Owner's Manual

Lateral, Floor-standing table shown

Regal Lift Tables

- *Hydraulically Actuated*
- *Floor-Standing or Wall-Mount*
- *Lateral or Longitudinal Configuration*
- *Exam Top or Electronic Scale*

New Model Numbers:
18127-00-GYLVDU, 18128-00-GYLVDU, 18125-00-DPLVHP, 18126-00-DPLVHP
Former Model Numbers:
207851, 207853, 213290, 213292

SSCI
Wheeling, IL 800 323 7366

Form No. 702702 Rev. F 04/05

Inquiries should be addressed to **Suburban Surgical Co., Inc.**
Wheeling, Illinois 60090, USA

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Chapter 1 - General Information


Lateral, Floor-standing table shown

Introduction

With your new SSCI Regal Lift Table, you'll be able to examine practically any size patient, at the height that's most comfortable for you. No more lifting large animals, and best of all, less chance of being harmed by a frightened animal you are trying to lift onto the exam table.

The stainless steel exam table surface and the attached back panel slide smoothly up and down on the stainless steel frame to bring animals to an ideal working height. The foot-operated pedal controls the direction of the table, leaving your hands free to soothe and steady the animal. The back panel has adjustable restraining loops with tie-downs for greater animal control and safety while the table is in motion.

The Regal Series features an electric motor-driven hydraulic lifting mechanism for quieter, more precise operation. It is offered with lateral or longitudinal exam tables, and can be ordered with an electronic scale. You can also select a floor-standing model or a wall-mounted model to suit your exam room needs.

About this Manual

Every attempt has been made to insure that the information in this manual is correct and complete. SSCI, however, always welcomes our customer's suggestions for improvements to our products and associated publications.

Conventions Used in this Manual

Throughout this manual you will find text under the headings **Note:**, ***CAUTION:*** and ***WARNING:***.

Notes

Under the **Note:** heading, you will be given additional information pertinent to the subject discussed in that paragraph or procedural step.

> ***Example:***
>
> Dis-connect the hydraulic hose quick-disconnect fitting.
> **Note:** Pull the large ring away from the valve and the fitting will come free.

CAUTIONS

Under the ***CAUTION:*** heading, you will be alerted to potentially hazardous conditions which, if ignored or mishandled, could result in minor injury to yourself, or minor damage to the equipment.

> ***Example:***
>
> ***CAUTION:*** **In the next four steps you will remove the front and rear shields and expose electrical components in the bottom tray. Use caution around the electrical wiring and components to prevent injury to yourself and/or damage to the equipment.**

WARNINGS

Under the ***WARNING:*** heading, you will be alerted to potentially hazardous conditions which, if ignored or mishandled, could result in major injury to yourself, or severe damage to the equipment.

> ***Example:***
>
> ***WARNING:*** **The hydraulic cylinder holds the table in the raised position. If the cylinder is removed, or if the hydraulic circuit opened while the table is raised, the table top can fall suddenly with considerable force. A high potential exists for injury to you or damage to the equipment. Brace the table securely, as instructed below, before removing the cylinder.**

Models

The model numbers for the Regal Lift Tables are:

	Former P/N	New P/N	Mounting	Config.	Top
■	102905-00	12670-00-GZLWEF	Floor-Standing	Lateral	Exam Top
■	102907-00	12671-00-GZLWEF	Floor-Standing	Lateral	Electronic Scale
■	102914-00	12674-00-DPLWHX	Floor-Standing	Longitudinal	Exam Top
■	102915-00	12675-00-DPLWHX	Floor-Standing	Longitudinal	Electronic Scale
■	102908-00	12672-00-GZLWEF	Wall-Mount	Lateral	Exam Top
■	102909-00	12673-00-GZLWEF	Wall-Mount	Lateral	Electronic Scale
■	102916-00	12676-00-DPLWHX	Wall-Mount	Longitudinal	Exam Top
■	102917-00	12677-00-DPLWHX	Wall-Mount	Longitudinal	Electronic Scale

Lift Table Specifications

Lateral Configuration Lift Tables

Note: Minor variations in some dimensions exist, depending on type of top and mounting arrangement.

Working Surface Width:	45.221-in. to 45.406-in. (114.86 cm to 115.33 cm)
Working Surface Depth:	21.188-in. to 21.406-in. (53.82 cm to 54.37 cm)
Overall Width:	45.221-in. to 45.406-in. (114.86 cm to 115.33 cm)
Overall Depth:	27.50-in. (69.85 cm)
Overall Height:	77.125-in. (195.90 cm)
Lift Maximum:	38.50-in to 41.00-in. (97.79 cm to 104.14 cm)
Lift Minimum:	6.75-in. to 8.25-in. (17.14 cm to 20.96 cm)

Longitudinal Configuration Lift Tables

Note: Minor variations in some dimensions exist, depending on type of top and mounting arrangement.

Working Surface Width:	21.188-in. to 21.406-in. (53.82 cm to 54.37 cm)
Working Surface Depth:	45.221-in. to 45.406-in. (114.86 cm to 115.33 cm)
Overall Width:	21.406-in. to 23.50-in. (54.37 cm to 59.69 cm)
Overall Depth:	50.875-in. to 51.50-in. (129.22 cm to 130.81 cm)
Overall Height:	77.125-in. (195.90 cm)
Lift Maximum:	38.50-in. to 41.00-in. (97.79 cm to 104.14 cm)
Lift Minimum:	6.75-in to 8.25-in. (17.14 cm to 20.96 cm)

Available Accessories

The following accessories increase the operating convenience of your Regal Lift Table. Find descriptions, pictures, and information on SSCI products and accessories in our current catalog, or on our website at www.suburbansurgical.com. To order accessories, refer to *Parts Ordering Procedure* on *Page 32*.

- Black Vinyl Ribbed Mat - P/N 12800-00-GNAACV
- Casters, 3-in. dia. with brakes* - P/N C010-23061001-CH000
- Add-on Drawer - P/N 12720-00-CLAPBR
- Power Pack Extension Hose/Cable - Refer to Catalog
- Voltage Adapter - Call for Information

* for floor-standing models only.

Care and Cleaning of Stainless Steel

Introduction

Stainless steel is steel alloyed with chromium to make it highly resistant to stain, rust, and corrosion. **Note:** This does NOT mean that stainless steel will *never* rust or corrode. Science has not yet developed a steel which is completely stainless or corrosion PROOF.

The type of stainless steel and finish selected by SSCI for the Regal Lift Table is the best available for the intended use.

Cleaning and Cleansers

The basic rule of thumb is to use the mildest cleaning procedure that will do the job effectively. Always rinse thoroughly with clear water and dry completely. Frequent cleaning will prolong the service life of stainless steel equipment and will help maintain a bright, pleasing appearance. **Note:** NEVER power-wash the lift table.

Ordinary deposits of waste and fluids can usually be removed with soap and water. More stubborn deposits or tightly adhering debris may require harder scrubbing and possibly the use of commercial cleaning products acceptable for use on metal surfaces. When using any cleaning agent, rub in the direction of the polish lines or "grain" of the metal. For high luster finishes, clean soft cloths or pads should be used. If especially rough cleaning is necessary, use "stainless steel" wool, nylon, or plastic scrubbers. Test these scrubbers in an inconspicuous area first to be sure they do not mar or scratch the stainless steel finish.

Minor scale build-up and some hard water spotting may be removed by washing with vinegar, followed by a neutralizing rinse with clear water and a thorough drying with a soft cloth. For heavy deposits of scale, 5% oxalic acid (use warm), 5-15% sulfamic acid, or 5-10% phosphoric acid may be used. Always follow with a neutralizing rinse of clean water and a thorough drying.

Deodorizing Agents, Disinfectants and Sanitizers

The large selection of brands and combinations of chemicals available for deodorizing, disinfecting, and sanitizing is staggering. Select one or more agents for use in your facility only after weighing all the benefits claimed by each product. Often this choice is made without adequate consideration of the effects these agents may produce on equipment or furnishings.

CAUTION: **Before selecting a chemical to employ in your facility, review label statements regarding use with metals (stainless steel). Always consult the chemical supplier if there are any doubts.**

Avoid prolonged use of chlorides (such as chlorine bleach), bromides, iodides, and thiocyanates on stainless steel surfaces as these chemicals will cause pitting, corrosion and metal discoloration. Allowing salty solutions to evaporate and dry on stainless steel may also contribute to corrosive conditions.

In summary, select chemical deodorizers, disinfectants and/or sanitizers only after weighing all possible benefits and known adverse effects.

Effect on Warranty

CAUTION: **The warranty for this product is void if the care and cleaning instructions provided in this manual are not followed.**

Cleaning Requirements

Clean the lift table exactly in accordance with the cleaning instructions provided in *Chapter 3* of this manual. *Failure to follow these instructions can void your warranty.*

Safety

Crush Warning

The lift table is raised and lowered by means of a powerful hydraulic piston. Use caution when raising or lowering the table to insure that feet or other body parts are not trapped under the table. Make sure that objects are not caught under the table as they can be damaged, or cause damage to the table lifting mechanism. Do not allow electric power cords to become trapped under the lifting mechanism.

Load Weight Limitations

The lift table is designed to carry weights up to 300-pounds (136 kg). Placing weights greater than 300-pounds on the table can damage the lifting mechanism and may cause the table to blow fuses (trip circuit breakers) or lower suddenly.

Use of Restraint System

Retraining loops and tie-downs are provided on the back panel for restraining frightened or reluctant animals. Use the restraints only as required to control the animal, but not so tightly so as to cause injury.

Adjustment of the DOWN Flow Control Valve

Be careful whenever you are attempting to adjust the flow control valve that governs the downward speed of the table. This valve is located directly under the vertically sliding carriage. The possibility exists that the sliding carriage could descend directly on your hand while you are making this adjustment. Always make sure that the carriage has stopped completely before adjusting the **DOWN** valve (Figure 7 on *Page 13*).

Disconnecting the Hydraulic Hose

DO NOT unplug the hose connected to the hydraulic power pack while the table is in the raised position. The system is under pressure and sudden release of the hose will cause hydraulic fluid to be violently sprayed out. Also, the sudden removal of hydraulic pressure can allow the table to drop suddenly. Injury to the patient and persons in the area, and damage to the equipment is highly possible.

If absolutely necessary to remove the hydraulic hose while the table is in the raised position, refer to *Hydraulic Cylinder - Removal* and follow the procedure given in *Steps 4* through *10,* starting on *Page 34*.

SSCI Contact Information

SSCI Customer Service can be contacted via mail, telephone, or fax. The department is available from 8:30am to 5:00pm, Central Time, Monday through Friday. Closed holidays.

Address: Suburban Surgical Co., Inc.
275 Twelfth Street
Wheeling, Illinois 60090

Telephone: Illinois - (847) 537-9320, ext. 3518
Toll Free - 1-800-323-7366

Fax: (847) 537-9061

Web: www.suburbansurgical.com.

Warranty

Suburban Surgical Company, Inc. warrants the original purchaser that our products are of the highest standards in material and workmanship. Our stainless steel components are guaranteed to last a lifetime assuming they are used as intended, properly maintained and cared for. Mechanical, electrical, electronic, hydraulic, and any product's devices carry a one year warranty.

Items purchased by Suburban Surgical Company, Inc. from other manufacturers and incorporated into our equipment are covered by the respective manufacturer's warranties.

Warranties will not apply if it is determined by Suburban Surgical Company, Inc. that the equipment became defective due to an accident, misuse, abuse, improper maintenance or alteration. Warranty freight charges are covered for the first year only.

Notes:

Chapter 2 - Unpacking & Setup

Inspection

If the shipping container appears damaged in any way, contact the shipping company immediately. Save all damaged packing materials to assist in proving liability for damage.

Carefully inspect your Regal Lift Table while you unpack it. If any damage is noted, or if parts appear to be missing, call SSCI Customer Service at 1-800-323-7366.

Unpacking and Setup

Models

Due to substantial differences between the floor-standing models and the wall-mount models, refer to the following pages to install your table:

- Floor-Standing Models - Below
- Wall-Mount Models - *Page 15*

Floor-Standing Models

This procedure gives unpacking and setup instructions for a longitudinal table. The procedures are the same for lateral models.

CAUTION: **Unpacking and setting up the lift table is not difficult. However, the table is heavy and we recommend that these operations be done by at least two people. Follow the instructions carefully to prevent injury to yourself or damage to the table.**

Tools Required

- 9/16-in. socket wrench
- 7/8-in. open-end wrench
- 9/16-in. open-end wrench
- 7/16-in. hex key (Allen wrench)
- Carpenter's level

Included Parts

After removing the top carton and the plastic wrap, make sure the following parts are present in the parts bag (Figure 1).

- Four leg levelers - P/N 850075
- Four jam nuts - P/N 850606
- Four leveler caps - P/N 853007
- Breather plug
- Black plastic cap

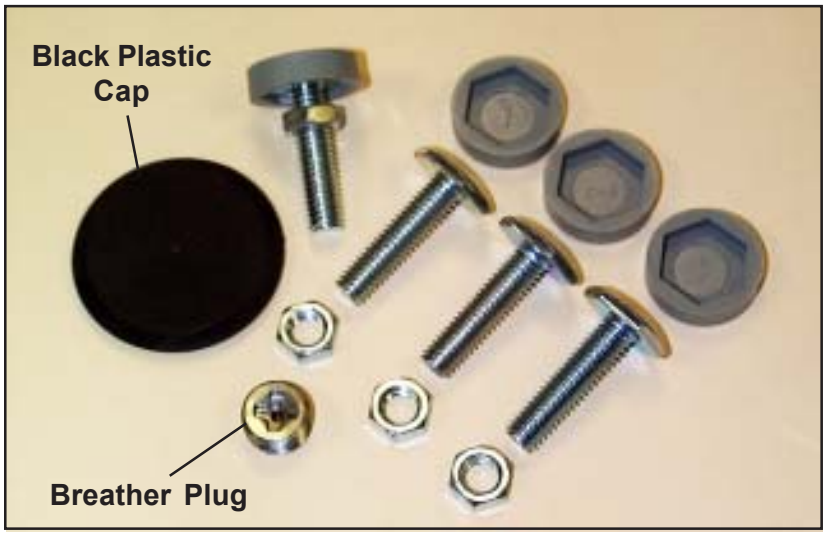

Figure 1. Parts Supplied with Table

Uncrating

1. Lay the table down on its back (Figure 2). Do not damage the electric power cord, foot controller, or hydraulic packaging. Be careful of hydraulic lines running between the rear of the table and the hydraulic power pack.

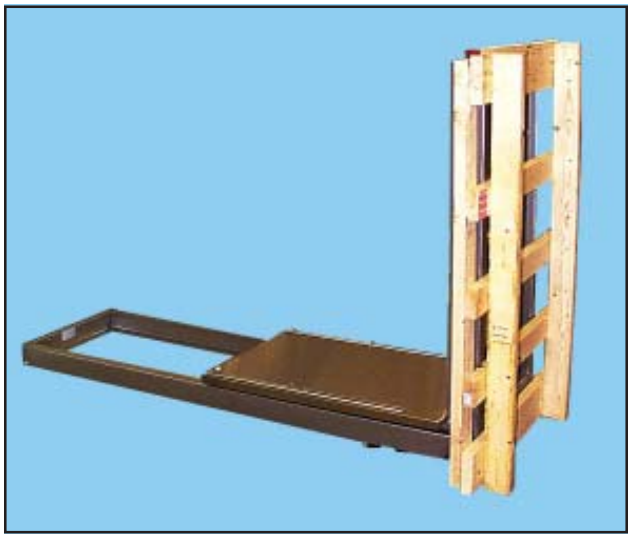

Figure 2. Table/Pallet Laid Down

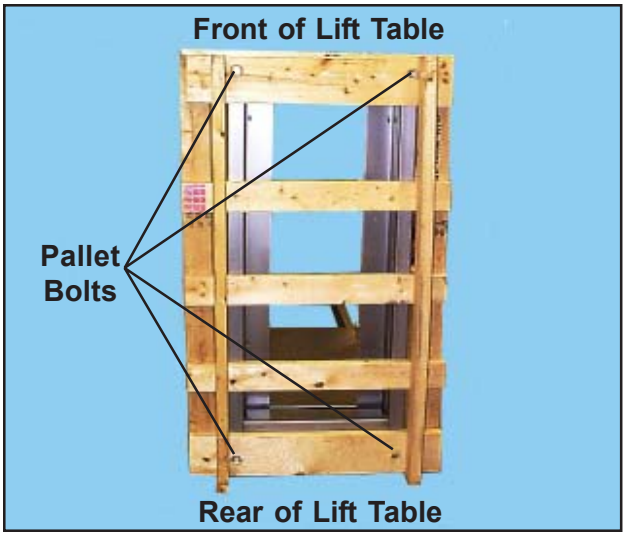

Figure 3. Locations of Pallet Bolts

2. With a 9/16-in. socket wrench, remove the four pallet bolts and washers (Figure 3).

3. Remove the pallet.

4. Screw the four jam nuts from the parts bag (Figure 1) onto the four leg levelers as far as possible. **Note:** Leave the leveler caps off until the leveling procedure is finished.

5. Screw the leg levelers about half-way into the pallet bolt holes (Figure 4).

6. Move the table to its intended location and raise it to its normal upright position.

7. Unwrap the foot controller and place it in a convenient location where there is no danger of the cable being caught under the table.

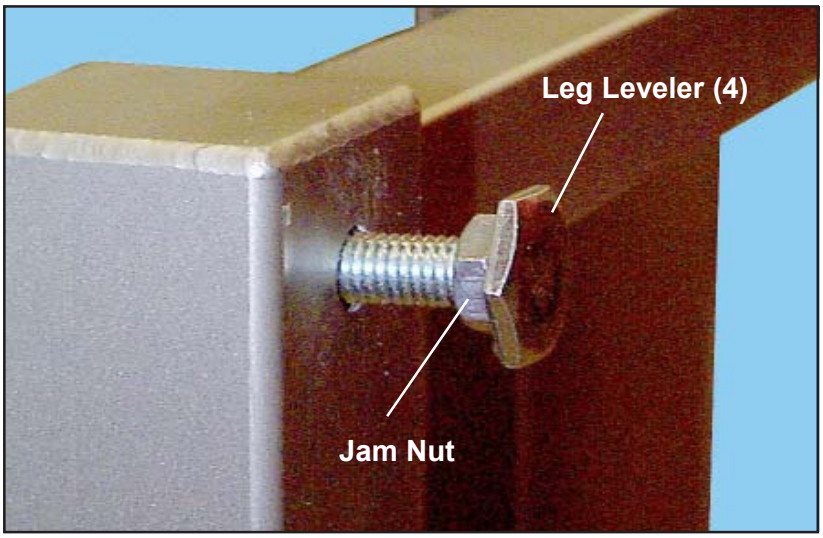

Figure 4. Leg Leveler/Jam Nut in Pallet Bolt Hole

Preparing the Hydraulic Power Pack

1. Open the carton and remove the hydraulic power pack.

2. With a 7/16-in. hex key (Allen wrench), unscrew the transport plug (Figure 5) on top the oil reservoir.
Note: DO NOT discard or misplace the transport plug. You will need it if the table is ever shipped to a new location. Store the transport plug in a safe place.

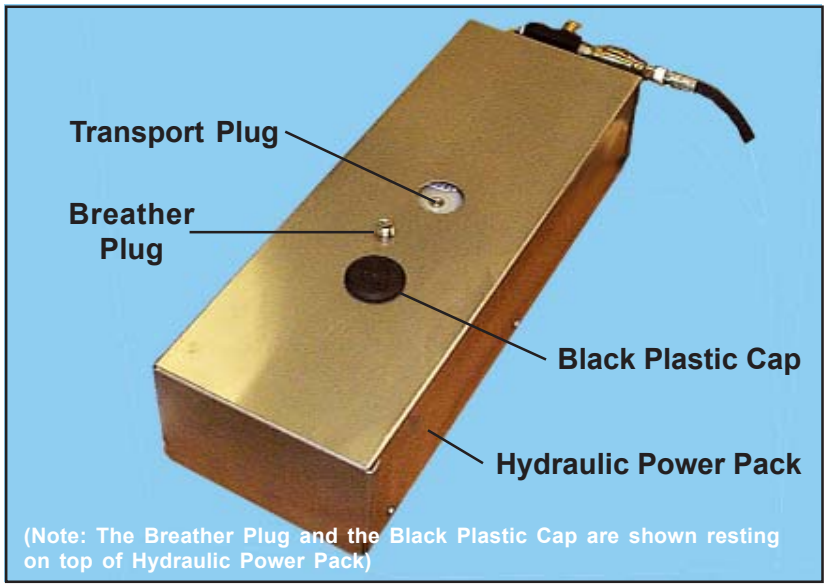

Figure 5. Transport Plug in Oil Reservoir

Note: Make sure the table is in the down position.

3. Screw the breather plug (Figure 1) *finger-tight* into the hole from which the transport plug was removed. DO NOT use a tool to tighten the plug.

4. Press the black plastic cap (Figure 1) into the access hole.

Adjusting the Table Movement

The speeds of the table's up and down motions are controlled by two flow control valves in the hydraulic system. Following the steps below, adjust the table's movement to a comfortable rate. Remember that too-rapid motion may frighten an animal riding on the lift table.

1. Plug in the electric power cord.

2. Press on the **UP** side of the foot controller and observe the table's upward motion. Adjust the **UP** valve on the power pack (Figure 6) until the table raises at a comfortable speed. Rotate the valve:
   - clockwise to reduce speed
   - counter-clockwise to increase speed

3. Raise the table to its maximum height. **Note:** You cannot reach the **DOWN** valve when the table is in its lowest position.

CAUTION: **Do not let the table lower onto your hand while you adjust the DOWN valve.**

4. Press on the **DN** side of the foot controller and observe the table's downward motion. Adjust the **DOWN** valve next to the operating cylinder (Figure 7) until the table lowers at a comfortable speed. Rotate the valve:
   - clockwise to reduce speed
   - counter-clockwise to increase speed

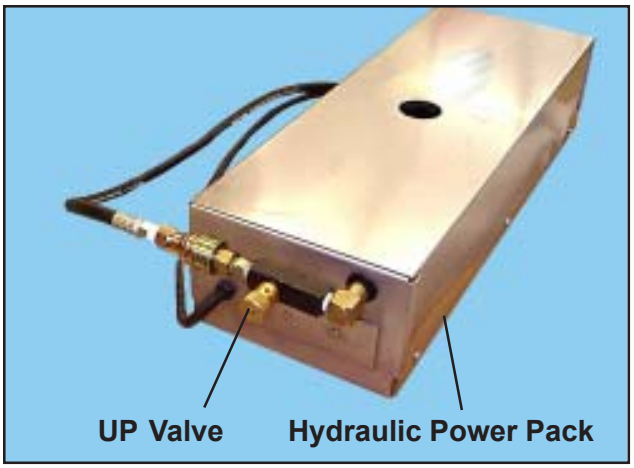

Figure 6. UP Valve

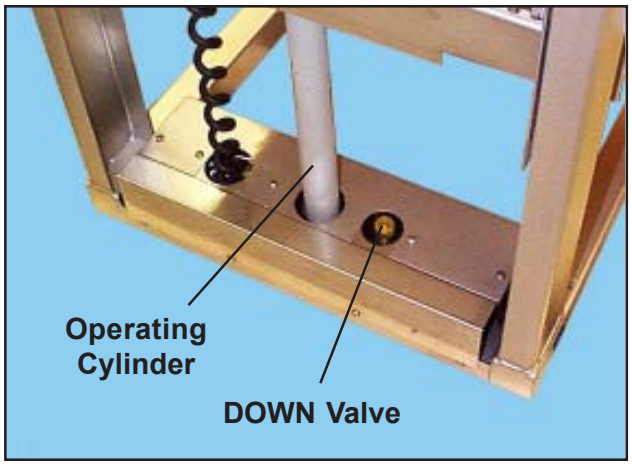

Figure 7. DOWN Valve

Leveling

Note: It is very important to properly level the lift table. If the table is not level, the vertical tracks will be out of alignment. This can cause a wide variety of problems including excessive wear, rough movement, and noisy operation.

