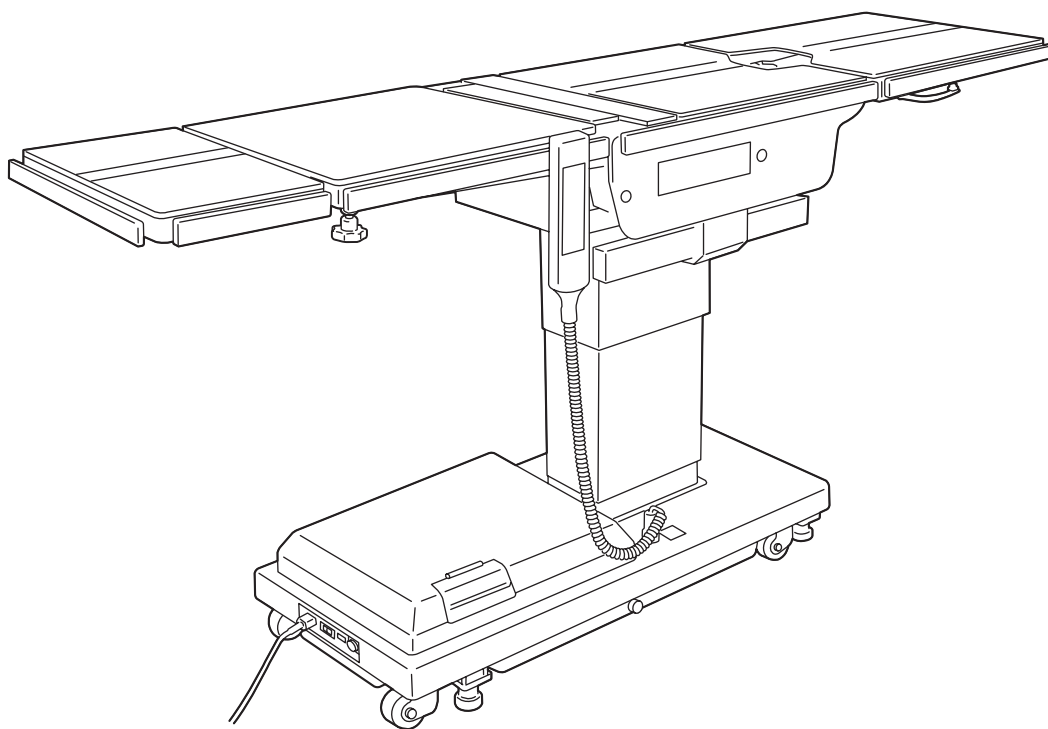




3503 *EZ Slide* SURGICAL TABLE



OWNER'S MANUAL **(Includes Operation, Maintenance and Parts)**

Read this manual before operating the table! This information is necessary for the safe and efficient operation of the equipment.

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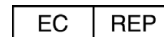
US - SKYTRON
5085 Corporate Exchange Blvd. S.E.
Grand Rapids, MI 49512 (616) 656-2900
www.SKYTRON.us

SKYTRON EUROPE BV
Floresstraat 52
8022 AD Zwolle
THE NETHERLANDS

Manufactured by:



Mizuho Corporation
3-30-13 Hongo, Bunkyo-ku
Tokyo 113-0033
JAPAN



Emergo Europe B.V.
Prinsessegracht 20, 2514 AP
The Hague, The Netherlands

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SECTION 1. SAFETY INFORMATION

1-1. Special User Attention

Prior to use, the facility must implement a routine instructional program to properly train all personnel that may operate this table. Personnel will need to be instructed in proper operation by a clinical in-service protocol administered by a SKYTRON representative. The 3503 EZ Slide surgical table is designed for use by trained and qualified personnel for human medical purposes only.

This equipment is intended for use by healthcare professionals only.

The maximum lifting capacity of the 3503 table is 700 pounds [315 kg] and the maximum articulation weight capacity is 600 pounds [270 kg].

When lifting or articulating large patients, pay close attention to the patient position as well as the positioning guidelines and limitations listed in the operation instructions.

This equipment may cause radio interference or may disrupt the operation of nearby equipment. It may be necessary to take mitigation measures, such as reorienting or relocating the table or shielding the location. If other devices are in close proximity to the table, ensure that these devices comply with electromagnetic compatibility medical standards.

Be aware of injury hazards. The extreme positioning capabilities of the 3503 table requires special attention for possible interference points when using multiple function positioning. As with the operation of any surgical table, a certain amount of care should be exercised to position the patient safely. Although the thick pads and sheets substantially protect the patient, pinch points, located at the joints of the top section, should always be considered. **BE SURE THAT THE ARMS, HANDS, AND FINGERS OF THE PATIENT AND THOSE OF THE OPERATING ROOM PERSONNEL ARE CLEAR OF ALL MOVING PARTS BEFORE MOVING THE TABLE.**

Refer to Figure 1 for a Pinch/Crush Point Diagram. Proper restraints should always be used for patient safety.

1-2. Transportation

Adhere to the following transportation instructions before moving the 3503 table:

1. Remove the power cord.
2. Place the main power switch (POWER SWITCH) to the OFF position.
3. Tighten all handles and knobs.

1-3. Packaging Guidelines for Shipment

Adhere to the following packaging guidelines when shipping the 3503 table:

- The 3503 table must be shipped in a suitable container and sealed from the outside atmosphere.
- The shipping container must employ appropriate reinforcement to prevent table vibration or movement during shipment.
- The table brakes must be locked during shipment.

1-4. Battery

Table must always be equipped and operated with two 12 volt, sealed, lead acid batteries available only through SKYTRON.

1-5. Accessory Advisory

Certain accessories, such as the Uro-Drain Tray, Armboards, and X-Ray top, can be damaged when changing the position of the table top sections. Always look first to see if a desired movement is going to interfere with any accessories in use.

1-6. Operator Responsibility

The operator has the ultimate responsibility to prevent damage to the table, damage to surrounding equipment, or possible injury to the patient or staff.

The operator must ensure proper positioning is maintained to prevent compromising respiration, nerve pathways, or circulation.

In general, use common sense to dictate when there is a potential hazard.

1-7. Pinch Points



Figure 1. Pinch/Crush Point Diagram Safety Precautions



WARNING

To avoid injury keep hands away from the frame gap during table operation.



CAUTION

Remove possible obstacles before lowering or tilting the operating table.

DO NOT place objects on the base of the table, risk of injury and damage exists during positioning.

1-8. Safety Precautions

This manual contains information for safely and effectively using this product. Before operating this product, read this manual thoroughly to understand how to operate, inspect, adjust and maintain the product.

Failure to follow these instructions could lead to serious injury.

The following is a summary of WARNINGS and CAUTIONS denoted in this manual. These precautions are found throughout the manual where they are applicable. Carefully read the manual before operating or servicing the equipment.



WARNING

Indicates a hazardous situation that, if not avoided, could result in serious injury.

To avoid injury keep hands away from the frame gap during table operation.

DO NOT attempt to disassemble or modify the table. It may cause a malfunction.

DO NOT attempt to disassemble or modify the table. It may cause a malfunction.

Contact a local distributor or manufacturer for maintenance or repair. The operating table should only be serviced or maintained by authorized personnel or SKYTRON.

Do not disassemble the table. Unauthorized disassembling may cause a fire, electric shock, or malfunction.

Before using the table together with other equipment, ensure the equipment is not affected by electro-magnetic interference. Electro-magnetic interference from other medical electrical equipment may cause malfunction.

Before using the table with other equipment refer to the other equipment's operator's manual when using high frequency surgical equipment and cardiac defibrillator. Wrong use may burn the operator or the patient, or may cause the equipment to malfunction.

When an antistatic pathway is required, the table has to be used on an antistatic floor.

DO NOT place heavy objects on the power cord.

DO NOT roll over the power cord.

DO NOT pull the power cord forcefully.

DO NOT place any obstacles that would obstruct access to the power cord's connection to an outlet.

DO NOT pull the control unit cord forcefully.

DO NOT impinge or damage the control unit cord. It may cause damage to the operating table.

Prior to operating the table, observe all table precaution labels and review the SPECIAL USER ATTENTION section in the front of this manual.

Possible explosion hazard exists if table is used in the presence of FLAMMABLE ANESTHETICS.

The operator should remain positioned as shown in Figure 5 for proper patient observation and access to the emergency stop switch.

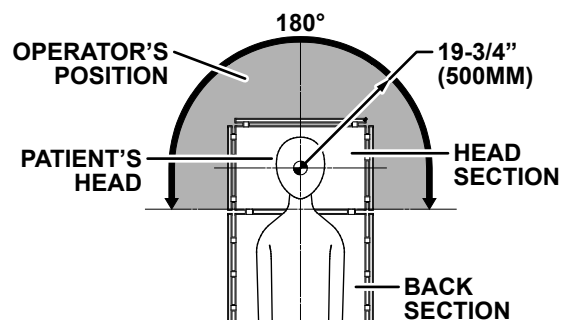


Figure 2. Operator's Position

Use caution when using high frequency surgical equipment and cardiac defibrillator. Improper use can cause burns to the operator or the patient, or can result in table malfunction.

The surgical table must be positioned in such a way that the operator can disconnect the power cord at the table or the electrical outlet.

Ensure brakes are properly set prior to patient transfer.

DO NOT unlock brakes when a patient is on the table. An uneven patient weight load may cause instability.

If circumstances demand table brakes to be unlocked:

Patient must be centered and evenly distributed on the table top (i.e., supine or prone position) with the table lowered to its lowest height position.

Maximum patient weight should not exceed 500 pounds [227 kg].

Table top slide must be centered (indicated by a red LED light on the pendant control) prior to unlocking brakes.

Patient's head must be on the head section. Head section must be attached in its normal orientation to the table's back section.

Prior to unlocking brakes, check for obstructions on the floor that might prevent the table from moving smoothly to a new location. Re-lock the brakes immediately once the final position is reached and before commencing surgery. To move the table safely, one staff member should be positioned at the head end and one at the foot end. If the patient weight exceeds 250 pounds [114 kg], four (4) staff members are required to move the table and ensure patient safety. If patient weight exceeds 500 pounds [227 kg], the brakes should remain locked at all times.

DO NOT use the table to transport a patient. There is a risk of injury to the patient and staff if the patient should fall during transport.

DO NOT use the table to transport heavy objects. There is a risk of injury to staff if the object should fall during transport.

To maximize patient safety, utilize proper restraint methods during extreme Trendelenburg positioning.

To maximize patient safety, utilize proper restraint methods during extreme lateral tilt positioning.

When actuating the tabletop or using accessories to secure a patient's body position, make sure to keep an eye on the condition of the patient. Long time improper body position may cause a patient to be paralyzed.

DO NOT exceed the maximum permissible load. The table may become inoperable and may malfunction.

Position a patient's body at least 1 cm away from the side rails.

Make sure the patient is secured on the table when tilting the table. Otherwise the patient may fall off the table.

DO NOT sit on the head plate or the leg plates(s). Otherwise it may cause a person to tumble off or to get injured.

DO NOT put the head and leg plates in the opposite direction. It may cause the leg plate to be damaged

The leg plate weighs 24.25 lbs [11 kg]. Pay special attention when handling it. It may drop and cause damage or injury.

Make sure to securely attach the pads. Improper attachment may cause patient injury.

The table pad set must be in place and the patient must be positioned to avoid touching any of the metal sections of the table to protect against any possible electrical shock injury.

Consult with the manufacturer's instructions when using high frequency surgical equipment, cardiac defibrillator, and cardiac defibrillator monitors. Improper operation procedures may cause a shock hazard or cause an equipment malfunction.

When an antistatic pathway is required, the table has to be used on an antistatic floor.

The antistatic properties of the table are dependent on the use of the original pad set which was furnished with the table or an alternate approved replacement.

Personal injury to patient or staff may result from a lack of proper maintenance of this equipment.

In order to prevent infection, be sure to clean and disinfect the operating table.

Always follow OSHA/EASHW blood-borne pathogens standards for protective clothing, including gloves, masks, and eye protection when cleaning the surgical table.

Make sure to perform inspection before and after use, and appropriate preventive maintenance inspection. The table may not survive its useful life depends on number of years and frequency of use.

Table instability will occur on a table with mixed table brakes and seats.

For preventive maintenance inspection, please contact your distributor or SKYTRON directly.

Check the inspection items before and after using the operating table. If there is any problem, contact the distributor or SKYTRON for repair. Failure to do so may cause trouble during surgery.

DO NOT disassemble or modify the table. Unauthorized disassembly may cause electric shock or malfunction.

Consult with SKYTRON before reversing a patient on the table.



CAUTION

Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

The head plate weighs 15.5 lbs [7 kg], pay special attention when removing the head section so it does not fall and cause damage or injury.

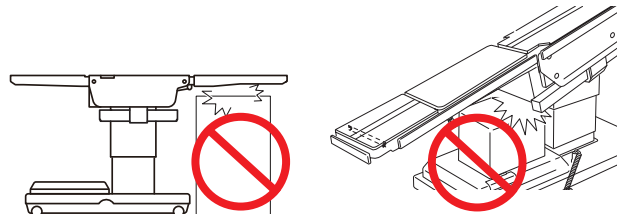
Tighten the head plate fixing handles securely, patient injury may occur if the head plate is not secured.

Do not install the operating table on an uneven floor.

Do not use shims to raise any part of the table.

Remove possible obstacles before lowering or tilting the operating table.

DO NOT place objects on the base of the table, risk of injury and damage exists during positioning.



Use the emergency stop switch for emergency situations only! Pressing the emergency stop switch will

remove power from the hydraulic system to stop all motion.

The safety interlock system is not operational when the emergency back-up control switches are used.

The **EMERGENCY BRAKE LOCK** switch does not activate the brake system timer. The switch must be held until the brakes are completely locked (approximately seven seconds).

DO NOT unlock brakes when a patient is on the table. An uneven patient weight load may cause instability.

If circumstances demand table brakes be unlocked:

- Patient must be centered and evenly distributed on the table top (i.e. supine or prone position) with the table lowered to its lowest height position.
- Maximum patient weight should not exceed 500 pounds [227 kg].
- Table top slide must be centered (indicated by a red LED on the pendant control) prior to unlocking brakes.
- Patient's head must be on the head section. Head section must be attached in its normal orientation to the table's back section.

Prior to unlocking brakes, check for obstructions on the floor that might prevent the table from moving smoothly to a new location. Re-lock the brakes immediately once the final position is reached and before commencing surgery.

To move the table safely, one staff member should be positioned at

the head end and one at the foot end. If the patient weight exceeds 250 pounds [114 kg], four staff members are required to move the table and ensure patient safety. If patient weight exceeds 500 pounds [227 kg], the brakes should remain locked at all times.

When transferring a patient from the bed or changing a patient's body position, do not apply excessive force on the head plate or leg plate. The operating table may get damaged or deformed.

DO NOT reverse the patient on the table without first consulting with SKYTRON product management.

The head plate weighs 15.5 lbs [7 kg], pay special attention when removing the head section so it does not fall and cause damage or injury.

Tighten the head plate fixing handles securely, patient injury may occur if the head plate is not secured.

Ensure that the leg section is properly engaged and secured to pins before use to prevent injury.

Compliance with IEC60601-1 edition 3 has been confirmed without the pad set.

Certain accessories may limit weight capacities. Check with your SKYTRON representative.

SKYTRON products are guaranteed for proper performance with the use of genuine SKYTRON accessories.

Accessories and products not furnished by SKYTRON have not been tested for proper performance and safety. Such applications or use are at the discretion of the user to ensure patient and staff safety.

DO NOT use worn or damaged accessories; they represent an injury

hazard.

DO NOT use the table if any of the inspection points fail.

Always inspect product prior to use to ensure safe and correct operation. Any product deemed to be malfunctioning should be removed from service immediately and labeled inoperable.

Refer all service to a SKYTRON authorized service representative.

CAUTION

CAUTION without the safety alert symbol, is used to address practices not related to personal injury but with a possibility of damage to equipment.

The combination of minimum elevation (all the way down), extreme Trendelenburg positioning, and top slide function may allow the back section to collide with the base or floor.

A combination of minimum elevation (all the way down), extreme Trendelenburg positioning, and top slide function may allow the back section to collide with the base or floor.

