

DEL MEDICAL

EV-800

Elevating Table

Installation, Operation, & Service Manual



P/N 8000-EV800-D

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Attention: Consult accompanying documents as necessary.

Del Medical Inc.

50B North Gary Avenue
Roselle, IL 60172
USA
www.delmedical.com

Phone: 1-847-288-7000
Fax: 1-847-288-7011
Toll Free: 1-800-800-6006

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Safety Information



Introduction

The policy of Del Medical, Inc. is to manufacture X-ray equipment that meet high standards of performance and reliability. We enforce strict quality control techniques to eliminate the potential for defects and hazards in our products.

The intended use of this equipment is to provide an adjustable elevating platform for positioning of a patient with respect to an X-ray source for the purpose of acquiring X-ray images of the desired parts of a patient's anatomy. Use of this equipment in any other fashion may lead to serious personal injury.

The safety guidelines provided in this section of the manual are intended to educate the operator on all safety issues in order to operate and maintain the table in a safe manner.

Statement of Liability

To prevent excess radiation exposure to the patient and the operator from either primary or secondary radiation, this table must be operated and serviced by trained personnel who are familiar with the safety precautions required. While this table has been designed for safe operation, improper operation or carelessness may result in serious injury or damage to equipment. The manufacturer or its agents and representatives assume no responsibility for the following:

- 1 Injury or danger to any person from X-ray exposure.
- 2 Overexposure due to poor technique selection.
- 3 Injury or danger from improper use of the elevator function.
- 4 Problems or hazards resulting from failure to maintain the equipment as specified in the maintenance chapters.
- 5 Equipment which has been tampered with or modified. Del Medical, Inc. is not liable for any damage or injury arising from failure to follow the instructions and procedures provided within the manuals or associated informational material, or from user failure to use caution when installing, operating, adjusting, or servicing this equipment. Del Medical, Inc. is not liable for damage or injury arising from the use of this product for any other use than that intended by the manufacturer.

Definitions

The table below defines the meaning of various symbols found on device labels on the machine.

	This warning symbol indicates a potential hazard to operators, service personnel or equipment. It indicates a requirement to refer to the accompanying documentation for details.
	This symbol indicates that there is accessible dangerous voltage.
	This symbol identifies a protective earth terminal or ground.
	This symbol states that this product is categorized as Type B. Type B is defined as: Equipment providing a particular degree of protection against electric shock, particularly regarding allowable leakage currents and reliability of the protective earth connection (if present).
	This symbol indicates that you must dispose of the EV800 Elevating Table properly according to local laws and regulations. The EV800 contains electronic components; therefore, it must be disposed of separately from household waste. When the EV800 reaches its end of life, contact local authorities to learn about disposal and recycling options. The table has an estimated life of 10 years from point of purchase. This may vary depending on (1) product use, (2) product maintenance, and (3) environmental conditions.

Table 1-1: Definition of symbols found on device labels.

Safety Conventions Used in this Manual

Specific safety information is listed in this manual in the form of WARNING and CAUTION statements. Pay close attention to these statements as they contain important information on avoiding potential hazards to you or the equipment.

Warning Statements:

- Are used to indicate hazards or unsafe practices which COULD result in severe personal injury or death.
- Appear in **bold** type.
- Have a triangular symbol with an exclamation point above the text.
- Are preceded by the word **Warning**.
- Are always found before the step or piece of information to which they refer.
- Look like the following example:



Warning

This text will describe special safety precautions to follow in order to avoid unsafe practices that COULD result in severe personal injury or death.

Caution Statements:

- Are used to indicate hazards or unsafe practices which could result in minor personal injury or product/property damage.
- Appear in **bold** type.
- Have a triangular symbol with an exclamation point above the text.
- Are preceded by the word **Caution**.
- Are always found before the step or piece of information to which they refer.
- Look like the following example:



Caution

This text will describe special safety precautions to follow in order to avoid unsafe practices that could result in personal injury or product/property damage.

Equipment Safety Guidelines

The following warnings and cautions are specific to the EV800 Elevating Table. Read them carefully - some of them **are not obvious** to typical equipment use.



Warning

Turn off electrical power to the table at the power source before servicing the table. Also, make sure that the power source is locked out and tagged "Table Being Serviced" before servicing the table; you could get seriously shocked or burned if you do not.



Warning

Do not place any objects within the vertical motion area above or below table. Objects in such areas can present crush hazards for the patient or operator and can also damage the table. See shaded areas in figure below.

The table is equipped with a collision avoidance switch for downward motion. This switch is designed to protect the table top, not the operator or patient from a collision. The downward motion of the table will stop if the table encounters 100 lbs (44kgs) of upward force.





Warning

Make sure the operator or the patient does not touch the table's unlock pedals when the patient is getting on or off table. This may cause the patient to fall off the table and cause serious injury. See figure below.



Warning

Do not operate the table in an explosive atmosphere (such as anesthetic gas). Doing so can cause an explosion or a fire hazard which could cause serious injury.



Warning

All of the movable assemblies and parts of this equipment should be operated with care and routinely inspected in accordance with the manufacturer's recommendations contained in this manual.

Only properly trained and qualified personnel should be permitted access to any internal parts. Live electrical terminals are deadly; be sure line disconnect switches are opened and other appropriate precautions are taken before opening access doors, removing enclosure panels, or attaching accessories.

Do not remove flexible high tension cables from X-ray tube housing or high-tension generator and/or access covers from X-ray generator until the main and auxiliary power supplies have been disconnected.

For all components of the equipment, protective earthing means it must be provided in compliance with the national regulations.



Warning

This table is intended to be used as part of a system for the intended generation of X-rays for medical diagnosis.

X-rays generate a potential risk for both patients and operators. For this reason, the application of X-rays for a given medical purpose must aim at the minimization of radiation exposition to any persons.

Those persons responsible for the application must have the specific knowledge according to legal requirements and regulations and must establish safe exposure procedures for this kind of system.

Those persons responsible for the planning and installation of this equipment must observe the national regulations.

Emergency Stop Button (For Service Technicians Only)

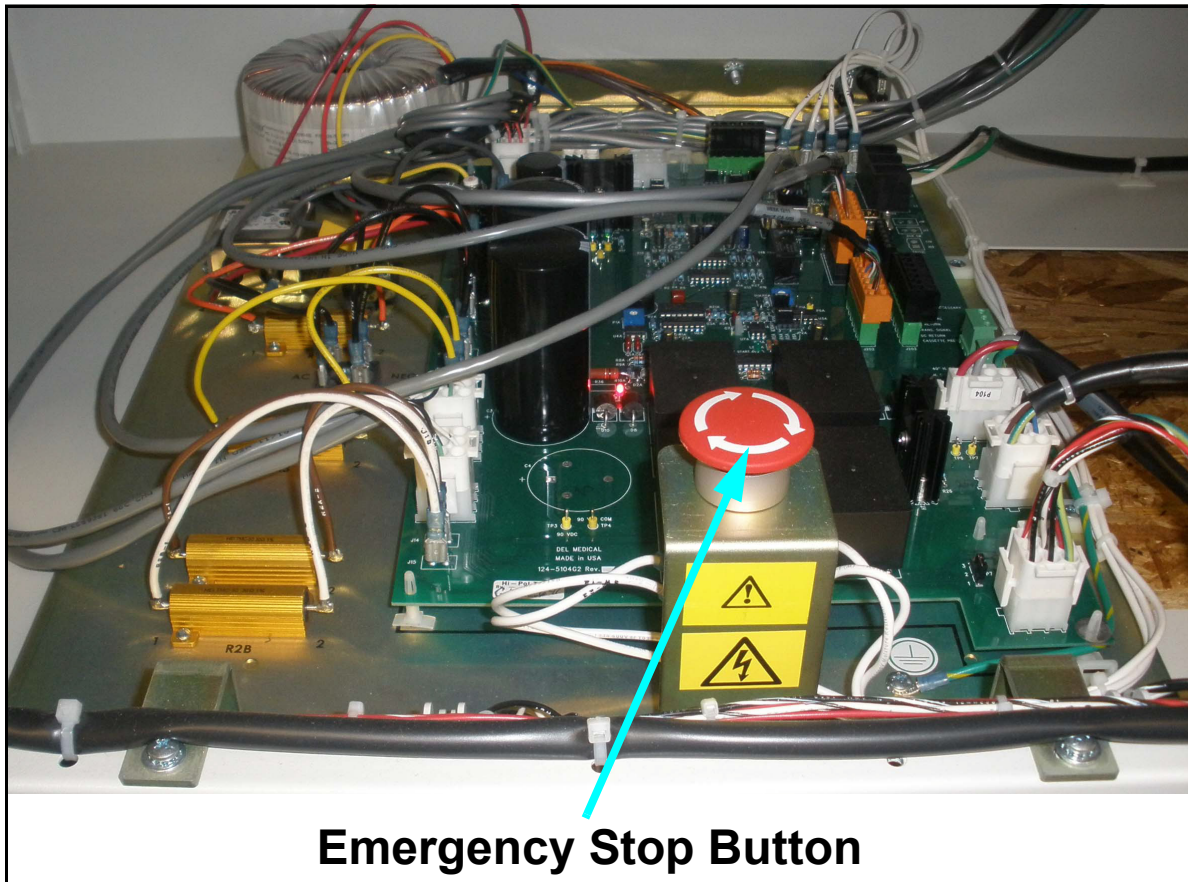
There is an Emergency Stop button located in the table's base that can be pressed to stop the motion of the table in an emergency. It is meant only to be used by technicians who are troubleshooting the table.

If the button is pressed, it must be turned in the direction of the arrows on the button until the button pops back up in order to reset the button. Otherwise, the table cannot be restarted. See Figure below for location of button.



Warning

The Emergency Stop button DOES NOT turn off all power to the table. There may still be lethal voltages present on the main chassis and throughout the table when this button is turned off. These voltages come from sources outside the table (i.e. generator, wallstand, etc.) that are connected to the table.



Emergency Stop Button

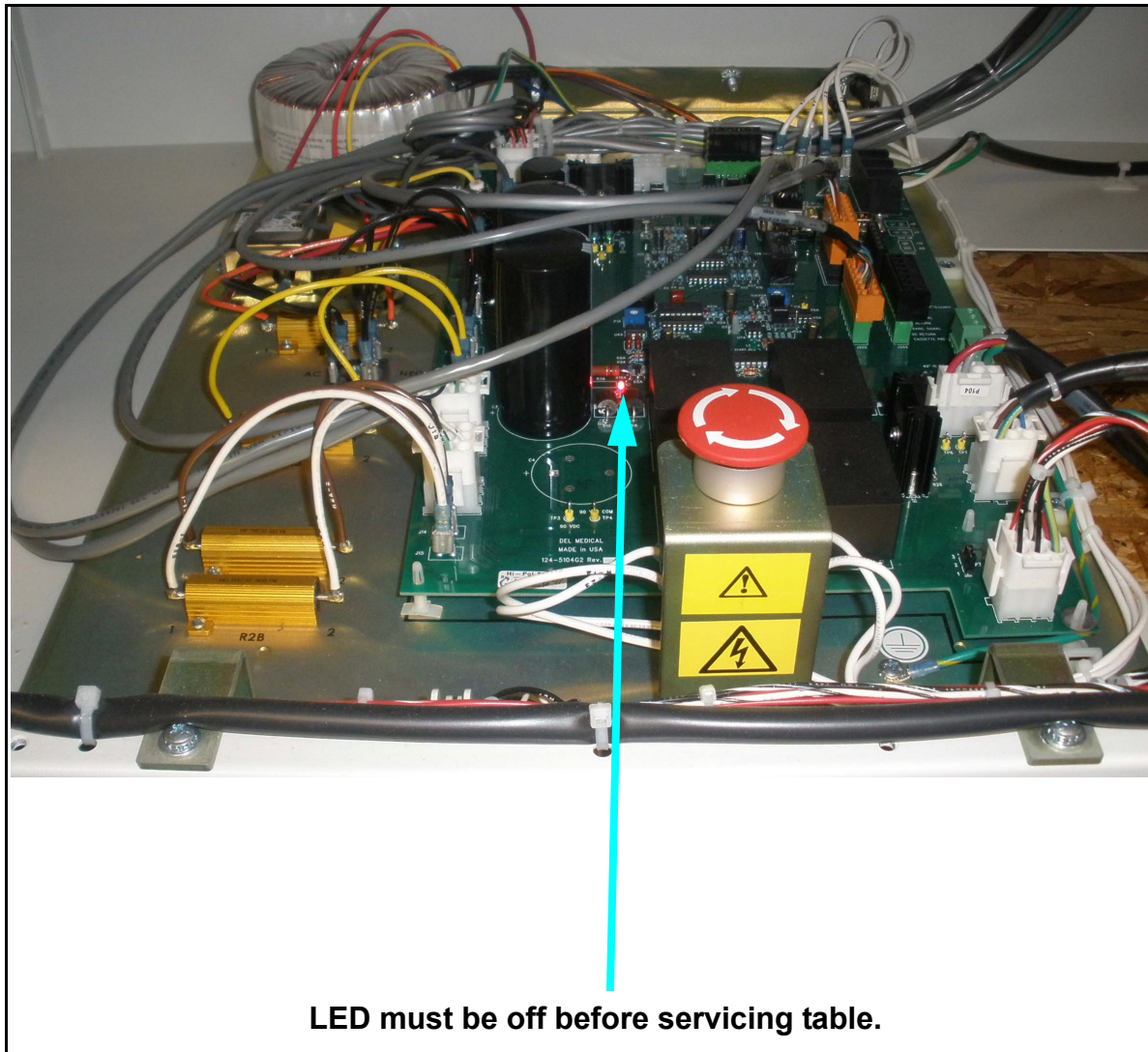
Emergency Stop Button

Electrical Discharge (For Service Technicians Only)

This table's main PCB contains capacitors that store energy after the machine is turned off. You can be severely shocked if you work on the table before these capacitors have completely discharged. The LED next to the capacitors must be off before you can work on the machine. When the LED is off, the capacitors have completely discharged.

Warning

Do not work on the table before the capacitor's LED is off; you can be severely shocked if you do.



Capacitor Discharge LED

Product Life

The table has an estimated life of 10 years from the point of purchase. This may vary depending on the (1) product use, (2) product maintenance, and (3) environmental conditions. When it has been determined that the table has completed its useful service life, local regulations must be complied with in regards to the proper disposal of the possible hazardous materials used in the manufacturing of the table.

The table contains electronic components, such as: soldered (may contain lead) circuit boards, tinned copper wire, transistors, diodes, resistors, capacitors, etc. The cabinet is made from steel and/or aluminum.

NOTE

DO NOT INCINERATE THIS PRODUCT. DO NOT PUT IN TRASH THAT IS DISPOSED OF IN LANDFILLS. DISPOSAL OF THIS PRODUCT MUST ADHERE TO LOCAL ORDANANCES AND REGULATIONS. LOCAL AUTHORITIES MUST BE CONTACTED FOR PROPER DISPOSAL AND/OR RECYCLING OPTIONS FOR ALL OF THE COMPONENTS LISTED ABOVE.

Record of Revisions



2.1 Revision History

REV	Date	Reason for Change
A	1-2-2012	Original

Table ii-1. Revision History

2.2 List of Affected Pages

Number	Rev Level	Number	Rev Level	Number	Rev Level
All	A				

Table ii-2. List of Affected Pages

Introduction

1

1.1 Introduction

This manual provides installation, operation, and service information for the EV800 Elevating Table. This manual also includes a spare parts list for the table.

1.2 Description

The EV800 elevating radiographic table is designed for general purpose radiography and is ideally suited for modern hospitals, urgent care centers, clinics, and private practices.

The EV800 features a four-way, floating table top which provides 41" (104 cm) of longitudinal travel and 9.25" (23.5 cm) of transverse travel (13.25" (33.7 cm), with 36" wide table top option. It has a motor driven telescopic base which permits the tabletop to be lowered to within 22" (55.9 cm) of the floor and raised to a maximum height of 34" (86.4 cm) above the floor.

Electro-mechanical locks maintain the desired position. The position of the table top can be raised and lowered, and the locks released and engaged by operating the two outside foot pedals. The table's bucky can also be repositioned by pressing the pushbutton.

1.3 Dimensions

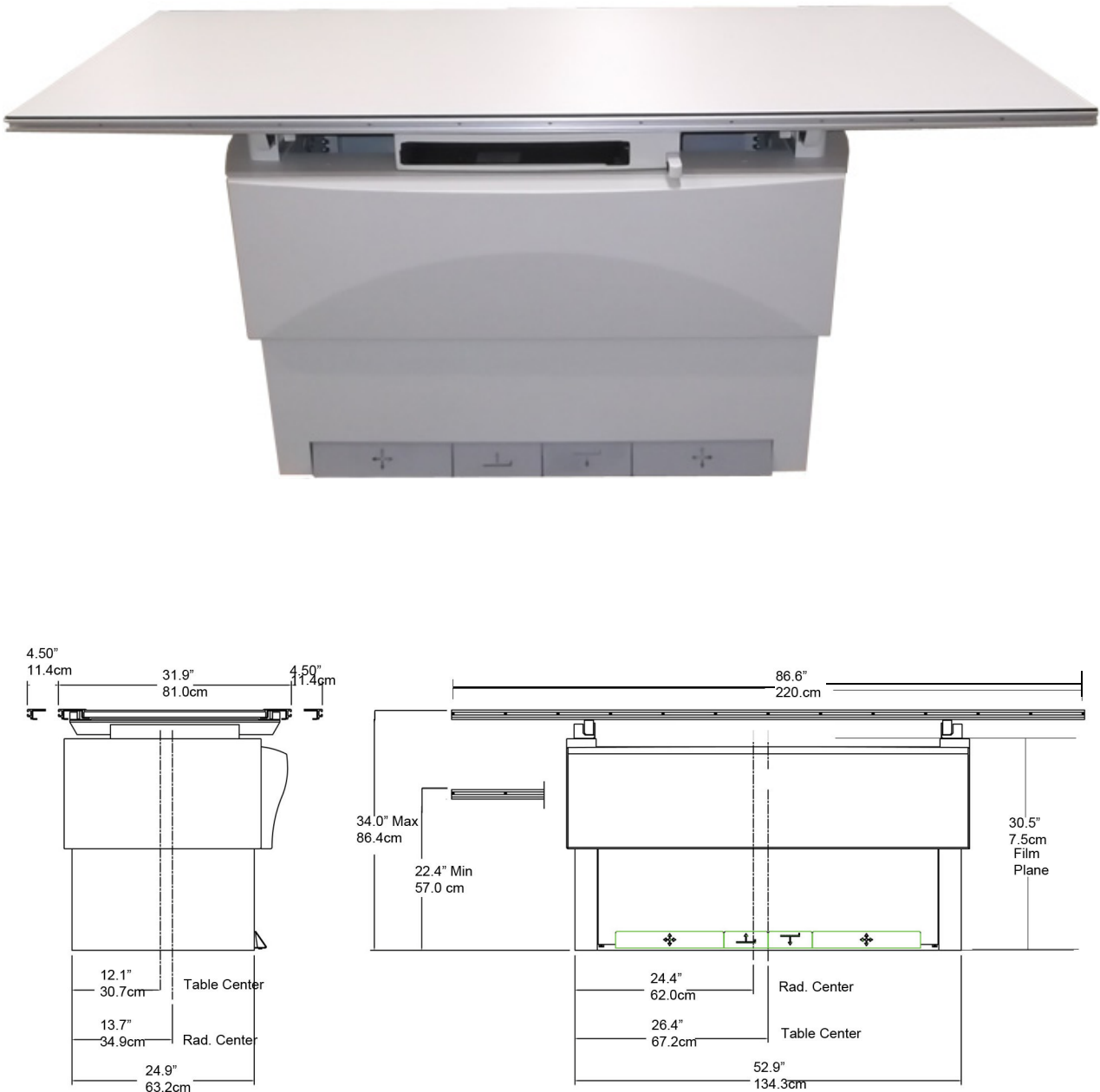


Figure 1-1. Dimensions

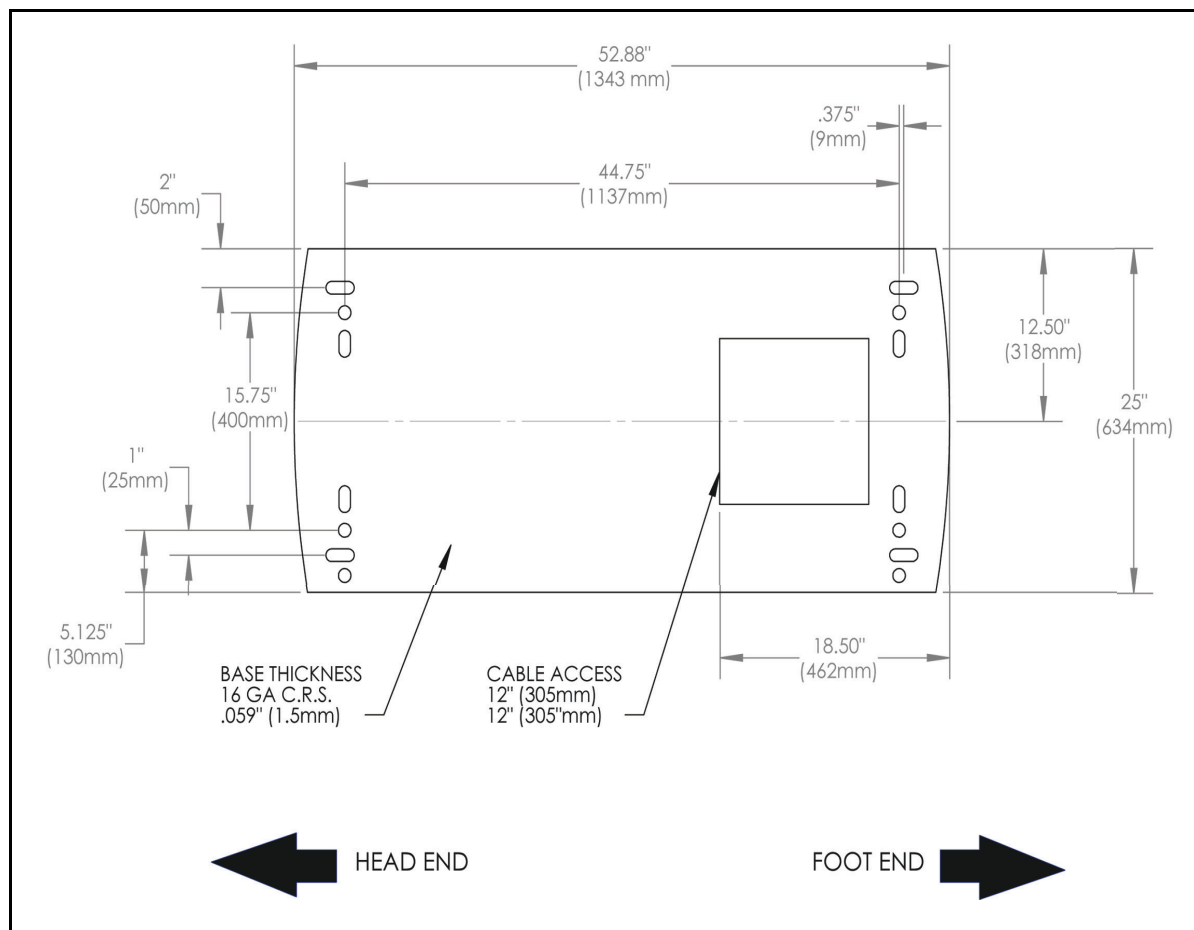


Figure 1-2. Table Foot Print

Note:	Bolt hole locations and overall base dimensions are symmetrical unless otherwise dimensioned.
Total Area of Base	8.8 Sq./Ft. (.818 Sq. M)
Floor Loading	56.8 Lbs/Sq. Ft. (277.5 Kg/Sq. M)
Bolt Hole Diameter	.75\" (19mm) 4 Locations

 Caution

Do not drill equipment mounting holes in pre-tensioned or post tensioned concrete floors before determining the location of the tensioned wire ropes. Consult with customer or responsible project engineer to locate and avoid drilling through wire rope. Cutting through tensioning cables can cause severe structural damage.

1.4 Minimum Space Requirements

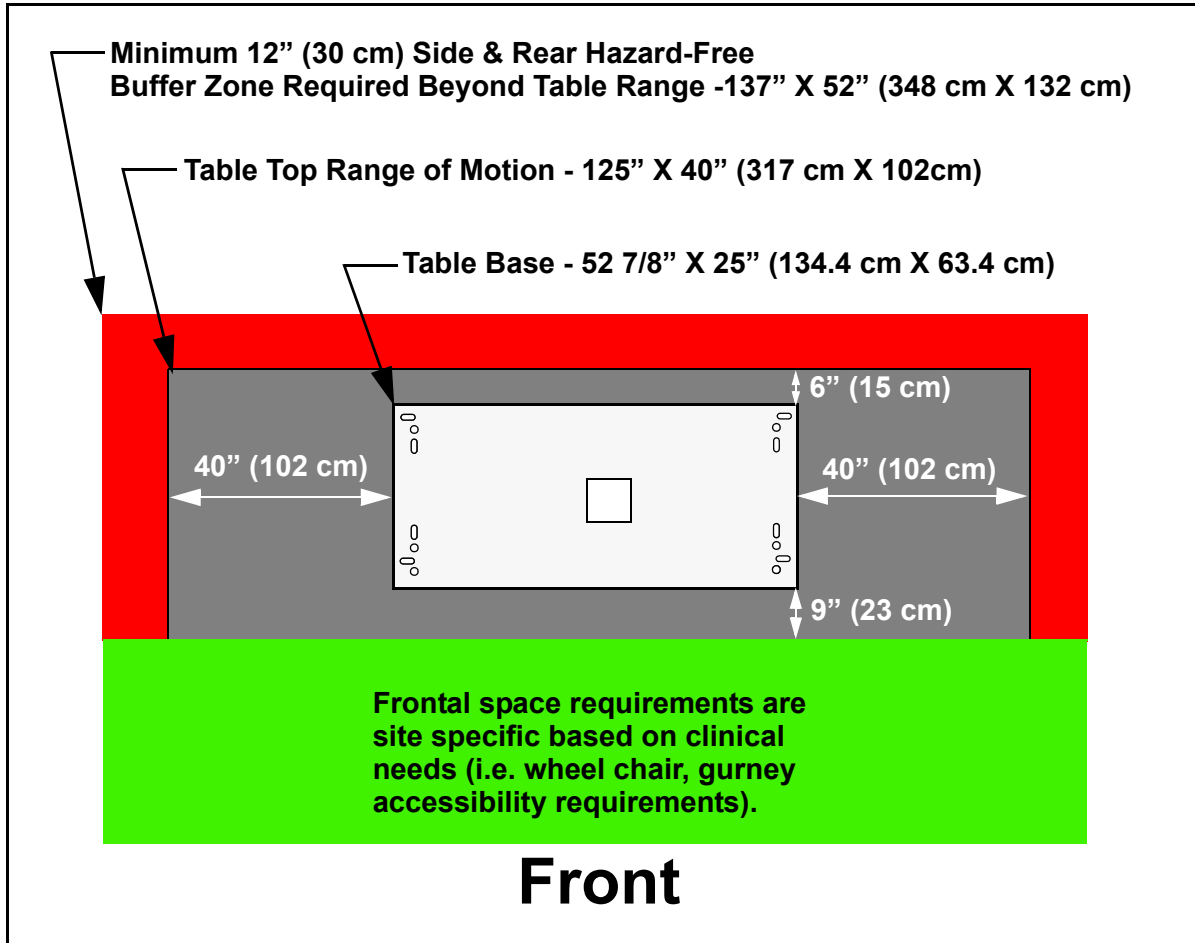


Figure 1-3. Plan View (Top View) of Minimum Space Requirements

1.5 Specifications

Specifications							
Compatibility	The EV800 Elevating Table is compatible with a wide variety of generators, wallstands, and tubestands. It is intended to be used in a stationary diagnostic X-ray configuration.						
Voltage	120VAC or 230/240 VAC						
Current	10 Amps, Momentary 15 sec ON, 85 sec OFF						
Frequency	50/60 Hz Single Phase						
Incoming Power Line	3 #16 AWG (1.5mm ²) for 50ft (15.25M) or Less						
External Heat Generation	300 Btu (88 watts)						
Fuse Type	Line (FL1) & (FL2) 10 Amp Motor (F1) 10 A						
Classification	Class 1 Type B						
Patient Lift Limit	800 lbs (363Kg)						
Duty	Continuous						
Mode of Operation	Momentary						
Aluminum Equivalent	Beam Attenuation of the Standard Table Top is 0.7 mm Aluminum Equivalent or Less						
Temperature Limits	<table> <tr> <td>Transit/Storage</td><td>Operating</td></tr> <tr> <td>- 40° F to +158° F</td><td>+50° F to +95° F</td></tr> <tr> <td>- 40° C to +70° C</td><td>+10° C to +35° C</td></tr> </table>	Transit/Storage	Operating	- 40° F to +158° F	+50° F to +95° F	- 40° C to +70° C	+10° C to +35° C
Transit/Storage	Operating						
- 40° F to +158° F	+50° F to +95° F						
- 40° C to +70° C	+10° C to +35° C						
Relative Humidity Limits	Transit/Storage 10% to 100% Operating 10%-80% Non-Condensing						
Atmospheric Limits	14.5 inHg to 30.74 inHg 500 hPa to 1060 hPa						
Weight	Table Base: 473 lbs (210 Kg) Table Top: 77 lbs (34Kg)						
Degree of protection against the ingress of water:	Ordinary						
Certifications:	 Classified To UL 60601-1, IEC60601-1, EN60601-1, IEC 60601-2-32, EN60601-2-32, IEC60601-1-3, EN60601-1-3. Certified To CAN/CSA C22.2 NO. 601.1.						
Equipment not suitable for use in the presence of flammable anesthetic mixtures with air, oxygen or nitrous oxide.							
No user serviceable parts							

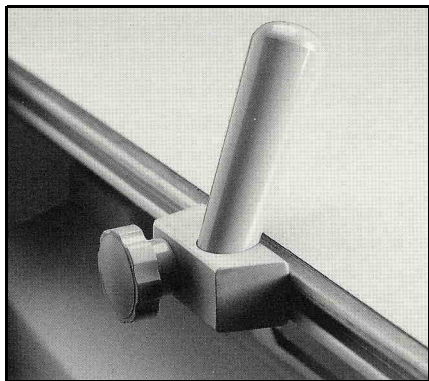
Table 1-1: Specifications

1.6 Abbreviations

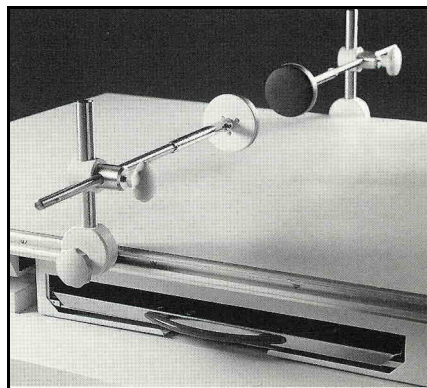
%	Percent
AWG	American Wire Gauge
Btu	British Thermal Unit
° C	Degree Celsius
CE	Communautés Européennes
cm	Centimeter
C.R.S.	Cold Rolled Steel
° F	Degree Fahrenheit
ga	Gauge
hPa	Hecto Pascal
inHg	Inches Mercury
Kg	Kilogram
Lb	Pound
M	Meter
max.	Maximum
min.	Minimum
mm	Millimeter
PBL	Positive Beam Limitation
Sq/Ft	Square Foot
Sq/M	Square Meter
UL	Underwriters Laboratories

1.7 Optional-Accessories

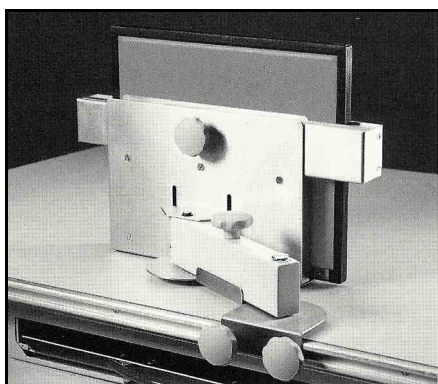
See page 9-36 for Part ID for accessories.



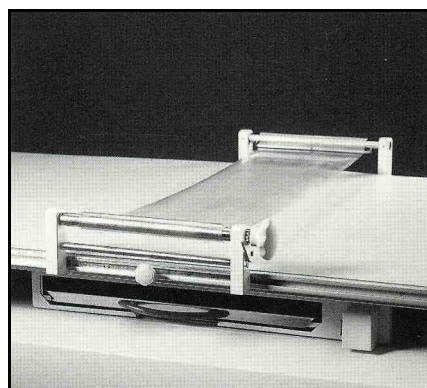
Hand Grips



Head Clamps



Lateral Cassette Holder



Compression Band

2.1 Installation Instructions

Tools Required:

- Diagonal cutters (side cutters)
- Medium phillips screwdriver
- Pallet hoist
- Power drill and masonry bit (size determined by installer)
- Scale for measuring downward force of up to 120 lbs (53 Kg.)
- Set of hex wrenches
- Set of nut drivers
- Set of open-end wrenches
- Small flat-tip screwdriver
- Utility knife

Note: Two people are required to perform this installation procedure.

Your shipment will arrive in two boxes as shown below. One box will contain the table top and the other box will contain the base. Save the boxes until the table is inspected for shipping damage and is up and operating.

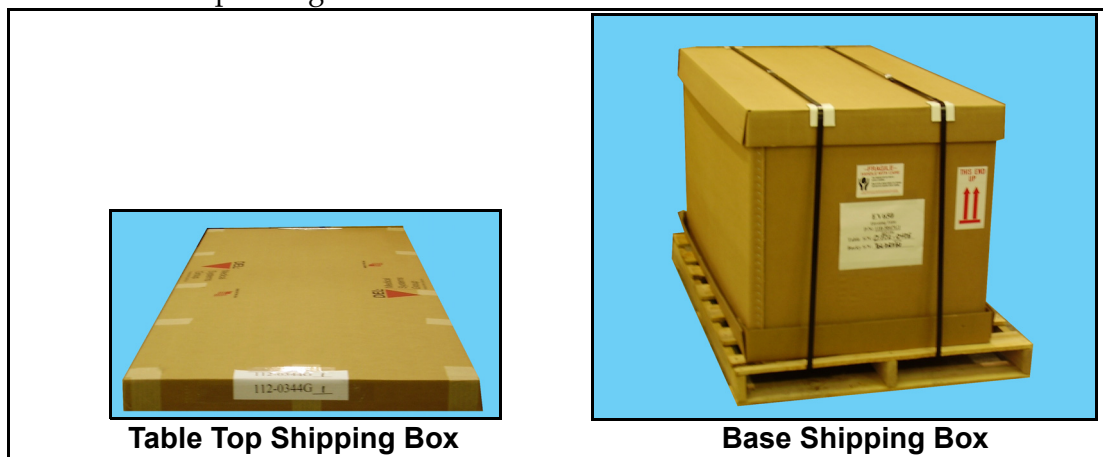


Figure 2-1. Shipping Boxes

- 1 Move the base pallet to the approximate position where the base will be installed.
- 2 Use diagonal cutters to cut the steel straps (1 in Figure 2-2). Remove the straps and the top cover (2).



Figure 2-2. Steel Shipping Straps

- 3 Remove the front cover (1 in Figure 2-3) from the box and unwrap it.
- 4 Lift off outer box shell (2).
- 5 Remove the shrink wrapping (3) from around the base.



Figure 2-3. Unpack Box

- 6 Cut and remove the tie wraps (1 in Figure 2-4).
- 7 Peel off tape (2) on *both* ends of the base. Only one end is shown in Figure 2-4.
- 8 Pull the power cord (3) from the base and unwrap it.
- 9 Plug in the table's power cord.

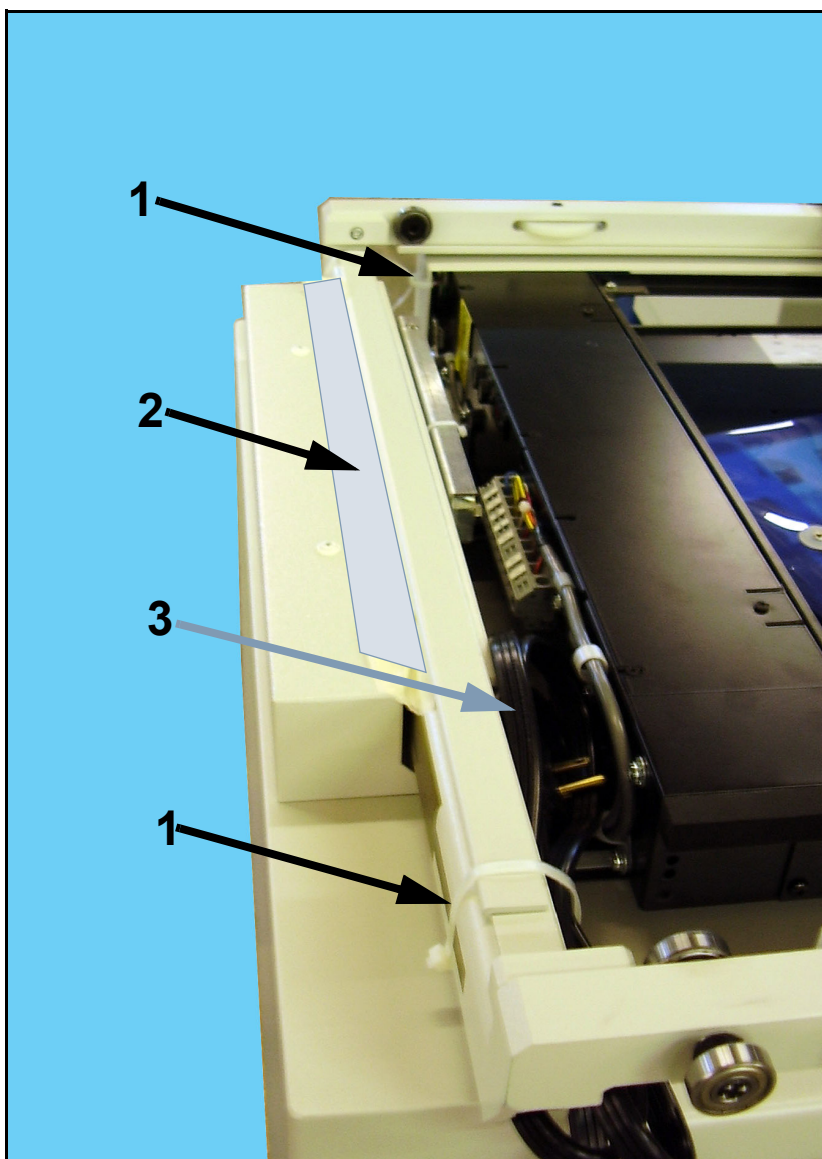


Figure 2-4. Removing Restraints

- 10 Press and hold the Up pedal (1 in Figure 2-5) until the base rises to its mid-level position where it will stop. Press and hold the Up pedal again until the base rises to its highest position where it will stop.

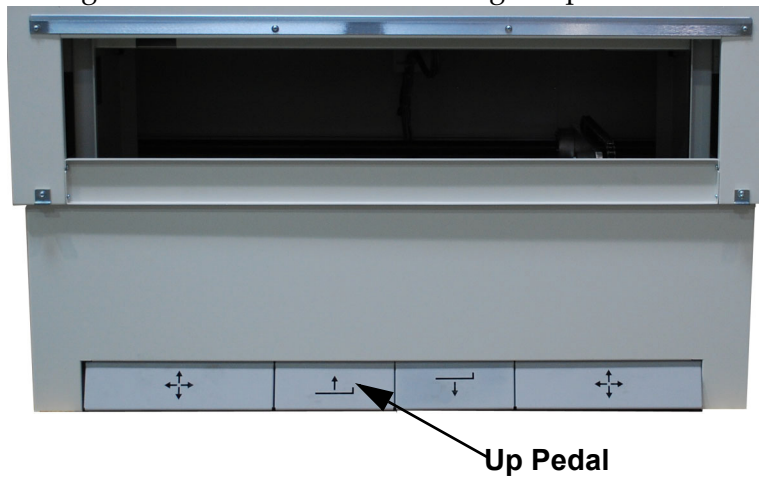


Figure 2-5. Up Pedal



Warning

Unplug the base's power cord before performing the following steps. You could get seriously injured if you do not.

- 11 Unplug the power cord.

- 12 Unscrew the two lower panel clamp screws (1 in Figure 2-6), then remove the lower panelhead screws (2).
- 13 Lift the lower panel (3) up slightly and then pull it out. The bottom of the lower panel is connected to the table by slots (4) shown below.



Figure 2-6. Lower Panel Clamps



Caution

Use extreme care when moving the base off the pallet and not to damage the foot pedals. Do not pry on the pedals or let the pedals rest on the edge of the pallet when moving the base.

- 14 Lift the base off the pallet and place the base in its final resting position.



Warning

You must use four 1/2'-13 x 3" (M12 X 75mm) bolts and appropriate anchors and washers to mount table base to floor. Use of any size smaller may cause the table base to break free from the floor under extreme load and leverage conditions. This condition could cause severe injury to the patient and/or user.



Caution

It is up to the installer and the customer to determine the best method for mounting the base to the floor. Before mounting the base, consult with the building's maintenance supervisor about drilling holes in the floor. Make sure that there are no hazards under the floor such as pipes, conduits, or structural cables that can be damaged by drilling holes in the floor.



Caution

Do not mount the table base to the floor until the tubestand or overhead tube crane that accompanies it has been mounted and aligned correctly; you may have to reposition the table if you do.

- 15 Mount the base to floor using holes through bottom of the base. There are several sets of holes that allow some adjustability in positioning the base. Choose the set of holes that best suits your needs, and then make sure that base is level after mounting. If necessary, use shims from accessory kit to aid leveling.

PBL Option Installation

- 16 If your table does not have a PBL (Positive Beam Limitation) option, go to step 28. If it does have a PBL option, do the following steps.
- 17 Unscrew the bucky rear cover screw (1 in Figure 2-7) and remove rear cover (2).

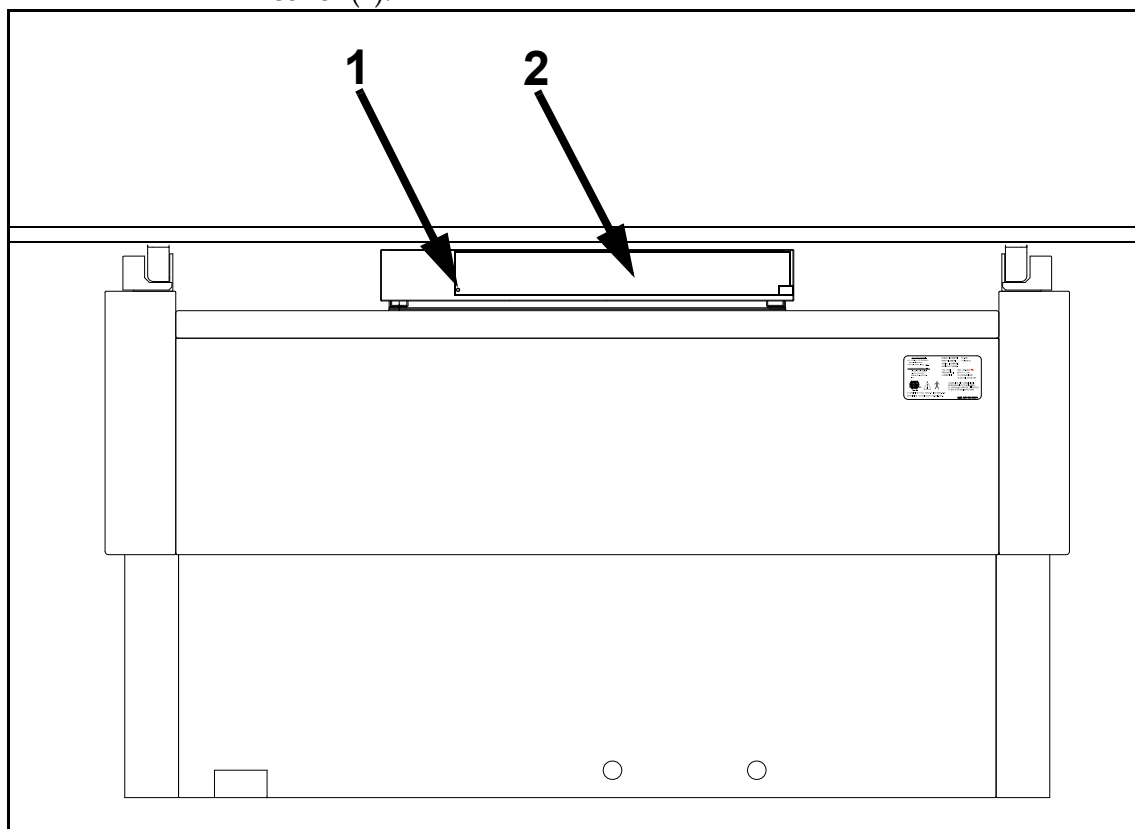


Figure 2-7. Bucky Rear Cover

18 Unpack the PBL kit.

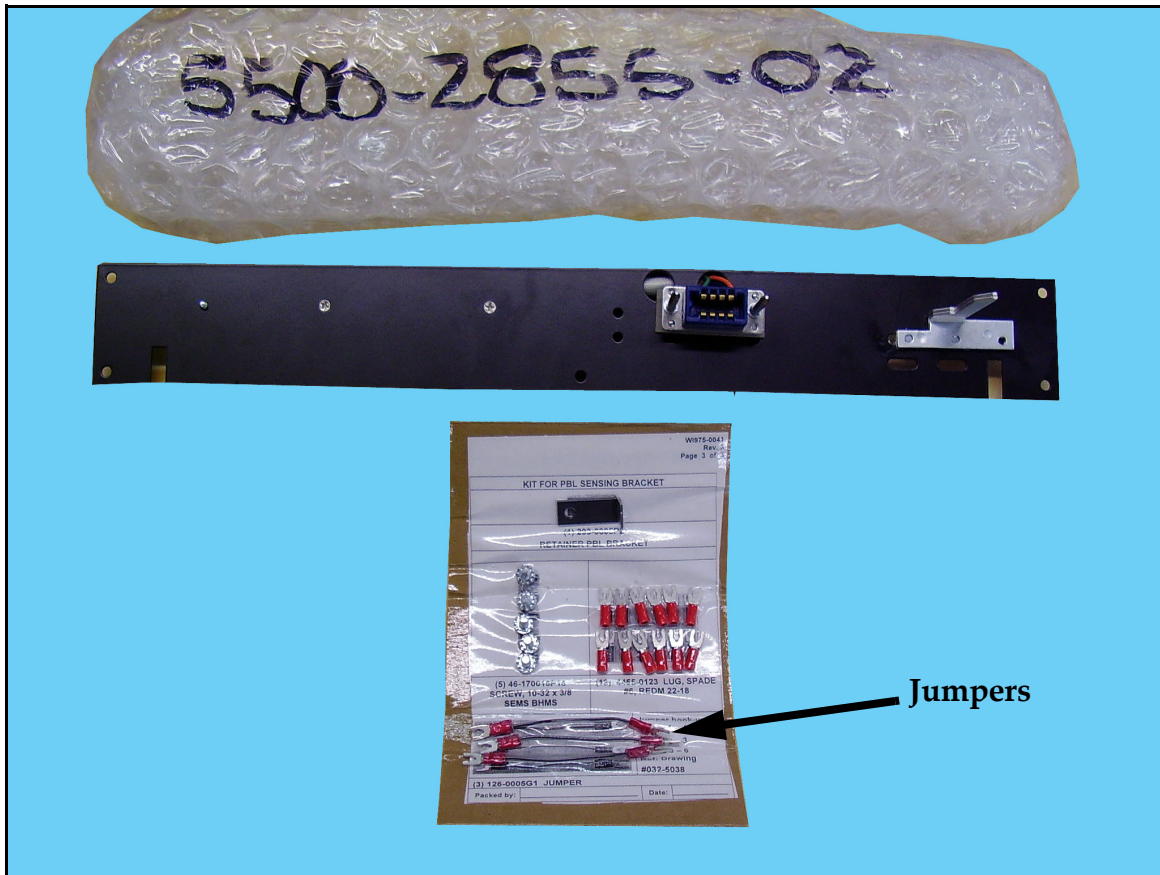


Figure 2-8. PBL Kit (Typical)

- 19** Cut tie wraps (1 in Figure 2-9) off the cable.

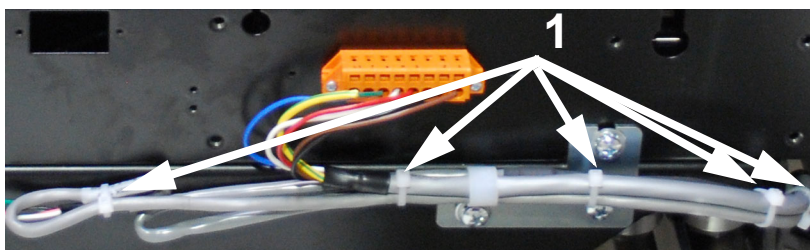


Figure 2-9. PBL Cable

- 20** Install the PBL plate assembly (1 in Figure 2-10) on the bucky and secure it in place with four mounting screws (2).
- 21** Unscrew the two acorn nuts (3) and remove the cover (4).

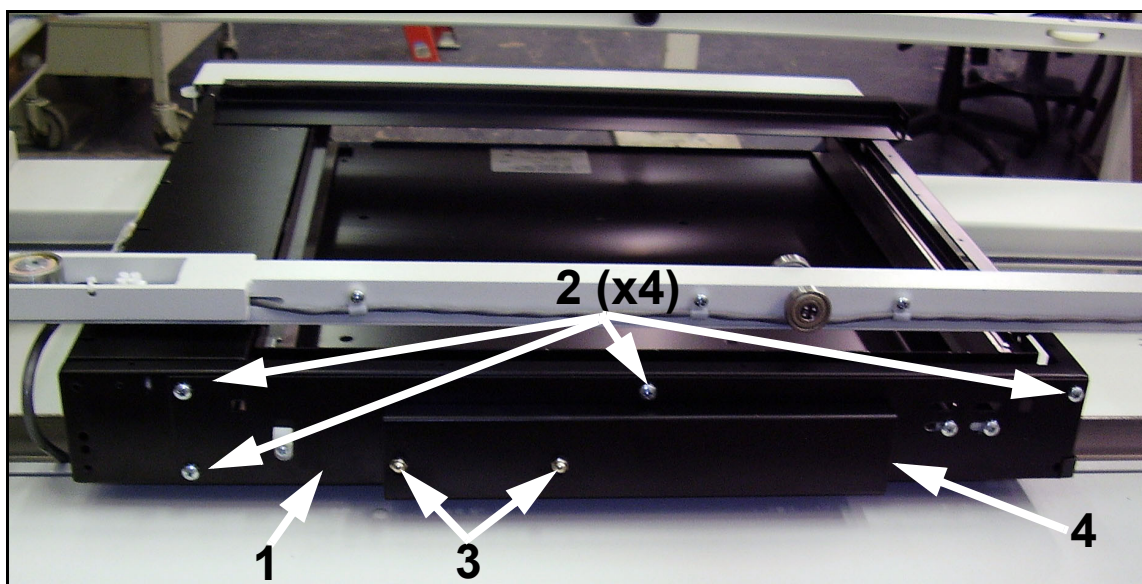


Figure 2-10. PBL Plate Assembly

- 22** Remove three wire jumpers from the PBL kit.
- 23** Install the jumpers across terminals 1 and 4, 2 and 3, 3 and 6. See figure below for terminal locations.
- 24** Connect the PBL cable to the terminal block as follows:
 - Wht - 4
 - Grn - 5
 - Blk - 7
 - Red - 8Tape all unused wires with electrical tape.

