MD CE

skytron

3603 UltraSlide
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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The base language for this document is ENGLISH. Any translations must be from the base language document.

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SECTION 1. SAFETY INFORMATION

1-1. Special User Attention

Prior to use, all personnel that may operate this table must be instructed in the correct operational procedures. The 3603 UltraSlide surgical table is designed for use by trained and qualified personnel for human medical purposes only.

Initial use should not begin until all personnel that will operate the surgical table have been instructed in its proper operation by a clinical in-service protocol administered by a SKYTRON representative.

A routine instructional program must be implemented by the facility for proper usage instructions for all personnel that may operate this table.

The maximum lifting capacity of the 3603 table is 1000 pounds (450 kg) and the maximum articulation weight capacity is 800 pounds (360 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 is intended for use by healthcare professionals only. 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.

The extreme positioning capabilities of the 3603 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 1-1 for a Pinch/Crush Point Diagram. Proper restraints should always be used for patient safety.

Ensure that the following transportation instructions are adhered to before moving the 3603 table:

a. Remove the power cord.

b. Place the main power switch (POWER SWITCH) in the OFF position.

c. Tighten all handles and knobs.

Ensure that the following packaging guidelines are adhered to when shipping the 3603 table:

- The 3603 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.

Table must always be equipped and operated with four (4) 6 volt, sealed, lead acid batteries available only through SKYTRON.

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.

The operator has the ultimate responsibility of preventing damage to the table and 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.

1-2. Reporting Serious Incidents

Notice - MDR Annex1.23.4(z)

Any serious incident that has occurred in relation to the device should be reported to the manufacturer and the competent authority in which the user and/or patient is established.

1-3. Pinch Point Hazards

HEAD AND BACK SECTION
CAN COLLIDE WITH BASE OR FLOOR

LEG SECTION AND
FLOOR CAN COLLIDE

⚠ WARNING

Possible Pinch/Crush Points

1-4. Safety Precautions

The following is a summary of DANGERS, WARNINGS, and CAUTIONS denoted in this manual. These precautions are found throughout the manual where they are applicable. Carefully read the manual before proceeding to operate or service the equipment.

WARNING

WARNING with the safety alert symbol, indicates a hazardous situation that, if not avoided, could result in serious injury.

Possible Pinch / Crush Points.

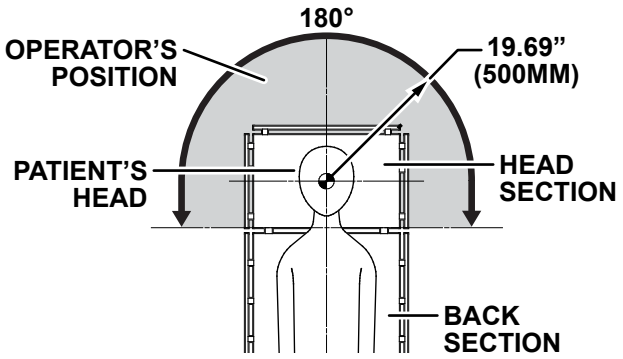
The interlock system is a table top positioning aid supplement device that still requires the clinician to use it in conjunction with visual care for maximum coverage. Position the table top slowly with care to avoid possible collisions.

This system is designed to provide a warning to assist the clinician in detecting collisions during table top articulation. Certain add-on devices such as table top extensions or accessories will affect the normal sensing system operation.

Prior to operating the table, observe all 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 for proper patient observation and access to the emergency stop switch.



Ensure brakes are properly set prior to patient transfer.

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.

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

Abide by manufacturer's instructions when using high frequency surgical equipment, cardiac defibrillator, and cardiac defibrillator monitors. Improper operation procedures may cause a shock hazard or 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 dependant on the use of the original pad set which was furnished with the table or an alternate approved replacement.

Consult with Skytron before reversing a patient on the table.

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

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

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

⚠ CAUTION

CAUTION with the safety alert symbol, indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

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.

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

If circumstances demand table brakes be unlocked with a patient aboard:

Patient must be centered and evenly distributed on the table in a 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 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 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 place objects below the table or on its' base. Risk of injury and damage exists when lowering or tilting the table.

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.

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

Ensure that the leg and back sections are 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 can be an injury hazard.

The following antiseptic solutions are approved for use on the table. Use enough disinfectant on the cloth to ensure it does not dry when wiping.

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.

When the emergency brake release handle is turned to the "UNLOCK" position, all functions including the Lock function will not operate. Always return the Emergency Brake Release to the "LOCK" position.

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.

Take extreme care when the table articulates within the close proximity zone understanding that the table WILL NOT stop before making contact with the floor, table base, or other objects. From a single viewpoint, it may not be possible to view all potential points of collision. Help from additional staff members in identifying and preventing collisions during table articulation while in the close proximity zone recommended. Pay close attention to the distance between the table base and the slide cylinder, back/leg section

The combination of minimum elevation (top 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 floor if both leg and elevation systems are placed in a full down position.

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 mating surfaces are completely dry. Moisture trapped between the pads and mating 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

2-1. Intended User and Intended Use

This surgical table is to be used by health care professionals, including but not limited to surgeons, nurses, and biomedical technicians.

The surgical table is to be used for human medical purposes only. The table IS NOT intended to be used for patient transport

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 inhibitor

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

2-3. Environmental Conditions

a. During Transport and Storage (In Original Packaging Materials)

- *Ambient Temperature:* 14° to 122°F (-10° to 50°C)
- *Relative Humidity:* 10% to 85% (No Condensation)
- *Atmospheric Pressure:* 21 in-Hg to 31 in-Hg (700 hPa to 1060 hPa)

b. During Use

- *Ambient Temperature:* 50° to 104°F (10° to 40°C)
- *Relative Humidity:* 30% to 75% (No Condensation)
- *Atmospheric Pressure:* 21 in-Hg to 30 in-Hg (700 hPa to 1060 hPa)

NOTICE

Operating altitude is 6562 feet (2000 m) max. above sea level.

2-4. 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 60601-2-46:2016 Ed.3.

2-5. Classification

Class I Equipment

Applied Parts: Table Top/Type B Applied Parts

IPX4 Rated

- 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.

2-6. Electrical Specifications

Power Requirements: 100 - 240 VAC, 50 - 60 Hz, 450 VA

Current Leakage: Less than 500 micro amps

Power Cord: 15 foot (4.5 m) w/ hospital grade connector (removable)

Duty Cycle: 3 min on, 7 min off

Battery Power: 24 VDC (6V10Ahx4) Furukawa Model: 6m10B SKYTRON Part Number: E0002356 Battery. Each battery sold separately, four batteries required.

2-7. Mechanical Specifications

Maximum Lifting Capacity: 1000 lbs (450 kg)

Maximum Articulating Capacity: 800 lbs (360 kg)

Unit Weight: 3603 893 lbs (405 kg)
3603H 904 lbs (410 kg)

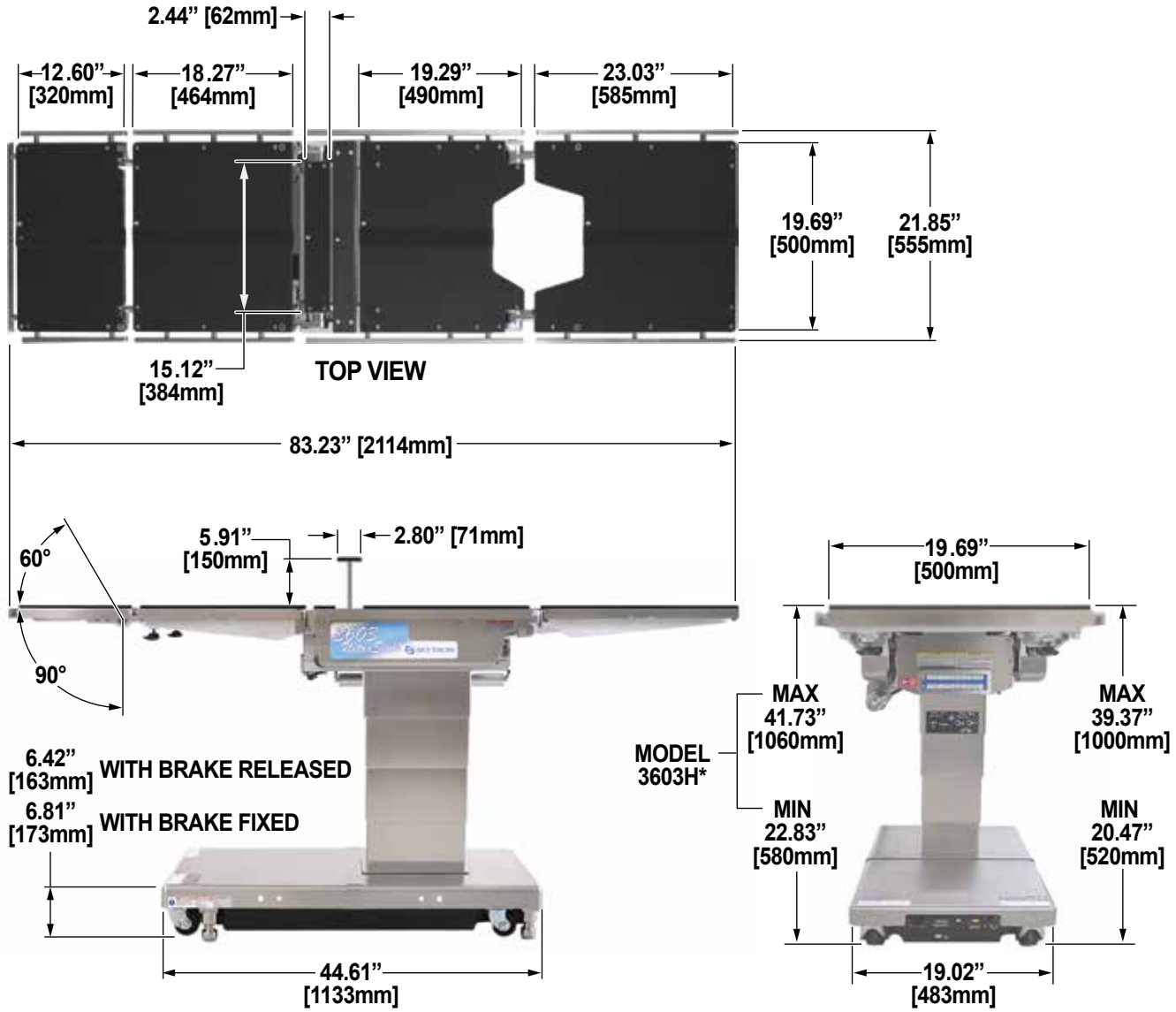
Maximum Patient Weight: 1000 lbs (450 kg)

Maximum Articulation Weight: 800 lbs (363 kg)

2-8. Movement Over Threshold

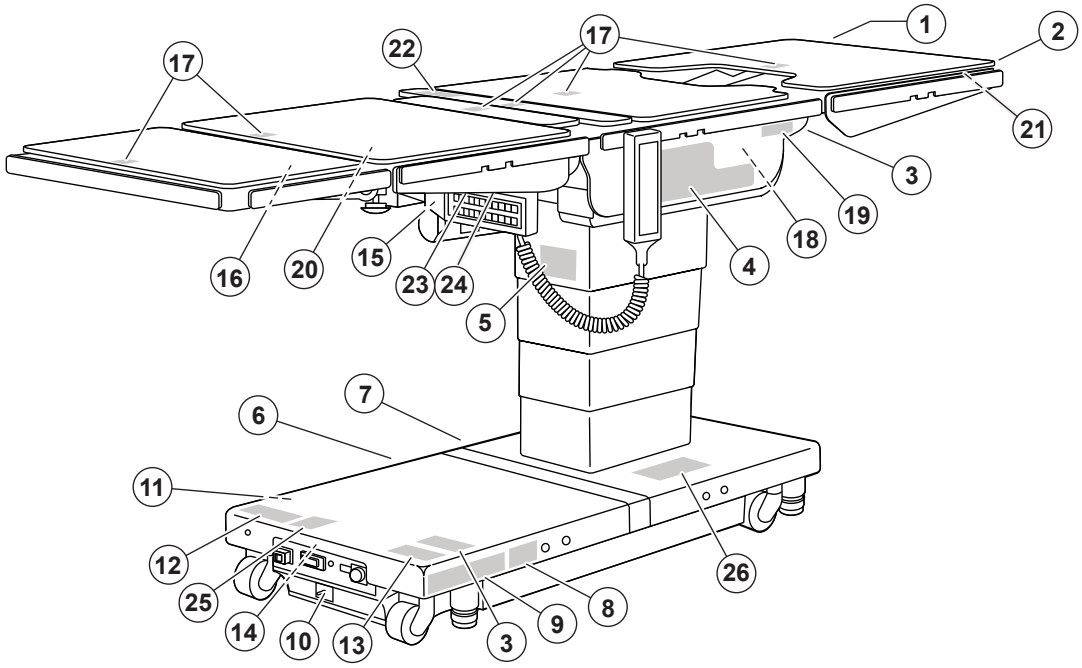
Height 0.39" (10mm) / Width 3.15" (80mm); 1.312 f/s (0.4 m/s)

2-9. Dimensions



* MODEL 3603H DELIVERS 60mm MORE ELEVATION THAN THE STANDARD MODEL

2-10. Equipment Labels



1 C656312

⚠ WARNING	⚠ MISE EN GARDE
USE HEAD SECTION AS FOOT EXTENSION ONLY - WHEN REVERSING PATIENT ON TABLE REFER TO OPERATOR MANUAL.	UTILISER LA PARTIE AVANT UNIQUEMENT COMME RALLONGE DE PIED - CONSULTER LE MANUEL D'UTILISATION AU MOMENT DE RETOURNER LE PATIENT SUR LA TABLE.