Note: Level the table ONLY at the location and orientation where it will be used. Due to differing floor conditions, leveling procedures carried out elsewhere may be totally invalid at the new location. If the table is ever moved to another location, or turned to a different orientation, the levelling procedure must be redone.

1. Raise the table about half-way.

2. Place a carpenter's level *across* the table arms (Figure 8).

3. With a 7/8-in. open-end wrench, turn the leg levelers as necessary to level the table right-to-left.

4. Place the level *lengthwise* along the table (Figure 9).

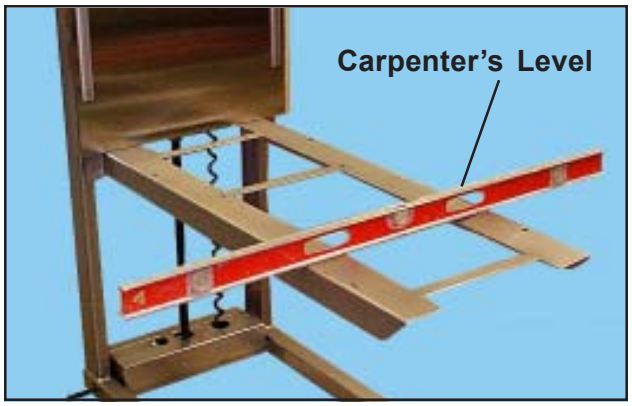

Figure 8. Carpenter's Lavel Across Table Arms

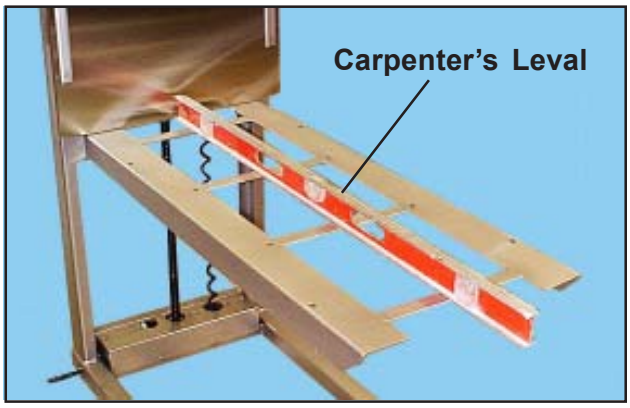

Figure 9. Carpenter's Level Lengthwise on Table Arms

5. Turn the leg levelers as necessary to level the table front-to-rear.

6. Re-check the level both ways and re-adjust the leg levelers until the table is in perfect level.

7. When the table is level (and all legs firmly touch the floor), hold each leveler steady with the wrench, and then with a 9/16-in. open-end wrench, tighten the jam nut firmly up against the bottom of the table.

8. Press the four leveler caps onto the leveler legs.

9. Position the power pack against the wall near the lift table. Maintain a space between the power pack and the table to prevent vibration transference. Place a small piece of carpet or other vibration absorbing material under the power pack. DO NOT place the power pack directly under the table's sliding carriage.

Mounting the Top

Exam top: Refer to *Exam Top* on *Page 22*
Electronic scale: Refer to *Electronic Scale* on *Page 23*

Wall-Mount Models

This procedure gives unpacking and setup instructions for a longitudinal table. The procedures are the same for lateral models.

Note: We recommend that, on new construction, prior to finishing the wall to which the lift table will be mounted, the mounting points be backed-up with 2x6's. On existing walls, consider opening the wall and installing these supports. The table can also be mounted to cinder-block or brick walls as long as appropriate mounting hardware is used.

Note: The wall must be flat and very close to perfect plumb. If the wall is bowed and/or out of plumb, the vertical tracks of the lift table may not be perfectly parallel when mounted to the wall. Such mis-alignment can cause binding, noisy operation, and premature wear. If the mis-alignment is severe, it may actually be impossible to raise or lower the table.

CAUTION: **Unpacking and mounting the lift table is not difficult. However, the table is heavy and we recommend that these procedures be done by at least two people.**

Tools and Supplies Required

- 9/16-in. socket wrench
- Phillips screwdriver
- 9/16-in. open-end wrench
- 7/16-in. hex key (Allen wrench)
- Carpenter's level
- Marking pen or pencil
- Tape measure
- Power drill
- Mounting hardware as appropriate for wall
- Any tools required for the above hardware

Included Parts

After removing the top carton and the plastic wrap, make sure the following parts are present in the parts bag (Figure 1).
Note: Only two leveler legs, jam nuts, and leveler caps are needed for this installation.

- Two leg levelers - P/N 850075
- Two jam nuts - P/N 850606
- Two leveler caps - P/N 853007
- Breather plug
- Black plastic cap

Uncrating

1. Lay the table down on its back (Figure 10). Do not damage the electric power cord, foot controller or hydraulic packaging. Be careful of hydraulic lines running between the rear of the table and the hydraulic power pack.

Figure 10. Table/Pallet Laid Down

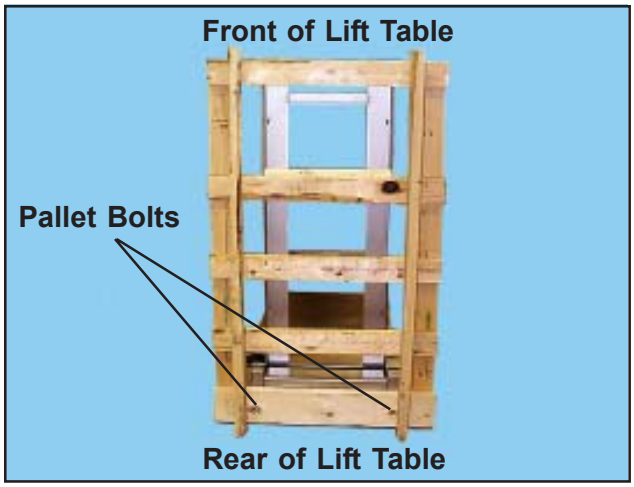

Figure 11. Locations of Pallet Bolts

2. With a Phillips screwdriver, remove the two upper pallet mounting screws and washers (Figure 10).

3. With a 9/16-in. socket wrench, remove the two pallet bolts and washers (Figure 11).

4. Remove the pallet.

Preparing the Table for Wall-Mounting

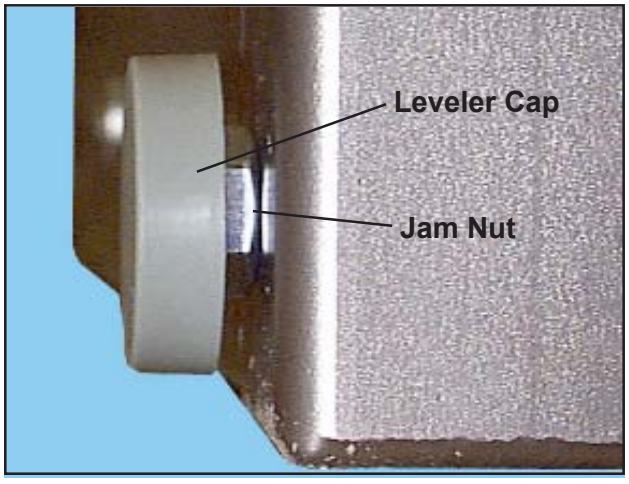

Figure 12. Leg leveler in a Skid Bolt Hole

1. Screw two jam nuts from the parts bag (Figure 1) onto two leg levelers as far as possible.

2. Press two leveler caps onto the leg levelers.

3. Screw the two leg levelers all the way into the pallet bolt holes (Figure 12).

4. Move the table to its intended location and raise it to its normal upright position.

5. Unwrap the foot controller and place it in a convenient location where there is no danger of the cable being caught under the table.

Preparing the Hydraulic Power Pack

1. Open the carton and remove the hydraulic power pack.

2. With a 7/16-in. hex key (Allen wrench), unscrew the transport plug (Figure 5) on top the oil reservoir.
   Note: DO NOT discard or misplace the transport plug. You will need it if the table is ever shipped to a new location. Store the transport plug in a safe place.

Note: Make sure the table is in the down position.

3. Screw the breather plug (Figure 1) *finger-tight* into the hole from which the transport plug was removed. DO NOT use a tool to tighten the plug.

4. Press the black plastic cap (Figure 1) into the access hole.

Mounting the Top - Electronic Scale ONLY

Refer to *Page 23, Steps 1* through *15*. **Note:** Most of the electronic scale mounting must be done at this time. These procedures require access to the rear of the table and are easier to perform before the table is mounted to the wall.

DO NOT mount an exam top at this time. This procedure is more easily done toward the end of the installation.

Preparing the Wall

1. Locate the two studs in the wall (or the 2 x 6's installed earlier, if used) to which the table will be mounted. On other than stud and wallboard walls, decide exactly where the table will be mounted.

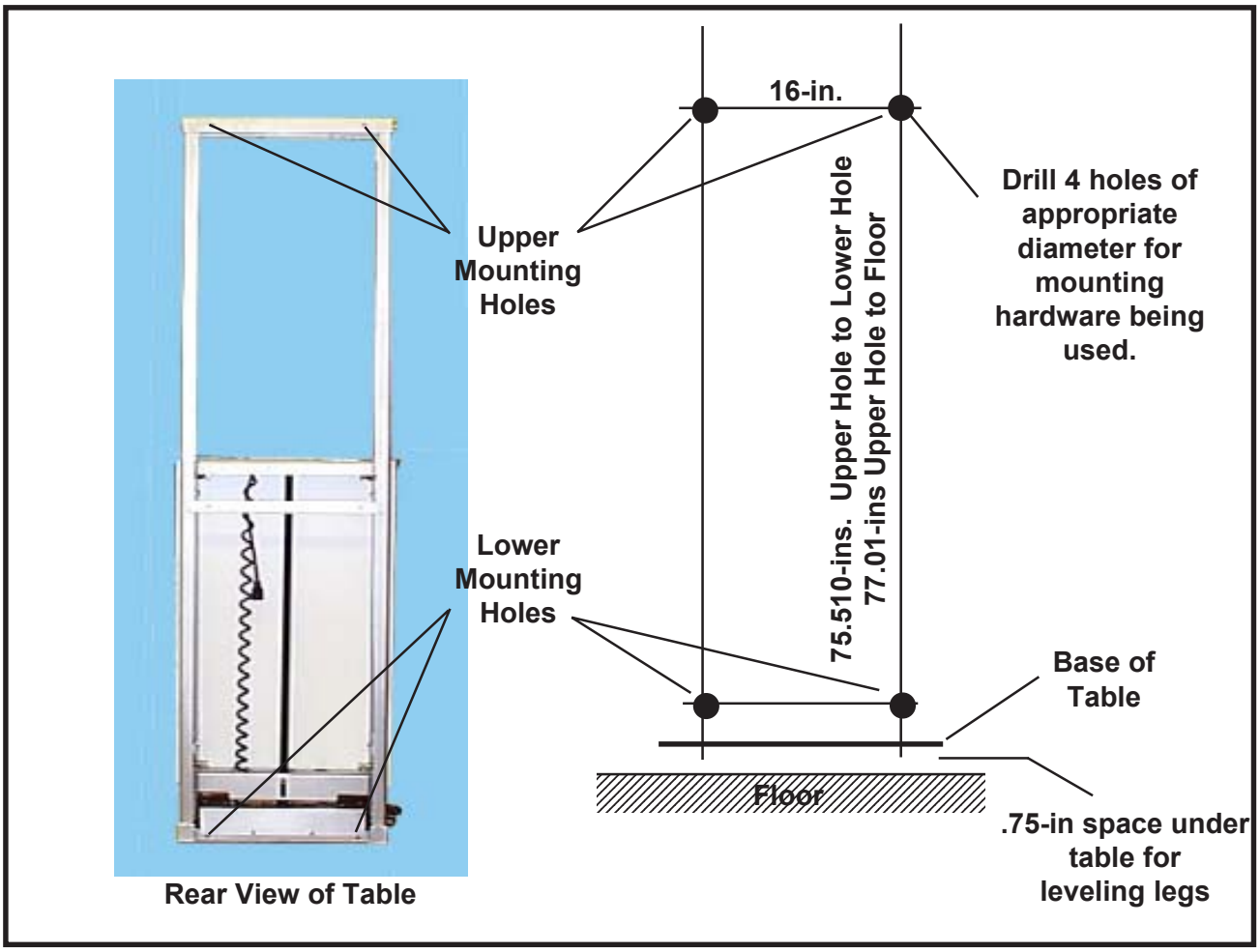

Figure 13. Wall-Mount Holes and Dimensions

2. Remove any molding at the base of the wall that might interfere with mounting the table flush to the wall.

3. Refer to Figure 13 and drill the four mounting holes suitable for the type of fastener you will be using.

4. Carefully examine the wall to make sure it is flat and plumb so that the table vertical tracks will be perfectly parallel. If the wall is bowed and/or out of plumb, you will have to use shims behind the table mounting points to correct the mis-alignment.

Mounting and Leveling the Table

Note: It is very important to properly level the lift table. If the table is not level, the vertical tracks will be out of alignment. This can cause a wide variety of problems including excessive wear, rough movement, and noisy operation.

Note: Level the table ONLY at the location where it will be used. Due to differing floor conditions, leveling procedures carried out elsewhere may be totally invalid at the new location. If the table is ever moved to another location, the levelling procedure must be redone.

1. Mount the lift table to the wall with fasteners suitable for the type of wall, but leave the fasteners slightly loose.
   Note: If the wall is bowed or out of plumb, shim the mounting points as necessary to ensure that the table vertical tracks are parallel.

2. Plug in the electric power cord.

3. Press the **UP** side of the foot controller and attempt to raise the table to its full height.
   - If the table rises smoothly and quietly, proceed to *Step 7* and level the table.
   - If the table binds or makes a lot of noise, the vertical tracks are probably out of parallel - continue on to *Step 4*.

4. Remove the upper right mounting bolt to free that corner of the table from the wall.

5. Try to move the table up and down again.
   - If the table moves smoothly and quietly, remount the upper right mounting bolt with shims to maintain the existing space from the wall. Try raising and lowering the table again. If moves smoothly and quietly, proceed to *Step 7* and level the table.
   - If the table still binds, replace the upper right mounting bolt, then remove the upper left mounting bolt.

6. Try to move the table up and down again.
   - If the table moves smoothly and quietly, remount the upper left mounting bolt with shims to maintain the existing space from the wall. Try raising and lowering the table again. If moves smoothly and quietly, proceed to *Step 7* and level the table.
   - If the table still binds, replace the upper left mounting bolt. Examine the table wall carefully and try to determine why the vertical tracks are out of parallel, and remedy the condition. Then proceed to *Step 7* and level the table.

7. Make sure that all wall fasteners are slightly loose.

8. Press the **UP** side of the foot controller and raise the table about half-way.

9. Unscrew the leg levelers until they firmly touch the floor.

10. Place a carpenter's level *across* the table arms (Figure 8).

11. Turn the leg levelers as necessary to level the table, right-to-left.

12. When the table is level (and both legs firmly touch the floor) hold each leg leveler steady and with a 9/16-in. open-end wrench, tighten the jam nut firmly up against the bottom of the table.

13. Re-check the level and re-adjust as necessary.

14. Tighten all four wall fasteners.

Adjusting the Table Movement

The speed of the table's up and down motion is controlled by two flow control valves in the hydraulic system. Following the steps below, adjust the table's movement to a comfortable rate. Remember that too-rapid motion may frighten an animal riding on the lift table.

1. Press on the **UP** side of the foot controller and observe the table's upward motion. Adjust the **UP** valve on the power pack (Figure 6) until the table raises at a comfortable speed. Rotate the valve:
   - clockwise to reduce speed
   - counter-clockwise to increase speed

2. Raise the table to its maximum height. **Note:** You cannot reach the **DOWN** valve when the table is in its lowest position.

CAUTION: **Do not let the table lower onto your hand while you adjust the DOWN valve.**

3. Press on the **DN** side of the foot controller and observe the table's downward motion. Adjust the **DOWN** valve next to the operating cylinder (Figure 7) until the table lowers at a comfortable speed. Rotate the valve:
   - clockwise to reduce speed
   - counter-clockwise to increase speed

4 Position the power pack against the wall near the lift table. Maintain a space between the power pack and the table to prevent vibration transference. Place a small piece of carpet or other vibration absorbing material under the power pack. DO NOT place the power pack directly under the table's sliding carriage.

Mounting the Top

Exam top: Refer to *Exam Top* on *Page 22*
Electronic Scale: Refer to *Electronic Scale, Steps 16* through *18* on *Page 26*.

Installation of Table Top

This section provides procedures for the initial installation of a new top on a lift table. The two types of tops are:

Top	SSCI Part Number	
Exam Top	202344	
Electronic Scale	**Former P/N**	**New P/N**
	209934-0	12450-00-GZAHDH
	209934-0-PT	12451-00-GZAHDH
	209934-1-PT	12451-01-GZAHDH

Table 1. Lift Table Top Part Numbers

Installation Procedures

For table top installation procedures, refer to the pages listed below:

- Exam Top - *Page 22*
- Electronic Scale - *Page 23*

Caution: **The table top is heavy. Lifting it on or off the unit should be done by at least two people.**

Exam Top

Tools Required

- 1/2-in. wrench

Procedure

1. With a 1/2-in. wrench, remove the nuts and washers from the mounting studs under the exam top (Figure 14).

2. Place the exam top on the unit so that the mounting studs under the top enter the matching holes on the unit frame (Figures 14, 15, and 16).

3. Secure the exam top to the frame with the four nuts and washers.

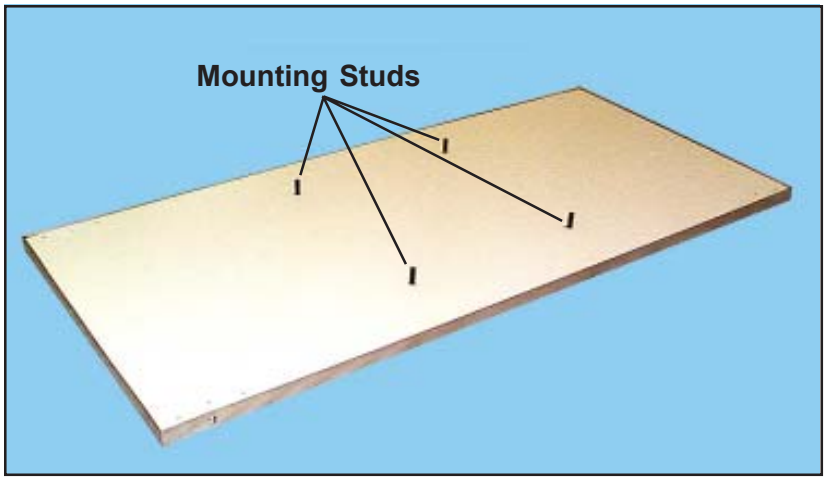

Figure 14. Underside of Exam Top Showing Studs

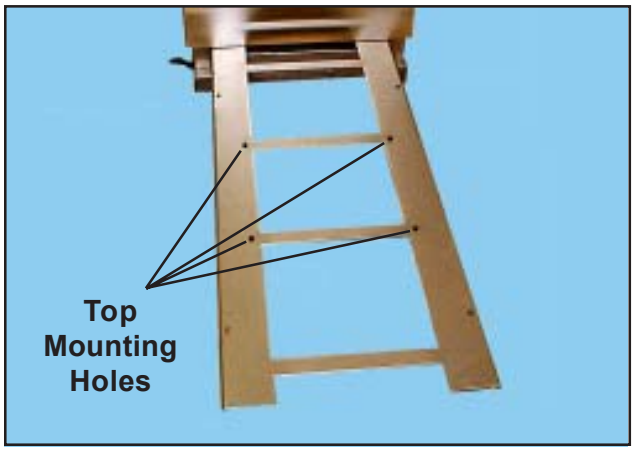

Figure 15. Longitudinal Exam Top Mounting Holes

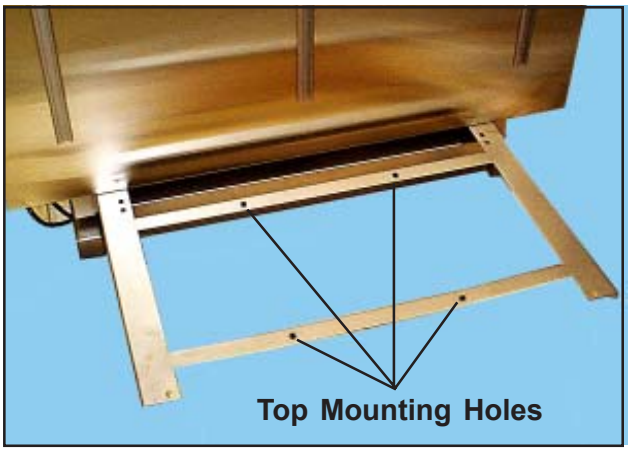

Figure 16. Lateral Exam Top Mounting Holes

Electronic Scale

Tools and Supplies Required

- 3/8-in. open-end wrench
- Phillips screwdriver
- Electrical tape

Procedure

1. With a Phillips screwdriver and a 3/8-in. wrench, mount the display mounting plate to the top cross member of the sliding carriage with two 10-24 x .5-in. screws and locknuts (Figure 17).

2. With a Phillips screwdriver and a 3/8-in. wrench, mount the console bracket to the mounting plate with two 10-24 x .5-in. screws and locknuts (Figure 18).