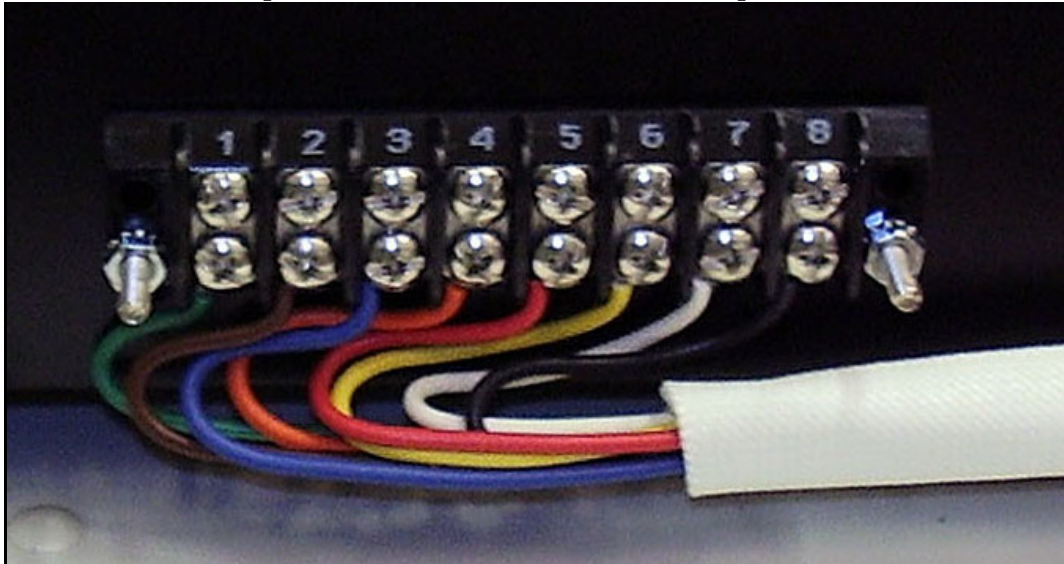


Figure 2-11. Terminal Block

- 25** Secure the internal cable with p-clamp & screw (1 & 2 in Figure 2-12).
- 26** Reattach the cover (3) with two nuts (4).

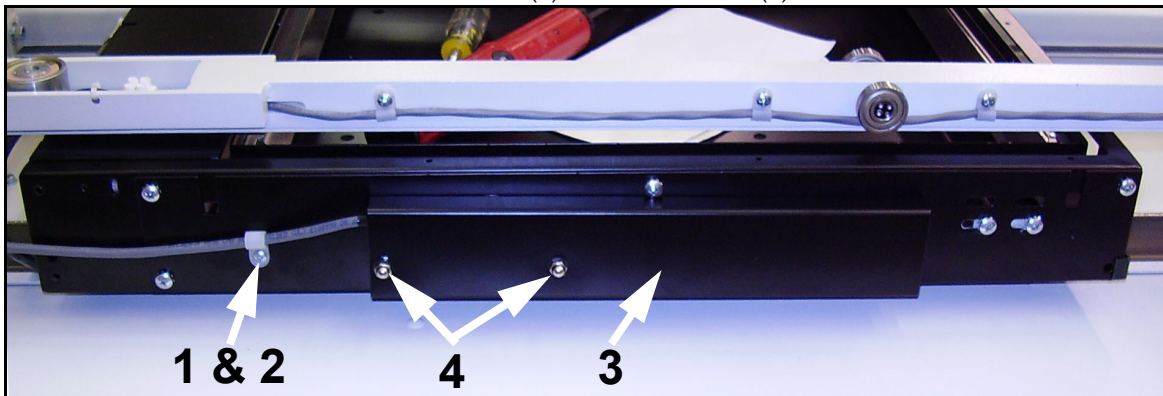


Figure 2-12. Clamp & Cover

Ion Chamber Option Installation

- 27 If your table does not have a ion chamber option, go to step 42. If it does have a ion chamber option, do the following steps:
- 28 Unpack the ion chamber kit.



Figure 2-13. Ion Chamber Kit Box (Typical)

- 29 Unscrew the four cover screws (2 on each side) (1 in Figure 2-14) and remove the top cover (2).

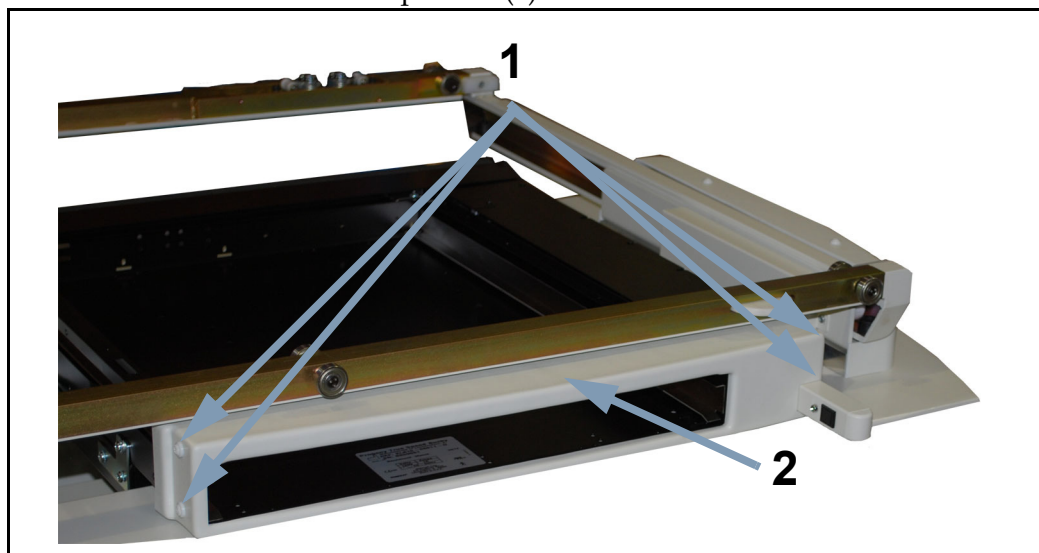


Figure 2-14. Bucky Top Covers

30 Cut the cable tie (1 in Figure 2-15).

31 Unscrew the clamp screws (2) and remove the clamps (3).

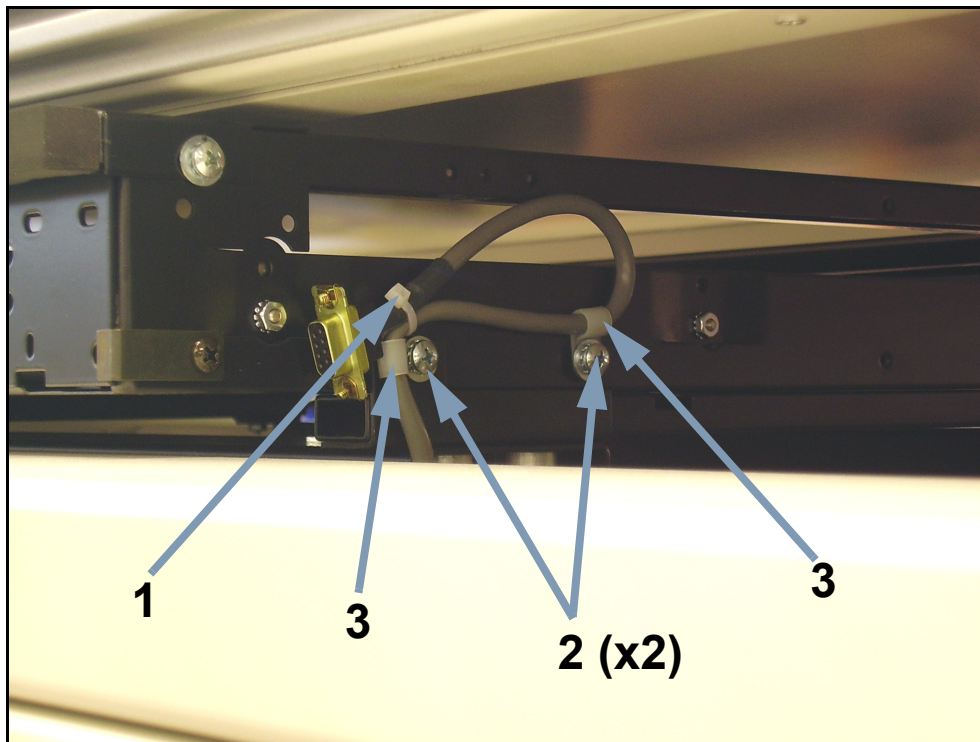


Figure 2-15. ION Cable Clamps

32 Unscrew the four cover screws (1 in Figure 2-16) and remove the cover (2).

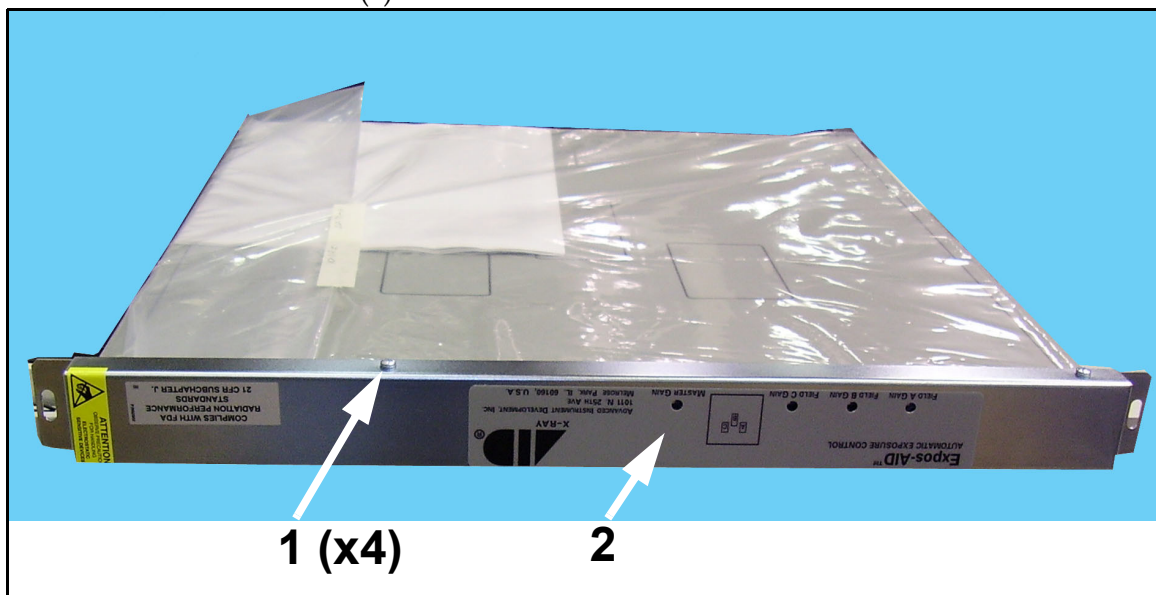


Figure 2-16. Ion Chamber Cover

- 33** Remove the grommet (1 in Figure 2-17) from the cover (2).

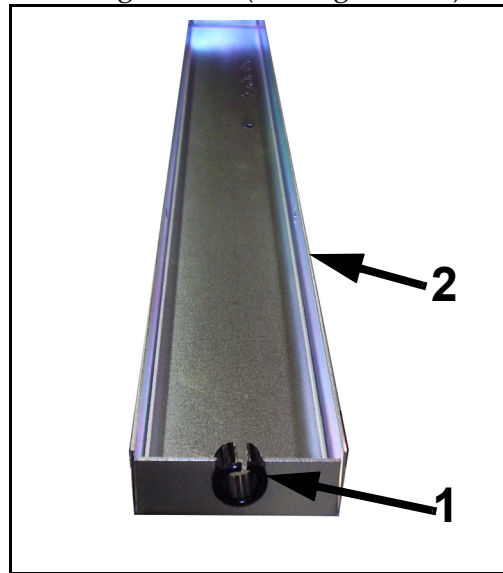


Figure 2-17. Cover Grommet

- 34** Adjustments are needed to install the ion chamber assembly (1 in Figure 2-18). When mounting the ion chamber, the ion chamber needs to hit the slotting mounting holes. If the ion chamber is screwed down and hits the grid, then lower the ion chamber, but if it is too low then it will hit the cassette tray. Check before final tightening of mounting screws (2). Unscrew the two clamp nuts (3) and remove the clamp (4).

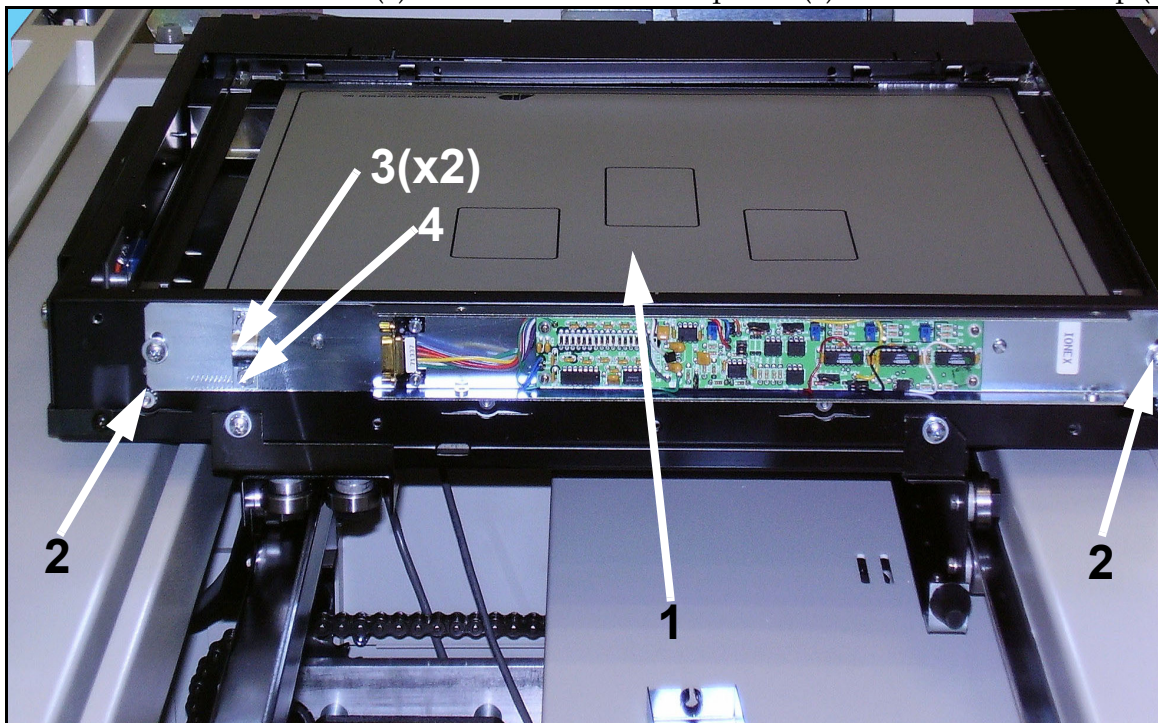


Figure 2-18. Installing Ion Chamber

- 35** Connect the internal ion chamber cable (1 in Figure 2-19) to the ion chamber and secure with the two mounting screws (2).
- 36** Install the clamp (3) over the cable and secure with the two nuts (4).
- 37** Insert the grommet (5) over the cable.

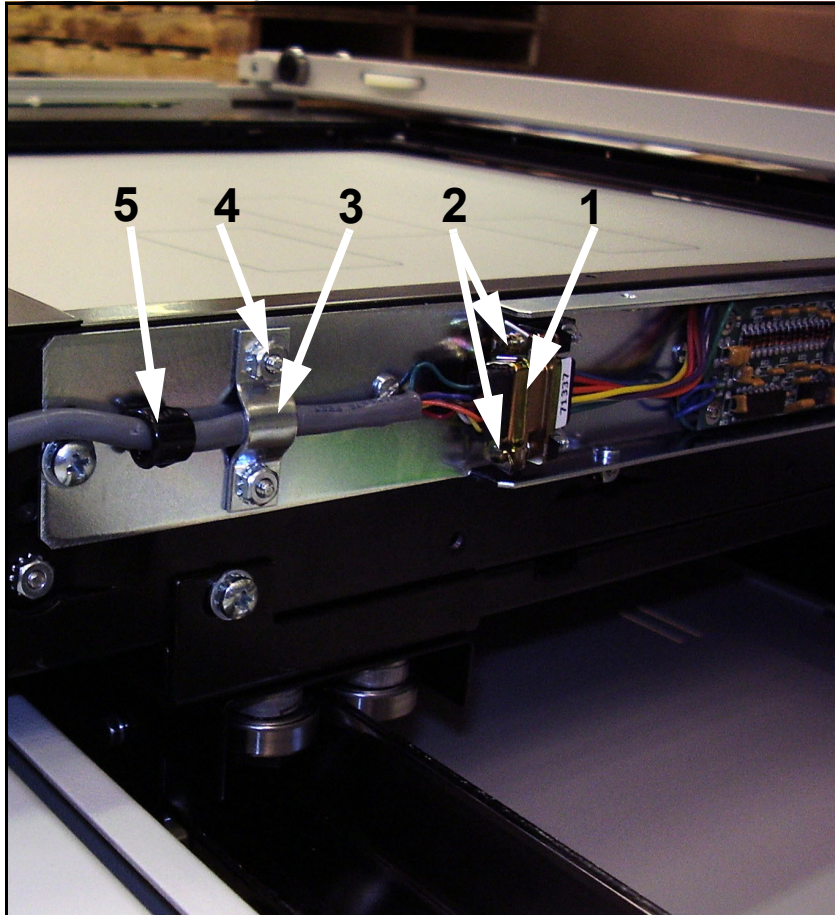


Figure 2-19. Ion Chamber Cable

- 38** Reinstall the cover (1 in Figure 2-20) and secure with the four screws (2). Make sure that the chamber mates with the grommet installed in the previous step when reattaching the cover.

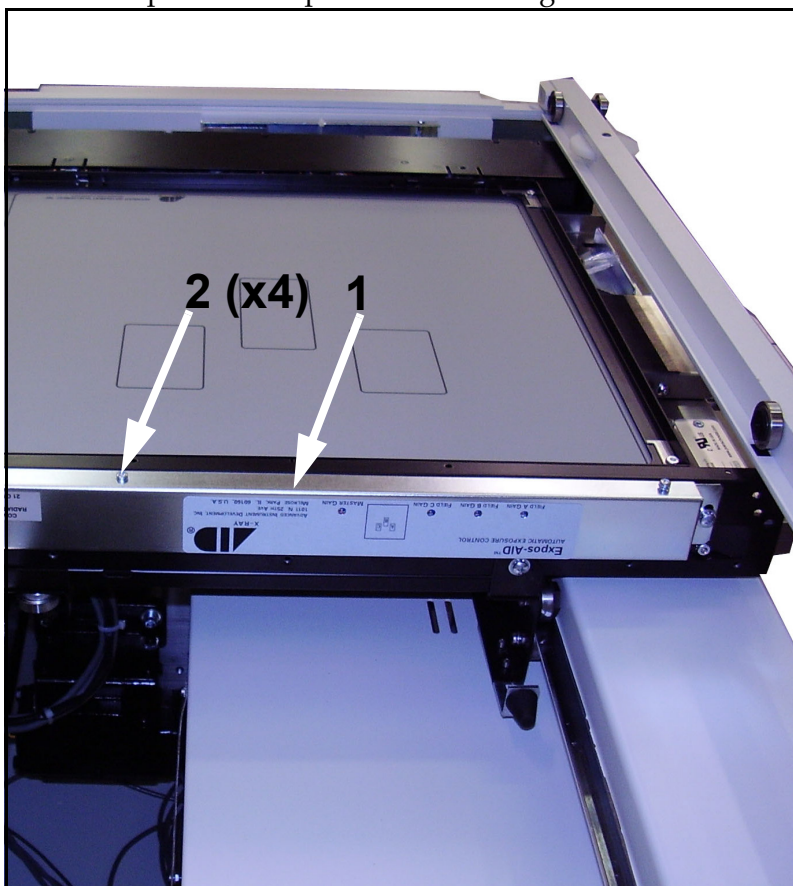


Figure 2-20. Ion Chamber Cover

Grid Installation

- 39** If not already done so, unscrew the four top cover screws (2 on each side)(1 in Figure 2-21) then remove the top cover (2).

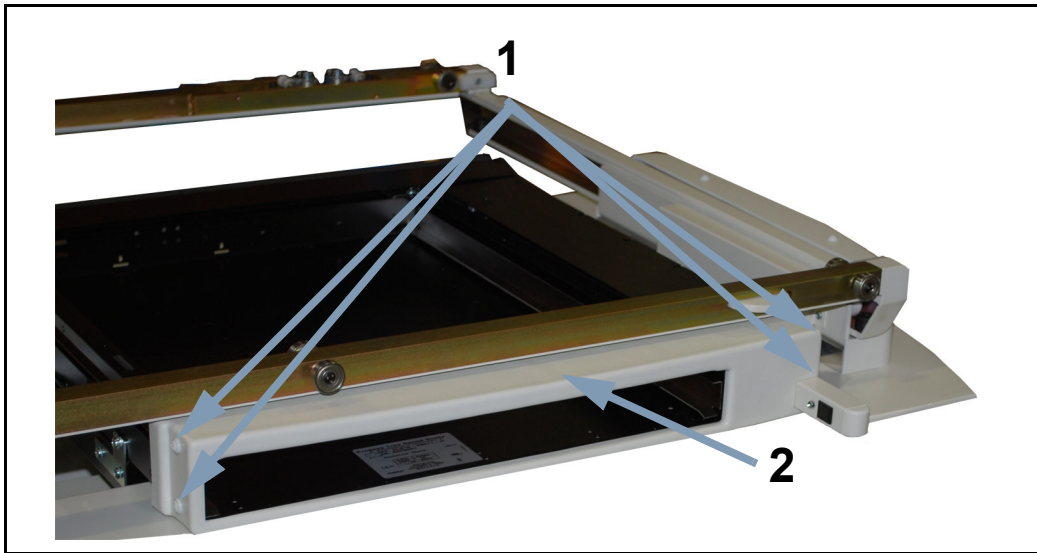


Figure 2-21. Bucky Top Covers

- 40** Unscrew the four clamp screws (1 in Figure 2-22) and remove the clamps (2).

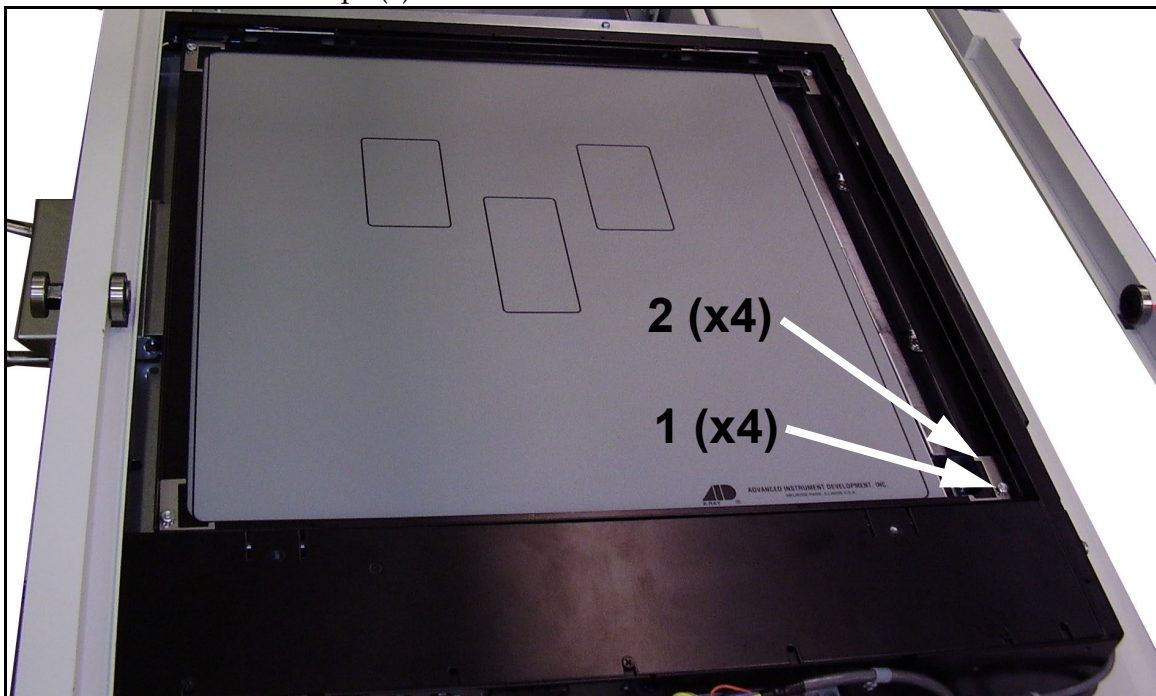


Figure 2-22. Grid Screws & Clamps

41 Unpack the grid from its box.



Figure 2-23. Grid Box (Typical)



Caution

Be careful not to over-tighten the grid clamp screws in the following step or you may crack the grid.

- 42** Install the grid as shown below and secure in place with clamps and screws.



Figure 2-24. Grid Installation

- 43** Reattach the bucky top cover (1 in Figure 2-25) and secure in place with four screws (2).

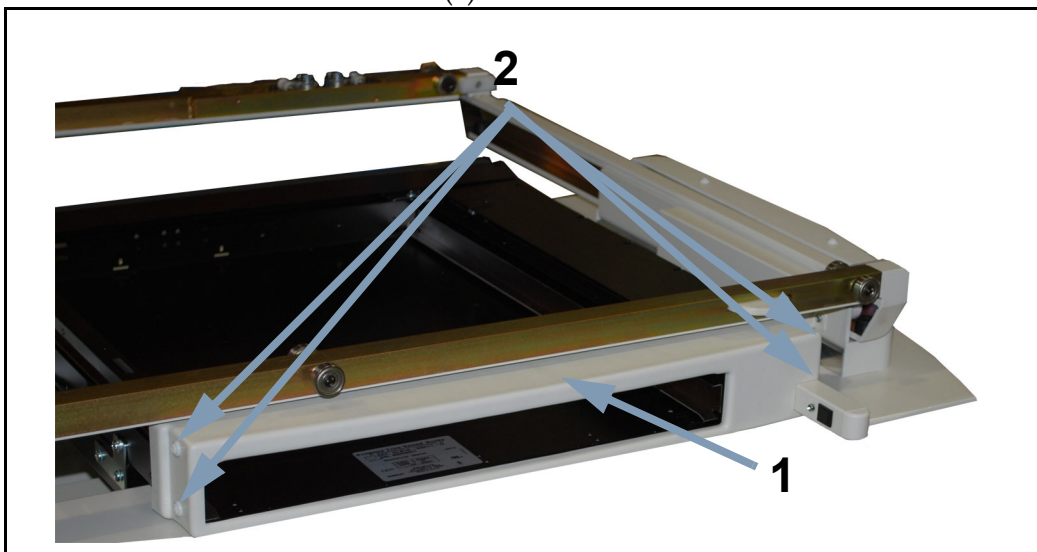


Figure 2-25. Bucky Top Covers (Grid Not Shown)

- 44 Feed the cables from peripheral equipment (wall bucky, collimator, etc.) through the port (1 in Figure 2-26) in bottom of table. As an alternative, the cables can be fed out through the opening in the lower back of the table, shown in Figure 2-28.

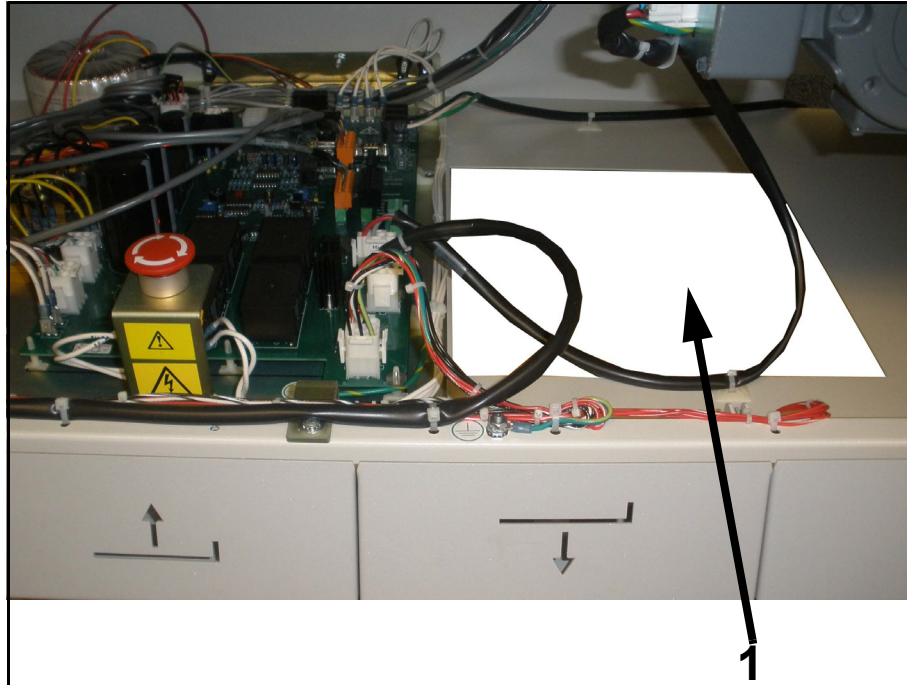


Figure 2-26. Bottom Cable Port



Warning

Make sure power to the table and all peripheral equipment (generator, tubestand, etc.) is turned off before performing the following steps; you can be seriously injured if you do not.

- 45 Connect peripheral cables to base chassis according to the interconnect schematics in Chapter 8.

- 46** Disconnect the power cord from the main chassis shown below and remove the power cord.

Wiring Safety Information

- **X-ray apparatus shall be grounded and powered in accordance with the National and Local Electrical Codes.**
- **During installation, make sure that all protective ground wire connections are completed before the equipment is turned on.**
- **It is required that a separate 10-amp (min.) line disconnect and current limiting device be provided for table power.**
- **The protective ground wires between system components are connected as shown in the wiring diagram in service manual.**
- **Regulations of professional associations concerning safety and accident prevention must be observed.**
- **When installation and maintenance is required, use only personnel trained in the mechanical and electrical operation of this equipment.**



Caution

If you are connecting 120 nominal input voltage to this table, then a 120 VAC needs to be connected to the line input. JP1, JP2, and JP3 on the main board must have the jumper plugs installed between pins 2-3.



Caution

If you are connecting 240 nominal input voltage to this table, then a 240 VAC needs to be connected to the line input. JP1, JP2, and JP3 on the main board must have the jumper plugs installed between pins 1-2.

- 47 Connect the dedicated power line to TB102. Refer to Section 1.5 “Specifications” for information on power and wiring requirements.

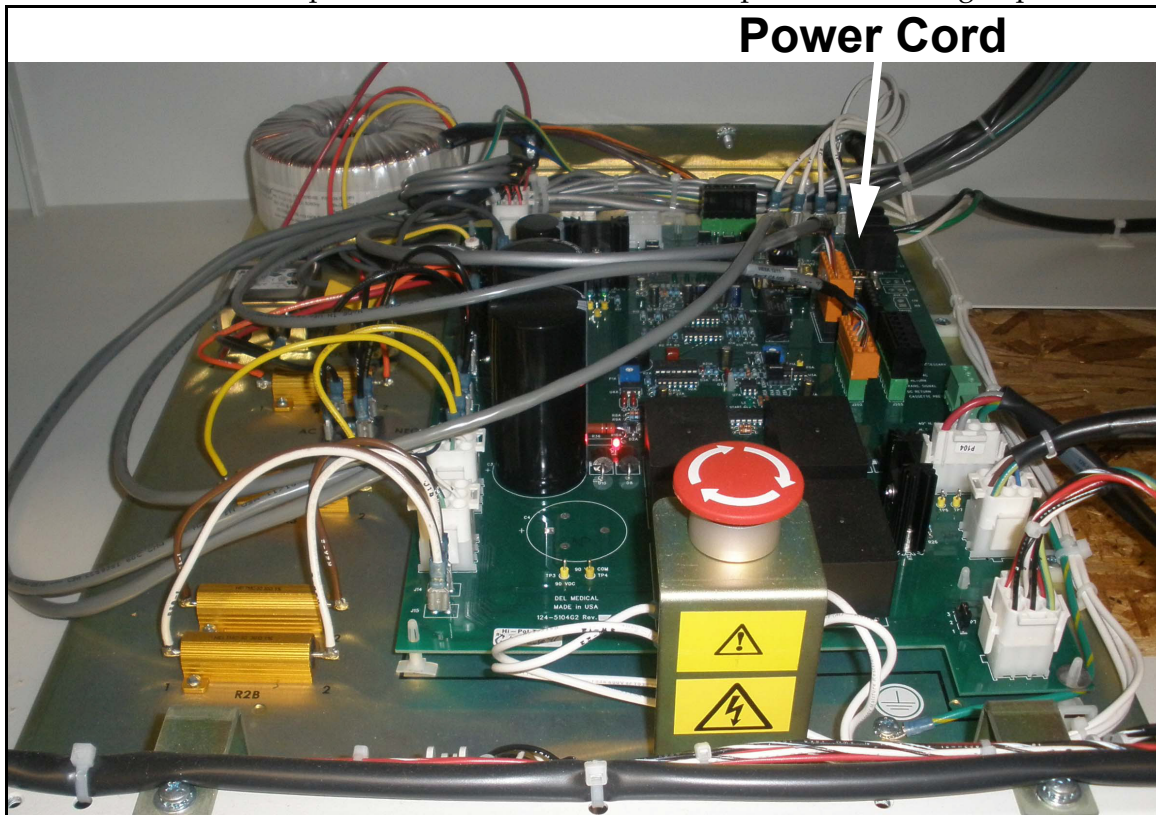


Figure 2-27. Main Power Terminal



Warning

Make sure power to the table is turned off at disconnect switch before performing the following steps.

Also, make sure power to the bucky is off by turning off the generator before performing the following steps.

Failure to follow this warning may result in serious injury.

- 48** Unscrew the port nuts (1 in Figure 2-28).

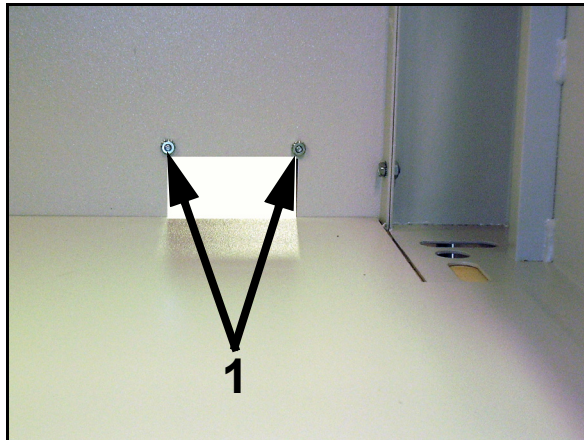


Figure 2-28. Port Cover Nuts

- 49** Pull the port cover (1 in Figure 2-29) out, flip it over, and reinsert it.

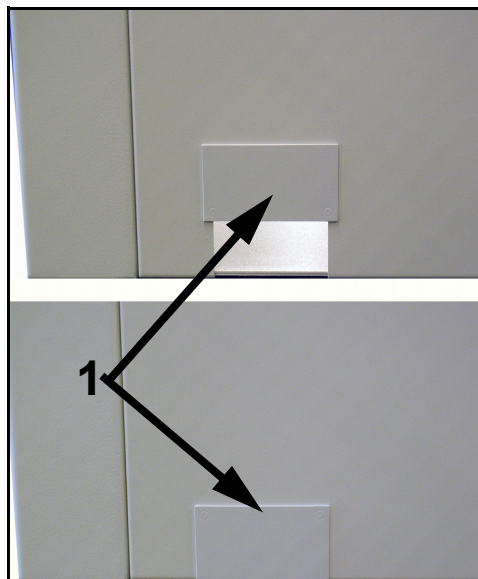


Figure 2-29. Port Cover (Back View)

- 50** Secure the cover in place with nuts (1 in Figure 2-30).

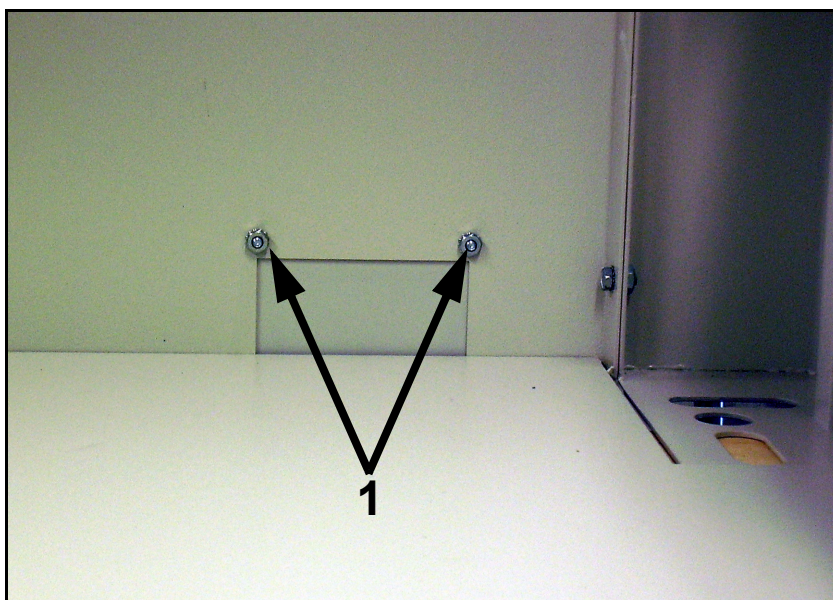


Figure 2-30. Port Cover Nuts

- 51** Reattach the lower front cover (1 in Figure 2-31).
- 52** Unscrew the upper cover mounting screws (2). The screws were screwed into the brackets for shipping.

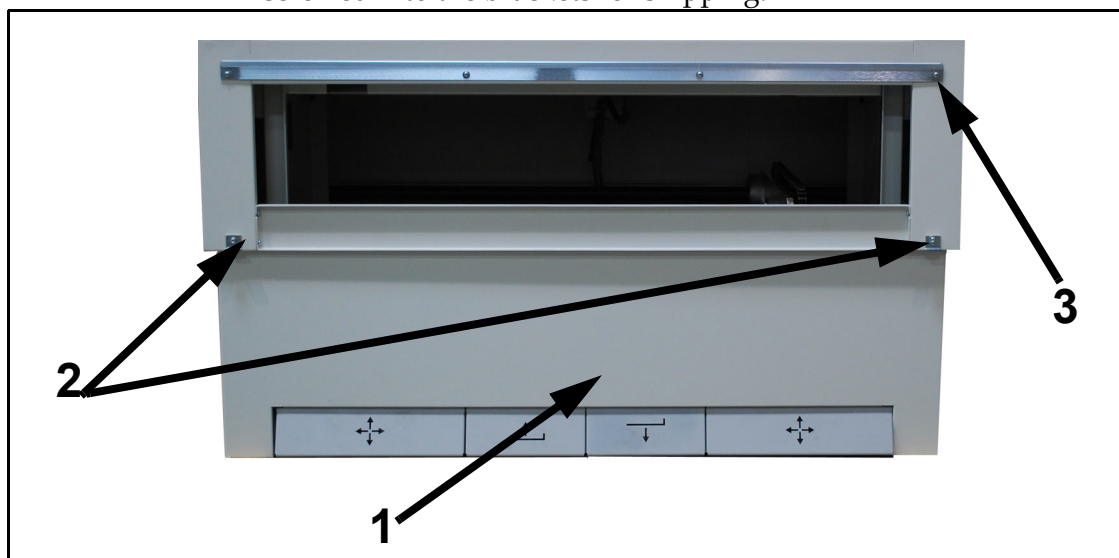


Figure 2-31. Upper Cover Mounting Screws

- 53** Hook the top cover (1 in Figure 2-32 below) onto the upper rail (3 in Figure 2-31 *above*) and secure in place with the two screws (2 in Figure 2-32 below).

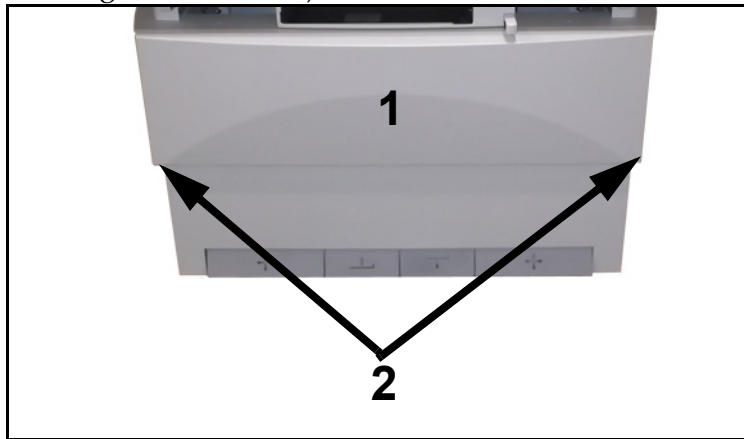


Figure 2-32. Upper and Lower Panel Screws

- 54** Unpack the table top from its shipping box.
- 55** Slide table top onto base rollers as shown below. Make sure tabletop is installed so the label is oriented towards front of the base. If you do not have enough room to slide the table on, perform steps 58-68. Otherwise, go to step 69.

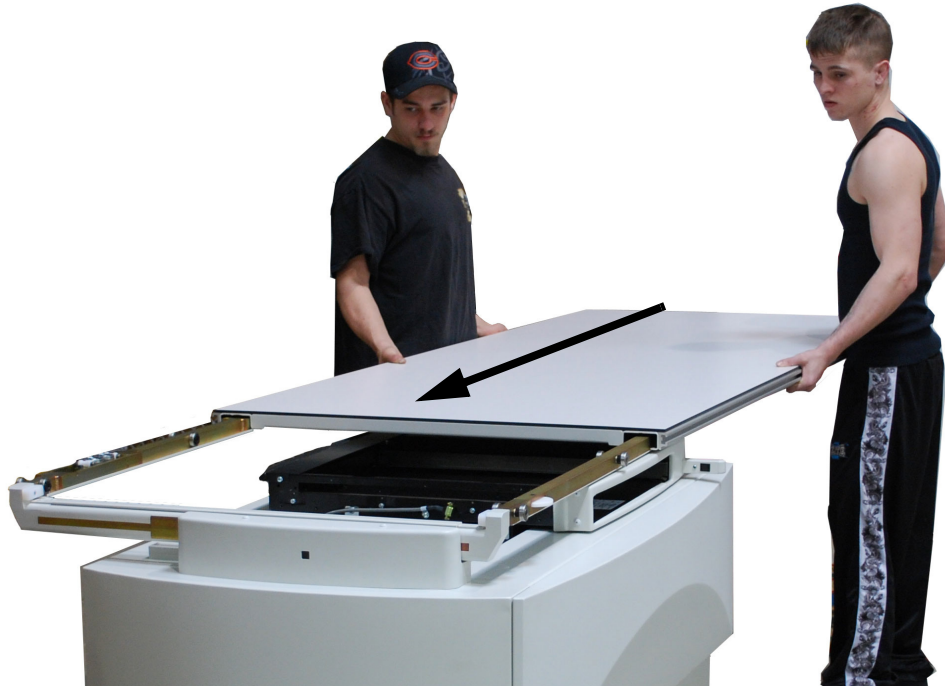


Figure 2-33. Table Top Installation

Note: Steps 58-68 are for rooms that are too small to allow the table top to be slid on from the end.

- 56** Remove guide rollers (1 in Figure 2-34) and bearings (2) from front of table.

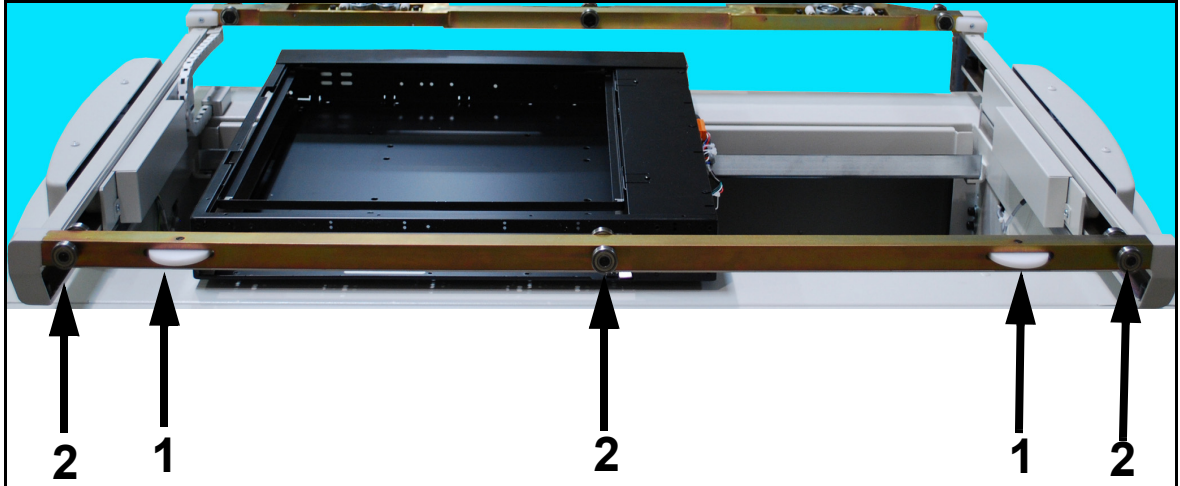


Figure 2-34. Guide Roller and Bearing Removal

- 57** Slide the table to the right and reinstall the left guide roller (1 in Figure 2-35) and the left bearing assembly (2).

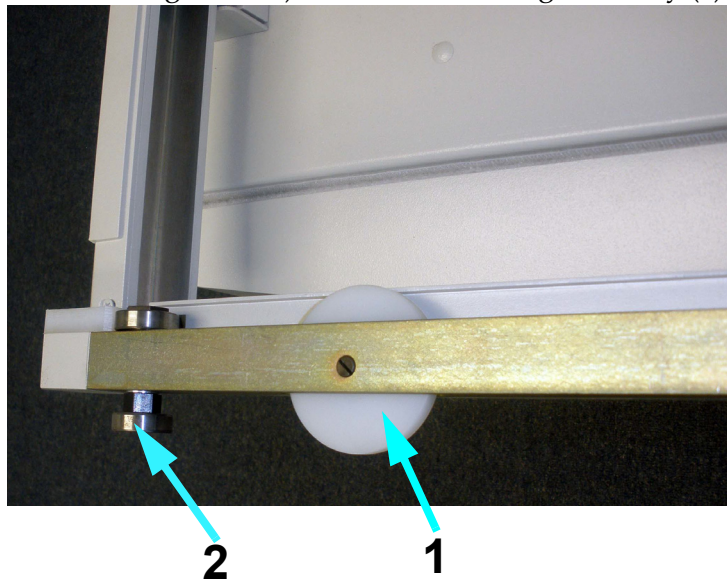


Figure 2-35. Left Guide Roller and Bearing

- 58** Slide the table over the left bearing assembly.
- 59** Adjust the eccentric nut (1 in Figure 2-36) so that a gap (2) of about 1/32" (0.8mm) appears between the bearing and the table frame.

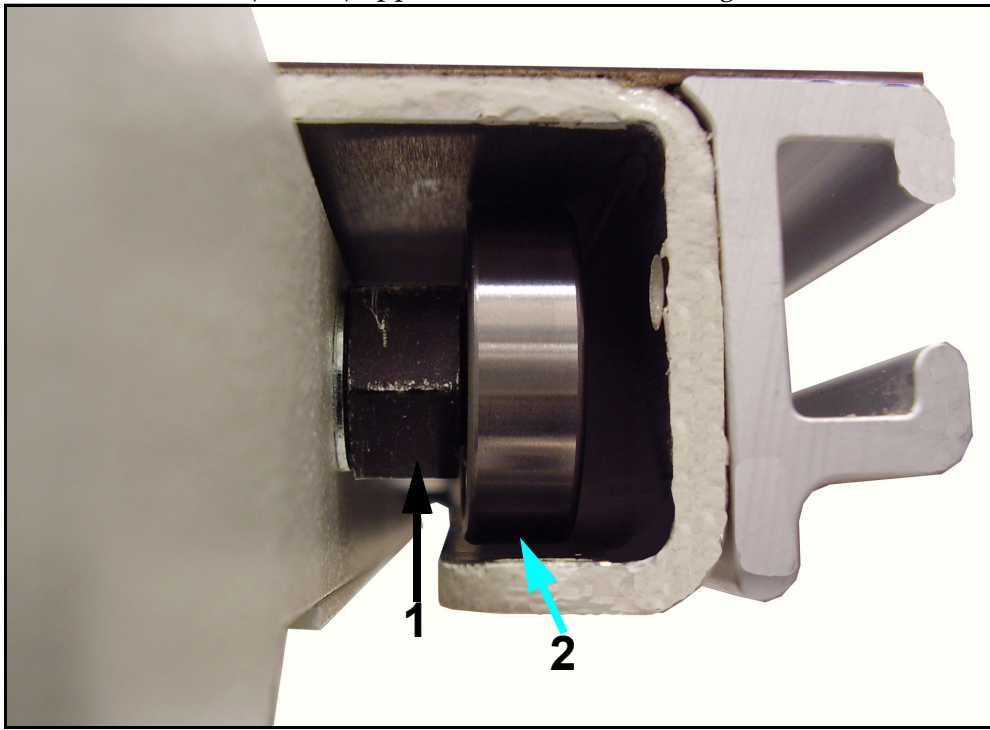


Figure 2-36. Eccentric Adjustment

- 60** While holding the eccentric nut (1 in Figure 2-37) still, tighten the bearing nut (2).

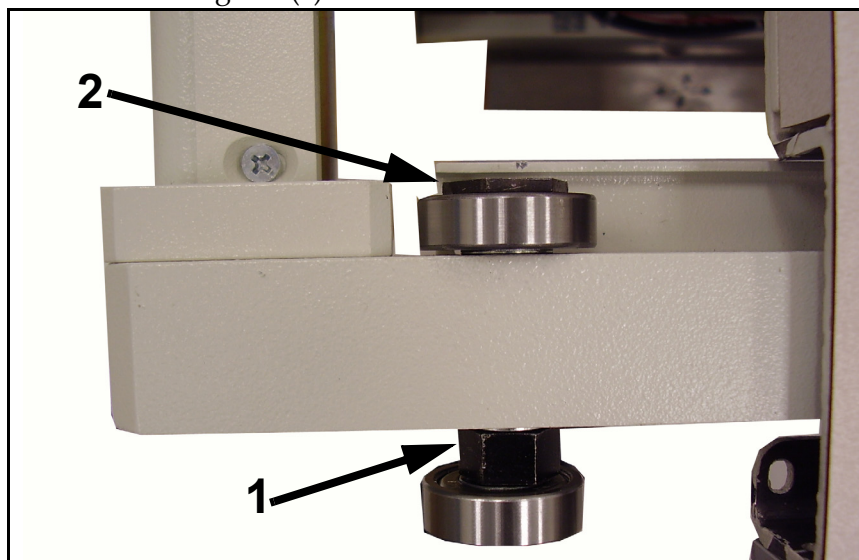


Figure 2-37. Tightening Bearing Nut

- 61** Repeat steps 60-63 for right side guide roller and bearing.

- 62 Have your partner slide the table half way off and hold it there as shown below.
- 63 Install the middle bearing (1 in Figure 2-38) and adjust it as you did for the others.
- 64 Slide the table top back and forth to ensure smoothness of motion. Readjust bearing gap if required.
- 65 Center the table top on the table base and go to the next step.