2 C656311

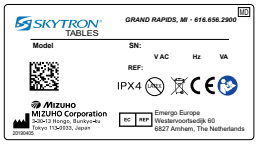
⚠ WARNING	⚠ MISE EN GARDE
DO NOT SIT ON END OF LEG SECTION(S) AS LOADS IN EXCESS OF 140 LBS (63 KG), WILL CAUSE INSTABILITY THAT COULD CAUSE THE TABLE TO BE TIPPED OVER.	NE PAS S'ASSOIR SUR LE(S) BORD(S) DE LA TABLE CAR UNE CHARGE DE PLUS DE 63 KG (140 LBS) PEUT ENTRAINER UNE INSTABILITÉ ET FAIRE BASCULER LA TABLE.

3 C642001

BEFORE JULY 2017

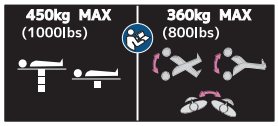
JULY 2017-APRIL 2020

AFTER APRIL 2020



4 C653644: R C653645: L C653642: R C653643: L

5 C653612



6 C653515

7 C653516

8 C656715

THIS PRODUCT COMPLIES WITH RADIATION PERFORMANCE STANDARD 21 CFR AT THE TIME OF MANUFACTURE

Manufactured: _____

Model No. _____

SKYTRON

9 C656738

⚠ DANGER	⚠ DANGER
POSSIBLE EXPLOSION HAZARD IF USED IN THE PRESENCE OF FLAMMABLE ANESTHETICS.	POSSIBILITÉ D'EXPLOSION EN CAS D'UTILISATION EN PRÉSENCE D'ANESTHÉSIQUES INFLAMMABLES.

10 C653513

11 C655002

12 C656741

NOTE	REMARQUE
GROUNDING RELIABILITY CAN ONLY BE ACHIEVED WHEN THE EQUIPMENT IS CONNECTED TO AN EQUIVALENT RECEPTACLE MARKED "HOSPITAL ONLY" OR "HOSPITAL GRADE".	LA FIABILITÉ DE MISE À LA TERRE NE PEUT ÊTRE OBTENUE QUE LORSQUE L'ÉQUIPEMENT EST CONNECTÉ À UNE PRISE ÉQUIVALENTE REPÉRÉE "HÔPITAL UNIQUEMENT" OU "QUALITÉ HÔPITAL".

13 C656740

⚠ WARNING	⚠ MISE EN GARDE
TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER OR BACK.	NE PAS RETIRER LE COUVERCLE OU LA FACE ARRIERE AFIN DE REDUIRE LE RISQUE D'ELECTROCUTION.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.	CONFIER L'ENTRETIEN AU PERSONNEL DE SERVICE QUALIFIÉ.
REFER TO ACCOMPANYING DOCUMENTS.	SE RÉFÉRER AUX DOCUMENTS D'ACCOMPAGNEMENT.

14 C653640

⚠ REPLACE BATTERIES ONLY WITH SKYTRON REPLACEMENT PART 24V(6x4)•10Ah

15 C653614

16 C653647

SKYTRON 363DU72

17 C653620

18 C655001

19 C653624

⚠ WARNING	⚠ MISE EN GARDE
A Patient shall be set up to more than 1cm apart from a side rail so that a patient does not touch on side rails	Un malade sera mis loin du rail du côté plus que 1cm afin qu'unmalade ne touche pas le rail du côté

20 C653648

SKYTRON 363DU73

21 C653649

SKYTRON 363DU74

22 C656310

⚠ WARNING	⚠ MISE EN GARDE
POSSIBLE TABLE DAMAGE	DOMMAGE POSSIBLE À LA TABLE
RETRACT KIDNEY LIFT COMPLETELY BEFORE RAISING BACK SECTION	RETIRER COMPLÈTEMENT LE DISPOSITIF DE LEVAGE AVANT DE LEVER LA PARTIR ARRIÈRE

23 C655803

⚠ CAUTION

- THE AUXILIARY SWITCH IS INTENDED TO BE USED WHEN THE CONTROL UNIT IS DEFECTIVE. USE THE CONTROL UNIT WHENEVER IT IS IN NORMAL CONDITION. BECAISE TJE AIXILIARY SWITCH HAS NO FUNCTION TO RESTRICT THE OPERA- TION OF THE TABLE, THE TABLE MAY BE DAMAGED WHEN IT IS OPERATED WITH THE AUXILIARY SEITCH.
- WHEN OPERATING THE TABLE WITH THE AUXILIARY SWITCH, BE SURE TO WATCH THE MOVEMENT OF THE TABLETOP CONTINUOUSLY.
- IF THE TABLETOP SHOULD TOUCH ANYTHING OR GET DAMAGED IN ANY DURING THE OPERATION, STOP OPERATING THE TABLE IMMEDIATELY.

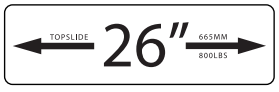
24 C657333

⚠ ATTENTION

- LE COMMUTATEUR DE SECOURS EST PRÉVU POUR ÊTRE UTILISÉ LORSQUE LE BOÎTIER DE COMMANDE EST DÉFECTEUX. UILISEZ TOUJOURS LE BOÎTIER DE COMMANDE DÈS LORS QU' IL EST EN ÉTAT NORMAL. LE COMMUTATEUR DE SECOURS N'AYANT AUCUNE FONCTION LUI PERMETTANT DE LIMITER LE FONCTIONNEMENT DE LA TABLE, CELLE-CI PEUT ÊTRE CNDOMMAGÉE LORSQU' ELLE ESTUTILISÉE AVEC LE COMMUTATEUR DE SECOURS.
- LORSQUE VOUS UTILISEZ LA TABLE AVEC LE COMMUTATEUR DE SECOURS, ASSUREZ-VOUS DE CONTINUELLEMENT SURVEILLER LE MOUVEMENT DU PLATEAU.
- SI LE PLATEAU VIENT À TOUCHER QUELQUE CHOSE OU EST ENDOMMAGÉ D'UNE QUELCONQUE MANIÈRE DURANT L'OPÉRATION, CESSEZ IMMÉDIATEMENT D'UTILISER LA TABLE.

25 C643003

26 C653646



⚠ CAUTION

THIS TABLE HAS BEEN EQUIPPED WITH A SAFETY INTERLOCK SYSTEM DESIGNED TO PROVIDE A WARNING TO ASSIST CLINICIAN IN DETECTING COLLISIONS DURING TABLE TOP ARTICULATION.

HOWEVER, DUE TO THE EXTREME POSITIONING CAPABILITIES OF THIS TABLE, COLLISIONS WITH TABLE BASE, FLOOR, OR EQUIPMENT CAN STILL OCCUR. POSITION THE TABLETOP SLOWLY WITH CARE TO AVOID POSSIBLE COLLISIONS.

⚠ ATTENTION

CETTE TABLE A EST ÉQUIPÉE D'UN SYSTÈME DE SÉCURITÉ QUI PREVIENT LE PERSONNEL SOIGNANT SI RISQUE DE COLLISION EST DÉTECTÉ LORS DE L'ARTICULATION DU PLATEAU.

TOUTEFOIS, EN RAISON DES NOMBREUSES POSSIBILITIÉS DE POSITIONNEMENT DE CETTE TABLE, DES COLLISIONS AVEC LA BASE DE LA TABLE, LE SOL OU L'ÉQUIPEMENT PEUVENT SURVENIR. POSITIONNEZ TOUJOURS LE PLATEAU AVEC PRÉCAUTIONS AFIN D'ÉVITER TOUTE COLLISION.

2-11. Label Symbols

Symbol	Description	Used On Product	Used In Manual
NOTICE	Indicates important facts or helpful hints.		•
	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.	•	•
MD	Medical Device symbol	•	•
	Type B applied part	•	
IPX4	Enclosure class (Splash-proof)	•	
	Indicates waste disposal information	•	
	Refer to instruction manual	•	
	Alternating current	•	
REF	Catalogue number	•	
SN	Serial number	•	
EC REP	Authorized Representative In The European Community	•	•
	Manufacturer	•	•
	Equipotentiality	•	
	General prohibition sign	•	
	General mandatory action sign	•	
	Emergency stop	•	
	Protective Earth (ground)	•	
	Functional Earth (ground)	•	

SECTION 3. INTERLOCK SENSING SYSTEM OVERVIEW

WARNING

The interlock system is a table top positioning aid supplement device that still requires the clinician to use it in conjunction with visual care for maximum coverage. Position the table top slowly with care to avoid possible collisions.

WARNING

This system is designed to provide an audible alarm to assist the clinician in detecting collisions during table top articulation. Certain add-on devices such as table top extensions or accessories will affect the normal sensing system operation.

NOTICE

Some 3603 Ultra Slide surgical tables are equipped with the optional soft interlock system. In certain models, the soft interlock system is deactivated. In such a case, the soft interlock system described below will function as a hard interlock. Contact a local distributor to activate or deactivate the soft interlock system.

3-1. Interlock Sensing System

A hard interlock results in the immobilization of a tabletop articulation and will sound a continuous audible alarm. This type of interlock will prevent damage to the table by inhibiting any further movement.

3-2. Soft Interlock Sensing System (if equipped)

A soft interlock will initially immobilize the table articulation and sound an audible pulsating alarm indicating that the components are operating in a close proximity zone. After the initial stop, the table can be articulated beyond the recommended proximity zone.

3-3. To Continue Articulation After a Soft Interlock Warning

1. Articulate a function until the pulsating alarm sounds and articulation stops.
2. Release and then depress the table function button again to continue table articulation beyond the initial stopping point.

While continuing the articulation the pulsating audible beep will continue to sound. This pulsating audible beep indicates that the table may be within near proximity to itself, the floor, or other potential equipment.

CAUTION

Take extreme care when the table articulates within the close proximity zone understanding that the table WILL NOT stop before making contact with the floor, table base, or other objects. From a single viewpoint, it may not be possible to view all potential points of collision. Help from additional staff members in identifying and preventing collisions during table articulation while in the close proximity zone is recommended. Pay close attention to the distance between the table base and the slide cylinder, back/leg sections, and pendant control cord.

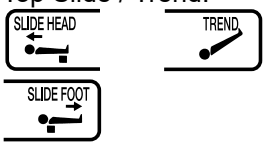
3-4. Possible Reasons for Interlock Failure

The interlock system may not operate correctly under the following conditions:

- The interlock systems sensors are obstructed by linens or medical tape.
- The interlock systems sensors are damaged or misaligned.
- The interlock system sensors are not functioning due to fluid ingress.

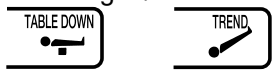
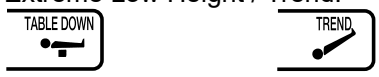
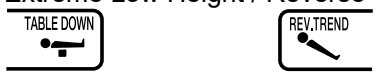
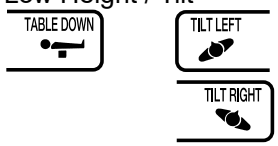
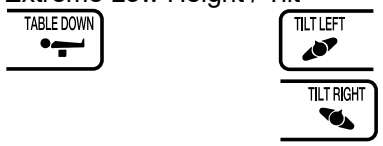
3-5. Hard Interlock System

(Audible continuous beep, articulation stopped)

FUNCTION and ICON	DESCRIPTION
Leg Down / Slide to Head 	The table will prohibit the leg section from colliding with the table column or from lowering into the table column when combined with a head slide.
Back Down / Slide to Foot 	The table will prohibit the back section from colliding with the table column or from being lowered into the table column when slid toward the leg.
Kidney Up / Back Up 	The back section is limited to 45° when the kidney bridge is raised.
Top Slide / Trend. 	The table will not top slide once in 20° or more of Trendelenburg or Reverse Trendelenburg.

