

Elevator/Four Way Radiographic Table

Model S222
(Standard and Heavy Duty)

J480-01

Installation, Service, and Operator Manual

REV. AA

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WARNING

**X-RAY EQUIPMENT MAYBE DANGEROUS TO
BOTH PATIENT AND OPERATOR UNLESS
PROPER SAFETY MEASURES ARE OBSERVED**

Though this equipment is built to the highest standards of electrical and mechanical safety, the useful X-ray beam becomes a source of danger in the hands of the unauthorized or unqualified operator. Excessive exposure to x-radiation causes damage to human tissue.

Adequate precautions must be taken to prevent unauthorized or unqualified persons from operating this equipment or exposing themselves or others to its radiation. Only qualified personnel should install, set up, maintain, and operate this equipment. Only qualified service personnel should remove electrical covers.

Before operation, persons qualified and authorized to operate this equipment should be familiar with the Recommendations of the International Commission on Radiological Protection, contained in Annals Number 26 of the ICRP, and with the applicable national and local standards.

The equipment described in this manual will perform reliably when installed, maintained and operated, in accordance with the instructions of this manual by qualified personnel. This equipment is sold with the understanding that the user assumes sole responsibility for radiation safety and that the manufacturer does not accept any responsibility for the following:

- Equipment improperly installed.
- Equipment improperly operated.
- Equipment improperly maintained or repaired.
- Equipment, which has been modified or altered in any way.
- Injury or damage to patient or other personnel for any of the above causes.

Intended Use















This is an x-ray table, a mechanical device intended to support a patient during a radiographic procedure.

Attenuation

All included components between the patient and image receptor have been certified to comply with 21 CFR Chapter 1 Subchapter J (§1020.30).

Cleaning

The manufacturer recommends disinfection of the equipment between uses for any surfaces that may come in contact with the patient during a radiographic procedure.

Symbol Legends	
Symbol	Definition
	Date of manufacture
	Manufacturer
	Serial Number
	Reference Number (Model/Part Number)
	Keep Dry
	NOTE This symbol represents Information that assists the user of the manual in the performance of a task. It may provide the user with better methods of conducting the task, or it may point out conditions that could cause the system to fail to operate properly.
 CAUTION	Points out special procedures, or precautions, that personnel must follow to avoid equipment damage.
 WARNING	Identifies situations or actions that may affect patient or user safety. Disregarding a warning could result in patient or user injury.
	TYPE B APPLIED PART This symbol indicates 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 an Electro Sensitive Device is present which must be carefully handled to prevent damage to the device.
	ELECTRIC SHOCK HAZARD WARNING This symbol indicates an electric shock hazard.
	DANGER VOLTAGE This symbol indicates hazards arising from dangerous voltages.
	DIRECT CURRENT This symbol indicates a direct current source.
	PROTECTIVE EARTH TERMINATIONS This symbol indicates protective earth terminations in device.

**CAUTION:**

THIS MANUAL IS FOR USE BY PERSONNEL PROPERLY QUALIFIED TO INSTALL, MAINTAIN, AND OPERATE THIS EQUIPMENT.

Revision History

Revision	Pages Affected/Revision Description	Release Date
A	Added Schematics	2/13/98
B	Main Text, Added Drawings	3/30/99
C	Manual part # was J480.	ECR 1883 2/22/00
D	Changed Power Ratings, Added Summit P/N's to replacement parts list, & new transverse lock notes	ECR1992 July 2000
E	Create manual text	ECR 2064 Dec., 2000
F	Added Classification Data for UL2601	ECR 3618 October, 2003
G	Added Heavy Duty version data	January, 2004
H	ADDED PICTURES	JAN.2004
J	Added Instructions to sections 4.4 and 5.2, and updated TOC— ECR 3845	February 2004
K	Added relay K7	ECR 431 October, 2004
L	Added changes for 4 Pedal Design	ECR 7944 May, 2013
M	Added Note to Sheet 4-3, under Note h	ECR 8453 Aug, 2014
N	Added note to WARNING label on sheet 6-1	ECR 8480 Aug. 2014
P	Added Figure 11.2 and updated figure references	ECR 8658 March 2015
Q	Updated sections 4.3 for new table anchors, reorganized manual	ECR 8780 Nov 2015
R	Added Grounding Note in section 4.4	ECR 9196 Aug 2016
T	Updated UL graphic; Added Symbol Legends table	ECR 9266 Nov 2016
U	Added changes for working height indicator light	ECR 9301 Dec 2016
V	Updated upper covers (pg. iv, 5, 6, & 19)	ECR 9531 May 2017
W	Updated address to Niles, IL; Added Intended Use, Attenuation, and Cleaning to sheet ii.	ECR 9584 June 2017
X	Updated: Power to 115/230 Selectable input; Sections 4.4, 5.4, 5.5, 9, 10, and 11; Removed Section 12 (Removing Image Receptor Cover); Sections renumbered.	ECR 10269 July 2019
Y	Removed Replace Parts table; Updated TOC	ECR 10306 Sept. 2019
Z	Updated section 4.4	ECR 10515 July 2020
AA	Updated dimension in Figure 1	ECR 10617 October 2020

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1. Description of Table and Classification Data

The Model S222 radiographic table can be raised or lowered, has a lockable floating table top, and has a movable image receptor. The image receptor can be supplied in any one of the four versions listed below. PBL compatibility is optional.

