

SoloLift

R710 Product Manual



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Key for EU users

Use this key to determine which sections of this product manual apply to you.



Technical Users For professionals who order and set up Rifton products.



Home Users For caregivers who use Rifton products on a regular basis.



Maintenance Personnel For anyone who is responsible for service or reordering of Rifton products and parts.

WARNINGS

- Thoroughly read and understand the information in this product manual before attempting to use this product. If the procedures and instructions in this manual are not followed, serious injury could occur.
- Proper use of this product requires the prior approval and ongoing supervision of a qualified therapist or physician. Adult supervision is required at all times.
- Straps and supports are provided for the safety of the user. The straps and supports need to be carefully adjusted for the comfort and security of the user, and can never take the place of the care-giver.
- Restraints—Some people use straps, trays or supports to restrict a child’s movement. This is a behavioral restraint and may raise ethical and legal issues which you should check with your particular facility. Rifton Equipment is not intended for this use.
- This product may not be appropriate for all clients; clients must be assessed by a qualified therapist or physician prior to use.
- Clients will experience some pressure to soft tissues when lifted with the SoloLift. Prior to use, a qualified professional must assess each individual with this in mind, especially those with fragile skin.
- Slippery clothing may cause the SoloVest to slide up on the client, making a safe transfer difficult.
- This product is intended for indoor use only and must not be used in or around water.
- Ensure all hands and feet are clear of the foot pedal mechanism and junction of the base tube and legs before adjusting base legs in or out.
- Use only the Rifton SoloVest with the Rifton SoloLift.
- The SoloVest adapter strap is rated for a maximum load of 350lbs.


IMPORTANT

- **If you purchased a replacement scale display please retain packaging and return the inoperative display and the tools to Rifton.**
- Please save this product manual. Additional copies are available at www.rifton.com
- Please refer to the Rifton product catalog for our full warranty, or visit www.rifton.com

Recommended use

The SoloLift is a mobile transfer device. With zero lifting, it enables a single caregiver to transfer a client weighing up to 350 lbs to and from a wheelchair, chair, toilet, gait trainer, bed, or the floor. It creates many new opportunities for easier and more dignified transfers by lifting clients in a natural sit-to-stand arc, from above the waist, using the specialized SoloVest.

User and item dimensions

User dimensions (inches)	R703 small SoloVest	R701 medium SoloVest	R702 large SoloVest
Girth	22–34	28–40	36–60
All SoloVests are rated at 350 lbs.			
	Key user dimension: girth Caregiver must consider client’s girth when selecting appropriate SoloVest.		
	Important: User’s weight and height must not exceed maximum.		

Item dimensions (inches)	
Overall length	48
Overall width	31 (min)–52 (max)
Overall height	39 (min)–72½ (max)
SoloLift weight	140 lbs
SoloVest weight	5 lbs
Max. user weight	350 lbs
Max. user height	6'4" (76 in)

Check your order

Your SoloLift comes completely assembled, which includes two leg straps, two batteries, and a battery charger and the scale mechanism if ordered.

If your shipment is incomplete or in any way damaged on arrival, please call Customer Service, 800.571.8198.

Basic item

Inspection

- Check daily for external damage or wear to the SoloLift and proper functioning of the emergency stop.



Directions for use:

Rotation lock

Push the blue rotation lock lever (A) up to unlock and rotate client (B). Pull lever (A) down to lock after rotation is complete (see Figure 6a).

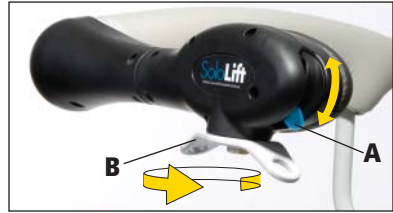


Figure 6a

Hand pendant

Operate the lift by using the up and down buttons on the hand pendant (see Figure 6b).



Figure 6b

Emergency mechanical lowering

If electrical operation fails, lower the client by pulling the red emergency-lowering regulator straight up (see Figure 6c). (This will only work when the SoloLift is loaded.)