3-6. Soft Interlock System

(Pulsing beep, articulation interrupted)

FUNCTION	DESCRIPTION
Low Height / Trend. 	Movement is interrupted when the table height is below 28.35” [720mm] and Trendelenburg is greater than 20°.
Extreme Low Height / Trend. 	Interlocks interrupt movement when the table height is below 24.41” [620mm] and Trendelenburg is greater than 5°
Low Height / Reverse Trend. 	Interlocks interrupt movement when the table height is below 28.35” [720mm] and Reverse Trendelenburg is greater than 20°.
Extreme Low Height / Reverse Trend. 	Interlocks interrupt movement when the table height is below 24.41" [620mm] and Reverse Trendelenburg is greater than 5°.
Low Height / Tilt 	When the table height is below 28.35" [720mm] the table movement will be interrupted when the tilt angle exceeds 15° to the patient left or 30° to the patient right.
Extreme Low Height / Tilt 	When the table height is below 24.41" [620mm] the table movement will be interrupted when the tilt angle exceeds 10° to the left or 15° to the patient right.

SECTION 4. OPERATION

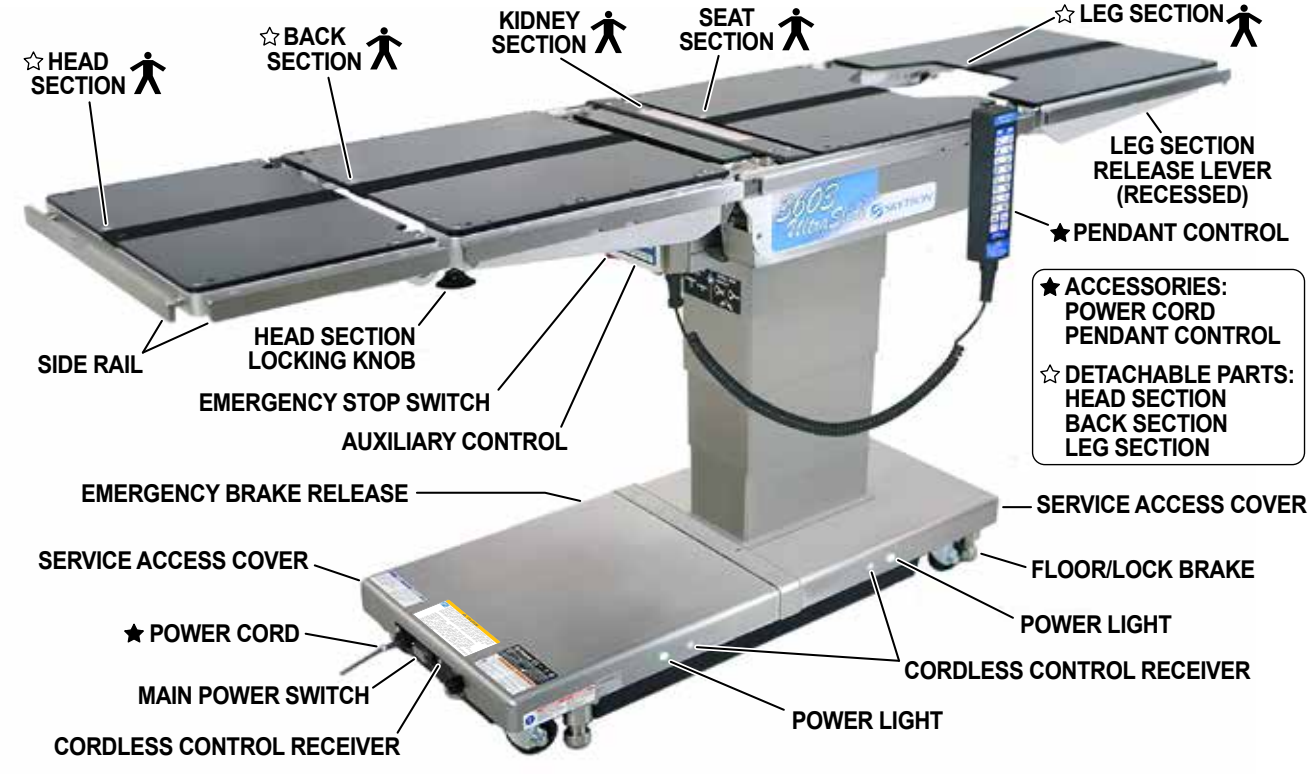


Figure 1. 3603(H) Surgical Table

4-1. General

The 3603 UltraSlide surgical table is an electro-hydraulically operated, general purpose surgical table. The optional 3603H model offers a greater maximum height (Figure 1).

Electro-hydraulic positioning functions operated by the hand-held, push button, pendant control are:

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

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

4-2. Power Requirements

The 3603 table requires a 100 - 240 VAC, 50/60 Hz 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 main power ON/OFF switch is on the panel at the front edge of the table base (Figure 2).

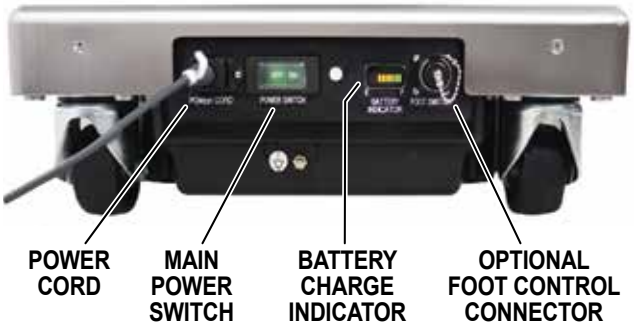


Figure 2. Electrical Panel

The battery charging indicator and foot control connector are also located on the electrical panel.

4-3. Pendant Control

The hand-held pendant control has a non-slip rubber cover which assures a positive grip during use. A spring clip hanger is located on the back of the control for storage. When the pendant control is not in use, it should be stored on a convenient side or end rail (Figure 3).

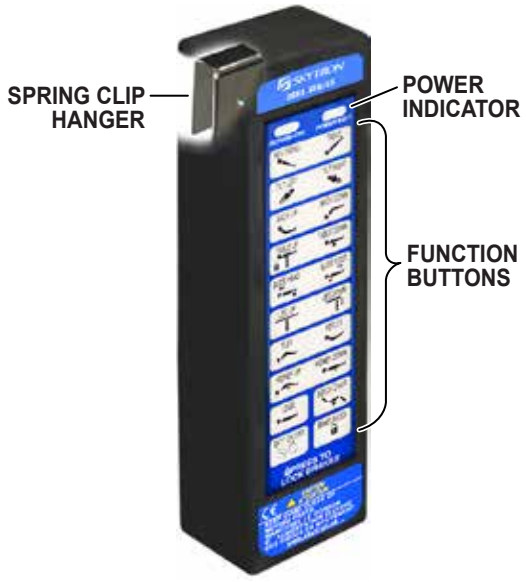


Figure 3. Pendant Control

The function push buttons are identified with internationally recognized symbols and abbreviated descriptions for all functions. When illuminated, the Trendelenburg (Trend) and Table Up buttons are red, the remaining buttons are all green (Figure 4).

Figure 4. Pendant Control Buttons

NOTICE

If control button is pressed continuously more than three (3) minutes, a thermal protector will actuate and operation will stop. The thermal protector resets in approximately 7 minutes.

4-4. Cordless Pendant Control (optional)

The cordless pendant control functions the same as the corded pendant control except for the return to center and power on lights. The pendant must be aimed at the receiver buttons located on the sides and both ends of the table base (Figure 5).

Figure 5. Cordless Pendant Control Buttons

The cordless pendant control is powered by three AA batteries. To replace the batteries use a screwdriver to remove the cover and insert three AA batteries, then reattach the battery cover (Figure 6).

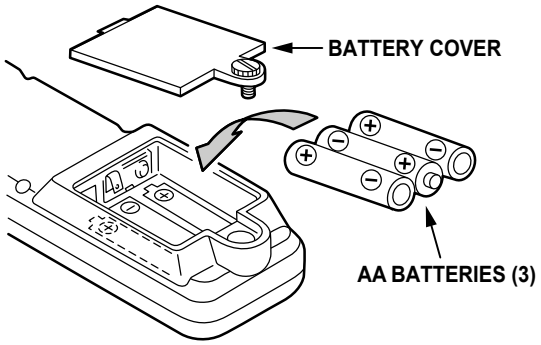


Figure 6. Cordless Pendant Control Batteries

4-5. Floor Lock/Brake System

The floor lock/brake system consists of four (4) self-leveling, hydraulic brake cylinders which raise and support the table base off from the casters. Press the Table Up button on the pendant control to set the table's brakes. An electronic timer will activate the brake system until the brakes are completely set (approximately 8-10 seconds).

NOTICE

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

Pressing the Brake Unlock button on the pendant control will retract the brake cylinders, lowering the table base onto the casters for mobility.

4-6. Electrical Power

⚠ WARNING

Possible explosion hazard exists if table is used in the presence of Flammable Anesthetics.

Prior to operating the table, observe all precaution labels and review the Special User Attention section in the front of this manual.

The table operates on either AC or battery power.

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 to ensure patient and staff safety.

4-7. AC Operation

Use the following instructions to operate the table on AC power.

⚠ CAUTION

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.

1. Make sure the power cord is securely attached to the table. To install the power cord, align the cord connector with the base connector (Power Cord), insert the cord into the connector until it locks in place (Figure 7).

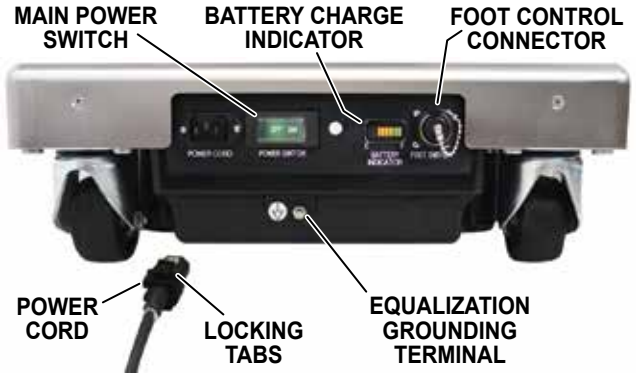


Figure 7. Electrical Panel

NOTICE

To remove the power cord, depress the top and bottom locking tabs and pull the cord connector out of the base connector.

2. Plug the power 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 equipment is connected to a properly grounded receptacle. If the integrity of the external ground is compromised, equipment must be operated in the battery mode.

Use only SKYTRON replacement parts for the power cord and pendant control. Refer to Section 5. Replacement Parts.

3. Place the main power switch in the ON position. The switch will illuminate. The pendant control buttons and the green AC power indicator light located in the upper right corner of the pendant control will illuminate (Figure 8).

Figure 8. Pendant Control (AC Power)

4-8. Battery Operation

NOTICE

Prior to all surgical procedures, make sure the battery charge is sufficient for the anticipated duration and usage. The table operates correctly on battery power with the power cord connected or disconnected to a wall outlet.

1. Make sure the main power switch indicator light, on the electrical panel is OFF. If the light is ON (AC Power ON) place the main power switch in the OFF position (Refer to Figure 7).
2. Press the Batt ON/OFF button on the pendant control. The pendant control buttons, the red and green Battery indicator lights in the upper right corner of the pendant control, and the battery charge indicator on the electrical panel will illuminate (Figure 9).

Figure 9. Pendant Control (Battery Power

3. The table is now ready for battery operation. To extend 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.

NOTICE

Battery operation must be turned OFF with the pendant control. It cannot be turned OFF using the main power switch on the electrical panel.

4-9. Automatic Shut-Off

To prevent unnecessary battery discharge, a timer is built into the battery circuit to automatically shut the battery power OFF after 2 hours of inactivity.

Turn the table ON, press the pendant control Batt ON/OFF button. The pendant buttons and the red and green battery indicator lights will illuminate.

NOTICE

Placing the main power switch in the ON position will change the table operation to AC power.

4-10. Charging the Batteries

Batteries should be charged:

- When the table is placed into initial service
- As indicated by the battery charge Indicator
- Every week under normal service conditions

In battery mode: three (3) green, four (4)yellow, and three (3) red LEDs on the battery charge Indicator are lit up according to the charge state.

In the charging mode, three (3) green and four (4) yellow on the battery charge Indicator are lit sequentially, then turn off and on sequentially.

If the battery needs to be charged when operating the table on battery power, the red BATT indicator light on the pendant control will begin to blink.

When the red BATT indictor starts to blink, the table will operate for approximately 5 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 battery is being charged.

To recharge the battery, plug the power cord into an AC wall outlet, and turn the main power switch ON.

A full battery charge will last approximately 2 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. The batteries will last longer if they are not permitted to fully discharge.

The table has four (4) 6 volt, sealed batteries which require no manual maintenance. Lead acid gel batteries, under a proper charging program, feature an approximate normal life of 4 years.

The batteries must be properly maintained to ensure proper operation of the table in the event of an AC power supply failure.

The chart (on the following page) shows battery charge level.

Battery Mode

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

4-11. To Shut The Table Down (If Needed)

In Battery Mode:

Press Batt ON/OFF button on the pendant control.

In AC Mode:

1. Unplug the power cord from AC outlet
2. Table will switch to battery mode.
3. Press the Batt ON/OFF button on the pendant control.

In Emergency Situation:

Push the emergency stop switch, an audible alarm will sound.

4-12. Positioning Functions

The hand-held pendant control activates the following table functions. Press the appropriate function button to activate positioning. Positioning will stop when the button is released (Figure 10).