A combination of minimum elevation (all the way down), extreme Trendelenburg positioning, and top slide function may allow the back section to collide with the base or floor.

The leg section may hit the table base or the floor if both the leg and elevation systems are placed in their full down position.

After attaching the leg plate, swing the leg plate back and forth, making sure the leg plate is completely inserted into the table.

Caution should be taken when cleaning the table to prevent excessive fluid entry into electrical connectors.

Thoroughly read and follow the manufacturer's directions for all cleaning fluids. **DO NOT** use cleaners containing phenolics.

When using spray cleaners, **DO NOT** spray fluids directly into electrical receptacles or components.

Before replacing pads on the table, make sure the pads and all adjoining surfaces are completely dry. Moisture trapped between the pads and adjoining surfaces may cause distortion of table tops.

Avoid immersing the pendant control assembly in liquids.

If the table is stored for a period greater than 6 months, the batteries should be removed and stored in a dry, clean condition at a storage temperature of 68°F [20°C]. Batteries should be re-charged every 6 months of product storage.

Any parts or assemblies not listed in this section must be serviced or replaced by SKYTRON authorized service personnel only. This is necessary to avoid the possibility of damage to the equipment.

NOTICE

Indicates important information not related to personal injury.

SECTION 2. EQUIPMENT SPECIFICATIONS

**WARNING**

DO NOT attempt to disassemble or modify the table. It may cause a malfunction.

Contact a local distributor or manufacturer for maintenance or repair. The operating table should only be serviced or maintained by authorized personnel or SKYTRON.

Do not dissemble the table. Unauthorized disassembling may cause a fire, electric shock, or malfunction.

Before using the table together with other equipment, ensure the equipment is not affected by electro-magnetic interference. Electro-magnetic interference from other medical electrical equipment may cause malfunction.

Before using the table with other equipment refer to the other equipment's operator's manual when using high frequency surgical equipment and cardiac defibrillator. Wrong use may burn the operator or the patient, or may cause the equipment to malfunction

**CAUTION**

Do not install the operating table on an uneven floor.

Do not use shims to raise any part of the table.

2-1. Intended Use

This surgical table is intended for use by healthcare professionals for human medical purposes only. It is intended to support a patient during surgical operations.

The surgical table IS NOT intended to be used for patient transport.

This product is an operating table on which a patient is placed for surgical operations. In conforming with the objectives of surgery, it is equipped with features for adjusting its height, and for freely changing and setting the patient's body position.

The product uses both medical grade outlets and batteries as power sources. While in the operating room only physicians, nurses, and medical device technicians trained in the use of this table may operate this table.

2-2. Installation

Prior to placing the table into use, the following items must be inspected, verified, and calibrated by an authorized SKYTRON representative:

- Final initialization and completion of the installation report is required for warranty validation.
- Functional testing and cycling.
- Electrical safety testing to include verification by hospital personnel.
- Digital calibration of the hydraulic system's pressure relief valve (PRV).
- Inspection of the hydraulic system.
- Table must be allowed to acclimate to usage climate requirements.
- Verification of hydraulic fluid level
- Table has been wiped down to remove rust inhibitors.

Items found to be non-conforming must be addressed prior to placing the table into service.

2-3. Certification

Certified by ETL to these standards:

Medical electrical equipment, Part 1: General requirements for basic safety and essential performance ANSI/AAMI ES60601-1:2005 + C1:2009 + A2:2010 /(R)2012

Medical electrical equipment—Part 1: General requirements for basic safety and essential performance CAN/CSA-C22.2 No. 60601-1:08 + COR 2: 2011/06/01

Medical electrical equipment Part 2-46: Particular requirements for the basic safety and essential performance of operating tables IEC 60601-2-46: 2010

2-4. Dimensions

Refer to the figure below for an illustration of the 3503 table and its key dimensions.

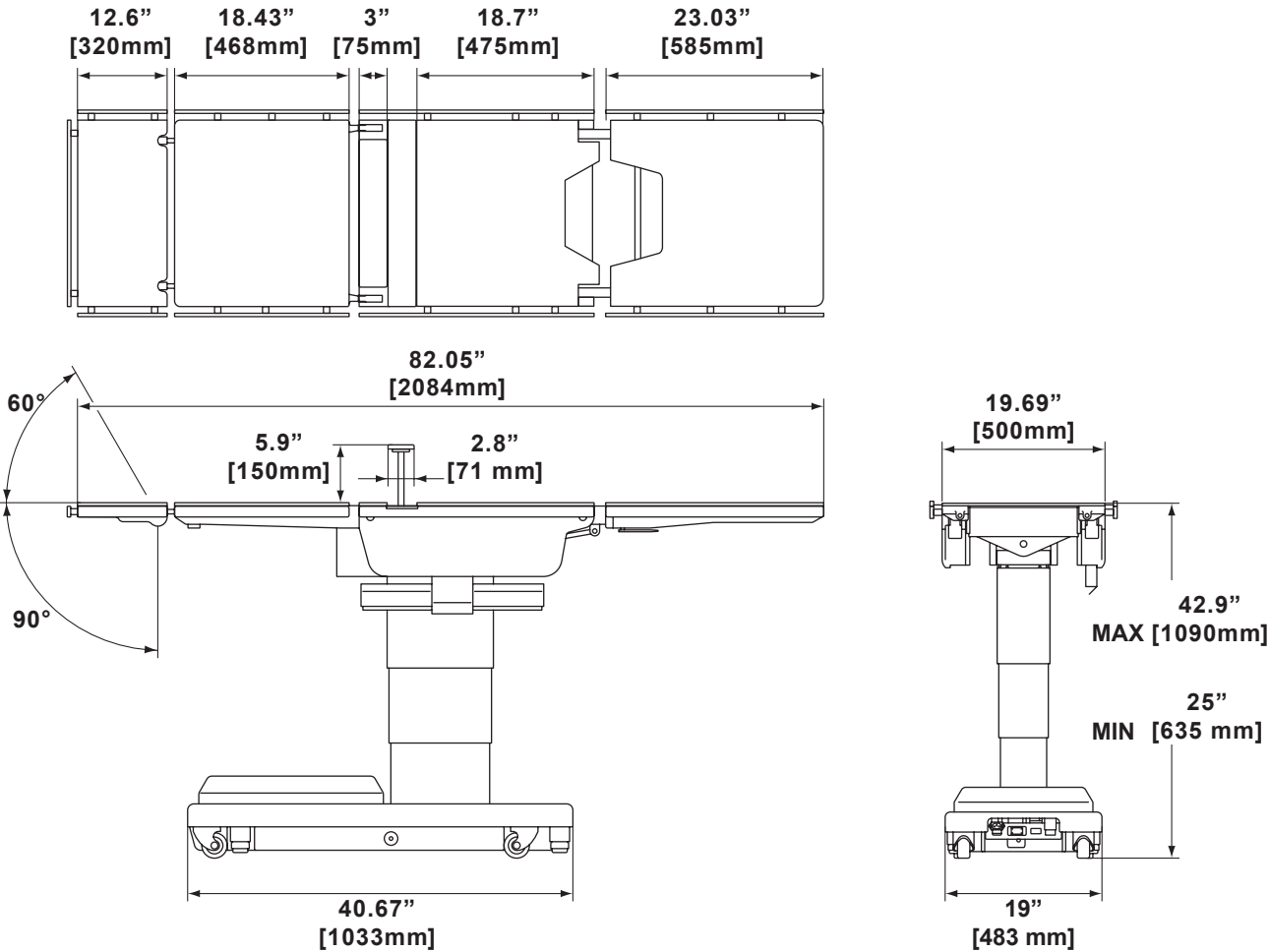


Figure 3. Table Dimensions


















2-5. Specifications

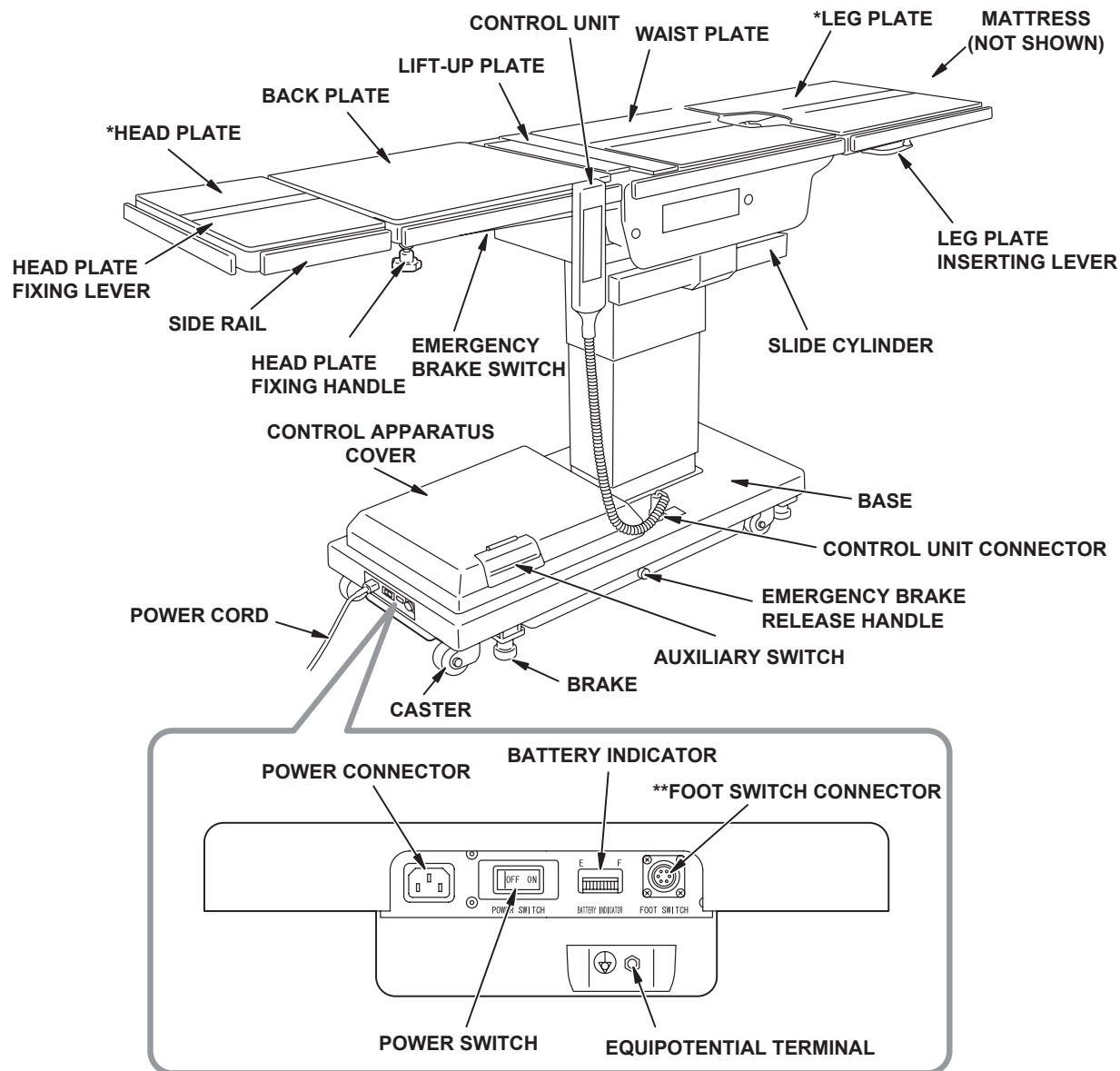
Description		3503 EZ Slide Surgical Table	
Electrical	Elevation Range	Highest	42.91" [1090 mm]
		Lowest	25" [635 mm]
	Trendelenburg Angle	Head Down	30°
		Head Up	30°
	Lateral Tilt Angle	Right Down	20°
		Left Down	20°
	Back Plate Flexing Angle	Up	90°
		Down	40°
	Sliding Volume: See Note 1	Head Direction	7.68" [195 mm]
		Foot Direction	13.19" [335 mm]
	Leg Plate Turning Angle	Down	100°
	Flexing	Flexing Center Up/Center Down	
	Lift-Up Unit	Highest	5.91" [150 mm]
	Return to Level	Trendelenburg / Lateral Lift/ Back Plate Flexing / Leg Plate Flexing / Lift-Up Unit	
Manual	Others	Fix operating table / Release	
	Control Devices	Control Unit	Elevation / Trendelenburg / Lateral tilt / Back plate flexing / Leg plate flexing / Sliding / Flexing / Lift-up unit / Return to level / Brake / Power ON/OFF
		Auxiliary Switch	Elevation / Trendelenburg / Lateral tilt / Back plate flexing / Leg plate flexing / Brake / Kidney down
		Emergency Stop	Stop
Manual	Head Plate Turning Angle	Up	60°
		Down	90°
	Detachment	Heat plate / Leg plate	
Electrical Rating	Others	Emergency break release handle	
	Classifications	Class 1 device / B type applied part / IPX4 (internal power source device: See Note 2) - Equipment not suitable for use in the presence of flammable anesthetic mixture with AIR, OXYGEN, or NITROUS OXIDE. - This product is not intended for sterilization.	
	Rated Voltage	AC100-240V	
	Frequency	50-60Hz	
	Battery Power	DC24V	
	Power Input	400VA	
	Duty Cycle	3 min. ON / 7 min. OFF (See Note 3)	
Dimensions	Others	The device conforms to EMC standard JIS	
	Tabletop Dimensions	82.05" (L) x 19.67" (W) [2084 mm (L) x 500 mm (W)] : See Note 4	
Unit Weight	Base Dimensions	40.67" (L) x 19.02" (W) [1033 mm (L) x 483 mm (W)] : See Note 5	
		829lbs [376 Kg]	
Maximum Permissible Load		Lifting Capacity: 700lbs [315 Kg] Articulating Capacity: 600lbs [270 Kg]	
Installation Environment	Ambient Temperature	50°F to 104°F [10°C to 40°C] : See Note 6	
	Relative Humidity	30% to 75% : See Note 6	
	Atmospheric Pressure	21 in-Hg to 31 in-Hg [700hPa to 1060hPa] : See Note 6	
Transporting and Storing Conditions	Ambient Temperature	14°F to 122°F [-10°C to 50°C] : See Note 7	
	Relative Humidity	10% to 85% (No condensation) : See Note 7	
	Atmospheric Pressure	21 in-Hg to 31 in-Hg [700hPa to 1060hPa] : See Note 7	
Useful Life		10 years after delivery, assuming recommended maintenance and storage practices are performed: See Note 8	

- Note 1: From the center position (at the alignment of the side frame and slide cover lines)
- Note 2: When the battery power is used.
- Note 3: Consecutive pressing the switch of the control unit.
- Note 4: Excluding the side rail.
- Note 5: Rough dimension.

- Note 6: JIS T0601-1 Medical electrical equipment - General requirements for basic safety and essential performance (environmental conditions) :2012.
- Note 7: Company standard.
- Note 8: Based on the self-certification (company data).

2-7. Symbols

Symbol	Description	Used On Product	Used In Manual
	With the word WARNING, indicates a hazardous situation that, if not avoided, could result in death or serious injury	•	•
	With the word CAUTION, indicates a hazardous situation that, if not avoided, could result in minor or moderate injury	•	•
	Type B applied part	•	
IPX4	Enclosure class (splash-proof)	•	
	Indicates waste disposal information	•	
	Refer to instruction manual	•	
	Alternating current	•	
	Indicates a DC Power supply	•	
	Catalogue number	•	
	Serial number	•	
	AUTHORIZED REPRESENTATIVE IN THE EUROPEAN COMMUNITY	•	•
	Manufacturer	•	•
	Equipotentiality	•	
	General prohibition sign	•	
	General mandatory action sign	•	
	Emergency stop	•	
	Protective earth (ground)	•	
	Functional earth (ground)	•	



* Head plate and leg plate are detachable

** Foot switch is optional

Figure 5. Table Components

SECTION 3. BATTERY CARE AND CHARGING

3-1. Power Details



WARNING

When an antistatic pathway is required, the table has to be used on an antistatic floor.

- The main power On/Off switch (Main Power Switch) is located on the panel at the front of the table base (Figure 6).
- The 3503 table requires a 100-240VAC, 50/60Hz electrical power supply.
- The table is equipped with a removable 15 foot (4.5 m) long power cord with an approved hospital grade plug.
- The 3503 table will operate on either AC or battery power.