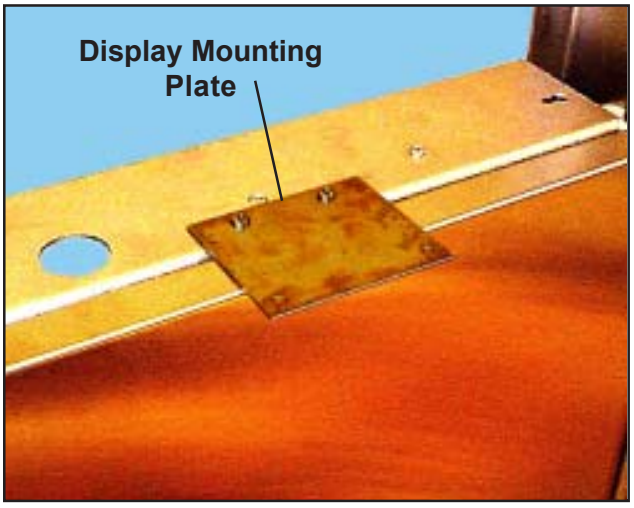

Figure 17. Mounting Plate on Sliding Carriage Cross Member

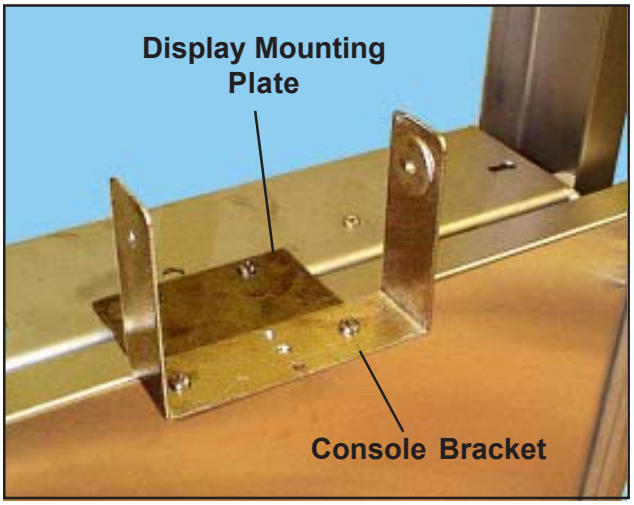

Figure 18. Mounting the Console Bracket on the Mounting Plate

3. Mount the display console to the console bracket with two plastic knobs (Figure 19).

4. Unwrap the display console cable from the hooks under the scale platform (Figure 20).

5. Place the electronic scale platform on the unit so that the load cells under the scale line up with the mounting holes on the unit frame (Figures 20, 21, and 22). Make sure that all four load cells rest on the frame arms and that the scale is stable and does not rock. **Note:** The display cable should exit to the rear to facilitate routing to the display console.

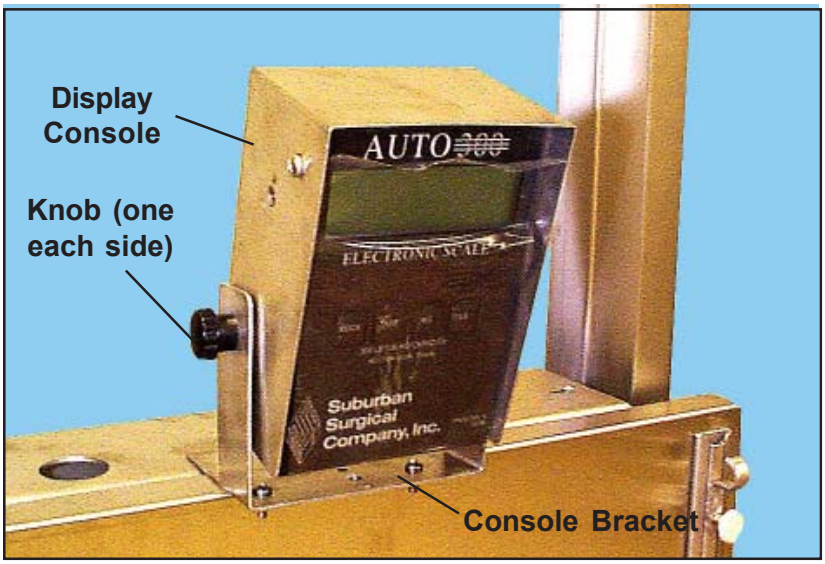

Figure 19. Mounting the Display to the Bracket

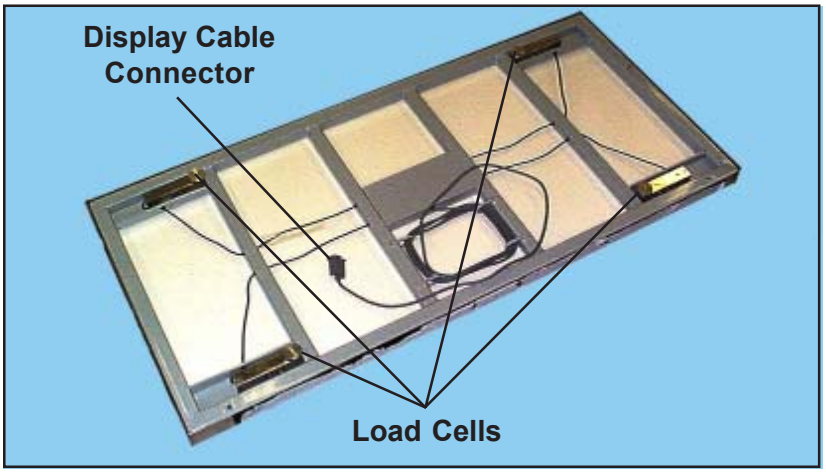

Figure 20. Underside of Electronic Scale Platform Showing Load Cells and Display Cable Connector

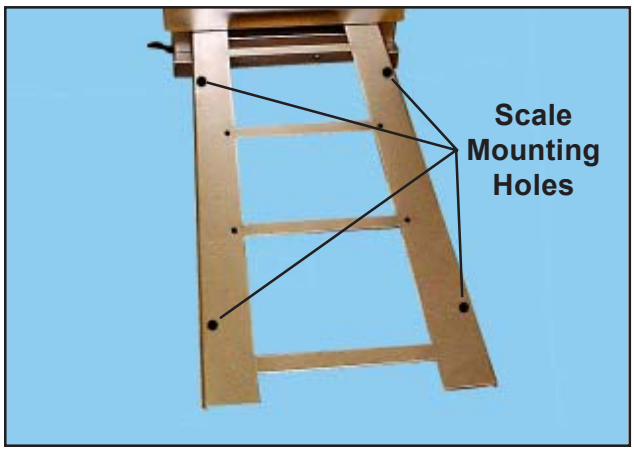

Figure 21. Longitudinal Electronic Scale Mounting Holes

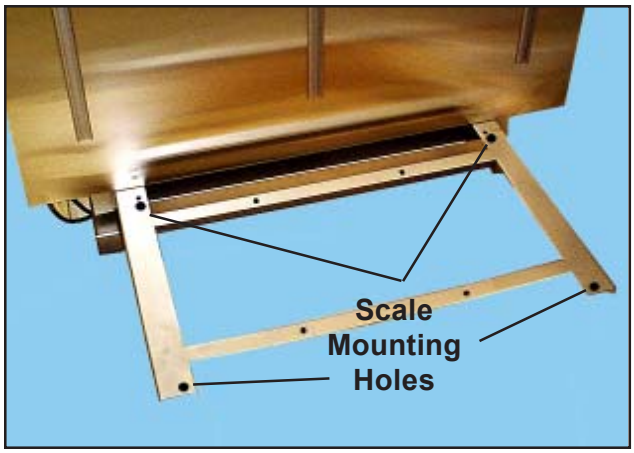

Figure 22. Lateral Electronic Scale Mounting Holes

6. Secure the scale to the frame with four 1/4-20 x 5/8-in. screws and flat washers. **Note:** Fasten the screws finger-tight only.

7. Thread the display cable up through the large holes in the cross members of the sliding carriage.

8. Loosen the knobs and tilt the display console forward to access the connectors on the bottom.

9. Plug the display cable 9-pin male connector into the female terminal on the display console (Figure 23), and secure the connector with the two locking screws.

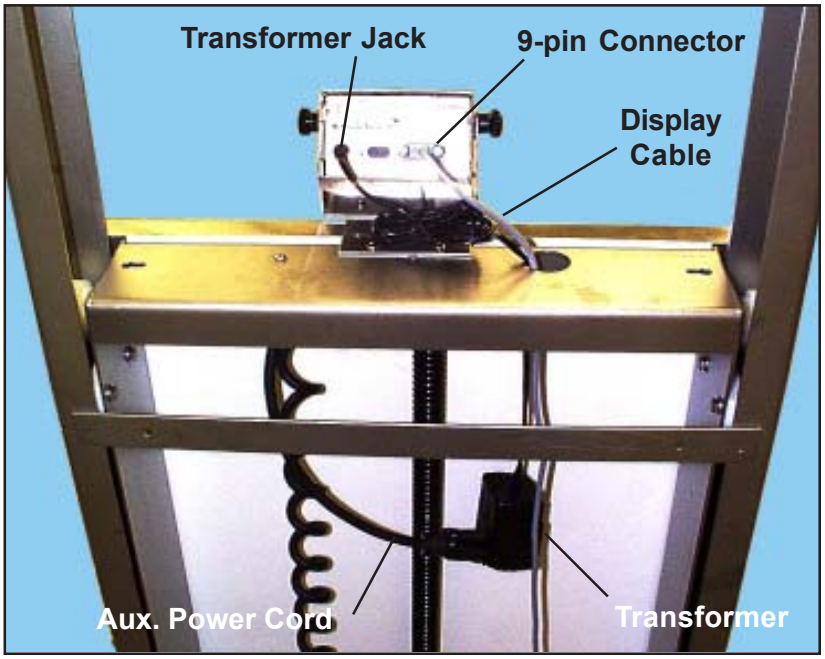

Figure 23. Transformer and Display Cable Connection

10. Plug the transformer into the auxiliary power cord hanging in the rear of the lift table. Wrap the connection securely with electrical tape. **Note:** If this connection comes loose after the table is mounted to the wall, the entire table must be removed from the wall just to plug the cord back into the transformer.

11. Route the transformer wire through the large hole in the upper cross member of the sliding carriage.

12. Plug the transformer jack into the matching port on the display console.

13. Coil up and bind any loose transformer wire into a neat bundle.

14. Return the display console to a comfortable viewing angle, and tighten the knobs.

15. If desired, mount one or more of the self-adhesive plastic cable clamps to the rear of the table back panel to secure the display cable.

16. Re-wrap any excess display cable back onto the storage hooks under the scale platform.

17. If desired, place the vinyl mat on the scale platform.

18. Peel the protective covering from the face of the display console.

Disposition of the Shipping Carton

The shipping carton can be cut up and thrown away. It is large and bulky and takes up considerable space. If adequate space is available, however, it might be handy to retain the carton and pallet in case reshipment of the lift table to the manufacturer becomes necessary for repairs.

Chapter 3 - Operating & Cleaning

Introduction

Operating and maintaining the Regal Lift Table is very simple. The following instructions cover:

- Raising and Lowering the Table - Below
- Adjusting Speed of Table Movement - *Page 28*
- Using the Restraint System - *Page 29*

The only routine maintenance requirement of the Regal Lift Tables is regular cleaning. Refer to *Cleaning the Lift Table* on *Page 30* for detailed instructions.

Operating the Lift Table

Raising and Lowering the Table

A two-position foot controller controls the up and down movement of the table (Figure 24).

- To raise the table, press the **UP** side of the foot controller.
- To lower the table, press the **DN** side of the foot controller.

Hold the pedal down until the table has reached the desired height, then release the pedal.

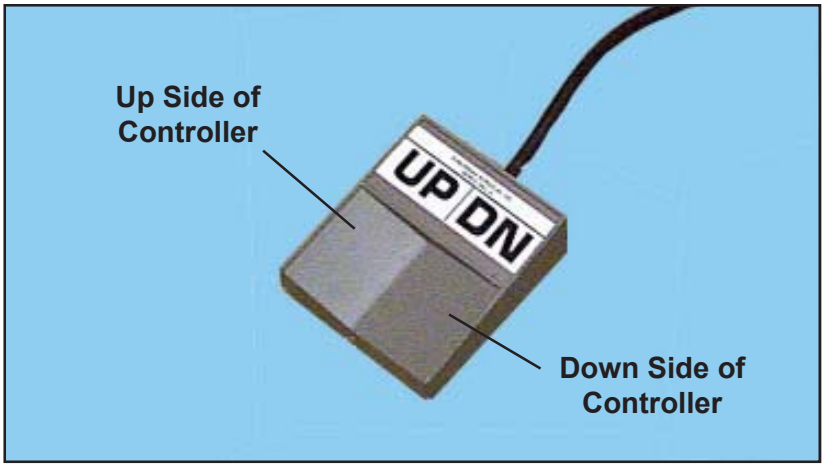

Figure 24. Foot Controller

Adjusting Speed of Table Movement

The speed of the table's up and down motion is controlled by two flow control valves in the hydraulic system. Follow the steps below to adjust the table's movement to a comfortable rate. Remember that a too-rapid motion may frighten an animal riding on the lift table.

Adjusting the Table's Upward Motion

To adjust the speed of the table's upward motion:

1. Make sure the electrical power cord is plugged in.
2. Locate the **UP** valve on the hydraulic power pack (Figure 25).
3. Press on the **UP** side of the foot controller and observe the table's motion.
4. Adjust the **UP** valve until the table rises at a comfortable speed. Rotate the valve:
   - clockwise to reduce speed
   - counter-clockwise to increase speed.

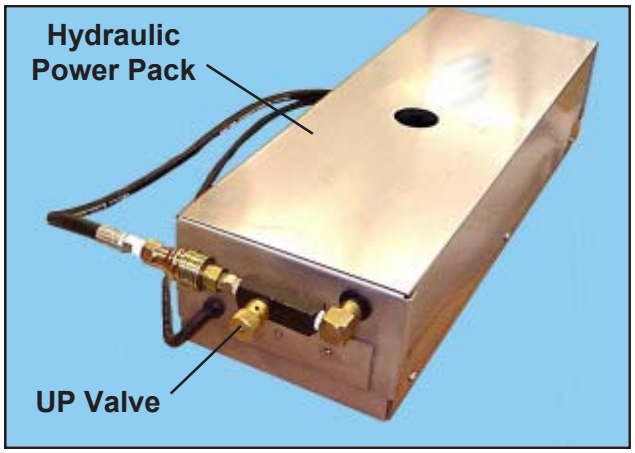

Figure 25. UP Valve

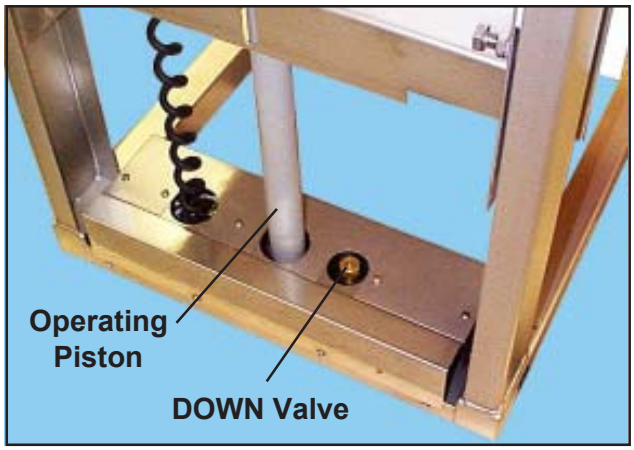

Figure 26. DOWN Valve

Adjusting the Table's Downward Motion

To adjust the speed of the table's downward motion:

1. Make sure the electrical power cord is plugged in.
2. Raise the table to its maximum height. **Note:** You cannot reach the **DOWN** valve when the table is in its lowest position.

3. Locate the **DOWN** valve next to the operating piston (Figure 26).

4. Press on the **DN** side of the foot controller and observe the table's motion.

CAUTION: **Do not let the table lower onto your hand while you adjust the down valve.**

5. Adjust the **DOWN** valve until the table lowers at a comfortable speed. Rotate the valve:
   - clockwise to reduce speed
   - counter-clockwise to increase speed.

Using the Restraint System

Upper and lower tie-downs are located on each side of the table (Figure 27) and provide a means of restraining a reluctant or frightened animal. On lateral models, a third tie-down is provided in the center.

Below the upper tie-down is a white knob. Loosening this knob allows a vertical slide, which holds the two tie-downs, to move up and down. After moving the vertical slide to a convenient height, tighten the knob to hold the slide firmly in place.

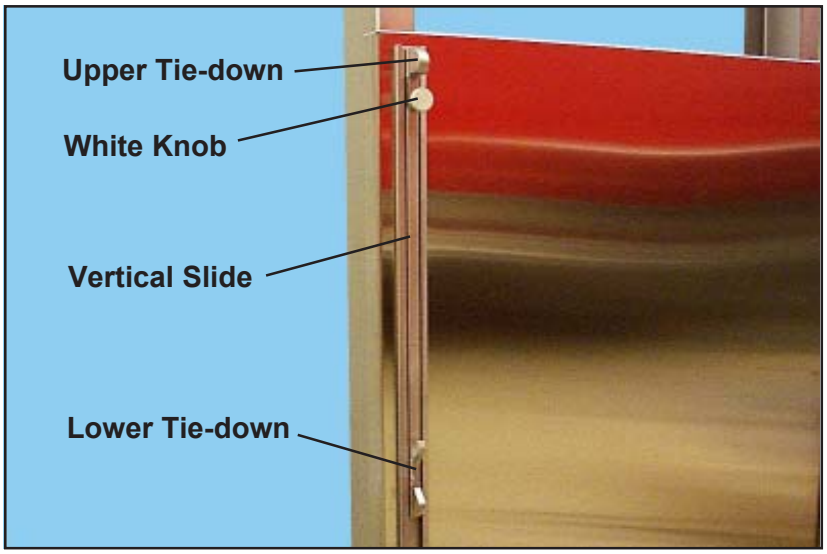

Figure 27. Restraint System Components

Cleaning the Lift Table

Introduction

You will no doubt want to clean your Regal Lift Table whenever it becomes dirty or saturated with waste fluids. Maintaining high standards of sanitation will be an important priority for your facility.

Cleaning Procedures

Whenever necessary, rinse the table with clear water and dry thoroughly with clean, soft cloths.

Ordinary deposits of waste and fluids can usually be removed with soap and water. Stubborn deposits may require scrubbing with "stainless steel" wool, nylon or plastic scrubbers and/or the use of commercial cleaning products. Always scrub in the direction of the "grain" of the metal. Rinse with clear water and dry thoroughly with clean, soft cloths.

Minor scale build-up and some hard water spotting may be removed by washing with vinegar, followed by a neutralizing rinse with clear water and a thorough drying with clean, soft cloths.

For heavy deposits of scale, 5% oxalic acid (use warm), 5-15% sulfamic acid, or 5-10% phosphoric acid may be used. As always, rinse with clear water and dry thoroughly with clean, soft cloths.

Avoid prolonged use of chlorides (such as chlorine bleach), bromides, iodides and thiocyanates. Never allow salty solutions to dry on the stainless steel. **Note:** NEVER power-wash the lift table.

CAUTION: **Failure to follow the above cleaning instructions can void your warrantee.**

Chapter 4 - Repairs & Replacements

Replacement Parts

Refer to Table 2 below for replacement parts for the Regal Lift Table. For parts not listed, contact SSCI Customer Service. Refer to *Contact Information* on *Page 7*, and *Parts Ordering Procedure* on *Page 32*.

Part Name	SSCI Part Number	Replacement Instructions
Hydraulic Cylinder	854400	*Page 33*
DOWN Flow Control Valve	853519	*Page 40*
Hydraulic Hose	853520	*Page 42*
UP Flow Control Valve	853519	*Page 44*
Power Cord (Power Pack)	213417	*Page 46*
Solenoid Valve	854605	*Page 50*
Hydraulic Power Pack	212193	*Page 54*
Foot Controller	212192	*Page 56*
Electric Power Cord (Table)	212194	*Page 58*
Auxiliary Power Cord	213421	*Page 60*

Table 2. Replacement Parts Available for Regal Lift Tables

General

- Many threaded fasteners used on the lift table are secured with thread adhesive to insure structural integrity. Removing any screw or bolt may be difficult at first.
- If during dis-assembly you remove any tape, cable ties, etc., remember to replace them when the installation is complete.
- During dis-assembly, retain all hardware items such as screws, nuts, lockwashers, etc. for re-assembly.
- If you have problems with any procedure, please feel free to call SSCI Customer Service

Parts Ordering Procedure

Order new equipment, accessories and/or replacement parts from your local dealer, or directly through SSCI Customer Service. You can order by mail, telephone, or fax. Refer to *SSCI Contact Information* on *Page 7* for address, telephone, and fax numbers.

For more information on SSCI's fine line of products and accessories, talk to your SSCI sales representative. Find replacement part descriptions and numbers on *Page 31*.

When ordering, please provide the following:

- Your name
- Company name
- Company account number
- Your telephone number
- Shipping address
- Billing address (if different from shipping address)
- Names, part numbers and quantities of items being ordered
- Credit card number and expiration date, or other payment information
- Preferred method of shipment
- Information on whether the items are required on a normal or urgent basis

Safety and Environmental Concerns

Disposal of Hydraulic Fluid

CAUTION: **Hydraulic fluid, and paper towels or rags soaked with hydraulic fluid, present potential environmental threats. Dispose of them *only* in accordance with local rules and regulations.**

Slipping Hazard

CAUTION: **Hydraulic fluid is very slippery and can create a substantial slipping hazard if spilled on the floor. Spilled fluid should be cleaned up at once to prevent injuries.**

Procedures

These instructions are for both lateral and longitudinal model lift tables.

Hydraulic Cylinder P/N 854400

Tools and Supplies Required

- Two 9/16-in. wrenches
- 5/8-in. open-end wrench
- 5/16-in. hex key (Allen wrench)
- 3/16-in. hex key (Allen wrench)
- Phillips screwdriver
- Teflon®* thread sealing tape
- Tape (electrical, fibre, duct or equivalent)
- Two 2x4s, 33.5-in. long
- Paper towels or shop rags

* Teflon is a registered trademark of E.I. du Pont de Nemours and Company

Removal

1. Raise the table as high as it will go.

2. Unplug the electric power cord.

3. If the table is wall-mounted, remove it from the wall to gain access to the hydraulic cylinder.

CAUTION: **In the next four steps you will remove the front and rear shields and expose electrical components in the bottom tray. Use caution around the electrical wiring and components to prevent injury to yourself and/or damage to the equipment.**

4. With a Phillips screwdriver, slightly loosen the two front screws, and remove the five top screws on the front shield (Figure 28).