- 1 Reciprocating Bucky w/AEC (Automatic Exposure Control)
- 2 Reciprocating Bucky
- 3 Grid Cabinet w/AEC (Automatic Exposure Control)
- 4 Grid Cabinet

The standard S222 table is rated for a 400 pound patient load.

The heavy duty S222 table is rated for a 650 pound patient load.

The S222 radiographic table is certified to be compatible with all certified tube housing assemblies, X-ray controls, X-ray high voltage generators, cassette holders, and beam limiting devices. This table will not affect regulatory compliance of these components when these components are installed, connected, and adjusted in accordance with the applicable manufacturer's instructions and specifications

Operating controls and features on the standard table include table top lock release pedals, table top vertical motion pedals, and image receptor cabinet lock release lever. Additional features of the heavy-duty version include collision detection switches with audible alarm.

Classification Data

This equipment is not suitable for use in the presence of a flammable anesthetic mixture with air or with oxygen or nitrous oxide.

Type of protection against electric shock is Class 1.

Degree of protection against electric shock is Type B.



Degree of protection against the ingress of water is IPX0 / ordinary.

The function and intended application of this equipment is general radiography for human use.


Environmental conditions for transport, storage and operation:

Temperature: 40° F to 100° F (10° C to 40° C)

Relative humidity: 5% to 95%, non-condensing

Atmospheric pressure: sea level to 8000 feet (700 – 1100 hPa)



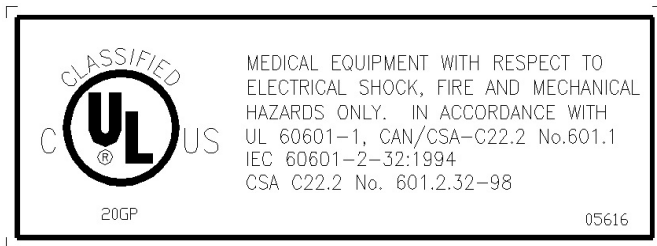
The symbol  is used to alert the installer and/or operator of conditions where personal safety or possible equipment damage is a consideration.

The elevator table model S222 is intended for intermittent use, with a 10% duty cycle for raising and lowering the table. Two minutes of raise/lower time is the maximum allowed within a 20 minute period.

Current draw for the S222 table:

@115VAC 50/60Hz: 2A continuous, 6A during raise lower/cycle

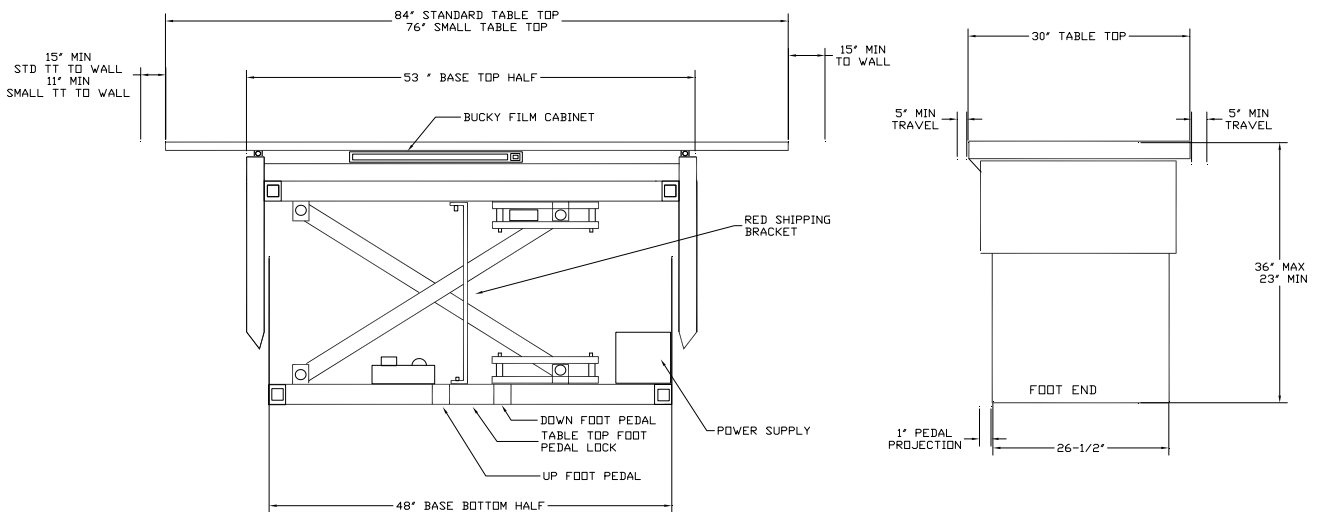
@230VAC 50/60Hz: 1A continuous, 3A during raise lower/cycle



2. Preparation for Installation

Confirm there is sufficient clearance in hallways and doorways to bring in the table and base in their shipping containers. Shipping dimensions are listed in Section 9.

Since the table top must move freely when installed, be sure there is adequate room around the table.



NOTE: ALLOW 84" CLEARANCE AT FOOT END OF BASE TO PERMIT MOUNTING TABLE ON BASE.