Figure 6c

Electrical emergency lowering

If the hand pendant fails to operate, lower the client by using a pointed object (such as a ball-point pen) to push the hole marked "EMERGENCY" on the control box (A) (see Figure 6d).

Emergency stop

To stop the SoloLift in an emergency, push the red emergency stop button on the control box (B). Reset by turning the button clockwise (see Figure 6d).



Figure 6d

Extending the legs

Step on the upper foot pedal to extend or retract the frame legs (see Figure 7a).



Figure 7a

SoloLift scale display

Turn on the display and set the measurement unit to pounds or kilograms as desired (see Figure 7b).

Attach the appropriate SoloVest. Quickly and lightly depress the zero button to zero out the scale. When the display shows 000.0 the scale is ready for use. If it does not, repeat step two while making sure that nothing else is touching the SoloLift frame.

Lift the patient clear of all weight-bearing surfaces to read patient weight. Verify that nothing else is touching the SoloLift for accurate reading.



Figure 7b

Notes:

1. The scale is accurate to one percent if used correctly.
2. Rifton recommends that the scale be calibrated by a qualified technician at three- to five-year intervals, depending on frequency of use. For instructions on service and calibration, please contact Rifton customer service.

SoloVest

Three sizes of the SoloVest are available, to fit a range of clients. All SoloVests are rated at 350 lbs (160 kg). See user and item dimensions on Page 4.

Inspection:

- Check daily for external damage or wear to the SoloVest.



Small SoloVest (green)
Girth: 22"–34" (56–86 cm)



Medium SoloVest (light blue)
Girth: 28"–40" (71–102 cm)



Large SoloVest: (dark blue)
Girth: 36"–60" (91–152 cm)

- ⚠ WARNING:** A risk assessment must be conducted to ensure the correct size SoloVest is selected and is appropriate for each client being lifted.
- ⚠ WARNING:** Do not attempt a transfer if the SoloVest slides up on the client during lifting. Sliding up is an indication that the SoloVest may be too big or the straps too loose, or that the product is unsuitable for that client.

Directions for use:

The key to using the SoloLift successfully is how the SoloVest is put on the user.

1. First, make sure you have the right size. You want to see at least two inches of overlap between the front panels (see Figure 9a).

⚠ CAUTION: Position the SoloVest well below the client's arms. Make sure you start out low enough, with the bottom of the vest right at the hips.

2. Check to make sure the back panel of the vest is centered on your client's back (see Figure 9b).
3. Clip together the lower buckle first and use the hand grip to pull the vest as snug as you can (see Figure 9c).
4. Clip together the upper buckle, again pulling as snug as you can.
5. Snug up lower buckle one final time, and you should be ready to go.
6. As you begin lifting, check under the arms to make sure the vest is not sliding up into the axilla (armpits) (see Figure 9d). If it is, you will need to lower your client, reposition SoloVest and tighten both buckles.

⚠ CAUTION: The SoloVest is too big for the client if the pads overlap too far and the straps cannot be tightened.



Figure 9a



Figure 9b



Figure 9c



Figure 9d

Operation and transfers

Before every transfer

- Thoroughly inspect the SoloVest for tears, rips and worn areas, giving special attention to the straps and buckles. Remove the product from service if any condition develops that might make use unsafe.
- Assess whether additional caregivers are needed.
- Ensure the SoloVest is positioned correctly and securely.



WARNING: Adult supervision is required at all times

- Lock wheels on client equipment.

During each transfer

- Lift the client only high enough to perform the transfer.
- While the client is still seated and the straps are snug, check that the SoloVest does not slide up or cause discomfort.

Transfer to sitting position using leg straps.

1. Position the SoloVest around the client and pull the straps until tight. (Refer to SoloVest section of product manual for correct positioning and sizing on Page 9.)
2. Roll the SoloLift up to the client with the swing arm in the raised position (see Figure 11a). Extend base legs if necessary (see Figure 7a). Once the SoloLift is in position, rotate the swing arm down behind the client.
3. Attach the SoloVest clips through the holes on the SoloLift swing arm (see Figure 11b).
4. Attach the leg straps by hooking the silver rings over the blue hooks on the user handle (see Figure 11c). Adjust the length of the leg strap as necessary so client's hip remains at a 90° seated position.
5. Once the client is secure and comfortable, activate the lift by using the hand pendant, verifying that the SoloVest is secure and is not sliding up (see Figure 9d). If the SoloVest slides up, **stop lifting immediately**. Lift the client only high enough to perform the transfer (see Figure 11d).