5. Lift off the front shield.

6. With a Phillips screwdriver, loosen the two screws on the rear shield (Figure 29).

7. Lift off the rear shield.

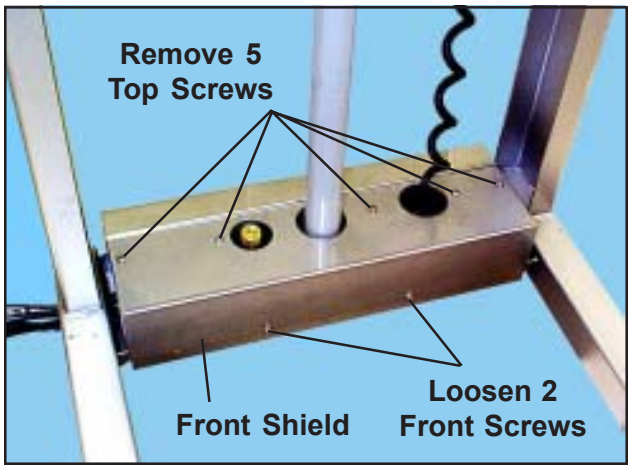

Figure 28. Removing the Front Shield

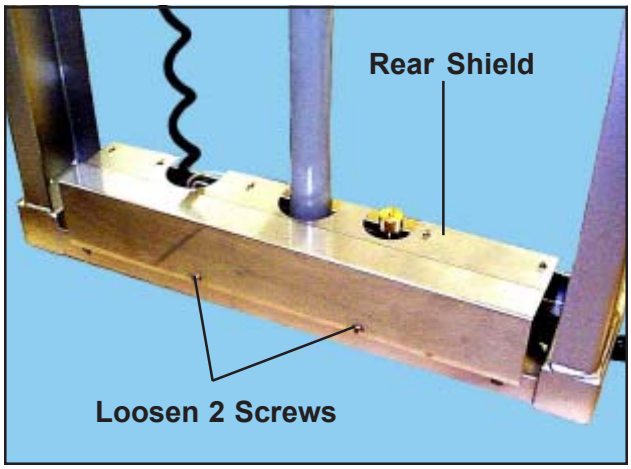

Figure 29. Removing the Rear Shield

WARNING: **The hydraulic cylinder holds the table in the raised position. If the cylinder is removed, or if the hydraulic circuit opened while the table is raised, the table top can fall suddenly with considerable force. A high potential exists for injury to you or damage to the equipment. Brace the table securely, as instructed below in *Step 8*, before removing the cylinder.**

8. Tightly tape two 33.5-in. long 2x4s to the insides of the table legs. Each 2x4 should fit between the ledge at the base of the leg and the bottom of the carriage frame. (Figures 30 and 31). Use any kind of tape as long as it holds the 2x4s firmly in place (electrical tape, fibre tape, duct tape, etc.). **Note:** Do not place the lower ends of the 2x4s in the bottom tray as they can damage internal components or wiring.

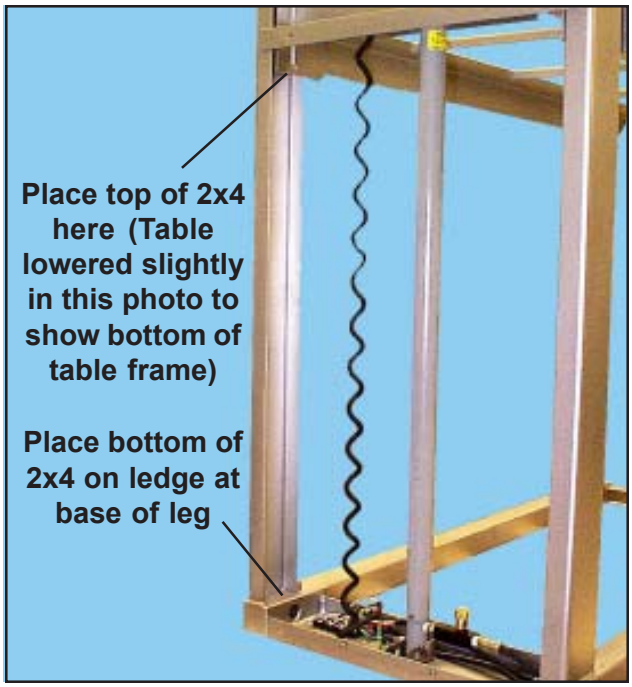

Figure 30. Position of 2x4 on Table

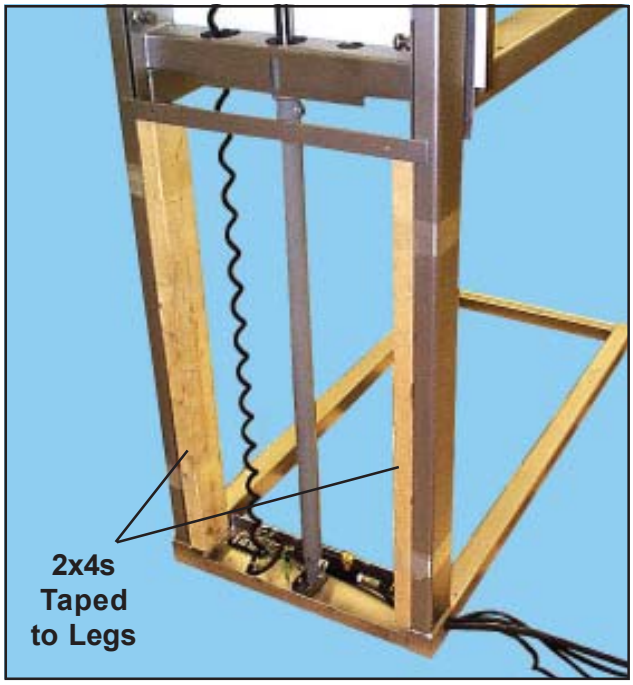

Figure 31. 2x4s in Place

9. Plug in the electric power cord.

10. Lower the table until it rests on the 2x4s.

11. With a 5/16-in. hex key (Allen wrench) remove the top cylinder mounting bolt from the upper carriage frame (Figure 32).

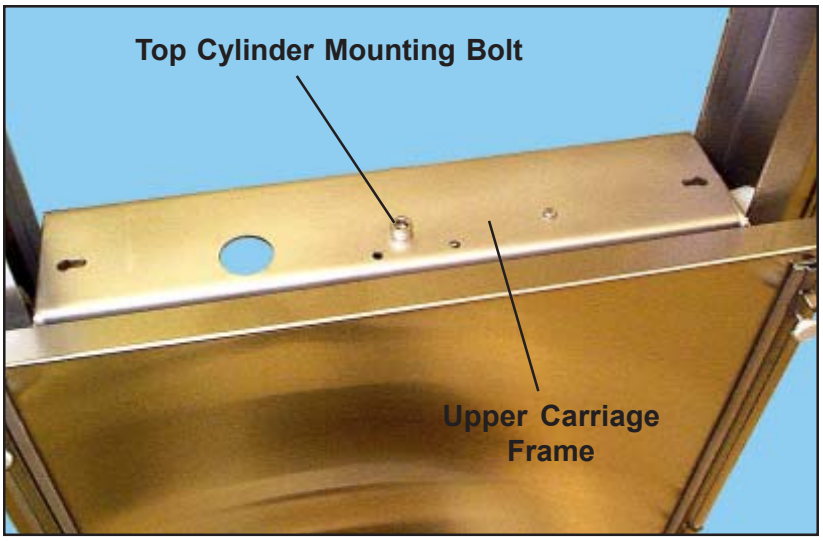

Figure 32. Top Cylinder Mounting Bolt

12. Press on the **DN** side of the foot controller and retract the hydraulic cylinder as far as it will go.

13. Unplug the electric power cord.

14. Pack paper towels or shop rags under the **DOWN** valve (Figure 33) connection to catch any spillage.

15. With a 5/8-in. open-end wrench, unscrew the **DOWN** valve connector from the hydraulic cylinder.

16. With two 9/16-in. wrenches, remove the lower cylinder mounting bolt and nut.

17. Remove the cylinder from the bracket.

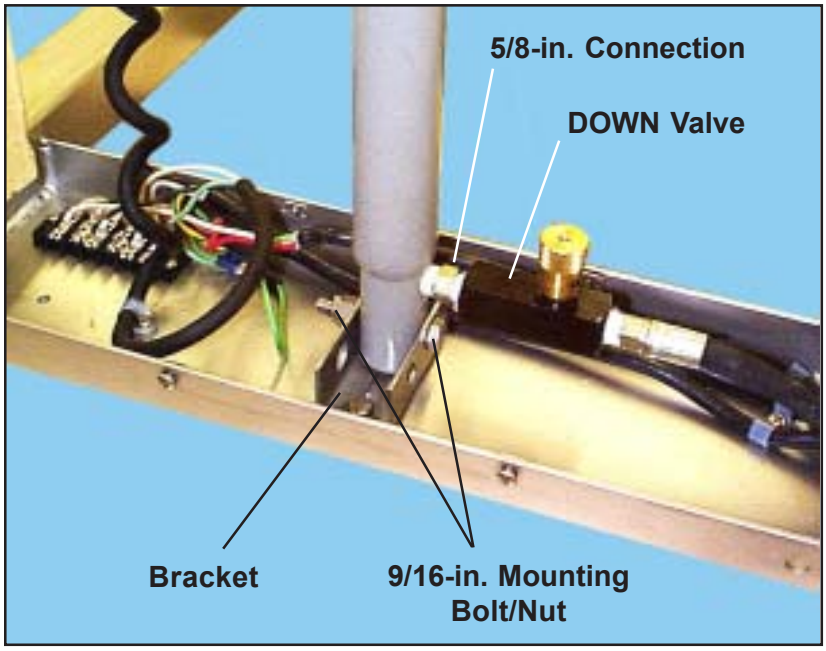

Figure 33. Lower End of Cylinder

Installation

1. Secure the lower end of the new hydraulic cylinder to the bracket with the 9/16-in. mounting bolt/nut (Figure 33). **Note:** Make sure the connection port for the **DOWN** valve is on the correct side.

2. Clean off any traces of the sealant tape on the **DOWN** valve connector threads.

3. Wrap the **DOWN** valve connector threads with Teflon thread sealing tape.

4. Connect the **DOWN** valve connector to the hydraulic cylinder (Figure 33).

5. With a 3/16-in. hex key (Allen wrench), remove the hex nut from the bleed port (Figure 24).

6. Plug in the electric power cord.

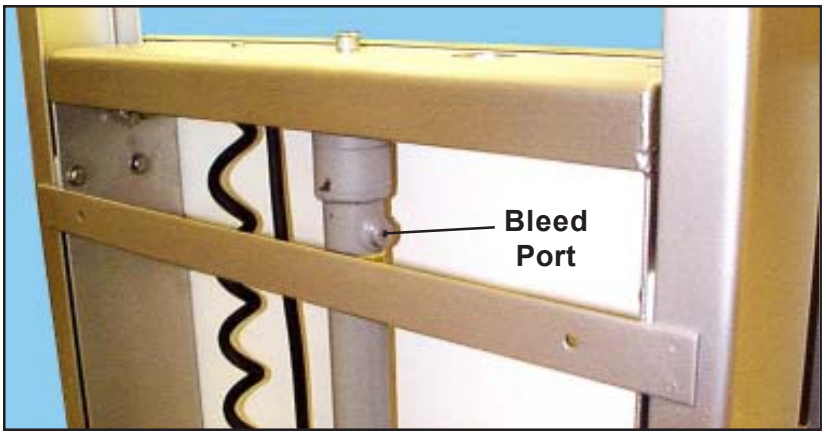

Figure 34. Bleed Port

CAUTION: **The hydraulic fluid in the cylinder is under pressure and will squirt out when the foot controller pedal is depressed. Keep your eyes and face out of line with the bleed port. Hold paper towels or shop rags over the port while bleeding the cylinder.**

7. Hold paper towels or shop rags over the bleed port to catch leaking hydraulic fluid. Continue to hold the towels or rags in place until *Step 10*.

8. Press on the **UP** side of the foot controller to extend the hydraulic cylinder to its full height. One complete stroke should be sufficient to expel any air that might be trapped in the cylinder.

9. Replace the hex nut into the bleed port and tighten.

10. Remove the paper towels or rags and clean up any spillage.

11. Unplug the electric power cord.

12. Connect the top of the cylinder to the upper carriage frame with the top cylinder mounting bolt (Figure 32).

13. Plug in the electric power cord.

14. Raise the table slightly to remove the pressure on the 2x4s.

15. Untape and remove the two 2x4s.

16. Test the table by pressing the foot controller pedal. The table should respond appropriately. If not, re-check your work and correct any problems.

17. Examine your new connections carefully for leaks and fix any you find.

18. With a Phillips screwdriver, remove the six screws that hold the power pack cover in place (Figure 35).

19. Lift off the power pack cover.

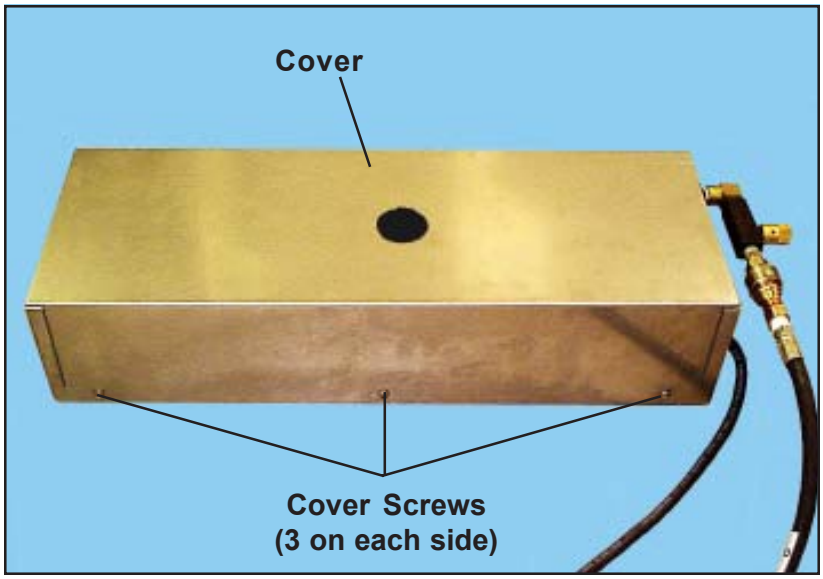

Figure 35. Hydraulic Power Pack

20. Raise and lower the table two or three times to circulate hydraulic fluid through the system.

21. Check the fluid level at the fill line on the reservoir in the power pack (Figure 36).

22. If necessary, add fluid to the reservoir. Perform the procedure under *Refilling the Hydraulic Power Pack with Fluid* on *Page 63*.

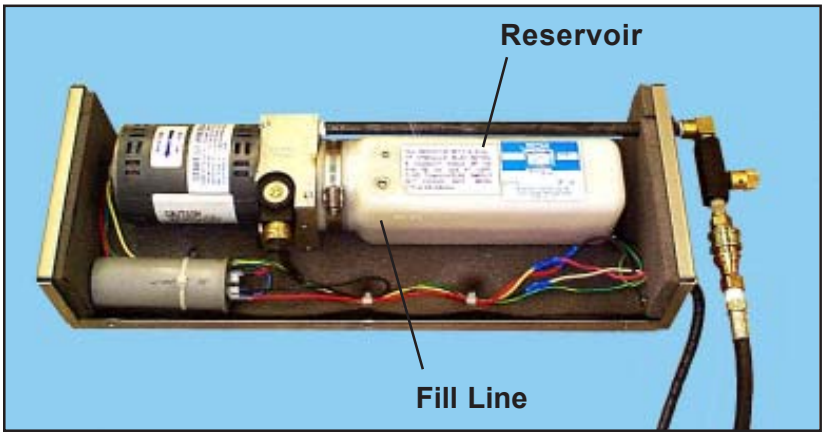

Figure 36. Power Pack Reservoir and Fill Line

23. Raise and lower the table again and observe the movement. If the movement is jerky and uneven, you probably have air in the hydraulic system. Perform the procedures under *Bleeding the Hydraulic System* on *Page 66.*

24. Unplug the electric power cord.

25. Replace the power pack cover (Figure 37). **Note:** The cover fits *inside* the corner flanges, but *outside* the bottom flanges.

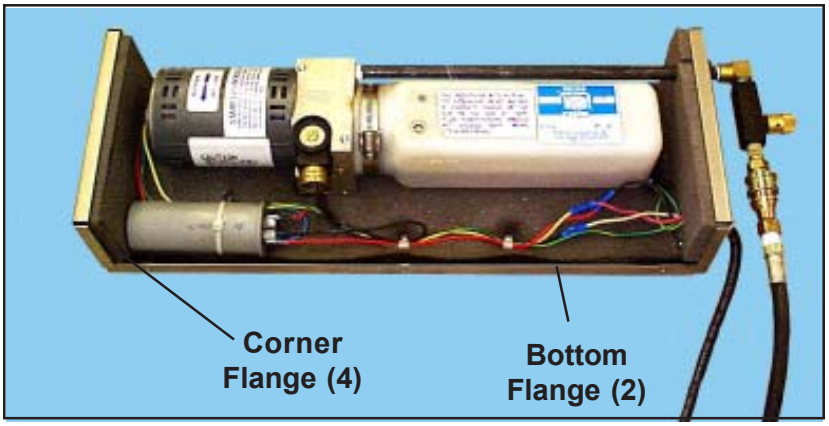

Figure 37. Cover Mounting Flanges

26. Secure the cover with the six screws.

27. Replace the rear shield and tighten the two screws (Figure 29).

28. Replace the front shield, tighten the two front screws and replace the five top screws (Figure 28).

29. If the table is wall-mounted, replace it on the wall.

DOWN Flow Control Valve P/N 853519

Tools and Supplies Required

- 9/16-in. open-end wrench
- 5/8-in. open-end wrench
- Phillips screwdriver
- Teflon thread sealing tape
- Tape (electrical, fibre, duct, or equivalent)
- Two 2x4s, 33.5-in. long
- Paper towels or shop rags

Removal

1. To reach the **DOWN** valve, follow the instructions under *Hydraulic Cylinder - Removal - Steps 1* through *10*, starting on *Page 33*.

WARNING: **Be sure to brace the table with 2x4s as instructed in *Step 8* on *Page 34*. Although you will not be removing the hydraulic cylinder, you will be disconnecting the hydraulic line to the cylinder and, therefore, removing hydraulic pressure. The cylinder may not be able to hold the table up.**

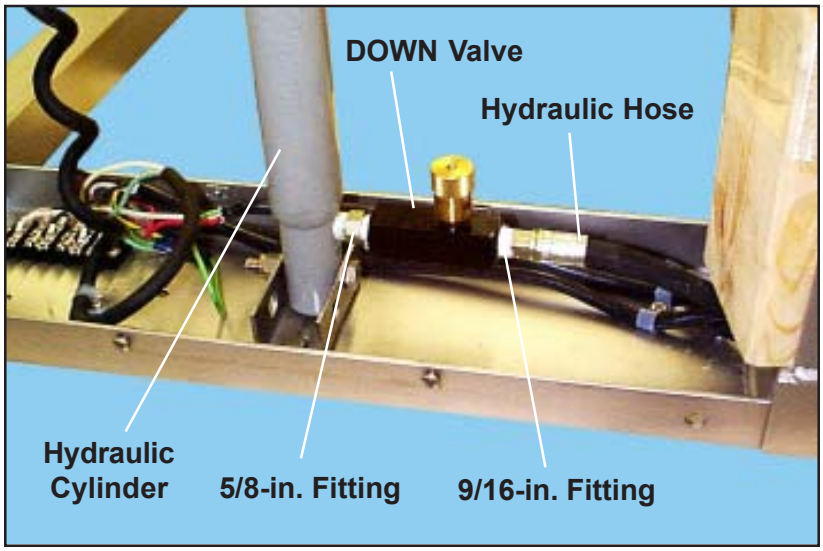

Figure 38. DOWN Valve Connections

2. Unplug the electric power cord.

3. Pack paper towels or shop rags under the **DOWN** valve (Figure 38) connections to catch any spillage.

4. With a 9/16-in. open-end wrench, unscrew the fitting to the hydraulic hose.

5. With a 5/8-in. open-end wrench, unscrew the **DOWN** valve fitting to the hydraulic cylinder.

6. Remove the **DOWN** valve from the unit.

Installation

1. Orient the new **DOWN** valve in the tray as shown in Figure 38. **Note:** The brass regulator knob is not centered on the valve body. The valve should be oriented so that the *short* end of the black valve body is toward the hydraulic hose.

2. Clean off any traces of the old sealant tape in the hydraulic hose and cylinder fittings.

3. Wrap the 5/8-in. cylinder fitting threads with Teflon thread sealing tape.

4. Connect the new valve to the hydraulic cylinder with the 5/8-in. fitting.

5. Wrap the 9/16-in. hose fitting threads with Teflon thread sealing tape.

6. Connect the hydraulic hose to the new valve with 9/16-in. fitting.

7. Remove the paper towels or rags and clean up any spillage.

8. Finish the installation. Refer to *Hydraulic Cylinder - Installation, Steps 13* through *29*, starting on *Page 38*.

Hydraulic Hose P/N 853520

Tools and Supplies Required

- 9/16-in. open-end wrench
- Phillips screwdriver
- Teflon thread sealing tape
- Tape (electrical, fibre, duct, or equivalent)
- Two 2x4s, 33.5-in. long
- Paper towels or shop rags

Removal

1. To reach the hydraulic connection at the **DOWN** valve, follow the instructions under *Hydraulic Cylinder - Removal - Steps 1* through *10*, starting on *Page 33*.

WARNING: **Be sure to brace the table with 2x4s as instructed in *Step 8* on *Page 34*. Although you will not be removing the hydraulic cylinder, you will be disconnecting the hydraulic line to the cylinder and, therefore, removing hydraulic pressure. The cylinder may not be able to hold the table up.**

2. Unplug the electric power cord.

3. Pack paper towels or shop rags under the **DOWN** valve (Figure 38) connection to catch any spillage.

4. With a 9/16-in. open-end wrench, unscrew the fitting to the hydraulic hose.

5. Pull the hydraulic hose out of the unit.

6. At the power pack, dis-connect the hydraulic hose quick-disconnect fitting (Figure 39). **Note:** Pull the large ring away from the valve and the fitting will come free.

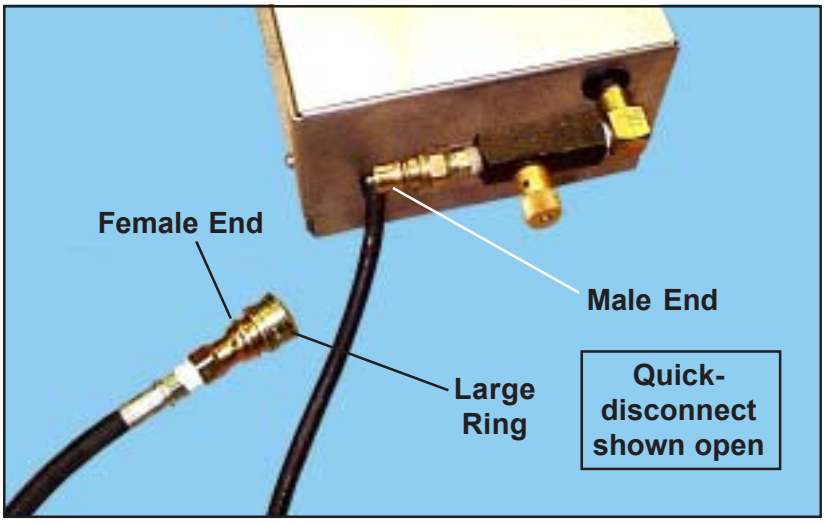

Figure 39. Quick-disconnect to Power Pack

Installation

1. Slide the small end of the new hydraulic hose through the access hole in the frame and into the bottom tray. Be careful, it's a tight fit!