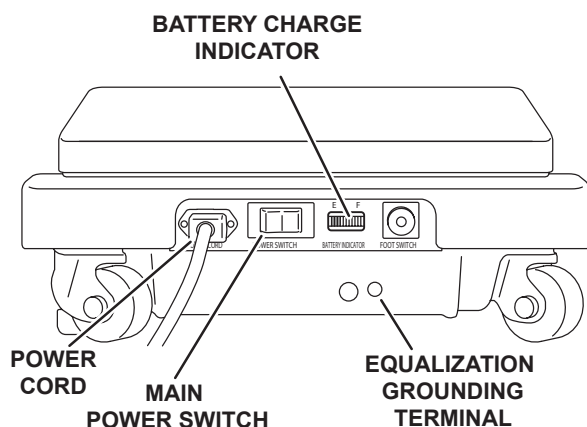


Figure 6. Electrical Panel

NOTICE

The battery charging indicator (Battery Indicator) and an area for an optional foot control connector are also located on the electrical panel.



WARNING

DO NOT place heavy objects on the power cord.

DO NOT roll over the power cord.

DONOT pull the power cord forcefully.

DO NOT place any obstacles that would obstruct access to the power cord's connection to an outlet.

DO NOT pull the control unit cord forcefully.

DO NOT impinge or damage the control unit cord. It may cause damage to the operating table.

Prior to operating the table, observe all table precaution labels and review the **SPECIAL USER ATTENTION** section in the front of this manual.

Possible explosion hazard exists if table is used in the presence of FLAMMABLE ANESTHETICS.

NOTICE

An equalization terminal is located under the main power panel. This is provided as an alternate pathway to reduce the risk of static shock hazards. Always follow recommended grounding procedures

3-2. When to Charge the Battery

- Every week under normal service conditions.
- When the battery charge indicator on the base shows a low charge (only red LEDs).
- When the red Power Indicator on the pendant control is flashing.
- When the table is placed into initial service.
- If the table has been unused for a long time.

Charge the battery immediately if the table indicates a low battery while the table is in use.

A drained battery takes about 10 hours to fully charge.

3-3. Charge the Battery

1. Insert one end of the power cord into the power connector on the base.
2. Plug the other end of the power cord in to a grounded, medical grade wall outlet.
3. Flip the POWER SWITCH to the ON position.

LEDs on the charge indicator will cycle through sequentially lighting up to indicate that the battery is charging. When all LEDs are lit, the battery has a full charge.

3-4. When to Replace the Battery

The table has two 12 volt, sealed, lead acid batteries which require no manual maintenance. Useful life for each battery is about two years. Once a battery reaches its useful life, contact SKYTRON for a replacement.

Battery life will vary greatly depending on the operating conditions. The battery may deteriorate quicker if the battery is frequently charged and discharged after using the operating table for a short time.

If the battery indicator will no longer show a full charge even if the battery has a full charge, or if the battery gets discharged quickly, it may need to be replaced.

A full battery charge will last approximately two weeks under normal operating conditions. However, it is recommended to charge the batteries at the end of each week to establish a normal routine protocol. Lead acid batteries last longer if they are not permitted to fully discharge.

3-5. Charge Indicators

Battery Mode

Indicator Status Lights	Percent Charge
4 Yellow - 3 Green	100% (Fully charged)
4 Yellow - 2 Green	89% (Charged)
4 Yellow - 1 Green	78% (Charged)
4 Yellow	67% (Charged)
3 Yellow	56% (Charged)
2 Yellow	45% (Needs-Charging: BATT indicator on pendant will flash)
1 Yellow	34% (Needs-Charging: BATT indicator on pendant will flash)
3 Red	23% (Needs-Charging: BATT indicator on pendant will flash)
2 Red	12% (Needs-Charging: BATT indicator on pendant will flash)
1 Red	1% (Needs-Charging: inoperable)

Charging Mode

Indicator Status Lights	Percent Charge
1 Yellow	34% (Charging)
2 Yellow	45% (Charging)
3 Yellow	56% (Charging)
4 Yellow	67% (Charging)
4 Yellow - 1 Green	78% (Charging)
4 Yellow - 2 Green	89% (Charging)
4 Yellow - 3 Green	100% (Fully charged)
1 Red	Fuse requires replacement (contact SKYTRON service)

Error Mode

Indicator Status Lights	Error
2 Red	Fuse requires replacement (contact SKYTRON service)

NOTICE

The red BATT Indicator light starts to blink to indicate low battery power, the table will operate for about five continuous minutes, typically long enough to use the table for the rest of the day.

The charging system operates ONLY when the table is in AC operation mode. The table can be operated on AC power while the batteries are being charged.

SECTION 4. PENDANT BASICS

4-1. Positioning Functions

The handheld pendant control has a non-slip rubber cover for a solid grip during use. A spring clip hanger is located on the back of the control to hang it on a side-rail when not in use.

Function buttons are identified with recognizable symbols and abbreviated descriptions for all functions. When illuminated, the Trendelenburg (TREND) and TABLE UP buttons are red. Remaining buttons are all green.

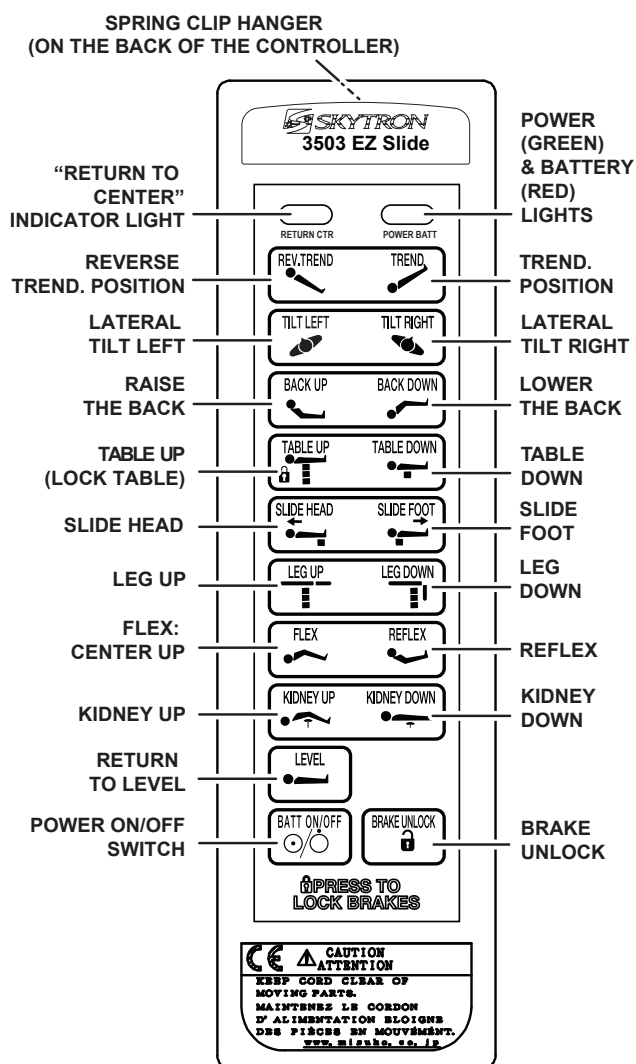


Figure 7. Function Buttons

NOTICE

If any buttons on the pendant control are pressed continuously for longer than four minutes, the solenoid valve thermal protector will actuate and the operation will be stopped. The thermal protector resets in approximately 30 minutes.

! WARNING

The operator should remain positioned as shown in Figure 8 for proper patient observation and access to the emergency stop switch.

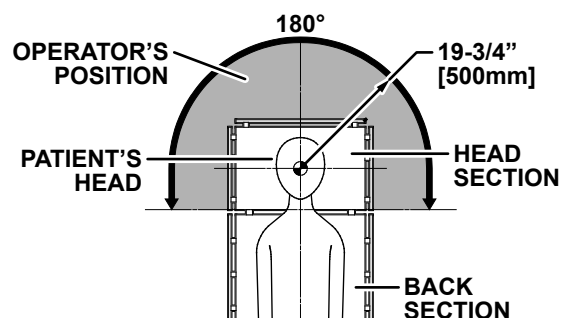


Figure 8. Operator's Position

NOTICE

With an evenly distributed patient weight load up to 600 lbs [270 kg], all table functions will operate smoothly and quietly.

4-2. Attach / Detach the Pendant Controller

4-2-1. Attach the Pendant

Insert the pendant connector into the plug found on the topside of the table base.

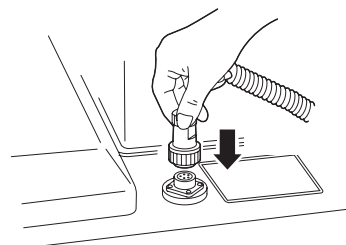


Figure 9. Pendant Attachment

4-2-2. Detach the Control Unit

1. Turn the pendant connector counter-clockwise until it stops.
2. Pull the connector out of the plug.

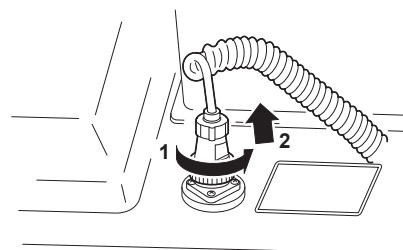


Figure 10. Pendant Detachment

SECTION 5. OPERATION

**WARNING**

Use caution when using high frequency surgical equipment and cardiac defibrillator. Improper use can cause burns to the operator or the patient, or can result in table malfunction.

CAUTION

The combination of minimum elevation (all the way down), extreme Trendelenburg positioning, and top slide function may allow the back section to collide with the base or floor.

5-1. General

SKYTRON's 3503 EZ Slide Surgical Table is an electrohydraulically operated, general purpose surgical table.

Electrohydraulic positioning functions are operated by the hand-held, push button pendant control. They are:

- | | |
|-----------------|--------------------|
| • Trendelenburg | • Top Slide |
| • Lateral Tilt | • Flex/Reflex |
| • Back Section | • Kidney Lift |
| • Elevation | • Return-to-Level |
| • Leg Section | • Floor Lock/Brake |

Manual controls are provided for head section positioning, emergency brake release, and leg section removal.

5-2. Turn the Table On or Off**5-2-1. Operate on AC Power (Plugged In)**

To operate the table on AC power (plugged in vs running off the battery):

1. Make sure the pendant control is attached.
2. Make sure the table is locked prior to positioning and using the table.
3. Attach the power cord to the table base connection point (Figure 6).
4. Plug the cord into a properly grounded, hospital grade, AC outlet. Make sure the power cord is routed to the outlet to prevent it from being in the way of operating personnel.

NOTICE

Grounding reliability can only be achieved when the equipment is connected to a properly grounded receptacle. Where integrity of the external ground is compromised, equipment must be operated in battery mode.

Use only SKYTRON replacement parts for the power cord and pendant control. Refer to Replacement Parts.

**WARNING**

The surgical table must be positioned in such a way that the operator can disconnect the power cord at the table or the electrical outlet.

5. Switch the Main Power Switch on the base to the ON position. The switch will illuminate. Lights will illuminate on the pendant control buttons and the Battery Indicator on the base. The power light on the pendant will also illuminate. The table is now ready for AC operation.

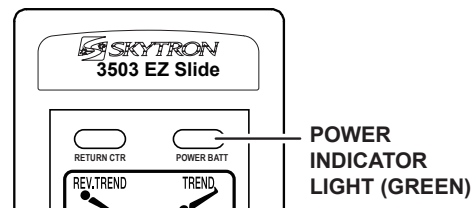


Figure 11. Pendant Control (AC Power)

5-2-2. Operate on Battery Power

1. Make sure the pendant control is attached and the battery is charged.
2. Make sure the table is locked prior to positioning and using the table.
3. Switch the Main Power Switch on the base to the Off position (Figure 6).

NOTICE

Prior to all surgical procedures, make sure the battery charge is sufficient for anticipated duration and use. The table will operate correctly on battery power with the power cord connected to, or disconnected from, an outlet.

4. Press the BATT ON/OFF button on the pendant control. Lights will illuminate on the Pendant control buttons and the Battery Indicator on the base. The power and battery lights on the pendant will also illuminate. The table is ready for battery operation

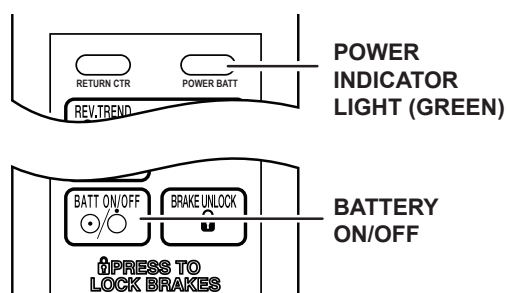


Figure 12. Pendant Control (Battery Power)

NOTICE

Battery operation must be turned OFF at the pendant control. It cannot be turned OFF using the main POWER SWITCH on the electrical panel.

To extend the battery charge life when the table is not in use: press the BATT ON/OFF button on the pendant control to turn the battery power OFF.

5-2-3. Shut the Table Off

In Battery Mode:

Push the pendant control BATT ON/OFF button.

In AC Mode:

1. Unplug the power cord from AC outlet, or switch the MAIN POWER SWITCH to the OFF position.
2. Check to make sure the pendant is off. If it is on, push the pendant control BATT ON/OFF button to turn it off.

If the table was in Battery Power mode before it was changed to AC mode, it will switch to battery mode when AC power is removed. AC mode shutoff is complete.

In Emergency Situation:

Push the emergency stop switch (Figure 23). An audible alarm will sound.

5-2-4. Disengage Emergency Stop

Pull the emergency stop button out (Figure 23).

5-2-5. Automatic Shut-Off

To prevent unnecessary discharge of the battery, a timer is built into the battery circuit. This timer will automatically shut the battery power OFF after two hours of table inactivity.

5-2-6. Turn the Table on After Auto Shut-Off

Press the BATT ON/OFF button on the pendant control. The pendant control buttons and the green and red BATT indicator lights will illuminate.

NOTICE

Placing the main power switch (POWER SWITCH) in the ON position will change the table operation to AC power.

5-3. Lock the Table / Engage the Brakes

When the table is in the unlocked state, press the TABLE UP button to engage the brakes. It will take seven to eight seconds for the brakes to set.



WARNING

Ensure brakes are properly set prior to patient transfer.

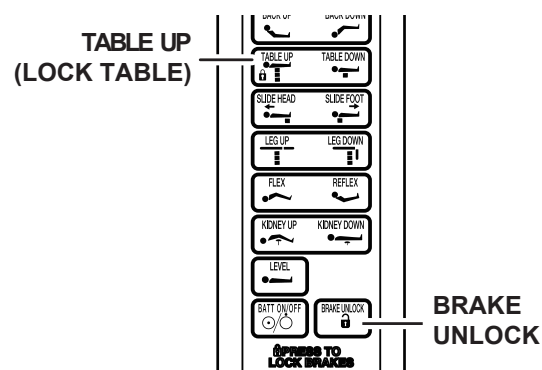


Figure 13. Brake System Activation

Press the BRAKE UNLOCK button on the pendant control to release the four self-leveling brake feet in order to move the table. The brake delay circuit automatically retracts the brake system.

NOTICE

Activating any function button will activate the brake system. Using the TABLE UP function to set the brakes provides a visual assurance that the brakes are locked without altering the table position, except when the emergency brake is released.

WARNING

DO NOT unlock brakes when a patient is on the table. An uneven patient weight load may cause instability.

If circumstances demand table brakes to be unlocked:

- Patient must be centered and evenly distributed on the table top (i.e., supine or prone position) with the table lowered to its lowest height position.
- Maximum patient weight should not exceed 500 pounds [227 kg].
- Table top slide must be centered (indicated by a red LED light on the pendant control) prior to unlocking brakes.
- Patient's head must be on the head section. Head section must be attached in its normal orientation to the table's back section.

Prior to unlocking brakes, check for obstructions on the floor that might prevent the table from moving smoothly to a new location. Re-lock the brakes immediately once the final position is reached and before commencing surgery. To move the table safely, one staff member should be positioned at the head end and one at the foot end. If the patient weight exceeds 250 pounds [114 kg], four staff members are required to move the table and ensure patient safety. If patient weight exceeds 500 pounds [227 kg] the brakes should remain locked at all times.