Figure 1: Table Dimensions

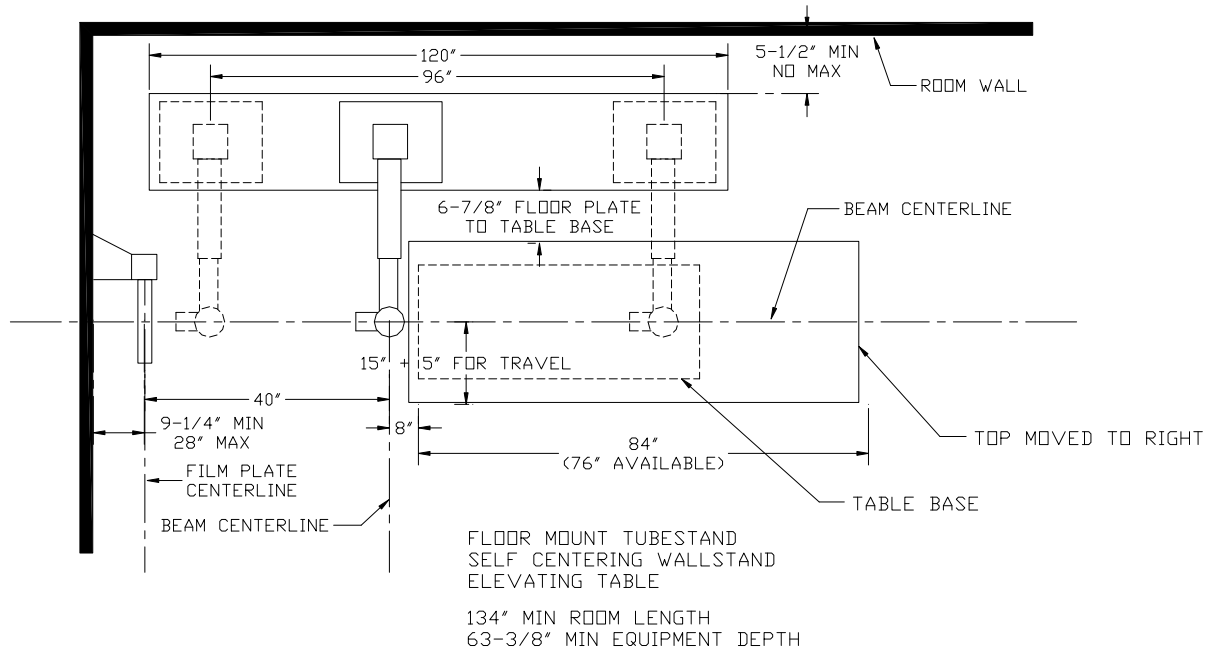


Figure 2: Room Arrangement (Min Room Required for 40" Standing Knee)

2.1 Installation Location

Specific site information is not provided in this section, but it does provide installers with information needed to install the table in almost any situation. The table should be installed and aligned after the tubestand is installed.

2.2 Room Construction

Conventional radiographic room construction should be used. Consult the State Health Department and local building codes for specific radiation shielding requirements.

3. Receiving, Storage, Unpacking and Handling

The table is packed in two shipping crates, the table top in one box, and the table base in another box. Depending on system configuration the tray may be in the film cabinet or in a separate accessory carton.

Once delivered, unpack the table so that it can be inspected for concealed damage before being transported to the installation site in its original shipping crate. It is responsibility of the dealer to make all shipping claims, as all equipment is shipped FOB from the factory.

If it is necessary to store the table before delivery to the installation site, prevent rust and corrosion by ensuring it is stored at moderate temperatures in a dry location. Also, avoid stacking items on top of the unit during storage and make sure that it is well protected against damage during shipment.



CAUTION:

More than two persons may be required to lift some of the heavier or bulkier pieces from the packing material, or when positioning them.



CAUTION:

Before attempting to drive the table up or down, the red shipping bracket must be removed. The bracket is located behind the removable front panels. Refer to Section 4.2. It is recommended that this bracket remain in place while the table is unbolted from the shipping pallet and until the table is placed in its desired location.

4. Table Installation

As items are unpacked at the start of installation confirm the presence of the following:

- Table base
- Table top (packed separately from base)
- Cassette tray (may be packed in accessory carton)
- Floor brackets and bracket covers (packed with table base in a separate bag)

You should have previously installed the tubestand, collimator, and X-ray tube. Installation instructions can be found in the manuals provided with these items.

4.1 Location in Room

The table location is dictated by your installation plan and available space. When deciding on the table location, consideration should also be given to accessibility of the table and related components for servicing. Refer to figure 2 on page 3 for the minimum suggested clearances for proper table operation.

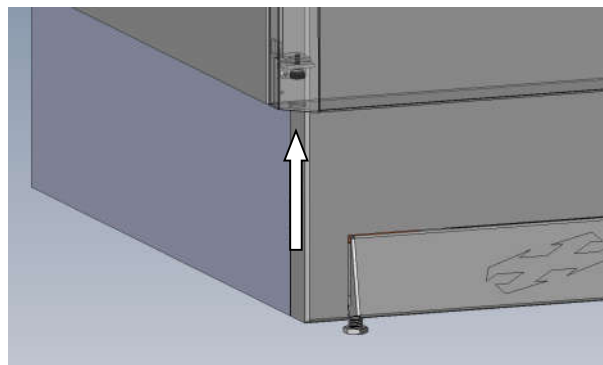
**NOTE:****ASSEMBLER IS RESPONSIBLE TO VERIFY THE FOLLOWING:**

- An angulation indicator is provided to assure perpendicularity between the table and the central ray. This is typically on the tubestand.
- A height indicator for vertical SID (Source Image Distance) is typically provided on the tubestand.
- All components assembled as parts of the X-ray system are compatible. Refer to compatibility statement published by the component manufacturer for specific information.