2. Clean off any traces of the old sealant tape in the **DOWN** valve fitting.

3. Wrap the threads with Teflon thread sealing tape.

4. Connect the new hydraulic hose to the **DOWN** valve with the 9/16-in. fitting (Figure 38).

5. Remove the paper towels or rags and clean up any spillage.

6. At the power pack, attach the new hydraulic hose to the quick-disconnect fitting. **Note:** Hold back the large ring and push the female end onto the male end. Test the connection by pulling on the hydraulic hose.

7. Finish the installation. Refer to *Hydraulic Cylinder - Installation, Steps 13* through *29*, starting on *Page 38*.

UP Flow Control Valve P/N 853519

Tools and Supplies Required

- 9/16-in. open-end wrench
- 13/16-in. open-end wrench
- Teflon thread sealing tape
- Paper towels or shop rags

Removal

1. Unplug the electric power cord.

2. At the power pack, dis-connect the hydraulic hose quick-disconnect fitting (Figure 40). **Note:** Pull the large ring away from the valve and the fitting will come free.

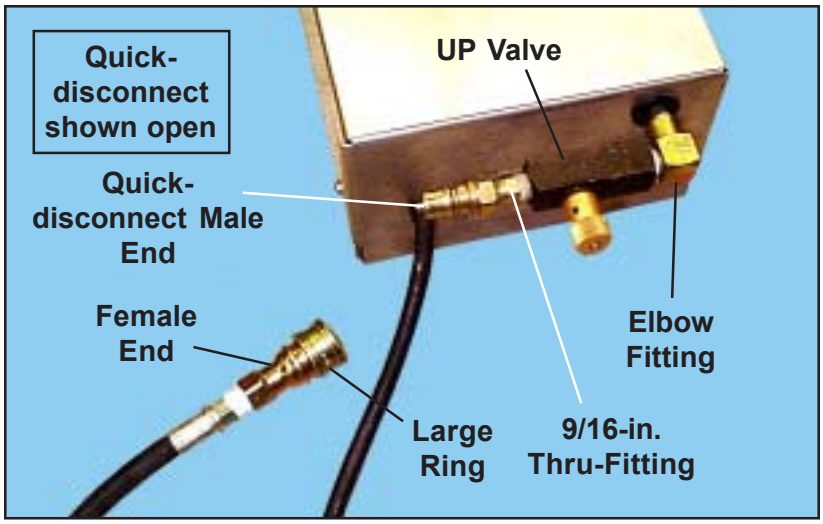

Figure 40. UP Valve Connections

3. Place paper towels or shop rags under the **UP** valve to catch any spillage.

4. With a 9/16-in. open-end wrench, unscrew the thru-fitting between the valve and the quick-disconnect body. **Note:** Do not remove the male quick-disconnect fitting from the thru-fitting.

5. With a 13/16-in. open-end wrench, unscrew the **UP** valve from the elbow fitting.

Installation:

1. Clean the old Teflon sealant out of the elbow fitting threads.

2. Wrap the new **UP** valve connector threads with Teflon thread sealing tape.

3. Screw the **UP** valve onto the elbow fitting. Make sure the brass regulator knob ends up facing outwards as shown in Figure 40. **Note:** The brass regulator knob is not centered on the valve body. The valve should be oriented so that the *long* end of the black valve body is toward the elbow fitting.

4. Clean the old Teflon sealant off the thru-fitting threads.

5. Wrap the thru-fitting threads with Teflon thread sealing tape.

6. Screw the thru-fitting (with the male quick-disconnect fitting still attached) into the **UP** valve.

7. Re-attach the hydraulic hose to the quick-disconnect fitting. **Note:** Hold back the large ring and push the female end onto the male end. Test the connection by pulling on the hydraulic hose.

8. Plug in the electric power cord.

9. Remove the paper towels or rags and clean up any spillage.

10. Test the table by pressing the foot controller pedal. The table should respond appropriately. If not, re-check your work and correct any problems.

11. Examine your new connections carefully for leaks and fix any you find.

12. If necessary, add fluid to the reservoir. Perform the procedure under *Refilling the Hydraulic Power Pack with Fluid* on *Page 63*.

13. Raise and lower the table again and observe the movement. If the movement is jerky and uneven, you probably still have air in the hydraulic system. Perform the procedures under *Bleeding the Hydraulic System* on *Page 66.*

Power Cord (Hydraulic Power Pack) P/N 213417

Tools and Supplies Required

- Phillips screwdriver
- Small, flat-blade screwdriver
- Wire cutter
- Wire crimping tool
- Pliers
- Three 14/16-ga. butt-joint wire connectors

Removal

1. Raise the table as far as possible.

2. Unplug the electric power cord.

CAUTION: **In the next two steps you will remove the front shield and expose electrical components in the bottom tray. Use caution around the electrical wiring and components to prevent injury to yourself and/or damage to the equipment.**

3. With a Phillips screwdriver, slightly loosen the two front screws, and remove the five top screws on the front shield (Figure 28).

4. Lift off the front shield.

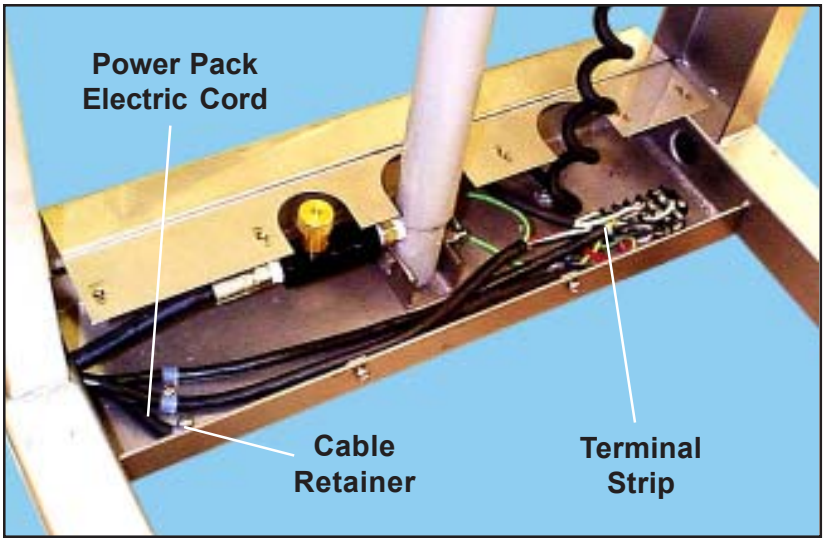

Figure 41. Power Pack Electric Cord and Terminal Strip

5. With a Phillips screwdriver, remove the cable retainer and free the power pack electric cord (Figure 41).

6. With a small, flat-blade screwdriver, disconnect the four power pack electric cord wires (black, white, red, green) from the terminal strip.

7. Pull the power pack electric cord out of the unit.

CAUTION: **In the next two steps you will remove the power pack cover and expose electrical components inside. Use caution around the electrical wiring and components to prevent injury to yourself and/or damage to the equipment.**

8. With a Phillips screwdriver, remove the six screws that hold the hydraulic power pack cover in place (Figure 35).

9. Lift off the power pack cover.

10. Cut off the red, yellow and black wires as close as possible to the butt-joint connectors (Figure 42).

11. Remove the ground screw and free the green wire.

12. Take out the foam end-piece.

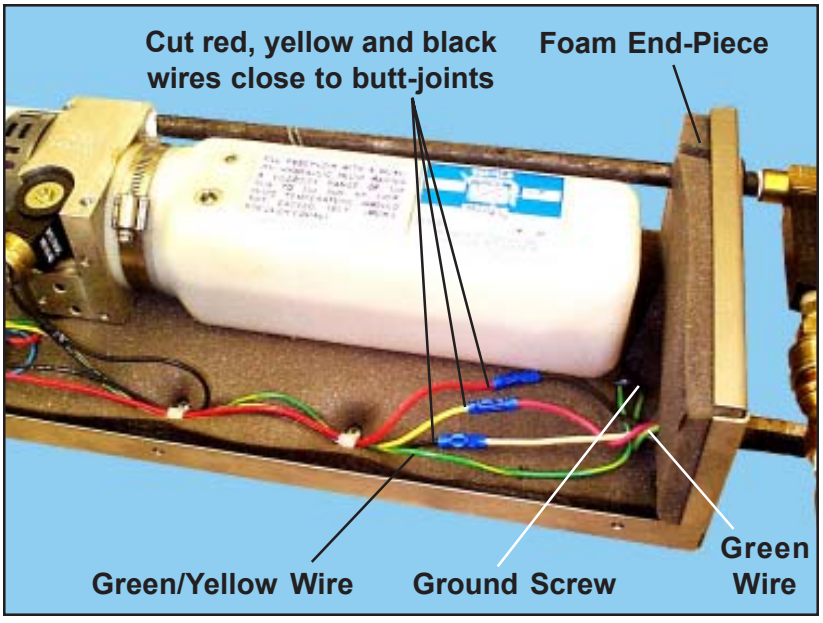

Figure 42. Power Pack Interior

13. With a pliers, hold down the tab on the strain relief and pull the strain relief out of the power pack (Figure 43).

14. Pull the power cord out of the power pack.

15. Remove the strain relief from the power cord.

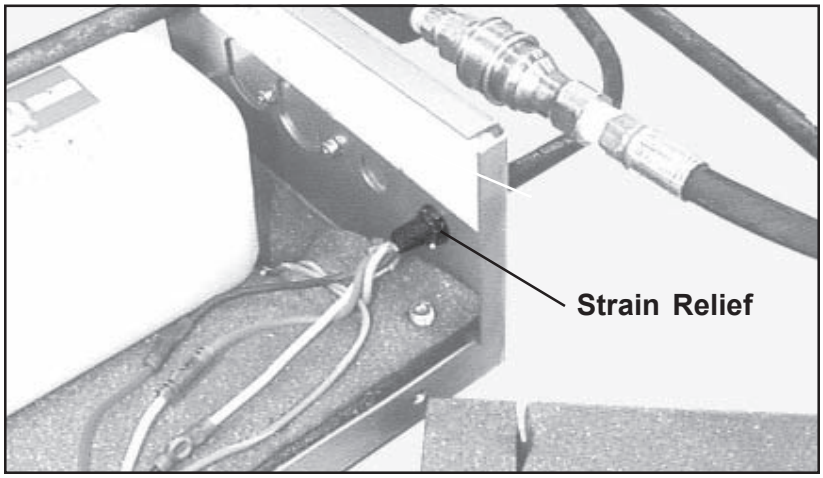

Figure 43. Strain Relief

Installation

1. Feed the new power pack electric cord through the opening in the frame and into the bottom tray.

2. Connect the four wires to the terminal strip as shown in Figure 44.

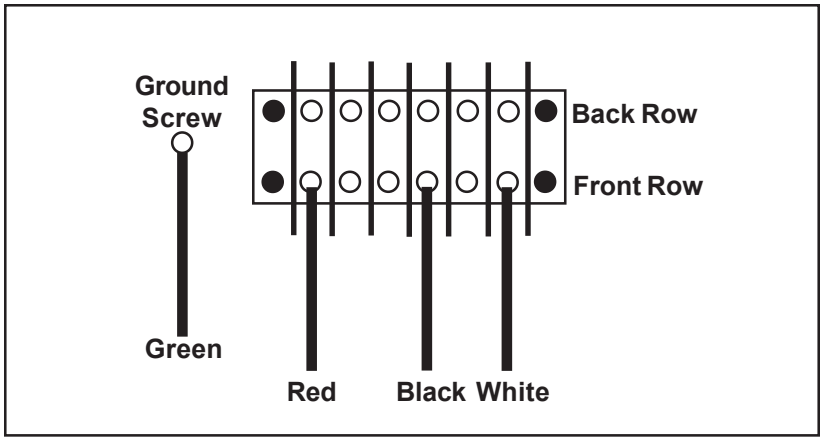

Figure 44. Power Pack Electric Cord Wire Connections

3. Place the cable into the cable retainer and re-mount the retainer in the tray (Figure 41).

4. Replace the front shield, replace the five top screws and tighten the two front screws (Figure 28).

5. Slide the strain relief onto the other end of the new power cord.

6. Slip the four wires and one or two inches of the power cord into the power pack.

7. With three new 14/16 ga. butt-joint wire connections, connect the power cord wires to the wires in the power pack as shown in Figure 45. **Note:** The wires do NOT connect color to color (black-to-black, red-to-red, etc.).

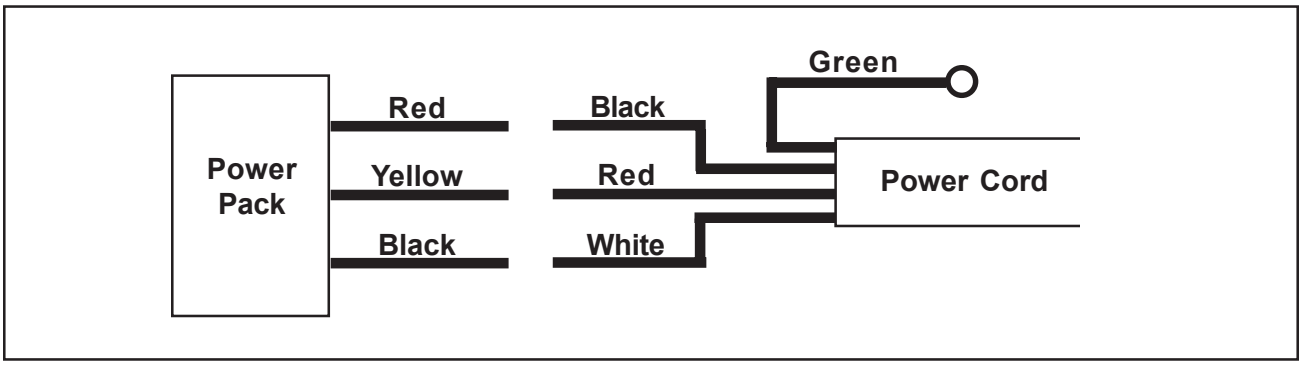

Figure 45. Wire Connections Between Power Cord and Hydraulic Power Pack

8. Secure the green wire (and the green/yellow wire from the motor) to the ground screw (Figure 45).

9. Leaving a little slack in the wires inside the power pack, snap the strain relief into the power pack.

10. Replace the foam end-piece.

11. Replace the power pack cover (Figure 37). **Note:** The cover fits *inside* the corner flanges, but *outside* the bottom flanges.

12. Secure the cover with the six screws.

13. Plug in the electric power cord.

14. Test the table by pressing the foot controller pedal. The table should respond appropriately. If not, re-check your work and correct any problems.

Solenoid Valve P/N 854605

Tools and Supplies Required

- 3/8-in. wrench
- Phillips screwdriver
- Wire cutter
- Wire crimping tool
- Three 14/16-ga. butt-joint wire connectors

Note: The following tools and supplies will only be required if it becomes necessary to replace the solenoid stem assembly (refer to *Page 51*):

- Flat-blade screwdriver
- 1/2-in. wrench
- 7/16-in. hex key (Allen wrench)
- 1/2-in. drive socket wrench
- 1-1/8-in. deep-socket (for 1/2-in. drive socket wrench)
- Paper towels or shop rags

Removal

1. Unplug the electric power cord.

CAUTION: **In the next two steps you will remove the power pack cover and expose electrical components inside. Use caution around the electrical wiring and components to prevent injury to yourself and/or damage to the equipment.**

2. With a Phillips screwdriver, remove the six screws that hold the hydraulic power pack cover in place (Figure 35).

3. Lift off the power pack cover.

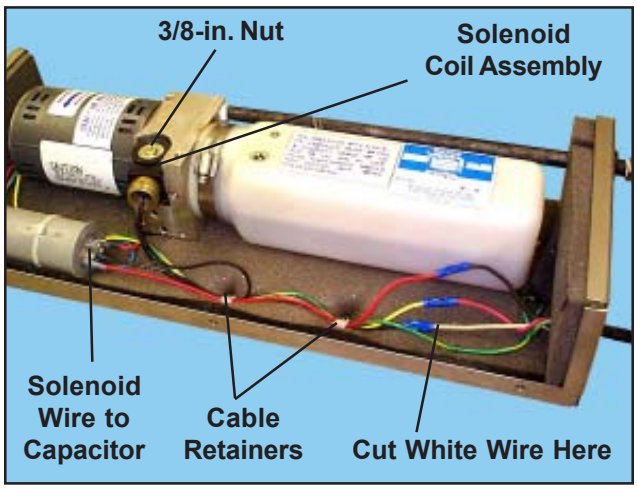

Figure 46. Solenoid Valve and Wires

4. With a Phillips screwdriver, remove the two cable retainers (Figure 46) and free the two black wires.

5. Dis-connect the solenoid wire (spade connector) from the capacitor.
Note: Remember where the wire connects to the capacitor so that you can re-install it correctly later.

6. Cut the white wire that connects to the other solenoid wire. Cut the wire close behind the butt-joint connection (Figure 46).

7. With a 3/8-in. wrench, remove the nut on top of the solenoid coil assembly .

8. Lift the solenoid coil assembly straight up and out of the power pack.

Note: The replacement solenoid (P/N 854605) includes two parts: the coil assembly, and the stem assembly (Figure 47). If the problem in the solenoid lies in the coil assembly, it is not necessary to replace the stem assembly.

The following instructions will have you replace the coil assembly, partially re-assemble the power pack, and then check its operation. If it operates properly, you can finish assembly, and resume normal lift table operation. If replacing the coil does not cure the problem, you will go back, replace the stem assembly, then re-assemble the power pack.

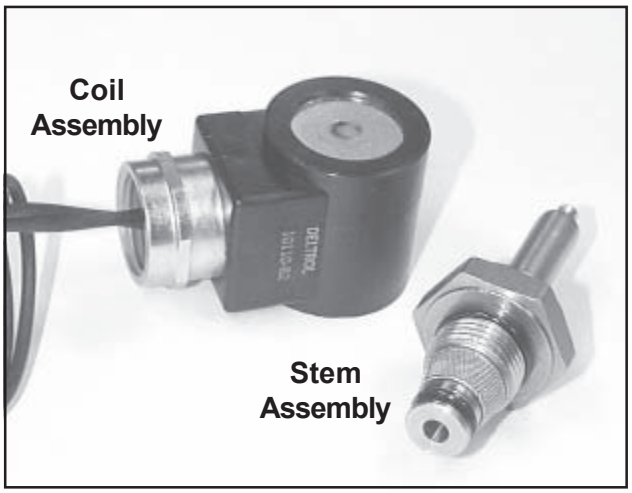

Figure 47. Components of Replacement Solenoid Valve, P/N 854605

9. Slide the new coil assembly back onto the stem shaft (Figure 46).

10. Secure the coil assembly with the 3/8-in. nut.

11. Attach the new solenoid wire (with the spade connector) onto the capacitor.

12. With a new 14/16-ga. butt-joint connector, connect the remaining solenoid wire to the white wire.

13. Plug in the electric power cord.

14. Press the **UP** side of the foot controller and attempt to raise the table.

- If the table operates satisfactorily, continue on to *Step 15* on *Page 53*.
- If the table does not operate satisfactorily, unplug the power cord, and proceed to *Replacing the Solenoid Stem Assembly* on *Page 52*.

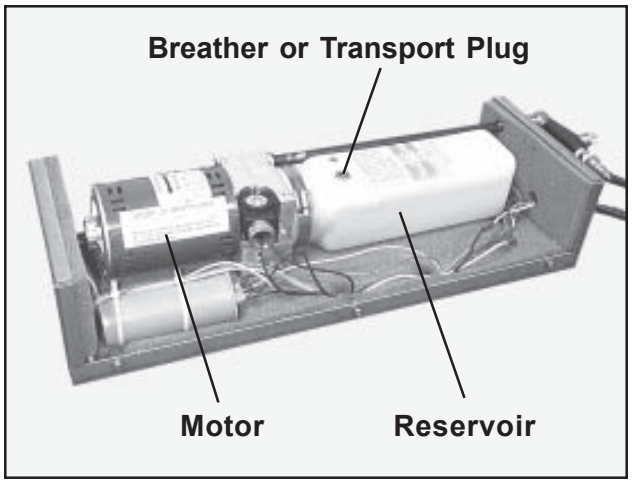

Figure 48. Location of Breather or Transport Plug in Reservoir

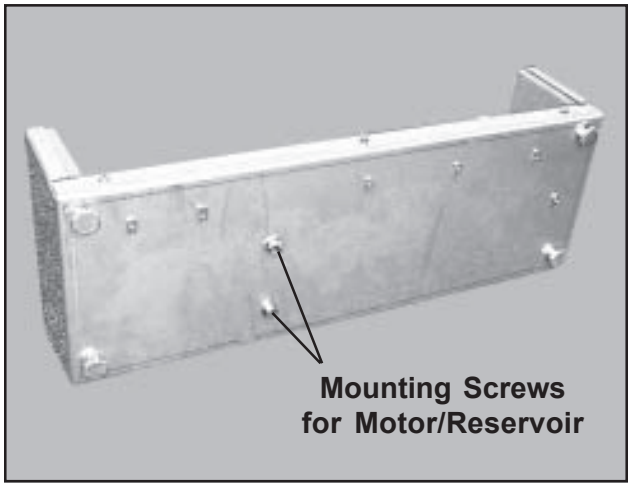

Figure 49. Mounting Screws Under the Power pack

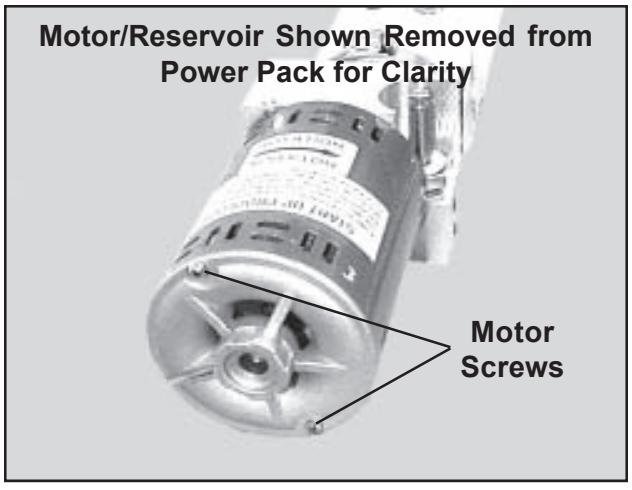

Figure 50. Motor Screws

Replacing the Solenoid Stem Assembly

1. Loosen the 3/8-in. nut and lift off the coil assembly. **Note:** You should not have to un-do the wire connections.

Note: *Steps 2* and *3* are necessary to prevent leakage of oil from the reservoir when you turn the power pack over to remove the motor/reservoir mounting screws.