DO NOT use the table to transport a patient. There is a risk of injury to the patient and staff if the patient should fall during transport.

DO NOT use the table to transport heavy objects. There is a risk of injury to staff if the object should fall during transport.

5-4. Unlock the Table / Disengage the Brakes

Press the BRAKE UNLOCK button on the pendant control to retract the hydraulic brake cylinders, lowering the table base back onto the casters for mobility (Figure 13).

5-5. Trendelenburg

The table can be placed in the Trendelenburg position or the reverse Trendelenburg position up to a maximum of 30°.

Press the TREND button on the pendant (Figure 14) to place the table in the Trendelenburg position.

Press REV.TREND button on the pendant (Figure 14) to tilt it to reverse Trendelenburg.

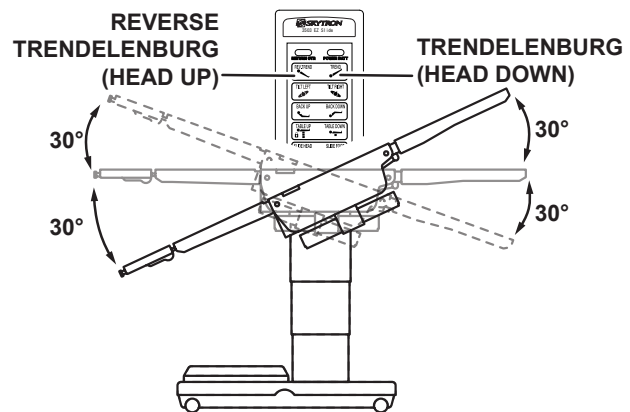


Figure 14. Trendelenburg / Reverse Trendelenburg Position

WARNING

To maximize patient safety, utilize proper restraint methods during extreme Trendelenburg positioning.

CAUTION

A combination of minimum elevation (all the way down), extreme Trendelenburg positioning, and top slide function may allow the back section to collide with the base or floor.

5-6. Lateral Tilt

The table can be placed in a lateral tilt position to the left or to the right to a maximum of 20°.

Press TILT LEFT on the pendant (Figure 15) to tilt the table to the left (from the head perspective)

Press TILT RIGHT on the pendant (Figure 15) to tilt the table to the right (when facing the head of the table).

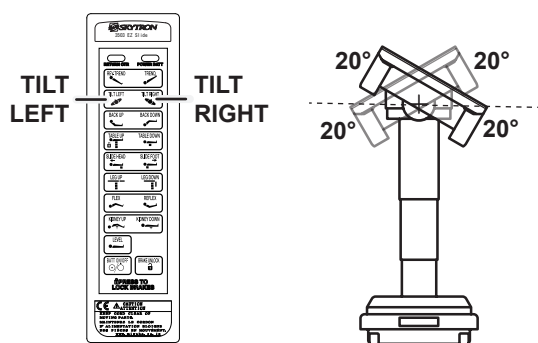


Figure 15. Tilt the Table Left or Right



WARNING
To maximize patient safety, utilize proper restraint methods during extreme lateral tilt positioning.

5-7. Back Section

To raise the back section, press the BACK UP button (Figure 16). The back section will raise up to 90° above horizontal.

To lower the back section, press the BACK DOWN button (Figure 16). The back section will go down to 40° below horizontal.

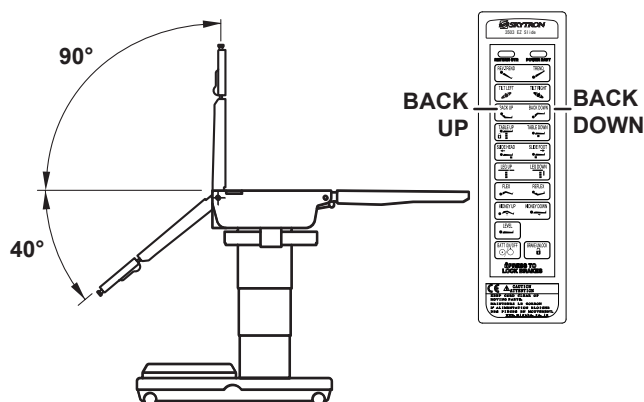


Figure 16. Back Section Positioning

NOTICE

If the table top is slid toward the foot end, the back section will not go below horizontal. An audible alarm will sound.

To prevent damage to the kidney lift, a safety interlock prevents the back section from going more than 45° above horizontal if the kidney lift is not all the way down. An audible alarm will sound.

5-8. Elevation

To raise table top, press the TABLE UP button (Figure 17). The table will lift a patient weight of 700 pounds [315 kg] up to 42.91" [1090 mm].

To lower the table top, press the TABLE DOWN button (Figure 17). The table top will go down to a minimum height of 25" [635 mm].

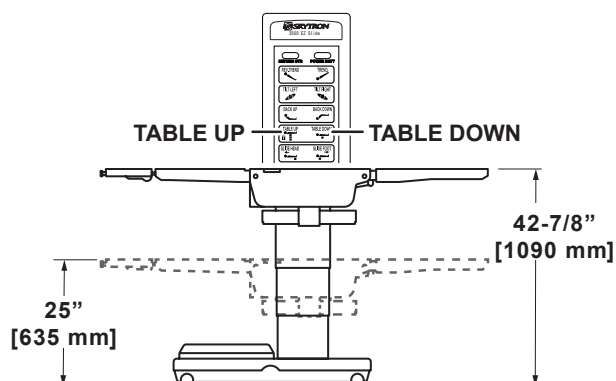


Figure 17. Elevation Function

5-9. Top Slide

To move the table top toward the head end, press the SLIDE HEAD button (Figure 18). From center position, the top will slide up to 7.68" [195mm].

To move the table top toward the foot end, press the SLIDE FOOT button (Figure 18). From center position, the top will slide up to 13.19" [335mm].

Slide function will stop and the RETURN CTR indicator will illuminate when table top is centered.

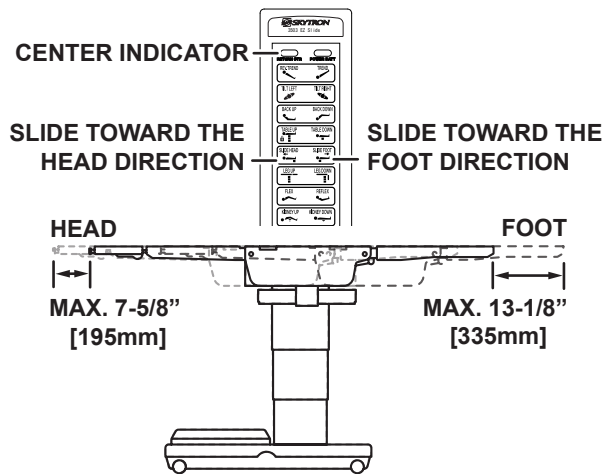


Figure 18. Top Slide

CAUTION

A combination of minimum elevation (all the way down), extreme Trendelenburg positioning, and top slide function may allow the back section to collide with the base or floor.

NOTICE

If the leg section is positioned more than 45° below horizontal, the top will not slide toward the head end. An audible alarm will sound.

If the back section is positioned below horizontal, the top will not slide toward the foot end. An audible alarm will sound.

5-10. Leg Section

To lower the leg section, press the LEG DOWN button (Figure 19). The leg section will go down to 100° below horizontal.

To raise the leg section, press the LEG UP button (Figure 19).

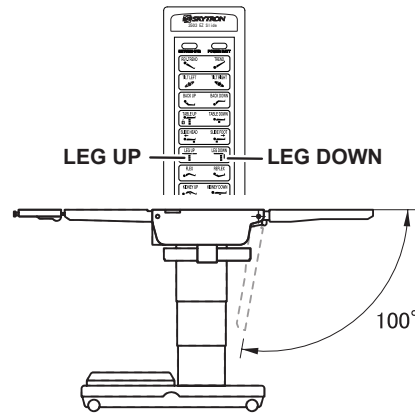


Figure 19. Leg Section Positioning

CAUTION

The leg section may hit the table base or the floor if both the leg and elevation systems are placed in their full down position.

NOTICE

If the top is slid toward the head end, the leg section will only go down 45°. An audible alarm will sound.

5-11. Flex Positioning

To place the table top in a flex position from horizontal, press the FLEX button (Figure 20).

To return the table top to a horizontal position or into a reflex position, press the REFLEX button (Figure 20).

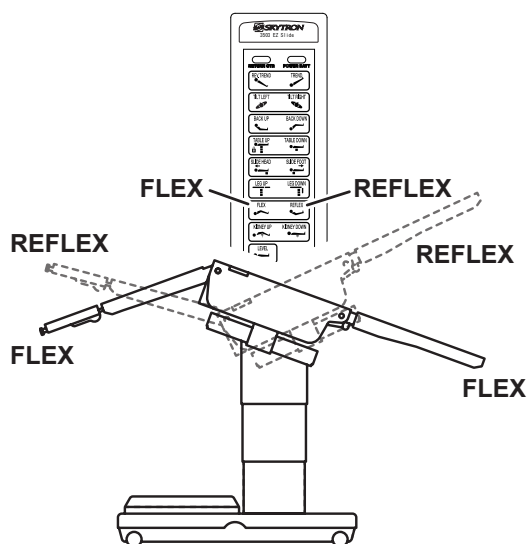


Figure 20. Flex / Reflex Positioning

NOTICE

When FLEX button is activated and if the top is slid toward the foot end, the back section will not go below horizontal. An audible alarm will sound.

5-12. Kidney Lift

To raise the built-in kidney lift up to 5.91" [150mm], press the KIDNEY UP button (Figure 21).

Press the KIDNEY DOWN button (Figure 21) to lower the kidney lift.

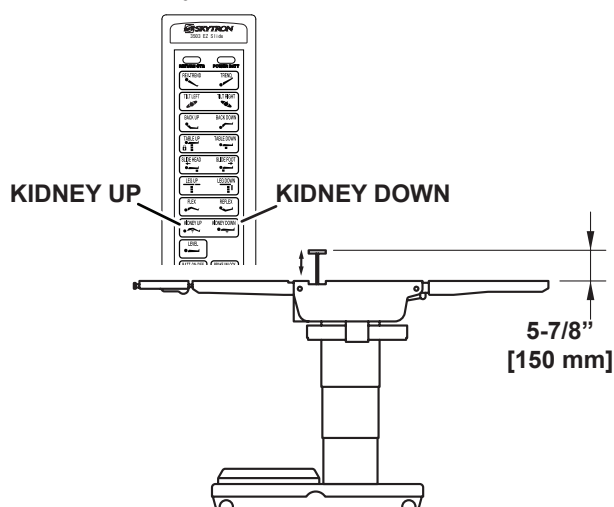


Figure 21. Kidney Lift Positioning

NOTICE

Pressing the LEVEL button (Return To Level) will also lower the kidney lift.

To prevent damage to the kidney lift, a safety interlock prevents the kidney lift from going up if the back section is 45° above horizontal. An alarm will sound.

5-13. Return to Level

To return the table top to a level position, press the LEVEL button. Elevation, slide, and brake system functions are not affected by the Return To Level function (Figure 22).

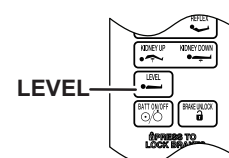


Figure 22. Return To Level

SECTION 6. EMERGENCY AND BACKUP CONTROLS

6-1. Emergency Stop Switch

An emergency stop switch is located under the table top (Figure 23).



Use the emergency stop switch for emergency situations only! Pressing the emergency stop switch will remove power from the hydraulic system to stop all motion.

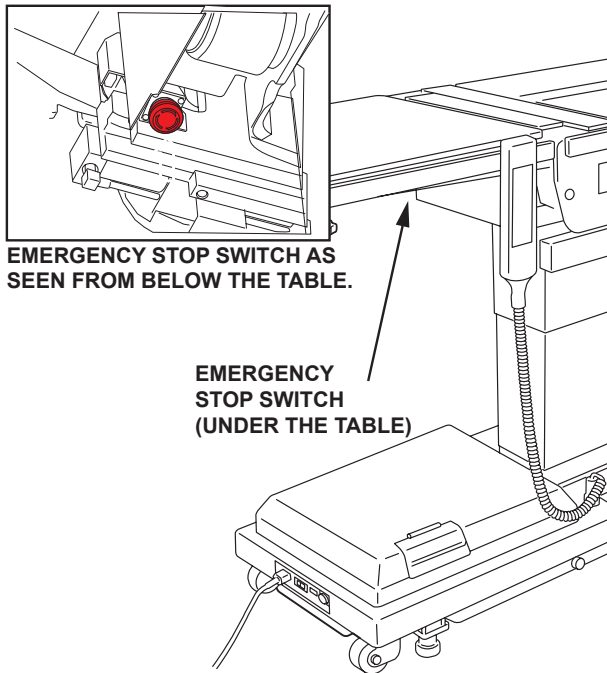


Figure 23. Emergency Stop Switch

3. **To cut off power to the table in the event of an emergency:** press the red emergency stop switch located below the table on the head end near the column (See Figure 23). All positioning functions will stop and an alarm will sound.
4. **To restore power when the emergency or malfunction is over:** pull out the emergency stop switch to reset it.

6-2. Back-Up Controls

Emergency back-up control switches are located under the access door on the service access cover in the table base.

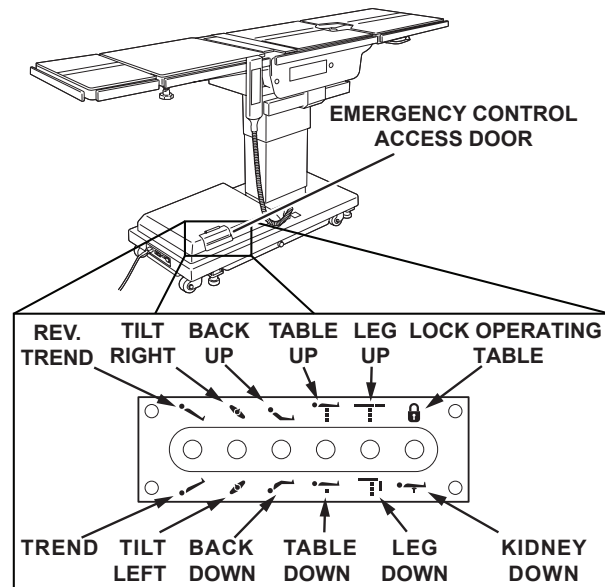


Figure 24. Emergency Controls Location



The safety interlock system is not operational when the emergency back-up control switches are used.

If the hand-held pendant fails to operate or is not functioning properly, the table can be operated using the emergency back-up switches. Push the desired emergency switch in the appropriate direction to operate the table functions.



The EMERGENCY BRAKE LOCK switch does not activate the brake system timer. The switch must be held until the brakes are completely locked (approximately seven seconds).

NOTICE

The emergency back-up control switches will function when the table is operating on AC power or battery power.

Switches are provided for Trendelenburg, lateral tilt, back section, elevation, leg section, kidney down, and brake lock. The switches are spring-loaded to return to neutral or center position when released.

6-3. Emergency Brake Release

A manual emergency brake release knob (valve) is located on the side of the table base. It can be turned to unlock the table brakes in case of a power failure or electrical problem.

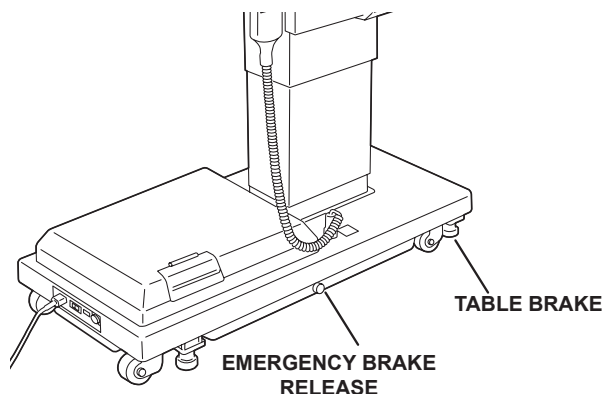


Figure 25. Emergency Brake Release Location

To manually unlock the brakes: Turn the brake release knob clockwise.

To manually lock the brakes: Turn the brake release knob counterclockwise.