Figure 11a



Figure 11b



Figure 11c



Figure 11d

Transfer to standing position without leg straps.

1. Position the SoloVest around the client and pull the straps until tight. (Refer to SoloVest section of product manual for correct positioning and sizing on Page 9.)
2. Roll the SoloLift up to the client with the swing arm in the raised position (see Figure 11a). Extend base legs if necessary (see Figure 7a). Once the SoloLift is in position, rotate the swing arm down behind the client.
3. Attach the SoloVest clips through the holes on the SoloLift swing arm (see Figure 11b). Leave the leg straps unattached to lift client into a standing position.
4. Once the client is secure and comfortable, activate the lift by using the hand pendant, verifying that the SoloVest is secure and is not sliding up (see Figure 9d). If the SoloVest slides up, **stop lifting immediately**. Lift the client only high enough to perform the transfer (see Figure 12a).
5. Push the blue rotation lock lever up to allow rotation of client for positioning into a forward-facing gait trainer or other standing device (see Figure 12b). Push lever back down to lock after rotation is complete. (see Figure 12c)
6. Secure client in the stander or gait trainer before removing the SoloVest (see Figure 12d).



Figure 12a



Figure 12b



Figure 12c



Figure 12d

Transfer from floor to wheelchair

1. Sit the client up.
2. Position the SoloVest around the client and pull the straps until tight. (Refer to SoloVest section of product manual for correct positioning and sizing on Page 9.)
3. Move SoloLift behind the client, and lower the lift arm extending base legs if necessary. Once the SoloLift is in position, rotate the swing arm down behind the client. (see Figure 13c).
4. Attach the SoloVest clips through the holes on the SoloLift swing arm (see Figure 11b).
5. Once the client is secure and comfortable, activate the lift by using the hand pendant, verifying that the SoloVest is secure and is not sliding up (see Figure 9d). If the SoloVest slides up, **stop lifting immediately.**
6. As the lift rises, move it forward slowly so that the client's feet remain in the same position during the entire lift to standing (see Figure 13b).
7. Once standing, turn client 180°, bring wheelchair in behind client and lower client into wheelchair (see Figure 13a).

Transfer from wheelchair to floor

Repeat steps 1-7 in the reverse order.



Figure 13c



Figure 13b



Figure 13a

SoloVest adapter strap

The SoloVest adapter strap makes it possible to use the SoloVest with an overhead track system that uses a spreader bar. The SoloVest will not work with a Hoyer-type lift.

Inspection:

- Check periodically for damage or wear to the SoloVest adapter strap. Remove the product from service when any condition develops that might make operation unsafe.

Directions for use:

Position the SoloVest around the client and tighten the straps. (Refer to SoloVest section of product manual for correct positioning and sizing on Page 9.) Clip the SoloVest adapter strap to the spreader bar or lift. Lower the lift until the adapter strap is hanging behind the SoloVest. Clip the SoloVest onto the two middle rings of the adapter strap.

Before every transfer:

1. Assess whether additional caregivers are needed.
2. Ensure the SoloVest is positioned correctly and adjusted tightly.
3. Lock wheels on client equipment during transfer.

During each transfer:

At the beginning of each transfer, while the client is still seated and the straps are snug, check that the SoloVest can not slide up or cause discomfort.


Lift the client only high enough to perform the transfer.




WARNING

The SoloVest adapter strap is rated for a maximum load of 350 lbs.

Adult supervision is required at all times.

 **WARNING:** A risk assessment must be conducted to ensure the correct size SoloVest is selected and is appropriate for each client being lifted.

 **WARNING:** Do not attempt a transfer if the SoloVest slides up on the client during lifting. Sliding up is an indication that the SoloVest may be too big or the straps too loose, or that the product is unsuitable for that client.