2. With a flat-blade screwdriver, unscrew the breather plug in the reservoir (Figure 48).

3. With a 7/16-in. hex key (Allen wrench) screw the transport plug that was shipped with the power pack, into the breather plug opening in the reservoir.

4. Turn the power pack onto one side, and, with a 1/2-in. wrench, remove the two mounting screws and lockwashers underneath (Figure 49). Removing these two screws frees the motor/reservoir.

5. With a flat-blade screwdriver, loosen the two long screws that hold the motor in place (Figure 50) and pull the motor slightly away from its mount. This will give you more room for the socket wench required in *Step 6*.

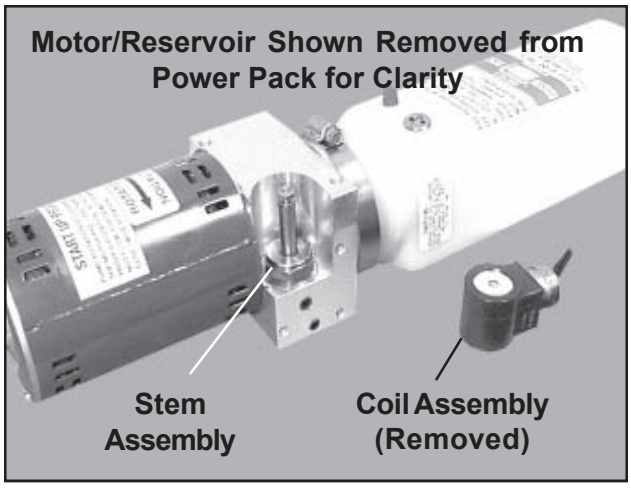

Figure 51. Stem Assembly

6. With a 1/2-in. socket wrench and a 1-1/8-in, deep- socket, unscrew and remove the stem assembly (Figure 51).

7. With paper towels or shop rags, thoroughly clean the area around the stem assembly opening. Make sure that no debris enters the opening and contaminates the oil.

8. Screw in and tighten the new stem assembly.

9. Tighten the motor screws and make sure the motor is secure.

10. Seat the motor and reservoir onto the floor of the power pack and secure with the two mounting screws/lockwashers removed in *Step 4*.

11. Place the new coil assembly onto the stem shaft.

12. Secure the coil assembly with the 3/8-in. nut.

13. Remove the transport plug from the reservoir.

Note: Make sure the table is in the down position.

14. Screw the breather plug (Figure 1) *finger-tight* into the hole from which the transport plug was removed. DO NOT use a tool to tighten the plug.

15. Plug in the electric power cord.

16. Raise and lower the lift table several times to circulate oil through the hydraulic system.

17. Check the oil reservoir level and top off if necessary. (*Refer to Refilling the Hydraulic Power Pack with Fluid* on *Page 63*.

18. Replace the power pack cover (Figure 37). **Note:** The cover fits *inside* the corner flanges, but *outside* the bottom flanges.

19. Secure the cover with the six screws.

20. Make sure that the electric power cord is plugged in.

21. Test the table by pressing the foot controller pedal. The table should respond appropriately. If not, re-check your work and correct any problems.

Hydraulic Power Pack P/N 212193

Tools Required

- Phillips screwdriver
- Small, flat-blade screwdriver

Removal

1. Raise the table as far as possible.

1. Close the **DOWN** valve (Figure 7).

2. Press the **DN** side of the foot controller and hold for 2 seconds.

3. Unplug the electric power cord.

4. At the power pack, dis-connect the hydraulic hose quick-disconnect fitting (Figure 39). **Note:** Pull the large ring away from the valve and the fitting will come free

CAUTION: **In the next two steps you will remove the front shield and expose electrical components in the bottom tray. Use caution around the electrical wiring and components to prevent injury to yourself and/or damage to the equipment.**

5. With a Phillips screwdriver, slightly loosen the two front screws, and remove the five top screws on the front shield (Figure 28).

6. Lift off the front shield.

7. With a Phillips screwdriver, remove the cable retainer and free the power pack electric cord (Figure 41).

8. With a small, flat-blade screwdriver, dis-connect the four power pack electric cord wires (black, white, red, green) from the terminal strip.

9. Pull the power pack electric cord out of the unit.

11. Remove the breather plug and install the transport plug (Figure 48).

Installation

1. At the new power pack, attach the new hydraulic hose to

the quick-disconnect fitting (Figure 39). **Note:** Hold back the large ring and push the female end onto the male end. Test the connection by pulling on the hydraulic hose.

2. Slide the other end of the hydraulic hose through the access hole in the frame and into the tray. Be careful, it's a tight fit!

3. Connect the four wires to the terminal strip (Figure 44).

4. Remove the six cover screws from the hydraulic power pack and lift off the cover (Figure 35).

5. Remove the transport plug.

Note: Make sure the table is in the down position.

6. Screw the breather plug (Figure 1) *finger-tight* into the hole from which the transport plug was removed. DO NOT use a tool to tighten the plug.

7. Note the oil level in the reservoir, It should be about half-full (Figure 60).

8. Open the **DOWN** valve (Figure 7).

9. Plug in the electric power cord.

10. Press on the **DN** side of the foot controller and observe the oil level in the reservoir. Oil should return to the reservoir.

11. If the oil level returns to a point substantially higher than the fill line, release pressure on the pedal and remove the excess oil.

12. Test the lift table operation.

13. If the table works OK, unplug the electric power cord.

14. Place the cable into the cable retainer and re-mount the retainer in the tray (Figure 39).

15. Replace the front shield, replace the five top screws and tighten the two front screws (Figure 28).

16. Plug in the electric power cord.

17. Replace the cover on the hydraulic power pack.

Foot Controller P/N 212192

Tools Required

- Phillips screwdriver
- Small, flat-blade screwdriver

Removal

1. Raise the table as high as it will go.

2. Unplug the electric power cord.

CAUTION: **In the next two steps you will remove the front shield and expose electrical components in the bottom tray. Use caution around the electrical wiring and components to prevent injury to yourself and/or damage to the equipment.**

3. With a Phillips screwdriver, slightly loosen the two front screws, and remove the five top screws on the front shield (Figure 28).

4. Lift off the front shield.

5. With a Phillips screwdriver, remove the cable retainer and free the foot controller cable (Figure 52) .

6. With a small, flat-blade screwdriver, disconnect the four foot controller wires (black, white, red, green) from the terminal strip.

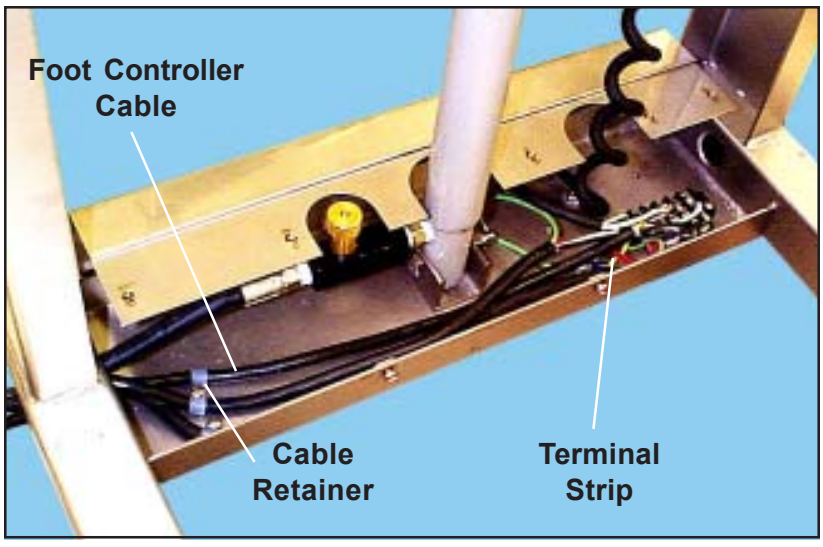

Figure 52. Foot Controller Cable and Terminal Strip

7. Pull the foot controller cable out of the unit.

Installation

1. Feed the new foot controller cable through the opening in the frame and into the bottom tray. Be careful, it's a tight fit!

2. Connect the four wires to the terminal strip as shown in Figure 53.

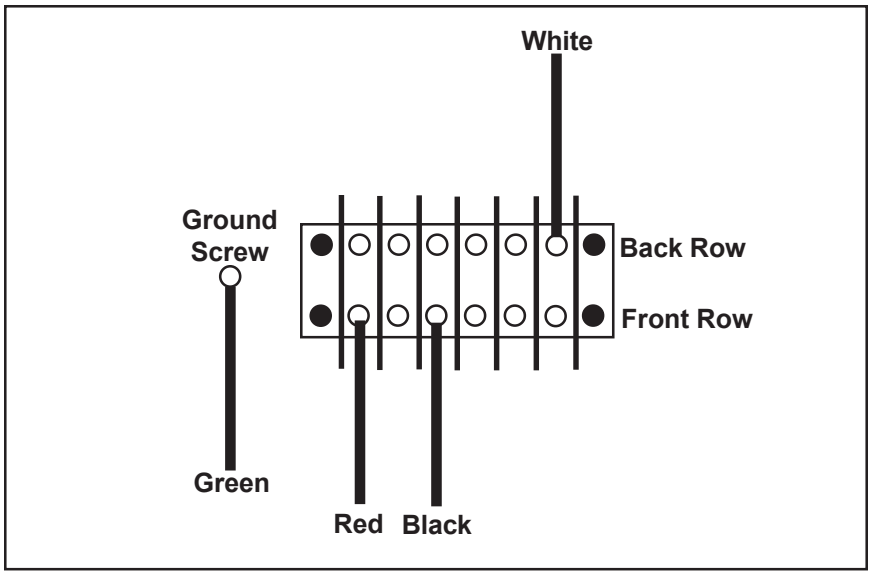

Figure 53. Foot Controller Wire Connections

3. Place the cable into the cable retainer and re-mount the retainer in the tray (Figure 47).

4. Replace the front shield, replace the five top screws and tighten the two front screws (Figure 28).

5. Plug in the electric power cord.

6. Test the table by pressing the foot controller pedal. The table should respond appropriately. If not, re-check your work and correct any problems.

Electric Power Cord (Table) P/N 212194

Tools Required

- Phillips screwdriver
- Small, flat-blade screwdriver

Removal

1. Raise the table as high as it will go.

2. Unplug the electric power cord.

CAUTION: **In the next two steps you will remove the front shield and expose electrical components in the bottom tray. Use caution around the electrical wiring and components to prevent injury to yourself and/or damage to the equipment.**

3. With a Phillips screwdriver, slightly loosen the two front screws, and remove the five top screws on the front shield (Figure 28).

4. Lift off the front shield.

6. With a Phillips screwdriver, remove the cable retainer and free the electric power cord (Figure 54).

5. With a small, flat-blade screwdriver, disconnect the three power cord wires (black, white, green/yellow) from the terminal strip.

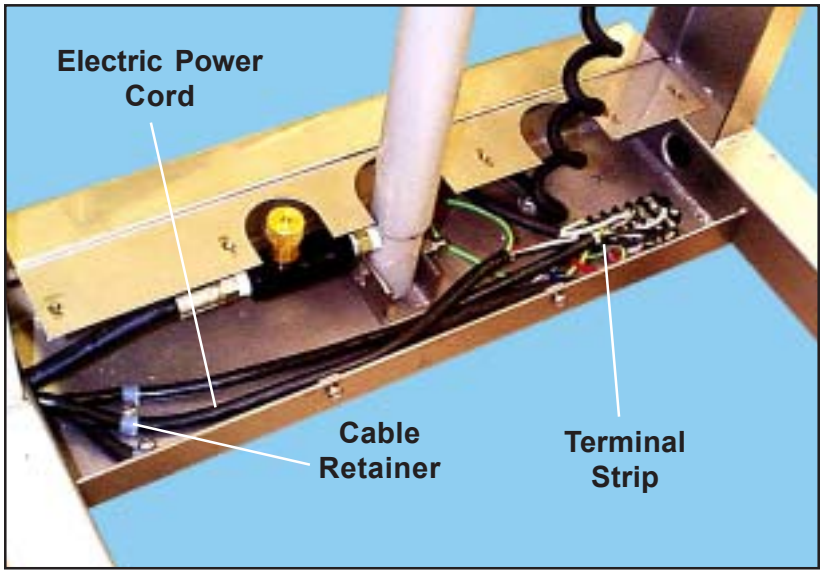

Figure 54. Electric Power Cord and Terminal Strip

7. Pull the electric power cord out of the unit.

Installation

1. Feed the new electric power cord through the opening in the frame and into the bottom tray. Be careful, it's a tight fit!

2. Connect the three wires to the terminal strip as shown in Figure 55.

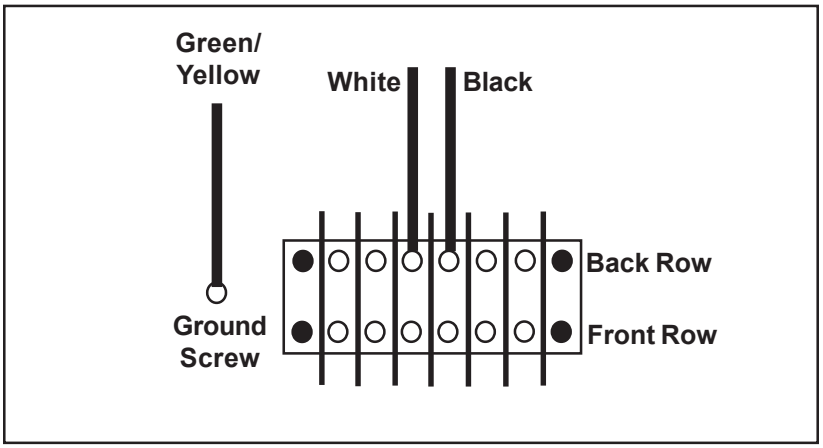

Figure 55. Electric Power Cord Wire Connections

3. Place the cable into the cable retainer and re-mount the retainer in the tray (Figure 49).

4. Replace the front shield, replace the five top screws and tighten the two front screws (Figure 28).

5. Plug in the electric power cord.

6. Test the table by pressing the foot controller pedal. The table should respond appropriately. If not, re-check your work and correct any problems.

Auxiliary Power Cord P/N 213421

These instructions are for both lateral and longitudinal tables.

Tools Required

- 3/8-in. open-end wrench
- Phillips screwdriver
- Small, flat-blade screwdriver

Removal

1. Raise the table about 24-inches.

2. Unplug the electric power cord.

3. If the table is wall-mounted, remove it from the wall to gain access to the auxiliary power cord.

CAUTION: **In the next four steps you will remove the front and rear shields and expose electrical components in the bottom tray. Use caution around the electrical wiring and components to prevent injury to yourself and/or damage to the equipment.**

4. With a Phillips screwdriver, slightly loosen the two front screws, and remove the five top screws on the front shield (Figure 28).

5. Lift off the front shield.

6. With a Phillips screwdriver, loosen the two screws on the rear shield (Figure 29).

7. Lift off the rear shield.

8. With a Phillips screwdriver, remove the lower cable retainer and free the auxiliary power cord (Figure 56).

9. Use a small, flat-blade screwdriver to disconnect the three auxiliary power cord wires (black, white, green) from the terminal strip (Figure 57).

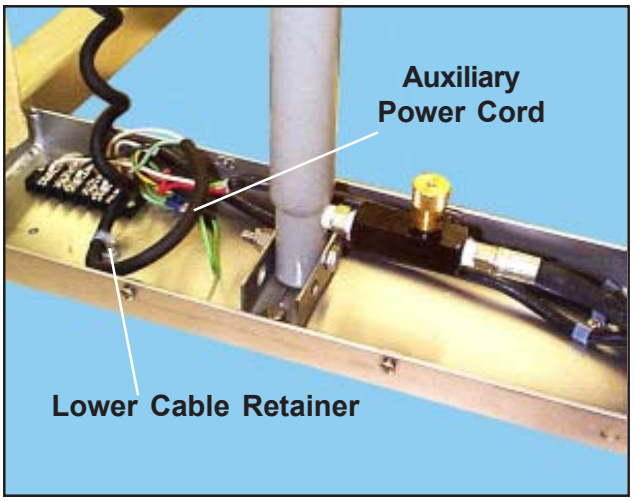

Figure 56. Lower Cable Retainer

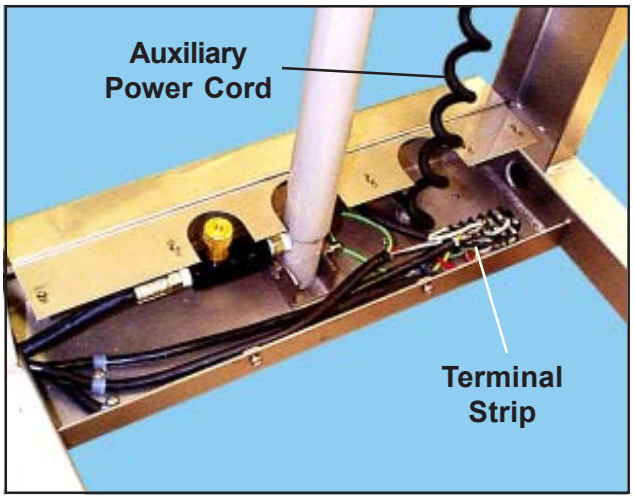

Figure 57. Auxiliary Power Cord and Terminal Strip

10. Pull the electric power cord out through the large hole in the lower cross member.

11. With a Phillips screwdriver and a 3/8-in. wrench, remove the upper cable retainer on the upper cross member (Figure 58).

12. Remove the auxiliary power cord from the upper cable retainer.

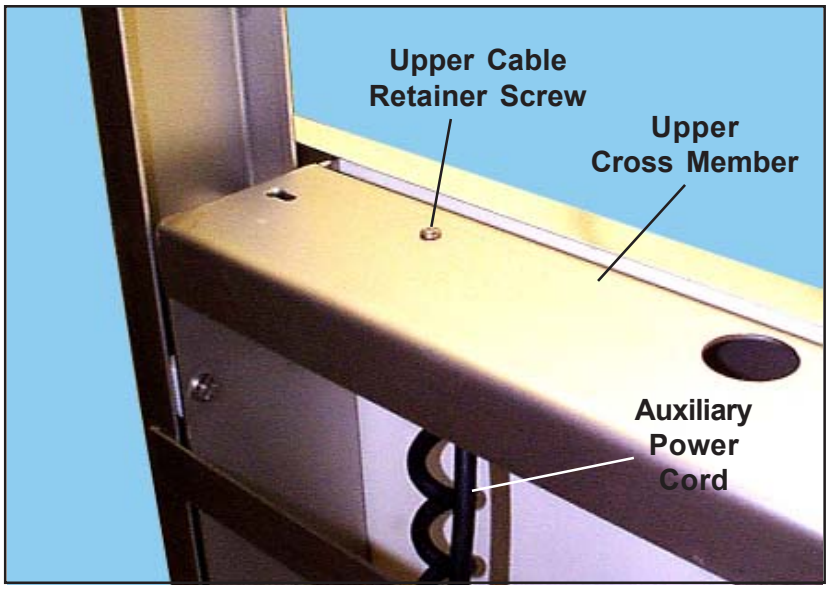

Figure 58. Upper Cable Retainer

Installation

1. Place the upper cable retainer on the new auxiliary power cord a few inches from the plug end (anywhere after the coiled section).

2. Fasten the upper cable retainer and power cord to the upper cross member (Figure 58).

3. Feed the auxiliary power cord down through the large hole in the lower cross member and into the bottom tray.

4. Connect the three wires to the terminal strip (Figure 59).

5. Place the lower cable retainer on the auxiliary power cable.

6. Mount the lower cable retainer into the tray (Figure 56).

7. Replace the rear shield and tighten the two screws (Figure 29).

8. Replace the front shield, replace the five top screws and tighten the two front screws (Figure 28).

9. Plug any small appliance into the auxiliary power cord plug and make sure it operates. If not re-check your work and correct any problems.

10. If the table is wall-mounted, replace it on the wall.

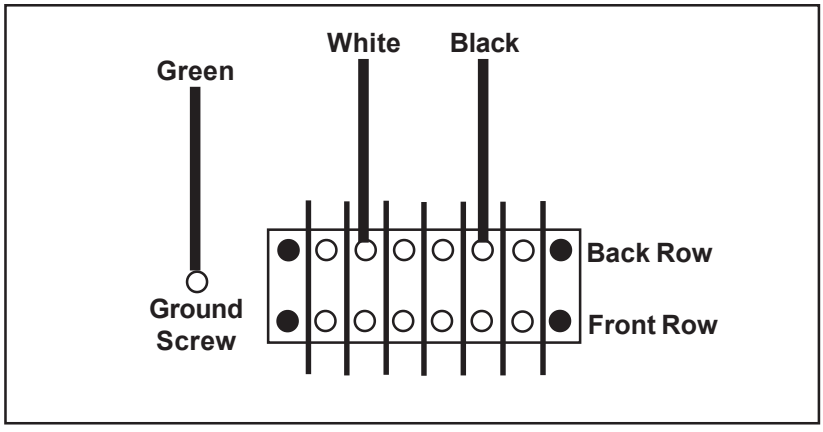

Figure 59. Auxiliary Power Cable Connections on Terminal Strip

Refilling the Hydraulic Power Pack with Fluid

Tools and Supplies Required

- Phillips screwdriver
- Hydraulic fluid (Mobil DTE 24 or equivalent)
- Small funnel
- Paper towels or shop rags

Procedure

1. Lower the table to its lowest position.

2. Unplug the electric power cord.

CAUTION: **In the next two steps you will remove the power pack cover and expose electrical components inside. Use caution around the electrical wiring and components to prevent injury to yourself and/or damage to the equipment.**

3. With a Phillips screwdriver, remove the six screws that hold the power pack cover in place (Figure 35).

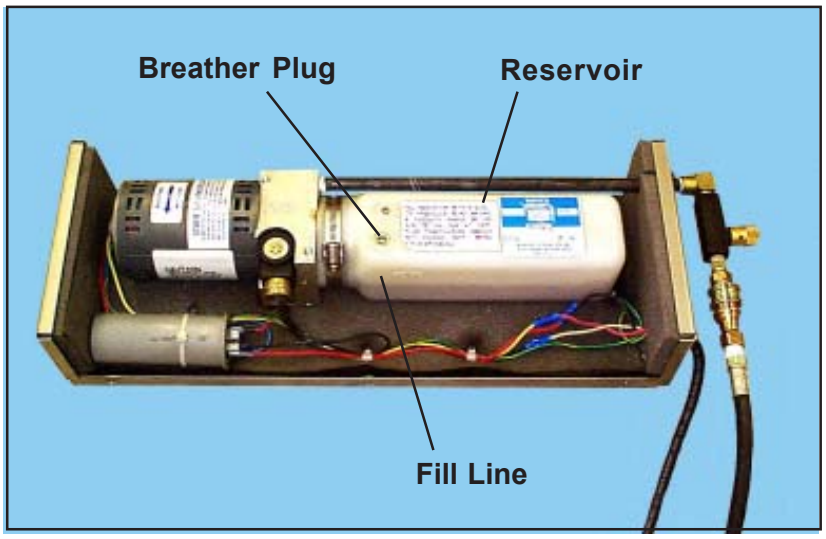

Figure 60. Reservoir, Breather Plug and Fill Line

4. Lift off the power pack cover.

5. Pack paper towels or shop rags around the reservoir to absorb any spillage (Figure 60).

6. Remove the breather plug.

Warning: **Use *ONLY* a quality fluid having a viscosity of 100 SUS to 350 SUS at 100°F (Mobil DTE 24 or equivalent). The use of an inappropriate fluid can *damage your lift table* and will *void your warrantee*.**

Note: Never shake up the hydraulic fluid container. Shaking the container will create air bubbles in the fluid and this air can cause uneven movement when the table is raised or lowered. If the container is accidentally shaken, let it sit quietly for at least one hour to allow the air to leave the fluid.