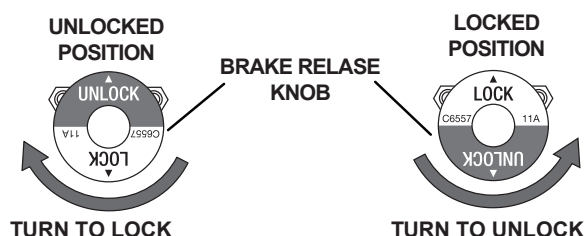


Figure 26. Emergency Brake Release

CAUTION

DONOT unlock brakes when a patient is on the table. An uneven patient weight load may cause instability.

If circumstances demand table brakes be unlocked:

- Patient must be centered and evenly distributed on the table top (i.e. supine or prone position) with the table lowered to its lowest height position.
- Maximum patient weight should not exceed 500 pounds [227 kg].
- Table top slide must be centered (indicated by a red LED on the pendant control) prior to unlocking brakes.
- Patient's head must be on the head section. Head section must be attached in its normal orientation to the table's back section.

Prior to unlocking brakes, check for obstructions on the floor that might prevent the table from moving smoothly to a new location. Re-lock the brakes immediately once the final position is reached and before commencing surgery.

To move the table safely, one staff member should be positioned at the head end and one at the foot end. If the patient weight exceeds 250 pounds [114 kg], four staff members are required to move the table and ensure patient safety. If patient weight exceeds 500 pounds [227 kg], the brakes should remain locked at all times.

NOTICE

The EMERGENCY BRAKE RELEASE valve (knob) must be closed and tightened (counter-clockwise) before activating any hydraulic function.

If the EMERGENCY BRAKE RELEASE valve (knob) has been operated, the BRAKE UNLOCK button on the pendant control will have to be pressed to reset the timer circuit before brakes will lock again.

SECTION 7. TABLE CONFIGURATION

! WARNING

When actuating the tabletop or using accessories to secure a patient's body position, make sure to keep an eye on the condition of the patient. Long time improper body position may cause a patient to be paralyzed.

DO NOT exceed the maximum permissible load. The table may become inoperable and may malfunction.

Position a patient's body at least 1 cm away from the side rails.

Make sure the patient is secured on the table when tilting the table. Otherwise the patient may fall off the table.

! CAUTION

When transferring a patient from the bed or changing a patient's body position, do not apply excessive force on the head plate or leg plate. The operating table may get damaged or deformed.

7-1. Head Section

! WARNING

DO NOT sit on the head plate or the leg plates(s). Otherwise it may cause a person to tumble off or to get injured.

DO NOT put the head and leg plates in the opposite direction. It may cause the leg plate to be damaged

7-1-1. Adjustment

A quick release bar is located under and to the front of the head section (Figure 27). The release bar releases the head section from its locked position so it can be manually raised or lowered.

Pull the release bar toward the head end to pivot up or down. Positioning from 60° above horizontal to 90° below horizontal in 15° increments is available. Release the bar to lock the head section in position.

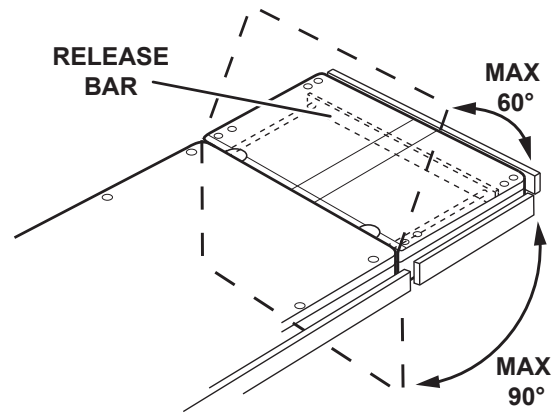


Figure 27. Head Section Adjustment

7-1-2. Remove/Install the Head Section

The head section may be removed by loosening the two locking knobs and pulling it straight out of the back section (Figure 28).

! CAUTION

DO NOT reverse the patient on the table without first consulting with SKYTRON product management.

The head plate weighs 15.5 lbs [7 kg], pay special attention when removing the head section so it does not fall and cause damage or injury.

Tighten the head plate fixing handles securely, patient injury may occur if the head plate is not secured.

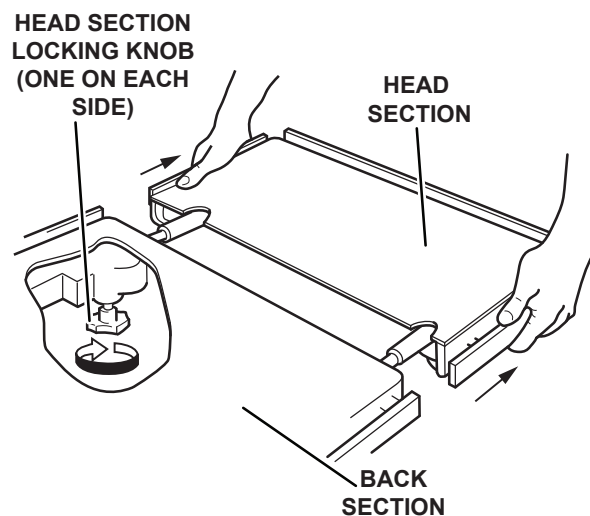


Figure 28. Head Section as a Foot Extension

The 3053 table has the capability of attaching the head section to the leg section for use as a foot extension ONLY.

Two locking knobs are located inside the leg section to secure the head section Figure 28.

7-2. Leg Section Removal and Installation

CAUTION

After attaching the leg plate, swing the leg plate back and forth, making sure the leg plate is completely inserted into the table.



Ensure that the leg section is properly engaged and secured to pins before use to prevent injury.



The leg plate weighs 24.25 lbs [11 kg]. Pay special attention when handling it. It may drop and cause damage or injury.

The leg section on the 3503 table is removable (Figure 29).

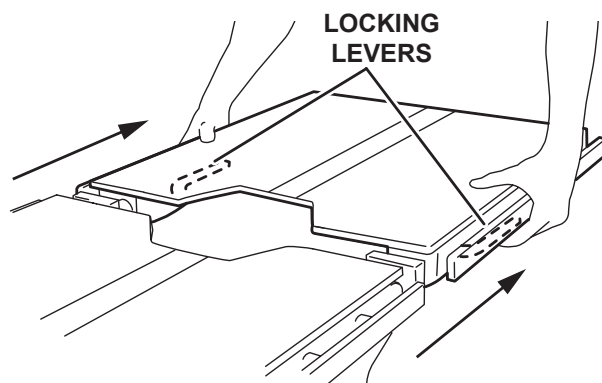


Figure 29. Leg Section Removal

NOTICE

The leg section with the x-ray top with the pad attached weighs 31 lbs [14 kg]. Remove the x-ray top and pad before detaching the leg section.

7-2-1. To Remove the Leg Section:

1. If necessary, press the LEVEL button on the pendant control to level the table top.
2. If necessary, use the T or TABLE DOWN buttons on the pendant control to position the table top at elbow height.
3. Simultaneously depress both release levers and pull the leg section out.
4. Press the LEG DOWN button on the pendant control to position the leg section attachment pins down and out of the way.

7-2-2. To Install the Leg Section:

1. Press the LEG UP button until both leg section attachment pins are in their highest positions.

NOTICE

Leg section pins do not move at the same rate of speed with the section removed. Make sure both pins are completely stopped.

2. Install the leg section on the pins.

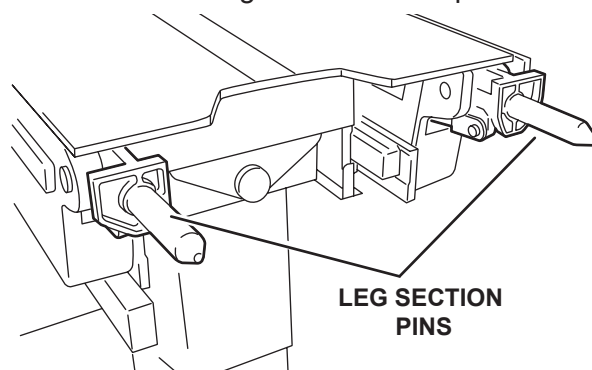


Figure 30. Leg Section Attachment Pins

3. Press the LEVEL button on the pendant control to level the table top.
4. Pull out on the leg section to be sure the release levers are completely locked.



To prevent injury, ensure that the leg section is properly engaged and secured to pins before use.

7-3. Pad Sets



WARNING

Make sure to securely attach the pads. Improper attachment may cause patient injury.

The table pad set must be in place and the patient must be positioned to avoid touching any of the metal sections of the table to protect against any possible electrical shock injury.

Consult with the manufacturer's instructions when using high frequency surgical equipment, cardiac defibrillator, and cardiac defibrillator monitors. Improper operation procedures may cause a shock hazard or cause an equipment malfunction.

When an antistatic pathway is required, the table has to be used on an antistatic floor.

The antistatic properties of the table are dependent on the use of the original pad set which was furnished with the table or an alternate approved replacement.

The SKYTRON pad set provides protection for the patient from the metal surfaces of the table to help protect against possible electrical shock from cardiac defibrillators or electro-surgical devices.



CAUTION

Compliance with IEC60601-1 edition 3 has been confirmed without the pad set.

The SKYTRON pad sets are available in 2 inch (51 mm) or larger thickness and have a Velcro strip which holds them in place on the table surface. Make sure the pad set is positioned on the table top properly and that no top section screws are exposed prior to patient transfer.

7-4. Positioning

The use of certain optional accessories available from SKYTRON further extend the positioning capabilities of the 3053 EZ Slide table.



CAUTION

Certain accessories may limit weight capacities. Check with your SKYTRON representative.

SKYTRON products are guaranteed for proper performance with the use of genuine SKYTRON accessories.

Accessories and products not furnished by SKYTRON have not been tested for proper performance and safety. Such applications or use are at the discretion of the user to ensure patient and staff safety.

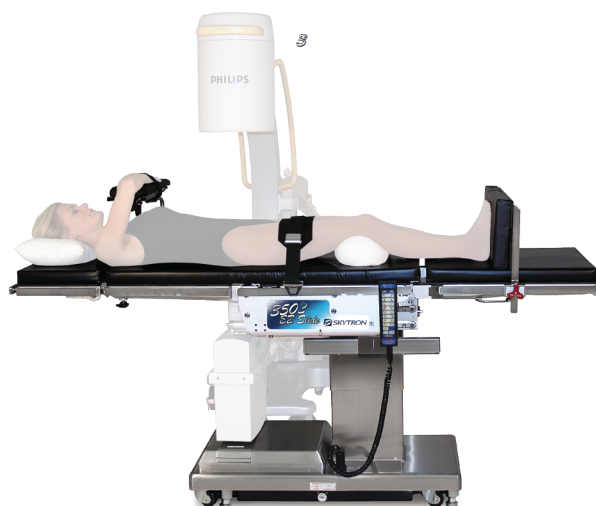
DO NOT use worn or damaged accessories; they represent an injury hazard.

Refer to the following General Purpose Patient Positioning Guidelines or contact your SKYTRON representative for further details.

7-5. 3503 EZ Slide General Purpose Patient Positioning Guidelines

Upon setting up the patient's position, adhere to the following procedures:

- Mount the pads to the table top.
- Place the patient on the pads.
- Set the position in accordance with the purpose of the operation.



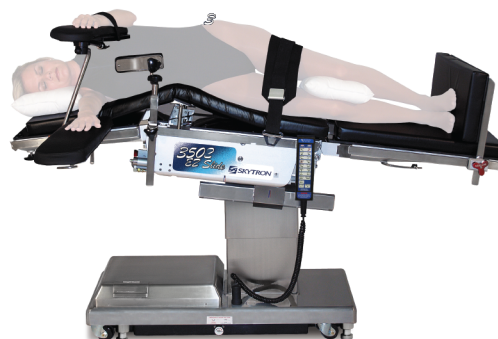
Gall Bladder / Thoracic



GYN / Endourology / Cystoscopy



Vascular / Endovascular



Kidney / Thoracic



Gastro / Intestinal



Ophthalmic / ENT

Accessories shown may not be available in all markets. Contact your SKYTRON Representative for details.



Neurosurgery



Shoulder Arthroscopy



Lumbar



Bariatric Surgery



Spinal

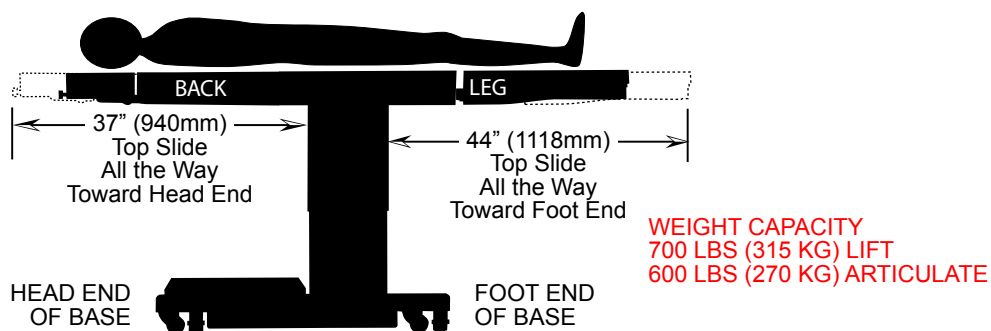


Lower Extremity / Edovascular / Podiatry

Accessories shown may not be available in all markets. Contact your SKYTRON Representative for details.

7-6. Positioning and Clearances

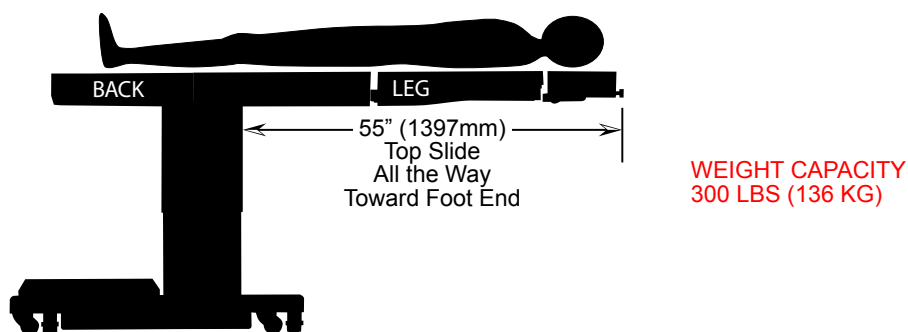
NORMAL TABLE TOP ORIENTATION



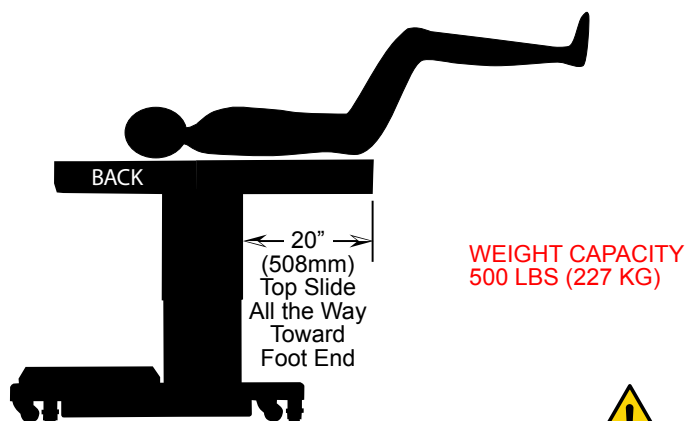
**BRAKES MUST
REMAIN LOCKED
TO THE FLOOR**

**BRAKES MUST
REMAIN LOCKED
TO THE FLOOR**

PATIENT REVERSED
HEAD SECTION ATTACHED TO LEG SECTION



LEG SECTION REMOVED



Consult with SKYTRON before reversing a patient on the table.

SECTION 8. MAINTENANCE

8-1. Cleaning and Disinfection

**WARNING**

Personal injury to patient or staff may result from a lack of proper maintenance of this equipment.

In order to prevent infection, be sure to clean and disinfect the operating table.

CAUTION

Caution should be taken when cleaning the table to prevent excessive fluid entry into electrical connectors.

NOTICE

Always follow current AORN/EORNA Journal Guidelines to ensure proper cleaning and disinfection procedure.

Always follow product cleaning and disinfecting utilization instructions and warnings indicated by cleaning product manufacturer.