4.2 Unpacking and Assembly

The table top and base are shipped separately. The base is locked in vertical position for transport by a red shipping bracket which must be removed prior to applying power to the table. Once the table position is determined the top may be installed. Note that the top will only slide onto the base from the end, so clearance between the end of the table and the wall must be equal to the length of the table top. See Figures 1 and 2. It may be necessary to install the table top prior to securing the table to the floor.

1. Remove the base from the shipping pallet.
 - a. Remove all cardboard and packing material from the base.
 - b. Remove the upper front panel. Access the two captive mounting #2 phillips screws through the holes at the lower corners (as shown below). After loosening the screws completely, lift up to unhook the cover at the top.



- c. The front lower panel includes the foot switches. To remove the panel, remove the two screws on each side and pull the panel outward away from the base of the table. Unplug the foot switch cable, grounding cable and working height indicator cable.

- d. Remove the bolts securing the base to the pallet. They are typically located in the table base frame at the right front and left rear corners.
2. Place the table base close to its final position in the room and remove the red shipping bracket by loosening the socket head cap screws that hold it. Replace the screws and store the shipping bracket for possible future use.
3. Mount the table top. NOTE: the table top may need to be moved partially off the base later to verify beam to image receptor centering, and the table top will only mount from the end of the table. Wall clearance should be considered prior to mounting.
 - a. Remove the end stop at one end of the table top.
 - b. Remove the longitudinal lock assembly, mounted on table top module of the table base by three screws.
 - c. Orient the table top so that the longitudinal brake strip is toward the rear of the table base.
 - d. Slide the top onto the base, being careful not to impact the collision detection switches (heavy duty version only) or load bearing swivel brackets.
 - e. Slide the table top left and right to ensure it moves freely.
 - f. Vertical motion between table top and bearings at each of the four corners of the table base must be:
 - 0.01 to 0.09 inches for standard version table.
 - 0.01 to 0.09 inches for heavy duty table (to allow proper operation of collision detector switches).
 - g. If bearing adjustment is necessary, slide the table top partially off the base to access the eccentric “take-up” bearings and adjust accordingly.
 - h. Replace the table end stop and install the longitudinal lock assembly.

Note: It is recommended to apply some form of non-permanent thread locking compound onto the threads of the flat head mounting screws that attach the table top's longitudinal locks to the bearing module.

4.3 Table Positioning, Anchoring and Leveling

To ensure patient safety the table must be anchored to the floor using 3/8” anchors. Prior to final anchoring, check to make sure that the x-ray beam tracks the center of the image receptor throughout the range of table image receptor travel.

1. Move the table base into final position and verify location with respect to the x-ray beam. **Note that the image receptor center is approximately 13" forward of the rear of the table base.**
2. Adjust the leveling pads under the table base so that the table is level in both longitudinal and transverse directions.

3. When the table is level and all alignment adjustments are complete, secure the table base to the floor as follows:
 - a. Locate and unpack the bag containing the three (3) floor brackets, two (2) bracket covers and hardware included with the table.
 - b. Attach one bracket to the rear of the front frame rail with two ¼"-20 bolts, lock washer and flat washer as shown in figure 3. With the base of the bracket flush with the floor, tighten the bolts.

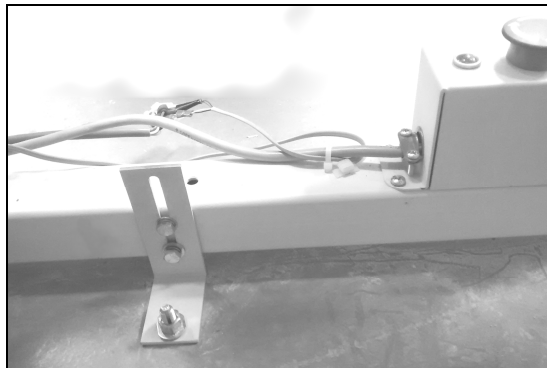


Figure 3: Front Floor Anchor Bracket (rear view)

- c. Attach the remaining two brackets to the rear corners of the rear skirt cover as shown in figure 4. With the bases of the brackets flush with the floor, tighten the bolts.

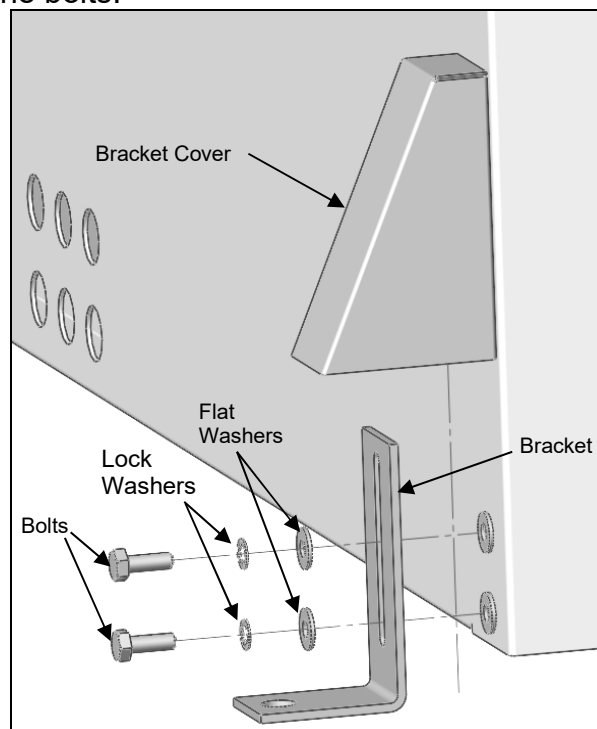


Figure 4: Rear Floor Anchor Brackets

- d. Using the mounting holes in the base of the brackets as a guide, drill into the floors to the depth recommended by the anchor bolt manufacturer.