Figure 10. Pendant Function Buttons

NOTICE

With an evenly distributed patient weight load up to 800 lbs (360 kg), all table positioning functions will operate smoothly and quietly.

WARNING

The operator should remain positioned as shown for proper patient observation and access to the emergency stop switch (Figure 11).

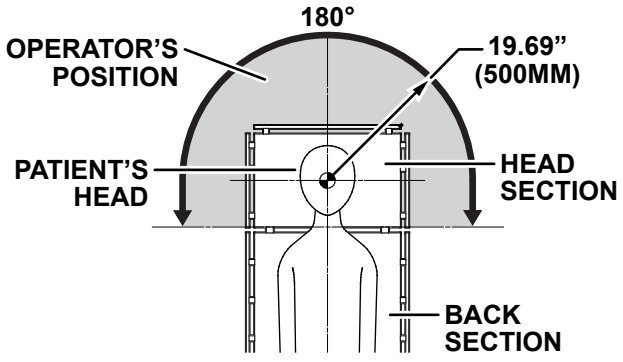


Figure 11. Operator's Position

a. Floor Lock/Brake System

To activate the brakes without affecting table positioning, press the Table Up button. The elevation cylinder will not function until the brakes are completely extended (Figure 12).

Figure 12. Brake System Activation

Press the Brake Unlock button on the pendant control to release the four (4) self-leveling brake feet in order to move the table. The brake delay circuit automatically retracts the brake system in approximately 10 seconds.

WARNING

Ensure brakes are properly set prior to transfer of the patient.

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.

CAUTION

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

If circumstances demand table brakes be unlocked with a patient aboard:

Patient must be centered and evenly distributed on the table in a 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 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 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.

WARNING

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

CAUTION

DO NOT place objects below the table or on its' base. Risk of injury and damage exists when lowering or tilting the table.

b. Trendelenburg

WARNING

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

For Trendelenburg head-down position, press the Trendelenburg button. For reverse Trendelenburg head-up position, press the Rev. Trend. button. Positioning of up to 30° may be obtained for both Trendelenburg positions (Figure 13).

When the table elevation height is in the range of 28.35" (720 mm) to 24.41" (620 mm) the maximum angle of Trendelenburg head down tilt is 20°.

When the elevation height from the floor to the table top is less than 24.41" (620 mm) the maximum angle of 5° for both head down and up positions.

To obtain full Trendelenburg, tilt and top slide at the same time, fully slide table before moving into Trendelenburg and Lateral Tilt. The table will limit top slide once in 20° Trendelenburg and or 15° of tilt

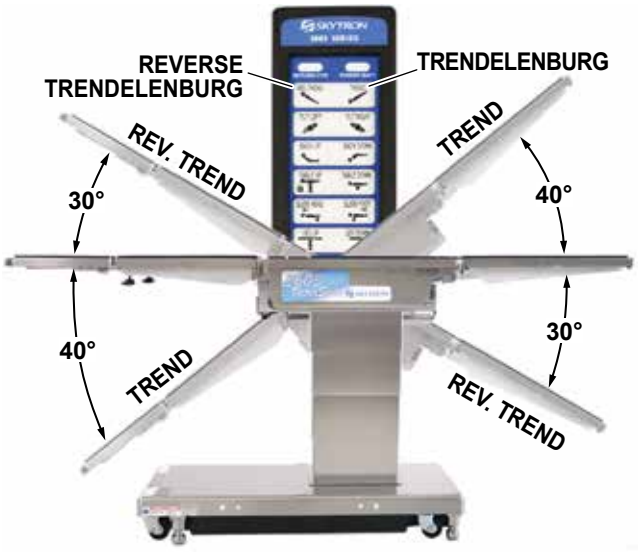


Figure 13. Trendelenburg Positioning

CAUTION

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

c. Lateral Tilt

WARNING

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

To achieve lateral tilt right (as viewed from the head end of the table), press the Tilt Right button. For lateral tilt left, press the Tilt Left button. Lateral tilt up to 35° may be obtained for both (Figure 14).

When the table elevation height is in the range of 28.35" (720 mm) to 24.41" (620 mm) the maximum angle of left down position is 15° and 30° for the right down position.

When the elevation height from the floor to the table top is less than 24.41" (620 mm) the maximum angle of the left down position is 10° and 15° for the right down position.

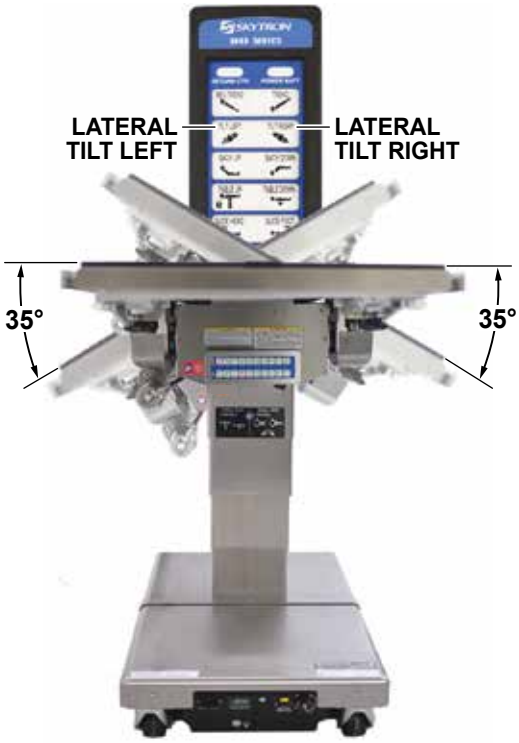


Figure 14. Lateral Tilt Positioning

d. Back Section

Press the Back Up button to raise the back section up to 90° above horizontal or the Back Down button to lower the back section down to 40° below horizontal (Figure 15).

If the top is slid toward the foot end, the back section will not go below horizontal and the audible alarm will sound. The interlock prevents the back section from going more than 45° above horizontal if the kidney lift is not all the way down and the audible alarm will also sound.

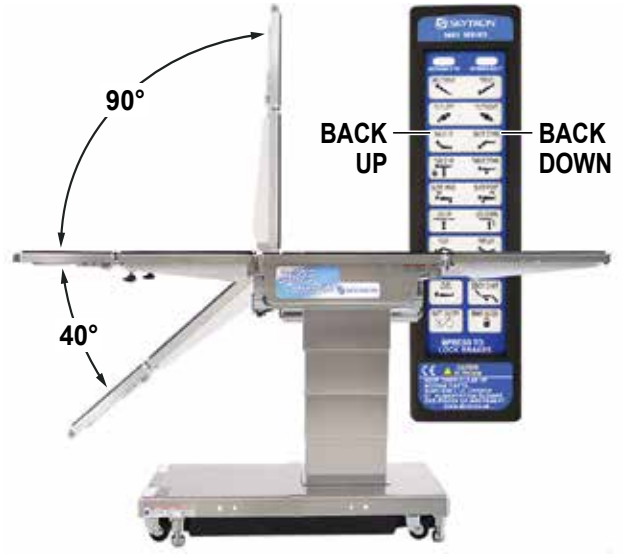


Figure 15. Back Section Positioning

e. Elevation

Press the Table Up button to raise the table top up to 39.37" (1000 mm) maximum height or 41.73" (1060 mm) with model 3603H (Figure 16).

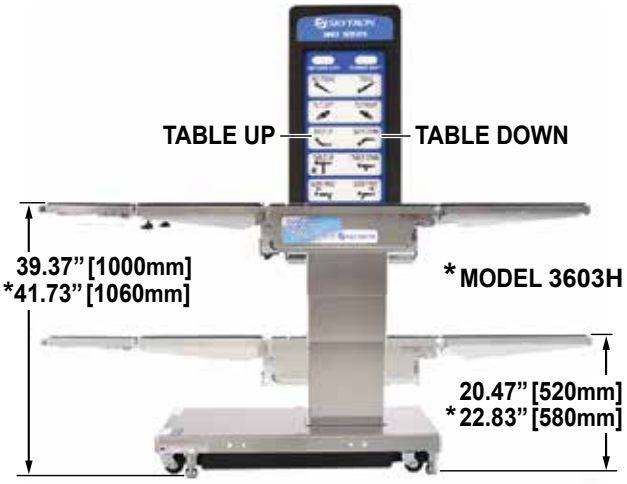


Figure 16. Elevation Function

Press the Table Down button to lower the table top down to 20.47 inches (520 mm) or 22.83" (580 mm) with model 3603H.

CAUTION

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

f. Top Slide

To move the table top toward the head end, press the Slide Head button. The top will slide 9.84 inches (250 mm) from the center position.

To move the table top toward the foot end, press the Slide Foot button. The top will slide 16.34 inches (415 mm) from the center position (Figure 17).

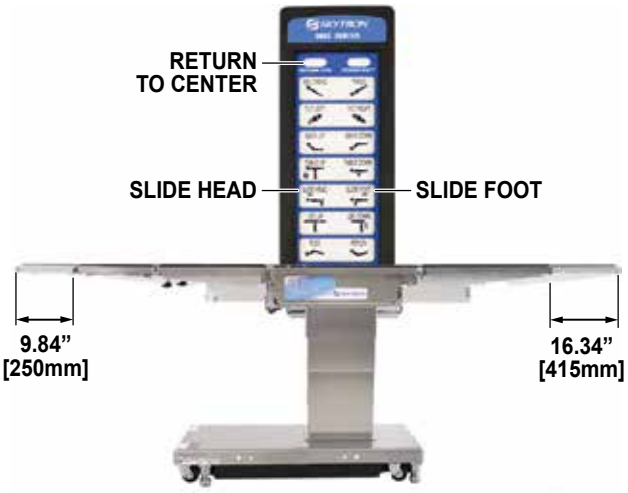


Figure 17. Top Slide

CAUTION

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

If the Head section is positioned 20° or more above or below horizontal, the top cannot slide in either direction and the alarm will sound.

If the back section is positioned below horizontal, the top will not slide toward the foot end beyond center and the alarm will sound.

If the leg section is below horizontal, slide toward head is limited to 7.68 inches (195 mm) from center. If the leg section is more than 45° below horizontal, the top will not slide toward the head end beyond center and the alarm will sound.

If the lateral tilt left up or right up angle is 15° or more, the table top cannot slide in either direction and the alarm will sound.

Slide function will stop and Return Ctr Indicator will illuminate when table top is centered.

g. Leg Section

To lower leg section, press Leg Down button. The leg section will lower all way to 100° below horizontal (Figure 18).

If the top is slid toward the head end less than 7.68 inches (195 mm) from center, the leg section will only go down 45° and an audible alarm will sound.

If the top is slid toward the head end more than 7.68 inches (195 mm) from center, the leg section will not go beyond horizontal.

To raise the leg section, press the Leg Up button. The leg section will go up to 15° above horizontal.

CAUTION

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

Figure 18. Leg Section Positioning

h. Flex Positioning

To place the table top in a flex position from horizontal, press the Flex button (Figure 19).

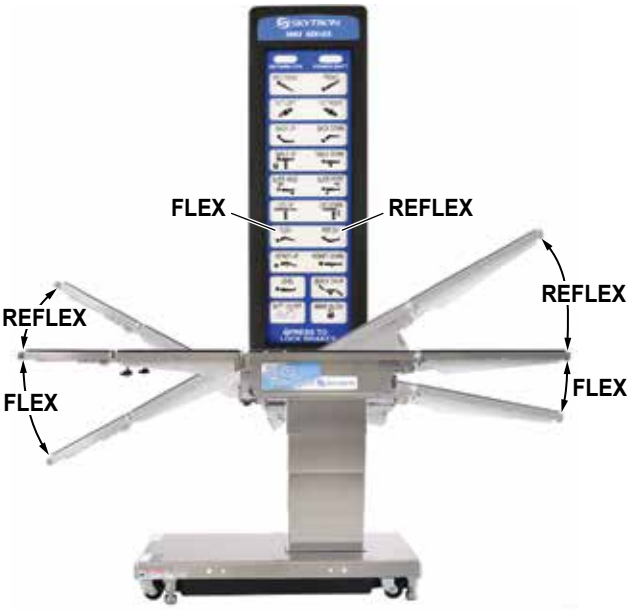


Figure 19. Flex / Reflex Positioning

To return the table top to a horizontal position or into a reflex position, press the Reflex button.

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.

i. Kidney Lift

To raise the built-in kidney lift, press the Kidney Up button. The kidney lift can be raised up to 5.91 inches (150 mm) above the table top (Figure 20).

Press the Kidney Down button to lower the kidney lift.