Note: Make sure the funnel and the area immediately around the fill hole are completely clean. Avoid introducing dirt or contaminates into the hydraulic system.

7. Observe the fill line on the side of the reservoir (Figure 60) and, with a small funnel, fill the reservoir to the fill line with the specified hydraulic fluid. **Note:** Try to pour the fluid into the reservoir slowly and evenly to avoid introducing air bubbles into the fluid. **Note:** If the fluid level is at or close to the fill line, the reservoir does not require filling. Replace the breather plug and proceed to *Step 14*.

Note: Make sure the table is in the down position.

8. Screw the breather plug in (Figure 1) *finger-tight*. DO NOT use a tool to tighten the plug.

9. Plug in the electric power cord.

10. Raise and lower the table two or three times to circulate fluid through the system. Make sure that the table is at the lowest position when you finish.

11. Unplug the electric power cord.

12. Check the fluid level at the reservoir fill line.

13. If the level is at or close to the fill line, you are finished. Proceed to *Step 14*. If not, repeat *Steps 6* through *12* until the fluid level is satisfactory.

14. Remove the paper towels or rags and clean up any spillage.

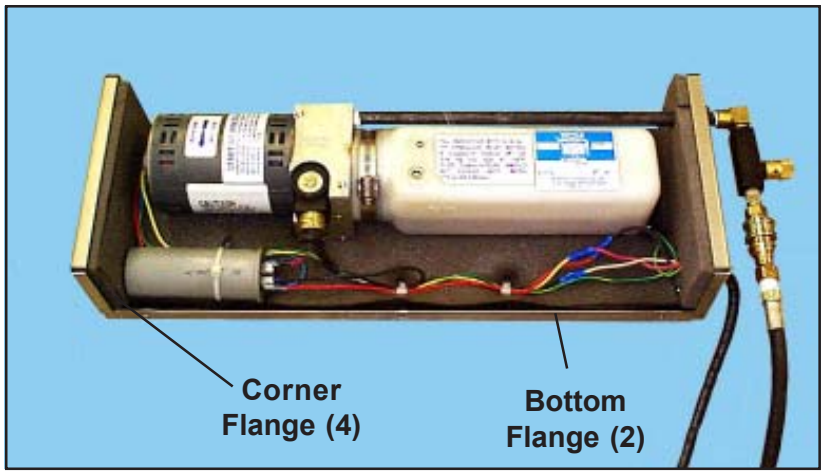

Figure 61. Cover Mounting Flanges

15. Replace the power pack cover (Figure 35). **Note:** The cover fits *inside* the corner flanges, but *outside* the bottom flanges.

16. Secure the cover with the six screws.

17. Raise and lower the table again and observe the movement. If the movement is jerky and uneven, you probably still have air in the hydraulic system. Perform the procedures under *Bleeding the Hydraulic System* on *Page 66.*

Bleeding the Hydraulic System

Whenever you add fluid to the hydraulic system, or open the circuit by disconnecting a hydraulic hose, or other similar action, you can introduce air into the system. This air can cause the table to raise and lower in a jerky fashion rather than moving smoothly as it should. The following procedure guides you in bleeding this unwanted air from the system. The procedure is similar to the bleeding of an automobile brake system.

Tools and Supplies Required

- 3/16-in. hex key (Allen wrench)
- Paper towels or shop rags

Procedure

1. Lower the table to its lowest position.

2. If the table is wall-mounted, remove it from the wall to gain access to the hydraulic cylinder bleed port.

3. With a 3/16-in. hex key (Allen wrench), remove the hex nut from the bleed port (Figure 62).

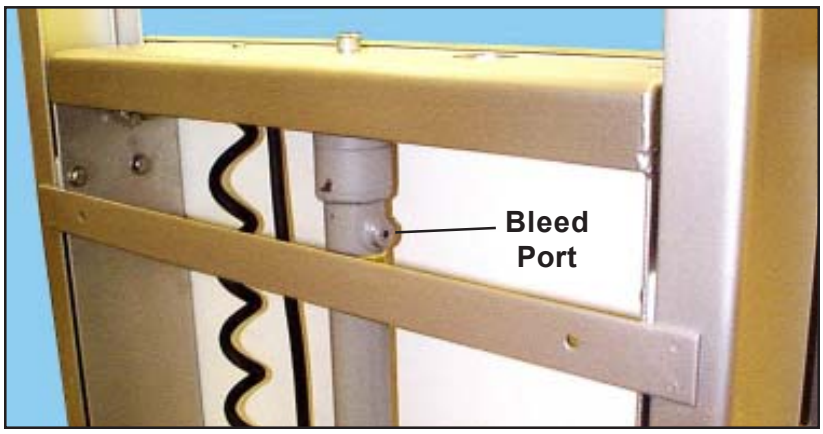

Figure 62. Bleed Port

CAUTION: **The hydraulic fluid in the cylinder is under pressure and will squirt out when the foot controller pedal is depressed. Keep your eyes and face out of line with the bleed port. Cover the port with paper towels or shop rags while bleeding the cylinder.**

4. Hold paper towels or shop rags over the bleed port to catch leaking hydraulic fluid. Continue to hold the towels or rags in place until *Step 6*.

5. Press on the **UP** side of the foot controller to extend the hydraulic cylinder to its full height. One complete stroke is usually sufficient to expel all air from the cylinder.

6. Remove the paper towels or rags and clean up any fluid spillage.

7. Replace the hex nut into the bleed port.

8. Lower the table to its lowest position.

9. Try raising the table to its full height and observe to see if the motion is smooth. If the motion is normal, proceed to *Step 10*. If not, repeat *Steps 3* through *9* until the table motion is smooth.

10. If necessary, add fluid to the reservoir. Perform the procedure under *Refilling the Hydraulic Power Pack with Fluid* on *Page 63*.

11. If the table is wall-mounted, replace it on the wall.

Table Tops

Introduction

The following procedures guide you in removing and re-installing the tops from the lift table to allow you to perform needed service or maintenance on the table.

Caution: **The table top is heavy. Lifting it on or off the unit should be done by at least two people.**

Exam Top

Tools Required

1/2-in. box-end or open-end wrench.

Removal

1. With a 1/2-in. wrench, remove the four nuts and washers from the mounting studs under the table top (Figure 63).

2. Lift the table top off the unit.

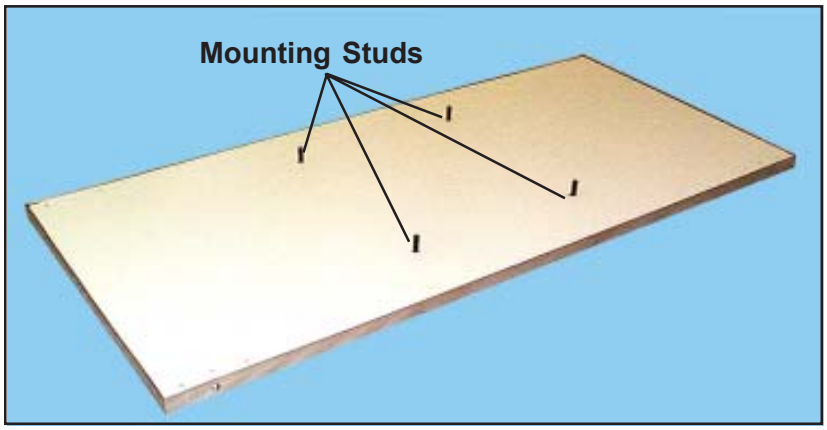

Figure 63. Underside of Exam Top Showing Studs

Installation

1. Place the table top on the unit so that the mounting studs under the top enter the matching holes on the unit frame (Figures 63, 64, and 65).

2. Secure the top to the frame with the four nuts and washers.

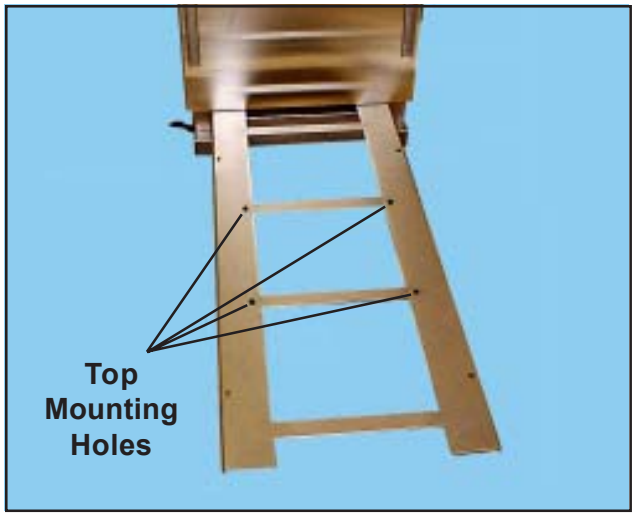

Figure 64. Longitudinal Exam Top Mounting Holes

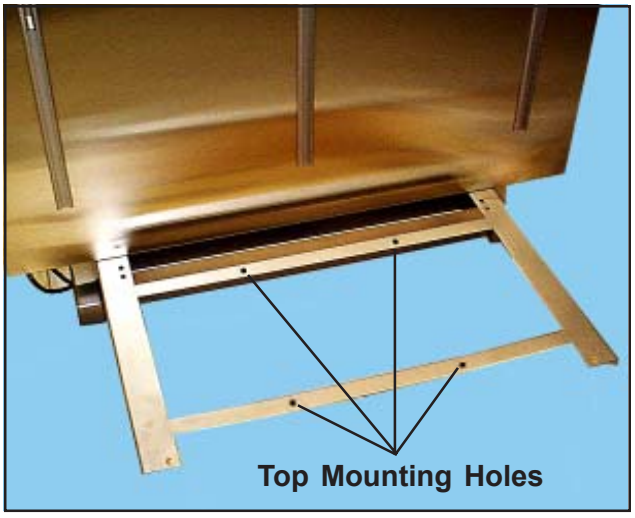

Figure 65. Lateral Exam Top Mounting Holes

Electronic Scale

Tools Required

- Flat-blade screwdriver

Removal

1. Unplug the display cable from the 9-pin terminal on the bottom of the display console (Figure 66).

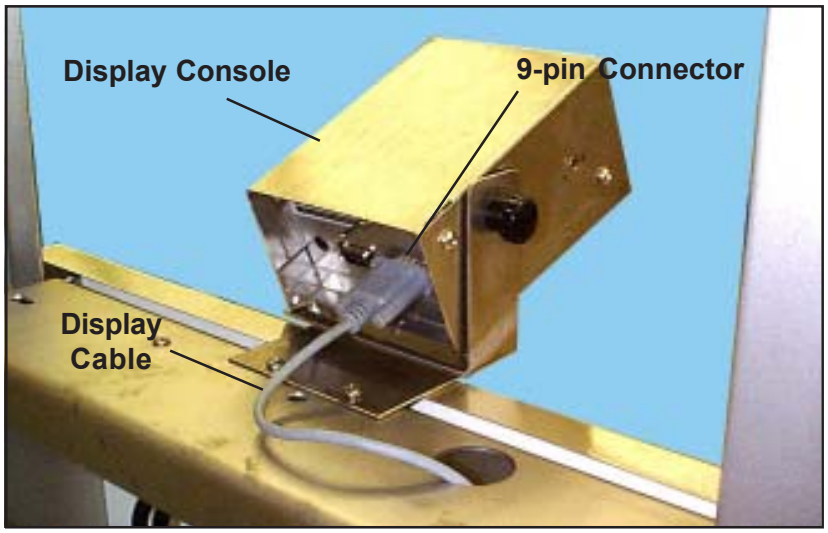

Figure 66. Display Cable Connection

2. Feed the display cable down through the upper cross member and out to the scale platform.

3. With a flat-blade screwdriver, remove the four mounting screws and washers under the scale (Figure 67).

4. Lift the scale off the unit.

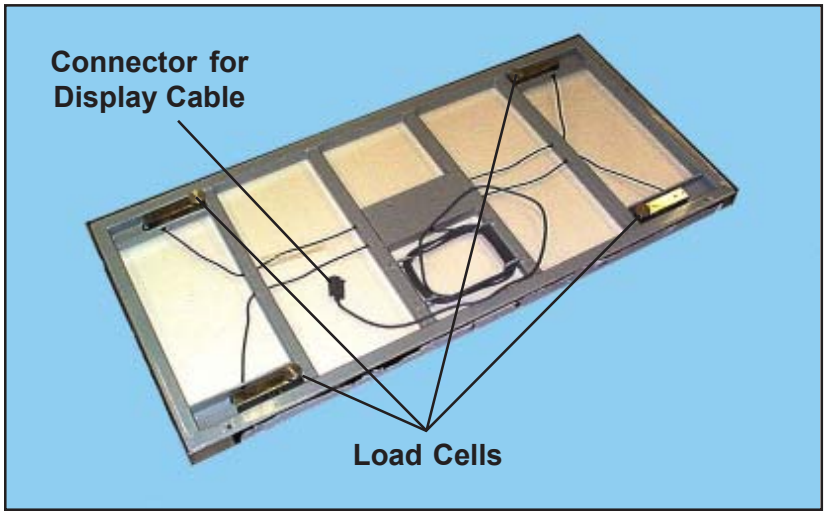

Figure 67. Underside of Electronic Scale

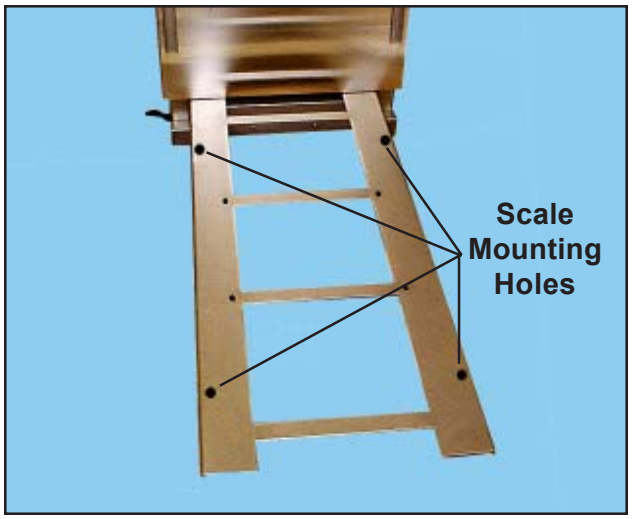

Figure 68. Longitudinal Electronic Scale Mounting Holes

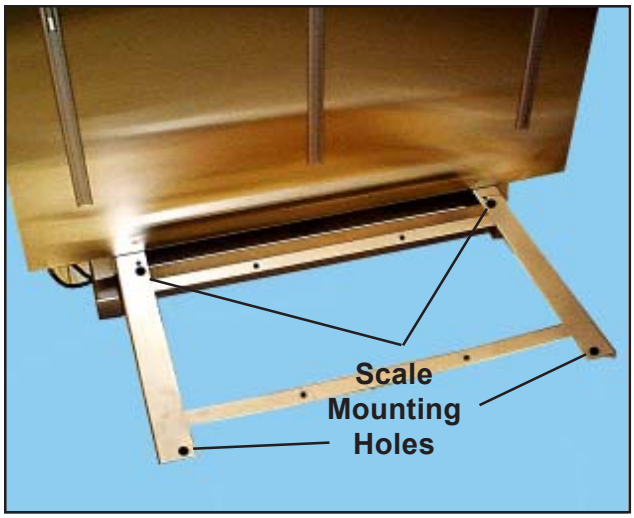

Figure 69. Lateral Electronic Scale Mounting Holes

Installation

1. Place the scale on the unit so that the load cells under the scale line up with the mounting holes on the unit frame (Figures 67, 68, and 69). Make sure that all four load cells rest on the frame arms and that the scale is stable and does not rock. **Note:** The display cable should exit to the rear for convenient routing to the display console.

2. Secure the scale to the frame with the four screws and washers. **Note:** Fasten the screws finger-tight only.

3. Thread the display cable up through the large hole in the upper cross member.

4. Plug the display cable into the 9-pin terminal on the display console (Figure 66).

Moving the Hydraulic Power Pack to a Remote Location

In a standard Regal Lift Table installation, the hydraulic power pack is located next to the table and connected to it by a 6-ft. hydraulic hose and electric cable. To save space and to remove clutter from the examination room floor, you may wish to move the hydraulic power pack to a remote location. With an appropriate extension hose and cable, the power pack can be moved to a location up to 20-ft. away.

Installation

Parts Required

Parts required for the conversion are:

Description	Former P/N	New P/N
To Move the Power Pack up to 10 ft. Away - Order the Following:		
10-ft. (3.05m) Extension Hydraulic Hose	102920-10	12710-00-BNAAAA
10-ft. (3.05m) Electric Cable	102922-10	12715-00-BNAAAA
To Move the Power Pack from 10 to 20 ft. Away - Order the Following:		
20-ft. (7m) Extension Hydraulic Hose	102920-20	12710-00-DFAAAA
20-ft. (7m) Electric Cable	102922-20	12715-00-DFAAAA

Table 3. Parts Required Mounting Power Pack in Remote Location

Tools and Supplies Required

- 9/16-in. open-end wrench
- Phillips screwdriver
- Small, flat-blade screwdriver
- Pliers
- Wire cutter
- Wire crimping tool
- Three 14/16-ga. butt-joint wire connectors
- Teflon thread sealing tape
- Tape (electrical, fibre, duct, or equivalent)
- Two 2x4's, 33.5-in. long
- Paper towels or shop rags

Preparing to Perform the Installation

1. Raise the table as high as it will go.

2. Unplug the electric power cord.

CAUTION: **In the next two steps you will remove the front shield and expose electrical components in the bottom tray. Use caution around the electrical wiring and components to prevent injury to yourself and/or damage to the equipment.**

3. With a Phillips screwdriver, slightly loosen the two front screws, and remove the five top screws on the front shield (Figure 28).

4. Lift off the front shield.

WARNING: **The hydraulic cylinder holds the table in the raised position. If the hydraulic hose is disconnected while the table is raised, hydraulic pressure to the cylinder is removed allowing the table top to fall suddenly with considerable force. A high potential exists for injury to you or damage to the equipment. Brace the table securely, as instructed below in *Step 5*, before removing the cylinder.**

5. Tightly tape two 33.5-in. long 2x4s to the insides of the table legs. Each 2x4 should fit between the ledge at the base of the leg and the bottom of the carriage frame (Figures 30 and 31). Use any kind of tape as long as it holds the 2x4s firmly in place (electrical tape, fibre tape, duct tape, etc.). **Note:** Do not place the lower ends of the 2x4s in the bottom tray as they can damage internal components or wiring.

6. Plug in the electric power cord.

7. Lower the table until it rests on the 2x4s.

8. Unplug the electric power cord.

Disconnecting the Hydraulic Hose and Electric Cable from the Lift Table

1. With a Phillips screwdriver, remove the cable retainer and free the power pack electric cord (Figure 70).

2. With a small, flat-blade screwdriver, disconnect the four power pack electric cord wires (black, white, red, green) from the terminal strip.

3. Pull the power pack electric cord out of the bottom tray.

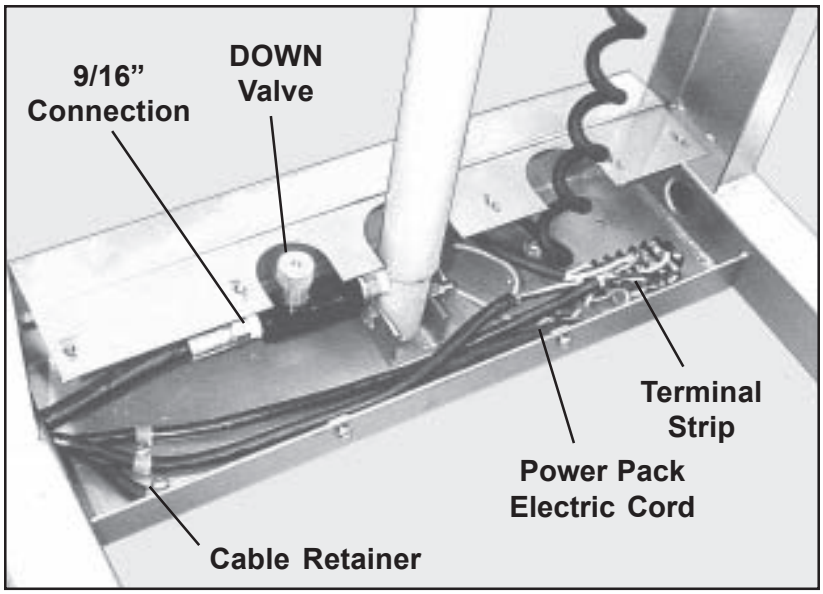

Figure 70. Hydraulic and Electrical Connections in Table Bottom Tray

4. Pack paper towels or shop rags under the **DOWN** valve connection to catch any spillage.

5. With a 9/16-in. open-end wrench, unscrew the hydraulic hose fitting on the **DOWN** valve. **Note:** If greater access to the hose fitting is needed, remove the two screws on the rear shield and remove the shield (Figure 29). On wall-mounted tables, it will be necessary to remove the table from the wall to each the rear shield mounting screws.

6. Pull the hydraulic hose out of the unit.

Disconnecting the Hydraulic Hose and Electric Cable from the Power Pack

1. At the power pack, disconnect the hydraulic hose quick-disconnect fitting (Figure 39). **Note:** Pull the large ring away from the valve and the fitting will come free.