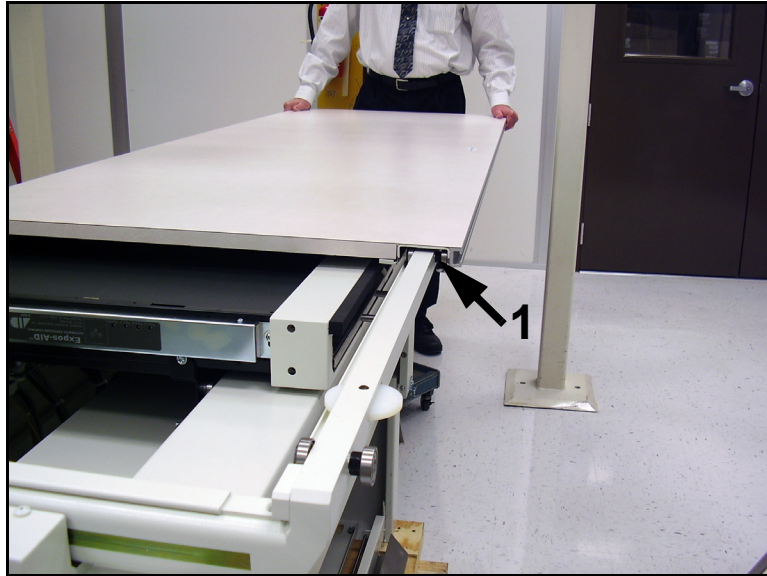


Figure 2-38. Middle Bearing

66 Remove four bumpers (1 in Figure 2-39) from accessory kit.



Figure 2-39. Bumpers

Warning

The bumpers must be installed. If they are not, the table top may slide off of its base during use and severely injure the patient or operator.

67 Mount the bumper (1 in Figure 2-40) with two screws (2) in all four corners of table.



Figure 2-40. Bumper Mounting

Testing Collision Avoidance Switches

This will test if the table will stop if it collides with an object when moving downward.

- 68 Move the table top to its leftmost position.
- 69 Turn on power to the table.
- 70 Run table to its highest position.
- 71 Place a stool or other sturdy support under the left end of the table top as shown in Figure 2-41 below.
- 72 Place a weight scale on the stool.



Caution

Do not exceed 110 lbs (49 Kg) of force in the following step or the table may get damaged. If the force appears that it will exceed 110 lbs (49 Kg), release the down pedal immediately.

- 73 Press the Down pedal and lower the table until the table top contacts the scale and the table stops by itself. The force on the scale when the table stops should be between 90 to 110 lbs (40 to 49 Kg.). If it is not or if the force exceeds 110lbs (49 Kg), adjust the collision avoidance switch according to Section 5.6 "Testing & Adjusting Collision Avoidance Switches" on page 5-12. If it is, go to the next step.
- 74 Raise the table back up.
- 75 Move the table top to its rightmost position.

76 Repeat steps 71-76 for right end of table top.

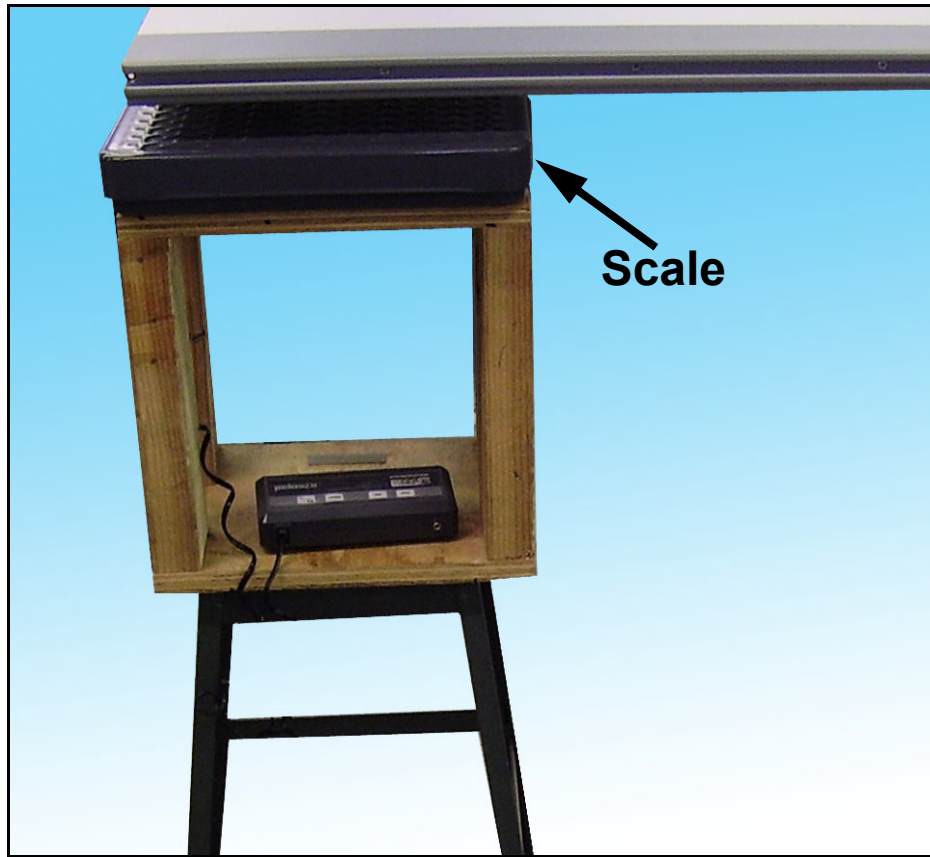


Figure 2-41. Scale & Stool Under Table Top

Cassette Tray Insertion

- 77** Remove the cassette tray from its shipping box.



Figure 2-42. Cassette Tray Box (Typical)

- 78 Remove the shipping tape (1 in Figure 2-43) from the cassette tray.
- 79 Pull the pin (2) back and remove the cassette blocker (3).
- 80 Place the guide in the desired slots (4).

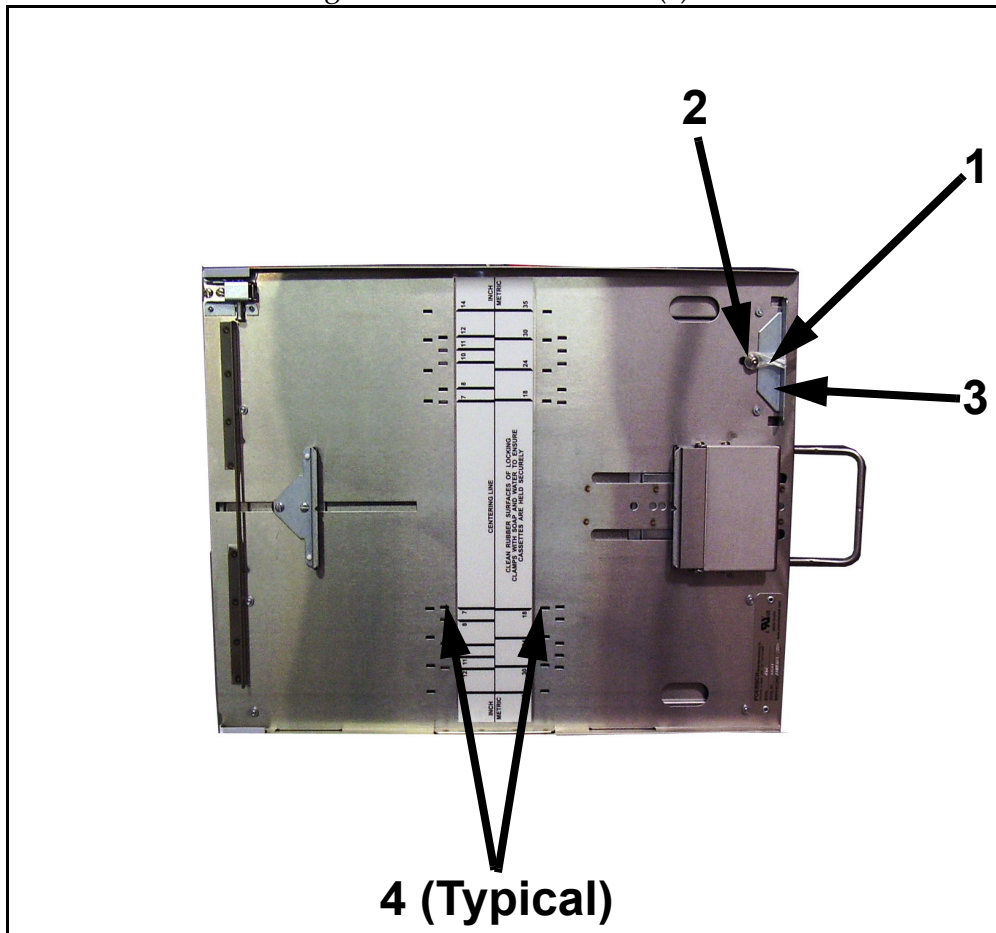


Figure 2-43. Cassette Tray Preparation

81 Insert the cassette tray into the bucky as shown in the figure below.

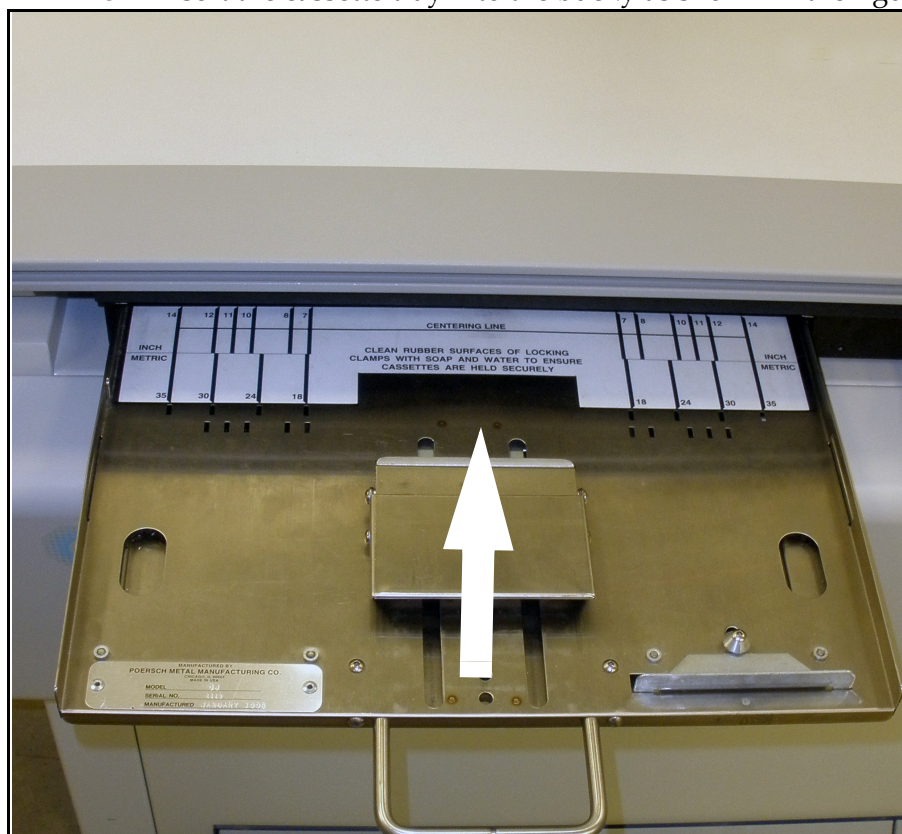


Figure 2-44. Cassette Tray Insertion

Installation is complete.

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3.1 Safety Precautions

Before attempting to operate the table, familiarize yourself with the safety concerns listed in this section.



Warning

Do not place any objects within the vertical motion area above or below table. Objects in such areas can present crush hazards (1 in Figure 3-1) for the patient or operator, and can also damage the table. See areas shown shaded in Figure below.

The table is equipped with a collision avoidance switch for downward motion. This switch is designed to protect the table, not the operator or patient from a collision. The downward motion of the table will stop if the table encounters 100 lbs (44kgs) of upward force.



Figure 3-1. Crush Hazard Areas



Warning

Make sure that the operator or the patient does not touch the table top lock release pedals when the patient is getting on or off table. This may cause the patient to fall off the table and cause serious injury. See figure below.

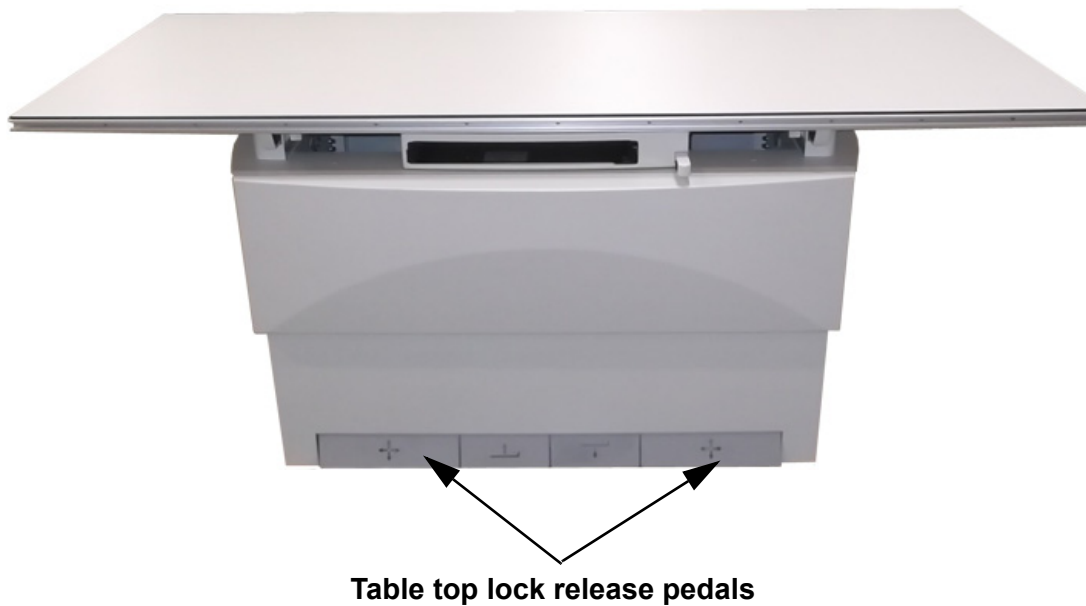


Figure 3-2. Table top lock release pedal



Warning

No foreign objects which can attenuate or scatter the X-ray beam are allowed between the X-ray tube and the table top during exposure. Failure to follow this may result in serious injury.



Warning

This table is intended to be used as part of a system for the intended generation of X-rays for medical diagnosis.

X-rays generate a potential risk for both patients and operators. For this reason, the application of X-rays for a given medical purpose must aim at the minimization of radiation exposure to any persons.

Those persons responsible for the application must have the specific knowledge according to legal requirements and regulations and must establish safe exposure procedures for this kind of system.

Those persons responsible for the planning and installation of this equipment must observe the national regulations.

3.2 Operation Specifications

Operation Specifications							
Compatibility	The EV800 Elevating Table is compatible with a wide variety of generators, wallstands, and tubestands. It is intended to be used in a stationary diagnostic X-ray configuration.						
Voltage	120VAC or 230/240 VAC						
Current	10 Amps, Momentary 15 sec ON, 85 sec OFF						
Frequency	50/60 Hz Single Phase						
Fuse Type	Line (FL1) & (FL2) 10 Amp Motor (F1) 8 A						
Classification	Class 1 Type B 						
Patient Lift Limit	800 lbs (363 Kg)						
Mode of Operation	Momentary						
Aluminum Equivalent	Beam Attenuation of the Standard Table Top is 0.7 mm Aluminum Equivalent or Less						
Temperature Limits	<table border="0"> <tr> <td>Transit/Storage</td><td>Operating</td></tr> <tr> <td>- 40° F to +158° F</td><td>+50° F to +95° F</td></tr> <tr> <td>- 40° C to +70° C</td><td>+10° C to +35° F</td></tr> </table>	Transit/Storage	Operating	- 40° F to +158° F	+50° F to +95° F	- 40° C to +70° C	+10° C to +35° F
Transit/Storage	Operating						
- 40° F to +158° F	+50° F to +95° F						
- 40° C to +70° C	+10° C to +35° F						
Relative Humidity Limits	Transit/Storage 10% to 100% Operating 10%-80% Non-Condensing						
Atmospheric Limits	14.5 inHg to 30.74 inHg 500 hPa to 1060 hPa						
Degree of protection against the ingress of water:	Ordinary						
No user serviceable parts	Classified To UL/IEC 60601-1, IEC 60601-2-32, IEC 60601-1-3, Certified To CAN/CSA C22.2 NO. 601.1						
Equipment not suitable for use in the presence of flammable anesthetic mixtures with air, oxygen or nitrous oxide.							
Certifications:	 Classified To UL 60601-1, IEC60601-1, EN60601-1, IEC 60601-2-32, EN60601-2-32, IEC60601-1-3, EN60601-1-3. Certified To CAN/CSA C22.2 NO. 601.1.						

Table 3-1: Operation Specifications

3.3 Controls

This section describes the controls of the table. Figure 3-3 below shows the controls of the table.

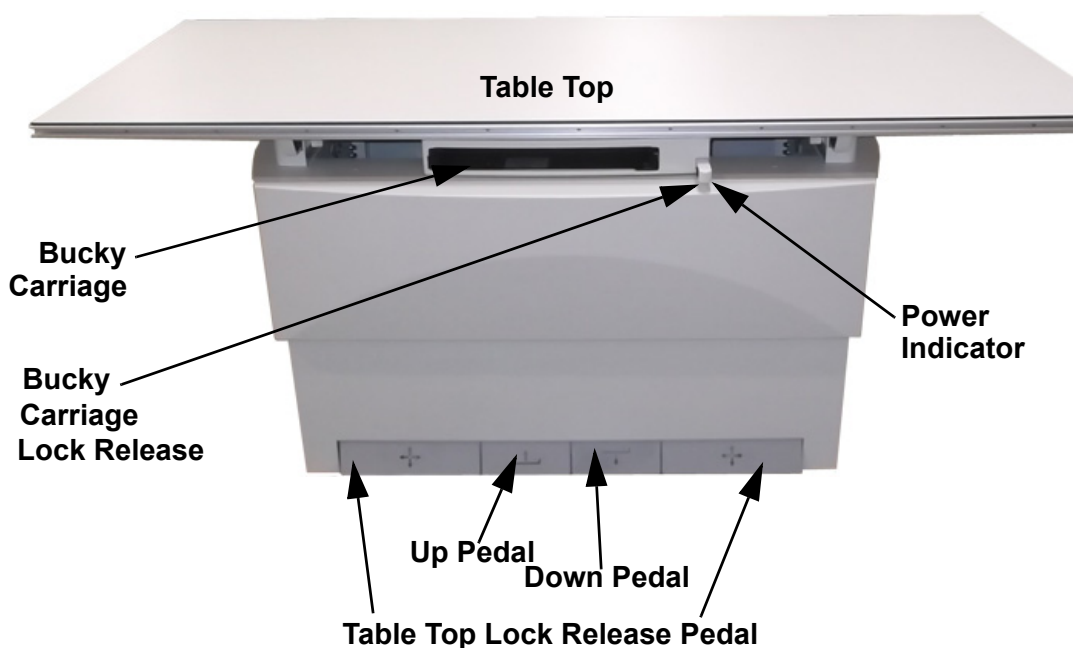


Figure 3-3. Control Pedals

Down Pedal

Press the **Down pedal** to lower the table. The table can be lowered to within 22" (56cm) of the floor.

The table moves downward at a constant speed when you press and hold the **Down pedal**. When the table reaches its mid-point level, it will automatically stop. Restarting the downward motion of the table depends on how your table was set up.

The default setup is automatic restart. In this mode, if you do not release the pedal after the table stops, it will automatically restart after a few seconds. The table will then continue downward until it reaches its lowest position and automatically stops.

The optional setup is manual restart. In this mode, you release the pedal and then press and hold the pedal again to restart motion. The table will then continue downward until it reaches its lowest position and automatically stops.

The procedure for changing from one mode to another is covered in Section 5.7 and should only be performed by a service technician.

Up Pedal

Press the **Up pedal** to raise the table. The table can be raised to 34" (86 cm) above the floor.

The table moves up at a constant speed when you press and hold the **Up pedal**. When the table reaches its mid-point level, it will automatically stop. Restarting the upward motion of the table depends on how your table was set up.

The default setup is automatic restart. In this mode, if you do not release the pedal after the table stops, it will automatically restart after a few seconds. The table will then continue upward until it reaches its highest position and automatically stops.

The optional setup is manual restart. In this mode, you release the pedal and then press and hold the pedal again to restart motion. The table will then continue upward until it reaches its highest position and automatically stops.

The procedure for changing from one mode to another is covered in Section 5.7 and should only be performed by a service technician.

Table Top Lock Release Pedals

Pressing and holding the **Table Top Lock Release pedals** releases the mechanical locks and allows the table top to be manually moved transversely or longitudinally. The transverse range is 9.5" (24cm), and the longitudinal range is 43.5" (110cm)

Releasing the **Table Top Lock Release pedal** locks the table to the new selected position.

Bucky Carriage Lock Release

Pressing and holding the **Bucky Carriage Lock Release** on the front of the bucky carriage releases the magnetic locks and allows the bucky to be moved longitudinal to the required position under the patient. The total travel range for the bucky is 22" (56 cm)

Releasing the switch secures the bucky in place.

Refer to the bucky's manual for proper operation of the bucky.

Power Indicator

Indicates that power to the table is turned on and that the table is ready to operate.

3.4 Cassette Tray Removal

To completely remove the cassette tray, do the following:

- 1 Manually pull the cassette tray out as far as it will go.
- 2 While pressing on the limit button (1 in Figure 3-4) pull the cassette tray completely out of the bucky.

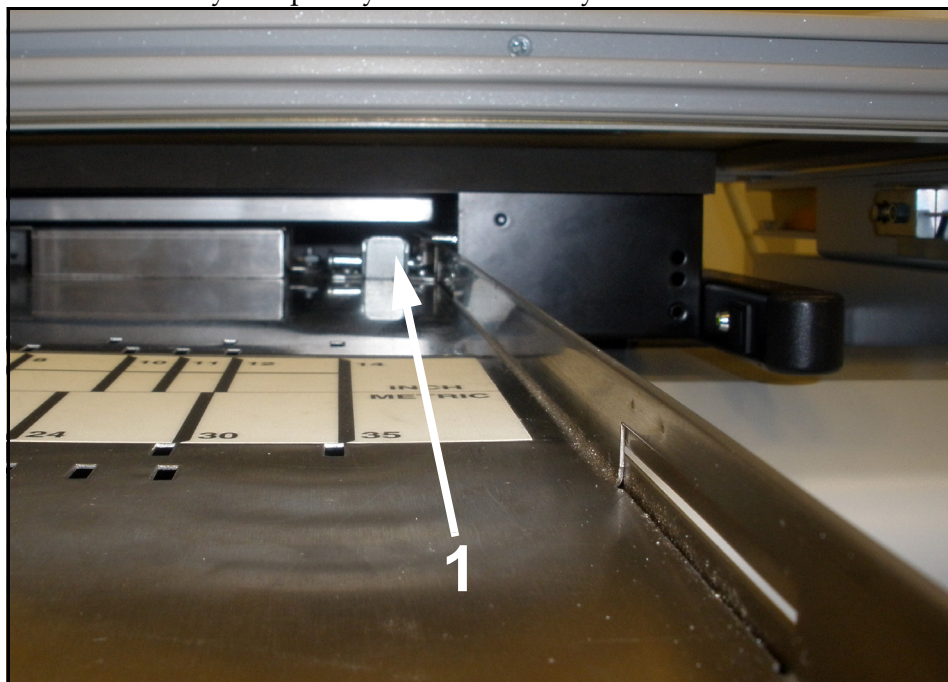


Figure 3-4. Cassette Tray Removal

3.5 Emergency Stop Button (For Service Technicians Only)

There is an Emergency Stop button located inside the table's base that can be pressed to stop the motion of the table in an emergency. It is meant only to be used by technicians who are troubleshooting the table.

If the button is pressed, it must be turned in the direction of the arrows on the button until the button pops back up in order to reset the button. Otherwise, the table cannot be restarted. See Figure 3-5 below for location of button.

Warning

The Emergency Stop button DOES NOT turn off all power to the table. There may still be lethal voltages present on the main chassis and throughout the table when this button is turned off. These voltages come from sources outside the table (i.e. generator, wallstand, etc.) that are connected to the table.

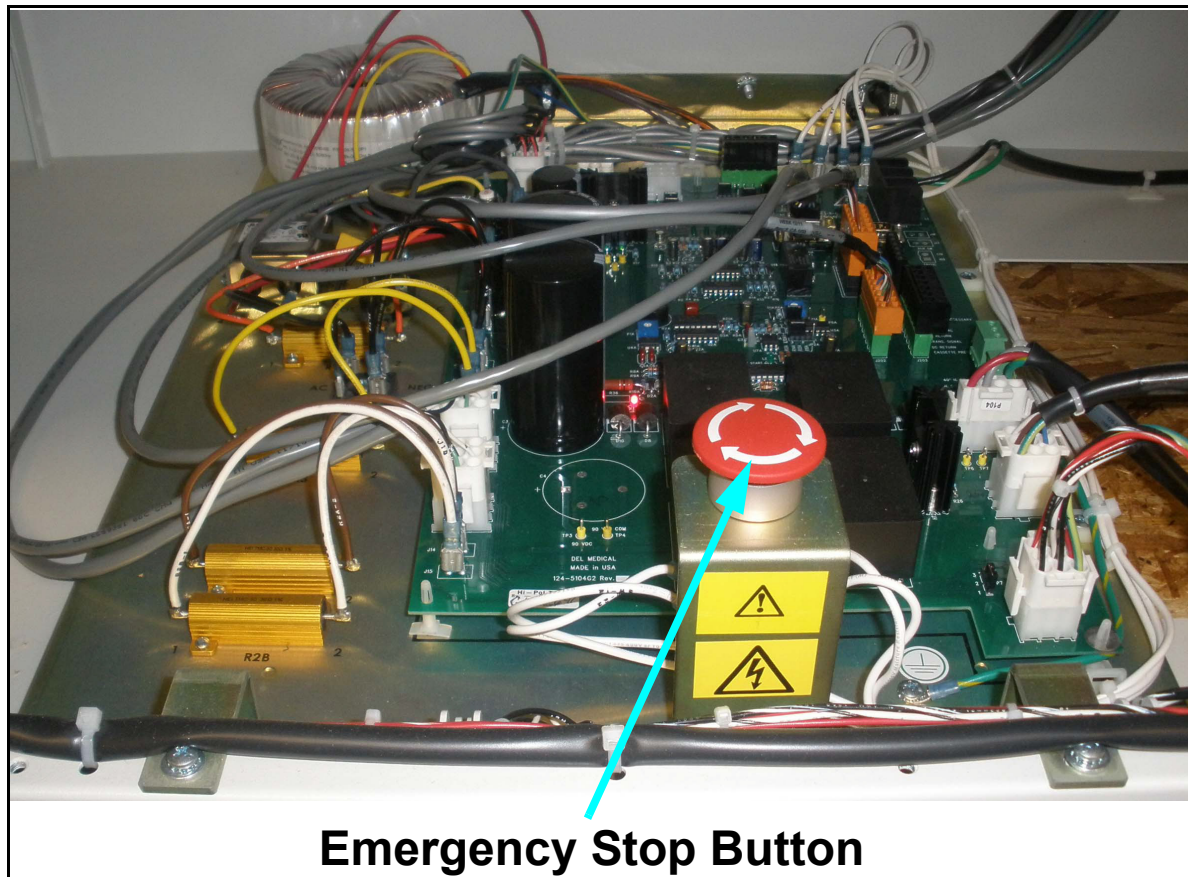


Figure 3-5. Emergency Stop Button

4.1 Periodic Maintenance Schedule

Refer to the schedule below for information on when to perform periodic maintenance on the table.

Note: Due to varying operating conditions, the procedures listed below may have to be performed at greater or lesser intervals. You may have to adjust intervals according to your table’s performance.

What to Do	When to Do It	Refer to Section
Clean External Surfaces	Every Week or as Required	“4.2 Cleaning External Surfaces” on page 4-2
Grease Lift Racks	Every 6 Months	“4.3 Greasing Lift Racks” on page 4-4
Check Chain Tension	Every 6 Months	“4.4 Checking & Adjusting Chain Tension” on page 4-7

Table 4-1: Periodic Maintenance Schedule

4.2 Cleaning External Surfaces

Tools Required:

- Cleaning wipes
- Non-abrasive, hospital-grade cleaner

Use cleaning wipes and non-abrasive, hospital-grade cleaner to clean external surfaces of table and base.



Warning

Turn off all electrical power to the table and all its peripheral equipment (generator, tubestand, etc.) at the power sources before servicing the table. Also, make sure that the power sources are locked out and tagged “Equipment Being Serviced” before servicing the table. Some components inside the table have power sources other than that of the table, which is why all peripheral equipment must be turned off; you could get seriously injured if you not.



Warning

This equipment is NOT classified as anaesthetic-proof and may ignite inflammable anesthetics. Flammable agents used for skin cleaning or disinfecting may also produce an explosion hazard.

- Ensure the power has been disconnected and that the emergency switches have been activated before starting any cleaning operation.
- Ensure no liquid gets into the unit.
- Do not immerse the equipment, including any components or accessories, in liquid.
- Do not autoclave the equipment, including any component or accessories.
- Do not use water. Water can short-circuit the electrical installation and cause corrosion to mechanical parts.
- Do not use acid or abrasive products.
- Use only a dry cloth to clean chrome-plated parts.

- Only the surface areas of unit parts, including accessories and connection cables, should be disinfected using a gaseous disinfectant. For safety reasons, do not spray disinfectants.
- Clean painted parts with a cloth and use products appropriate for cleaning plastic materials. After cleaning, wipe the surfaces with a clean, dry cloth.
- Do not spray cleaning or disinfection solution directly on the equipment. To disinfect, moisten a cloth with a 70% Isopropyl alcohol solution or equivalent and wipe the surface of the equipment.
- When disinfecting the examination room ensure the unit is covered with plastic sheets.

4.3 Greasing Lift Racks

Tools Required:

- 5/16" nut driver
- Cleaning wipes
- Medium phillips screwdriver
- Mobilith AW2 grease or No. 2 lithium equivalent
- Small, stiff brush to apply grease

- 1 Run table to its uppermost position.

Warning

Turn off all electrical power to the table and all its peripheral equipment (generator, tubestand, etc.) at the power sources before servicing the table. Also, make sure that the power sources are locked out and tagged "Equipment Being Serviced" before servicing the table. Some components inside the table have power sources other than that of the table, which is why all peripheral equipment must be turned off; you could get seriously injured if you not.

- 2 Turn off all power to the table.
- 3 Unscrew the upper panel screws (1 in Figure 4-1), tilt panel (2) out, and lift off from the table.

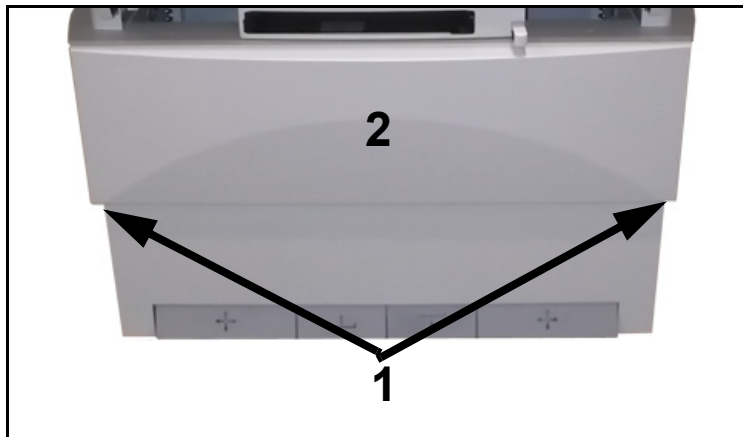


Figure 4-1. Upper Panel Screws

- 4 Unscrew the two lower panel clamps screws (1 in Figure 4-2), then remove the upward panhead screws (2) .
- 5 Lift the lower panel (3) up slightly and then pull it out. The bottom of the lower panel is connected to the table by slots (4) shown below.

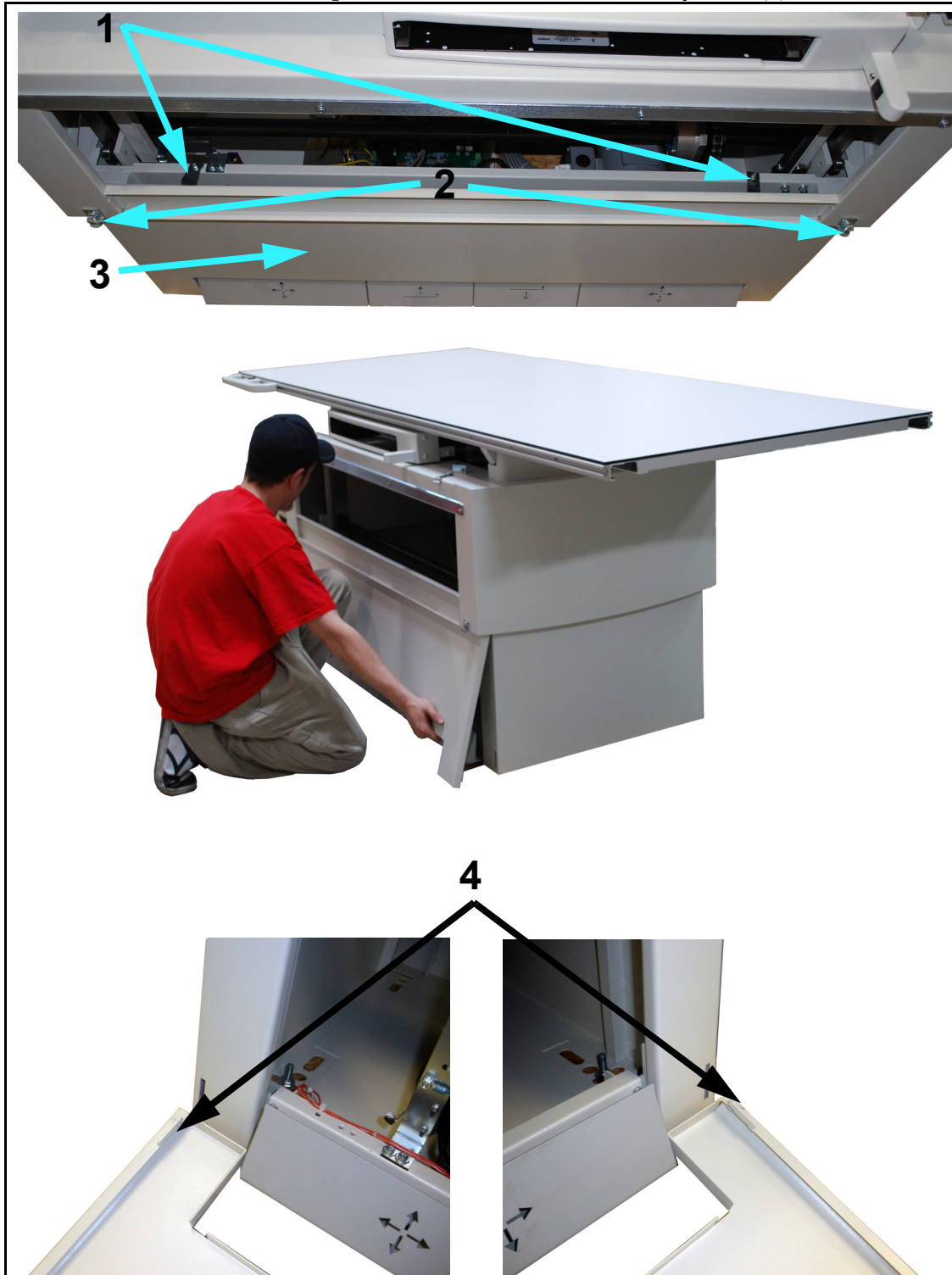


Figure 4-2. Lower Panel Clamps

- 6 Using a brush, apply a medium film of Mobilith AW2 grease to the gear faces of each of the eight racks (1 in Figure 4-3).
- 7 Wipe up any spilled grease.
- 8 Reverse steps to reassemble.

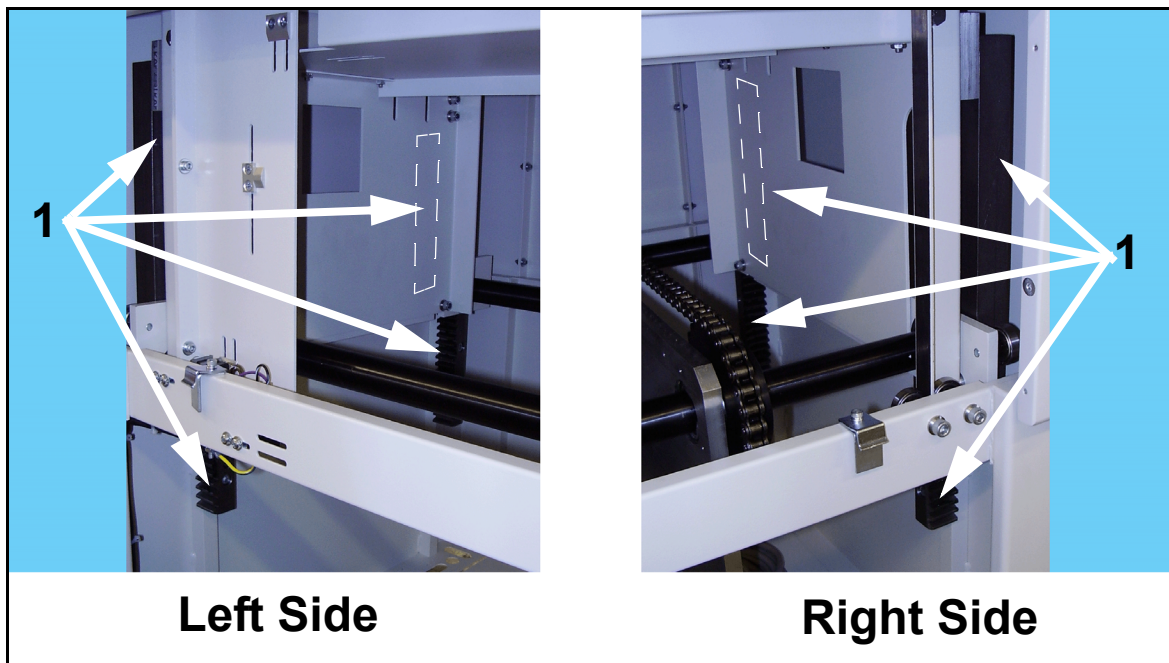


Figure 4-3. Rack Location

4.4 Checking & Adjusting Chain Tension

Tools Required:

- Set of hex wrenches
- Scale (ruler) at least 6" (150mm) long
- Two open-end 9/16" wrenches

- 1 Run table to its uppermost position



Warning

Turn off all electrical power to the table and all its peripheral equipment (generator, tubestand, etc.) at the power sources before servicing the table. Also, make sure that the power sources are locked out and tagged "Equipment Being Serviced" before servicing the table. Some components inside the table have power sources other than that of the table, which is why all peripheral equipment must be turned off; you could get seriously injured if you not.

- 2 Turn off all power to the table.
- 3 Unscrew the two upper panel screws (1 in Figure 4-4).
- 4 Unscrew the upper panel screws (1 in Figure 4-4), tilt panel (2) out, and lift off from the table.

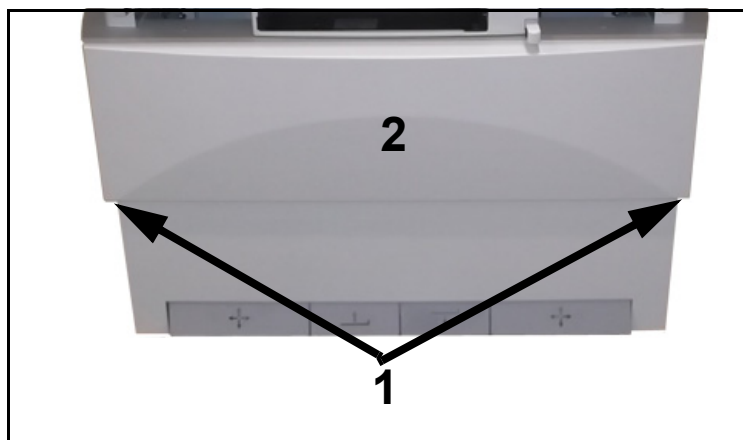


Figure 4-4. Upper Panel Screws

- 5 Unscrew the two lower panel clamps screws (1 in Figure 4-2), then remove the lower panhead screws (2).
- 6 Lift the lower panel (3) up slightly and then pull it out. The bottom of the lower panel is connected to the table by slots (4) shown below.

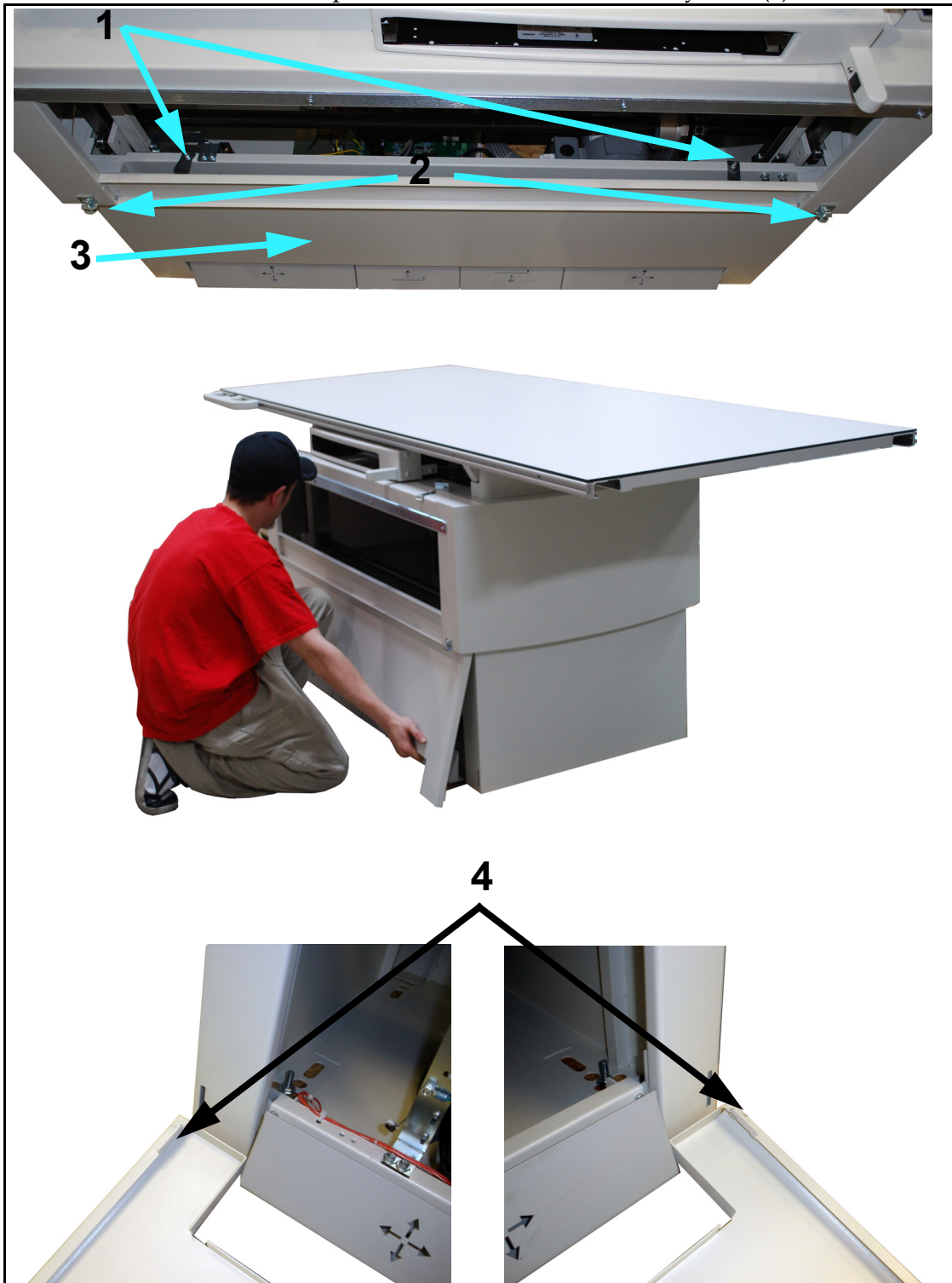


Figure 4-5. Lower Panel Clamps

- 7 With the chain now tight between the three sprockets, remove the remaining slack by tightening the chain tension bolt. When properly tensioned, the chain should deflect approximately $3/16"$ at point shown with moderate finger pressure. If tension is OK, reassemble table. If tension is more than $3/16"$, tighten chain according to the steps that follow.

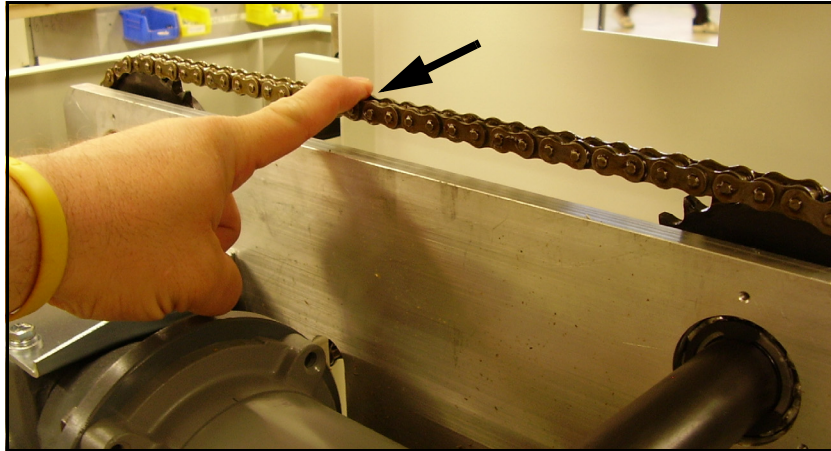


Figure 4-6. Check Chain Tension

- 8 Verify that the chain is completely engaged on the drive sprocket, tensioner, and the two drive shaft sprockets. Using hand force only, turn the input shaft of the gearbox clockwise to tighten the chain on the small drive sprocket and the two drive shaft sprockets. The small drive sprocket should turn in a counter-clockwise direction when observed from the chain side of the aluminum motor/gearbox mounting plate.

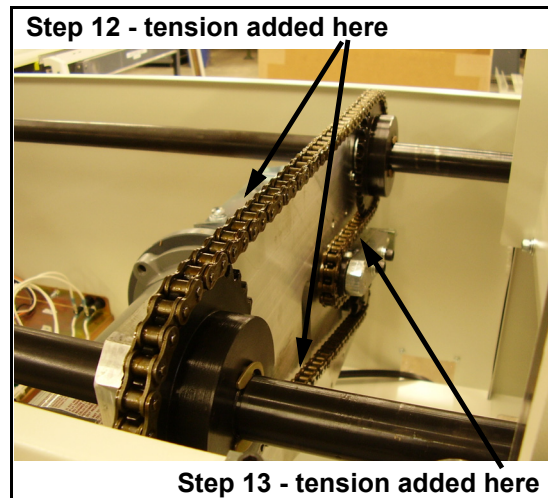


Figure 4-7. Adjusting Chain Tension

- 9 With the chain now tight between the three sprockets, remove the remaining slack by tightening the chain tension bolt. When properly tensioned, the chain should deflect approximately $3/16$ " at the point shown with moderate finger pressure.

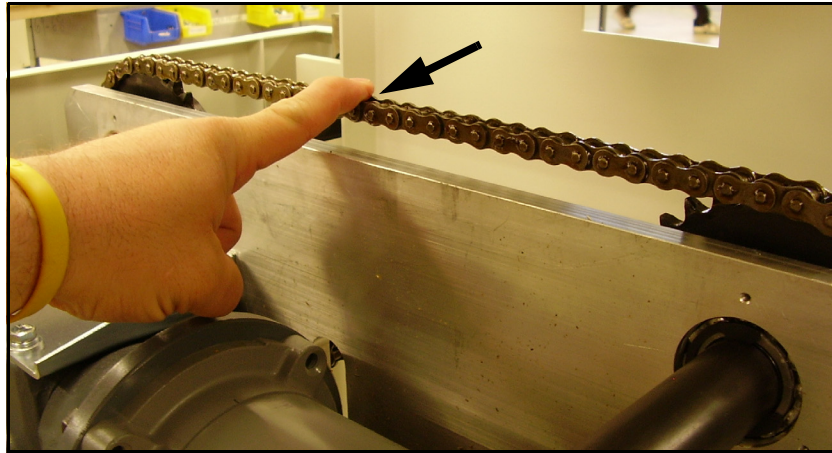


Figure 4-8. Braces in place under the upper frame gear racks

- 10 Reassemble table.

5.1 Introduction

This chapter provides the maintenance and adjustment procedures for the elevating table.

5.2 Removing Front Panels

This is a common procedure that is referenced to in many of the replacement procedures that follow in this chapter.

Tools Required:

- 5/16" nut driver
- Medium Phillips screwdriver

- 1 Run table to its uppermost position.

Warning

Turn off all electrical power to the table and all its peripheral equipment (generator, tubestand, etc.) at the power sources before servicing the table. Also, make sure that the power sources are locked out and tagged "Equipment Being Serviced" before servicing the table. Some components inside the table have power sources other than that of the table, which is why all peripheral equipment must be turned off; you could get seriously injured if you not.

- 2 Turn off all power to the table.
- 3 Unscrew the upper panel screws (1 in Figure 5-1), tilt panel (2) out, and lift off from the table.

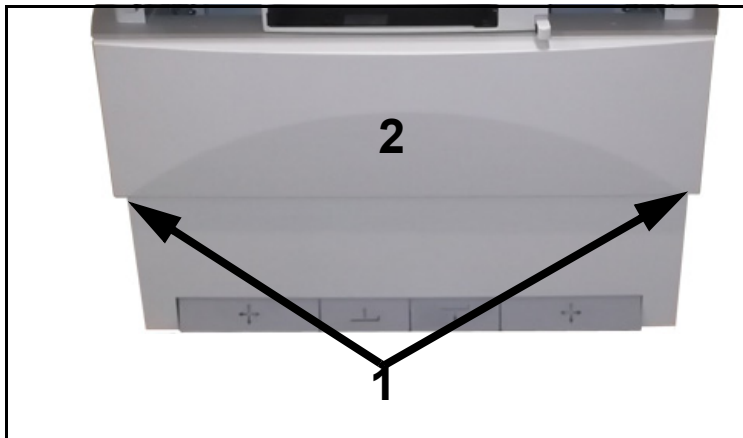


Figure 5-1. Upper Panel Screws

- 4 Unscrew the two lower panel clamps screws (1 in Figure 5-2), then remove the lower panelhead screws (2).
- 5 Lift the lower panel (3) up slightly and then pull it out. The bottom of the lower panel is connected to the table by slots (4) shown below.