NOTICE

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

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

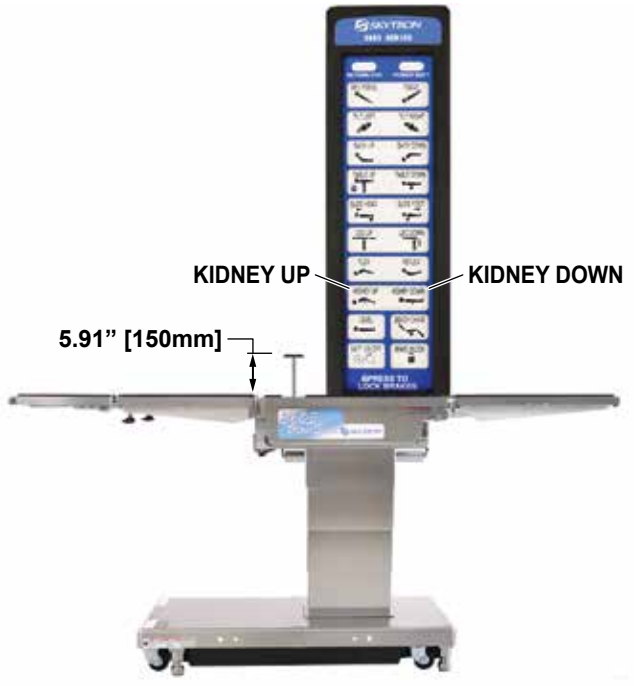


Figure 20. Kidney Lift Positioning

j. Return To Level

To return the table top to a level position, press the Level button (Figure 21).

NOTICE

Elevation, slide, & brake functions are not affected by the Return To Level function.

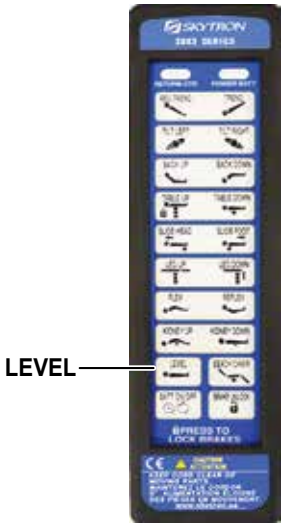


Figure 21. Return To Level

k. Beach Chair

To place the table top in the beach chair position from a level position, press the Beach Chair button. The back section will raise, the leg section will lower, and the Trendelenburg position will function simultaneously. The functions will stop when Trendelenburg reaches it's limit (Figure 22).

Figure 22. Beach Chair

NOTICE

If top slide has extended 7.68" (195mm) from the center towards the head end, the beach chair will not function and the alarm will sound.

4-13. Emergency Stop Switch

⚠ CAUTION

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.

An emergency stop switch is located under the table top, to the left side of the emergency backup controls (Figure 23).

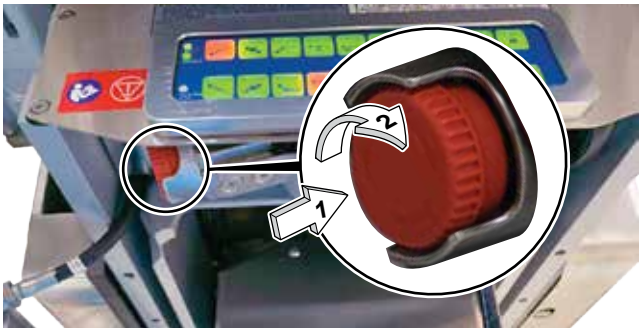


Figure 23. Emergency Stop Switch

1. In case of a malfunction where a positioning function continues to operate, pressing red emergency stop switch button will interrupt all power to the pump. All positioning functions stop and an audible alarm will sound.
2. When the emergency is cleared or the malfunction is corrected, turn or pull out the switch button to release or reset switch.

4-14. Emergency Back-up Control

CAUTION

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

Simply press the desired emergency switch in the same way as the switches on the pendant. It can operate as long as the switch is pressed and stop once the maximum angle is achieved (Figure 24).

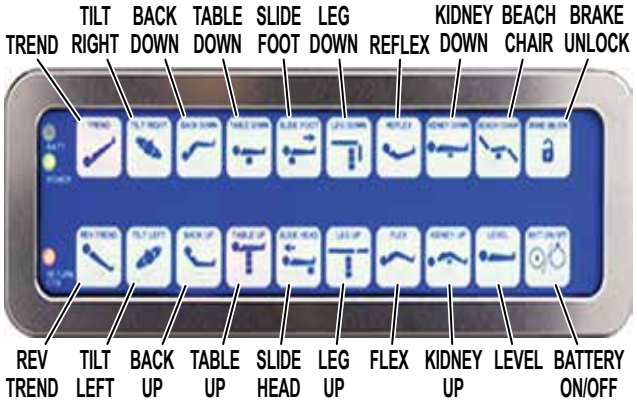


Figure 24. Emergency Back-Up Control Panel

Emergency back-up control panel is located below the back section (Figure 25).

Figure 25. Emergency Control Location

Switches are provided for Trendelenburg, Lateral Tilt, Back up/down, Table up/down, Slide, Leg up/down, Flex, Reflex, Kidney up/down, Beach Chair, Level, and Brake Unlock.

4-15. Emergency Brake Release

In case of a power failure or an electrical problem within the table, the emergency brake release system can be used to release the brakes so the table can be moved. The control knob (valve) for this function is located on the side of the table base and is identified by an Emergency Brake Release label. Turn the knob clockwise to release the brakes (Figure 26).

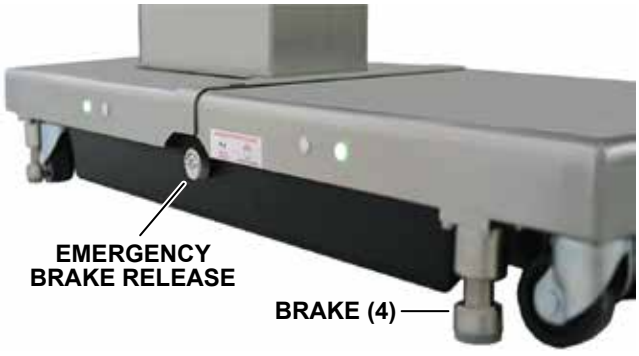


Figure 26. Emergency Brake Release

⚠ CAUTION

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 with a patient aboard:

The 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 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.

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.

4-16. Head Section

a. Adjustment

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

Pull the release bar toward the head end to allow the section 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

b. Removal/Installation

If desired, the head section may be removed by loosening the locking knobs and pulling it straight out of the back section (Refer to Figure 3-26).

⚠ CAUTION

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

The 3603 table has the capability of attaching the head section to the leg section for use as a foot extension ONLY.

Two (2) locking knobs for securing the head section are located on the inside the foot/leg section (Figure 28).

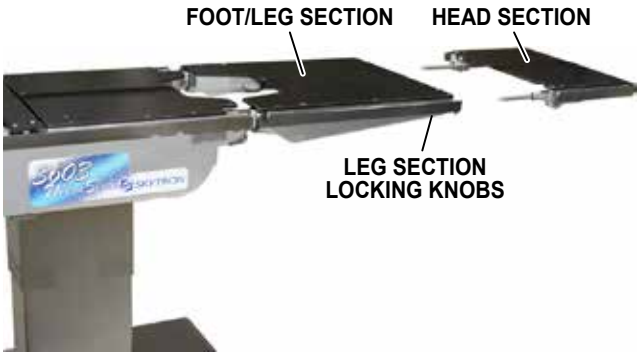


Figure 28. Head Section as a Foot Extension

4-17. Leg & Back Section Removal/ Installation

The leg section and back section on the 3603 table are both removable (leg section shown in (Figure 29).

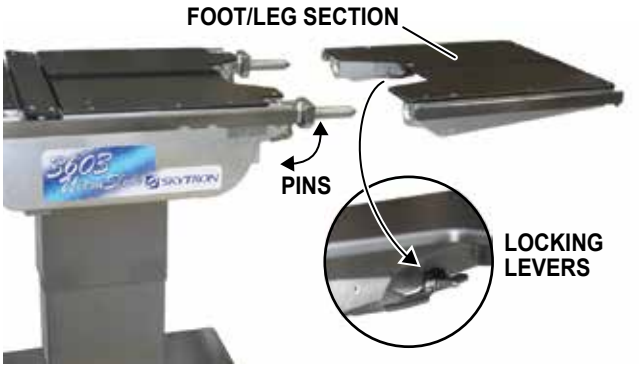


Figure 29. Leg Section Removal

NOTICE

To make the back section easier to handle, remove the head section, pad, and X-ray top prior to removing the back section. Remove the pad and X-ray top prior to removing the leg section.

To remove back and leg section:

1. Level the table top.
2. If equipped, manually pull down the spring loaded stop (Figure 30).

Figure 30. Spring Loaded Stop

3. Simultaneously depress both release levers and pull the section out.
4. Press the Leg Down or Back Down button on the pendant control to position the attachment pins down and out of the way.

NOTICE

The leg and back sections are labeled for proper orientation. The leg section cannot be installed on the back section pins.
Leg and back section pins do not move at the same rate of speed with the section removed. Make sure both pins are completely stopped.

To install the leg section:

1. Press and hold the LEG UP button until both leg section attachment pins completely stop.
2. If equipped, manually pull down the spring loaded stop (Figure 30).
3. Install the leg section on the pins.
4. Level the table top and pull out on the section to make sure the release levers are completely locked.

To install the back section:

1. Align the attachment pins, center the table top towards the head end.
2. Press and hold the Back Down button until both attachment pins completely stop.
3. Press Rev. Trend. to bring the pins to a level position.
4. If equipped, manually pull down the spring loaded stop (Figure 30).
5. Install the back section on the pins.
6. Level the table top and pull out on the back section to make sure the release levers are completely locked.

CAUTION

Ensure that the leg and back sections are properly engaged and secured to pins before use to prevent injury.

4-18. Pad Sets

WARNING

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

WARNING

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

WARNING

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

The antistatic properties of the table are dependant 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

IEC60601-1 edition 3 compliance 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.

4-19. Positioning

The use of certain optional accessories available from SKYTRON further extend the positioning capabilities of the 3603 table.

CAUTION

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

CAUTION

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.

CAUTION

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.

Figure 31. 3603 Patient Positioning Guidelines

Upper Body Imaging

Lower Body Imaging

Upper Body Imaging With
40" Carbon Fiber Extension

Lower Body Imaging With
40" Carbon Fiber Extension

Ophthalmic / ENT

Kidney / Thoracic

Neuro (Neck)

Neuro (Lumbar)

Figure 32. 3603 Positioning Guidelines (continued)

Lap Nissen

Lumbar

Shoulder Arthroscopy

Urology

Bariatric Options

Cysto/gyn/Endourology

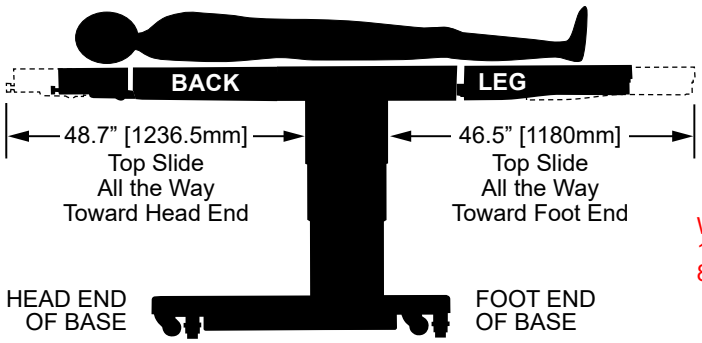
Abdominal

Ophthalmic

Gastro/Intestinal

4-20. Positioning and Clearance

NORMAL TABLE TOP ORIENTATION

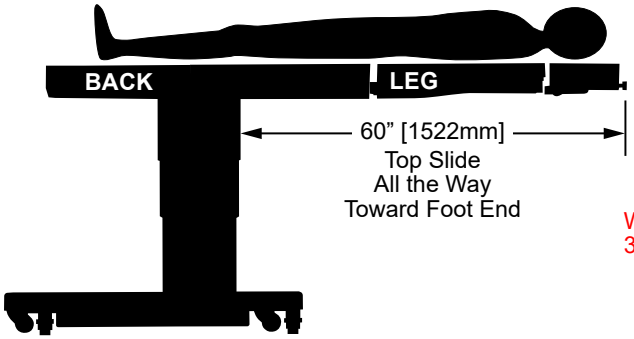


WEIGHT CAPACITY
1,000 LBS [450 KG] LIFT
800 LBS [360 KG] ARTICULATE

BRAKES MUST REMAIN LOCKED TO THE FLOOR

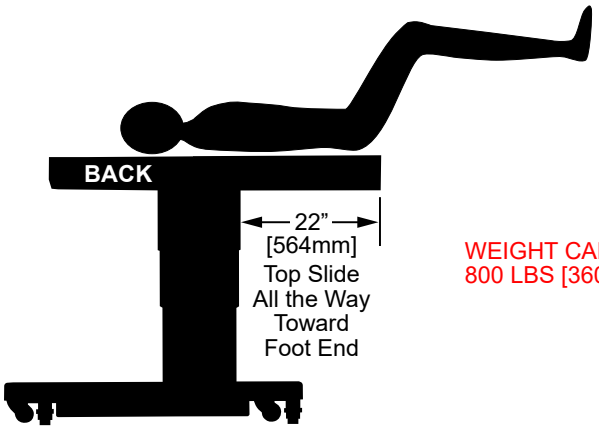
BRAKES MUST REMAIN LOCKED TO THE FLOOR

PATIENT REVERSED
HEAD SECTION ATTACHED TO LEG SECTION



WEIGHT CAPACITY
300 LBS [135 KG]

LEG SECTION REMOVED



WEIGHT CAPACITY
800 LBS [360 KG]

WARNING

Consult with Skytron before reversing a patient on the table.