8-1-1. Cleaning

The following procedure should be followed when cleaning the surgical table between cases or operations:

1. Place table top in level position.
2. Ensure that all power is removed from the table. Take preventive measures to avoid spraying directly into connectors or electrical receptacles.

**WARNING**

Always follow OSHA/EASHW blood-borne pathogens standards for protective clothing, including gloves, masks, and eye protection when cleaning the surgical table.

3. Remove major contaminants from the table with disposable materials following appropriate biohazard waste disposal procedures.
4. Remove all table pads and place them on a flat surface for cleaning.

CAUTION

Thoroughly read and follow the manufacturer's directions for all cleaning fluids. **DO NOT** use cleaners containing phenolics.

5. Use a ready-to-use detergent diluted as required by manufacturer. Ensure that the active ingredients of the product are compatible with the materials of the SKYTRON table.
6. Apply cleaning fluid liberally to top and sides of each pad and wipe with a clean lint-free cloth.
7. Using a clean, damp, lint-free cloth, wipe the pads to remove the cleaning fluid.
8. Using a clean, dry, lint-free cloth, wipe the pads to remove all moisture.
9. Repeat Steps **6** through **8** to clean the bottom of each pad. Allow to dry.

CAUTION

When using spray cleaners, **DO NOT** spray fluids directly into electrical receptacles or components.

10. Repeat cleaning procedure for all table surfaces including the top, sides, elevation column, base, and all accessories.

CAUTION

Before replacing pads on the table, make sure the pads and all adjoining surfaces are completely dry. Moisture trapped between the pads and adjoining surfaces may cause distortion of table tops.

11. When the cleaning procedure is complete, replace all pads and accessories as applicable.

CAUTION

Avoid immersing the pendant control assembly in liquids.

12. Apply cleaning solution to the pendant control and cord.
13. Use a clean cloth dampened with water to remove cleaning solution.
14. Use another clean damp cloth to remove any remaining residue.

15. Install pendant control on side rail for storage when cleaning procedure is complete. Allow to dry.

16. Clean casters and floor lock brakes.

8-1-2. Disinfection

Perform the following steps when disinfecting the surgical table.

NOTICE

The following antiseptic solutions are approved for use on the table:

- Sodium Hypochlorite 6% diluted to 0.1% (halogen containing compound)
- HypoAlcohol (iodine color removing agent)
- Chlorhexidine (chlorhexidine gluconate 0.5%)
- Benzalkonium chloride (invert soap 10%)
- Povidone iodine
- Ethanol 80%
- Oxydol (hydrogen peroxide)
- Isopropyl alcohol (IPA) 99.5%

1. Remove all pads from the table.
2. Apply a proper quantity of disinfectant on a clean and lint-free cloth, then wipe the top, sides, and bottom of the pads with the cloth.

NOTICE

Use enough disinfectant on the cloth to ensure it does not dry when wiping.

3. Disinfect the table top and the side rails using the same procedure.
4. Wipe all parts with dry, clean, and lint-free cloth within 15 minutes after disinfecting.

8-2. Routine Inspections



WARNING

Make sure to perform inspection before and after use, and appropriate preventive maintenance inspection. The table may not survive its useful life depends on number of years and frequency of use.

For preventive maintenance inspection, please contact your distributor or SKYTRON directly.

Check the inspection items before and after using the operating table. If there is any problem, contact the distributor or SKYTRON for repair. Failure to do so may cause trouble during surgery.



CAUTION

DO NOT use the table if any of the inspection points fail.

8-2-1. Performed Daily by Operator

The following inspections should be done before and after each use of the table:

1. Inspect all table pads for damage.
2. Inspect all table top sections for damage.
3. Inspect the table top assembly, all top sections, and the base for stability.
4. Inspect the power cord and plug for any signs of burns or damage.
5. Test the operation of the main POWER SWITCH.
6. Test all pendant control functions for proper table movement.
7. Inspect the table base surface and the floor for any signs of oil leaking.
8. Perform steps of cleaning procedure.
9. Recharge batteries / check battery charge.

8-2-2. Performed Weekly

1. Check each function for movement to ensure quiet and smooth operation.
2. Check safety interlock system function and audible alarms.
3. Check the overall condition of the pendant control.

8-2-3. Performed Monthly

1. Inspect casters and hydraulic floor lock assembly, clean as necessary.
2. Inspect the emergency back-up switches for operation.
3. Inspect the condition of the pendant control cord.
4. Inspect the condition of the table pad.

8-3. Preventive Maintenance

The following preventive maintenance checks and services are recommended to ensure the serviceability and proper operation of your SKYTRON surgical table. Maintenance must be performed by a SKYTRON authorized service representative using SKYTRON authorized replacement parts and service techniques.

During normal cleaning, a general visual examination should be made checking for leaks, loose bolts or parts, and cracked, chipped, or missing paint. Any necessary repairs should be made.

Annually or as required based on usage, the following checks and services should be performed:

1. Check all hydraulic fittings, mini-valves, and slave cylinders for proper operation and any signs of leaks.
2. Check the hydraulic speed controls and adjust if necessary.
3. Pressure check (with a gauge) the pressure relief valve.
4. Check all mechanical adjustments and adjust as necessary.
5. Check hydraulic fluid level.
6. Lubricate the slider assembly.
7. Check function of leg section release levers; lubricate as necessary.
8. Check the recharging of batteries:
 - Whenever table is placed into use.
 - Whenever the table is unused for an extended period of time.
9. Check table top level function.
10. Inspect emergency back-up controls.

8-4. Operator Troubleshooting

When troubleshooting a table malfunction, first determine the following:

- Does the problem affect all control functions?
- Does the problem affect only one control function?
- If the problem affects one control function is it in both directions?
- Is the problem intermittent?
- Is the problem no movement of a table surface or does the table surface lose position?

MALFUNCTION	POSSIBLE CAUSE	CORRECTIVE ACTION
Table will not turn on	Mains switch off	Turn on mains switch
	Defective pendant control	Replace pendant control
No movement	Emergency stop switch activated, removing power to hydraulic system.	Turn the emergency stop switch to disengage it and restore power to the hydraulic system
	Totally discharged batteries	Charge table batteries
	Defective hydraulic pump	Contact SKYTRON Service
	Defective control box	
	Defective hydraulic valve	
	Defective pendant control	
Table remains on battery mode when main power cord is connected	Incorrect Mains connection	Reconnect-connect mains connection
	Defective power cord	Replace power cord
	Main breaker blown	Reset mains circuit breaker
	Main power is off	Turn mains power switch on
Power fails even though battery is charged	Batteries require replacement	Replace batteries
The status of Battery Indicator is 2 red	Fuse requires replacement	Contact SKYTRON Service

Fuse replacement must be performed by a certified SKYTRON technician.

8-5. Maintenance Checks & Services

Refer to Replacement Parts section for component locations.



Always inspect product prior to use to ensure safe and correct operation. Any product deemed to be malfunctioning should be removed from service immediately and labeled inoperable.

Refer all service to a SKYTRON authorized service representative.

8-5-1. Head Section

1. Ensure both head section locking knobs are installed, they have full range of motion, and their threads are not stripped (Figure 31).

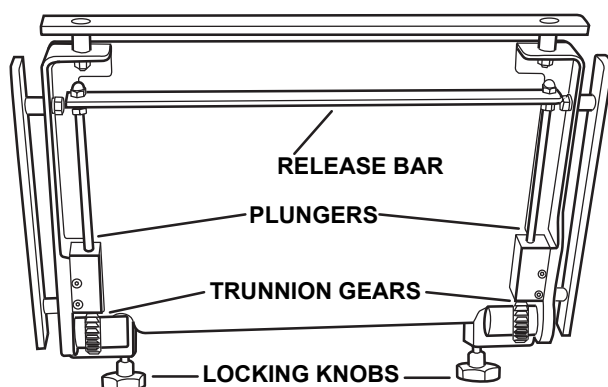


Figure 31. Head Section Controls

2. Ensure the acorn nuts on head section release bar are tightly secured.
3. Ensure the release bar plunger properly engages the head section trunnion gears.
4. Ensure all side rail fasteners are installed and secured tightly.
5. Ensure the head section extension shafts provide smooth full range of movement are not deformed.
6. Place a small amount of white lithium grease on the head section release bar plunger and the head section trunnion gears.
7. Ensure the head section is level (parallel to floor) and even with the back section. If it is not, notify a certified SKYTRON technician.

8-5-2. Top Section Components

1. Ensure the leg section release levers lock and release properly (Figure 32).

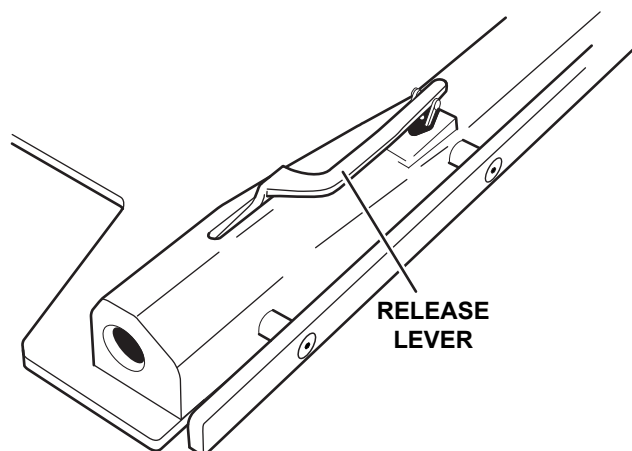


Figure 32. Leg Section

2. Ensure leg section pins are not distorted and leg section slides smoothly on the pins.
3. Apply a thin coat of white lithium grease to both leg section pins.
4. Lower the leg section 90° to ensure that the leg section release levers gravity stops prevent disengagement.
5. Ensure both side rail gravity stops are installed and move freely.
6. Ensure that all warning and caution labels are present and readable.
7. Ensure the table top sections are not cracked or warped. Replace as needed.
8. Ensure the table top sections securing screw heads do not have sharp burrs.
9. Place an X-ray top into the table top sections to ensure that it has a snug fit.
10. Ensure leg section does not "search", continuous alternating raising and lowering, when returning to level. This micro-switch adjustment, if needed, can only be performed by a SKYTRON authorized service representative.
11. Inspect for hydraulic oil leaks.
12. Apply a thin coat of white lithium grease to the kidney bridge extension shafts.
13. Ensure the support bushings rotate when the back section is raised.

8-5-3. Base Components

1. Ensure the power cord is not frayed, pinched, or otherwise damaged.
2. Ensure the power cord retaining clip is present and locks the power cord to the table POWER CORD receptacle.
3. Observe that the power indicator LEDs and battery indicator LEDs are functioning.
4. Ensure the ground equalization terminal post is installed and is securely attached.
5. Observe that pendant control cover is not torn or has sections missing. Replace as needed.
6. Ensure the pendant control cord is not frayed, pinched, or otherwise damaged.
7. Test each pendant control articulation button for full range of travel.
8. After the AC power and battery are turned OFF, briefly toggle each emergency back up switch to ensure operation.
9. Test the pendant control's BRAKE UNLOCK button and TABLE UP (lock) button functions.
10. Open the EMERGENCY BRAKE RELEASE valve to ensure proper operation.
11. Inspect for hydraulic oil on the base, under the access cover, and on all four brakes.
12. Ensure that shroud assemblies slide smoothly and are not damaged.
13. Ensure all screws are secured tightly.
14. Ensure all four casters rotate 360° on both axis. Check for flat spots on the casters.

NOTICE

The table brake seats are not interchangeable between different generations of table brake models. The thickness of the table brake seats differs between the older and more current generations. When replacing a brake cylinder or brake seat, ensure that the brake seat is designed for the specific cylinder.



WARNING

Table instability will occur on a table with mixed table brakes and seats.

15. Ensure there are four brake pads and the pads are not chipped or otherwise damaged.

8-5-4. Hydraulic Oil Level Check

NOTICE

The elevation cylinder should be completely down, brakes released, and all control functions at level position before checking hydraulic oil level.

1. Remove four screws that secure the service access cover to the base.
2. Carefully remove the service access cover without disconnecting the attached cord.
3. Remove the oil filler cap from the oil reservoir (Figure 33).

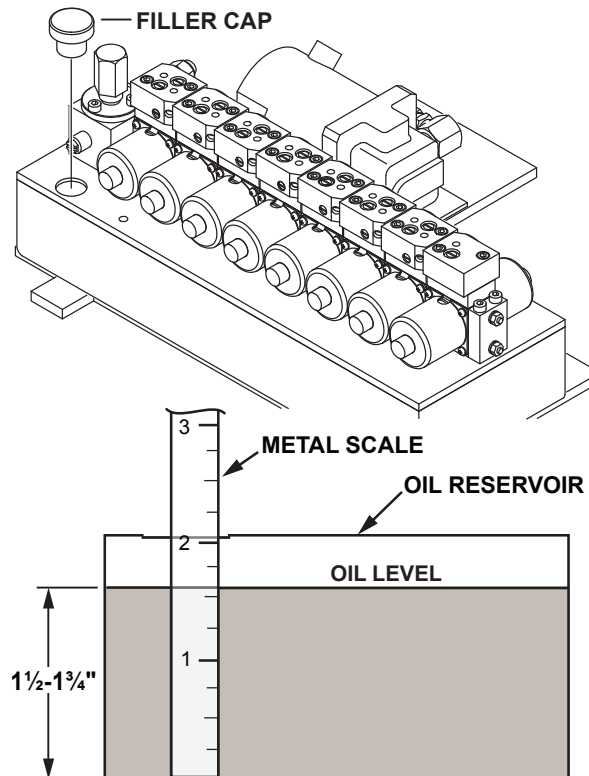


Figure 33. Oil Reservoir

4. Use a metal scale to check the hydraulic oil level in the oil reservoir. The hydraulic oil level should be 1½ to 1¾ inch [40 to 45mm] from the bottom of the tank.
5. If necessary, add hydraulic oil to the oil reservoir until the oil level is 1½ to 1¾ inch [40 to 45mm] from the bottom of the tank. Clean up any oil spillage, if necessary.

6. Replace the oil filler cap.
7. Secure the service access cover with the four screws removed in step 1.

8-5-5. Battery Replacement

NOTICE

Batteries must always be replaced in pairs.

1. Remove four screws that secure the service access cover to the base.
2. Carefully remove the service access cover without disconnecting the cord attached to the cover.
3. Loosen and remove the nuts and washers that secure the battery hold-down bar in place over the batteries (Figure 34). Remove the battery hold-down bar.

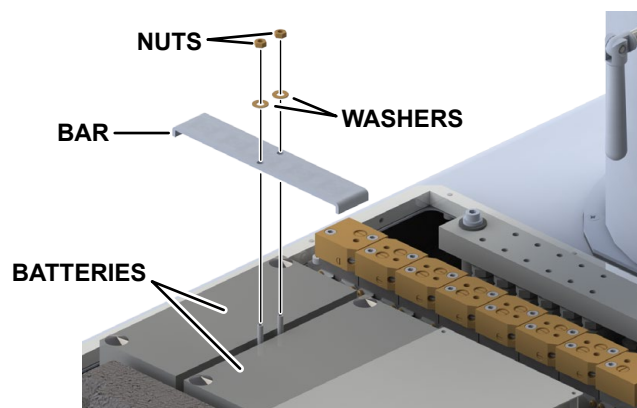


Figure 34. Battery Hold Down Bar

4. Remove the wire terminal connections to both batteries (Figure 35).

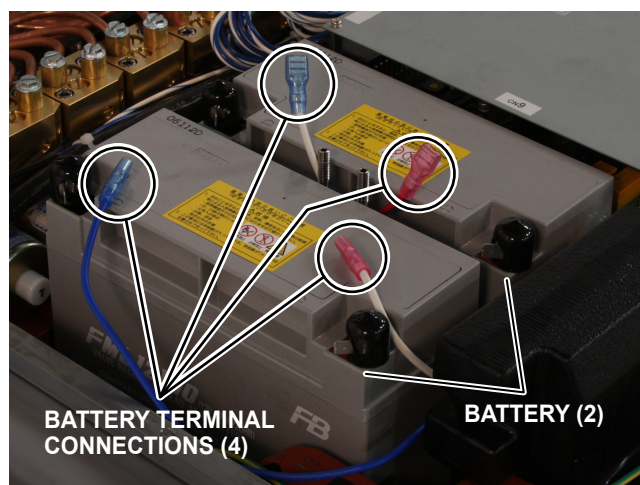


Figure 35. Battery Terminal Disconnect

5. While making sure the battery terminal wires are clear, carefully remove the batteries by lifting each straight up and out.