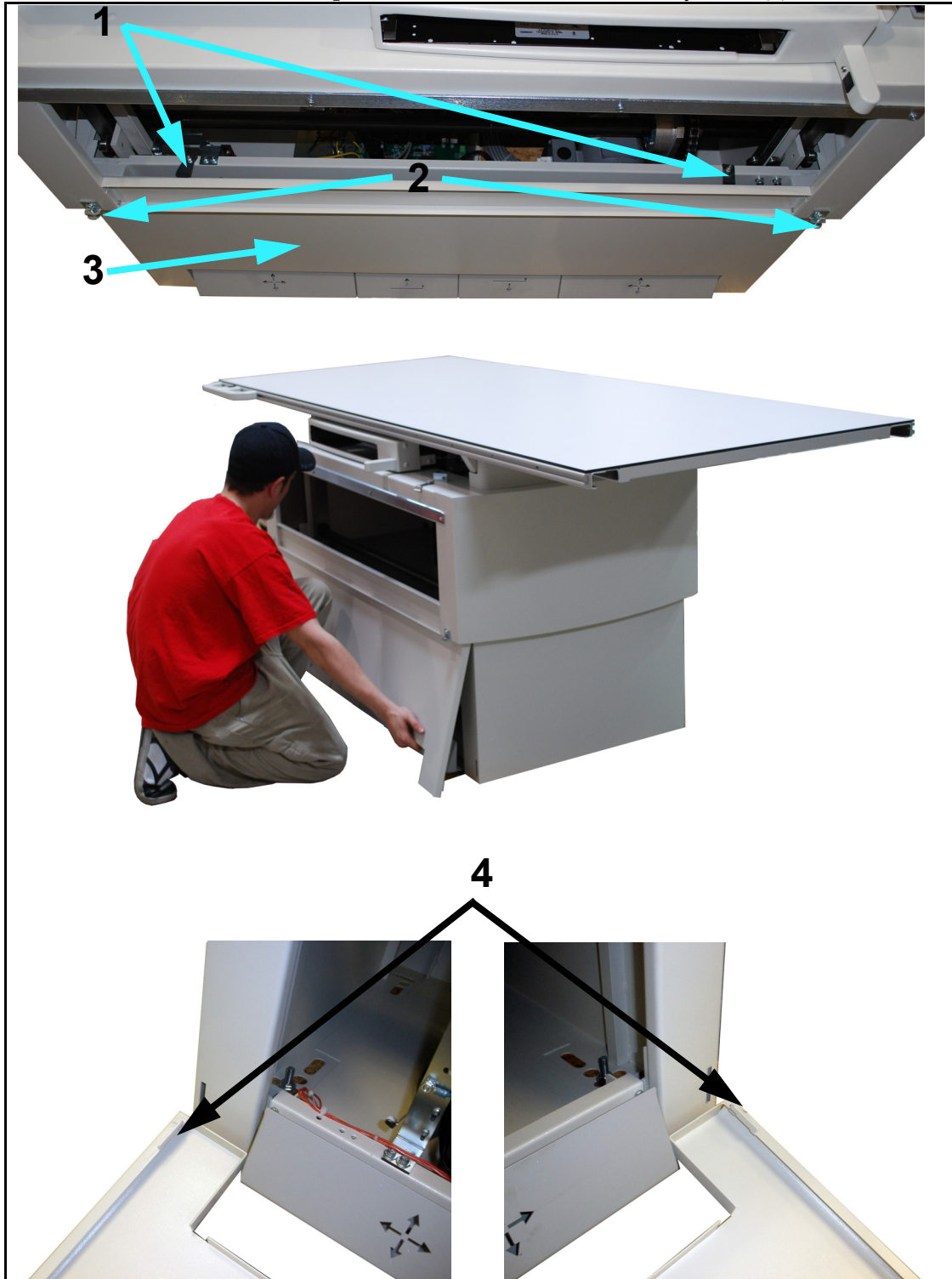


Figure 5-2. Lower Panel Clamps

5.3 Replacing Fuses F1, FL1, & FL2

Tools Required:

- Small flat-tip screwdriver
- 1 Turn off all power to table and wait five minutes for table's capacitors to discharge.



Warning

Turn off all electrical power to the table and all its peripheral equipment (generator, tubestand, etc.) at the power sources before servicing the table. Also, make sure that the power sources are locked out and tagged "Equipment Being Serviced" before servicing the table. Some components inside the table have power sources other than that of the table, which is why all peripheral equipment must be turned off; you could get seriously injured if you not. Wait five minutes after turning power off to work on the table.



Caution

Replace fuses only with same type and rating of fuse or machine may get damaged.

- 2 Access to the fuses is on the back to the table's base. Unscrew the fuse cap of the faulty fuse and replace the fuse. See figure below for location and fuse rating.
- 3 Reverse steps to reassemble.

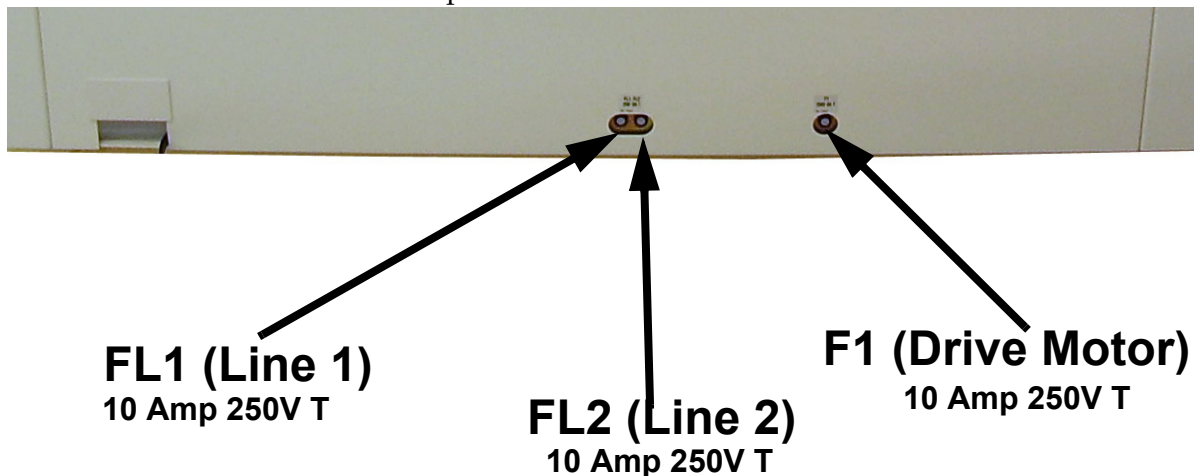


Figure 5-3. Fuse Location

5.4 Drive Motor Override

Tools Required:

- 3/16" hex wrench
- 9/16" socket and ratchet
- Phillips head screwdriver
- Small/medium flat blade screwdriver
- Hammer
- Large channel-lock pliers or vise grips

In cases where the table is all the way down and has no power, you cannot gain access to many components that may need to be serviced, because you will not be able to remove the lower front panel. To raise the table to allow removal of the lower front panel, perform the following procedure.

- 1 Turn off all power to the table and wait five minutes for the table's capacitors to discharge.



Warning

Turn off all electrical power to the table and all its peripheral equipment (generator, tubestand, etc.) at the power sources before servicing the table. Also, make sure that the power sources are locked out and tagged "Equipment Being Serviced" before servicing the table. Some components inside the table have power sources other than that of the table, which is why all peripheral equipment must be turned off; you could get seriously injured if you not. Wait five minutes after turning power off to work on table.



Caution

Replace the fuses only with the same type and rating of the fuse or the machine may get damaged.

- 2 If room dimensions allow, remove the stop bumpers from the end of table top assembly and carefully remove the table top from the table frame.
- 3 If unable to remove the table top it will be necessary to remove the stop bumpers and slide the top to the head of the table.

- 4** At rear of the table, remove the two gearbox access panels (1 in Figure 5-4).

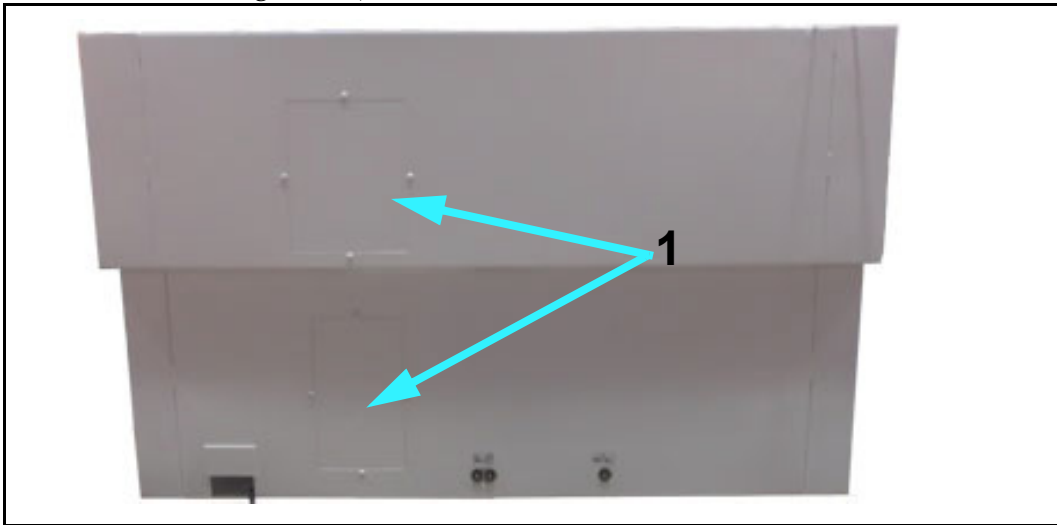


Figure 5-4. Gearbox Access Panels

- 5** The rear of the gearbox should now be visible (1 in Figure 5-5).

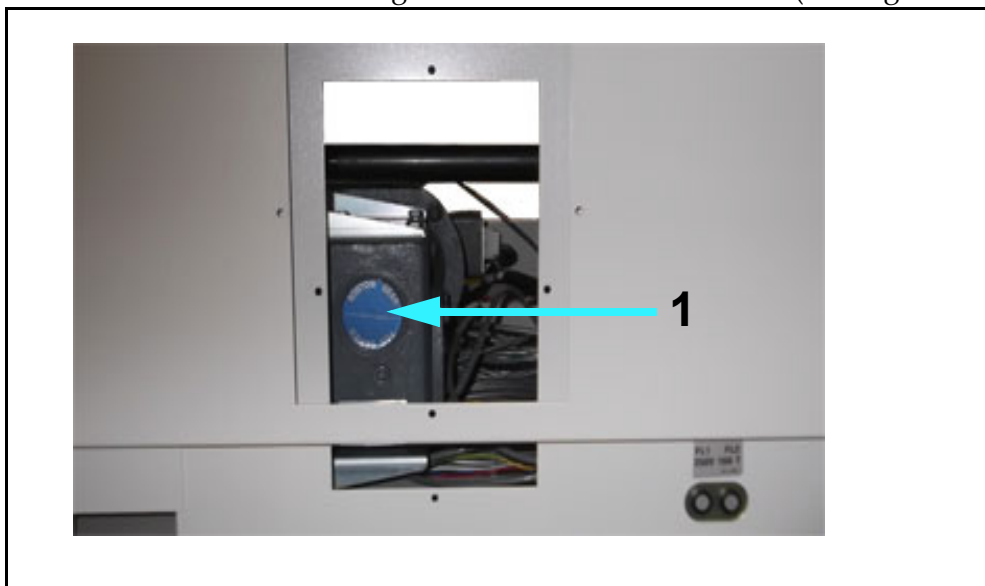


Figure 5-5. Gearbox

- 6 It is necessary to remove the grease cap to access the rear hub of the input shaft. Using a small, flat screwdriver and hammer, carefully pry off the grease cap (1 in Figure 5-6) and set it aside.

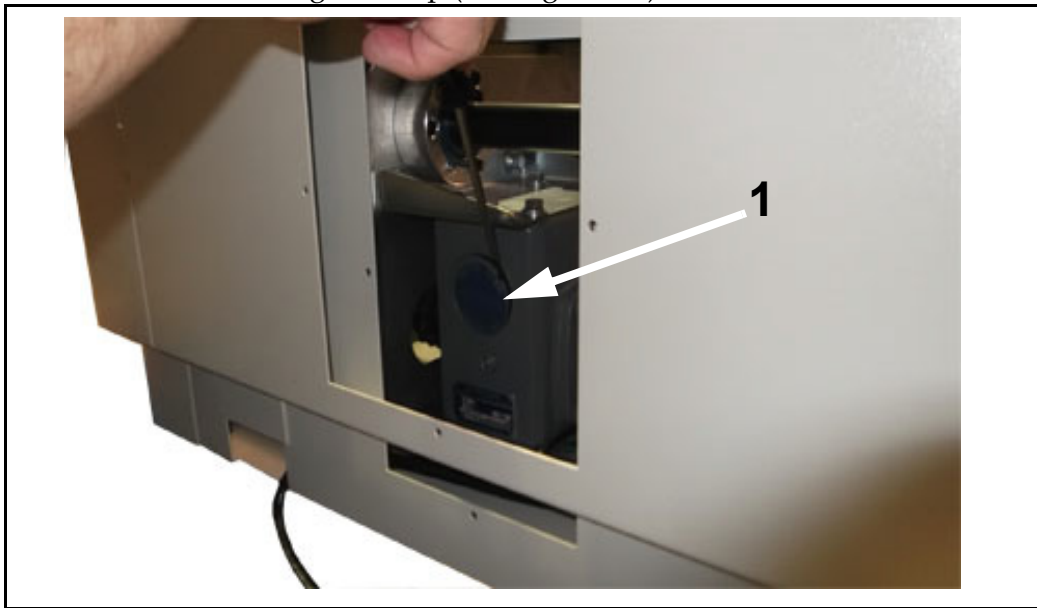


Figure 5-6. Grease Cap

- 7 Carefully wipe off excess grease from the end of the input shaft (1 in Figure 5-7).

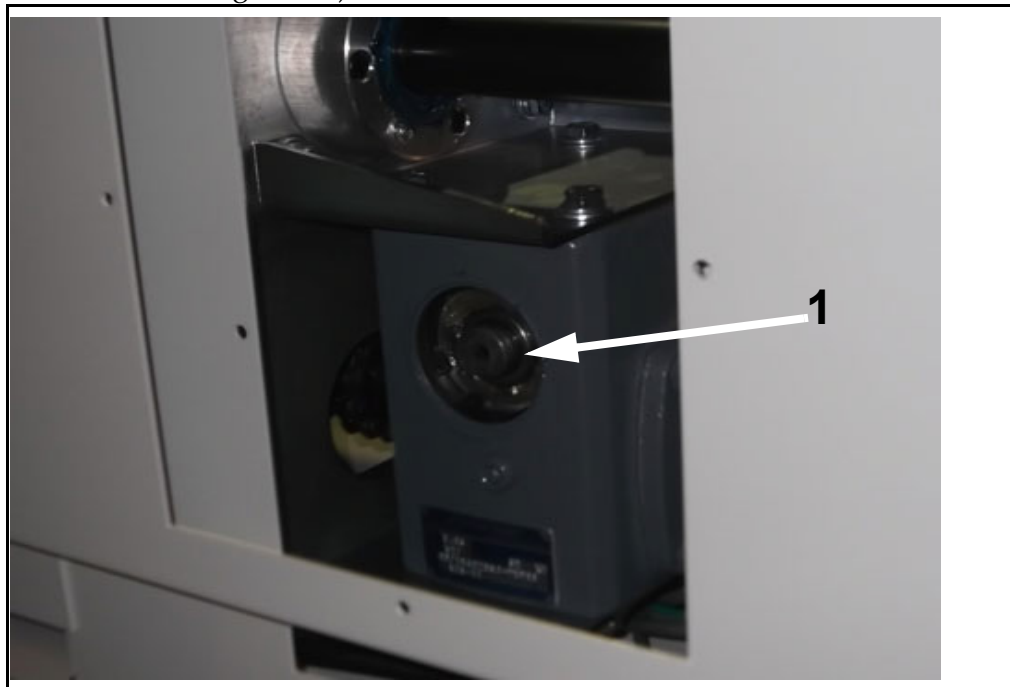


Figure 5-7. Input shaft

- 8 Locate the override coupling assembly (112-5557G1) in the table shipping kit. Place the coupling over the exposed end of the input shaft as shown (1 in Figure 5-8).



Figure 5-8. Override Coupling Assembly

- 9 Using pliers or vise grips, hold the override coupling while securely tightening the black clamping screw (1 in Figure 5-9).

Note: A light tap with a hammer can be used to seat the coupling flat on the input shaft.

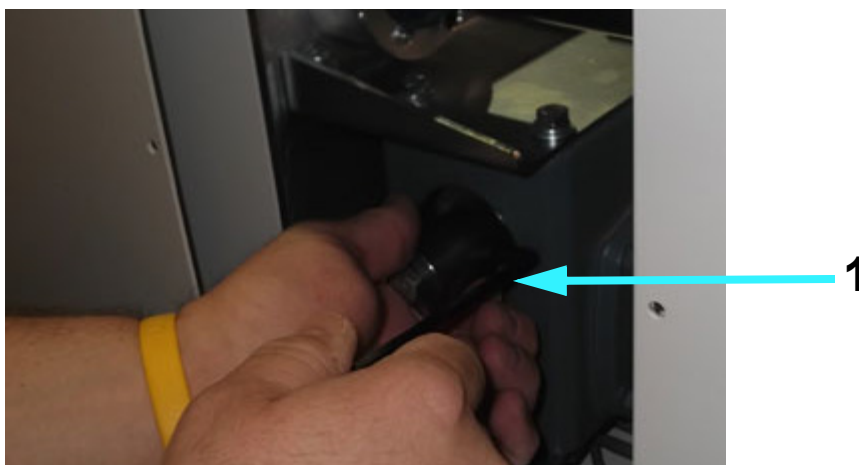


Figure 5-9. Black Clamping Screw

- 10 Using a 9/16" socket and ratchet (1 in Figure 5-10), the table can now be manually raised or lowered for service.

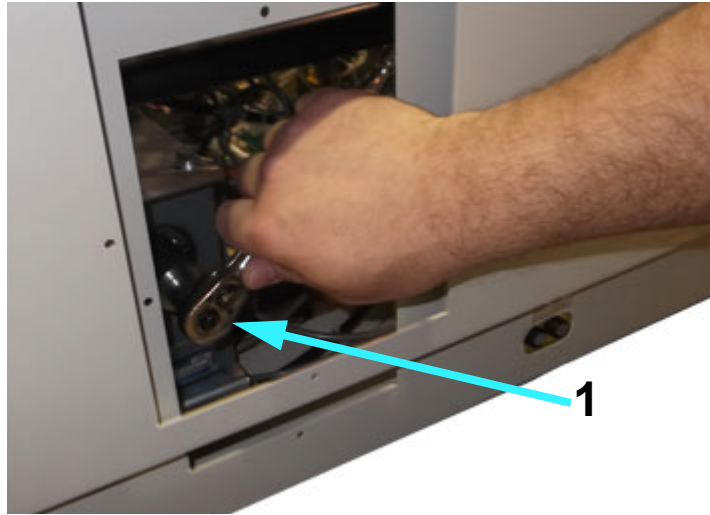


Figure 5-10. Socket and Ratchet

Note: Clockwise rotation = raise the table. Counterclockwise rotation = lower table. The gearbox used in the table is a 60:1 reduction and will require approximately 16 rotations to raise the table 1".



Warning

Override coupling must be removed from the gearbox prior to any attempt to return power and operate the table.

- 11 Reinstall the grease cap (1 in Figure 5-11). The wooden handle of a hammer may be used to gently tap back into place. Reinstall access.



Figure 5-11. Reinstall grease cap

5.5 Adjusting Table Elevation Mid-Point Height

The height at which the table stops at its mid-point (SID height) can be adjusted according to the following steps.

Tools Required:

- Medium-size phillips screw driver
- Set of hex wrenches

- 1 Run table to its uppermost position



Warning

Turn off all electrical power to the table and all its peripheral equipment (generator, tubestand, etc.) at the power sources before servicing the table. Also, make sure that the power sources are locked out and tagged “Equipment Being Serviced” before servicing the table. Some components inside the table have power sources other than that of the table, which is why all peripheral equipment must be turned off; you could get seriously injured if you not. Wait five minutes after turning power off to work on table.

- 2 Turn off all power to the table and wait five minutes for table’s capacitors to discharge.
- 3 Remove front panels according to Section 5.2 Removing “Front Panels” on page 5-2.

- 4 Loosen the two clamp screws (1 in Figure 5-12), move the plate (2) to the desired position, and retighten the screws.
- 5 Test the new mid-table pause position. Readjust as necessary.
- 6 Reassemble table.

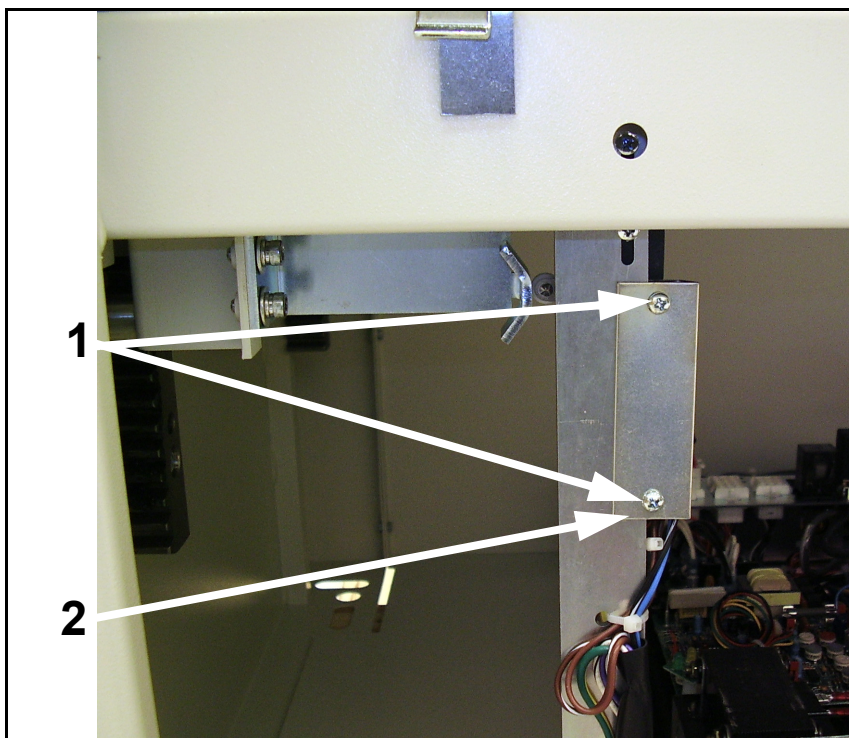


Figure 5-12. Cam Plate Position

5.6 Testing & Adjusting Collision Avoidance Switches

Tools Required:

- 5/16" open-end wrench
- Medium phillips screwdriver
- Set of hex wrenches

Testing Switches

- 1 Move table top to its leftmost position.
- 2 Turn on power to the table.
- 3 Run table to its highest position.
- 4 Place a stool or other sturdy support under the left end of the table top as shown in Figure 5-13 on the next page.
- 5 Place a weight scale on the stool.



Caution

Do not exceed 110 lbs (49 Kg) of force in the following step or the table may get damaged. If the force appears that it will exceed 110 lbs (49 Kg), release the down pedal immediately.

- 6 Press the down pedal and lower the table until the table top contacts the scale and the table stops by itself. The force on the scale when the table stops should be between 90 to 110 lbs (40 to 49 Kg.). If it is not or if the force exceeds 110lbs (49 Kg), adjust the collision avoidance switch according to step 10. If it is, go to the next step.
- 7 Raise table back up.
- 8 Move table top to its rightmost position.
- 9 Repeat steps 4-6 for right end of table top.

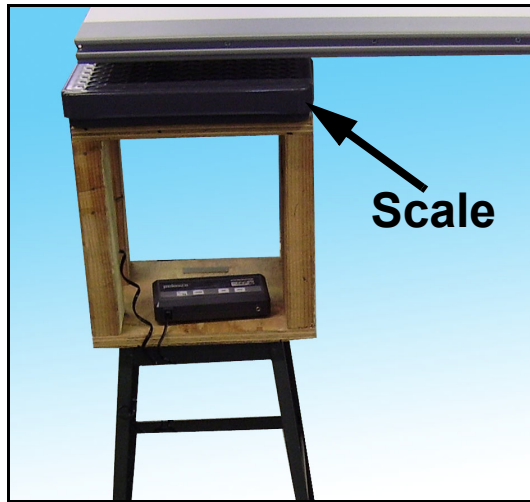


Figure 5-13. Scale & Stool Under Table Top

Adjusting Switches

- 10** Turn off all power to the table and wait five minutes for the table's capacitors to discharge.



Warning

Turn off all electrical power to the table and all its peripheral equipment (generator, tubestand, etc.) at the power sources before servicing the table. Also, make sure that the power sources are locked out and tagged "Equipment Being Serviced" before servicing the table. Some components inside the table have power sources other than that of the table, which is why all peripheral equipment must be turned off; you could get seriously injured if you not. Wait five minutes after turning power off to work on table.

- 11** Unscrew the bumper screws (1 in Figure 5-14) and remove the bumpers (2) from all four corners of table top.

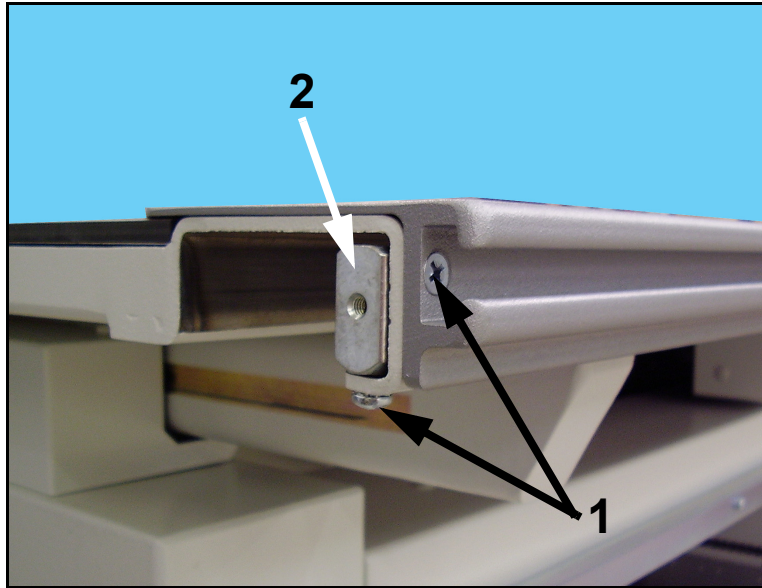


Figure 5-14. Bumper Removal

- 12 Slide the table top (1 in Figure 5-15) and remove cover (2) to expose switch assembly.

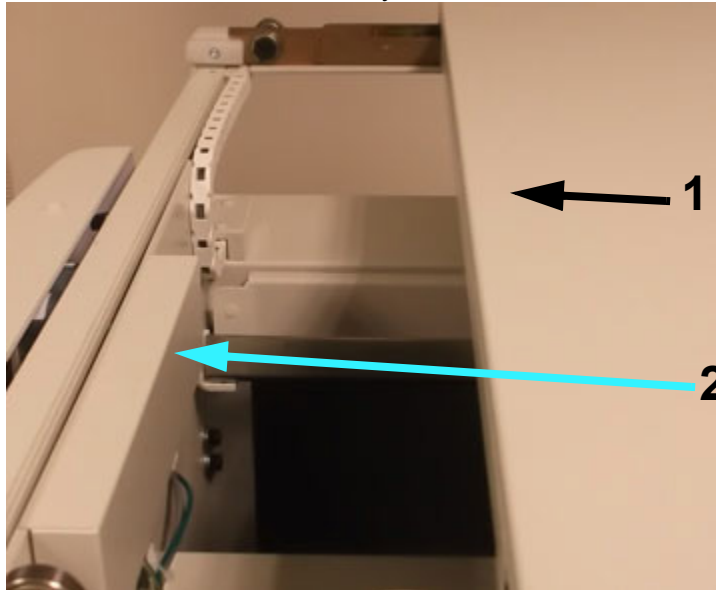


Figure 5-15. Slide Table Top

- 13 Loosen jam nut (1 in Figure 5-16).
- 14 Turn adjustment screw (2) in 1/4 turn increments and retest pressure. Turn it clockwise to reduce table stoppage pressure and counterclockwise to increase pressure.



Caution

Be careful not to adjust the pressure so much that the switch's arm (3) rests on the switch (4) or the switch may get damaged.

- 15 When proper pressure is achieved, tighten the jam nut and repeat the procedure for the switch on other side of the table.

16 Reverse steps to reassemble the table.

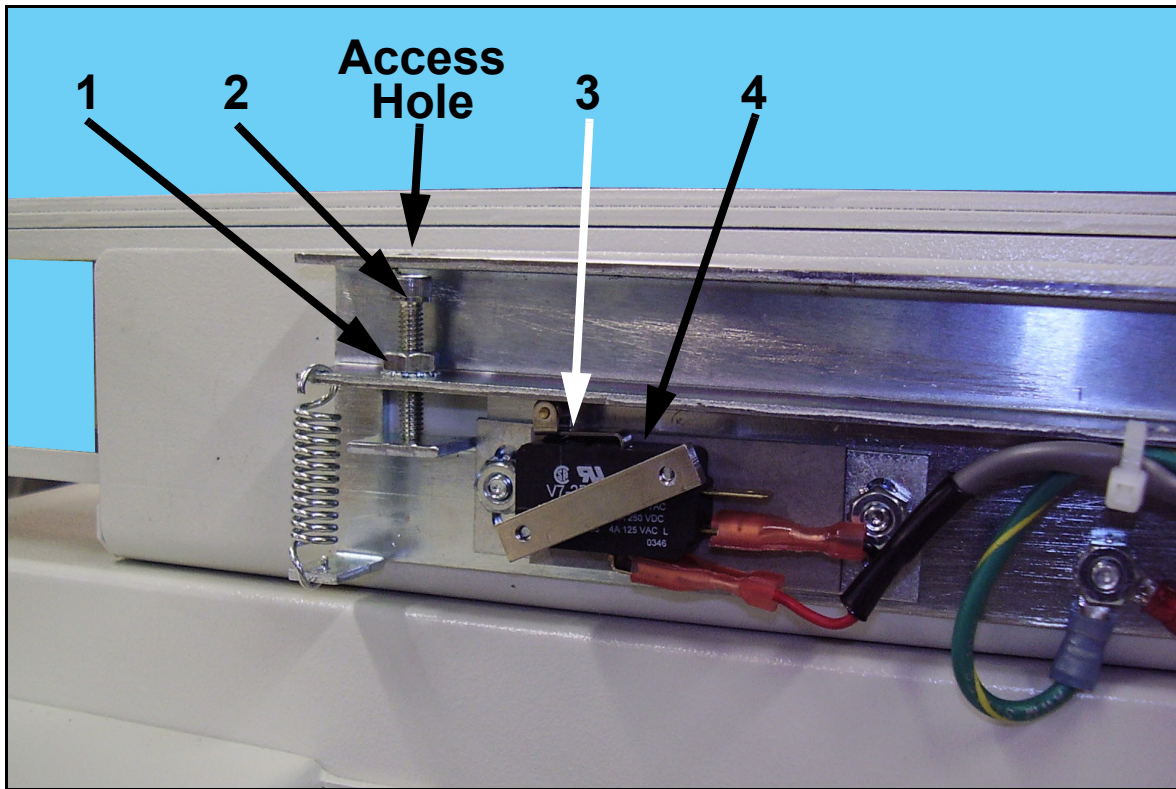


Figure 5-16. Pressure Adjustment

5.7 Changing Elevation Restart Mode

The mid-point elevation restart mode of the up and down pedals can be changed from manual to automatic and vice versa as follows:

Tools Required:

- Set of hex wrenches
- Medium flat-tip screwdriver
- Needle-nose pliers

- 1 Run table to its uppermost position



Warning

Turn off all electrical power to the table and all its peripheral equipment (generator, tubestand, etc.) at the power sources before servicing the table. Also, make sure that the power sources are locked out and tagged “Equipment Being Serviced” before servicing the table. Some components inside the table have power sources other than that of the table, which is why all peripheral equipment must be turned off; you could get seriously injured if you not. Wait five minutes after turning power off to work on table.

- 2 Turn off all power to the table.
- 3 Remove front panels according to Section 5.2 “Removing Front Panels” on page 5-2.

Note: The following steps will be performed on the main chassis which is located on the base of the table as shown below.

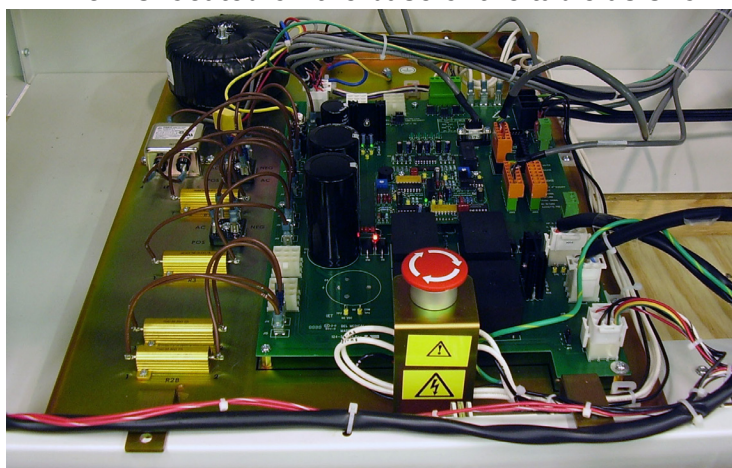


Figure 5-17. Main Chassis

- 4 Locate **Restart Mode Pot** and **Jumpers** on the motor control board using figure below. Then go to the next step.

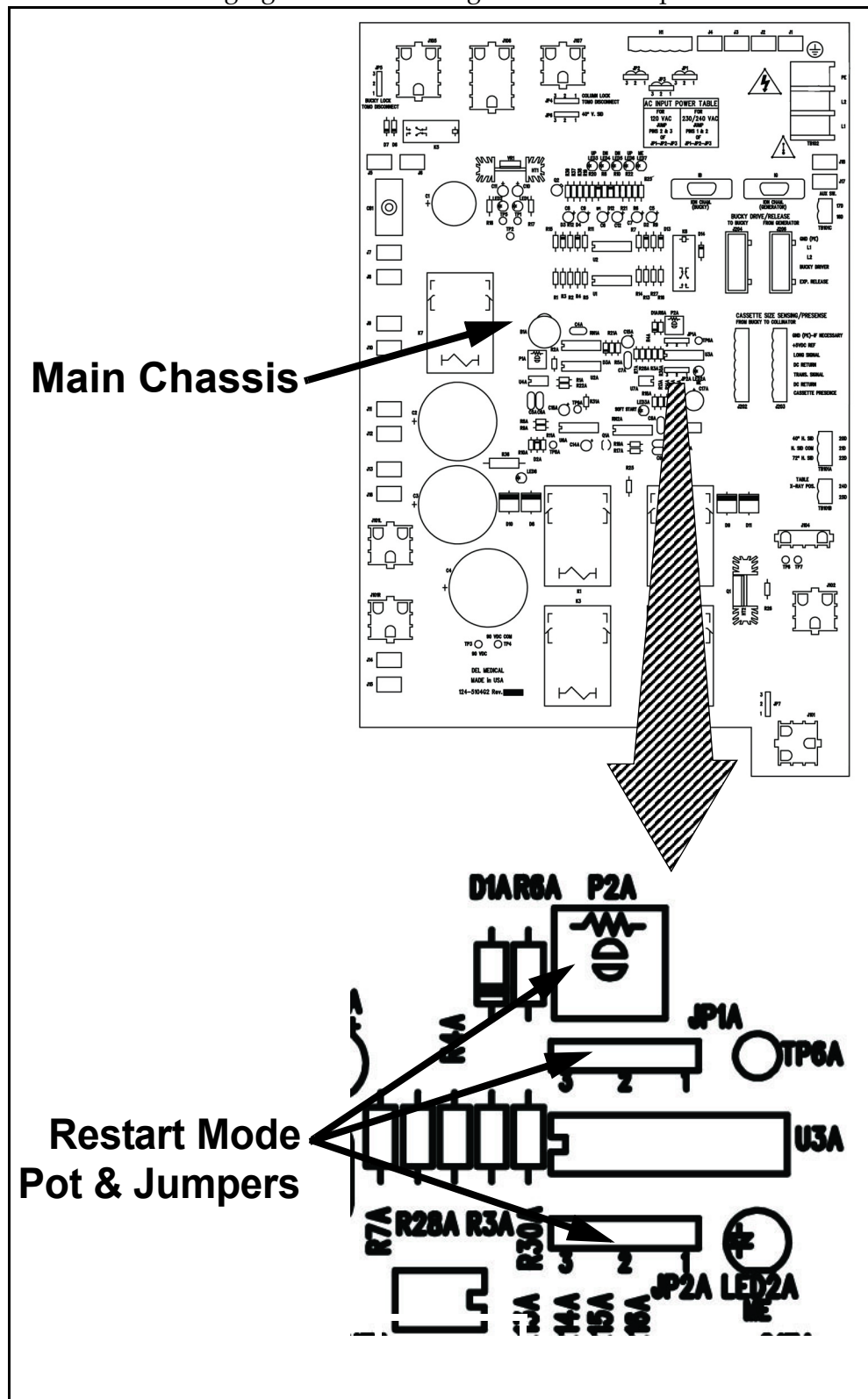


Figure 5-18. Restart Mode Pot & Jumpers

- 5 Set the jumpers to the desired settings as shown in figure below.
- 6 For automatic mode, set the pot to the desired setting, test delay time, and readjust as necessary.
- 7 Reverse steps to reassemble.

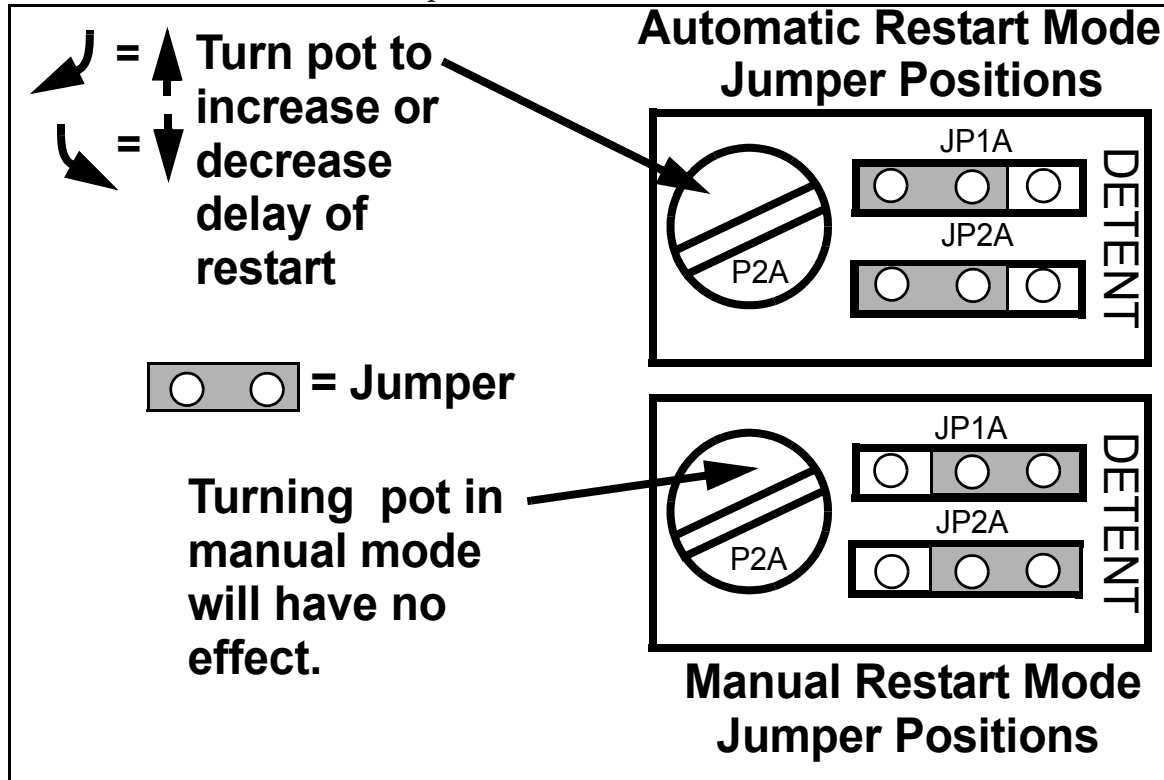


Figure 5-19. Elevation Adjustment Pots

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Component Replacement

6

6.1 Introduction

This chapter provides instructions for replacing most of the major assemblies on the elevating table.

6.2 Removing Front Panels

This is a common procedure that is referenced in many of the replacement procedures that follow in this chapter.

Tools Required:

- 3/8" nut driver
- 5/16" nut driver
- Medium Phillips screwdriver

- 1 Run table to its uppermost position.



Warning

Turn off all electrical power to the table and all its peripheral equipment (generator, tubestand, etc.) at the power sources before servicing the table. Also, make sure that the power sources are locked out and tagged "Equipment Being Serviced" before servicing the table. Some components inside the table have power sources other than that of the table, which is why all peripheral equipment must be turned off; you could get seriously injured if you do not. Wait five minutes after turning power off to work on table.

- 2 Turn off all power to the table.
- 3 Unscrew the upper panel screws (1 in Figure 6-1), tilt panel (2) out, and lift off from the table.

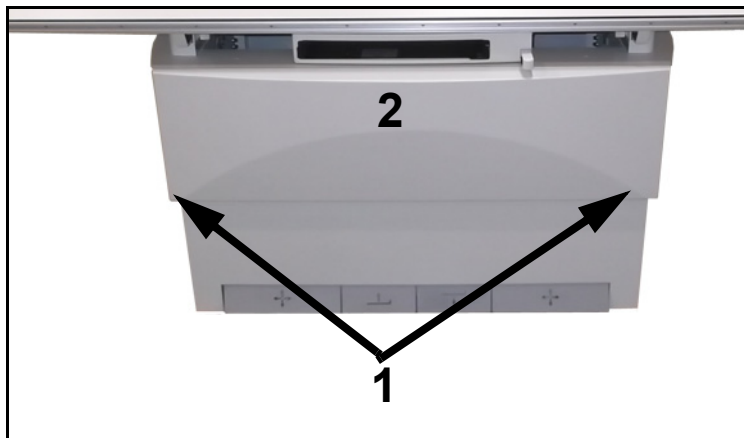


Figure 6-1. Upper Panel Screws

- 4 Unscrew the two lower panel clamps screws (1 in Figure 6-2), then remove the lower panelhead screws (2).
- 5 Lift the lower panel (3) up slightly and then pull it out. The bottom of the lower panel is connected to the table by slots (4) shown below.

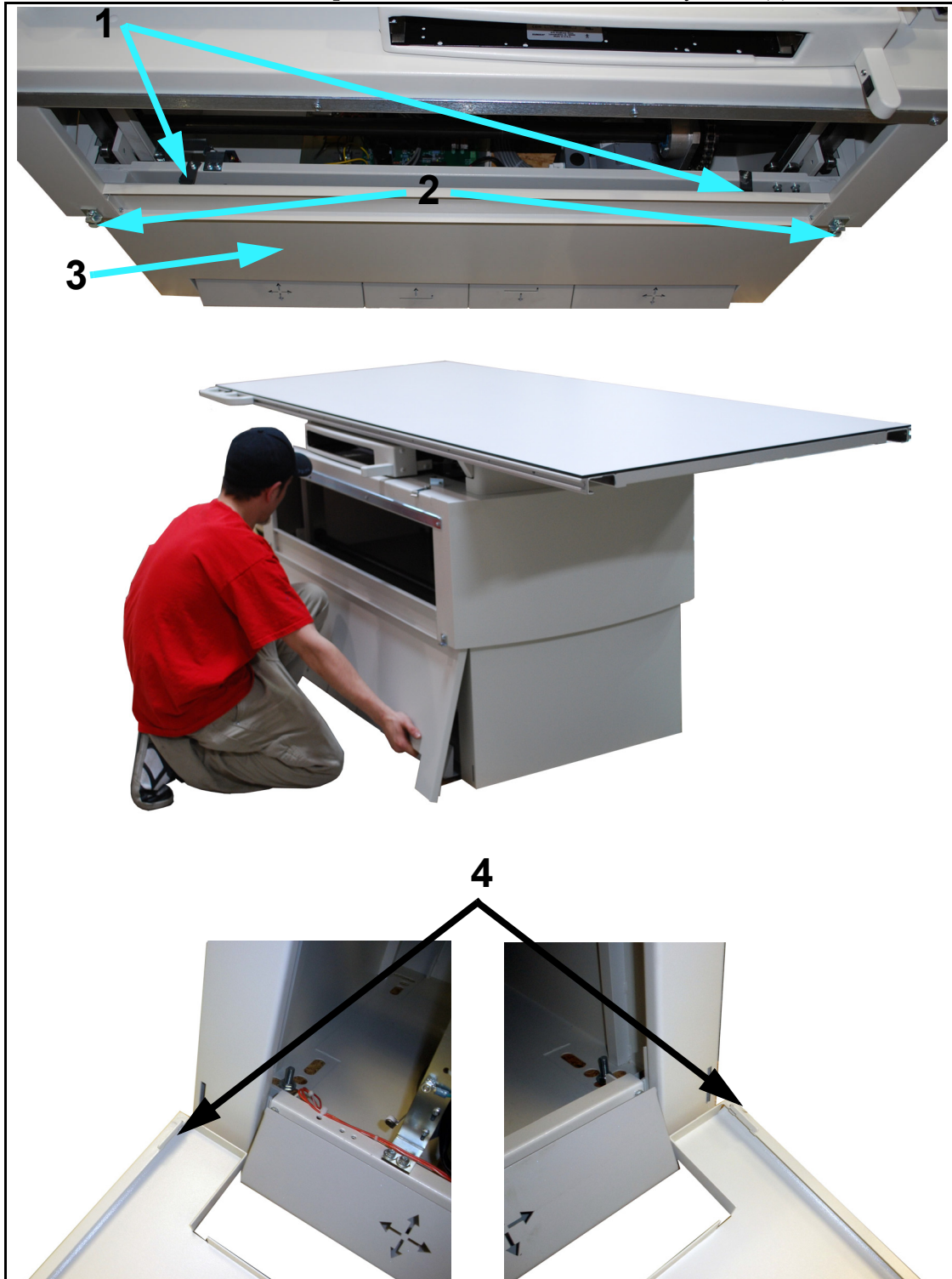


Figure 6-2. Lower Panel Clamps

6.3 Replacing Main PCB

Tools Required:

- Medium phillips screwdriver

- 1 If not already completed, remove the front panels according to Section 6.2.



Warning

Turn off all electrical power to the table and all its peripheral equipment (generator, tubestand, etc.) at the power sources before servicing the table. Also, make sure that the power sources are locked out and tagged “Equipment Being Serviced” before servicing the table. Some components inside the table have power sources other than that of the table, which is why all peripheral equipment must be turned off; you could get seriously injured if you not. Wait five minutes after turning power off to work on table.

- 2 Turn off all power to the table and wait five minutes for the table’s capacitors to discharge.
- 3 Unplug the connectors (1 in Figure 6-3).
- 4 Unscrew all mounting screws (2) and remove the board.
- 5 Reverse steps to reassemble.

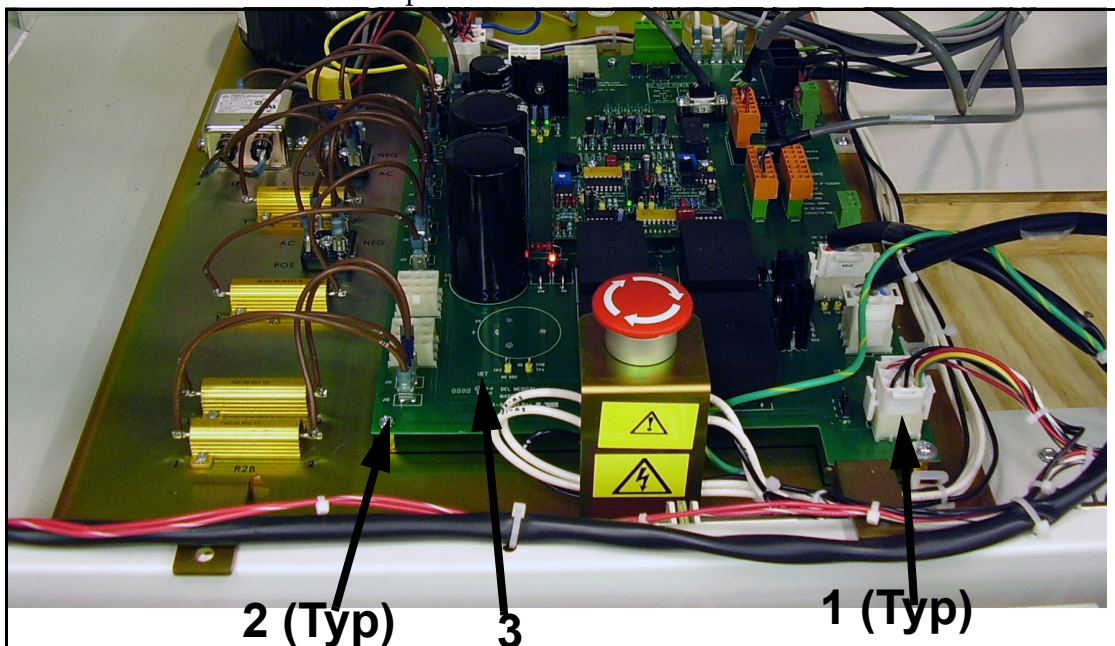


Figure 6-3. Front Chassis Screws

6.4 Replacing Foot Treadle Assembly

Tools Required:

- 5/16" nut driver

- 1 If not already completed, remove the front panels according to Section 6.2.



Warning

Turn off all electrical power to the table and all its peripheral equipment (generator, tubestand, etc.) at the power sources before servicing the table. Also, make sure that the power sources are locked out and tagged "Equipment Being Serviced" before servicing the table. Some components inside the table have power sources other than that of the table, which is why all peripheral equipment must be turned off; you could get seriously injured if you not. Wait five minutes after turning power off to work on table.

- 2 Turn off all power to the table and wait five minutes for the table's capacitors to discharge.
- 3 Unplug the connector (1 in Figure 6-4).
- 4 Cut cable ties (2).
- 5 Unscrew the ground nut (3).

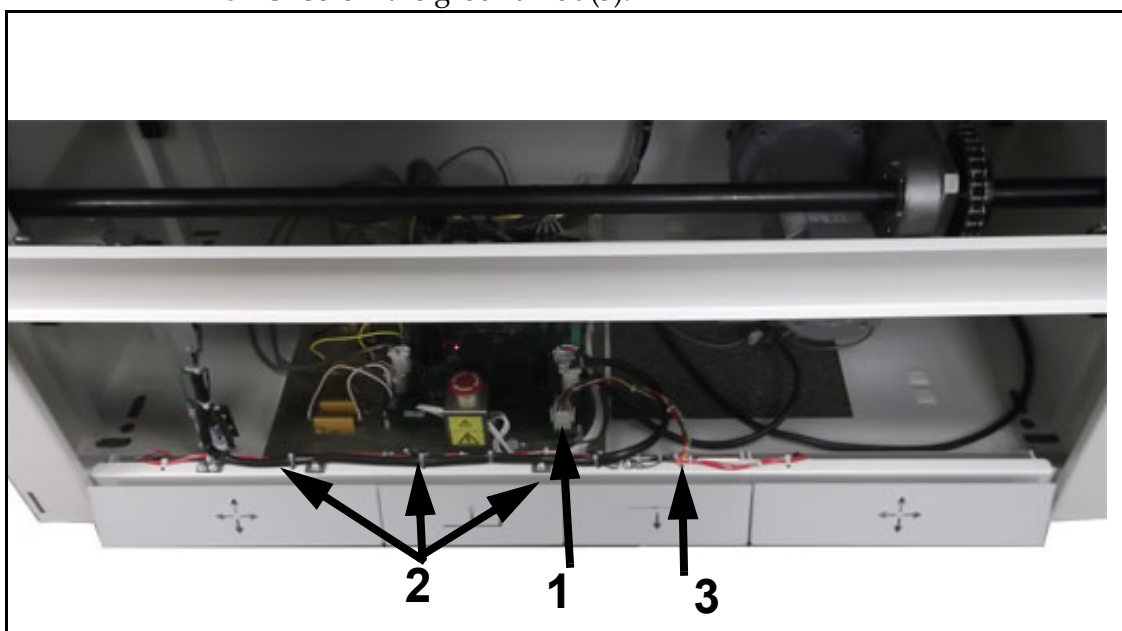


Figure 6-4. Foot Treadle P-Clamps & Connector

- 6 Unscrew the two foot treadle mounting screws, located inside the table as shown (1 in Figure 6-5), and remove the treadle assembly (2).
- 7 Reverse steps to install the treadle.