Battery charger

Installation

1. Remove the battery from the charger to access the mounting bracket.
2. Attach the charger to the wall near an outlet, using two screws (A) (see Figure 15a). Two screws are provided with the charger, however, they may not be suitable for every situation.
3. Place battery in charger (see Figure 15b).
4. Plug the charger cord into wall outlet.

Charging

- Charge batteries 24 hours before first use.
- When the battery needs charging, an indicator light on the hand pendant will illuminate.
- Remove the battery from the control box, and secure it onto the wall-mounted charger.
- Batteries should be charged frequently to ensure maximum battery life.
- The charger and indicator light will shut off automatically when charging is complete.
- Charging normally takes approximately six hours.
- For best results, recharge fully after each day of SoloLift use.
- During long periods of inactivity or storage, batteries will lose charge. Allowing batteries to deep cycle (become nearly or completely dead) will destroy them. To prevent this, store batteries in charger. You may want to consider purchasing a second charger.

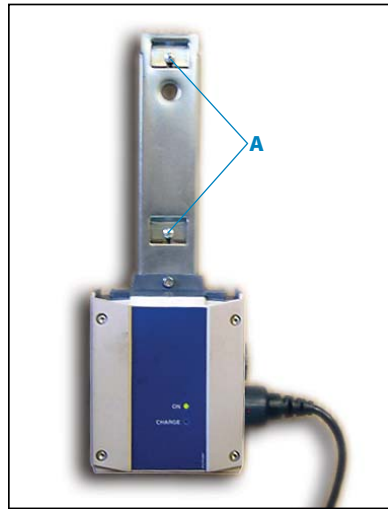


Figure 15a



Figure 15b

WARNING

Do not charge batteries in a wet area.



Old batteries should be disposed of properly at an appropriate recycling facility.

Troubleshooting

Lift does not go up or down:

1. Make sure the emergency stop is not depressed (turn button clockwise to reset (see page 6)).
2. Make sure the electrical cables are secure.
3. Check that battery is charged and installed correctly.
4. Make sure the battery contact plate is not damaged or broken.
5. Contact Rifton.

Battery does not charge:

1. Make sure the battery contact plate is not damaged or broken.
2. Check that wall charger is plugged securely into the wall socket.
3. Contact Rifton.

Any unusual noise:

Contact Rifton.

Replacement & calibration instructions

Installation

1. Using the tools provided in the repair kit, remove the two screws, loosen the bolt and nut, and detach the display from the lift as shown (see Figure 17a).
2. Unplug both cords from the back of the display.
3. Carefully re-attach the two cords to the new display. The orientation of the plugs is as shown (see Figure 17b), note position of small protrusions on plugs.
4. Re-attach the display to the mounting flange. Make sure as you do this that the wires are pressed into the correct slots in the display housing.

Instructions for calibration

Although the scale will maintain a high degree of accuracy with the new display, the sensing unit in each lift is slightly different, making it possible for the reading to be a small percent lower or higher. If there is an error it will be the same each time the scale is used so that trending of a person's weight will be accurate. However it is recommended that a qualified technician perform a calibration of the new display using a certified weight (100 to 300 lbs recommended).

Follow steps 1-7 to do this.



Figure 17a



Figure 17b


1. Turn off the display.
2. Press and hold the indented key and simultaneously press the on key. This will bring you to the function menu.
3. With CALIBRATE highlighted, press ENT.
4. Attach the device you will be using to pick up your known weight. Make sure no other weight is on the lift (including pressure from your hand on the SoloLift arm), and then press ENT.
5. Using the up, down, and sideways keys, enter the weight of your calibration mass and press ENT.
6. Raise up the calibration weight with the Solo Lift and when the load is stabilized, ensuring that no other pressure is on the lift, press ENT.
7. Press SAVE to complete the calibration.

Maintenance 🧰

Check periodically for cracks, breaks, loose, or missing parts and/or malfunctions. Remove the product from service when any condition develops that might make operation unsafe.