6. While making sure battery terminal wires are clear, carefully install the new batteries (SKYTRON PN E0002293).

7. Connect the correct wires to the battery terminals (Figure 36).

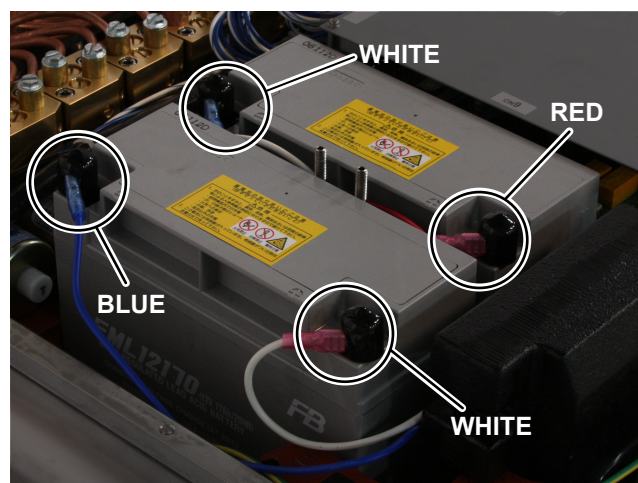


Figure 36. Battery Terminal Connect

8. Install battery hold-down bar over batteries and secure using the washers and nuts as shown (Figure 36).

9. Secure the service access cover with the four screws removed in step 1.

8-6. Maintenance Schedule to be Performed by a Skytron Representative

Maintenance in this section must be performed by a Skytron authorized service representative using Skytron authorized replacement parts and service techniques.

8-6-1. Why maintain your table?

This guide describes the scheduled maintenance required for your Skytron table. Carefully following this schedule helps protect against major repair expenses resulting from neglect or inadequate maintenance. It is your responsibility to ensure that all scheduled maintenance is performed and that the materials meet Skytron engineering specifications identified in the Service Manual.

Failure to perform specific scheduled maintenance in this guide will invalidate warranty coverage on parts affected by lack of maintenance. Always ensure that records for completed maintenance are kept and confirmation of the work performed is always recorded. Your Skytron distributor has trained technicians who can perform the required maintenance using genuine Skytron parts.

8-6-2. Protecting your investment

Maintenance is an investment which pays dividends in the form of improved reliability, durability, and lower cost of service ratio. To ensure proper performance of your surgical table it is imperative that scheduled maintenance be completed at the designated intervals. Skytron has recommended intervals for various parts and component systems based on engineering testing relies upon this testing to determine the most appropriate service time interval to protect your surgical table.

Skytron recommends against alternative maintenance schedules that deviate from the scheduled maintenance. Any adverse condition should be brought to the attention of your local representative or qualified service technician as soon as possible for the proper service resolution.

8-6-3. Maintenance Matrix

► TO BE PERFORMED EVERY SIX MONTHS ◀	
General	
INSPECT and verify all equipment labels in accordance with owner's manual requirements, REPLACE as necessary.	
TEST all table functions and verify each reaches its maximum range	
TEST beach chair positioning (If Applicable)	
TEST return-to-level feature, ADJUST hydraulic mini-valves if necessary	
TEST the full range of table rotation z (If Applicable)	
<ul style="list-style-type: none"> • TEST the handle function • TEST for smooth articulation • TEST tabletop locking handle function 	
Electrical	
TEST mains power function	
INSPECT the AC power cord, REPLACE as necessary.	
INSPECT power cord receptacle for signs of damage or wear, REPLACE as necessary	
INSPECT the mains grounding lead, REPLACE as necessary	
TEST the LED battery function	
TEST the emergency stop switch	
TEST the inhibit circuit function	
LOAD TEST the battery system	

TEST the charging system output values
TEST and INSPECT the pendant control and hand console (If Applicable) <ul style="list-style-type: none"> • TEST each operation • INSPECT the pendant control cord and the hand console cord • INSPECT exterior condition and rubber housing / enclosures for signs of damage • INSPECT the cord attachments to the control ports on the table base REPLACE the pendant control and hand console as necessary
TEST the the function of auxiliary ports
TEST the auxiliary switch function on the access cover
INSPECT for any signs of fluid ingress on auxiliary switches
TEST the elevation control buttons if applicable
Tabletop
TEST side rails and gravity stop hardware and function (If Applicable)
INSPECT back section engagement, lock release lever function, and release lever gravity stoppers (If Applicable)
INSPECT seat section engagement, lock release lever function, and release lever gravity stoppers (If Applicable)
INSPECT table top Velcro , REPLACE as necessary
TEST the X-ray top function
INSPECT the table top sections. Inspect for damage and cracking. Replace as necessary
INSPECT X-ray top standoffs, APPLY thread locking agent, and TIGHTEN if necessary
INSPECT all hydraulic fittings in the table top cylinders
INSPECT all hydraulic fittings and hoses to the table top cylinders
INSPECT each hydraulic cylinder
INSPECT each hydraulic ram and all moving surfaces, CLEAN if necessary
TEST articulation stops for even and smooth movement, ADJUST as necessary
INSPECT back section gear mesh (If Applicable), ADJUST if necessary
INSPECT the leg section eccentric cam system (If Applicable), ADJUST if necessary
INSPECT the kidney lift mechanism function for smooth and equal movement (If Applicable)
INSPECT the kidney bridge shafts (If Applicable), CLEAN if necessary
INSPECT kidney cylinders for damage, oxidation, and leaking (If Applicable)
INSPECT the back section, leg section, slide, and kidney bridge micro-switches (If Applicable), CLEAN if necessary
INSPECT the Trendelenburg housing head and tail cap fasteners
INSPECT the lateral tilt pivot mechanism and fasteners
INSPECT for Pivot P-95 O-ring function (If Applicable)
INSPECT, TEST, LUBRICATE, and CLEAN the slide table function (If Applicable) <ul style="list-style-type: none"> • INSPECT slide bearing raceways • INSPECT for table top rigidity while fully slid in the foot direction • TEST slide bearing function • LUBRICATE slide bearings with high pressure grease • CLEAN contaminants and lubricate slide bearing surfaces ADJUST slide bearings as necessary

Base
INSPECT the base for signs of damage or collision
INSPECT fasteners that secure the stainless access cover to the base casting
INSPECT the general surface condition of the underside base casting for signs of heavy oxidation or damage
INSPECT and LUBRICATE the casters, CLEAN if necessary
TEST the brake cylinders
INSPECT the brake cylinders , CLEAN if necessary
INSPECT self leveling brake pad hardware
INSPECT all self-leveling brake pads, REPLACE if they show signs of wear or damage
INSPECT plumbing and terminal block assembly (If Applicable)
INSPECT access cover gaskets for signs of fluid ingress
INSPECT the base service area for hydraulic oil leaks and residual oil
INSPECT the elevation cylinder
TEST the emergency brake release function operation
Hydraulic System
TEST the Pressure Release Valve setting, ADJUST if necessary
ADJUST the Pressure Release Valve setting if necessary
INSPECT the hydraulic oil quality
INSPECT the hydraulic oil level
TEST and INSPECT the motor pump
TEST and INSPECT the mini-valve function for each articulation, ensure this is no drifting or unwanted movement
INSPECT the Flex-Reflex system (If Applicable), ADJUST mini-valve speed pressures based on time values
INSPECT the hydraulic cylinder for damage or leaking
Column
INSPECT upper and lower attachment hardware, TIGHTEN if necessary
TEST key way and sectional stops for proper function and operation (If Applicable)
TIGHTEN column keys (If Applicable)
LUBRICATE column with high-pressure grease or graphite-based grease
INSPECT hose guide function during elevation movement
INSPECT hoses for signs of abrasion or damage
LUBRICATE hoses
INSPECT inhibit switch riser cord assembly for abrasion, damage, and proper positioning
INSPECT elevation shroud gaskets for signs of fluid ingress
INSPECT and LUBRICATE if necessary table top rotation mechanism (If Applicable)
INSPECT table top rotation mechanism (If Applicable) LUBRICATE if necessary

8-7. Service



WARNING

DO NOT disassemble or modify the table. Unauthorized disassembly may cause electric shock or malfunction.

SKYTRON maintenance manuals are available upon request, however, non-authorized service personnel are required to complete applicable service training.

For a syllabus, schedule, availability, cost and overview visit the SKYTRON website at www.SKYTRON.us and click TRAINING. If interested in attending a training session, contact a SKYTRON representative for sponsorship.

To obtain SKYTRON authorized service or preventive maintenance contracts, contact the nearest SKYTRON representative.

8-8. Disposal Instructions

The end of the useful life for the SKYTRON surgical table is 10 years under normal operating conditions. Service parts are available for this period.

Contact a SKYTRON authorized representative for disposal instructions regarding the SKYTRON surgical table or parts in accordance with current environmental regulations for medical products.

8-8-1. Environmental Protection



Use proper disposal methods whenever disposing of old or damaged table parts. Always follow compliance to regulatory standards pertaining to Federal, State, and Local regulations.

8-8-2. Hydraulic Fluid

Drain waste hydraulic fluid prior to disposal of the surgical table. Dispose of fluid properly.

8-8-3. Lead Acid Batteries

Avoid disposal of old or damaged batteries with conventional waste. Lead acid batteries are classified as toxic waste.

8-9. Storage

After a long period of storage, the following items should be inspected before placing the unit into use:

- Mains power function – ON/OFF operation and LED battery function
- Battery power function / mode
- Pendant control operation & back light
- Table caster movement and condition
- Operational movement of each function with load to full stroke
- Condition of hydraulic floor lock brake cylinders & pads
- Stability of table top
- Stability while table floor lock brakes are activated
- No hydraulic oil leaks
- Hydraulic fluid level
- Table top is horizontal and level when using level function
- Operating of locking levers & locking knobs on back, leg, & head sections
- Overall appearance and cleanliness

CAUTION

If the table is stored for a period greater than 6 months, the batteries should be removed and stored in a dry, clean condition at a storage temperature of 68°F [20°C]. Batteries should be re-charged every 6 months of product storage.

SECTION 9. TROUBLESHOOTING

The following problems can occur even if the table is not out of order. Check the following points before contacting your distributor for repair

Problem	Possible Cause	Possible Solution
The table cannot be switched on.	1. The control unit connector is not connected properly. 2. The battery is fully discharged.	1. Insert the connector completely (page 19). 2. Charge the battery (page 17).
A function button on the control unit does not function.	1. The connector of the control unit is not connected properly. 2. Protection circuit is activated.	1. Insert the connector completely (page 19). 3. Wait for about 7 minutes to operate.
The brake button on the control unit does not function.	1. The emergency brake release handle is in a release (UNLOCK) position. 2. After releasing the brake by the emergency brake release handle, the brake has not been unlocked by the control unit.	1. Turn the emergency brake release handle toward "LOCK" (page 27). 2. Unlock the brake by the control unit (page 22).
The back plate cannot be lowered below the level position.	1. The tabletop is slid in the foot direction beyond the standard center position.	1. Slide the center of the tabletop in the head direction beyond the standard center position (page 24)
The tabletop cannot be slid in the foot direction.	1. Back plate is lowered below the level position.	1. Move up the back plate from the level position (page 23).
The flex (center up) function cannot be operated.	1. The tabletop is slid in the foot direction beyond the standard center position	1. Slide the center of the tabletop in the head direction beyond the standard center position (page 24).
The leg plate cannot be lowered only up to 45° above the level position.	1. The tabletop is slid in the head direction beyond the standard center position.	1. Slide the tabletop in the foot direction beyond the standard center position (page 24).
The lift-up unit cannot be moved up.	1. The back plate is slid at 45° or higher than the level position. 2. The back plate is flexed at 45° or higher in the upper direction at the center down position.	1. Slide the back plate to 45° or lower than the level (page 23). 2. Slide the back plate to 45° or lower than the level (page 23).
The back plate cannot be moved up only up to 45°.	1. The lift-up unit is up.	1. Move down the lift-up unit the lowest position (page 25).
The back plate cannot be moved up only up to 45° at the flexing center down position.	1. The lift-up unit is up.	1. Move down the lift-up unit the lowest position (page 25).

In case that the condition is not improved even if the above measures are taken, please contact your distributor or us for repair.

SECTION 10. REPLACEMENT PARTS

Replacement parts listed in this section have been identified by SKYTRON as serviceable by facility personnel and are available for purchase. To obtain SKYTRON certified parts and authorized service, contact your SKYTRON representative.

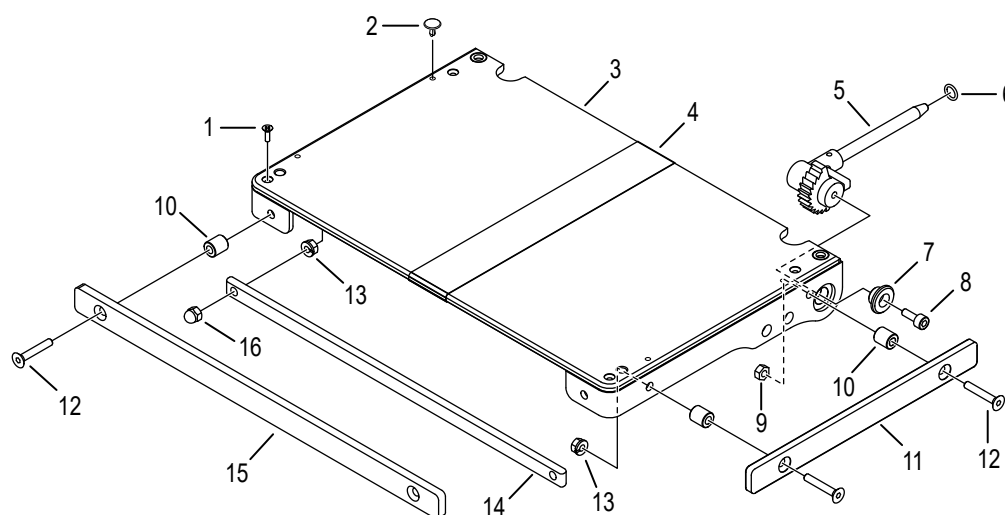
The following abbreviations are used in this section:

- AR = As Required
- NS = Not Shown
- NAS = Not Available Separately

CAUTION

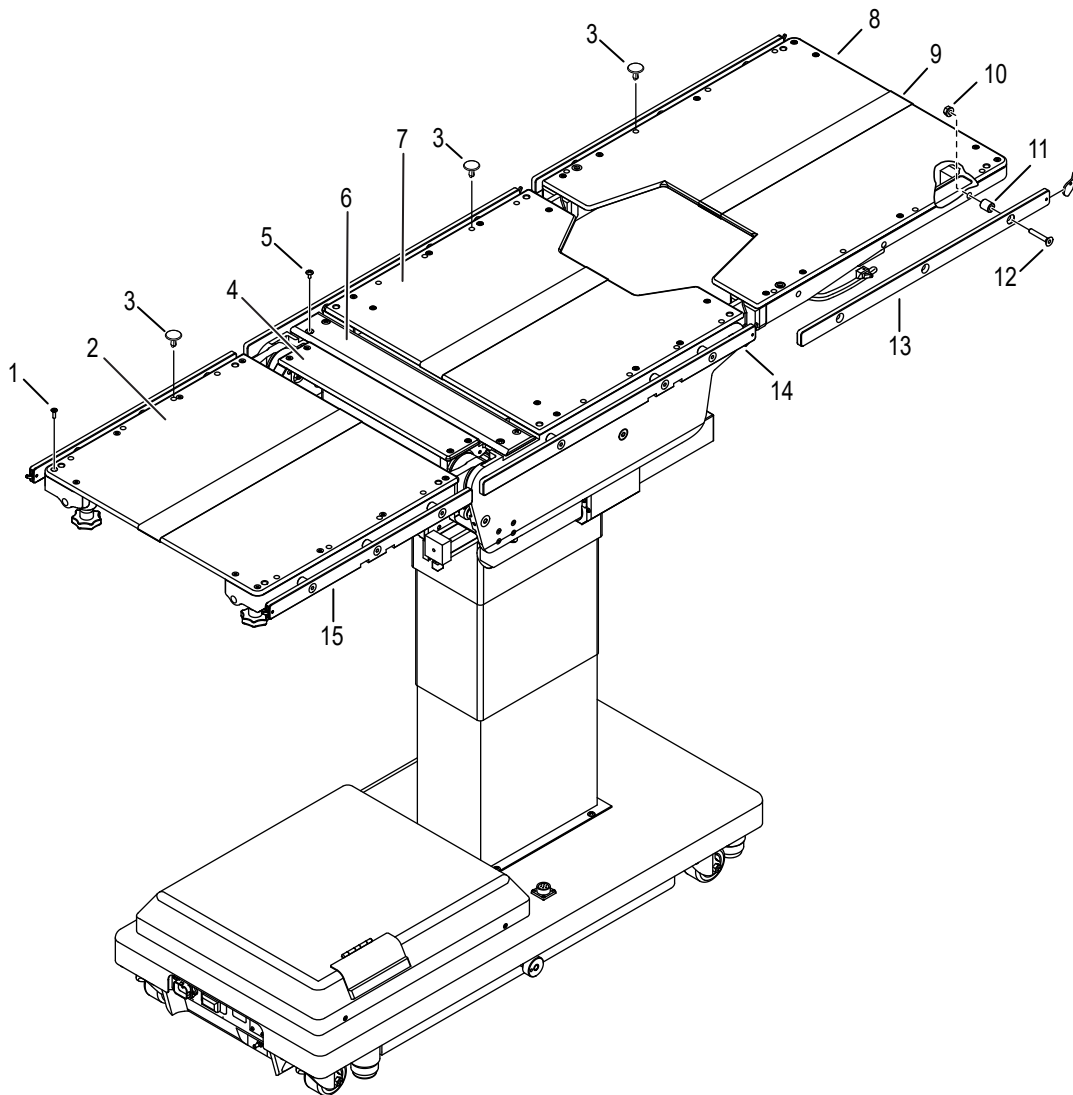
Any parts or assemblies not listed in this section must be serviced or replaced by SKYTRON authorized service personnel only. This is necessary to avoid the possibility of damage to the equipment.