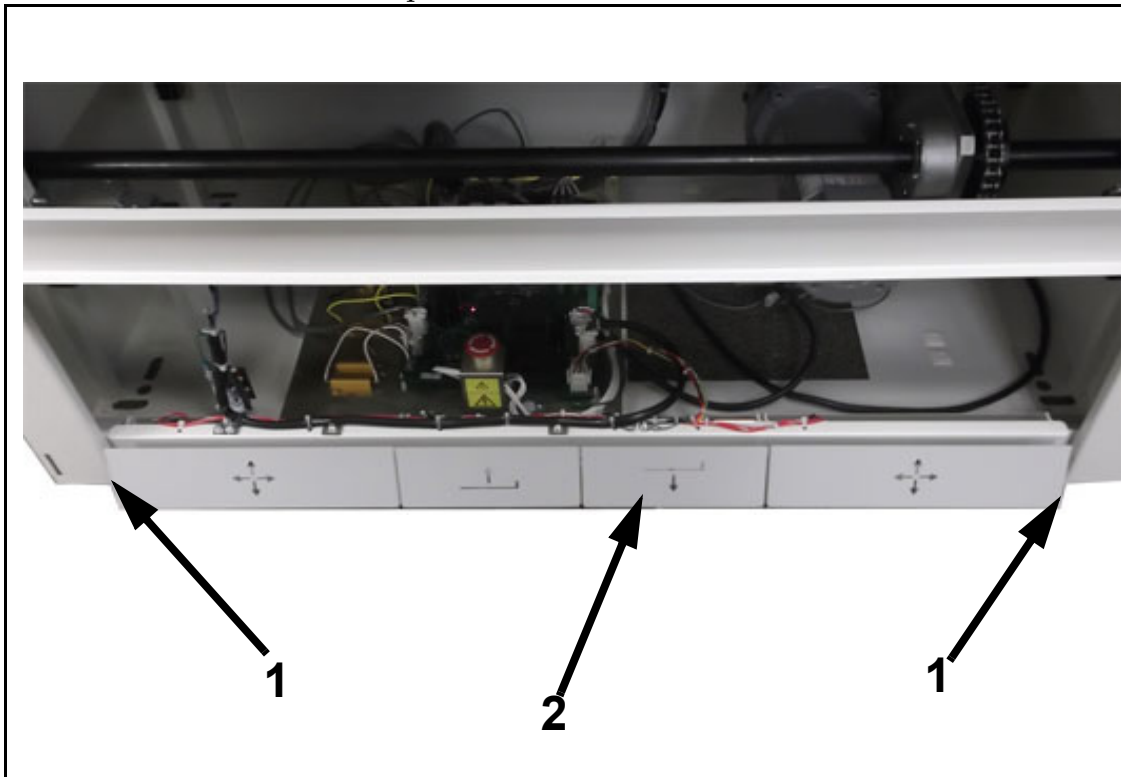


Figure 6-5. Foot Treadle

6.5 Replacing Drive Motor Assembly

Tools Required:

- 9/16" (14mm) open-end wrench
- Medium flat-tip screwdriver
- Set of hex wrenches

Note: Do not use an off-the-shelf replacement motor. The motor in your table has been specially modified at the Del factory for this application. You must use part #112-5387G1 as a replacement motor.

- 1 If not already completed, remove the front panels according to Section 6.2 "Removing Front Panels" on page 6-2.



Warning

Turn off all electrical power to the table and all its peripheral equipment (generator, tubestand, etc.) at the power sources before servicing the table. Also, make sure that the power sources are locked out and tagged "Equipment Being Serviced" before servicing the table. Some components inside the table have power sources other than that of the table, which is why all peripheral equipment must be turned off; you could get seriously injured if you not. Wait five minutes after turning power off to work on table.

- 2 Turn off all power to the table and wait five minutes for the table's capacitors to discharge.
- 3 Unplug the connector (1 in Figure 6-6).

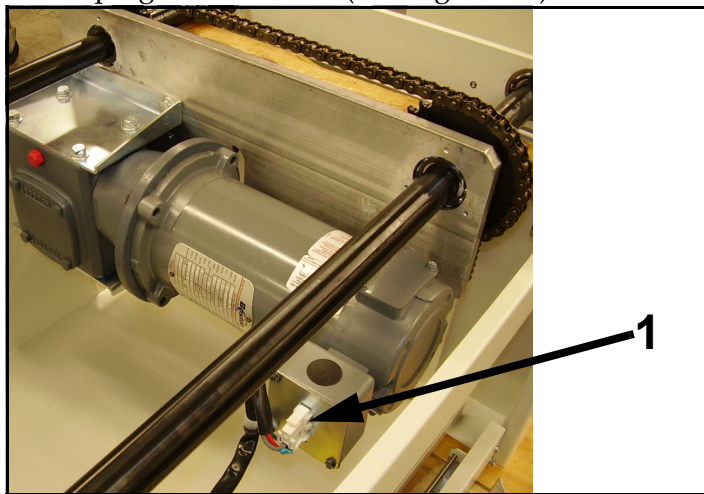


Figure 6-6. Motor Connector

4 Unscrew the four motor mounting bolts (1 in Figure 6-7).

5 Pull the motor (2) off of the gearbox (3).

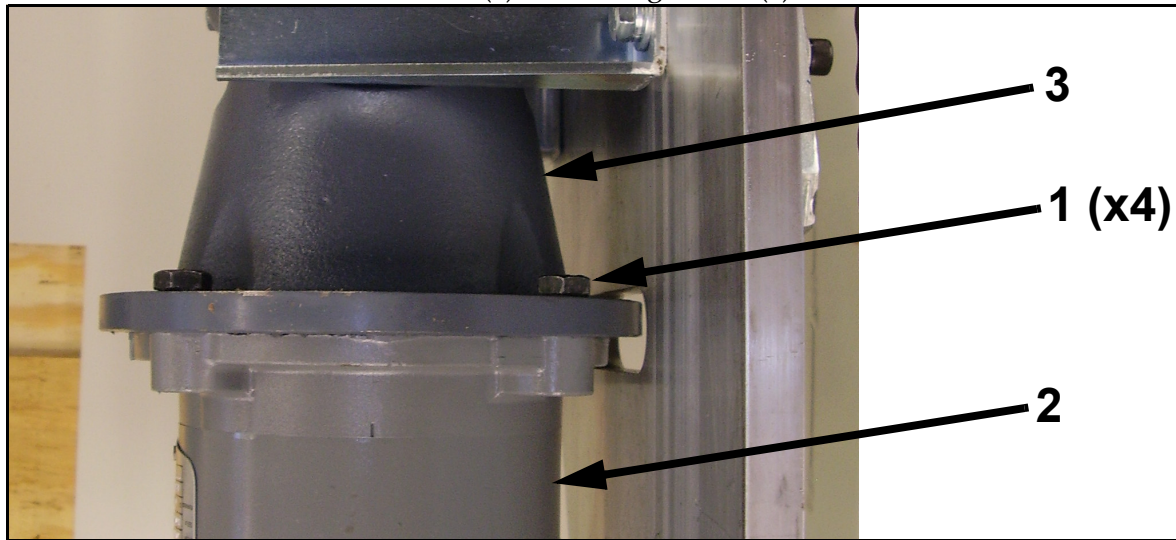


Figure 6-7. Motor Mounting Bolts

6 Record the coupling mount distance (1 in Figure 6-8), which is the distance from the back of the coupling to motor face. Retain this distance for reassembly.

7 Remove the coupling (2) from the motor shaft (3).

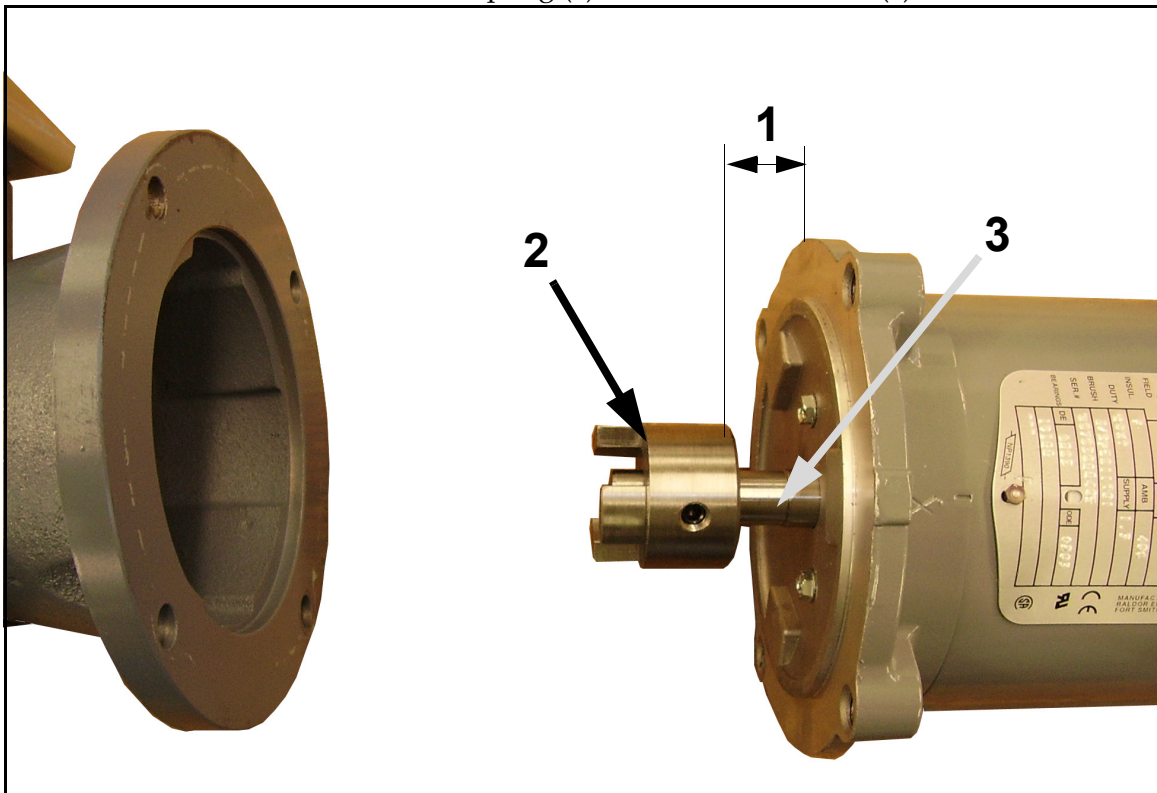


Figure 6-8. Motor Coupling

- 8 Install the coupling to the new motor assembly. Be sure to space the coupling according to the mount distance measured in step #6.
- 9 Reverse the steps to install the motor. Use care when realigning the motor/gearbox coupling.

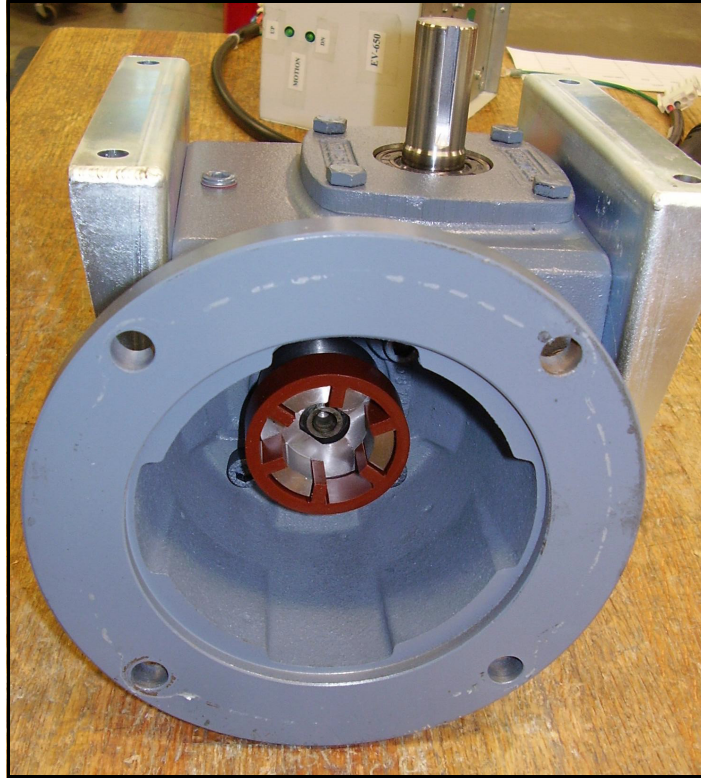


Figure 6-9. Motor/Gearbox Coupling

6.6 Replacing Treadle Switch

Tools Required:

- Set of hex wrenches
- 1 If not already done so, remove front panels according to Section 6.2 “Removing Front Panels” on page 6-2.
 - 2 Turn off all the power to the table and wait five minutes for the table’s capacitors to discharge.

Warning

Turn off all electrical power to the table and all its peripheral equipment (generator, tubestand, etc.) at the power sources before servicing the table. Also, make sure that the power sources are locked out and tagged “Equipment Being Serviced” before servicing the table. Some components inside the table have power sources other than that of the table, which is why all peripheral equipment must be turned off; you could get seriously injured if you not. Wait five minutes after turning power off to work on table.

- 3 Disconnect the terminals (1 in Figure 6-10).
- 4 Unscrew the two mounting screws (2) and remove the switch and screw bar (3).

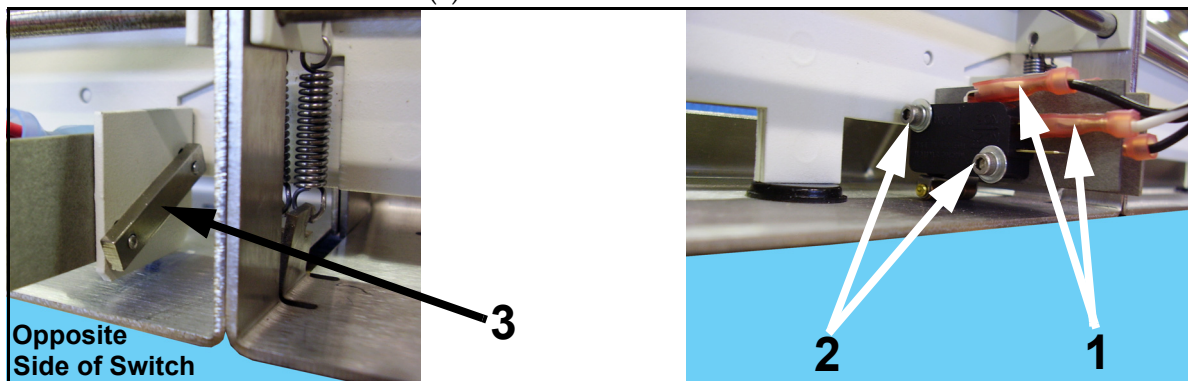


Figure 6-10. Treadle Switch (Typical)

- 5 Reverse the steps to install switch. Adjust the switch so that its arm (1 in Figure 6-11) engages the switch, but still has a little play left in it so that it's not forced against the switch.

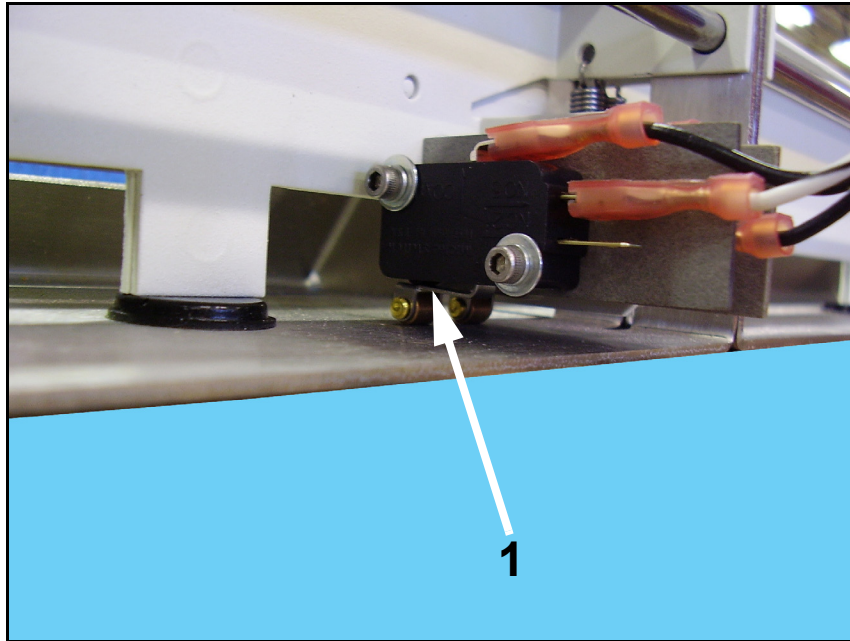


Figure 6-11. Treadle Switch Adjustment



Caution

Carefully test the treadle in the circuit. The table may not operate or may drive uncommanded if not adjusted properly.

6.7 Replacing Left-Right Table Lock

Tools Required:

- Medium flat-tip screwdriver
- Medium phillips screwdriver
- Set of hex wrenches
- Small flat-tip screwdriver

- 1 Turn off all the power to the table and wait five minutes for the table's capacitors to discharge.

Warning

Turn off all electrical power to the table and all its peripheral equipment (generator, tubestand, etc.) at the power sources before servicing the table. Also, make sure that the power sources are locked out and tagged "Equipment Being Serviced" before servicing the table. Some components inside the table have power sources other than that of the table, which is why all peripheral equipment must be turned off; you could get seriously injured if you not. Wait five minutes after turning power off to work on table.

- 2 Unscrew the bumper screws (1 in Figure 6-12) and remove the bumpers (2) from all four corners of the table top.

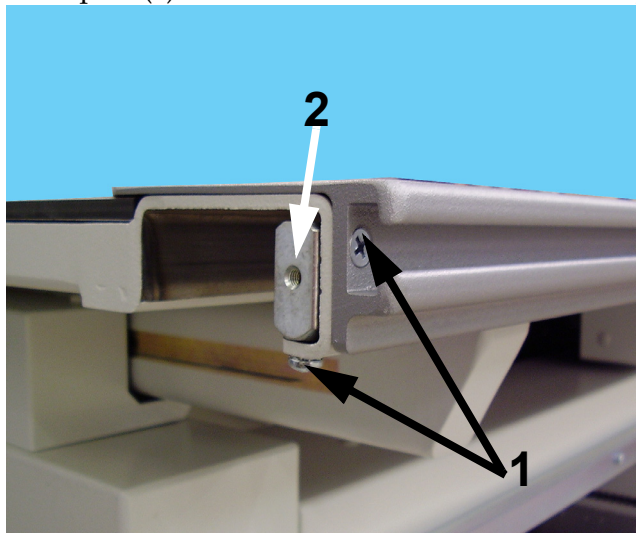


Figure 6-12. Bumper Removal

- 3 Carefully slide the table top off of the base far enough to expose the brakes.

- 4 Loosen the terminal block screws (1 in Figure 6-13) and slide the lock wires out of the terminal block.
- 5 Unscrew the lock screw (2) and remove the lock (3).
- 6 Reverse the steps to install brake.



Caution

Use care not to damage the locks when sliding the table top back onto the base.

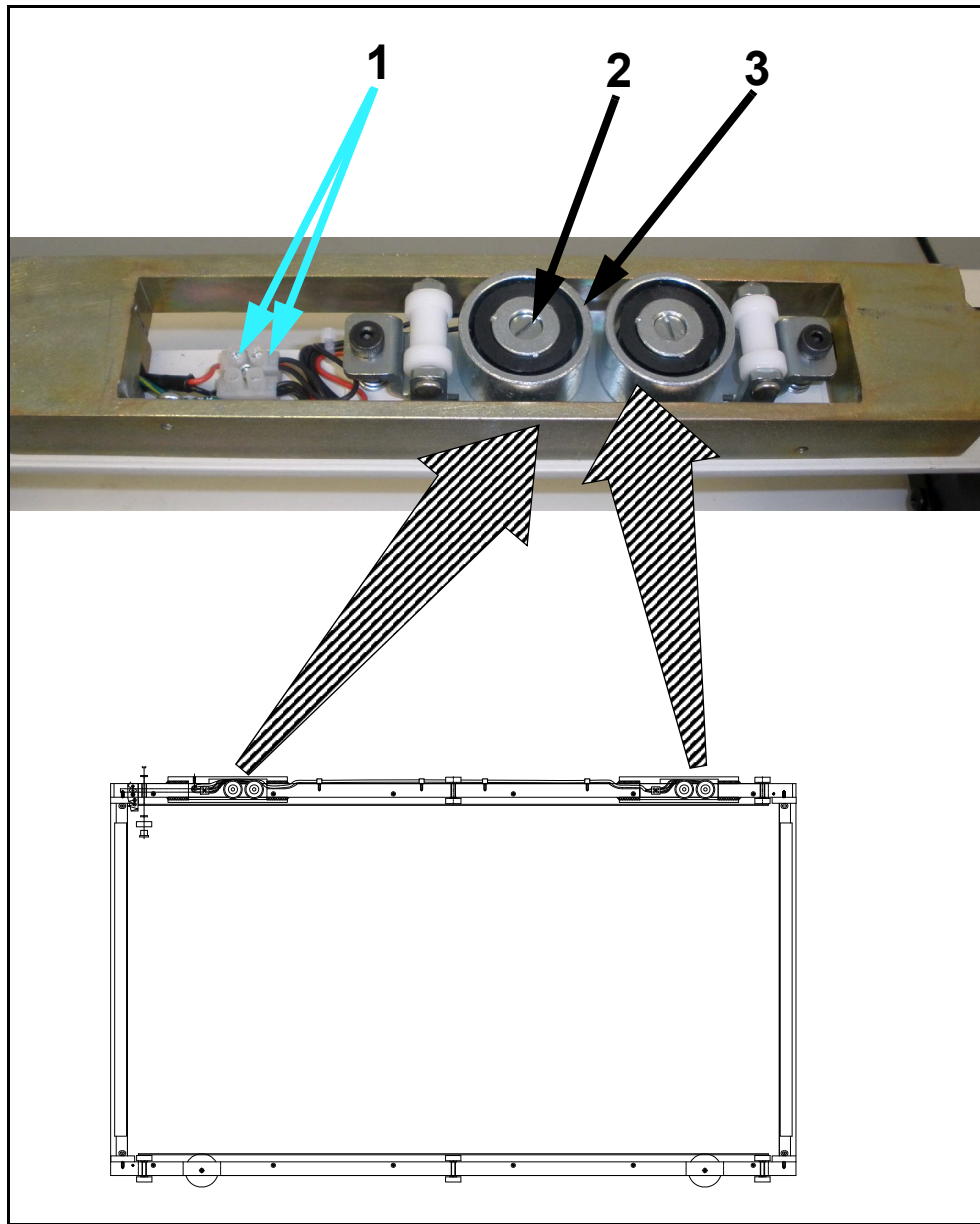


Figure 6-13. Table Locks

6.8 Replacing Height Limit Switches

This procedure gives general instructions for replacing the height limit switches. The figures might not represent the exact switch you are replacing, but they will give you the general information about replacing the switch.

Tools Required:

- Set of hex wrenches

Figure 6-14 below shows the general location of the height limit switches.

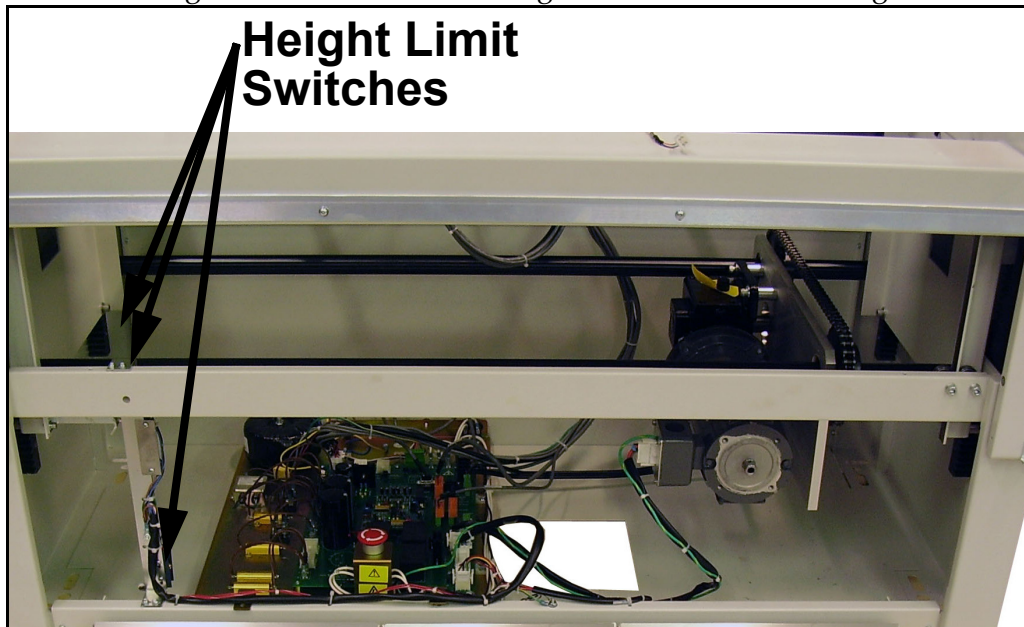


Figure 6-14. Limit Switch Location

- 1 If not already completed, remove the front panels according to Section 6.2 "Removing Front Panels" on page 6-2.
- 2 Turn off all power to the table and wait five minutes for the table's capacitors to discharge.

**Warning**

Turn off all electrical power to the table and all its peripheral equipment (generator, tubestand, etc.) at the power sources before servicing the table. Also, make sure that the power sources are locked out and tagged “Equipment Being Serviced” before servicing the table. Some components inside the table have power sources other than that of the table, which is why all peripheral equipment must be turned off; you could get seriously injured if you not. Wait five minutes after turning power off to work on table.

- 3 Disconnect the terminals (1 in Figure 6-15).
- 4 Unscrew the two mounting screws (2) and then remove the switch (3) and the nut bar (not shown).
- 5 Reverse the steps to install the switch.

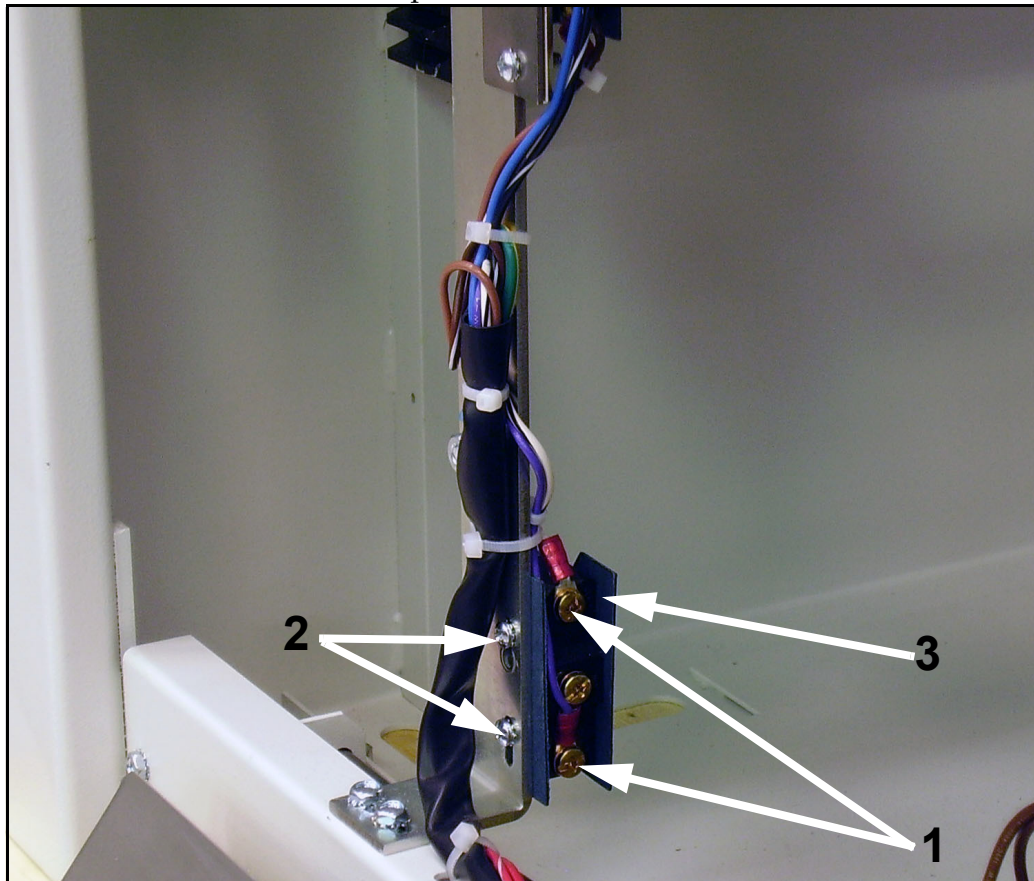


Figure 6-15. Limit Switch (Typical)

6.9 Replacing Bucky Lock

Tools Required:

- 1/4" open-end wrench
- Medium phillips screwdriver
- Set of hex wrenches
- Small flat-tip screwdriver

- 1 Turn off all power to the table and wait five minutes for the table's capacitors to discharge.



Warning

Turn off all electrical power to the table and all its peripheral equipment (generator, tubestand, etc.) at the power sources before servicing the table. Also, make sure that the power sources are locked out and tagged "Equipment Being Serviced" before servicing the table. Some components inside the table have power sources other than that of the table, which is why all peripheral equipment must be turned off; you could get seriously injured if you not. Wait five minutes after turning power off to work on table.

- 2 If not already completed, remove the front panels according to Section 6.2.
- 3 Unscrew the bumper screws (1 in Figure 6-16) and remove the bumpers (2) on one end of the table top (remove a total of two bumpers on one end of the table top).

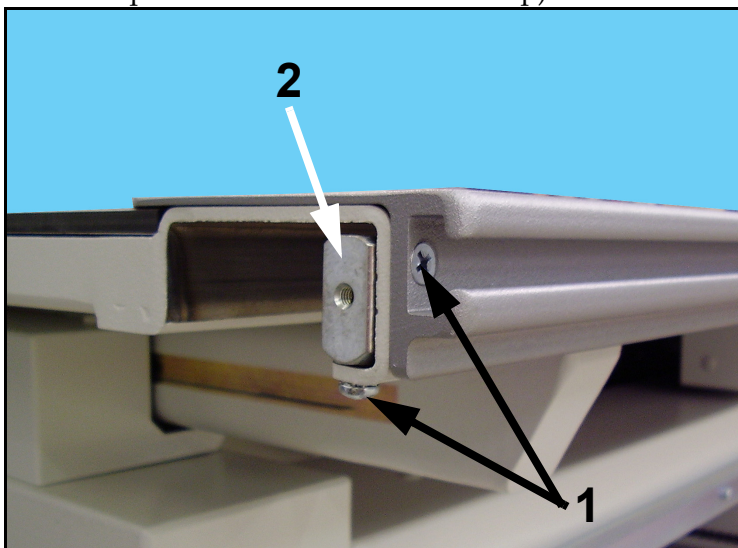


Figure 6-16. Bumper Removal

- 4 Carefully slide the table top off of the base far enough to expose the bucky.



Figure 6-17. Table Top Removal

- 5 Unscrew the four bucky mounting screws (2 on each side) (1 in Figure 6-18).

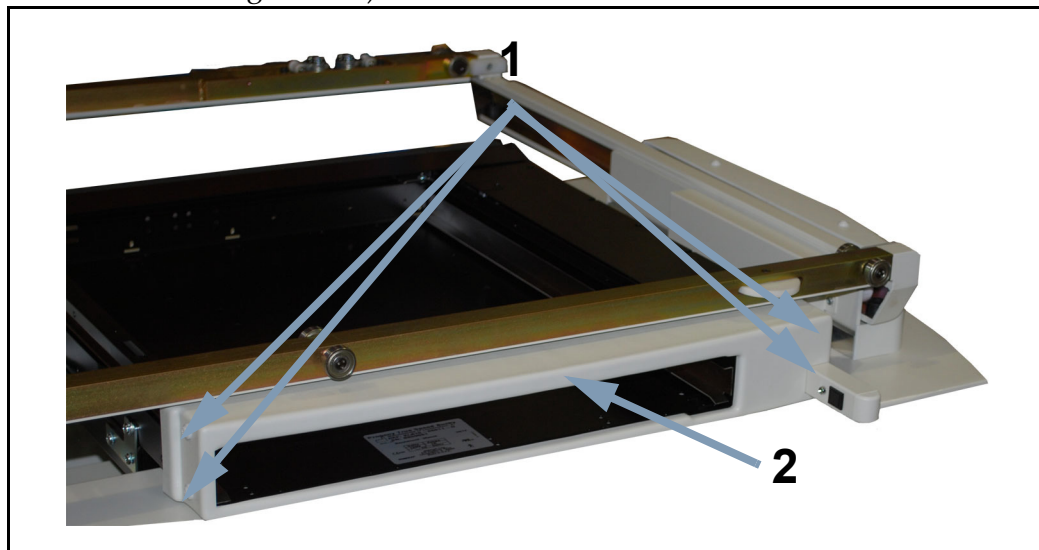


Figure 6-18. Bucky Mounting Screws

- 6 Loosen the terminal block screws (1 in Figure Figure 6-19) and slide the lock wires out of the terminal block. The terminal block is located under the bucky and you can access it through the front of the machine.

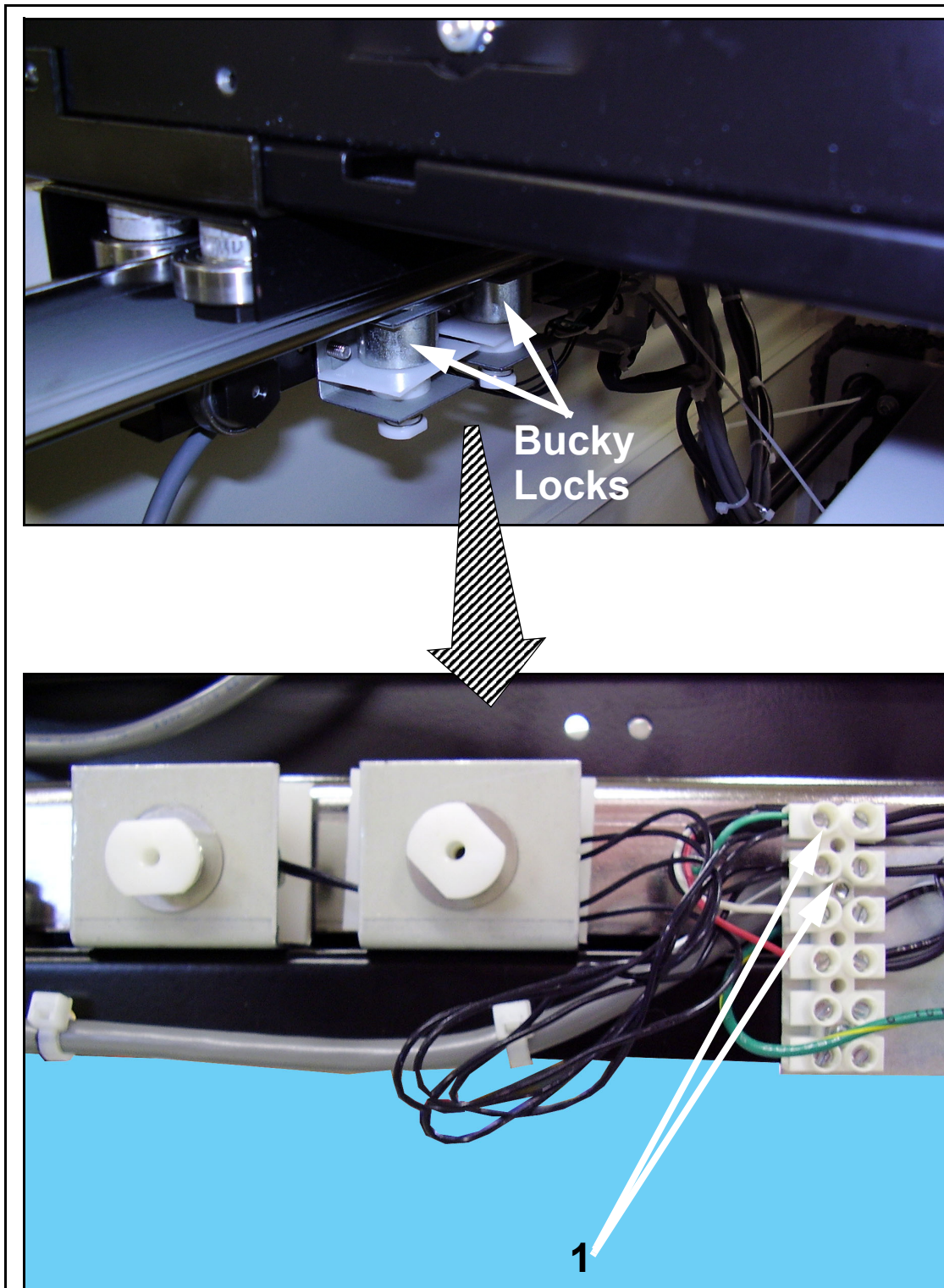


Figure 6-19. Terminal Block

- 7 Unscrew the lock screws (1 in Figure 6-20) and remove the locks. You will have to lift the bucky (2) up to access the screws.
- 8 Reverse the steps to install lock.



Caution

Use care not to damage the table locks when sliding the table top back onto the base.

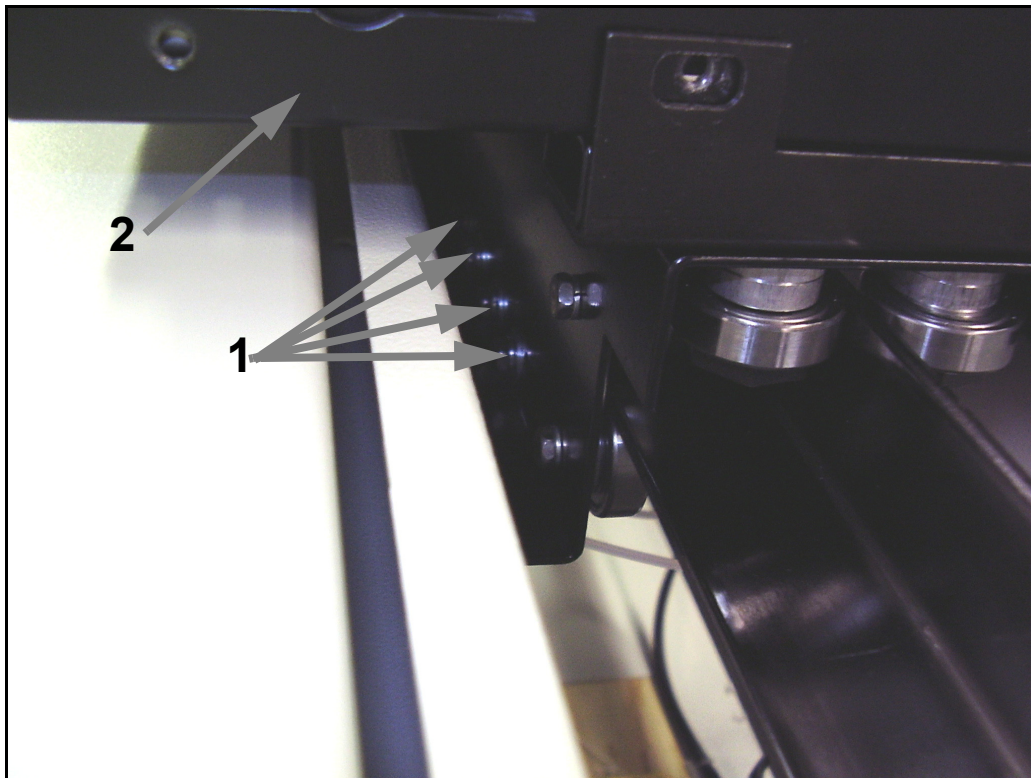


Figure 6-20. Bucky Lock Mounting Screws

6.10 Replacing Collision Avoidance Switches

Tools Required:

- 3/8" open-end wrench
- Medium phillips screwdriver
- Set of hex wrenches
- Small-flat-tip screwdriver

- 1 Turn off all power to the table and wait five minutes for the table's capacitors to discharge.

Warning

Turn off all electrical power to the table and all its peripheral equipment (generator, tubestand, etc.) at the power sources before servicing the table. Also, make sure that the power sources are locked out and tagged "Equipment Being Serviced" before servicing the table. Some components inside the table have power sources other than that of the table, which is why all peripheral equipment must be turned off; you could get seriously injured if you not. Wait five minutes after turning power off to work on table.

- 2 Unscrew the bumper screws (1 in Figure 6-21) and remove the bumpers (2) from all four corners of the table top.

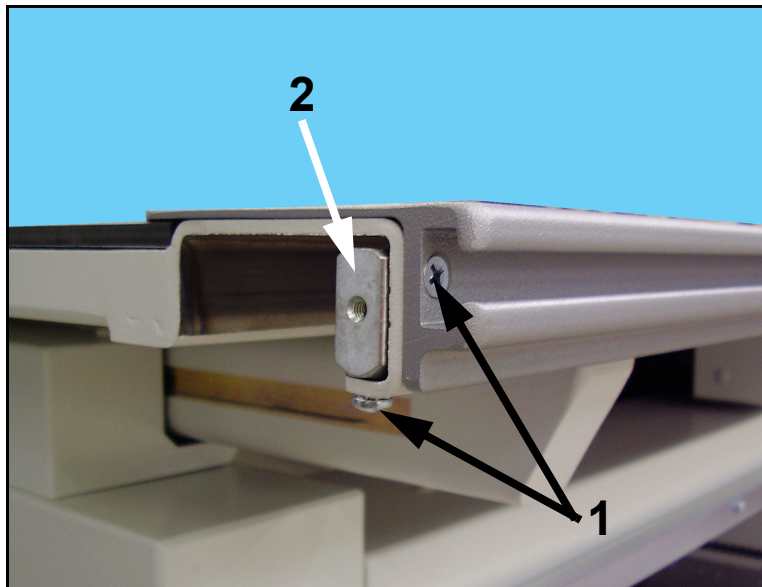


Figure 6-21. Bumper Removal

- 3 Slide table top (1 in Figure 6-22) remove the cover (2) to expose switch assembly.

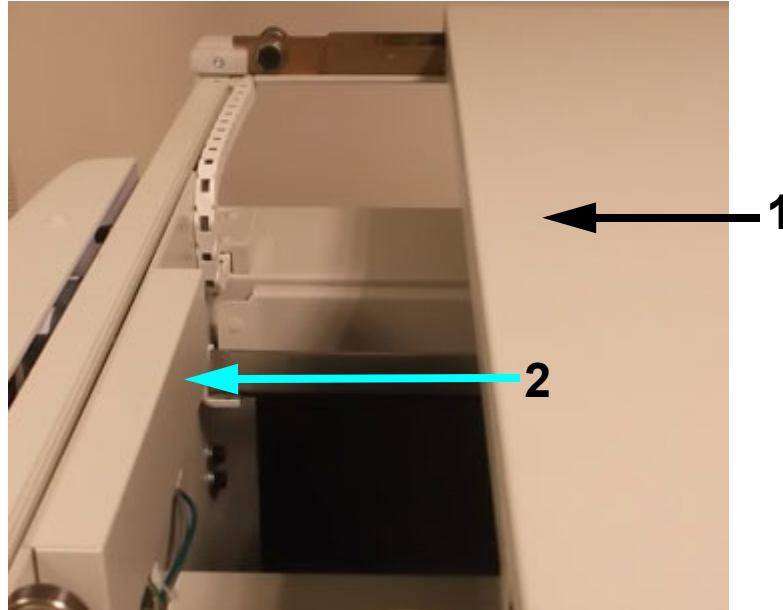


Figure 6-22. Switch Access

- 4 Disconnect the terminals (1 in Figure 6-23).
- 5 Unscrew the two nuts (2) and remove the plate assembly (3).
- 6 Unscrew the mounting screws (4) from the rear of the plate assembly and remove the switch (5).
- 7 Reverse the steps to install switch.

8 Test and adjust the switch according to Section 5.6.

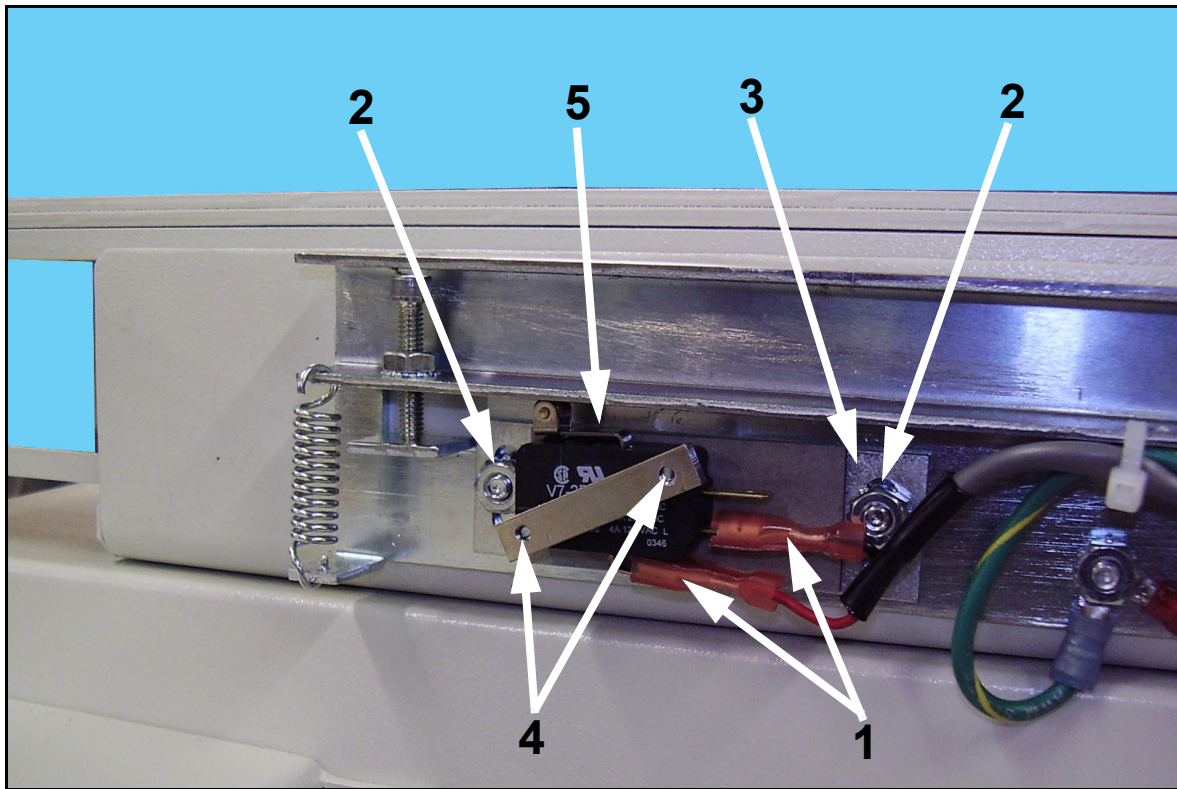


Figure 6-23. Switch Removal

6.11 Replacing Transverse Locks

Tools Required:

- Medium flat-tip screwdriver
 - Medium phillips screwdriver
 - Set of hex wrenches
- 1 Turn off all power to the table and wait five minute for the table's capacitors to discharge.



Warning

Turn off all electrical power to the table and all its peripheral equipment (generator, tubestand, etc.) at the power sources before servicing the table. Also, make sure that the power sources are locked out and tagged "Equipment Being Serviced" before servicing the table. Some components inside the table have power sources other than that of the table, which is why all peripheral equipment must be turned off; you could get seriously injured if you not. Wait five minutes after turning power off to work on table.

- 2 Unscrew the bumper screws (1 in Figure 6-24) and remove the bumpers (2) from all four corners of the table.

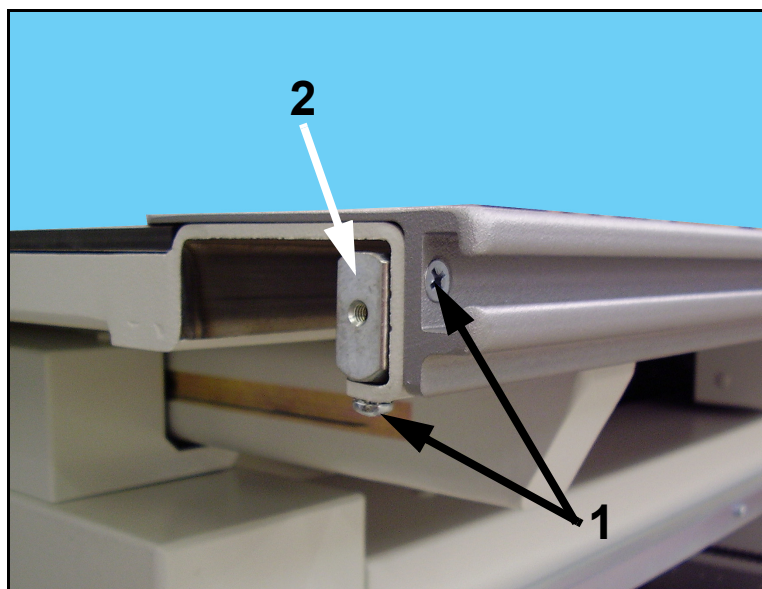


Figure 6-24. Bumper Removal

- 3 Carefully slide the table top off the base far enough to expose the locks.



Figure 6-25. Table Top Removal

- 4 Unscrew the cover screws and remove the lock cover (1 in Figure 6-26) from the side of the table where the suspected faulty lock is located (there are two sets of locks - on left and right side of table).

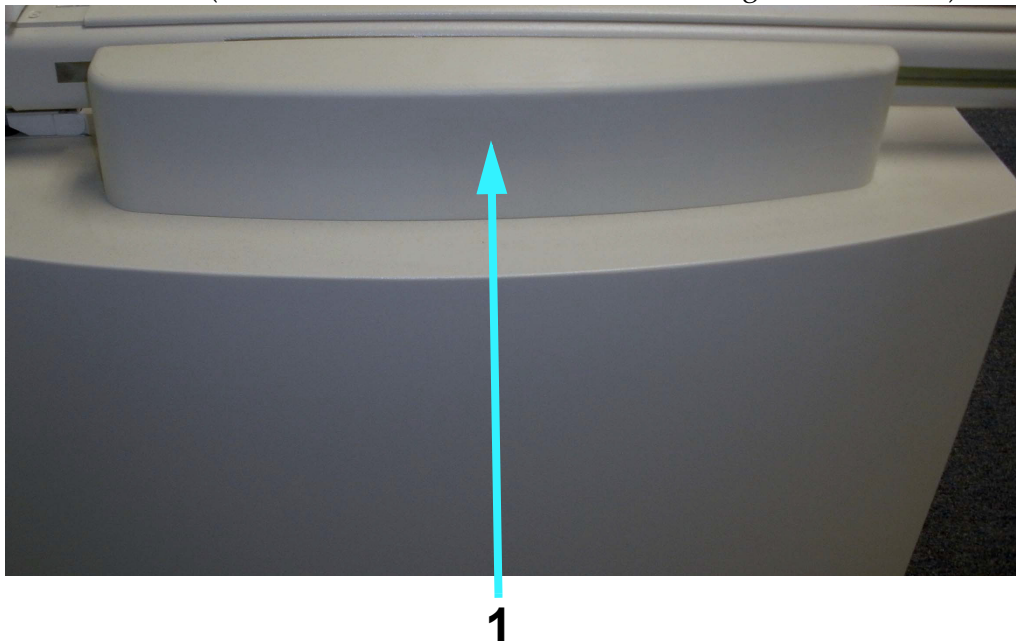


Figure 6-26. Lock Cover (Right Side Shown)

- 5 Unplug the connector (1 in Figure 6-27).
- 6 Unscrew the two mounting screws (2) and remove the bracket assembly (3).
- 7 Unscrew the lock screw (4) and remove the lock (5).
- 8 Reverse the steps to install the lock.