SECTION 5. MAINTENANCE

5-1. Cleaning and Disinfecting

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

WARNING

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

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 instructions and warnings provided by the cleaning product manufacturer.

a. Cleaning Pads

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

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

b. Cleaning Table Surfaces

CAUTION

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

1. Repeat cleaning procedure for all table surfaces including the top, sides, elevation column, base, and all accessories.
2. When the cleaning procedure is complete, replace all pads and accessories as applicable.

c. Cleaning Pendant Control

CAUTION

Avoid immersing the pendant control assembly in liquids.

1. Apply cleaning solution to the pendant control and cord.
2. Use a clean cloth dampened with water to remove cleaning solution.
3. Use another clean damp cloth to remove any remaining residue.
4. Install pendant control on side rail for storage when cleaning procedure is complete. Allow to dry.
5. Clean casters and floor lock brakes.

d. Disinfection

CAUTION

The following antiseptic solutions are approved for use on the table. Use enough disinfectant on the cloth to ensure it does not dry when wiping.

- Sodium hypochlorite 0.1% (halogen containing compound)
- Sodium thiosulfate
- Chlorhexidine (chlorhexidine gluconate 0.5%)
- Benzalkonium chloride (invert soap 10%)
- Povidone iodine)Ethanol 80%
- Hydrogen peroxide
- Saline (0.9%)
- Isopropyl alcohol (IPA)

Use the following steps when disinfecting the surgical table:

1. Remove all table pads from the table.
2. Apply a proper quantity of disinfectant (ensure it does not dry when wiping) on a clean, lint-free cloth, and thoroughly wipe the top, sides, and bottom of the pads with the cloth.
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.

5-2. Routine Inspections

CAUTION

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

a. 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 (POWER SWITCH).
6. Test all functions of the pendant control 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. Check battery charge, recharge batteries if necessary.

b. 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.
4. Recharge batteries

c. 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.

5-3. 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:

a. Check all hydraulic fittings, mini-valves, and slave cylinders for proper operation and any signs of leaks.

b. Check the hydraulic speed controls and adjust as necessary.

c. Pressure check (with a gauge) the pressure relief valve.

d. Check all mechanical adjustments and adjust as necessary.

e. Check hydraulic fluid level.

f. Lubricate the slider assembly.

g. Check function of leg and back section release levers; lubricate as necessary.

h. Check the recharging of batteries:

- Whenever table is placed into use.
- Whenever the table is unused for an extended period of time.

i. Check table top level function.

j. Inspect emergency back-up controls.

5-4. Operator Troubleshooting

When troubleshooting a table malfunction, first determine the following:

a. Does the problem affect all control functions?

b. Does the problem affect only one control function?

c. If the problem affects one control function is it in both directions?

d. Is the problem intermittent?

e. 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.

Replacement of fuse must be performed by a certified SKYTRON technician.

5-5. Maintenance Checks & Services

Refer to Replacement Parts section (Section 5) for component locations.

CAUTION

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

Refer all service to a SKYTRON authorized service representative.

a. Head Section

1. Make sure both head section locking knobs are installed, have full range of motion, and their threads are not stripped (Figure 33).

Figure 33. Head Section

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

b. Top Section Components

1. Ensure the leg and back section release levers lock and release properly, section pins are not distorted and apply white lithium grease thinly to the pins so the sections slide on smoothly. (Figure 34).

Figure 34. Leg and Back Sections

2. Lower the leg section 90° to ensure release lever stops prevent disengagement.

NOTICE

Ensure leg section does not "search" continuous alternating raising and lowering, when returning to level. Adjustment can only be performed by a SKYTRON authorized service representative.

3. Make sure the side rail gravity stops are installed and move freely.
4. Ensure that all warning and caution labels are present and readable.
5. Ensure the table top sections are not cracked or warped. Replace as needed.
6. Ensure heads of the screws that secure all top sections do not have sharp burrs.
7. Place an X-ray top into the table top sections to ensure that it has a snug fit.
8. Inspect for hydraulic oil leaks.
9. Apply a thin coat of white lithium grease to the kidney bridge extension shafts.
10. Ensure the support bushings rotate when the back section is raised.

c. Base Components

1. Ensure the power cord is not frayed, pinched, or otherwise damaged (Figure 35).

Figure 35. Power Cord

2. Ensure the power cord retaining clip is present and locks the power cord to the table 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 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 all four (4) brakes.
12. Ensure the shroud assemblies are not damaged and slide smoothly.
13. Check all screws are secured tightly.
14. Ensure all four casters rotate 360° and there are no flat spots on the wheels.

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 (4) brake pads and they are not chipped or otherwise damaged.

d. Hydraulic Oil Level Check

NOTICE

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

1. Remove the ten (10) screws that secure both service access covers to the base.
2. Carefully remove both service access covers.
3. Remove the oil filler cap from the reservoir (Figure 36).

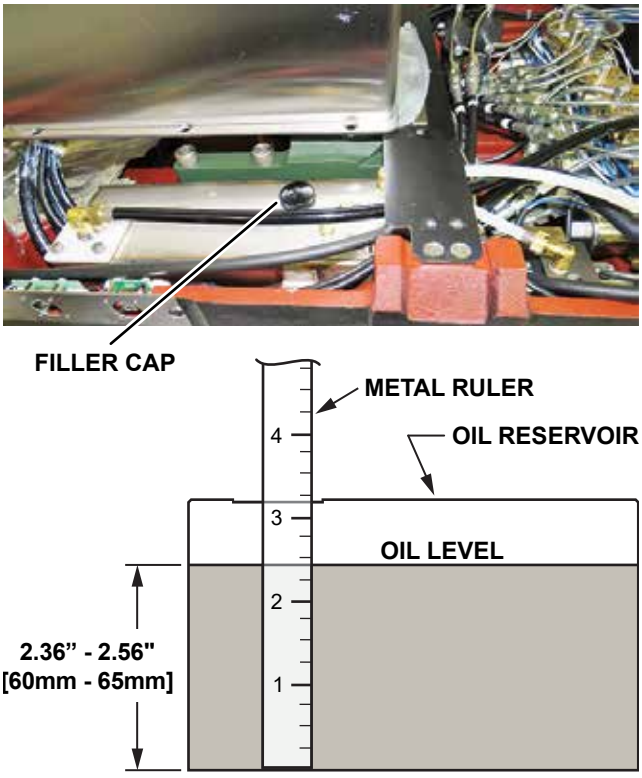


Figure 36. Oil Reservoir

4. Use a metal scale to check the hydraulic oil level in the oil reservoir. The hydraulic oil level should be 2.36 to 2.56 inch [60 to 65mm] from the bottom of the tank.

5. If necessary, add hydraulic oil to the oil reservoir until the oil level is 2.36 to 2.56 inch [60 to 65mm] from the bottom of the tank.
6. Clean up any oil spillage, if necessary.
7. Replace the oil filler cap.
8. Replace both access covers and secure using ten (10) screws removed earlier.

e. Battery Replacement

NOTICE

Always replace all four (4) batteries at the same time, Skytron P/N E0002356. Each battery sold separately.

1. Remove nine (9) screws that secure the control end service access cover to the base.
2. Remove the service access cover.
3. Remove the electrical tape covering the terminal connections on both ends of the batteries.
4. Remove the eight (8) terminal connections from all four (4) batteries (Figure 37).

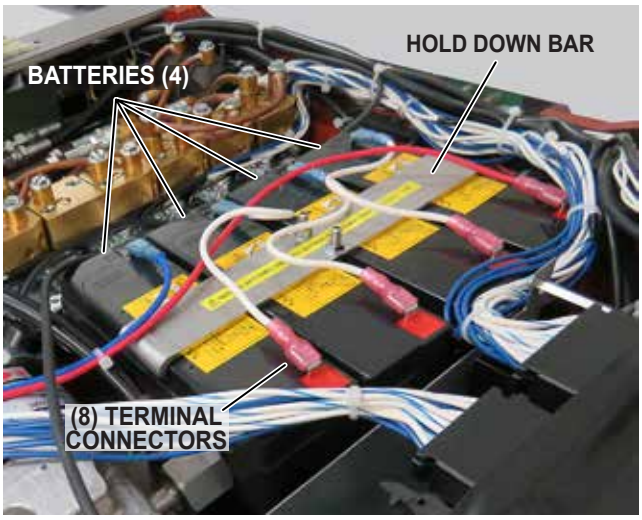


Figure 37. Battery Installation

5. Remove the two (2) nuts and washers that secure the battery hold down bar.
6. Make sure the terminal wires are clear and carefully remove the batteries by lifting each straight up and out.
7. While making sure battery terminal wires are clear, carefully install the new batteries (Skytron PN E0002356).
8. Install battery hold down bar over batteries and secure using washers and nuts (Refer to Figure 37).
9. Connect the correct wires to the battery terminals as shown (Figure 38).

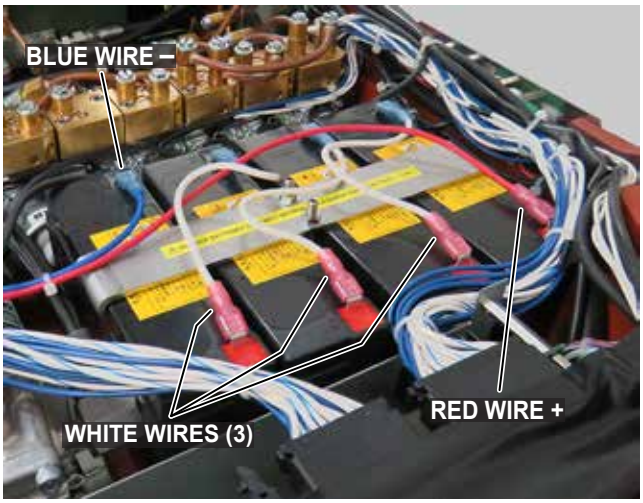


Figure 38. Battery Terminal Connections

10. Replace the service access cover and secure using five (5) screws.

5-6. 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.

5-6-1. 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. You Skytron distributor has trained technicians who can perform the required maintenance using genuine Skytron parts.

5-6-2. 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.

5-6-3. 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 (If Applicable) • **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

Electrical (Continued)
TEST and **INSPECT** the pendant control and hand console (If Applicable) • **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 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 back section, leg section, slide, trend., 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) • **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
I**NSPECT** 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)

5-7. 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; logon www.skytron.us and click on TRAINING. If interested in attending a training session, contact your SKYTRON representative for sponsorship.

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

5-8. 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 your SKYTRON authorized representative for disposal instructions regarding the SKYTRON surgical table or parts in accordance with current environmental regulations for medical products.

a. Disposal Requirements

Use proper disposal methods whenever disposing of old or damaged table parts. Always comply with federal, state, and local regulations for disposal. Contact your SKYTRON authorized representative for disposal instructions regarding the SKYTRON surgical table or parts.

MDR Annex1 14.7

In accordance with European Union Waste Electrical and Electronic Equipment (WEEE) Directive, all electrical components and batteries must be disposed of in accordance with local regulations. Please contact your local distributor for proper disposal.

b. Hydraulic Fluid

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

c. Lead Acid Batteries

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

5-9. 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 6. 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.