- e. Install anchor bolts through the drilled holes and secure as recommended by the anchor bolt manufacturer.
4. When the table is secured to the floor, tighten the support screws until each is fully seated.

4.4 Wiring and Electrical Connections

Use the line voltage selection switch at the rear of the table (above the IEC power inlet) to select the correct voltage (115V or 230V) for the supplied power. Remove the screws from the cord lock bracket, plug cord into IEC inlet, and then reattach cord lock. Connect the table to a standard wall outlet or fused disconnect. See section 1.4 Specifications for current draw.



NOTE

This table is supplied with a power cable for US 115V outlets (NEMA 5-15). Installer is responsible for sourcing appropriate power cords or terminal connections for other outlets.

The required input for the S222 table is 115 VAC @ 6.0A or 230 VAC @3.0A either 50 or 60 Hz.



ATTENTION

TO ENSURE PROPER GROUNDING AND REGULATORY COMPLIANCE THE SUPPLIED INCOMING GREEN/YELLOW WIRE MUST BE CONNECTED TO EARTH GROUND.

Optional PBL will wire directly to the collimator logic circuitry per the manual.
Optional bucky cabling will wire directly to the x-ray generator per the manual.
Optional AEC connections will plug directly into the generator per the manual.

The J8 connector on the table power supply board is an isolated contact closure that occurs when the table is at the field-selected working height. This contact closure can be wired to the generator as an interlock to prevent exposure when the table is not at the working height, or can be wired in series with tubestand vertical SID switches on PBL systems as verification of a 40 inch source-to-image distance.

All cabling will enter or exit the table at the rear of the base, or through a floor access area, a 17" x 17" opening centered front to back at the left side of the table floor.

5. Adjustments and Verification of Interlocks

5.1 Vertical Motion Verification

1. With the table on, depress the appropriate footswitch pedal to raise the table top from minimum to maximum height. This should take less than 20 seconds.
2. Verify that the table stops and the working height indicator illuminates within 0.5 inch of the minimum and maximum mechanical limits. The minimum and maximum table heights can be set to values within these limits as desired. Refer to Specifications on Page 9.1 for these limits.

5.2 Longitudinal and Transverse Motion Verification

1. Verify when each Table Top Lock pedal is depressed, the table top can be moved in any direction. The longitudinal locks are located at the right rear corner of the table base. The transverse locks are located near center of the left and right sides of the table base, beneath the base top covers.
2. Verify when the Table Top Lock pedals are released the table top is locked in position. Verify at this time all locks are not “buzzing” or making any other noise.
3. The J8 connector on the power supply board in the table base provides an isolated contact closure when the table is at a specific working height. The contact closure at J8 can be wired to the generator as an exposure interlock, preventing exposure when the table is not at the working height. This is useful with manual collimation, as the tubestand vertical SID indicators are scaled to a specific table working height. The J8 contact closure can also be wired in series with tubestand vertical SID switches to indicate a 40 inch source-to-image distance for PBL applications, such as with a Linear II collimator.

5.3 SID Switch Adjustment

The elevator table will momentarily pause when the table top reaches an adjustable “working height” that matches the desired SID. The SID switch is preset at the factory for a table top to floor height of 30.5 inches. It is located at the upper right end of the scissor mechanism (see SW7 in Section 11). To change height at which the table top pauses, or to change the time of the delay, use the following procedure:

1. Move the table top to the desired working height. NOTE: The distance from the table top to the film plane is given in the Specifications in section 9.
2. Remove the upper front panel.
3. Turn the power off by pressing down on the service switch. The red indicator light should go off.



WARNING:

FAILURE TO TURN OFF THE POWER CAN RESULT IN SERIOUS INJURY. HIGH VOLTAGES AND MOVING PARTS ARE EXPOSED WHEN THE FRONT PANELS ARE REMOVED.

4. Adjust the switch-mounting bracket so that the switch is activated when the table is at the desired working height, typically 30.5 inches. A soft “click” can be heard as the switch is engaged.
5. Turn the power back on by twisting the service switch in the direction shown on the switch. The red indicator power light should be lit.
6. Confirm that the table stops and the working height indicator illuminates at the desired working height.
7. If a longer pause is desired at the working height, adjust potentiometer P1 on the table power board located in the front right corner of the table base clockwise. The maximum setting is one second.
8. Replace the front panel.

5.4 Accessing Image Receptor Components

To access the grid cabinet, ion chamber, bucky or image receptor lock:

1. Remove the end stop bracket on the table top. Roll the top partially off of the table base. Roll the image receptor to opposite end for access.
2. Pull up to remove the plastic image receptor cover. Access to the ion chamber pre-amp or bucky circuitry can now be achieved.

5.5 Image Receptor Lock Adjustment

The image receptor lock is preset at the factory. If required the locks can be adjusted as follows:

1. Remove the lock cover.
2. Loosen the stop nut, and turn the screw to adjust magnet height.
3. The magnet should be placed as close as possible to the braking surface without touching (allow approximately 1/64" gap).
4. Retighten the nut. Move the film cabinet back and forth to verify the magnet does not scrape against the brake strip.
5. Replace the cover.