10-1. Head Section Components



Item	Part No.	Description	Qty.
-	351AU17	COMPLETE HEAD SECTION	1
1	A0240515	SCREW, phillips head, M5 x 15 (plated)	4
2	D090102	CAP, digital x-ray top anchor	4
3	360A038	TOP, head section	1
4	D010001A	VELCRO, hook	AR
5	600JC59	SHAFT AND GEAR ASSEMBLY, extension, head section, right	1
NS	600JC58	SHAFT AND GEAR ASSEMBLY, extension, head section, left	1
6	C40120B1	O-RING, P12	2
7	650A235	BUSHING, head section	2
8	A0010820	BOLT, allen, M8 x 20 (plated)	2
9	A3010801	NUT, hex, M8 (plated)	2
10	5000513	COLLAR, side rail	6
11	351A907	RAIL, side, head section	2
12	A0720845	SCREW, allen, M8 x 45	6
13	A3410801	NUT, hex, w/lock washer, M8 (plated)	6
14	5000014	RELEASE BAR, head section	1
15	550K121	RAIL, accessory	1
16	A3210801	NUT, acorn, M8 (plated)	2

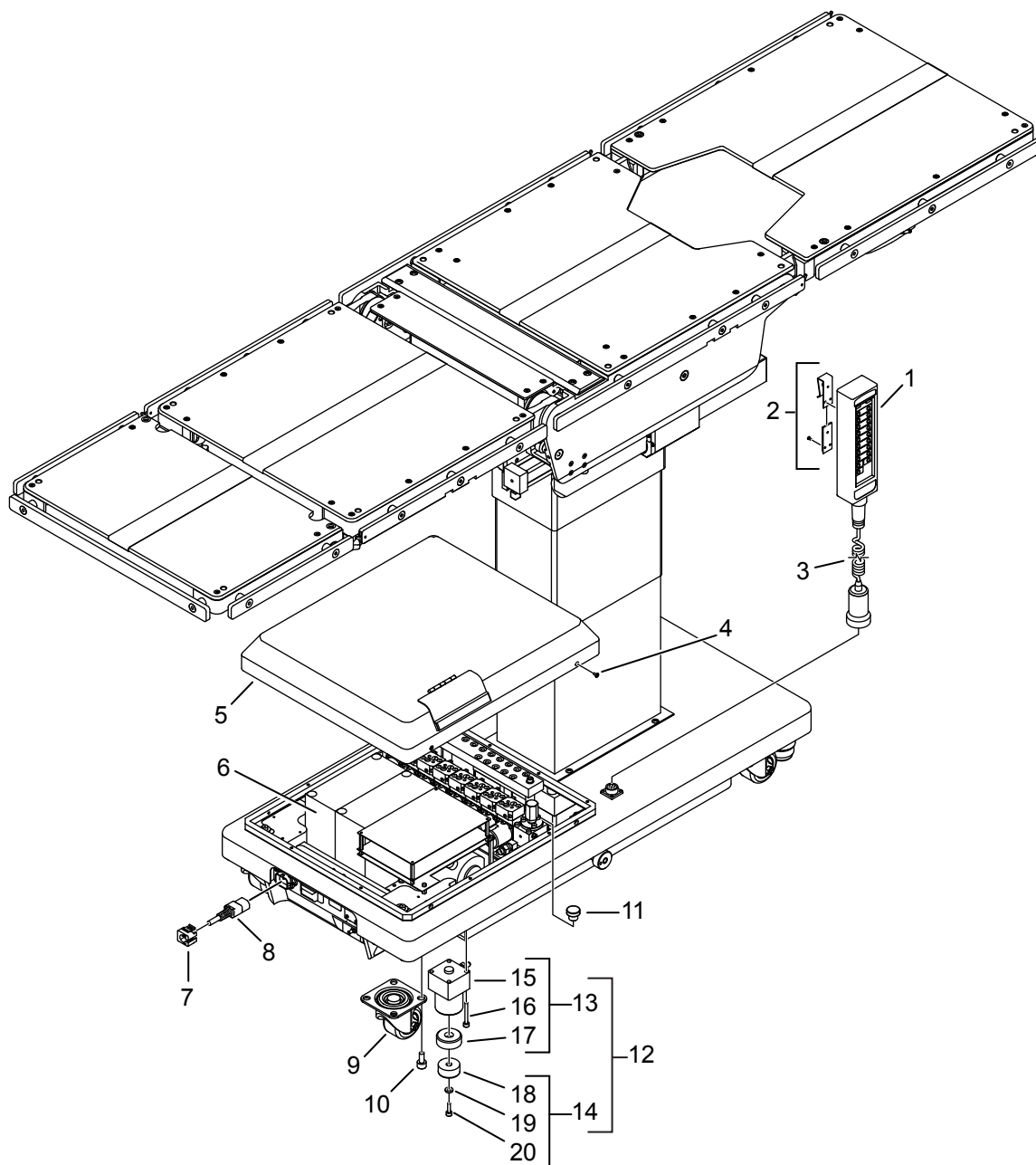
10-2. Top Section Components



10-2. Top Section Components

Item	Part No.	Description	Qty.
1	A0240515	SCREW, phillips, M5 x 15 (plated).....	24
2	350A446	TOP, seat section	1
3	D090102	CAP, digital x-ray top anchor.....	24
4	580B015	TOP, seat section, small.....	1
5	A0440510	SCREW, round head phillips, M5 x 10 (plated).....	4
6	350A473	TOP, kidney lift	1
7	650A110	TOP, back section	1
8	650A109	TOP, foot / leg section	1
9	D010001A	VELCRO, hook.....	AR
10	A3410801	NUT, hex, w/lock washer, M8 (plated)	18
11	5000513	COLLAR, side rail	18
12	A0720845	SCREW, allen, M8 x 45.....	18
13	600JC68	SIDE RAIL ASSEMBLY, foot / leg section, right	1
NS	600JC67	SIDE RAIL ASSEMBLY, foot / leg section, left	1
NS	C700255	GASKET A, foot / leg section	1
NS	C700256	GASKET B, foot / leg section	1
14	351AC05	SIDE RAIL ASSEMBLY, seat section, right	1
NS	351AC04	SIDE RAIL ASSEMBLY, seat section, left	1
15	351AC09	SIDE RAIL ASSEMBLY, back section, right	1
NS	351AC08	SIDE RAIL ASSEMBLY, back section, left.....	1
NS	C700258	GASKET B, back section	1
NS	C700257	GASKET A, back section	1

10-3. Base Components



10-3. Base Components

Item	Part No.	Description	Qty.
1	SWB0319	PENDANT CONTROL ASSEMBLY	1
2	D5-031-14	HOOK, pendant (w/ screw and insert)	1
3	M001975	CORD, pendant control.....	1
4	A0410408	SCREW, phillips, M4 x 8 (plated).....	5
5	650BC59	COVER, service access.....	1
6	E0002293	BATTERY, 12V	2
7	E0002296	FRAME, retainer clip	1
8	E0001194	POWER CORD ASSEMBLY	1
	M001094	AC POWER CORD, G-Type, England	1
	M001095	AC POWER CORD, C-Type, Italy	1
	M001096	AC POWER CORD, C-Type, Switzerland.....	1
	M001097	AC POWER CORD, B3-Type, India.....	1
	M001098	AC POWER CORD, O-Type, Australia	1
	M001099	AC POWER CORD, O-Type, China.....	1
	E0001285	AC POWER CORD, Continental Europe	1
	M001141	AC POWER CORD, O-Type, Argentina	1
	M001140	AC POWER CORD, Israel.....	1
	M001139	AC POWER CORD, C-Type, Denmark.....	1
9	C0006507	CASTER.....	4
10	A0021020	BOLT, allen, M10 x 20	16
11	C5230206	CAP, oil filler	1
12	J090B20	KIT, brake cylinder assy (includes 4 complete cylinders).....	1
13	J090B21	CYLINDER ASSY, brake (includes Items 15 through 17)	4
14	D4-031-100	KIT, replacement, brake pad (includes 2 soft pads, 2 hard pads, 4 washers, 4 bolts).....	1
15	NAS	CYLINDER ASSEMBLY, brake (included in J090D04)	1
16	A0020650	BOLT, allen, M6 x 50 (included in J090D04).....	4
17	NAS	SEAT, brake, rubber (included in J090D04).....	1
18	NAS	PAD, brake, self-leveling, hard (included in D4-031-100)	2
	NAS	PAD, brake, self-leveling, soft (included in D4-031-100).....	2
19	5000505	WASHER (included in D4-031-100).....	1
20	A0020620	BOLT, allen, M6 x 20 (included in D4-031-100)	1
NS	D6-010-90	OIL, hydraulic (quart)	AR

SECTION 11. ELECTROMAGNETIC EMISSIONS

Medical Electrical Equipment needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided in this manual.

Portable and mobile RF communications equipment can affect Medical Electrical Equipment.

The use of Accessories, transducers, and cables other than those specified, with the exception of transducers and cables sold by the Manufacturer of this device as replacement parts for internal components, may result in increased Emissions or decreased Immunity of the 3503 Surgical Table.

The 3503 Surgical Table should not be used adjacent to or stacked with other equipment and that if adjacent or stacked use is necessary, the 3503 Surgical Table should be observed to verify normal operation in the configuration in which it will be used.

GUIDANCE AND MANUFACTURER'S DECLARATION – ELECTROMAGNETIC EMISSIONS		
The 3503 Surgical Table is intended for use in the electromagnetic environment specified below. The customer or the user of the 3503 Surgical Table should assure that it is used in such an environment.		
Emissions Test	Compliance	Electromagnetic Environment – Guidance
RF emissions CISPR 11	Group 1	The 3503 Surgical Table uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class A	The 3503 Surgical Table is suitable for use in all establishments, other than domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations / flicker emissions IEC 61000-3-3	Complies	

RECOMMENDED SEPARATION DISTANCES BETWEEN PORTABLE AND MOBILE RF COMMUNICATIONS EQUIPMENT AND THE 3503 SURGICAL TABLE

The 3503 Surgical Table is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the 3503 Surgical Table can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the 3053 Surgical Table as recommended below, according to the maximum output power of the communications equipment.


Rated Maximum Output Power of Transmitter	Separation Distance According to Frequency of Transmitter		
	m		
	150 kHz to 80 MHz	80 MHz to 800 MHz	800 MHz to 2,5 GHz
W	$d = 1.2\sqrt{P}$	$d = 1.2\sqrt{P}$	$d = 2.3\sqrt{P}$
0,01	0.12	0.12	0.23
0,1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE 1: At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

NOTE 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.

GUIDANCE AND MANUFACTURER'S DECLARATION – ELECTROMAGNETIC IMMUNITY			
The 3053 Surgical Table is intended for use in the electromagnetic environment specified below. The customer or the user of the 3503 Surgical Table should assure that it is used in such an environment.			
Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment – Guidance
Electrostatic discharge (ESD) IEC 61000-4-2	±6 kV contact ±8 kV air	±6 kV contact ±8 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%
Electrical fast transient/burst IEC 61000-4-4	±2 kV for power supply lines ±1 kV for input/output lines	±2 kV for power supply lines ±1 kV for input/output lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±1 kV line(s) to line(s) ±2 kV line(s) to earth	±1 kV line(s) to line(s) ±2 kV line(s) to earth	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5 % U_T (>95 % dip in U_T) for 0.5 cycle 40 % U_T (60 % dip in U_T) for 5 cycles 70 % U_T (30 % dip in U_T) for 25 cycles <5 % U_T (>95 % dip in U_T) for 5 sec	<5 % U_T (>95 % dip in U_T) for 0.5 cycle 40 % U_T (60 % dip in U_T) for 5 cycles 70 % U_T (30 % dip in U_T) for 25 cycles <5 % U_T (>95 % dip in U_T) for 5 sec	Mains power quality should be that of a typical commercial or hospital environment. If the user of the 3503 Surgical Table requires continued operation during power mains interruptions, it is recommended that the 3053 Surgical Table be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A / m	3 A / m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment
NOTE: U_T is the a.c. mains voltage prior to application of the test level.			

GUIDANCE AND MANUFACTURER'S DECLARATION – ELECTROMAGNETIC IMMUNITY			
The 3053 Surgical Table is intended for use in the electromagnetic environment specified below. The customer or the user of the 3053 Surgical Table should assure that it is used in such an environment.			
Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment – Guidance
<p>Conducted RF IEC 61000-4-6</p> <p>Radiated RF IEC 61000-4-3</p>	<p>3 Vrms 150 kHz to 80 MHz</p> <p>3 V/m 80 MHz to 2.5 GHz</p>	<p>3 Vrms 150 kHz to 80 MHz</p> <p>3 V/m 80 MHz to 2.5 GHz</p>	<p>Portable and mobile RF communications equipment should be used no closer to any part of the 3053 Surgical Table, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.</p> <p>Recommended separation distance</p> $d = 1.2\sqrt{P}$ $d = 1.2\sqrt{P} \text{ 80 MHz to 800 MHz}$ $d = 2.3\sqrt{P} \text{ 800 MHz to 2.5 GHz}$ <p>where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in metres (m).</p> <p>Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, ^a should be less than the compliance level in each frequency range. ^b</p> <p>Interference may occur in the vicinity of equipment marked with the following symbol:</p> 
<p>NOTE 1: At 80 MHz and 800 MHz, the higher frequency range applies.</p> <p>NOTE 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.</p> <p>^a Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the 3053 Surgical Table is used exceeds the applicable RF compliance level above, the 3053 Surgical Table should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the 3053 Surgical Table.</p> <p>^b Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.</p>			

SECTION 12. REVISION HISTORY

Date	Revision	Revision History
04/17/2017	0	Initial release.
09/05/2017	1	Pg 13 - update Emergo Europe address
09/28/2017	2	Revised Emergo Europe address
07/19/2018	3	Pg 38: Added the table brake seat notice and warning. Pg 40: Added paragraph sections: "Maintenance Schedule", "Why maintain your table" and "Protecting your investment". Revised maintenance matrix. Pg 45: Added item 2 P/N D090102. Pg 46 and 47: Added item 3 P/N D090102.

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