CAUTION: **In the next two steps you will remove the power pack cover and expose electrical components inside. Use caution around the electrical wiring and components to prevent injury to yourself and/or damage to the equipment.**

2. With a Phillips screwdriver, remove the six screws that hold the hydraulic power pack cover in place (Figure 35).

3. Lift off the power pack cover.

4. Cut off the red, yellow and black wires as close as possible to the butt-joint connectors (Figure 71).

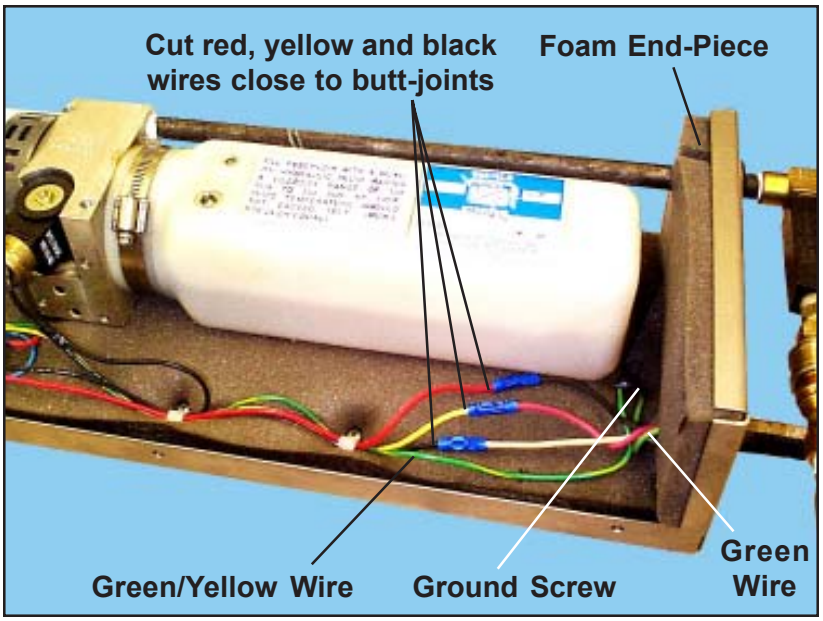

Figure 71. Power Pack Interior

5. Remove the ground screw and free the green wire.

6. Take out the foam end-piece.

7. With a pliers, hold down the tab on the strain relief and pull the strain relief out of the power pack (Figure 72).

8. Pull the power cord out of the power pack.

9. Remove the strain relief from the power cord.

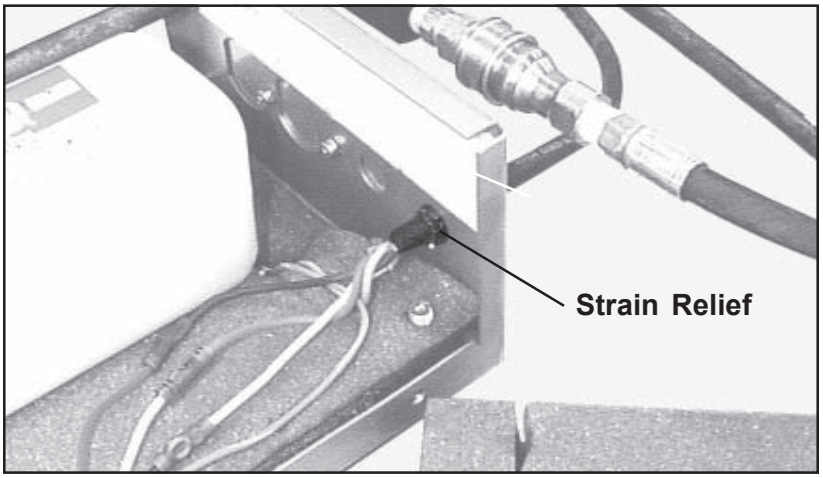

Figure 72. Strain Relief

Relocating the Power Pack

Move the power pack to its new location at this time. It may be necessary to drill holes in walls or other parts of the building structure to allow passage of the hydraulic hose and electric cord. Make sure the new location allows ready access to the power pack for required service or maintenance. The new location should not be exposed to extreme hot or cold

Connecting the New Electric Cable and Hydraulic Hose to the Power Pack

1. Slide the strain relief onto the new power cord.

2. Slip the four wires and one or two inches of the power cord into the power pack.

3. With three new 14/16 ga. butt-joint wire connections, connect the power cord wires to the wires in the power pack as shown in Figure 73. **Note:** The wires do NOT connect color to color (black-to-black, red-to-red, etc.).

4. Secure the green wire (and the green/yellow wire from the motor) to the ground screw.

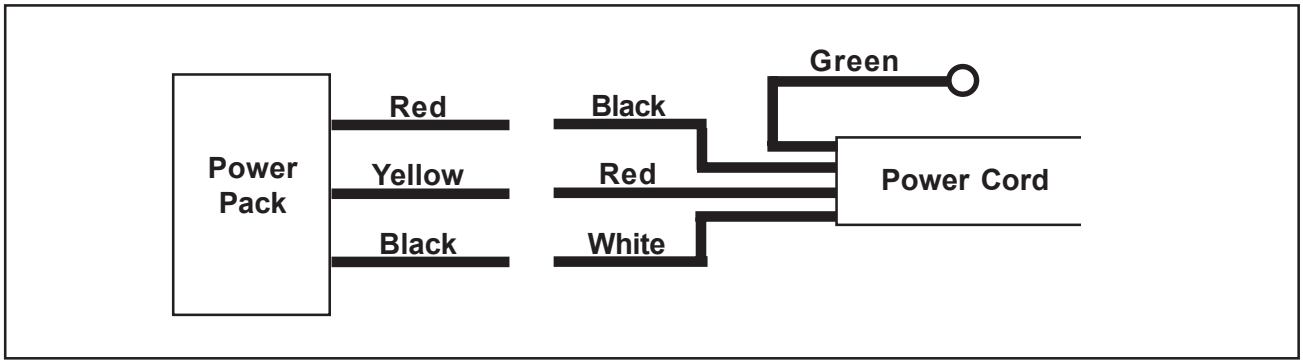

Figure 73. Wire Connections Between Power Cord and Hydraulic Power Pack

5. Leaving a little slack in the wires inside the power pack, snap the strain relief into the power pack.

6. Replace the foam end-piece.

7. Attach the new hydraulic hose to the quick-disconnect fitting. **Note:** Hold back the large ring and push the female end onto the male end. Test the connection by pulling on the hydraulic hose.

Note: Do not replace the power pack cover yet.

Connecting the New Electric Cable and Hydraulic Hose to the Lift Table

1. Feed the new power pack electric cord through the opening in the frame and into the bottom tray.

2. Connect the four wires to the terminal strip as shown in Figure 74.

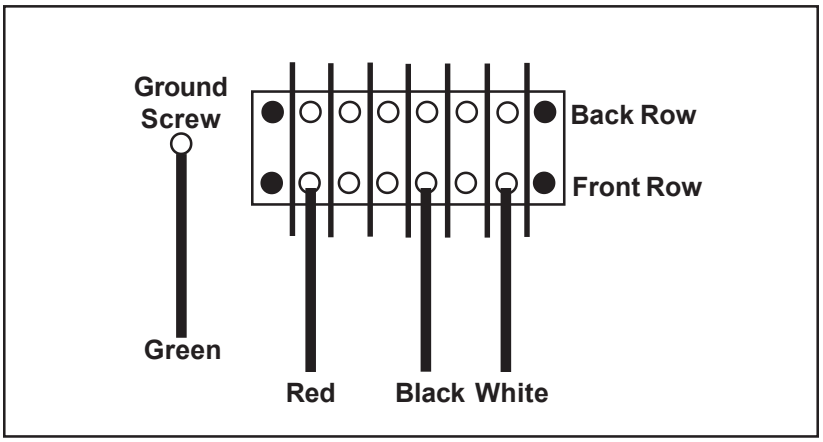

Figure 74. Electric Cord Wire Connections in Table Bottom Tray

3. Place the cable into the cable retainer and re-mount the retainer in the tray (Figure 41).

4. Slide the new hydraulic hose through the access hole in the frame and into the tray. Be careful, it's a tight fit!

5. Clean off any traces of the old sealant tape on the **DOWN** valve fitting.

6. Wrap the threads with Teflon thread sealing tape.

7. Connect the new hydraulic hose to the **DOWN** valve with the 9/16-in. fitting (Figure 70).

8. Remove the paper towels or rags and clean up any spillage.

Finishing and Checking the Installation

1. Plug in the electric power cord.

2. Raise the table slightly to remove pressure on the two 2x4s.

3. Untape and remove the two 2x4s.

4. Using the foot controller pedals, raise and lower the table a few times while observing connections at both ends of the hydraulic hose. If no leaks are found, skip to *Step 7* below.

WARNING: **If either hydraulic connection leaks and requires re-work, remember to replace the 2x4s to properly support the lift table before opening the hydraulic connection.**

5. If either hydraulic connection leaks, refer to *Steps 5* thru *8* on *Page 73* and re-install the 2x4s.

6. Re-do any leaking connections, and return to *Step 1* above. When the table operates satisfactorily and neither hydraulic connection leaks, precede to *Step 7* below.

7. Check the fluid level at the fill line on the reservoir in the power pack (Figure 36).

8. If necessary, add fluid to the reservoir. Perform the procedure under *Refilling the Hydraulic Power Pack with Fluid* on *Page 63*.

9. Raise and lower the table again and observe the movement. If the movement is jerky and uneven, you probably have air in the hydraulic system. Perform the procedures under *Bleeding the Hydraulic System* on *Page 66.*

10. Unplug the electric power cord.

11. Replace the power pack cover (Figure 37). **Note:** The cover fits *inside* the corner flanges, but *outside* the bottom flanges.

12. Secure the cover with the six screws.

13. If it was removed, replace the rear shield and tighten the two screws (Figure 29).

14. Replace the front shield, tighten the two front screws and replace the five top screws (Figure 28).

15. If the table is wall-mounted, replace it on the wall.

Wiring Diagram

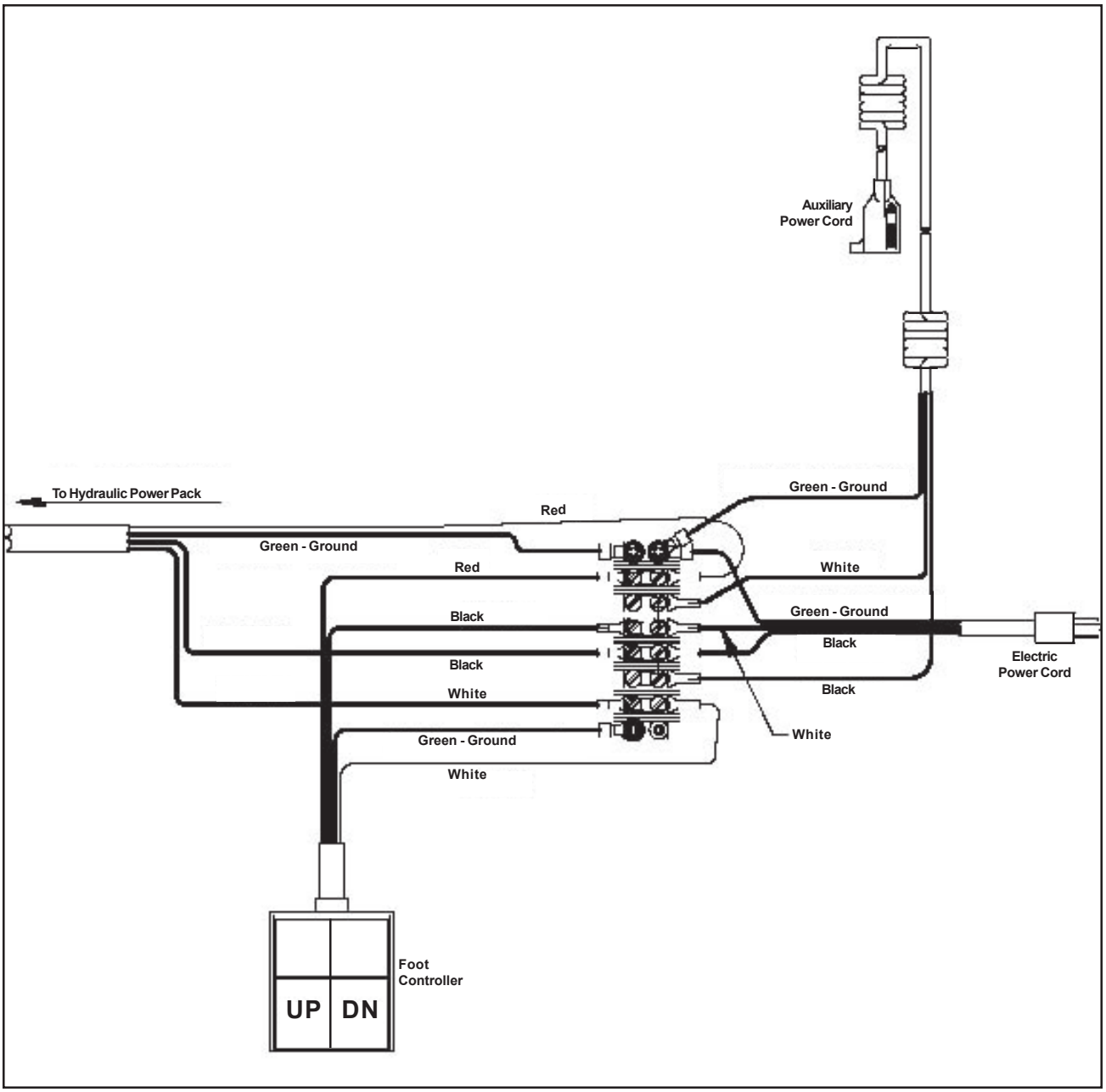

Figure 75. Wiring Diagram - Regal Lift Tables

Notes:

Chapter 5 - Troubleshooting

General

The following troubleshooting procedures will help you fix most of the problems that you might encounter with the Regal Lift Table. If necessary, please feel free to call SSCI Customer Service at (847) 537-9320, ext. 3518 (in Illinois) or 1-800-323-7366. Our experienced personnel will be glad to help you.

For more information on contacting SSCI, refer to *SSCI Contact Information* on *Page 7*.

Part numbers for available replacement parts are shown in Table 2 on *Page 31*. To order replacement parts, refer to *Parts Ordering Procedure* on *Page 32*.

Possible problems are listed below along with their page references:

Page numbers shown in parentheses in the *Remedial Action* sections direct you to step-by-step directions on replacing specific parts. Refer to *Chapter 4, Repairs and Replacements*.

If it is decided that your lift table must be returned to SSCI for repairs, refer to *Returning the Lift Table for Repairs* on *Page 82* for directions.

CAUTION: **When working with electric wiring and connections, make sure the electric power cord is unplugged unless told to plug it in by the instructions.**

Returning the Lift Table for Repairs

RMA Numbers

If your lift table should require return to SSCI for repairs, discuss the problem with one of our Customer Service Representatives. Obtain an RMA number (Return Merchandise Authorization) from them before shipping the unit back**. Note:** Equipment returned without an RMA number will not be accepted.

Packing and Shipment

If you were able to keep the lift table shipping carton and pallet, repack the table into the carton, staple or tape the cover securely in place, and band the carton to the pallet.

If the shipping carton is not available, it is possible to ship the table back without a carton. The table must, however, be shipped on a pallet. Tables not shipped on pallets will not be accepted by SSCI due to the greater likelihood of damage. In any case, such shipments would probably not be accepted by the shipping company.

Important: Remove the breather plug from the oil reservoir (refer to *Preparing the Hydraulic Power Pack* on *Page 11*) and replace it with the transport plug removed during installation. This will help prevent the leakage of hydraulic fluid from the oil reservoir during shipment.

Ship documentation with the table including:

- Destination
- RMA Number
- Your name, company and address
- Your telephone number
- A description of the reason for returning the table.

Note: When the table is received back from the manufacturer, re-install the breather plug. With the table in the down position, remove the transport plug and install the breather plug,*finger tight*. DO NOT us a tool to tighten the breather plug.

PROBLEM 1: The table will not raise or lower.

Remedial Action

First: Make sure the electric power cord is plugged in.

Second: Make sure that you have electrical power to the table. Check the fuses or circuit breakers in the office electrical panel. If you have blown a fuse or tripped a circuit breaker, it may mean that you are trying to lift too heavy a load on the table. The table's maximum load limitation is 300 lbs (136 kg). Refer to *Load Weight Limitations* on *Page 6*.

Third: Make sure that you have power to the outlet you are using. Try plugging another device into the outlet and see if the device works.

Fourth: Check to see if there is any obstruction to the foot controller pedal. Clear any blockage you find and try operating the table again.

Fifth: There are two electric power cords in the system. One runs between the table and the electrical outlet, the other runs between the table and the hydraulic power pack. Check both electrical power cords for damage. If a replacement is required, call SSCI Customer Service and order:

- Power Cord (Table) - P/N 212194
- Power Cord (Power Pack) - P/N 213417

To replace either of the power cords, refer to:

- Power Cord (Table) - *Page 58*
- Power Cord (Power Pack) - *Page 46*

Sixth: The foot controller may be malfunctioning. Call SSCI Customer Service and order a new foot controller, P/N 212192. To replace the controller, refer to *Page 56* in this manual.

Seventh: If the unit is leaking hydraulic fluid, refer to *Page 87*.

Eighth: It's time to check inside the power pack! Refer to *Steps 18* and *19* on *Page 38* and remove the power pack cover. Check the fluid level against the fill line on the side of the reservoir (Figure 36 on *Page 39*). If the level is low, follow the procedure given in *Refilling the Hydraulic Power Pack with Fluid* on *Page 63*.

Ninth: If there are no leaks, the fluid level is good and everything seems visually OK, you may have a bad solenoid valve. Call SSCI Customer Service and order a new solenoid valve, P/N 854605. To replace the solenoid valve, refer to *Page 50*.

PROBLEM 2: The table makes noise while raising and/or lowering.

Remedial Action

Note: A low-level humming sound is normal while the lift table is raising or lowering. This sound does NOT indicate a problem with the table.

First: Make sure you are not trying to lift loads heavier than the table's maximum lift weight of 300 lbs (136 kg). If you are trying to lift heavier loads, you are placing extra strain on the table lifting mechanism and structure. Refer to *Load Weight Limitations* on *Page 6*.

Second: The table may be out of level. This is most likely to be the case if the table was recently installed, or moved to a new location. For a floor-standing table, refer to *Page 13* for leveling procedures. For a wall-mount table, refer to *Page 18*.

PROBLEM 3: The table lowers by itself (load or no load).

Remedial Action

First: Make sure you are not trying to lift loads heavier than the table's maximum lift weight of 300 lbs (136 kg). Trying to lift heavier loads may be placing extra strain on the lifting mechanism that it was not designed to handle. Refer to *Load Weight Limitations* on *Page 6*.

Second: You may have a hydraulic fluid leak somewhere. Refer to *Page 87*.

Third: The hydraulic system may be low on fluid. Refer to *Refilling the Hydraulic Power Pack with Fluid* on *Page 63*.

Fourth: Is your lift table old? If so, the hydraulic system may be wearing out. Check the hydraulic cylinder for leaks and replace it if necessary. Call SSCI Customer Service and order a new hydraulic cylinder, P/N 854400. To replace the cylinder, refer to *Page 33*.

Fifth: If you lift table is old but the hydraulic cylinder appears to be OK, check the hydraulic power pack for leaks. Refer to *Page 87, sub-paragraph b*.

PROBLEM 4: The table lowers slightly after the foot pedal is released.

Remedial Action

First: Make sure you are not trying to lift loads heavier than the table's maximum lift weight of 300 lbs (136 kg). Trying to lift heavier loads may be placing extra strain on the lifting mechanism that it was not designed to handle. Refer to *Load Weight Limitations* on *Page 6*.

Second: You may have a hydraulic fluid leak somewhere. Refer to *Page 87*.

Third: The hydraulic system may be low on fluid. Refer to *Refilling the Hydraulic Power Pack with Fluid* on *Page 63*.

Fourth: Is your lift table old? If so, the hydraulic system may be wearing out. Check the hydraulic cylinder for leaks and replace it if necessary. Call SSCI Customer Service and order a new hydraulic cylinder, P/N 854400. To replace the cylinder, refer to *Page 33*.

Fifth: If you lift table is old but the hydraulic cylinder appears to be OK, check the hydraulic power pack for leaks. Refer to *Page 87, sub-paragraph b*.

PROBLEM 5: The table has an erratic motion when raising or lowering.

Remedial Action

First: Make sure you are not trying to lift loads heavier than the table's maximum lift weight of 300 lbs (136 kg). Trying to lift heavier loads may be placing extra strain on the lifting mechanism that it was not designed to handle. Refer to *Load Weight Limitations* on *Page 6*.

Second: You may have air in your hydraulic system. Refer to *Bleeding the Hydraulic System* on *Page 66*.

PROBLEM 6: Liquid is leaking from the lift table, hose or power pack.

Remedial Action

The liquid is probably hydraulic fluid which the hydraulic system uses to raise and lower the table.

First: Your first problem is stop the leak. Unplug the electric power cord and DO NOT press on the foot controller.

Second: Your next problem is to locate the leak. The leak is likely to be centered in one of three areas: the lift table, the hydraulic power pack, or the hydraulic hose between them.

a. If the leak seems to be centered at the hydraulic hose, the hose has probably ruptured or been damaged. Call SSCI Customer Service and order a new hydraulic hose, P/N 853520. To replace the hose, refer to *Page 42*.

b. If the leak seems to be centered at the hydraulic power pack, make sure that the quick-disconnect on the hydraulic hose is securely attached. Try to pull it away from the **UP** valve (Figure 39 on Page 43). If it comes away easily, refer to Step 6 on that page and re-connect it properly.

If the leak is between the reservoir and the motor: make sure the table is in the down position, then, with a flat-blade screwdriver, loosen the breather plug a few turns; then re-tighten the plug *finger tight only.*

Has any work been done on the power pack recently? It is possible that a connection has not been properly tightened. Check for loose connections on both sides of the **UP** valve and tighten them if necessary. There should be white Teflon thread sealing tape on all connections. If a connection is leaking, remove the connector, clean the threads, wrap them with Teflon tape, re-fasten the connector and tighten it securely.

If the leak does not seem to be external, refer to *Steps 18* and *19* on *Page 35* and remove the power pack cover.

Make sure that the hose clamp on the neck of the reservoir is tight. If it is loose, tighten the screw on the clamp.

If the power pack contains a lot of fluid and there is no obvious leak, the pump is probably bad. Call SSCI Customer Service and order a new hydraulic power pack, P/N 212193. To replace the power pack, refer to *Page 54*.

c. If the leak appears to be centered at the lift table, refer to *Steps 4* and *5* on *Page 34* and remove the front shield. Make sure that the connections on both sides of the **DOWN** valve are tight. There should be white Teflon thread sealing tape on all connections. If a connection is leaking, remove the connector, clean the threads, wrap them with Teflon tape, re-fasten the connector and tighten it securely.

If the fluid appears to be leaking from the hydraulic cylinder, you will have to replace it. Call SSCI Customer Service and order a new hydraulic cylinder, P/N 854400. To replace the cylinder, refer to *Page 33* in this manual.

Inside back cover

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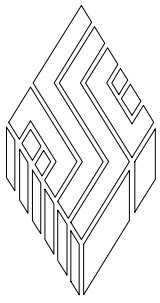
Refer to Chapter 2 of this manual for unpacking instructions.



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