Check periodically for damage or wear to the SoloVest adapter strap. Remove the product from service when any condition develops that might make operation unsafe.

Cleaning 🧼

 **WARNING:** Do not machine wash or submerge SoloVest in water.

All surfaces of the SoloLift and SoloVest can be cleaned with a damp cloth and a mild detergent or disinfectant (a 10:1 water to bleach solution is suitable for the SoloVest). Do not use excessive water.

Materials

- Steel hardware items (nuts, bolts, screws, etc) are typically zinc or nickel plated, or stainless steel.
- Upholstery items (pads, support blocks, padded prompts, etc) are typically fire-retardant polyurethane foam with a fire-retardant cover made from expanded polyurethane and tough nylon.
- Frames are typically steel or aluminum tubing, welded together, and coated with a baked-on paint finish. Some frame components may also be stainless steel.
- Tires are tubeless, filled with polyurethane foam, and do not require inflation.
- Straps are typically made of polypropylene or nylon webbing.
- Wooden components are typically birch plywood, solid maple, or laminated hardwood veneers, finished with a clear polyurethane lacquer.
- Tabletops are typically high-pressure laminate (Formica).
- Plastic components are typically injection molded from a variety of industrial resins.

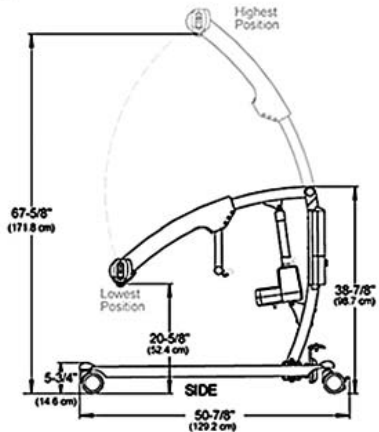
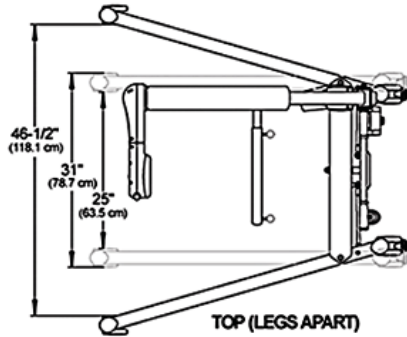
All materials are latex, lead and phthalates free.

User modifications

We recognize that some clients may benefit from modifications made in the field. However, we cannot be responsible for customer modifications to our products without our supervision, testing, and evaluation.

Technical data

- **Lifting speed:** 2.1 inch/sec with no load
- **Batteries:** 12V, 2.9 Ah valve-regulated lead-acid gel-type batteries. (Replacement batteries available from Rifton)
- **Battery charger:** Wall-mounted charger, 100 - 240 V AC, max 650 mA
- **Motor:** 24 V, 10 A, permanent magnet motor
- **Emergency lowering:** Mechanical and electrical
- **Frame material:** Powder coated steel
- **Vest materials:** Urethane foam covered by PVC and tough nylon.
- **Wheels:** Front: 100mm dual
Rear: 100mm dual with brake
- **Duty cycle:** Two minutes continuous use followed by 18 minutes idle.
- **Degree of protection:** IP 65
- **Turning diameter:** 56" (142 cm)
- **Mass of SoloLift:** 140 lbs (64 kg) with Scale 152 lbs (69kg)
- **Mass of SoloVest:** 5 lbs (2.3 kg)



Parts disclaimer

We are glad to supply the parts you requested. Although Rifton Equipment makes every effort to supply correct parts and instructions for repairing or refurbishing your equipment, you are responsible to make sure that the repairs or modifications are correctly and safely completed.

Rifton Contact Info



Online

www.Rifton.com
Sales@Rifton.com



Phone

800.571.8198
9–5 EST



Mail

Rifton Equipment
PO Box 260
Rifton NY 12471–0260



Fax

800.865.4674

To order replacement parts

1. Locate the serial number of the product on the small white label.
2. Have this number available when you call **800.571.8198** for your customer service representative.

Use only replacement parts supplied by Rifton Equipment.