5.6 Transverse Lock Access

The transverse lock assemblies are designed to provide 50 lbs of front-to-back table top holding force. These locks require no field adjustment. They are designed so that holding force will increase through time due to lock pad wear.

In the event you need transverse lock access, refer to the following procedure.

1. Slide the image receptor to the end of its travel, exposing the table base cover and the transverse lock access panel.
2. Remove table top stops and slide table top half way off to expose lock access panel.
3. Remove the transverse access panel to expose the lock assembly.

5.7 Longitudinal Lock Access

The longitudinal lock assembly is designed to provide 50 lbs of left-to-right table top holding force. The lock assembly requires no adjustment. It is located at the right rear of the table top module. Ensure that when the locks are disengaged and the table top is moved longitudinally the brake surface rides on the wheels of the lock assembly, not on the face of the magnets.

6. Operating the Table



WARNING:

Care must be taken when operating, lowering or raising the table top with a patient on the table.

If table is equipped with tabletop-mounted lock release handle, keep patient clear of switch to prevent accidental actuation resulting in unanticipated tabletop motion.

- Avoid all sudden movements.
- Keep patient and operator hands and fingers clear of mechanical pinch points when table is in motion.
- Never raise or lower the table top when the patient is getting "on" or "off" the table.
- Never release the table top locks when the patient is getting "on" or "off" the table.
- Always verify when driving the table down that there are no items such as chairs or stools, which would impede the travel of the table top.

The table has four (4) foot pedals (from left to right when facing the table): Table Top Lock Release, Raise table, Lower table, Table Top Lock Release. Also,

there is an image receptor lock release handle located on the table front. See Section 11.

The table top is designed to lock transversely when there is no electric power to the table. Typical transverse holding force is 50 lbs.

The table top has an exposure stop position at which vertical motion pauses and an indicator light on the lower front panel illuminates, indicating table working height for proper SID. The pause time and height is adjustable.

The image receptor also has locks that prevent movement until the operator desires to position the receptor as needed.

6.1 Table Top Operation with Foot Switch

1. To raise the table top, depress the foot switch marked with arrow up.
2. To lower the table top, depress the foot switch marked with arrow down.
3. To release the table top locks, depress either outside foot switch. To reactivate the table top locks, release the switch. The transverse locks remain energized without power applied.



NOTE:

When the elevator table is rising or lowering the table top locks cannot be released, keeping the table top in place. The table top will not float during vertical motion.

6.2 Image Receptor Operation

1. To release the electric brake securing the receptor in position, grasp the lock release handle; the film cabinet is free to move laterally.
2. Releasing the handle re-energizes the electric brake and the receptor will lock in position.

7. Recommended Maintenance

7.1 Maintenance Schedule and Inspection

Safe performance of the S222 table requires daily inspection by the user and scheduled service by specifically trained X-ray apparatus service personnel. It is the user's responsibility to select qualified service personnel, or to consult with the factory in the event recommendations are required.

7.2 Daily Maintenance

Daily maintenance and inspection consists of the following:

1. Clean up any spills.
2. Visually inspect the units for damage and for general wear.

3. Gently push against the electric locks for the table top and image receptor to ensure they are working properly.
4. Check to see that the table top moves freely and does not bind with locks off.
5. Check to see that the image receptor moves freely with locks off. In the event service is required, contact a qualified service person.

7.3 Scheduled Maintenance (Service Personnel)

1. In order to comply with applicable federal and state regulations, the following maintenance schedule must be adhered to:
 - a. First servicing 30 days after equipment installation.
 - b. Subsequent servicing every 6 months.
2. Scheduled maintenance should include, but not be limited to, the following checks:
 - a. Proper equipment grounding.
 - b. Proper tightness of all mechanical fasteners.
 - c. Inspection of all electrical connections for proper connection and absence of corrosion.
 - d. Proper anchoring of table to floor.
 - e. Proper operation of table top and grid cabinet.
 - f. Inspection of all electric locks for proper operation.
 - g. Check the table top lock foot switches for proper operation.
 - h. Check the raising and lowering function of the table to insure that the table stops at the high and low positions as well as pauses and illuminates the indicator light on the front panel at the working height.
 - i. For 'Heavy Duty' tables only, lift up on the table top to engage the collision switches and ensure activation of the audible alarm.

8. Servicing the Electrical Panel



WARNING:

DISCONNECT POWER PRIOR TO SERVICING. HIGH VOLTAGES AND MOVING PARTS ARE EXPOSED THAT CAN CAUSE SERIOUS INJURY WHEN THE FRONT PANELS ARE REMOVED.





**CAUTION:**

ONLY PROPERLY QUALIFIED PERSONNEL SHOULD ATTEMPT TO MAINTAIN AND OPERATE THIS EQUIPMENT.

To service electrical panel inside the base of the elevator table:

1. Remove the upper and lower front panels
2. Press down on the red service switch. The red "power on" indicator light should go off.
3. The electrical power panel and circuit board are now accessible.
4. Refer to the schematic of the power panel for troubleshooting.