Caution

Use care not to damage the left-right locks when sliding the table top back onto the base.

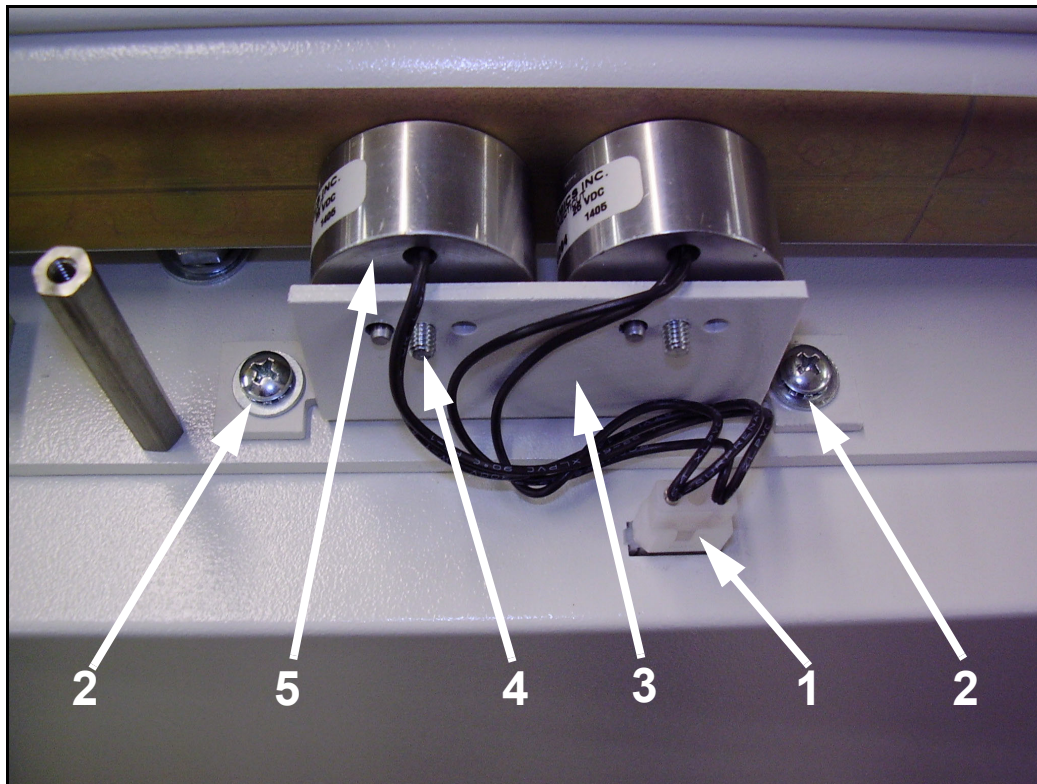


Figure 6-27. Transverse Locks (Right Side Shown)

6.12 Replacing Motor/Gearbox

Tools Required:

- Hand saw
- Medium phillips screwdriver
- Set of hex wrenches
- One 50" 2"x4" stud

Warning

Use extreme caution when operating the table without the protective covers in place. Objects within the table can present crush hazards.

Disassembly

- 1 Cut four 2"x4" studs to 12" length to be used as table braces.
- 2 If not already completed, remove front panels according to Section 6.2.
- 3 Raise table to the full up position. Engage emergency stop switch inside the table.
- 4 Position the four 2"x4" braces (1 in Figure 6-28) under upper frame gear racks as shown below.

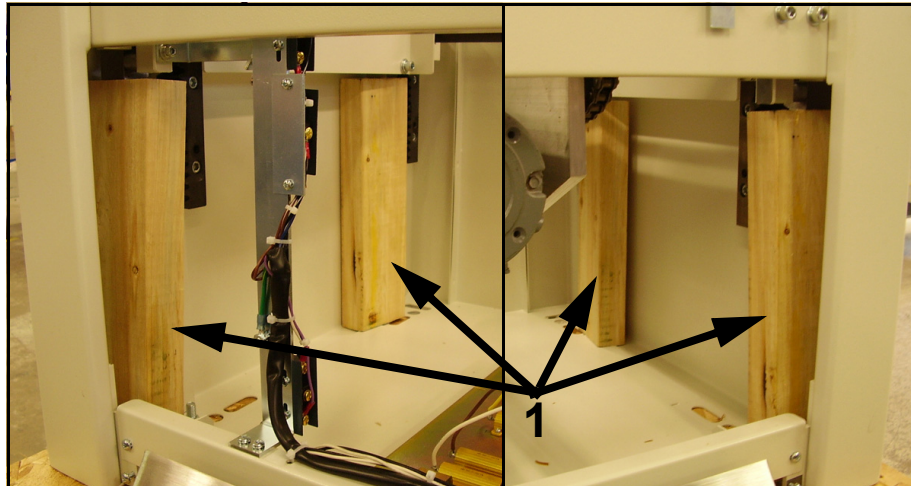


Figure 6-28. Braces in place under the upper frame gear racks

- 5 Reset the emergency stop switch, then slowly lower the table until the gear racks engage the tops of the braces.

**Caution**

Use short taps of the foot switch to engage the braces. The braces will unload the gearbox and drive the chain assembly to allow for safe removal.

- 6 Engage the emergency stop switch inside the table and disconnect the power to the table.
- 7 Remove tension from the chain by loosening the two socket head cap screws (1 in Figure 6-29) and backing down the single tension bolt (2). Carefully lay the slack chain down to the floor pan of table. Be sure to maintain chain/tooth indexing on the two top sprockets of the drive shafts.

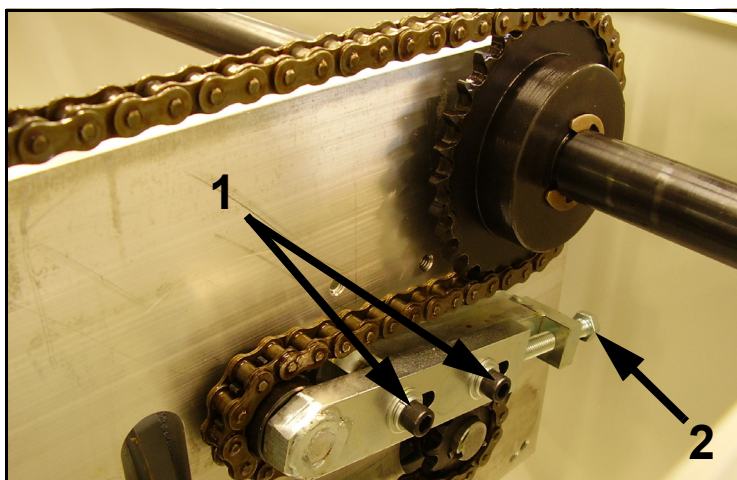


Figure 6-29. Loosen screws to remove chain tension

- 8 Disconnect the power cable from the motor and table chassis. Disconnect the ground wire. Remove the four bolts (1 in Figure 6-30) securing the motor to the gearbox. Remove the motor from table.

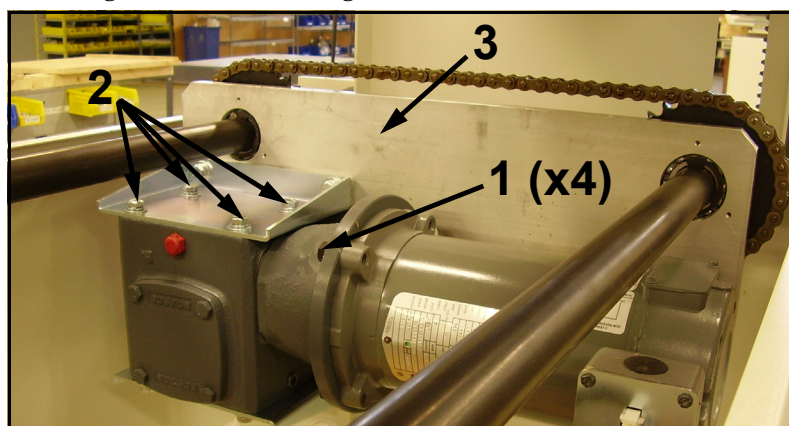


Figure 6-30. Bolts to be removed in order to remove motor

- 9 Remove the four bolts (2 in Figure 6-30) securing the gearbox to the motor drive plate (3). Remove gearbox from table.

Re-assembly

- 10 On the new motor/gearbox assembly remove the four bolts securing the motor to the gearbox. Remove the motor with 2-piece coupling and set aside.

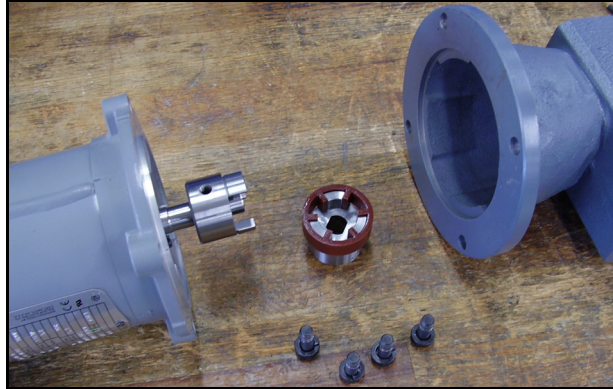
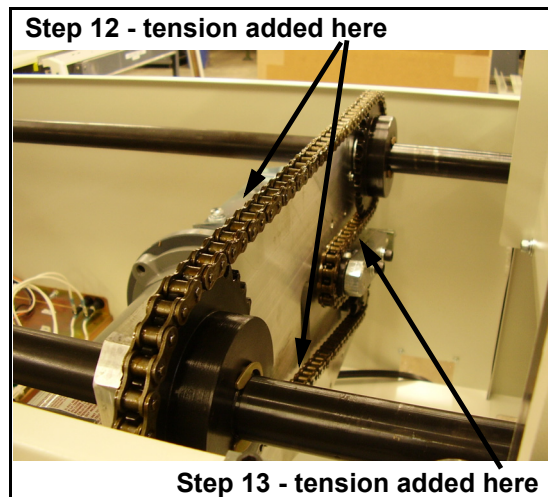


Figure 6-31. New motor/gearbox assembly

- 11 Install the new gearbox to the table and secure the four bolts. Carefully loop the chain around the drive sprocket (reference Figure 6-29 for correct path). **Do not** adjust the chain tensioner at this time.
- 12 Verify that the chain is completely engaged on the drive sprocket, tensioner, and the two drive shaft sprockets. With hand force only, turn the input shaft of the gearbox clockwise to tighten the chain on the small drive sprocket and the two drive shaft sprockets. The small drive sprocket should turn in a counter-clockwise direction when observed from the chain side of the aluminum motor/gearbox mounting plate.



- 13 With the chain now tight between the three sprockets, remove the remaining slack by tightening the chain tension bolt. When properly tensioned, the chain should deflect approximately 3/16" at point shown with moderate finger pressure.

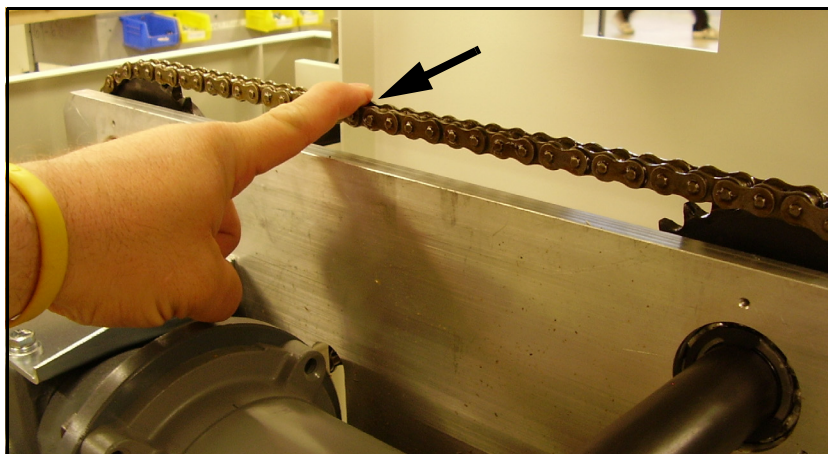


Figure 6-32. Check Chain Tension

- 14 Lock the tensioner in place with the two socket head cap screws and lock nut on the chain tension bolt.
- 15 Install the motor onto the gearbox. Position coupling, urethane insert, and D-hole coupling onto the motor. Visually align the flats of D-hole coupling with the mating flats on the gearbox shaft and join the motor to the gearbox. Secure with the four mounting bolts.



- 16 Reconnect the power cable to the motor and the main chassis, and then secure grounds.
- 17 Reconnect the power to table and reset the emergency stop switch.
- 18 Slowly raise the table to upper stop. Remove 2" x 4" supports. Cycle the table up and down several times to check for proper operation.

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7.1 Introduction

This chapter is divided into two sections.

The first section is a troubleshooting index that lists potential problems with the table. This index cross references a corresponding troubleshooting chart that will aid you in solving that particular problem.

The second section features the location of various switches on the machines that are referenced in the troubleshooting charts.

7.2 Troubleshooting Index

Use the following troubleshooting index as an aid in solving your table's malfunction.

Problem	Refer to Page:
The table will not do anything. The bucky indicator light is not illuminated.	7-3
All of the table locks do not work.	7-3
One lock pedal will work, but the other will not.	7-4
The table will raise, but will either not lower or downward motion is intermittent.	7-5
The table will lower, but not raise.	7-6
The table will not raise or lower, but other functions of the table will work.	7-6
The longitudinal locks are weak - they do not hold the table securely.	7-7
The transverse locks are weak - they do not hold the table securely.	7-8
The bucky locks are weak - they do not hold the bucky securely.	7-9

7.3 Troubleshooting Charts

Use the following troubleshooting charts as an aid in solving your table's malfunction.

Problem	Possible Cause	Remedy
The table will not do anything. The bucky indicator light is not illuminated.	No power.	Make sure that the switch at wall power source is turned on. Make sure that the circuit breaker at the wall power source is turned on. Make sure that the Emergency Stop button is reset (in up position). Refer to Section "Emergency Stop Button" on page 3-8 for info on button. Check the line fuses FL1 & FL2 according to Section 5.3 "Replacing Fuses F1, FL1, & FL2" on page 5-4. Replace main PCB according to Section 6.3 "Replacing Main PCB" on page 6-4.
All of the table locks do not work.	No power to locks.	Check line fuses FL1 & FL2 according to Section 5.3 "Replacing Fuses F1, FL1, & FL2" on page 5-4. Replace the main PCB according to Section 6.3 "Replacing Main PCB" on page 6-4.

Problem	Possible Cause	Remedy
One lock pedal will work, but the other will not.	The lock treadle switch is faulty.	Check the mechanical and electrical operation of the lock treadle switches S11 & S12. See Figure 7-1 on page 7-10 for location of switches. If the switch is faulty, replace it according to Section 6.4 "Replacing Foot Treadle Assembly" on page 6-5.
The table top is slipping and not holding very well.	Low voltage.	Check the proper voltage to magnet. Decrease the weight. The minimum holding force for the table locks is 50 lbs.

Problem	Possible Cause	Remedy
The table will raise, but will either not lower or downward motion is intermittent.	The collision avoidance switches are not properly adjusted or are faulty.	Test and adjust the switches according to 5.6 "Testing & Adjusting Collision Avoidance Switches" on page 5-12. If the switch is faulty, replace it according to Section 6.10 "Replacing Collision Avoidance Switches" on page 6-20. Check the mechanical and electrical operation of the down treadle switch S13. See Figure 7-1 on page 7-10 for location of switch. If the switch is faulty, replace it according to Section 6.6 "Replacing Treadle Switch" on page 6-10. Check the mechanical and electrical operation of limit switch S102. See Figure 7-2 on page 7-11 for location of the switches. If the switches are faulty, replace them according to Section 6.8 "Replacing Height Limit Switches" on page 6-14. Replace the main PCB according to Section 6.3 "Replacing Main PCB" on page 6-4. <i>Continued on next page...</i>

Problem	Possible Cause	Remedy
The table will lower, but will not raise.	The treadle up switch or up limit switch is faulty.	Check the mechanical and electrical operation of down treadle switch S12. See Figure 7-1 on page 7-10 for location of switch. If the switch is faulty, replace it according to Section 6.6 "Replacing Treadle Switch" on page 6-10. Check the mechanical and electrical operation of limit switch. See Figure 7-2 on page 7-11 for location of switches. If the switches are faulty, replace them according to Section 6.8 "Replacing Height Limit Switches" on page 6-14. Replace the main PCB according to Section 6.3 "Replacing Main PCB" on page 6-4
The table will not raise nor lower, but other functions of the table will work.	There is no power to the motor or the motor control boards.	Check the motor fuse F1 according to Section 5.3 "Replacing Fuses F1, FL1, & FL2" on page 5-4. If the fuse keeps blowing out, replace the main PCB according to Section 6.3 "Replacing Main PCB" on page 6-4.

Problem	Possible Cause	Remedy
The longitudinal locks are weak - they do not hold the table securely.	The locks are jammed or a solenoid coil is bad.	Remove the table top according to first part of Section 6.7 "Replacing Left-Right Table Lock" on page 6-12. Check for and remove any obstructions in the locks. With the table turned on, repeatedly press the unlock pedal and visually confirm the up-and-down motion of each lock. If the lock does not work, check for the 24VDC signal at the lock's terminal when the pedal is not pressed, but the table is turned on. If the signal is present, replace the faulty lock according to Section 6.7 "Replacing Left-Right Table Lock" on page 6-12. If the signal is not present, replace main PCB according to Section 6.3 "Replacing Main PCB" on page 6-4.

Problem	Possible Cause	Remedy
The transverse table locks are weak - they do not hold table securely.	The locks are jammed or a solenoid coil is bad.	Remove the table top according to first part of Section 6.7 "Replacing Left-Right Table Lock" on page 6-12. Check for and remove any obstructions in the locks. With the table turned on, repeatedly press the unlock pedal and visually confirm the up-and-down motion of each lock. If the lock does not work, check for the 24VDC signal at the lock's terminal when the pedal is not pressed, but the table is turned on. If the signal is present, replace the faulty lock coil according to Section 6.11 "Replacing In-Out Table Locks" on page 6-23. If the signal is not present, replace the main PCB according to Section 6.3 "Replacing Main PCB" on page 6-4.

Problem	Possible Cause	Remedy
The bucky locks are weak - they do not hold the bucky securely.	The locks are jammed or a solenoid coil is bad.	Remove the table top according to first part of Section 6.7 "Replacing Left-Right Table Lock" on page 6-12 Check for and remove any obstructions in the locks. With the table turned on, repeatedly press the bucky lock switch and visually confirm the up-and-down motion of each lock. If the lock does not work, check for the 24VDC signal at the lock's terminal when the switch is not pressed, but the table is turned on. If the signal is present, replace the faulty lock coil according to Section 6.9 "Replacing Bucky Lock" on page 6-16. If the signal is not present, replace main PCB according to Section 6.3 "Replacing Main PCB" on page 6-4.

7.4 Switch Location

The following figures show the location of various switches on the machines that are referenced in the troubleshooting charts.

7.4.1 Treadle Switch Location/Layout

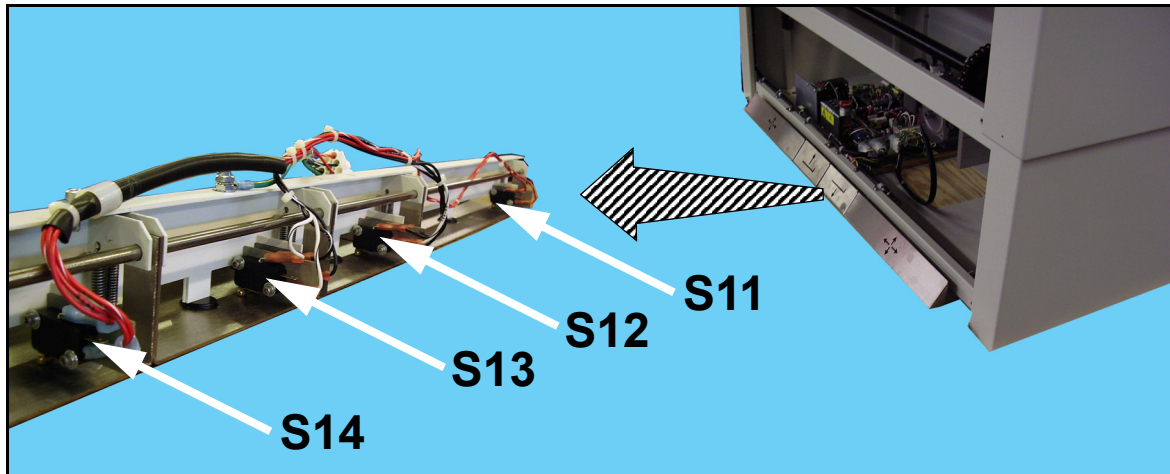


Figure 7-1. Treadle Location

7.4.2 Limit Switch Location/Layout

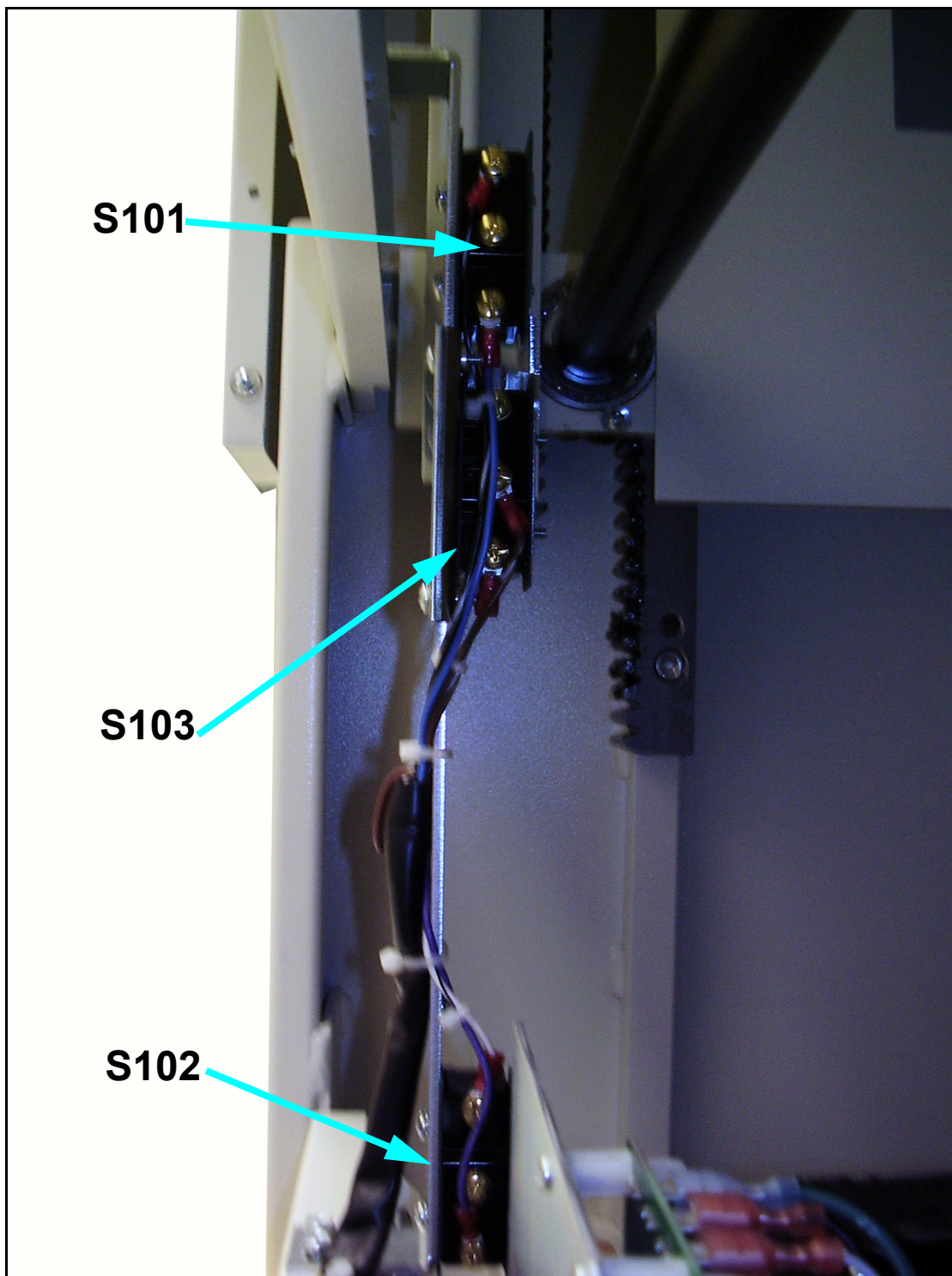


Figure 7-2. Limit Switch Location

7.4.3 Bucky Lock Release Switch Location



Figure 7-3. Bucky Lock Release Switch Location

7.4.4 Various Switch and Lock Locations

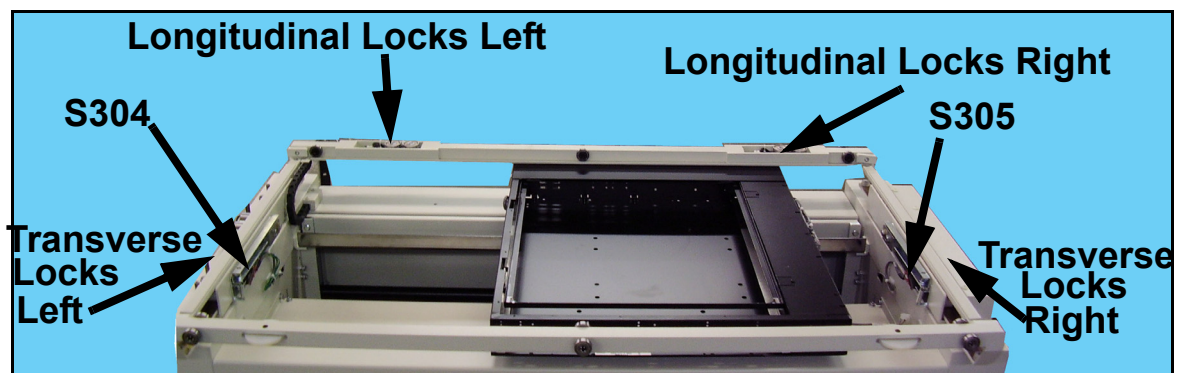


Figure 7-4. Various Switch and Lock Locations

7.4.5 Bucky Coil Locks

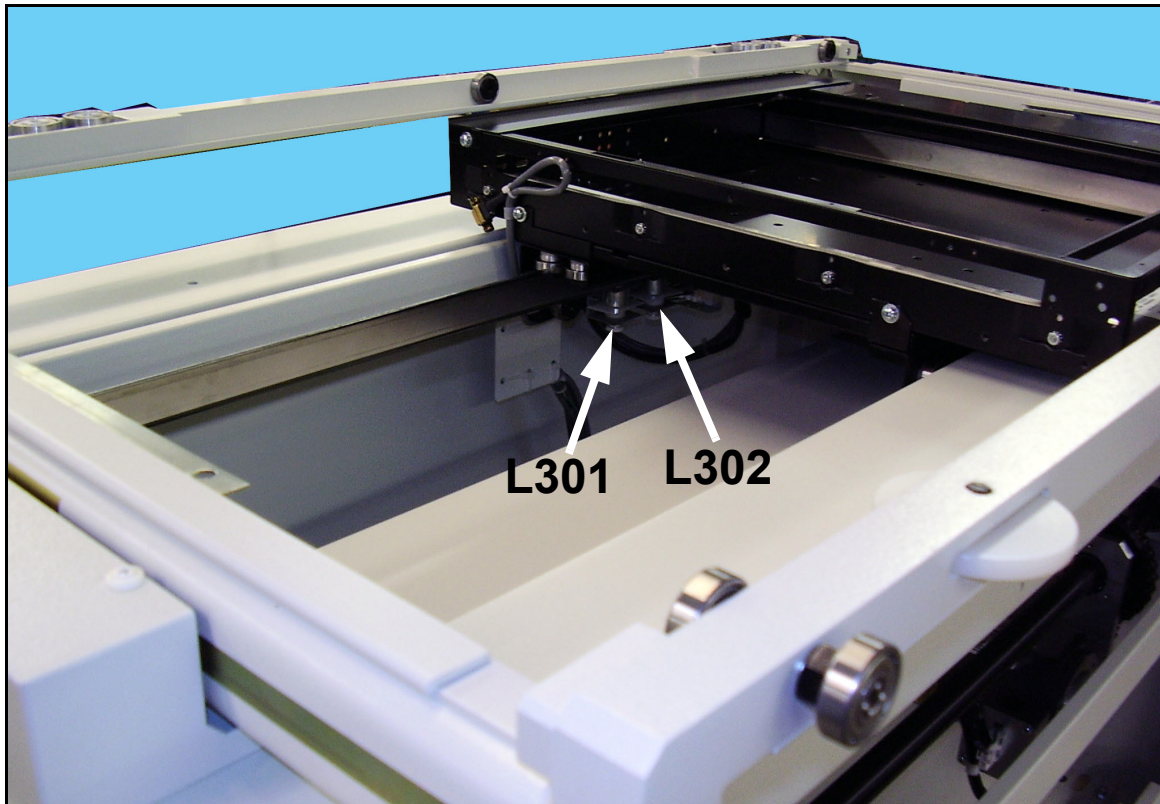


Figure 7-5. Bucky Coil Locks

8.1 List of Electrical Schematics

This chapter contains the electrical schematics for the table.

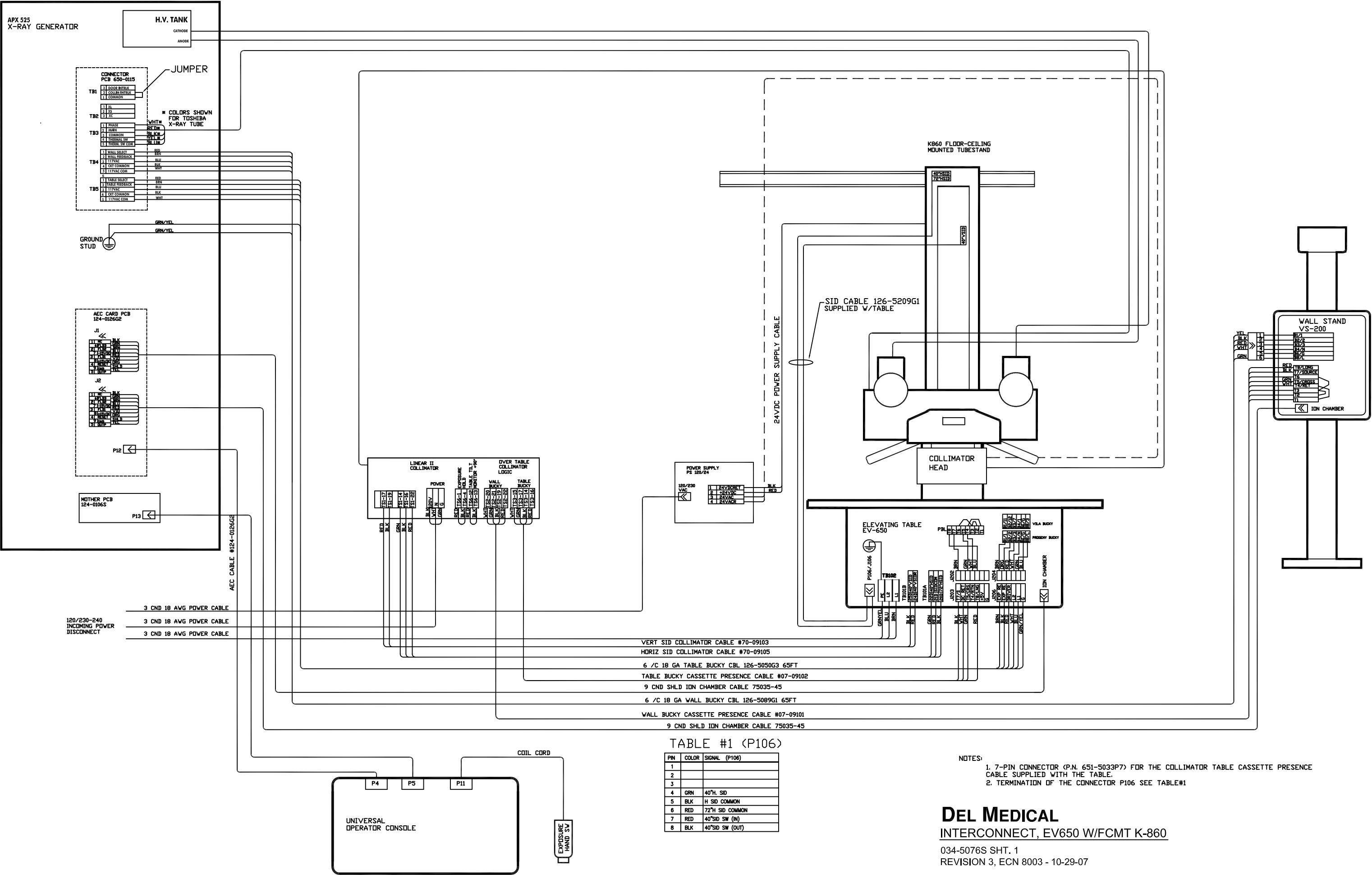
Drawing Number	Drawing Description	# Sheets	Current Rev. Level
034-5076 & 034-5077	Interconnect Diagrams for EV800 Table and Various Tube Stands (Refer to Table 8-2 on the next page to find out which drawing matches your configuration)	10 & 19	See Table 8-2 On Next Page
110-5047S	EV800 Table Schematic	1	2
124-5104G2	Main Board PCB Assembly	1	2
124-5104S	Main Board Schematic	2	2

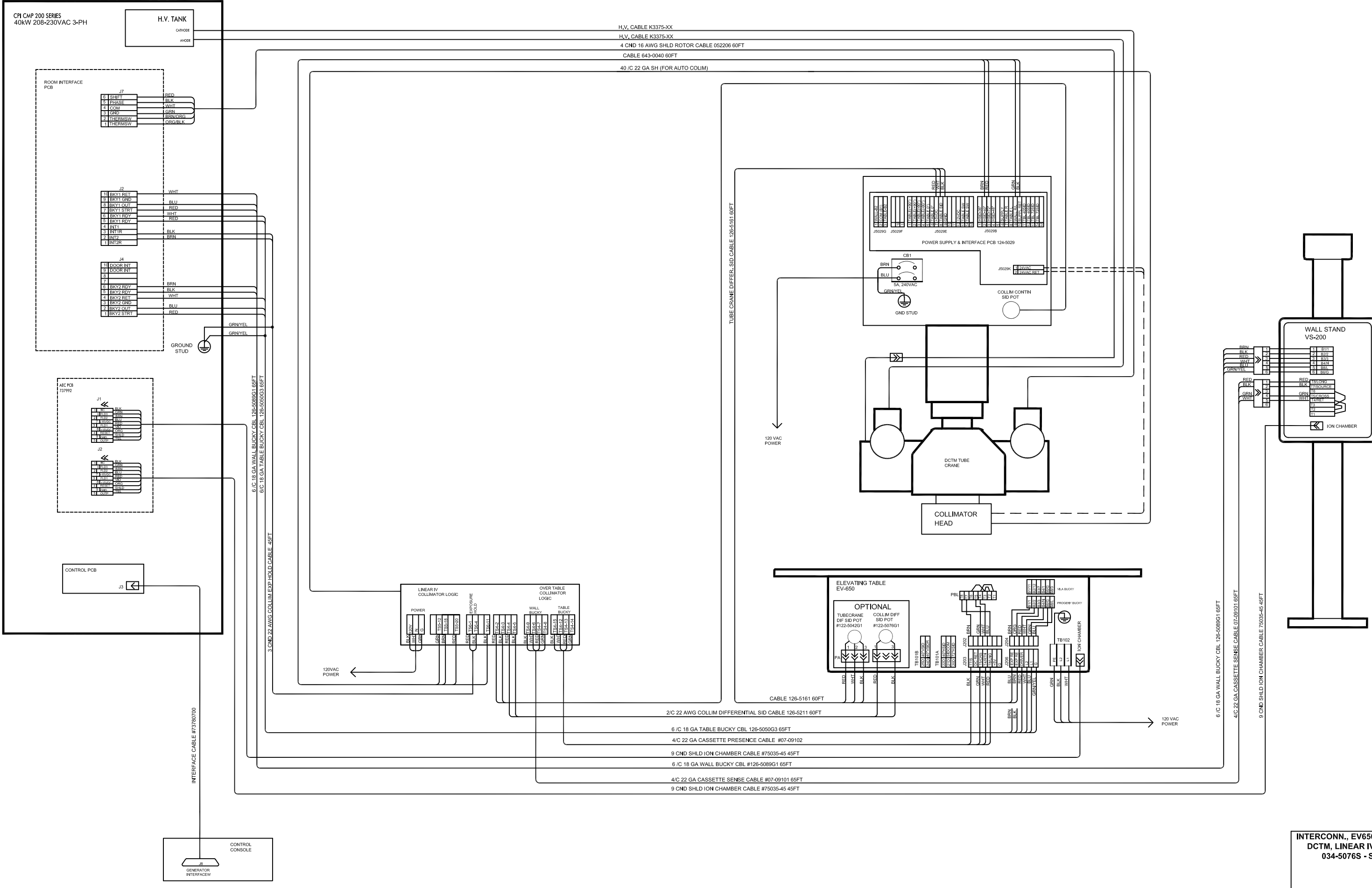
Figure 8-1. List of Schematics

8.2 Configuration - Schematic Match Table

Generator Model	Tube Stand/ Crane Model	Collimator Model	Wall Stand Model	Refer to Drawing #	Current Rev. Level
Anthem	K860 Floor-Ceiling Mounted Tube-stand	Eureka Linear II	VS200	034-5076S1	3
CM Series	DCTM Tubestand/ DFMT Tubestand	Eureka Linear IV	VS200	034-5076S2	3
Anthem	DCTM Crane/ DFTS Tubestand	Eureka MC 150	VS200	034-5076S3	3
IN Series	DFTS Tubestand	Eureka Linear IV	BS2000VK	034-5076S4	2
Sedecal	K860 Floor-Ceiling Mounted Tubes- tand	MC series	VS200	034-5076S8	1
CM Series	FMTS Tubestand	Eureka Linear II	VS200	034-5076S9	1
Anthem	DCTM Crane/ DFMTS	Eureka Linear IV		034-5076S10	1
HE425	K860 Floor-Ceiling Mounted Tubes- tand	MC series	3546E	034-5076S11	1
Anthem	FMT Tubestand	MC 150	3546E	034-5076S12	1
CM Series	FMTS Tubestand	Eureka Linear IV	VS-200	034-5077S19	2

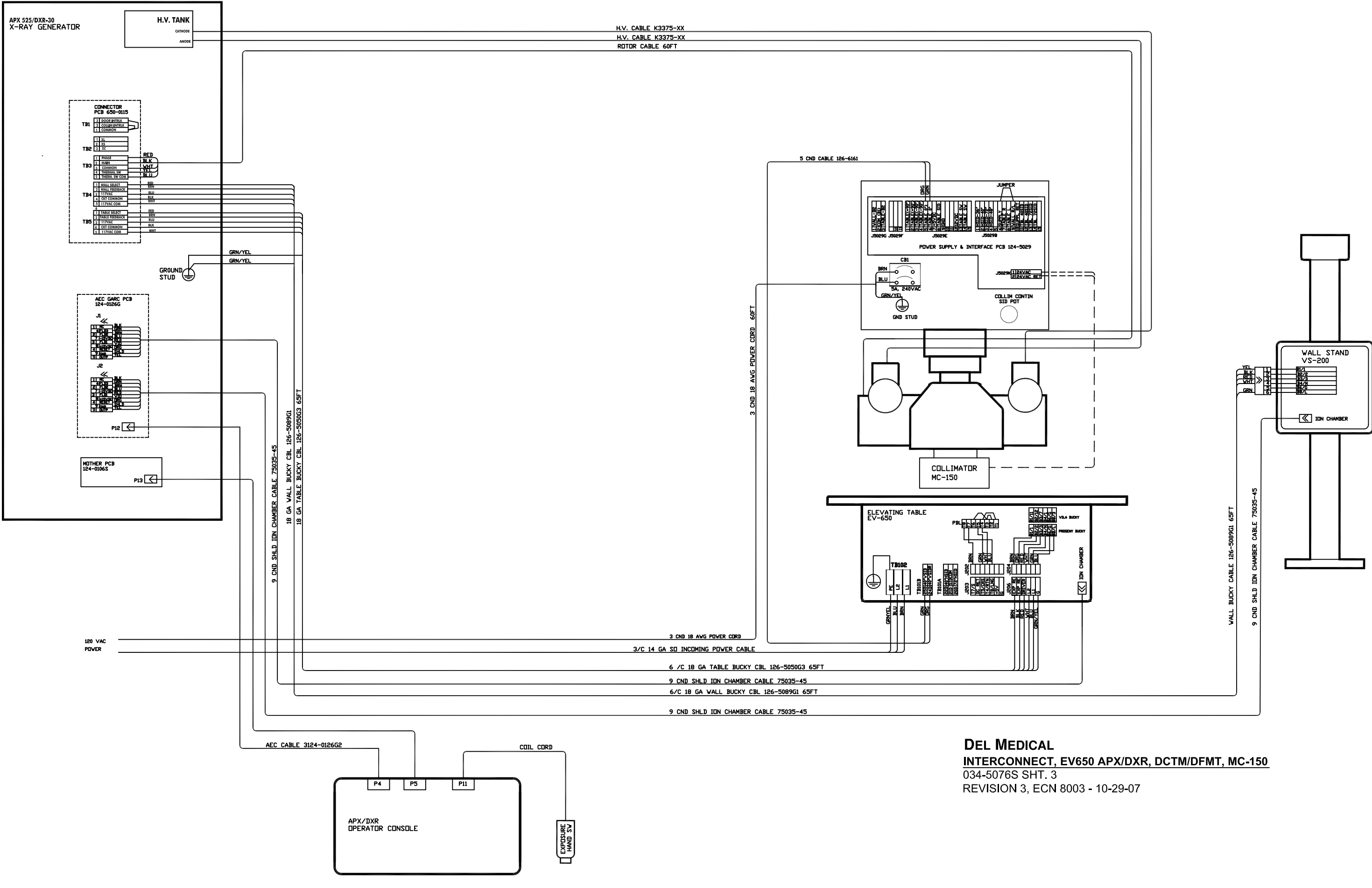
Table 8-1: Configuration - Schematic Match Table



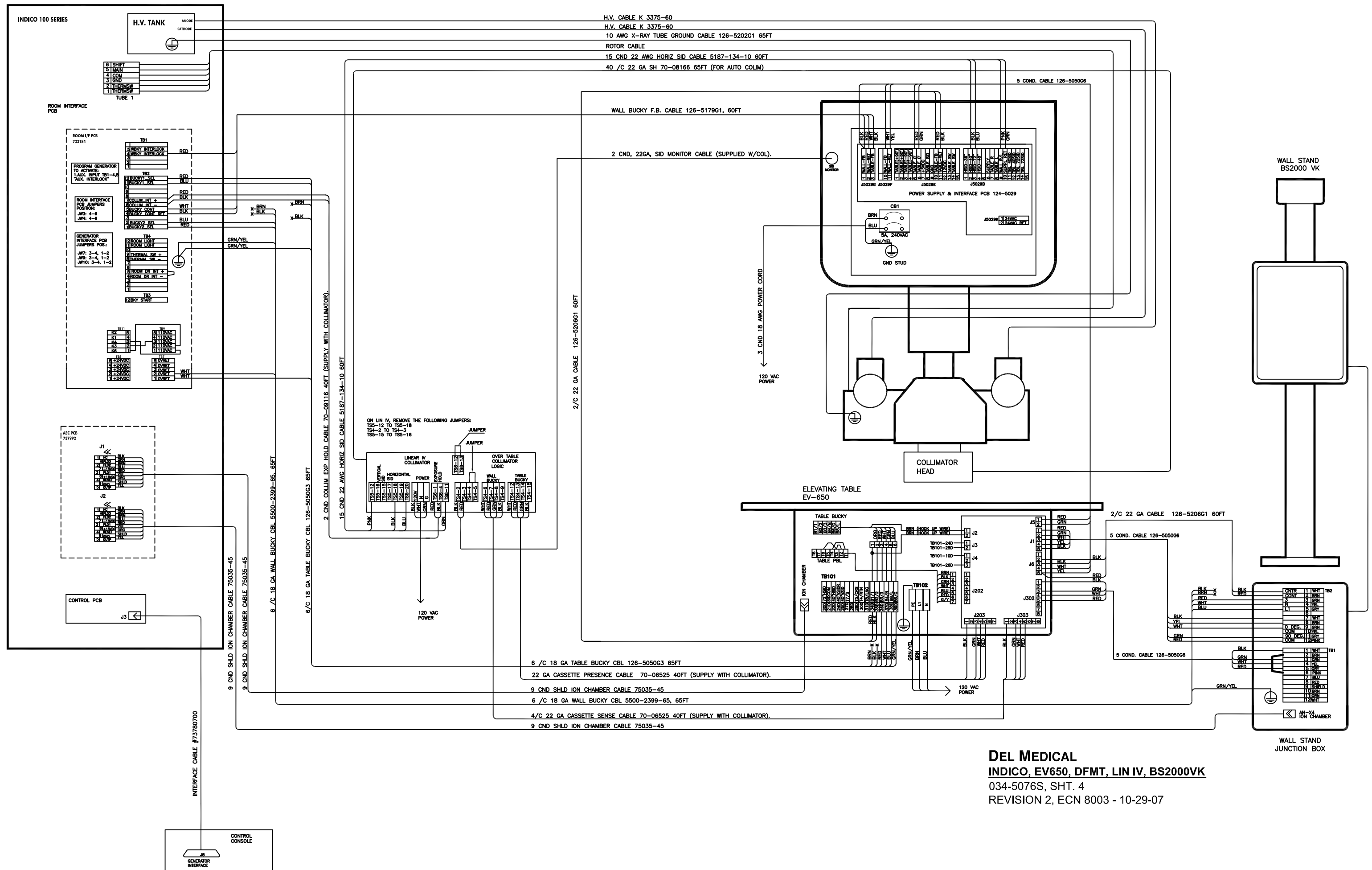


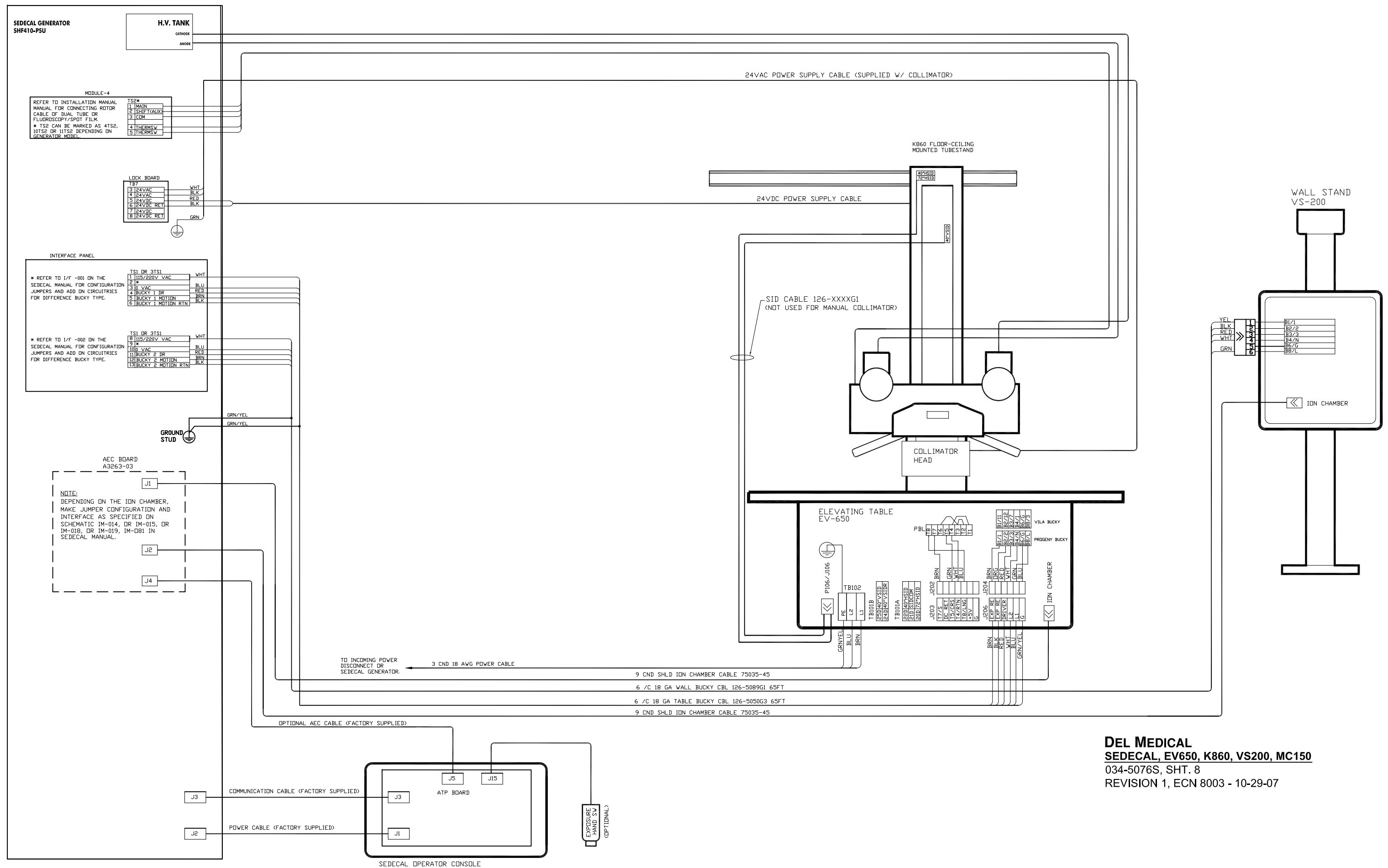
INTERCONN., EV650 CPI (CPM),
DCTM, LINEAR IV - REV. 4
034-5076S - SHT. 2