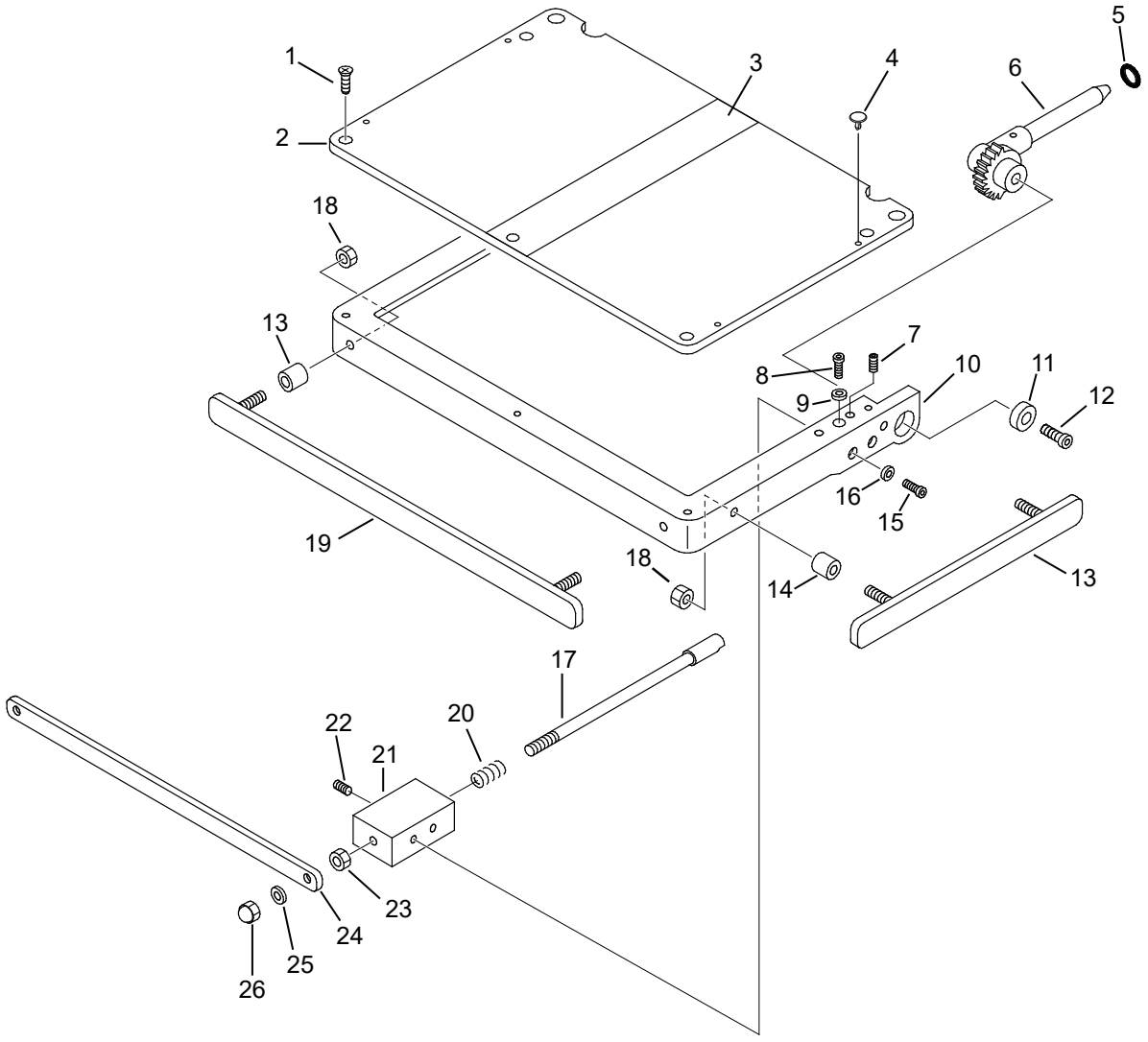
The following abbreviations are used in this section:

- 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.

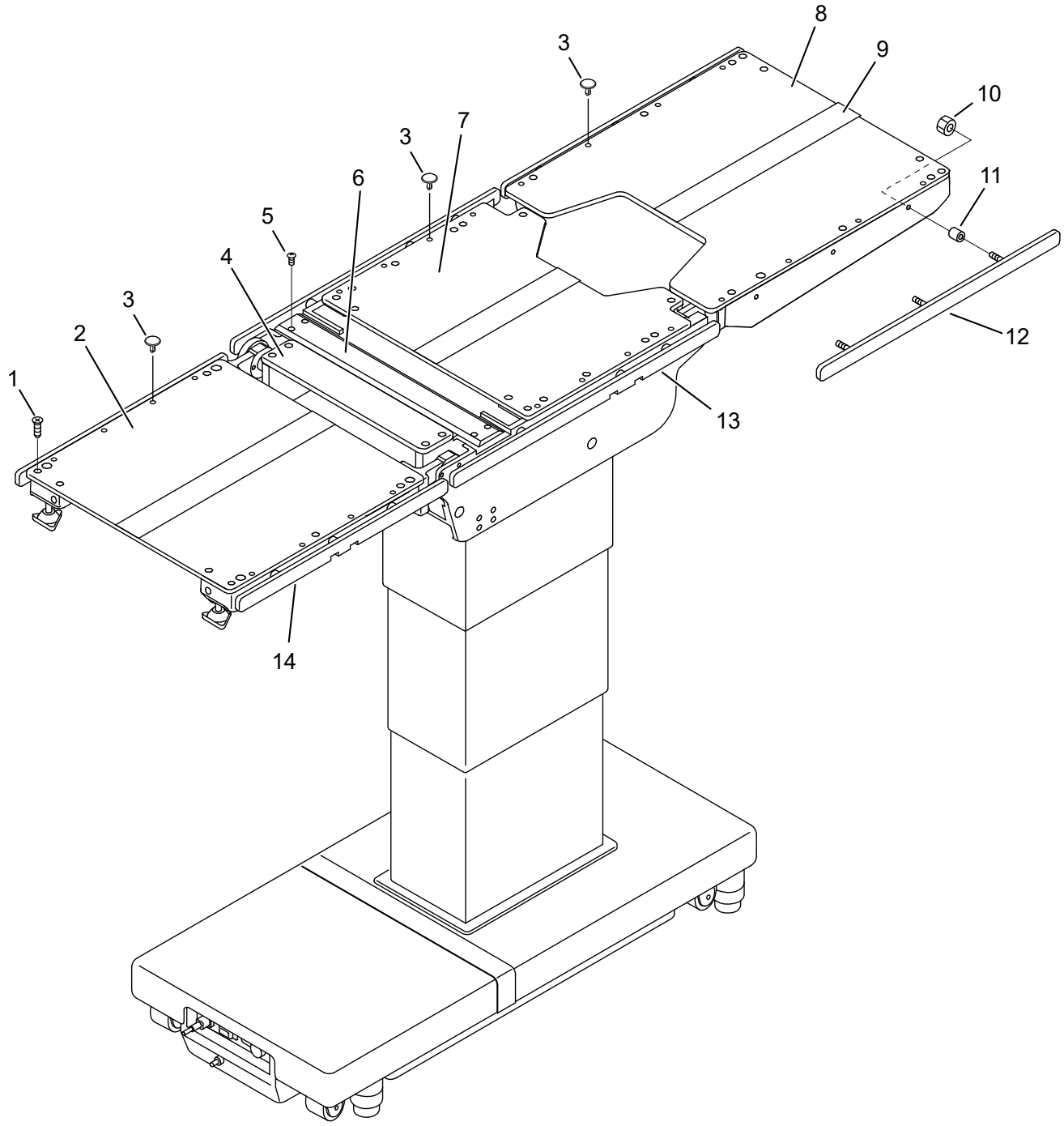
6-1. Head Section Components



6-1. Head Section Components

Item	Part No.	Description	Qty.
1	A0240515	SCREW, phillips countersunk, M5 x 15 (plated)	4
2	363D5B1	TOP, head section	1
3	D010001	VELCRO, hook	AR
4	D090102	CAP, digital x-ray top anchor	4
5	C40120B1	O-RING, 1AP-12	2
6	560CC07	SHAFT AND GEAR ASSEMBLY, extension, head section, right	1
NS	560CC06	SHAFT AND GEAR ASSEMBLY, extension, head section, left	1
7	A0310815	SCREW, set, M8 x 15 (plated)	2
8	A0010615	BOLT, allen, M6 x 15 (plated)	2
9	A5110609	WASHER, lock, M6 (plated)	2
10	360A042	FRAME, head section	1
11	650A235	BUSHING, head section	2
12	A0010820	BOLT, allen, M8 x 20 (plated)	2
13	362DU01	RAIL, side, head section	2
14	5000513	COLLAR, side rail	AR
15	A0010615	BOLT, allen, M6 x 15 (plated)	4
16	A5110609	WASHER, lock, M6 (plated)	4
17	360AU01	PLUNGER, release	1
18	A3410801	NUT, hex, w/lock washer M8 (plated)	AR
19	362DU02	RAIL, accessory	1
20	C810007	SPRING, release	2
21	5000563	BLOCK, bearing, right	1
NS	5000562	BLOCK, bearing, left	1
22	A0310508	SCREW, set, M5 x 8 (plated)	2
23	A3010803	NUT, hex, M8 (plated)	2
24	5000014	RELEASE, plate	1
25	A5110800	WASHER, lock, M8 (plated)	2
26	A3210801	NUT, acorn, M8 (plated)	2

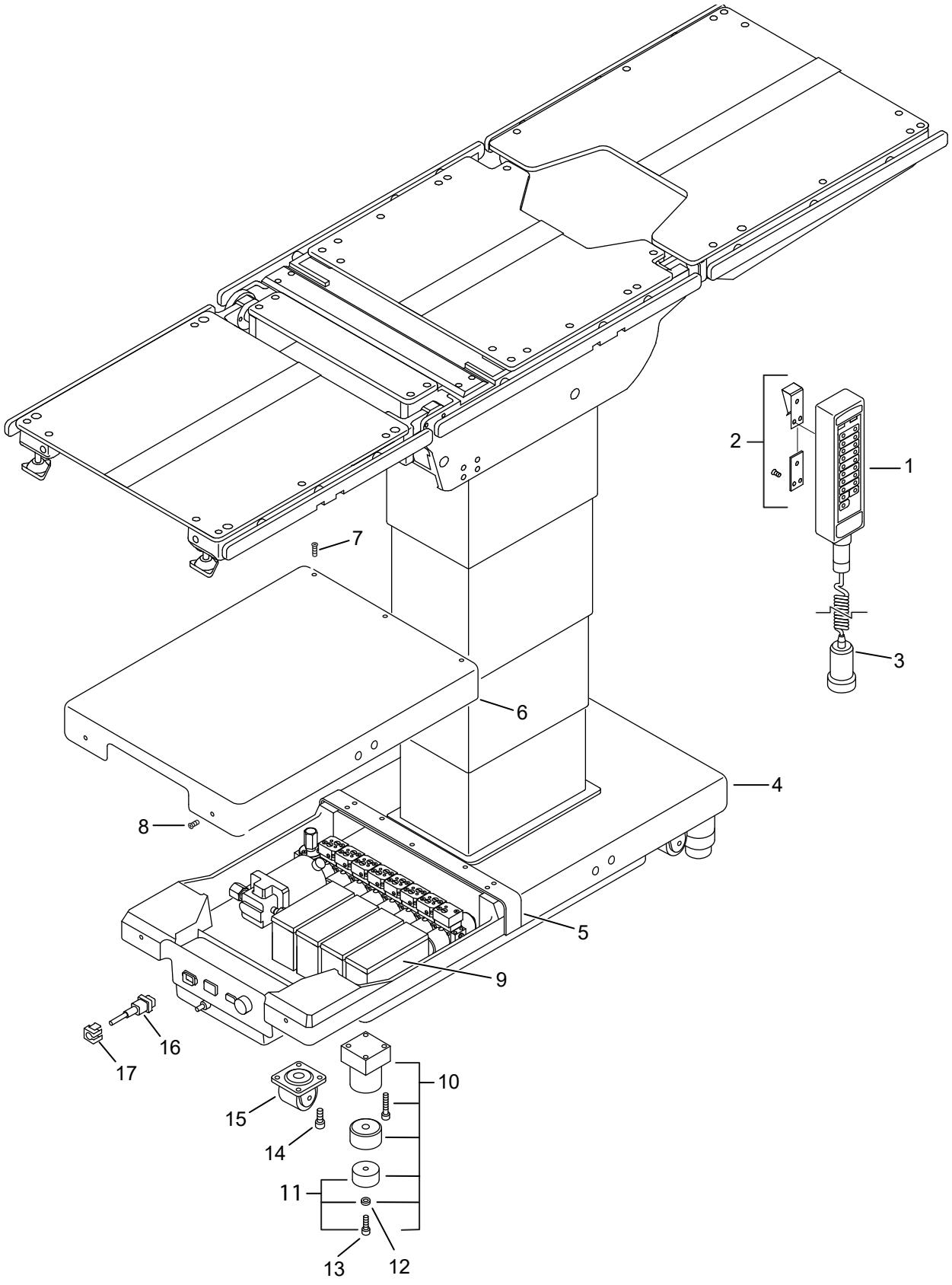
6-2. Top Section Components



6-2. Top Section Components

Item	Part No.	Description	Qty.
1	A0240515	SCREW, phillips countersunk, M5 x 15 (plated)	22
2	363DU73	TOP, back section	1
3	D090102	CAP, digital x-ray top anchor	24
4	363D7B2	TOP, seat section (small)	1
5	A0440506	SCREW, round head phillips, M5 x 6 (plated)	4
6	363D331	TOP, kidney lift	1
7	363D7B1	TOP, seat section	1
8	363DU76	TOP, leg section	1
9	D010001	VELCRO, hook	AR
10	A3410801	NUT, hex, w/lock washer M8 (plated)	AR
11	5000513	COLLAR, side rail	AR
12	363DU62	RAIL, Right Side, leg section	1
--	363DU61	RAIL, Left Side, leg section	1
13	360KU28	SIDE RAIL, Right Side, Seat	1
--	360KU23	SIDE RAIL, Left Side, Seat	1
14	671HU16	SIDE RAIL, Right Side, back section	1
--	671HU15	SIDE RAIL, Left Side, back section	1