9. Specifications

Table Top - Crated	2.75" H / 31" W / 90" L	100 lbs
Base - Crated	30" H / 30.5" W / 54" L	550 lbs
Table Top & Base - Assembled	31.5" H / 30.5" W / 84" L	580 lbs
Table Top - Elevation Max / Min	34" Max / 23" Min	
Traverse from Center Position	± 5"	
Longitudinal from Center Position	± 15"	
Film Plane to Table Top Distance (standard table)	-3.75" (AEC) / -3.25" (Non-AEC)	
Film Plane to Table Top Distance (heavy duty table)	-4.06" (AEC) / -3.56" (Non-AEC)	
Power Consumption @ 115VAC 50/60 Hz single phase  During elevation or lowering		6 Amps
Power Consumption @ 230VAC 50/60 Hz single phase  During elevation or lowering		3 Amps
Power Consumption @ 115VAC 50/60 Hz single phase  During idle		2 Amps
Power Consumption @ 230VAC 50/60 Hz single phase  During idle		1 Amp
Maximum Patient Weight (standard table)		400 lbs
Maximum Patient Weight (heavy duty table)		650 lbs

10. Electrical Component Legend*See photos following for table locations*

I.D.	DESCRIPTION	FUNCTION	LOCATION
C1	Cap, 12000 uF, 63V	Filter Cap	On power supply
C2	Cap, 5800 uF, 40V	Power for locks	On power supply
F1-F2	Fuse, 4.0A, Slo-Blo	Line current limit	On power supply
F3-F6	Fuse, 600mA, Slo-Blo	Line current limit	On power supply
F7-F10	Fuse, 1.25A, Slo-Blo	Line current limit	On power supply
T1	Transformer, 117/30VAC	Step down 120V input	On power supply
T2	Transformer, 115/24VAC	Step down 120V input	On power supply
BR1	Bridge rectifier	Convert ac to dc	On power supply
BR2	Bridge rectifier	Convert ac to dc	On power supply
R1	Resistor, 0.3 ohm, 50W	Current limiting	On power supply
R2	Resistor, 7.5 ohm, 25W	Current limiting	On power supply
PCB	Logic control board	Control all motion of table and locks	On power supply
HM1	Solenoid, 24Vdc	Table top lock (left transverse)	Table base, top left
HM2	Solenoid, 24Vdc	Table top lock (right transverse)	Table base, top right
HM3	Electro-magnets, 24Vdc	Table top lock (longitudinal)	Under table top, upper right rear
HM4	Electro-magnet, 24Vdc	Image receptor carriage magnet	Right rear of bucky-grid cabinet
LT1	Pilot light, red, 120Vac	Indicates "power ON"	Table base, bottom front center
M1	Motor, 120Vac	Raise & lower table top	Table base, bottom center
RP1 (opt.)	Receptacle	Connects to size sensing tray	Rear of film cabinet
AUD 1	Audible signal, intermit	Detect Collision	Power Supply (Heavy Duty only)
SW1	Switch, SPDT, micro sw	Operator's foot switch, "DOWN"	Table base, bottom front right
SW2, SW4	Switch, SPDT, micro sw	Operator's foot switches, "table top locks"	Table base, bottom front outside left and right
SW3	Switch, SPDT, micro sw	Operator's foot switch, "UP"	Table base, bottom front left
SW5	Switch, DPDT, white push button	"UP" travel limit	Table base, bottom center
SW6	Switch, DPDT, white push button	"DOWN" travel limit	Table base, bottom right
SW7	Switch, SPDT, micro sw	Vertical Detent	Table base, upper front right
SW8	Switch, power interrupt	Interrupts power to table	Table base, bottom front center
SW9	Switch, SPDT, micro sw	Image receptor carriage lock	bucky-grid cabinet, front right
CS1	Switch, SPDT, micro sw	Detect collision	Corner of table top, upper right front
CS2	Switch, SPDT, micro sw	Detect collision	Corner of table top, upper right rear
CS3	Switch, SPDT, micro sw	Detect collision	Corner of table top, upper left rear
CS4	Switch, SPDT, micro sw	Detect collision	Corner of table top, upper left front
K7	Relay, 24 VDC, SPDT	Detect collision when table is moving down.	On power supply
VSW	Switch, DPDT, snap-in	115/230 VAC Selection	Table base, back



TT LOCKS SW2
(FOOT SWITCH)