DEL MEDICAL
ROSELLE, ILLINOIS

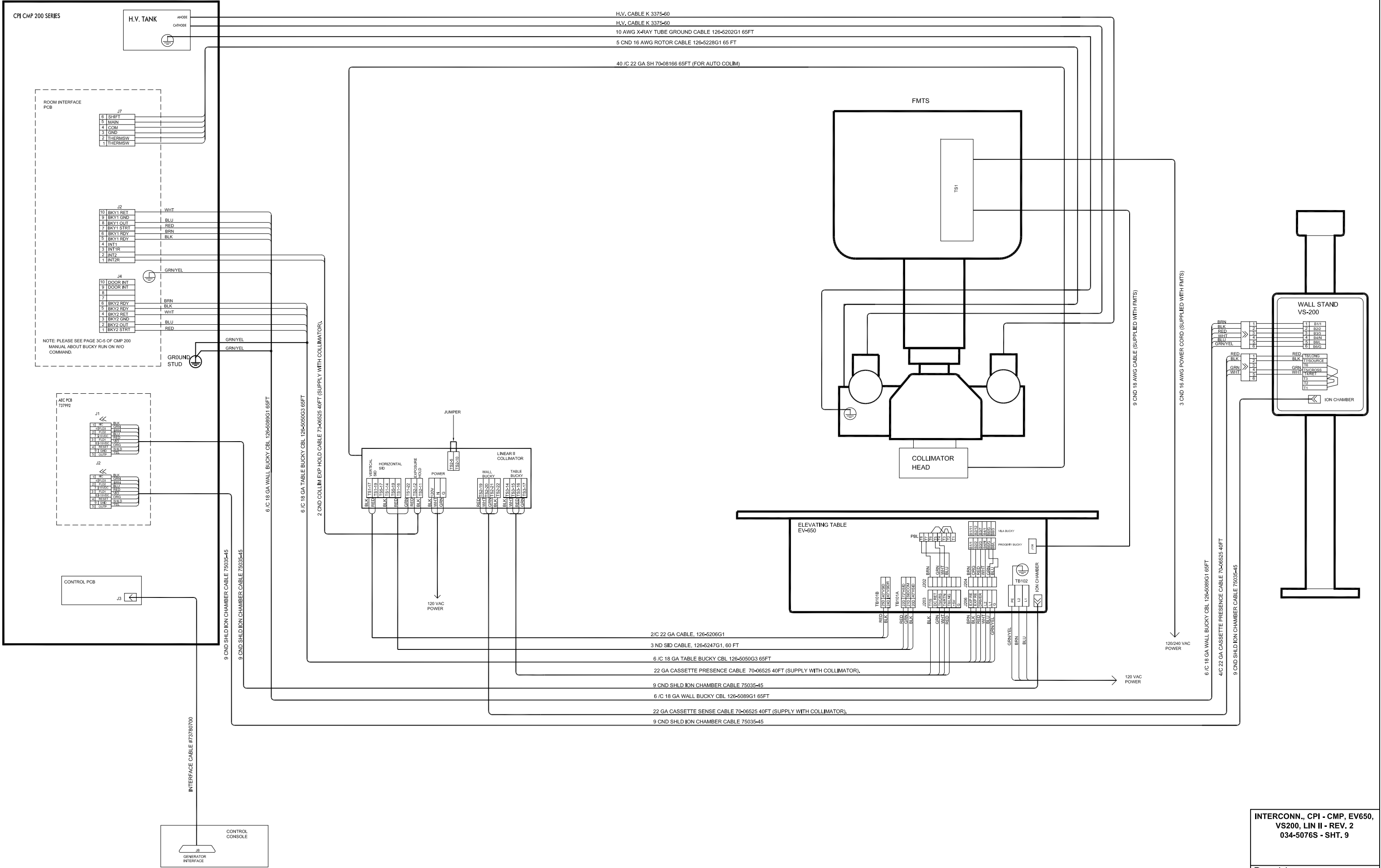


DEL MEDICAL
INTERCONNECT, EV650 APX/DXR, DCTM/DFMT, MC-150
034-5076S SHT. 3
REVISION 3, ECN 8003 - 10-29-07



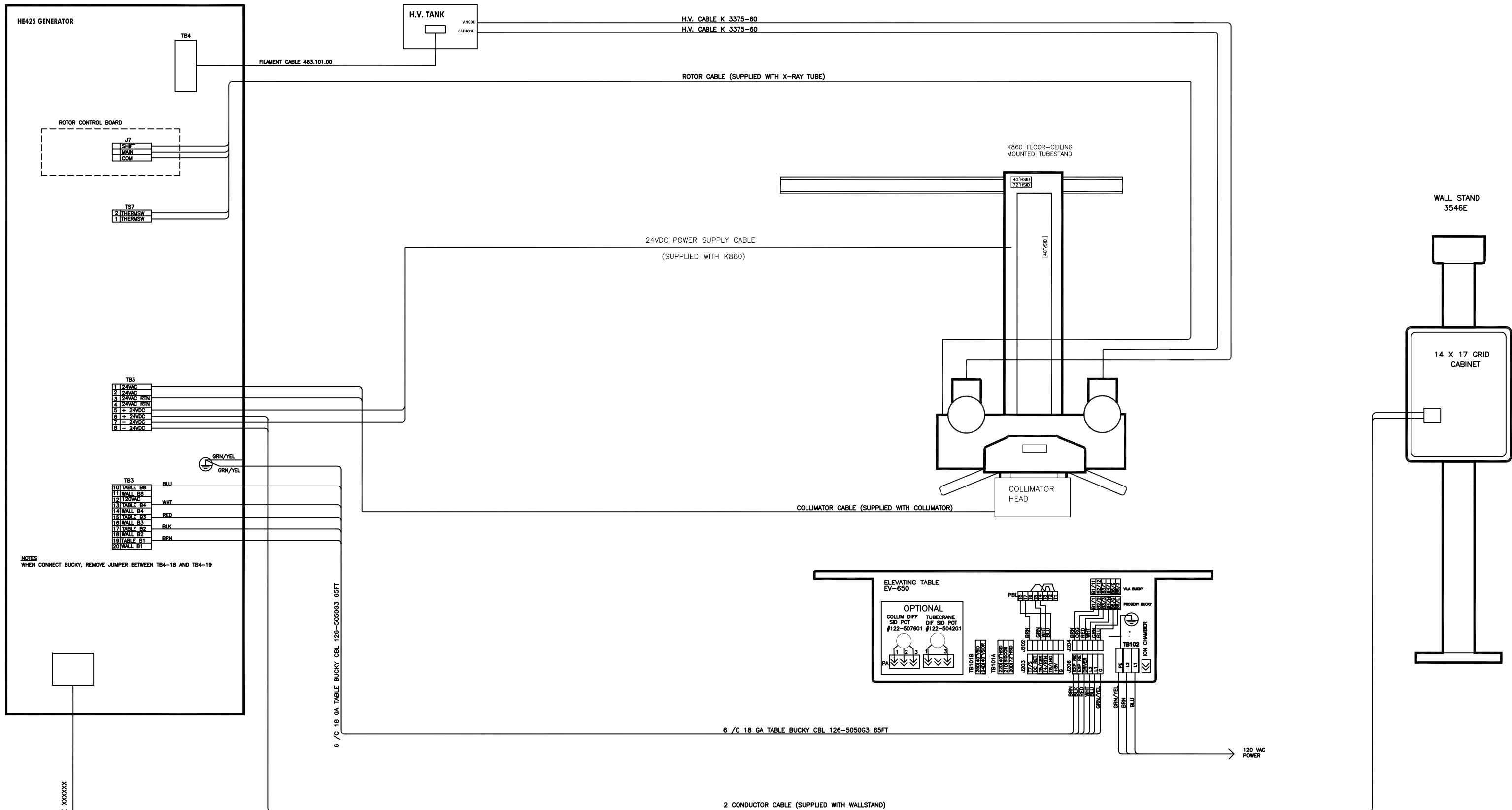


DEL MEDICAL
SEDECAL, EV650, K860, VS200, MC150
 034-5076S, SHT. 8
 REVISION 1, ECN 8003 - 10-29-07



INTERCONN., CPI - CMP, EV650,
VS200, LIN II - REV. 2
034-5076S - SHT. 9

DEL MEDICAL
ROSELLE, ILLINOIS



DEL MEDICAL
HE425, EV650, K860, 3546E, MC150
034-5076S, SHT. 11
REVISION 1, ECN 8003 - 10-29-07

APX 525/625/DXR-30
X-RAY GENERATOR

H.V. TANK

CATHODE
ANODE

H.V. CABLE K 3375-60
H.V. CABLE K 3375-60

ROTOR CABLE (SUPPLIED WITH X-RAY TUBE)

INTERFACE TABLE			
ROTOR CABLE	GENERATOR	CONNECT TO TOSHIBA TUBE	CONNECT TO VARIAN TUBE.
BLK	COM	TS1-1	WHT LEAD
RED	MAIN	TS1-2	BLK LEAD
ORG	PHASE	TS1-3	RED LEAD
YEL	THERMAL SWITCH	TS1-5	QC TERM.
BLU	THERMAL SWITCH	TS1-6	QC TERM.
BRN	GROUND	GND	GND
SHIELD	---	GND	GND

24 VAC
TS1
TS1-10
TS1-7
TS1-11
TS1-12

COLLIMATOR CABLE (SUPPLIED WITH COLLIMATOR)

COLLIMATOR HEAD
(MANUAL COL)

TO 120/240 VAC
POWER

9 CND 18 AWG CABLE (SUPPLIED WITH FMTS)

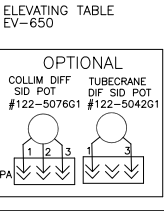
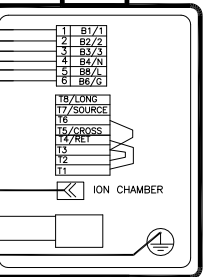
2 CND CABLE (SUPPLIED WITH 3546E WALL STAND)

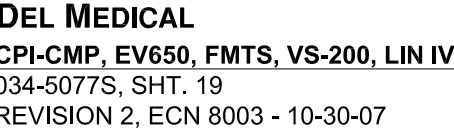
6 /C 18 GA WALL BUCKY CBL 5500-2399-65, 65FT

9 CND SHLD ION CHAMBER CABLE 75035-45

#14 GREEN/YELLOW WIRE 122-5075G1 (FROM WALLSTAND)

WALL STAND
3546E





9.1 Ordering Parts

For your convenience, replacement parts and accessories can be ordered from Del Medical Inc. by fax 24 hours a day. Please have the following information available to ensure quick, easy, and accurate service.

- Your name and telephone number
- Your P.O. (Purchase Order) number
- Your preferred method of delivery
- The part number and quantity of all items required

To Order by Fax

Fax your order to Del Medical Inc. at 1-800-288-7011. Fax orders can be sent 24 hours a day, 7 days a week.

If you need additional assistance, please call Del Medical Inc. at 1-800-800-6006 and speak to one of our Customer Service Representatives. Telephone hours are 8:00 a.m. to 5:00 p.m., Monday through Friday (Central Standard or Daylight Time).

9.2 How to Use This Parts List

General Part Numbers

This chapter contains all part numbers necessary to order EV800 Elevating Table replacement parts and assemblies.

This illustrated parts breakdown is presented in disassembled order. Detail parts are shown below their respective upper level assemblies whenever possible.

The parts lists follow the illustration for a particular assembly and represent components of that assembly. The number listed in the quantity column is the number of the specific part required to complete the assembly and may not reflect the quantity needed for the entire system.

The lists are divided into four columns. The item/index numbers refer to the identification number located on the drawing. The part number is the Del Medical part number, used to identify the part for ordering. The part description column lists each part name, and the quantity column lists the quantity of that part used in that particular assembly.

Illustrations are shown before the parts list for each assembly. Some assembly illustrations require more than one page.

9.3 Commonly Ordered Parts

Part Description	Part number
Fuse, 10 Amp 250 T	46-170021P74
Micro switch, Pedal, Limit, Collision Avoidance	632-5005P1
Emergency Service Switch (Mushroom)	632-0027P1
Emergency Service Switch Contacts	632-0028P1
Electromagnet, Table Lock, 24VDC	5500-3204-FRU
Electromagnet, Bucky Lock, 24VDC	5500-3502
Main PCB	124-5104G2
Up/Down Pedal Spring	405-5005P1
Lock Release Pedal Spring	405-5005P1
Pedal Bumper (Adhesive Backed)	401-5006P1
Pedal Bumper (Push-In, Stem Type)	401-5013P1
Up Pedal	202-5160P1
Down Pedal	202-5161P1
Lock Release Pedal	202-5162P1
Lower Front Panel	203-5242P1
Drive Motor/Gearbox Assembly	112-5387G1
Drive Chain	420-5001P1
Drive Chain Master Link	420-0001P1
Main Chassis Assembly	120-5043G1
Foot Treadle Assembly	112-5530G1
Bucky Handle Assembly	112-5551G1
Cable Assembly, Bucky Lock/LED	126-5204G1
Collision Avoidance Assembly (Left Side)	112-5040G1
Collision Avoidance Assembly (Right Side)	112-5040G2
Collision Assembly Cover	204-5063P1
Harness Assembly, Bucky & Top Locks	126-5196G1
Harness Assembly, Limit & SID Switches	126-5218G1
Micro switch, Limit & SID Switches	632-0029P1

Table 9-1: Commonly Ordered Parts

Part Description	Part number
Fiber Resin Table Top Assembly, 32" Wide	112-5552G1
Fiber Resin Table Top Assembly, 36" Wide	112-5552G2

Table 9-1: Commonly Ordered Parts

9.4 Overall Elevating Table Assembly (110-5125G2)

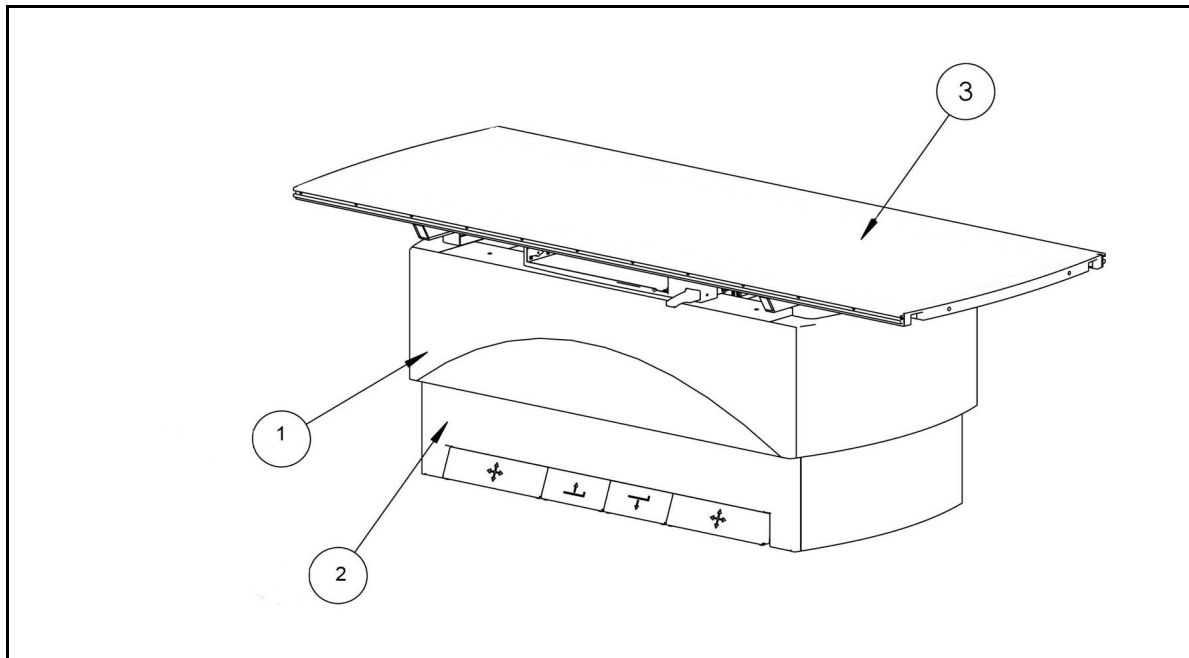


Figure 9-1. Overall Table Assembly

Fig ref.	Part number	Description	Qty
1	203-5252P1	COVER, FRONT - DEL	1
2	203-5242PI	COVER, FRONT LOWER	1
3	112-5552G1 32" Wide 112-5552G2 36" Wide	TABLE TOP ASSEMBLY (Refer to Section 9.8 "Table Top Assembly (112-5552G1)" for Breakdown of Assembly)	1

Table 9-2: Overall Elevating Table Assembly Sheet (1 of 5)

9.5 Overall Elevating Table Assembly (112-5125G2)

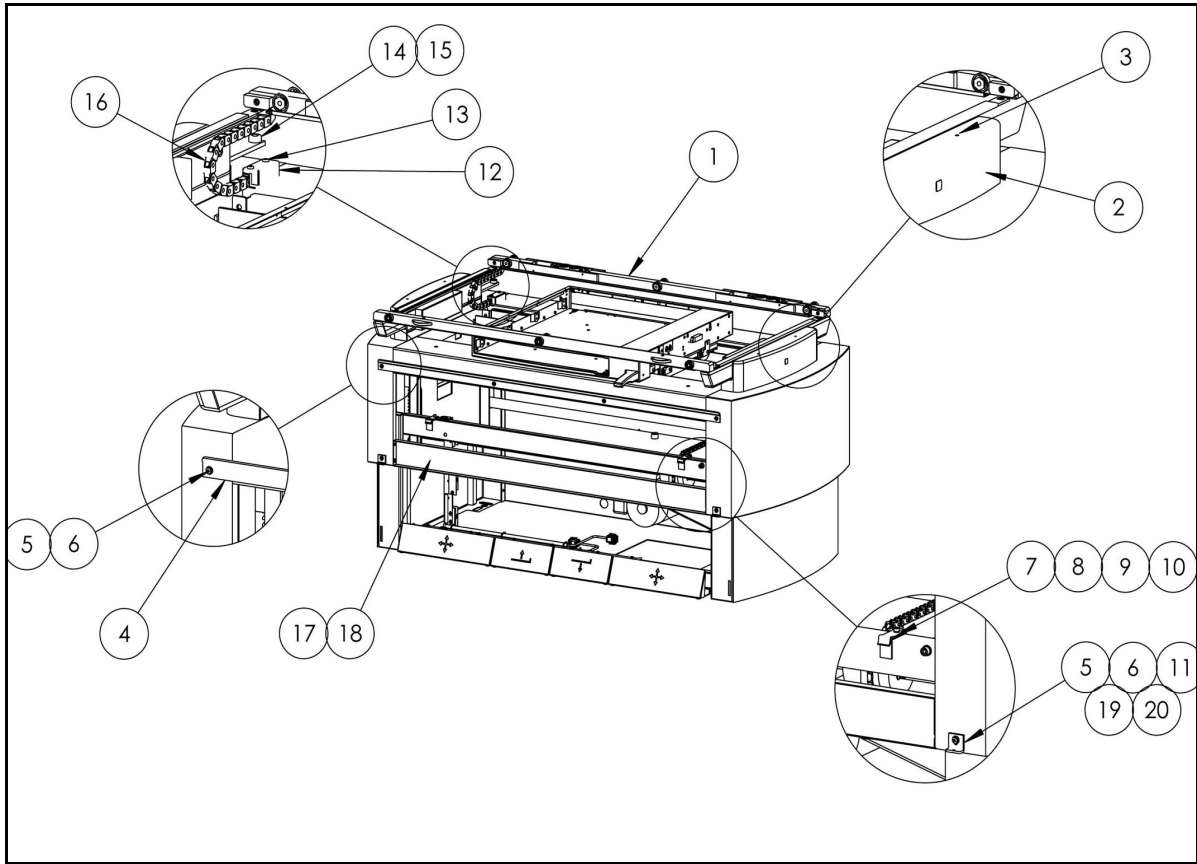


Figure 9-2. Overall Elevating Table Assembly

Fig ref.	Part number	Description	Qty
1	112-5538G1 32" Table Top 112-5538G2 36" Table Top	INNER FRAME ASSEMBLY	1
2	303-5005P3 303-5005P4 Cover, Support L.H.	COVER, SUPPORT R.H. COVER, SUPPORT L.H.	1 1
3	100012P8	SCREW, TRIM 8-32 x 3/8	4
4	201-5138P1	MTG, BRKT, TOP FRONT COVER	1
5	760-22-16205011	SCREW, PPNHMS 8-32 x 1/2 KEPS	6
6	785-11-16000011	WASHER, #8	6

Fig ref.	Part number	Description	Qty
7	753-40-19105011	SCREW, SHCS 10-32 x 1/2	2
8	786-50-19000011	WASHER, SPLIT LK #10	2
9	202-5163P1	BRKT., CLAMP GUIDE	2
10	202-5164P1	BRKT., COVER RETAINER	2
11	201-5098P1	MTG. BRKT., TOP COVER LOWER	2
12	204-5062P1	COVER, CBL CHAIN	1
13	100012P8	SCREW, TRIM 8-32 x 3/8	2
14	3920-0295	PLASTIC BUMPER	4
15	753-40-19103811	SCREW, SHCS 10-32 x 3/8	4
16	112-5253G1	CABLE CHAIN ASM - 32" TOP	1
	112-5253G2	CABLE CHAIN ASM - 36" TOP	
17	203-5248P1	PANEL, FRNT SUPPRT	1
18	751-02-16203811	SCREW, HHMS 8-32 x 3/8 SEMS	4
19	760-22-16207511	SCREW, PPNHMS SEMS 8-32x3/4	2
20	4450-0338	WASHER, FLAT #8 x 3/4 1/32THK	2

Table 9-3: Overall Table Assembly

9.6 Overall Elevating Assembly (112-5125G2)

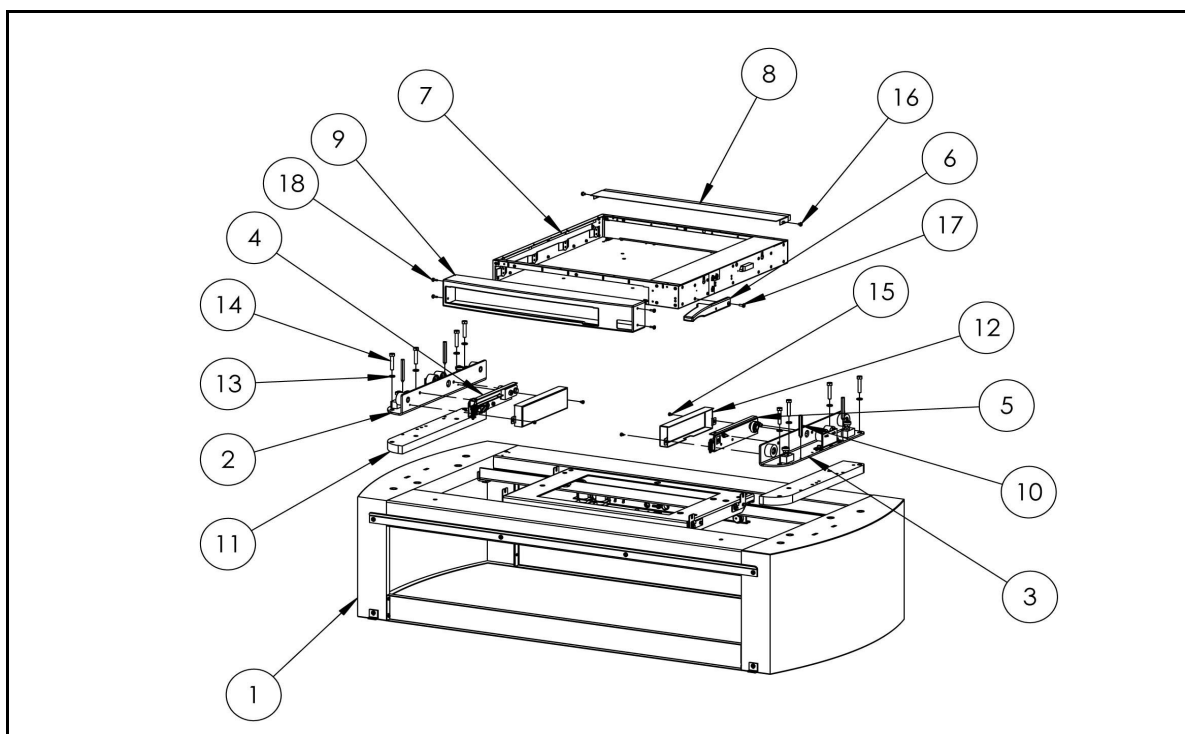


Figure 9-3. Overall Elevating Assembly

Fig ref.	Part number	Description	Qty
1	112-5539G1	UPPER SHROUD ASM (Refer to Section 9.15 "Upper Shroud Assembly (112-5539G1)" on page 9-20 for Breakdown of Assembly)	1
2	112-5543G1	SUPPORT BRKT ASM, L.H.	1
3	112-5542G1	SUPPORT BRKT ASM, R.H.	1
4	112-5040G1	ASM, COLLISION AVOIDANCE-LH (Refer to Section 9.20 "Collision Avoidance Assembly L.H. (112-5040G1)" on page 9-33 for Breakdown of Assembly)	1
5	112-5040G2	ASM, COLLISION AVOIDANCE-RH (Refer to Section 9.21 "Collision Avoidance Assembly R.H. (112-5040G2)" on page 9-35 for Breakdown of Assembly)	1
6	112-5551G1	BUCKY HANDLE ASSEMBLY	1

Fig ref.	Part number	Description	Qty
7	500-5037P1	BUCKY, TRUE SPD, AEC, LH TRAY	1
8	112-0016G1	BUCKY COVER & BUMPER, BLK	1
9	305-5004P2	BUCKY COVER, FRONT	1
10	642-5048P1	HEX STANDOFF, MALE/FEMALE	4
11	240-5058P1	SPACER, SUPPORTS	2
12	204-5063P1	COVER, COLLISION ASSEMBLY	2
13	786-50-31000011	WASHER, SPLITLK-STD 5/16	8
14	751-00-31215011	SCREW, HHMS 5/16-18 x 1/2"	8
15	760-22-16202511	SCREW PPNHMS 8-32 x 1/4"	4
16	760-22-19102511	SCREW, PPNHM, 10-32 x 1/4 SEMS	2
17	760-22-19103811	SCREW, TRIM 10-32 x 3/4"	2
18	100012P3	SCREW, TRIM 10-32 x 1/4"	2

Table 9-4: Overall Elevating Table Assembly

9.7 Table Top Assembly (112-5552G1, G2)

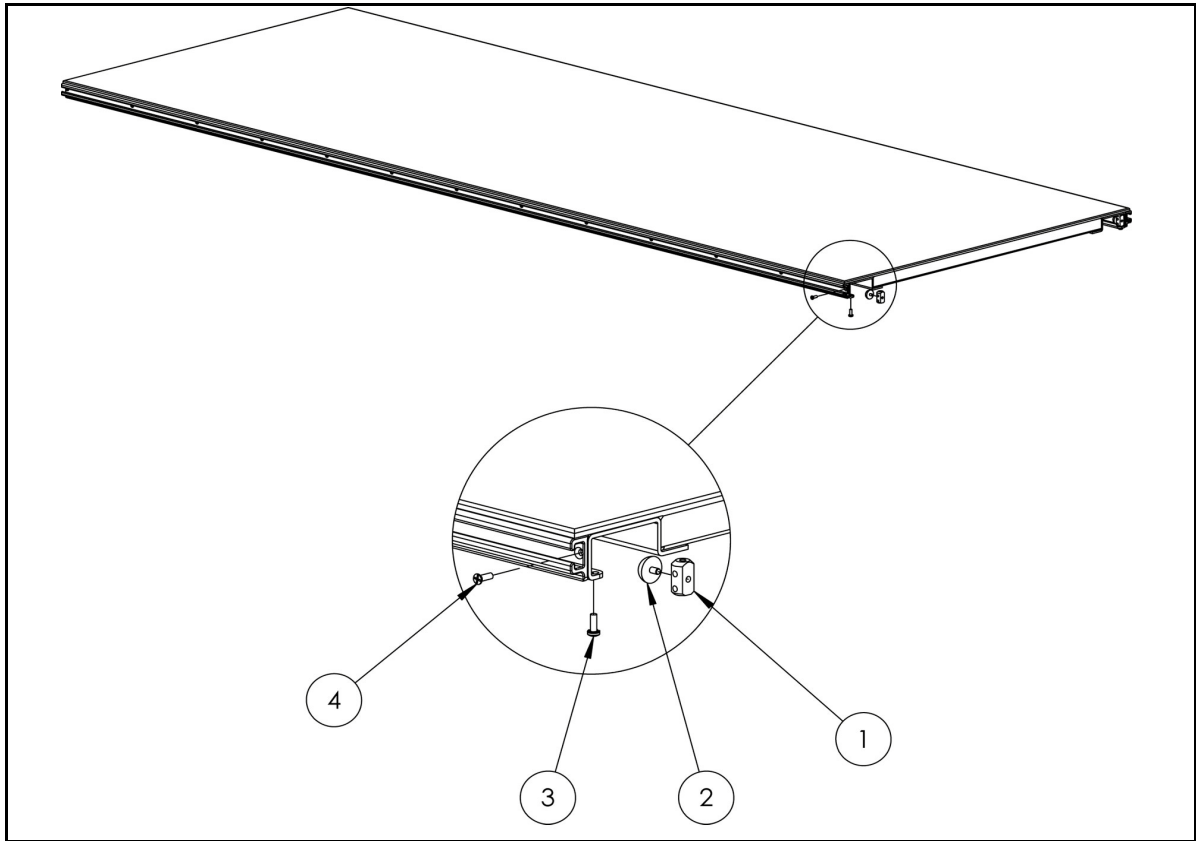


Table 9-5: Table Top Assembly

Fig ref.	Part number	Description	Qty
1	230-5013P1	BLOCK-STOPPER/BUMPER	4
2	401-0005P1	BUMPER	4
3	760-22-16205011	SCREW, PPNHMS SEMS 8-32x1/2	4
4	762-20-16205011	SCREW, PFHMS 8-32x1/2	4

9.8 Cable Chain Assembly (112-5253G1)

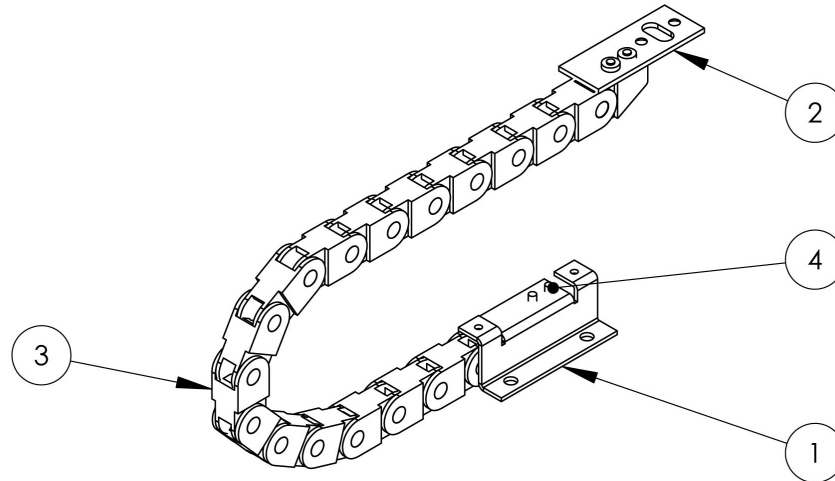


Figure 9-4. Cable Chain Assembly

Fig ref.	Part number	Description	Qty
1	203-5141P1	BRACKET, CABLE CHAIN MTG	1
2	202-5077P1	PLATE, CBL CHN MTG	1
3	439-5019P1	CABLE CARRIER - 32" TOP	1
	439-5019P2	CABLE CARRIER - 36" TOP	1
4	762-20-11202511	SCREW, PFHMS 4-40 x 1/4	4

Table 9-6: Cable Chain Assembly

9.9 Lower Base Assembly (112-5535G1)

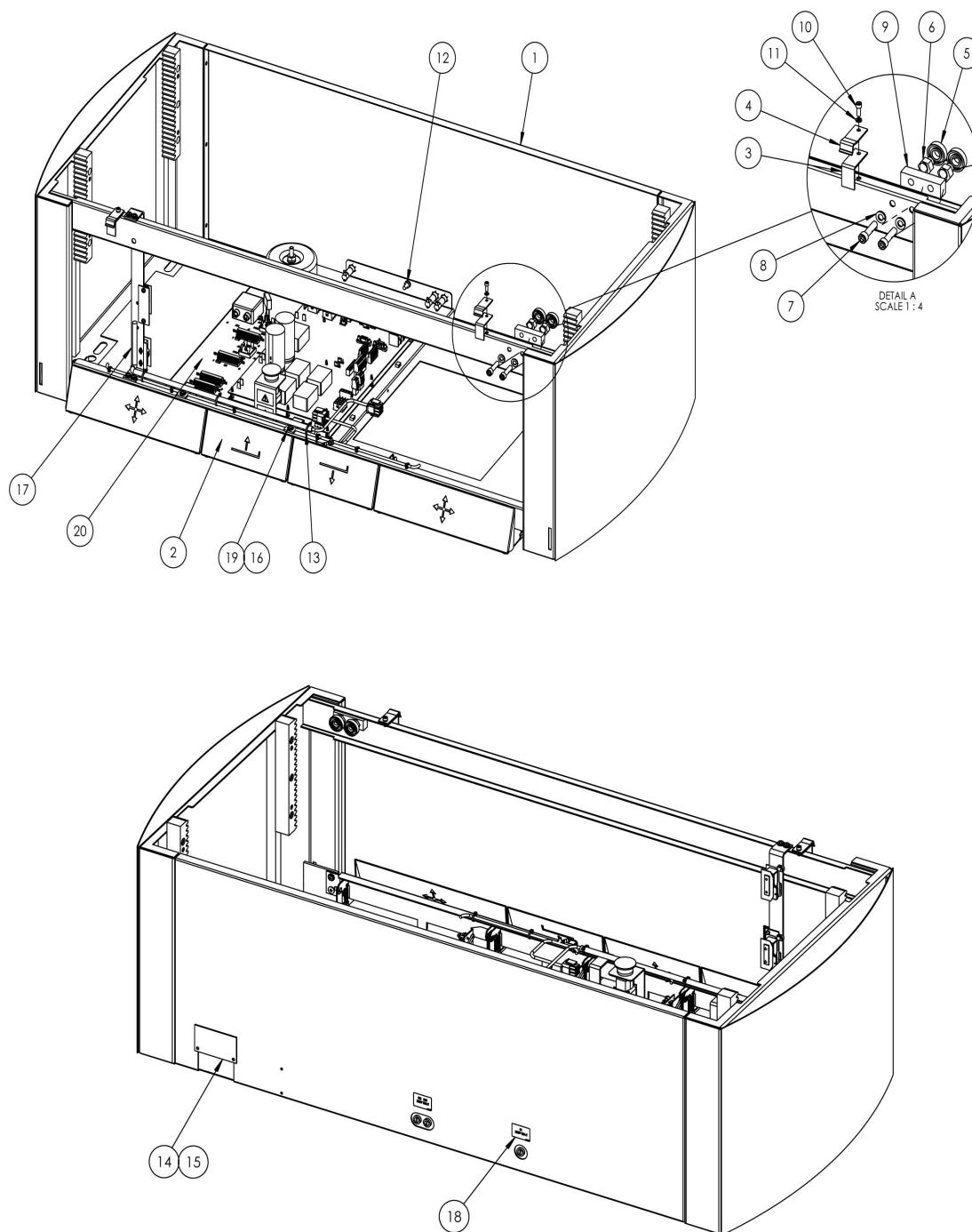


Figure 9-5. Lower Base Assembly

Fig ref.	Part number	Description	Qty
1	114-5191G1	WELDMENT, LOWER BASE	1
2	112-5530G1	FOOT TREADLE ASSY.	1
3	202-5163P1	BRACKET, CLAMP GUIDE	2
4	202-5164P1	BRACKET, RETAINER	2
5	400-0021P1	BALL BEARING	2
6	232-0017P2	BUSHING, ECCENTRIC	2
7	753-40-31112511	SCREW, SHCS 5/16-24 x 1 1/4	2
8	786-50-31000011	WASHER, SPLITLK-STD 5/16	2
9	236-0100P1	BLOCK, SPACER BEARING	1
10	753-40-19105010	SCREW, SHCS 10-32 x 1/2	2
11	786-50-19000011	WASHER, SPLITLK-STD #10	2
12	784-12-25200011	NUT, HEX KEPS 1/4-20	1
13	642-5020P1	CABLE TIE, 14W x 5.6L,40#	3
14	784-12-14200011	NUT, HEX KEPS 6-32	2
15	112-0669G2	ACCESS DOOR	1
16	751-02-19103811	SCREW, HHMS 10-32 x 3/8	8
17	112-5259G1	SID/LIMIT SWITCH ASSY.	1
18	408-5196P1	LABEL, FUSE (EV650)	1
19	785-11-19000011	WASHER, FLAT #10 NARROW	2
20	120-5043G1	CHASSIS, MAIN CONTROL - EV800 (Refer to Section 9.11 "Main Control Chassis Assembly (120-5043G1)" on page 9-16 for Breakdown of Assembly)	1
21	203-5257P1	COVER PLATE, LOWER BASE	1
22	764-20-16203111	SCREW	1

Table 9-7: Lower Base Assembly

9.10 Main Control Chassis Assembly (112-5043G1)

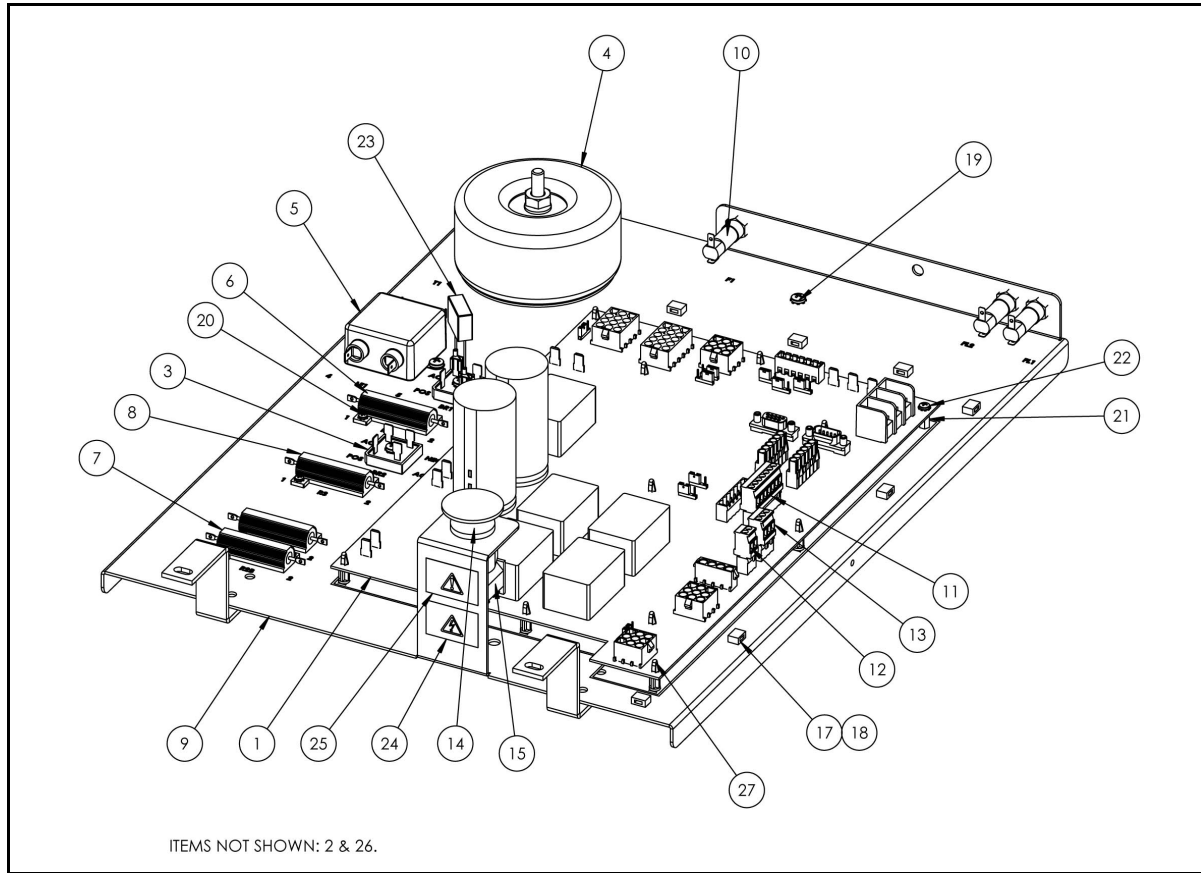


Figure 9-6. Main Control Chassis Assembly

Fig ref.	Part number	Description	Qty
1	124-5104G2	MAIN PCB ASM, EV800	1
2	126-5251G1	CHASSIS HARNESS ASSEMBLY	1
3	621-5012P1	RECTIFIER, BRDG, 25A, 400V	2
4	122-5100G1	TRANSFORMER ASM., EV650	1
5	636-5031P1	FILTER, PWR LINE EMI 10A	1
6	603-5010P1	RESISTOR, 50 OHMS, 50W	1
7	603-5010P2	RESISTOR, 30 OHMS, 50W	2
8	603-5010P3	RESISTOR, 0.5 OHMS, 50W	1
9	114-5127G1	EV800 CHASSIS/BACKET ASSY.	1
10	646-0044P2	FUSE HOLDER, LOW PROFILE	3
11	651-5033P7	PLUG, 7PIN PCB TRMNL BLOCK	1
12	763-1002-0101	PLUG, 2PIN PCB TRMNL BLOCK	1
13	763-1003-0101	CONNECTOR, TERM. BLOCK, 3 PIN	1

Fig ref.	Part number	Description	Qty
14	632-0027P1	ACTUATOR, EAO SW#704-0752	1
15	632-0028P1	CONTACT BLK, EAO SW#704-900-4	1
16	46-170021P74	FUSE 5A 250V SLO-BLO	3
17	407-5045P1	MOUNT, CABLE TIE	7
18	46-208761P1	CABLE TIE, .09"W x 3.875"L	12
19	760-22-19103111	SCREW, PPNHMS SEMS 10-32 x 5/16	6
20	760-22-11203111	SCREW, PPNHMS SEMS 4-40 x 5/16	8
21	642-0018P3	STANDOFF M-F, 6-32 x 1/2, BRASS	1
22	760-22-14203111	SCREW, PPNHMS SEMS 6-32 x 5/16	1
23	122-5047G1	SNUBBER CAPACITOR ASM.	1
24	408-5039P2	LABEL, DANGEROUS WARNING	1
25	408-5039P3	LABEL, ATTENTION	1
26	46-120487P2	LINE CABLE COILED & TIED	1
27	407-5028P6	STANDOFF, RICHCO LCBS 1/2"	11

Table 9-8: Main Control Chassis Assembly

9.11 Drive Frame Assembly (112-5536G1)

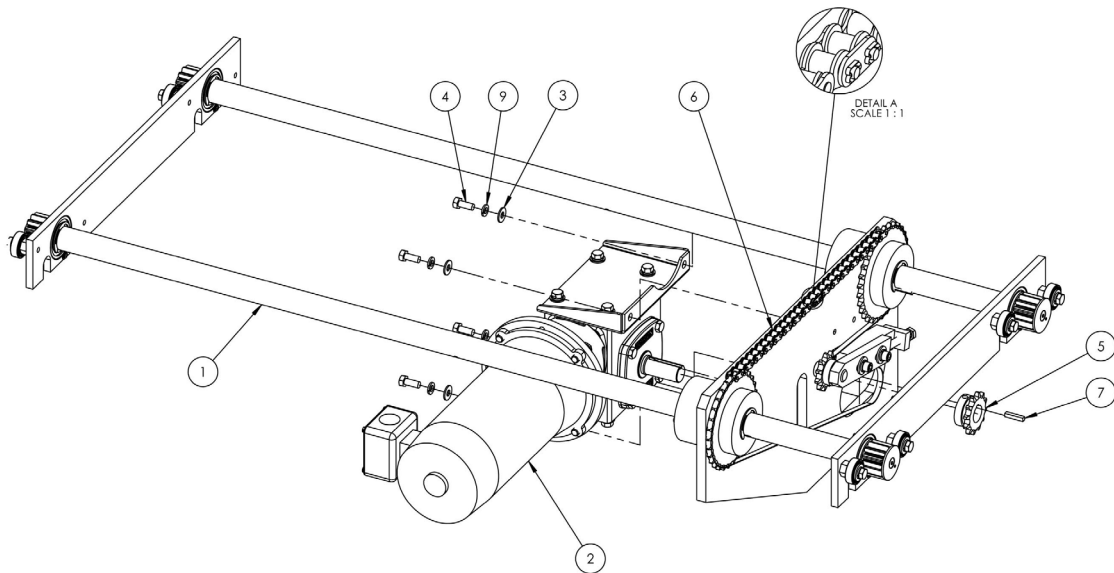


Figure 9-7. Drive Frame Assembly

Fig ref.	Part number	Description	Qty
1	112-5537G1	DRIVE SHAFT ASSEMBLY, EV800 (Refer to Section 9.13 "Drive Shaft Assembly (112-5396G1)" on page 9-20 for Breakdown of Assembly)	1
2	112-5387G1	MOTOR / REDUCER ELECTRICAL ASSY. (Refer to Section 9.14 "Motor Reducer Electrical Assembly (112-5387G1)" on page 9-22 for Breakdown of Assembly)	1
3	785-13-25000011	WASHER, FLAT 1/4 WIDE	4
4	751-00-31207511	SCREW, HHMS 5/16-18 x 3/4	4
5	420-5002P1	SPROCKET, 40B, 16-40T	1
6	420-5001P1	CHAIN, 1/4P #25 SINGLE	1
7	426-0009P1	KEY, 3/16 SQ. x 1.00	1
8	410-5005P6	RETAINING COMPOUND, #680 GREEN	.001
9	786-50-31000011	WASHER, SPLITLOCK-STD 5/16	4

Table 9-9: Drive Frame Assembly

9.12 Drive Shaft Assembly (112-5537G1)

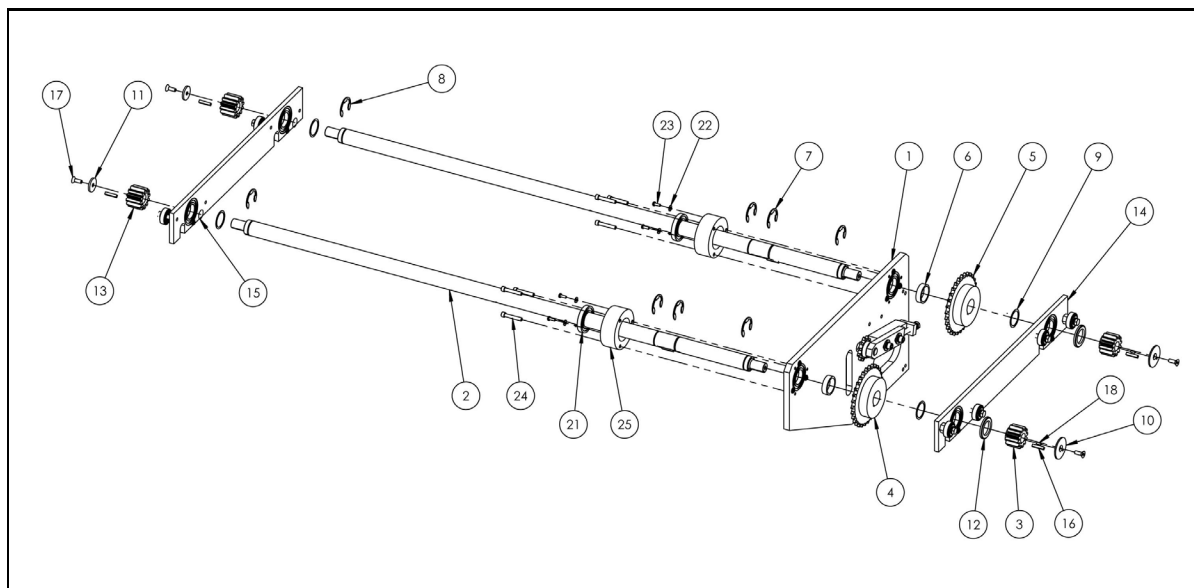


Figure 9-8. Drive Shaft Assembly

Fig ref.	Part number	Description	Qty
1	112-5399G1	MOTOR MTG PLATE ASSEMBLY	1
2	230-5044P1	DRIVE SHAFT, 47"	2
3	424-0002P2	PINION GEAR, R.H.	2
4	420-0004P2	SPROCKET, FRONT	1
5	420-0004P3	SPROCKET, REAR	1
6	260-0028P1	SPACER, SPROCKET	2
7	407-0050P1	RETAINING RING, BOWED E-RING	2
8	407-0049P1	RETAINING RING, EXTERNAL	6
9	207-0008P1	SPACER WASHER	4
10	230-0084P1	GUIDE DISC	2
11	230-0105P1	RETAINER WASHER	2
12	230-0082P1	GUIDE RING	2
13	424-0005P2	PINION GEAR, L.H.	2
14	112-5400G1	BEARING PLATE ASSEMBLY	1
15	112-5400G2	BEARING PLATE ASSEMBLY	1
16	426-0009P1	KEY, 3/16 SQ. x 1.00	6
17	756-40-25207510	SCREW, SFHCS 1/4-20 x 3/4	4
18	407-0027P1	DOWEL PIN, 1/8 x 3/8	2
19	410-5005P3	THREADLOCKER, #271 RED	.001
20	410-5005P6	RETAINING COMPOUND, #680 GREEN	.001
21	400-0022P1	BEARING, 30ID x 55OD x 9W	2
22	785-11-16000011	WASHER, FLAT #8 NARROW	6
23	760-22-14205011	SCREW, PPNHMS SEMS 6-32 x 1/2	6
24	753-40-25215010	SCREW, SHCS 1/4-20 x 1.50	6
25	241-5009P1	BRG, BLK., MOTOR PLATE	2

Table 9-10: Drive Shaft Assembly

9.13 Motor Reducer Electrical Assembly (112-5387G1)

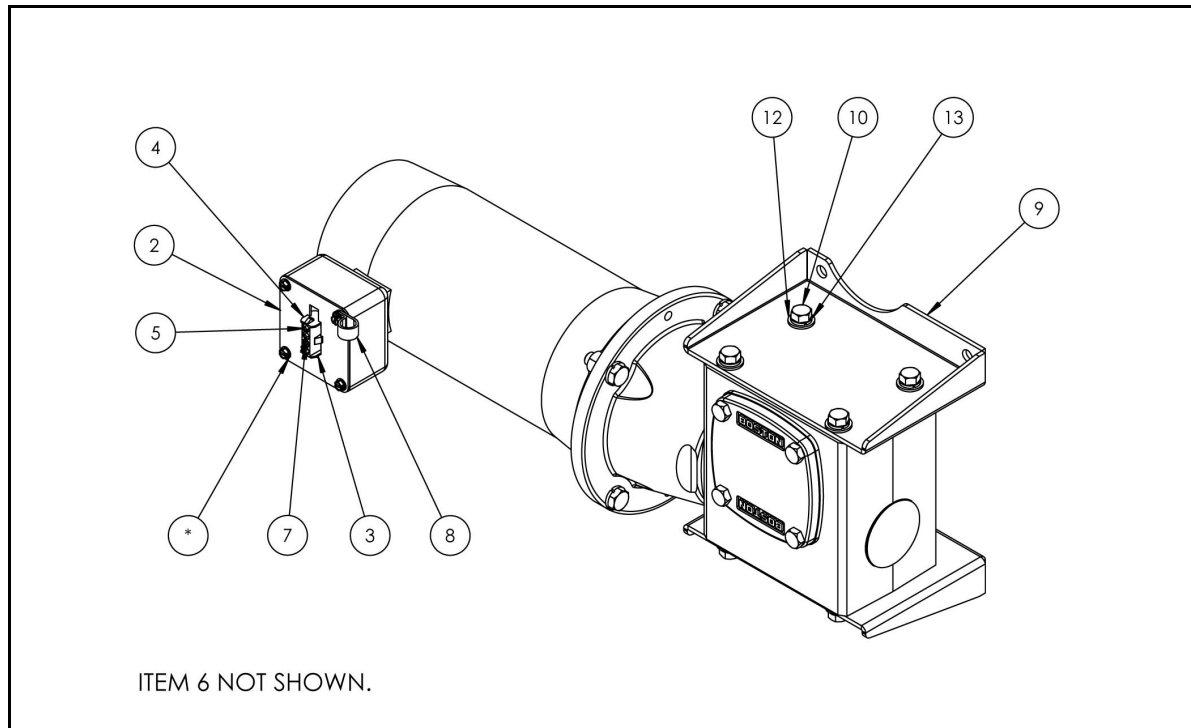


Figure 9-9. Bucky Carriage Assembly

Fig ref.	Part number	Description	Qty
1	112-5392G1	MOTOR / GEARBOX ASM.	1
2	203-5043P1	CONNECTOR PLATE	1
3	407-5007P12	PLUG DOME (.875) BLACK	1
4	651-0038P2	CONNECTOR, CAP	1
5	651-0036P1	CONTACT, SOCKET	2
6	636-5005P1	FERRITE NOISE SUPPRES. RING	1
7	651-0044P1	KEYING PLUG AMP#1-640415-0	1
8	46-220360P6	CABLE CLAMP, 7/16 DIA	1
9	200-5012P1	BRACKET, GEARBOX MTG.	2
10	751-00-31206211	SCREW, HHCS 5/16 x 5/8	8
11	786-50-31000011	WASHER, SPLITLK-STD 5/16	8
12	785-13-25000011	WASHER, FLAT 1/4 WIDE	8
13	786-50-31000011	WASHER, SPLIT LOCK 5/16	8

