbox"/> | <input type="checkbox"/> | 9. Using proper body mechanics, tell your assistant to assist the resident's legs to the edge of the bed while you stabilize the upper body.   |
| <input type="checkbox"/> | <input type="checkbox"/> | 10. Tell your assistant to move the lift towards the resident and show the resident where to place their hands and feet. Assist their feet flat onto the foot board.                         |
| <input type="checkbox"/> | <input type="checkbox"/> | 11. Attach the straps of the sling harness to the lift and raise the resident clear. Remember to adjust the safety strap as the resident comes up to keep it snug at all times.              |
| <input type="checkbox"/> | <input type="checkbox"/> | 12. Lift resident until buttocks have cleared the bed. Give reassurance to allay fears. ( If you have the lift w/scale, you may weigh the resident at this time.)                            |
| <input type="checkbox"/> | <input type="checkbox"/> | 13. Pull the lift clear from the bed, widen the base and position around wheel chair or commode.   |
| <input type="checkbox"/> | <input type="checkbox"/> | 14. Lock wheelchair brakes.  |
| <input type="checkbox"/> | <input type="checkbox"/> | 15. Lower and guide the resident all the way back in the wheelchair.   |
| <input type="checkbox"/> | <input type="checkbox"/> | 16. Detach safety belt and sling straps from lift.   |
| <input type="checkbox"/> | <input type="checkbox"/> | 17. Move lift away and adjust for comfort. Apply safety belt if ordered. Position feet on foot pedals.   |
| <input type="checkbox"/> | <input type="checkbox"/> | 18. Cover lap with blanket and leave call light within reach.  |
| <input type="checkbox"/> | <input type="checkbox"/> | 19. Wash hands. Report reaction and overall tolerance to team leader.  |