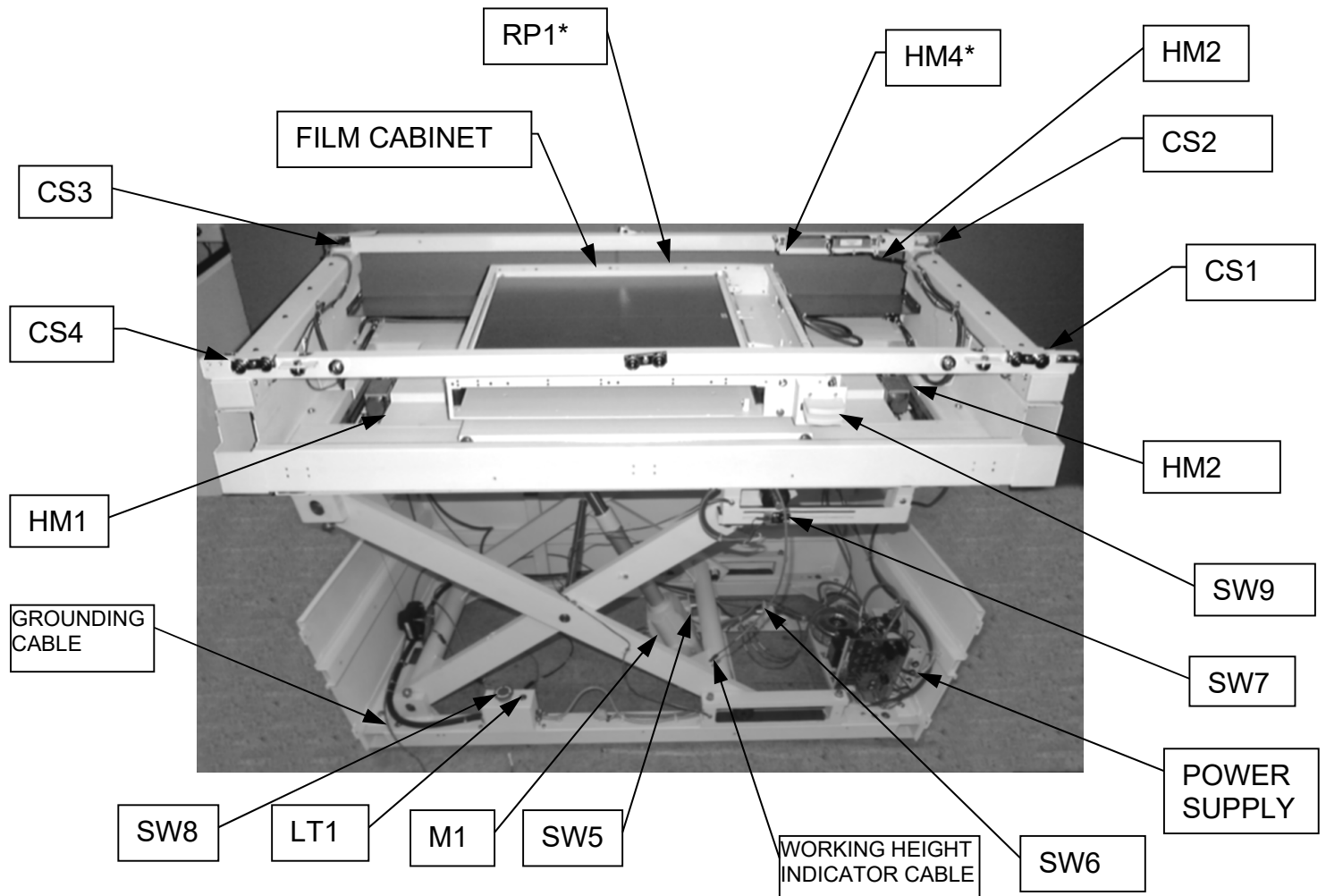
UP SW3
(FOOT SWITCH)

TT LOCKS SW4
(FOOT SWITCH)

DOWN SW1
(FOOT SWITCH)

WORKING HEIGHT
INDICATOR

See Electrical Component Legend table for description and function

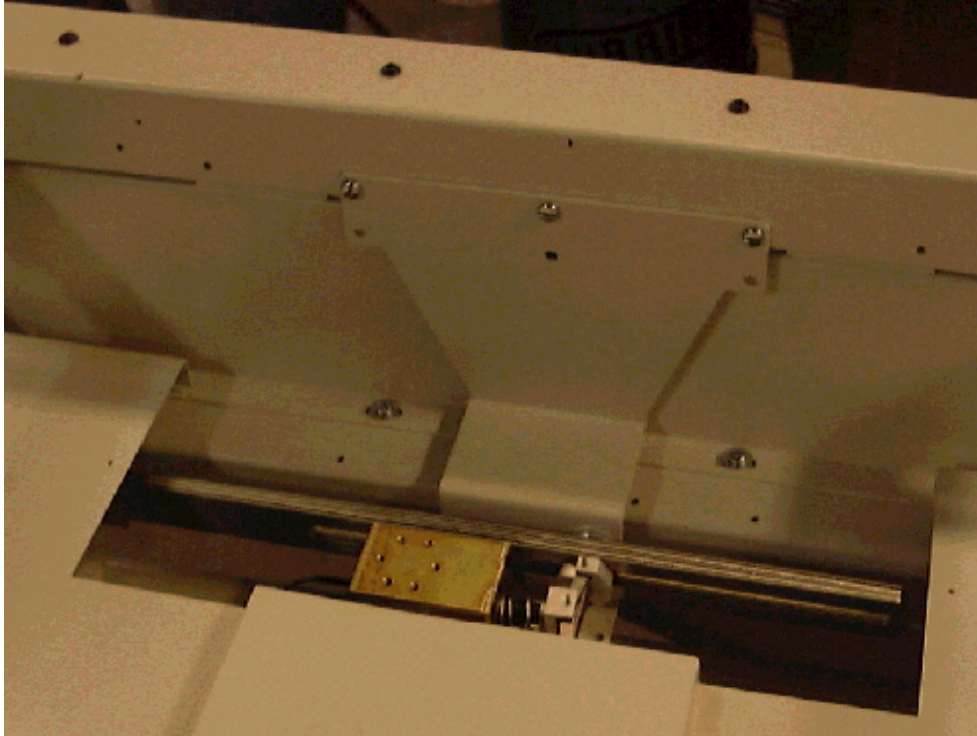


HM4 AND RP1 ARE LOCATED BEHIND THE FILM CABINET

See Electrical Component Legend table for description and function

11. Reference Photos

11.1 Transverse Lock Assembly



11.2 Collision Switch Detail (Heavy Duty Table ONLY)