9.14 Upper Inner Frame Assembly (112-5538G1)

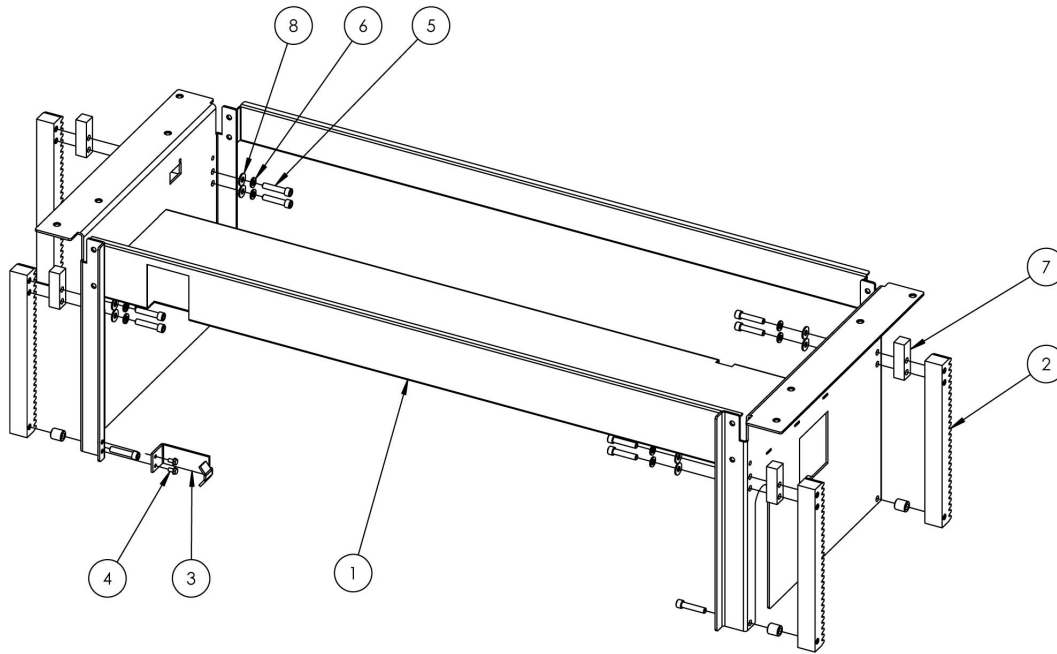


Figure 9-10. Upper Inner Frame Assembly

Fig ref.	Part number	Description	Qty
1	114-5192G1	WELDMENT, UPPER INNER FRAME	1
2	424-0004P1	GEAR RACK - LONG	4
3	201-5108P1	ACTUATOR, LIMIT SWITCH	1
4	751-02-19103811	SCREW, HHMS 10-32 x 3/8	2
5	753-40-31215010	SCREW, SHCS 5/16-18 x 1.50	8
6	786-50-31000011	WASHER, SPLITLK-STD 5/16	8
7	236-0103P1	RACK BLOCK	4
8	785-13-25000011	WASHER, FLAT 1/4 WIDE	8

Table 9-11: Upper Inner Frame Assembly

9.15 Upper Shroud Assembly (112-5539G1)

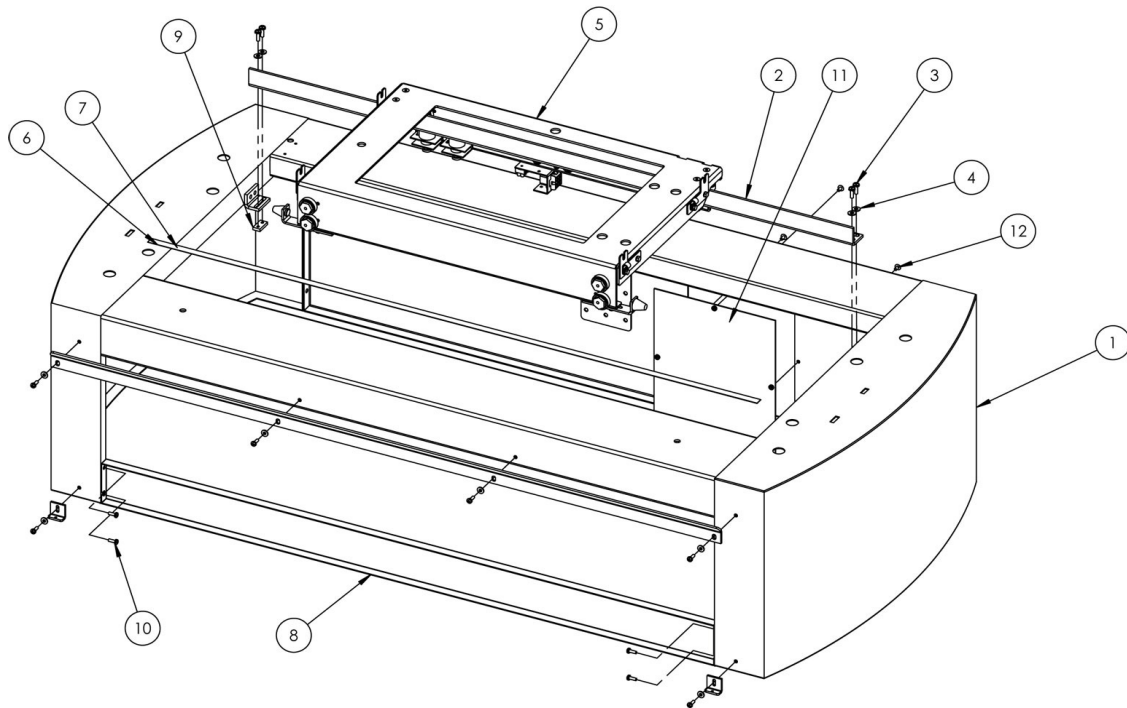


Figure 9-11. Upper Shroud Assembly

Fig ref.	Part number	Description	QTY
1	114-5195G1	UPPER SHROUD WELDMENT	1
2	200-5021P1	BUCKY RAIL	1
3	760-22-19106311	SCREW, PPNHMS SEMS 10-32 X 1/2	4
4	785-11-19000011	WASHER, FLAT #10 NARROW	4
5	112-5393G1	BUCKY CARRIAGE	1
6	410-0003P1	TAPE, 1/2" CLEAR DOUBLE RACK	1
7	281-0062P1	WEAR STRIP	1
8	203-5248P1	PANEL, FRONT SUPPORT	1
9	236-5072P1	NUT BAR - BUCKY RAIL	2
10	760-22-16205011	SCREW, PPNHMS SEMS 8-32 x 1/2	4
11	203-5256P1	COVER PLATE, UPPER SHROUD	1
12	764-20-1620311	SCREW, PTHMS 8-32 x 5/16	4

9.16 Bucky Frame Assembly

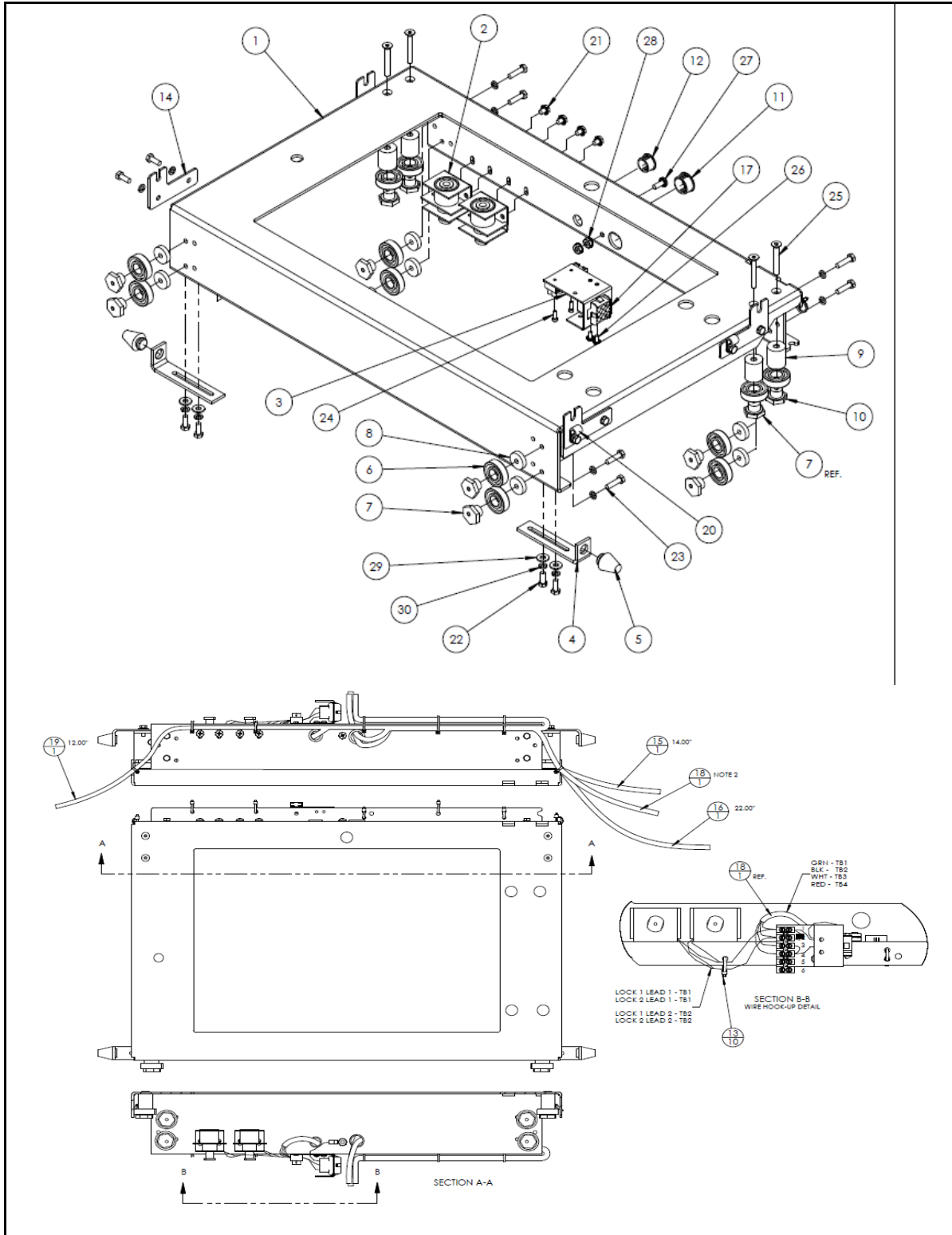


Figure 9-12. Support Bracket Assembly (Right Hand)

Fig ref.	Part number	Description	Qty
1	201-5126P1	BUCKY CARRIAGE, EV650	1
2	5500-3502	MAGNET ASM., BUCKY LOCK	2
3	203-0240P1	ELECT PLUG BRACKET	1
4	201-5033P1	BUMPER BRACKET	2
5	401-5003P1	BUMPER, ATL. INDIA #2101	2
6	400-0021P1	BALL BEARING	12
7	232-0030P1	BEARING ECCENTRIC	6
8	240-0045P1	BEARING SPACER - .19	8
9	240-5040P1	BEARING SPACER - .895	4
10	232-0029P1	BEARING BUSHING	6
11	407-5003P24	BUSHING, SNAP HEYCO 2030	1
12	407-5003P17	BUSHING, SNAP HEYCO 2073	1
13	642-5020P1	CABLE TIE, 14W x 5.6L, 40#	10
14	202-5118P1	BUCKY MTG. BRACKET	4
15	126-5042G1	CABLE, BUCKY DRIVE	1
16	126-5043G1	CABLE ASSEMBLY	1
17	126-5196G1	HARNESS, BUCKY LOCK SW.	1
18	126-5203G1	HARNESS, BUCKY CONNECTOR	1
19	126-5210G1	CABLE ASM., ION CHAMBER	1
20	46-220360P3	CABLE CLAMP, 1/4 DIA	2
21	751-02-19102511	SCREW, HHMS 10-32 x 1/4 SEMS	4
22	751-00-19105011	SCREW, HHMS 10-32 x 1/2	12
23	751-00-19107511	SCREW, HHMS 10-32 x 3/4	8
24	753-40-11203811	SCREW, SHCS 4-40 x 3/8	2
25	756-40-19115010	SCREW, HSFHCS 10-32 x 1.50	4
26	760-22-14203111	SCREW, PPNHMS SEMS 6-32 x 5/16	2
27	760-22-19105011	SCREW, PPNHMS SEMS 10-32 x 1/2	1
28	784-12-19100011	NUT, HEX KEPS 10-32	2
29	785-11-19000011	WASHER, FLAT #10 NARROW	4
30	786-50-19000011	WASHER, SPLITLK-STD #10	20

9.17 Support Bracket Assembly R.H. (112-5542G1)

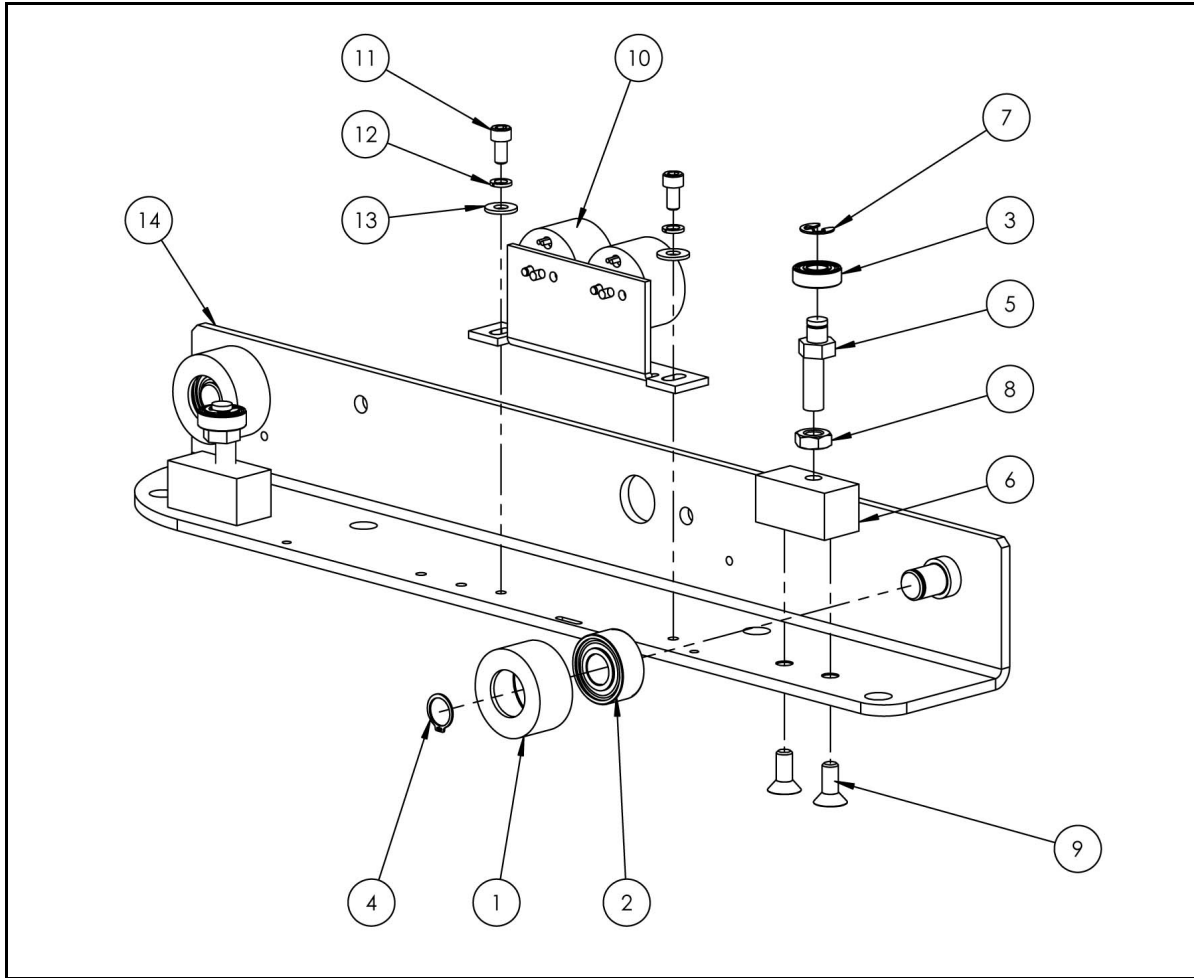


Figure 9-13. Support Bracket Assembly R.H

Fig ref.	Part number	Description	Qty
1	250-5007P1	SHOE, TRANS. BRG.	2
2	400-5005P1	BRG-RADIAL 12MMx28MMx12MM	2
3	400-5006P1	BRG-RADIAL 8MMx19MMx6MM	4
4	799-20-46000010	RET RING 5100-46	2
5	254-5005P1	BRG. STD., ECCENTRIC	2
6	234-5005P1	BEARING BLOCK	2
7	799-30-25000010	RET RING, 1/4 EXT "E"	4
8	784-20-31200011	NUT, HEX JAM 5/16-18	4
9	756-40-25206311	SCREW, FSHMS 1/4-20 x 5/8	4

Fig ref.	Part number	Description	Qty
10	122-5053G1	ASSY, TRANSVERSE LOCK Refer to Section 9.18 "Support Bracket Assembly L.H. (112-5543G1)" on page 9-25 for Breakdown of Assembly)	1
11	753-40-19103811	SCREW, SHCS 10-32 x 3/8	2
12	786-50-19000011	WASHER, SPLITLK-STD #10	2
13	785-11-19000011	WASHER, FLAT #10 NARROW	2
14	114-5199G1	SUPPORT WELD RH	1

Table 9-12: Support Bracket Assembly Right Handed

9.18 Support Bracket Assembly L.H. (112-5543G1)

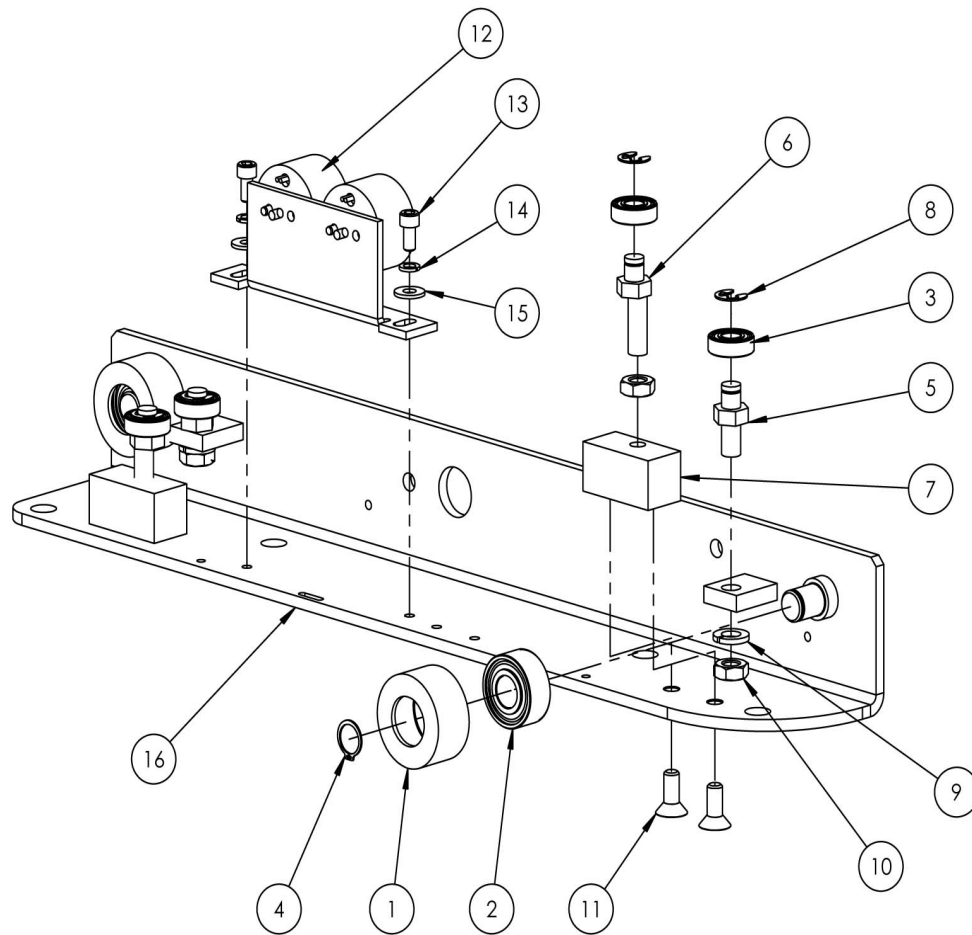


Figure 9-14. Support Bracket Assembly Left Handed

Fig ref.	Part number	Description	Qty
1	250-5007P1	SHOE, TRANS. BRG.	2
2	400-5005P1	BRG-RADIAL 12MMx28MMx12MM	2
3	400-5006P1	BRG-RADIAL 8MMx19MMx6MM	4
4	799-20-46000010	RET RING 5100-46	2
5	254-5005P1	BRG. STD., CONCENTRIC	2
6	254-5006P1	BRG. STD., ECCENTRIC	2
7	234-5005P1	BEARING BLOCK	2
8	799-30-25000010	RET RING, 1/4 EXT "E"	4

Fig ref.	Part number	Description	Qty
9	786-50-31000011	WASHER, SPLITLK-STD 5/16	2
10	784-20-31200011	NUT, HEX JAM 5/16-18	4
11	756-40-25206311	SCREW, FSHMS 1/4-20 x 5/8	4
12	122-5053G1	ASSY, TRANSVERSE LOCK Refer to Section 9.18 "Support Bracket Assembly L.H. (112-5543G1)" on page 9-25 for Breakdown of Assembly)	1
13	753-40-19103811	SCREW, SHCS 10-32 x 3/8	2
14	786-50-19000011	WASHER, SPLITLK-STD #10	2
15	785-11-19000011	WASHER, FLAT #10 NARROW	2
16	114-5200G1	SUPPORT WELD LH	1

9.19 Collision Avoidance Assembly L.H. (112-5040G1)

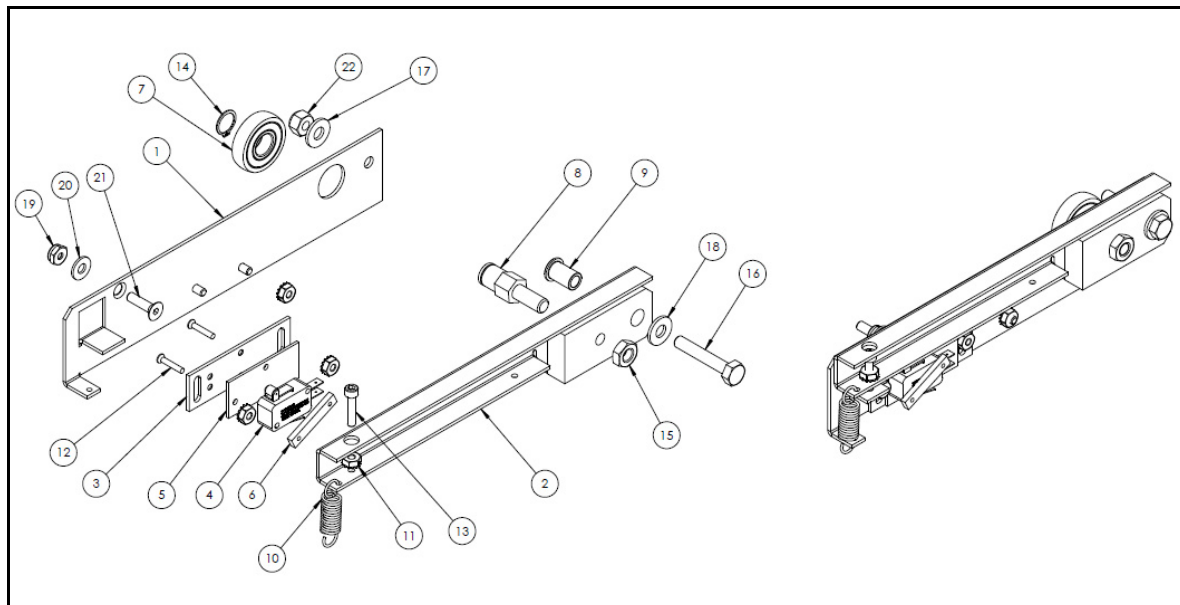


Figure 9-15. Collision Avoidance Assembly L.H.

Fig ref.	Part number	Description	Qty
1	202-5019P1	BACK PLATE - L.H.	1
2	114-5035G1	PIVOT ARM - L.H.	1
3	202-5020P1	PLATE, SWITCH MTG.	1
4	632-5005P1	SWITCH, LIMIT	1
5	2235-0315	SWITCH INSULATION PAD	1
6	236-0114P1	BAR, NUT-SWITCH	1
7	400-5003P1	BALL BEARING - CRWN 12x32x10	1
8	254-5008P1	BEARING MOUNTING	1
9	407-5004P2	BEARING, BRONZE OILITE - FLANGED	1
10	405-5007P1	SPRING, EXT, LEE LE-049CD-1	1
11	784-12-16200011	NUT, HEX KEPS 8-32	4
12	762-20-11206311	SCREW, PFHMS 4-40 x 5/8	2
13	753-40-16207510	SCREW, HSHCS 8-32 x 3/4	1
14	799-20-46000010	RET RING 5100-46	1
15	784-20-31200011	NUT, HEX JAM 5/16-18	1
16	751-00-25215011	SCREW, HHMS 1/4-20 x 1-1/2	1
17	785-11-25000011	WASHER, FLAT 1/4 NARROW	1
18	785-11-25000050	WASHER, FLAT 1/4 BRASS	1
19	423-0007P1	NUT, SELF-LOCKING, 10-32	1
20	785-11-19000011	WASHER, FLAT #10 NARROW	1
21	756-40-19107510	SCREW, HSFHCS 10-32 x 3/4	1
22	784-43-25200011	NUT, HEX NYLOK 1/4-20	1

Table 9-13: Overall Elevating Table Assembly Sheet (2 of 5)

9.20 Collision Avoidance Assembly R.H. (112-5040G2)

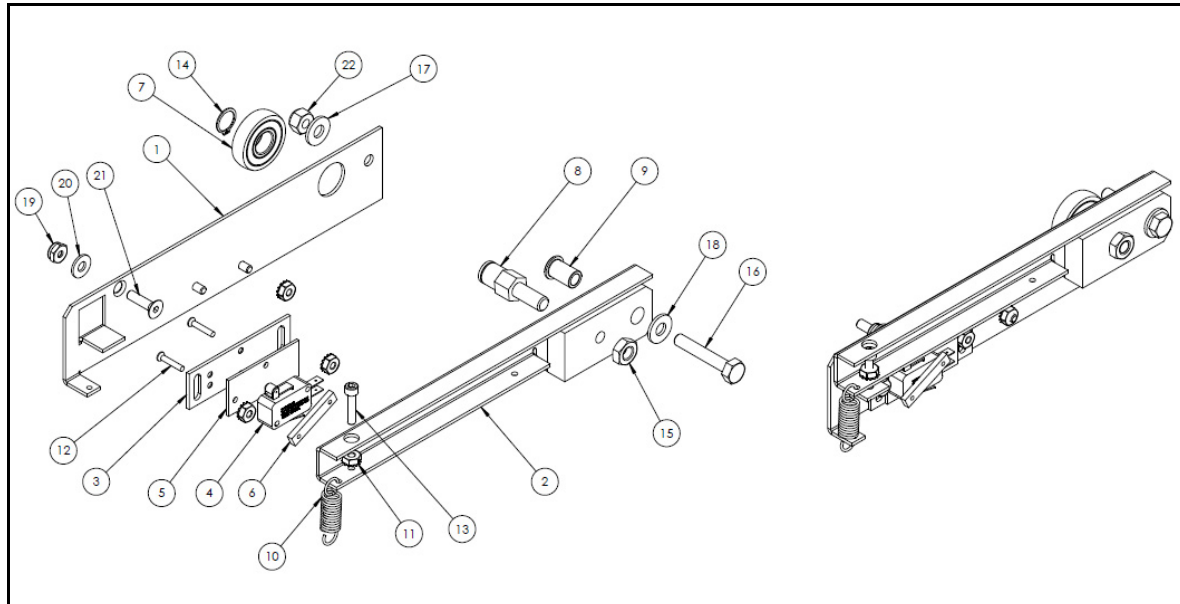


Figure 9-16. Collision Avoidance Assembly R.H.

Fig ref.	Part number	Description	Qty
1	202-5019P2	BACK PLATE - R.H.	1
2	114-5035G2	PIVOT ARM - R.H.	1
3	202-5020P1	PLATE, SWITCH MTG.	1
4	632-5005P1	SWITCH, LIMIT	1
5	2235-0315	SWITCH INSULATION PAD	1
6	236-0114P1	BAR, NUT-SWITCH	1
7	400-5003P1	BALL BEARING - CRWN 12x32x10	1
8	254-5008P1	BEARING MOUNTING	1
9	407-5004P2	BEARING, BRONZE OILITE - FLANGED	1
10	405-5007P1	SPRING, EXT. LEE LE-049CD- 1	1
11	784-12-16200011	NUT,HEX KEPS 8-32	3
12	762-20-11206311	SCREW,PFHMS 4-40 X 5/8	2

Table 9-14: Collision Avoidance Assembly R.H

Fig ref.	Part number	Description	Qty
13	753-40-16207510	SCREW,HSHCS 8-32X3/4	1
14	799-20-46000010	RET RING 5100-46	1
15	784-20-31200011	NUT,HEX JAM 5/16-18	1
16	751-00-25215011	SCREW,HHMS 1/4-20 X 1-1/2	1
17	785-11-25000011	WASHER,FLAT 1/4 NARROW	1
18	785-11-25000050	WASHER,FLAT 1/4 BRASS	1
19	423-0007P1	NUT,SELF-LOCKING,10-32	1
20	785-11-19000011	WASHER,FLAT #10 NARROW	1
21	756-40-19107511	SCREW,HSFHCS 10-32X3/4	1
22	784-43-25200011	NUT, HEX NYLOK 1/4-20	1

Table 9-14: Collision Avoidance Assembly R.H

9.21 Inner Frame Assembly (112-5540G1)

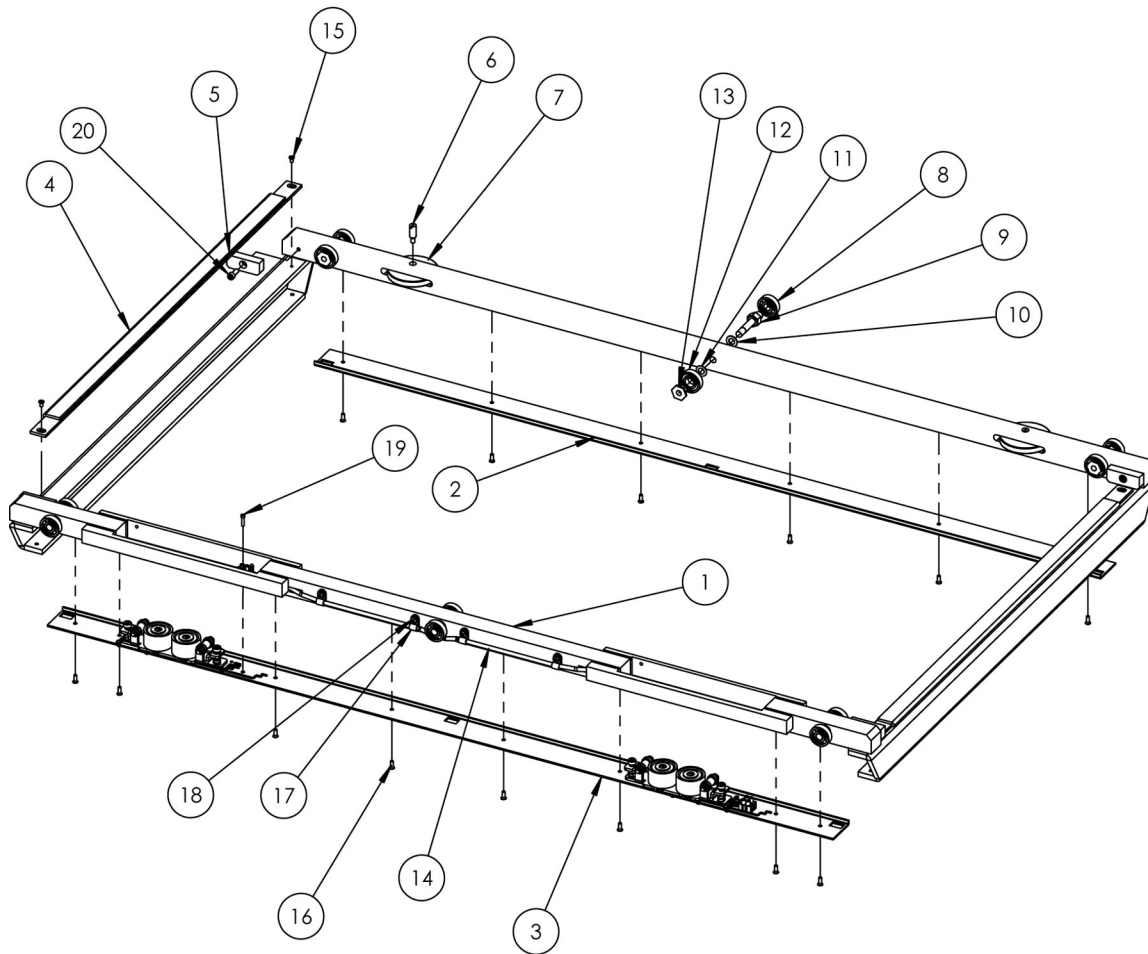


Figure 9-17. Inner Frame Assembly

Fig ref.	Part number	Description	Qty
1	114-5196G1	INNER FRAME WELDMENT -32" TOP	1
	114-5196G2	INNER FRAME WELDMENT -36" TOP	1
2	202-5170P1	PANEL, FRAME COVER	1
3	112-5541G1	LONGITUDINAL LOCK ASSEMBLY	1
4	201-5106P1	FINGER GUARD, INNER FRAME - 32" TOP	1
	201-5106P2	FINGER GUARD, INNER FRAME - 36" TOP	1

Fig ref.	Part number	Description	Qty
5	236-5030P1	BLOCK, FINGER GUARD	4
6	230-0075P1	STUD, WHEEL RETAINING	2
7	251-0002P1	WHEEL, TOP FRAME GUIDE	2
8	400-0025P1	BALL BEARING - 9 x 26 x 8mm	6
9	232-0016P1	STUD-ECCENTRIC	6
10	421-0009P1	WASHER, FLAT - 5/16"x9/16"	6
11	725-60-08100300	WASHER, SHIM RING 8 X 14	6
12	400-0021P1	BALL BEARING - 12 x 28 x 8mm	6
13	232-0015P1	BEARING BUSHING	6
14	126-5198G1	CABLE ASSY, LONGITUDINAL LOCKS	1
15	762-20-14202511	SCREW,PFHMS 6-32 X 1/4	4
16	762-20-14203811	SCREW,PFHMS 6-32 X 3/8	14
17	46-220360P2	CABLE CLAMP,3/16 DIA	4
18	760-22-16203811	SCREW,PPNHMS SEMS 8-32X.38	4
19	753-40-11205011	SCREW,SHCS 4-40 X 1/2	1
20	753-43-19105010	SCREW, SHCS 10-32 x 1/2 LOCK-ING	4

9.22 Foot Treadle Assembly (112-5530G1)

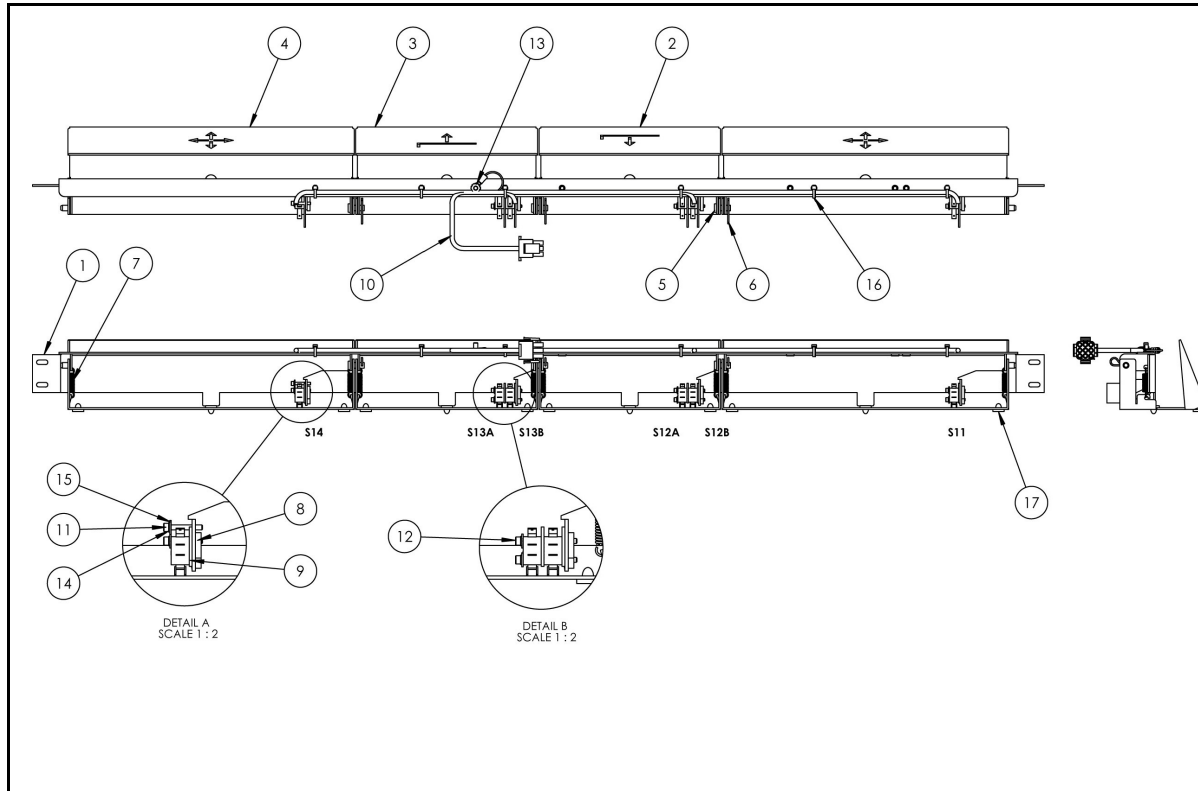


Figure 9-18. Foot Treadle Assembly

Fig ref.	Part number	Description	Qty
1	114-5188G1	Channel Weldment	1
2	202-5160P1	Pedal - table up	1
3	202-5161P1	Pedal - table down	1
4	202-5162P1	Pedal - lock release	2
5	426-5010P1	Clevis Pin, 1/4" X 5/8"	3
6	426-5011P1	Cotterhairpin - 1/4" Shaft	3
7	405-5005P1	Spring, Lock Release	8
8	236-0114P1	Bar, Nut-Switch	4
9	2235-0315	Switch Insulation Pad	6
10	126-5302G1	Harness Assy., Treadle	1
11	753-40-11212520	Screw, SHCS 4-40 X 1.25SS	4
12	753-40-11207520	Screw, SHCS 4-40 X 3/4 SS	4

Table 9-15: Treadle Channel Assembly

Fig ref.	Part number	Description	Qty
13	784-12-19100011	Nut, Hex Keps 10-32	1
14	786-50-11000011	Washer, Split Lock #4	8
15	785-11-11000011	Washer, Flat #4 X 9/32	8
16	642-5020P1	Cable Tie, 10W X 4.OL 18#	6
17	401-5013P1	Bumper, Stem 1/2 X 3/32	12

Table 9-15: Treadle Channel Assembly

9.23 Transverse Lock Assembly (122-5053G1)

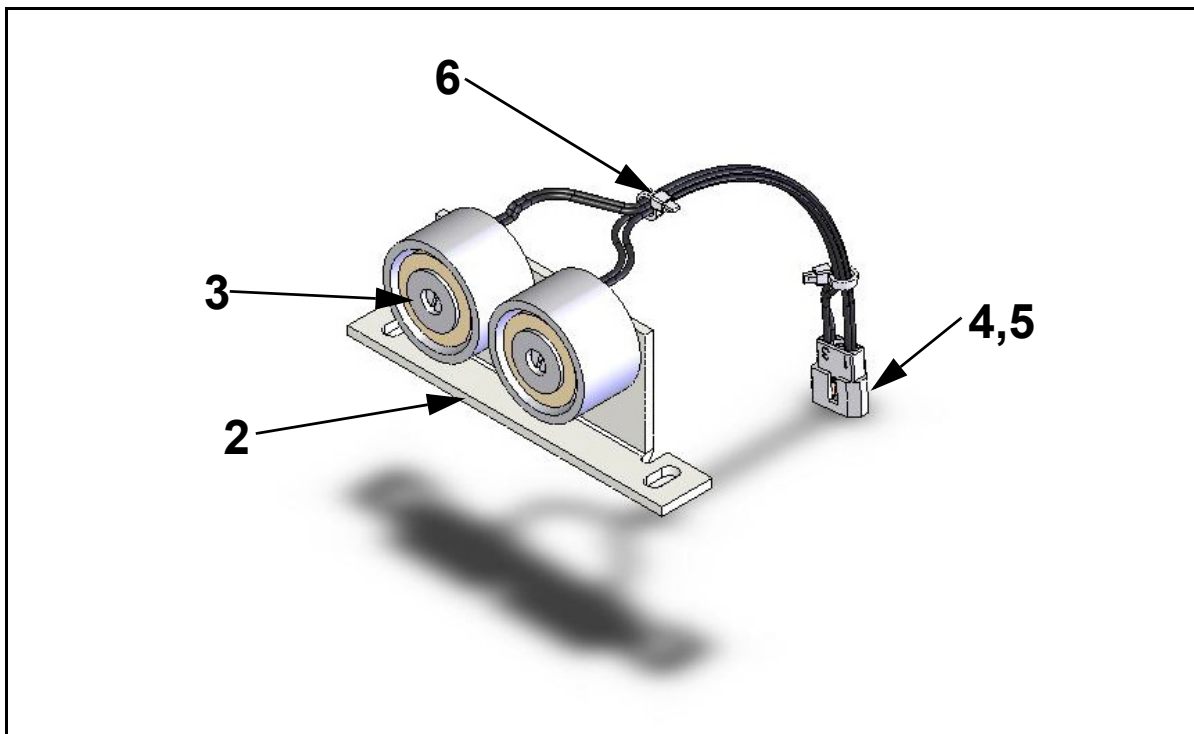


Figure 9-19. Transverse Lock Assembly

Fig Ref.	Part Number	Description	Qty
2	5500-3191	Bracket, Brake	1
3	5500-3204	Magnet, Electro, 24VDC	2
4	763-0603-2032	HSNG, 3CKT Molex 0.062 PIN	1
5	763-0601-2103	Pin, 0.062 Molex Male 18-24	2

Table 9-16: Transverse Lock Assembly

Table 9-16: Transverse Lock Assembly

Figure 9-20. SID/Limit Switch Assembly

Table 9-17: SID/Limit Switch Assembly

Fig ref.	Part number	Description	Qty
10	760-22-14210011	Screw, PPNHMS 6-32 X 1"	4
11	46-208761P1	Cable Tie, 0.09"W X 3.875"L	2
12	760-22-19105011	Screw, PHMS 10-32 X 1/2"	1
13	784-12-19100011	Nut, Hex 10-32	2
14	632-0029P1	Switch, Micro #BZ-2RW82-A2	3

Table 9-17: SID/Limit Switch Assembly

9.25 Bucky Handle Assembly (112-5551G1)

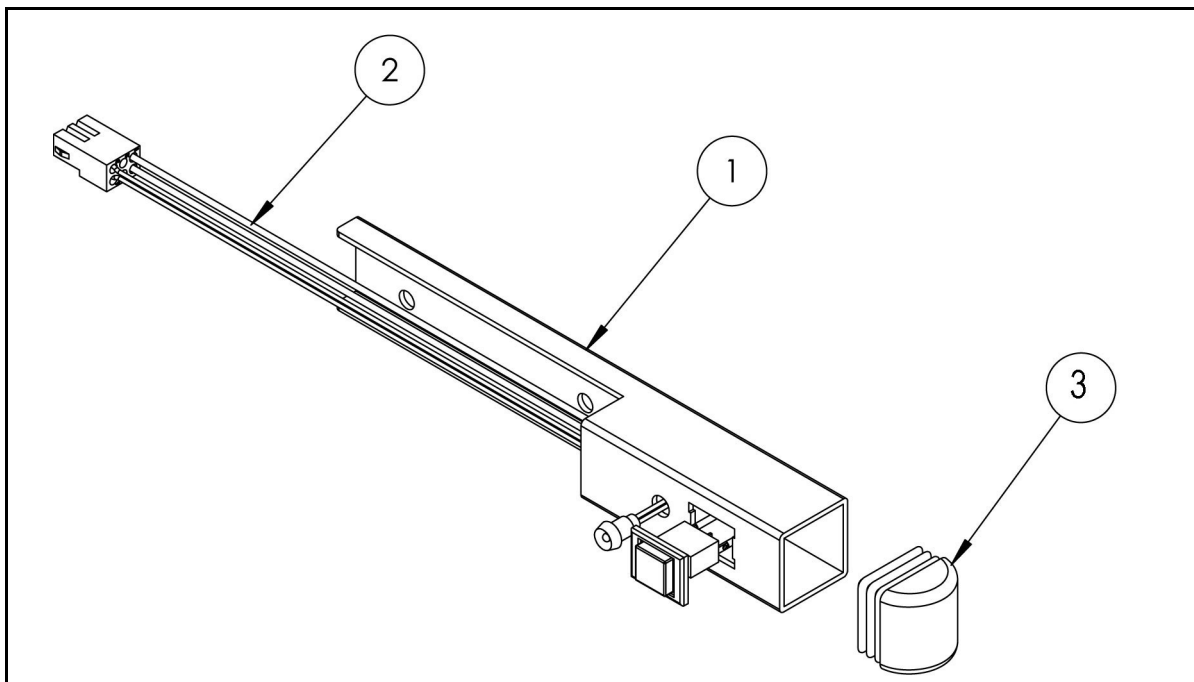


Figure 9-21. Bucky Handle Assembly

Fig ref.	Part number	Description	Qty
1	262-5027P1	Handle, Bucky Switch	1
2	126-5204G1	Cable, Push Button / LED	1
3	407-5048P2	Tube Cap - 1" X 1" SQ.	1

Table 9-18: Bucky Handle Assembly

9.26 Table Shipping Kit (112-5176G3)

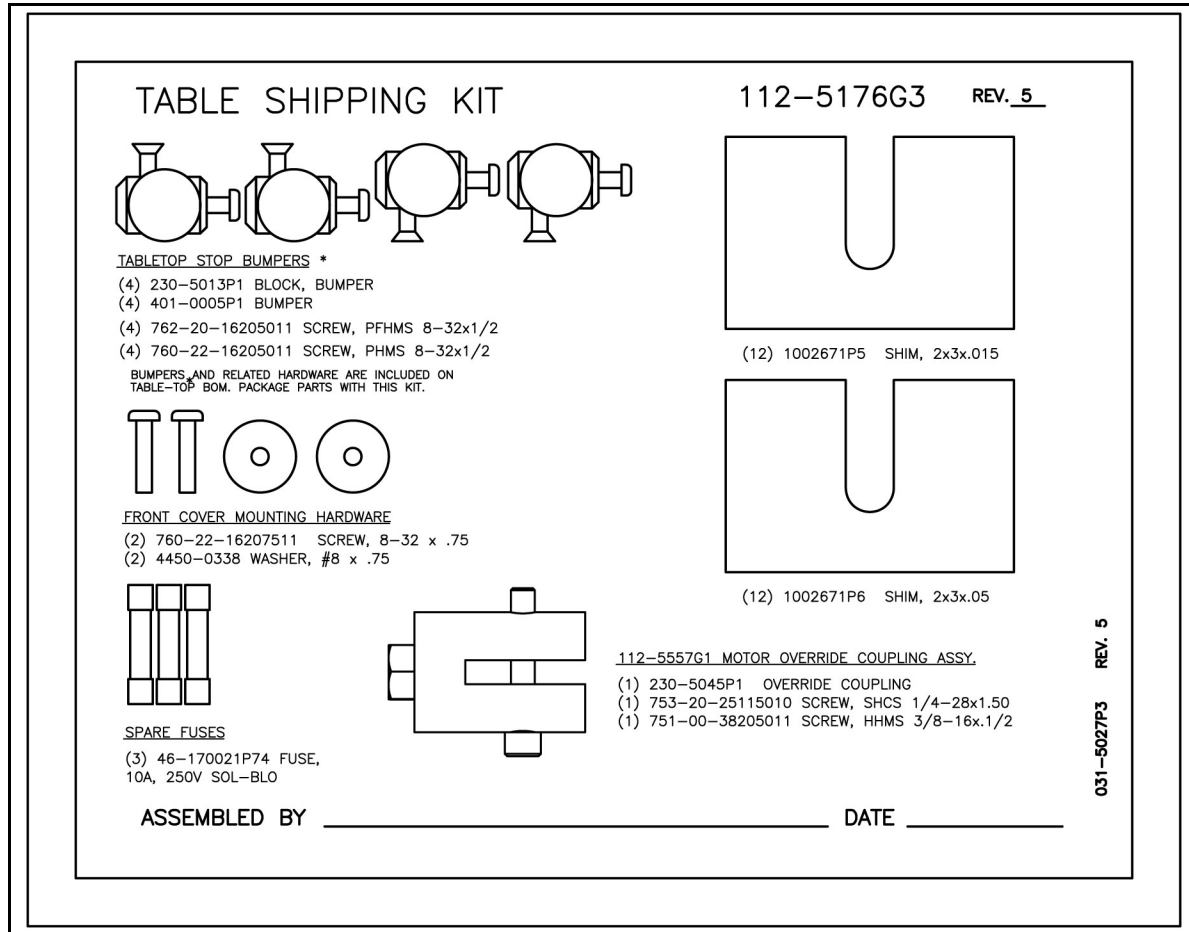


Figure 9-22. Table Shipping Kit

9.27 Elevating Table Options & Accessories

Part number	Description	Qty
0920-0022B	Patient Head Clamps (Must be ordered with part #0920-0040)	Pair
0920-0018	Patient Hip Clamps (Must be ordered with part #0920-0040)	1
110-0067G1	Patient Hand Grips	Pair
0902-0030	Patient Compression Band	1
0920-0040	Mounting Fixtures for Head and Hip Clamps	Pair
930-000	Lateral Cassette Holder	1
500-0008P2	Ion Chamber for Automatic Exposure Control	1
EV-650-D-PBL	PBL (Cassette Size Detector)	1
103101M18	10:1 103 Line Grid Replaces 8:1 103 Line Grid	1
103121M18	12:1 103 Line Grid Replaces 8:1 103 Line Grid	1
8000-EV-650-D (Del)	EV800 Elevating Table Installation, Operation and Maintenance Manual	1
112-5176G3	Table Shipping Kit (includes table bumpers, mounting shims, & emergency motor coupling)	1
B1051	Touch Up Paint - Bottle (Medical White)	1

Table 9-19: Elevating Table Accessories

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Notes

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