6-3. Base Components



6-3. Base Components

Item	Part No.	Description	Qty.
1	SWB0318	PENDANT CONTROL ASSEMBLY	1
2	M002340	HOOK, pendant (w/ screw and insert)	1
3	M001962	CORD ASSEMBLY	1
4	363D012	COVER, rear housing base	1
5	363DU13	CONNECTION PLATE	1
6	363D011	COVER, front housing base	1
7	A0220512	SCREW, phillips, countersunk, M5 x 12	8
8	A0220408	SCREW, phillips, countersunk, M4 x 8	3
9	E0002356	BATTERY	4
10	J091A24	CYLINDER ASSY, brake (includes cylinder, 4 M6 x 20 bolts, 1 silicone seat)	4
11	J091A25	KIT, brake pad, silicone (includes 4 pads, 4 washers, 4 bolts)	1
---	J090B12	KIT, brake pad, rubber (includes 2 soft pads, 2 hard pads, 4 washers, 4 bolts)	1
12	5000505	WASHER (included in D4-031-101 and J090B12)	4
13	A0020630	BOLT, allen, M6 x 20 (included in J091A25)	4
---	A0020620	BOLT, allen, M6 x 20 (included in J090B12)	4
14	A0021020	BOLT, allen, M10 x 20	16
15	C0007518	CASTER, HG-75GNB	4
16	E0001194	POWER CORD ASSEMBLY	1
17	E0002296	FRAME, retainer clip	1
NS	C5230206	CAP, oil filler	1
NS	D080001	OIL, hydraulic (quart)	AR

SECTION 7. TROUBLESHOOTING

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

7-1. Troubleshooting Chart

Problem	Possible Cause	Action
The table cannot be switched on.	1. Control connector is not connected properly. 2. The battery is fully discharged.	1. Insert the connector completely. 2. Charge the battery.
Control function button does not function.	1. Batteries may be low. 2. It has been six or more days without switching on the table. 3. The batteries of the cordless control unit have run out.	1. Charge the operating table. 2. Battery protection function is working. Switch on via the control unit. 3. Replace the batteries.
The table cannot be switched on with the cordless control unit.	1. Batteries may be low. 2. It has been six or more days without switching on the table. 3. The batteries of the cordless control unit have run out.	1. Charge the operating table. 2. Battery protection function is working. Switch on via the control unit. 3. Replace the batteries.
Control brake button does not function.	The emergency brake release handle is in a release (UNLOCK) position.	Turn the emergency brake release handle toward “LOCK”.
Power light on the column glows red.	The emergency brake release handle is in the release (UNLOCK) position.	1. Turn the emergency brake release handle toward “LOCK”. 2. Turn off power. 3. Turn on power again.
The back plate cannot be lowered below the level position.	The tabletop is slid in the foot direction beyond the standard center position.	Slide the center of the tabletop in the head direction beyond the standard center position.
The tabletop cannot be slid in the foot direction.	Back plate is lowered below the level position.	Move up the back plate from the level position.
Flexing can not be operated with its center up.	The tabletop is slid in the foot direction beyond the standard center position.	Slide the center of the tabletop in the head direction beyond the standard center position.
The cordless control unit does not function.	1. The batteries have run out. 2. The setting of the cordless control unit is different from that of the operating table.	1. Replace the batteries. 2. Set the same settings for both the cordless control unit and the operating table.

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

7-2. Emergency Brake Release Handle

CAUTION

When the emergency brake release handle is turned to the "UNLOCK" position, all functions including the Lock function will not operate. Always return the Emergency Brake Release to the "LOCK" position.

In case of electrical trouble, operating table can be moved by using the emergency brake release handle ().

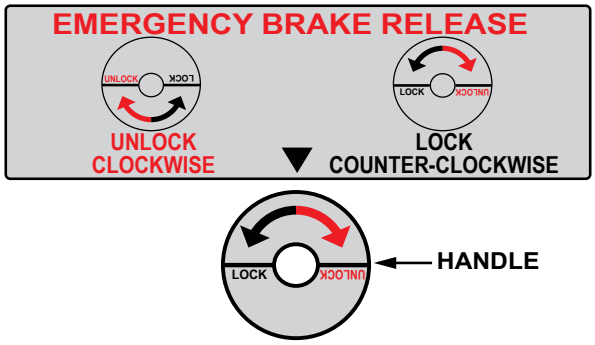


Figure 39. Emergency Brake Handle

1. Turn the emergency brake release handle toward "UNLOCK". The brake will be released.
2. After confirming that the brake is released, turn the emergency brake release handle toward "LOCK".
3. Press the Table Up button on the control unit to lock the table.

7-3. Detachment / Attachment Of Control Unit Cord

If the cord of the control unit is damaged, replace it with a new one (Figure 40).

1. Turn the rubber cover and remove it.
2. Pull out the ring (red mark) of the connector inside.
3. Place the ring (red mark) of the connector of the new cord upward and insert it.
4. Turn the rubber cover and tighten it.

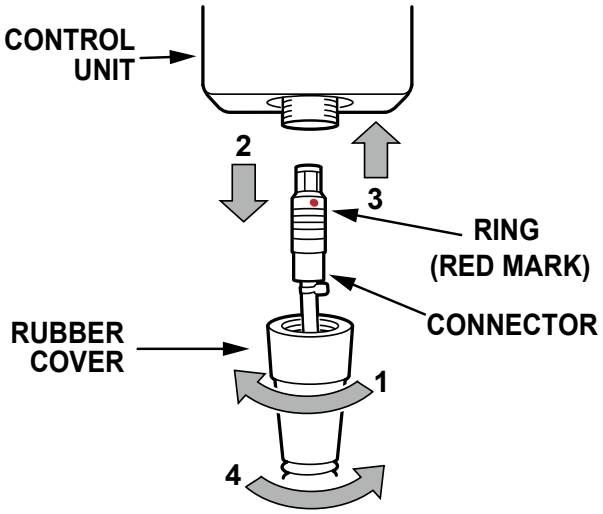


Figure 40. Battery Terminal Connections

SECTION 8. ELECTROMAGNETIC EMISSIONS

Install and operate according to the EMC information provided in this manual.

- Do not use any accessories other than those specified by Mizuho.
  This can result in increased emissions and reduced immunity.
- Do not use it adjacent to or stacked with other equipment.
  Normal operation may not be possible due to electromagnetic interference.
- Before using other medical electronic devices (especially life support devices) to be used together, make sure that they will not malfunction due to electromagnetic interference.
  Normal operation may not be possible due to electromagnetic interference.

Guidelines and Manufacturer's Declaration – Electromagnetic Emissions		
The 3603 Surgical Table is intended for use in the electromagnetic environment specified below. The customer or the user of the 3603 Surgical Table must insure that it is operated in suchlike environments.		
Electromagnetic Interference Measurements	**Compliance**	**Electromagnetic Environment – Guidelines**
RF emissions CISPR 11	Group 1	The 3603 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 3603 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	

Guidelines and Manufacturer Declaration – Electromagnetic Interference Immunity			
The 3603 Surgical Table is intended for use in the electromagnetic environment specified below. The customer or the user of the 3603 Surgical Table must insure that it is operated in suchlike environments.			
Interference Immunity Tests	**IEC 60601 Test Level**	**Compliance Level**	**Electromagnetic Environment – Guidelines**
Electrostatic discharge (ESD) IEC 61000-4-2	*± 8 kV* *contact discharge* *± 2; 4; 8; 15 kV* *air discharge*	± 8 kV contact discharge *± 2; 4; 8; 15 kV* *air discharge*	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 and output lines	± 2 kV for power supply lines ± 1 kV for input and output lines	Power supply voltage quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	± 0,5; 1 kV differential mode voltage ± 0,5; 1; 2 kV common mode voltage	± 0,5; 1 kV differential mode voltage ± 0,5; 1; 2 kV common mode voltage	Power supply voltage quality should be that of a typical commercial or hospital environment.

<table>
<tr><th colspan="4">Guidelines and Manufacturer Declaration – Electromagnetic Interference Immunity</th></tr>
<tr><td>Voltage drops, short interruptions and fluctuations in power supply voltage
IEC 61000-4-11</td><td>0 % UT
for 0.5 cycles

0 % UT
for 1 cycles

70 % UT
for 25 / 30 cycles

0 % UT
for 250 / 300 cycles</td><td>0 % UT
for 0.5 cycles

0 % UT
for 1 cycles

70 % UT
for 25 / 30 cycles

0 % UT
for 250 / 300 cycles</td><td>Power supply voltage quality should be that of typical commercial or hospital environment.
If the user of the 3603 Surgical Table need to continue operation during a mains power interruption, it is recommended that the 3603 Surgical Table be powered by an uninterruptible power supply or battery.</td></tr>
<tr><td>Power frequency (50/60 Hz) magnetic field
IEC 61000-4-8</td><td>30 A/m</td><td>30 A/m</td><td>Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.</td></tr>
<tr><td colspan="4">NOTE: UT is the AC voltage before application of the test level.</td></tr>
<tr><td>Conducted disturbances induced by radiated RF
IEC 61000-4-6</td><td>150 kHz to 80 MHz
3 V
ISM frequencies
6 V</td><td>150 kHz to 80 MHz
3 V
ISM frequencies
6 V</td><td rowspan="2">Portable and mobile RF communications equipment (radio devices, including. antennas or cables) should be used no closer to any part of the 3603 Surgical Table than the recommended safety distance of 300 mm (12 in).

The field strength from fixed RF transmitters, as determined by field surveys of electromagnetic fields, should be less than a compliance level of 3 V/m in each frequency range

Interference may occur in the vicinity of equipment marked with the following symbol:
  </td></tr>
<tr><td>Interference due to radiated RF
IEC 61000-4-3</td><td>80 MHz to 2.7 GHz
3 V/m
Wireless communication frequency band

<table><tr><th>V/m</th><th>MHz</th></tr><tr><td>27</td><td>385</td></tr><tr><td>28</td><td>450</td></tr><tr><td>9</td><td>710</td></tr><tr><td>9</td><td>745</td></tr><tr><td>9</td><td>780</td></tr><tr><td>28</td><td>810</td></tr><tr><td>28</td><td>870</td></tr><tr><td>28</td><td>930</td></tr><tr><td>28</td><td>1720</td></tr><tr><td>28</td><td>1845</td></tr><tr><td>28</td><td>1970</td></tr><tr><td>28</td><td>2450</td></tr><tr><td>9</td><td>5240</td></tr><tr><td>9</td><td>5500</td></tr><tr><td>9</td><td>5785</td></tr></table></td><td>80 MHz to 2.7 GHz
3 V/m
Wireless communication frequency band

<table><tr><th>V/m</th><th>MHz</th></tr><tr><td>27</td><td>385</td></tr><tr><td>28</td><td>450</td></tr><tr><td>9</td><td>710</td></tr><tr><td>9</td><td>745</td></tr><tr><td>9</td><td>780</td></tr><tr><td>28</td><td>810</td></tr><tr><td>28</td><td>870</td></tr><tr><td>28</td><td>930</td></tr><tr><td>28</td><td>1720</td></tr><tr><td>28</td><td>1845</td></tr><tr><td>28</td><td>1970</td></tr><tr><td>28</td><td>2450</td></tr><tr><td>9</td><td>5240</td></tr><tr><td>9</td><td>5500</td></tr><tr><td>9</td><td>5785</td></tr></table></td></tr>
<tr><td colspan="4">NOTE: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.</td></tr>
<tr><td colspan="4">The field strengths from fixed transmitters, such as wireless (cellular/cordless) telephones and mobile terrestrial radio base stations, amateur radio, AM and FM radio broadcast and TV broadcast cannot be accurately and theoretically predicted. In order to confirm the electromagnetic environment caused by the fixed RF transmitter, it is desirable to consider and electromagnetic field survey. If the measured field strength exceeds the compliance level as specified above at the location where the 3603 Surgical Table is used, the 3603 Surgical Table should be observed to verify correct functionality. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the 3603 Surgical Table.</td></tr>
</table>

SECTION 9. REVISION HISTORY

Date	Revision	History
3/30/2017	0	Initial release.
09/05/2017	1	Pg 10: Updated Emergo Europe address. Pg 18: 30 degree lateral tilt to 35 degrees. Pg 33: Revised (Figure 36) & changed hydraulic oil level check.1.57 to 1.77 inch [40 to 45mm] to 2.36 to 2.56 inch [60 to 65mm].
10/30/2017	2	Pg 12 & 13 Add section on Interlock Sensing System Overview Pg 25 & 26: Add steps 2 & 6spring loaded stop, to remove & install leg & back sections. Pg 25: Add Figure 30. Inside Cover, Pg 10: Updated Europe address
01/08/2018	3	Pg 10 Add interlock warning label to labels page.
08/21/2018	4	Pg 10: Add French label. Pg 35: Add table brake seat notice & warning. Pg 37: Add paragraphs: Maintenance Schedule, Why maintain your table & Protecting your investment. Revised maintenance matrix. Pg 42 & 43: Add pn D090102. Pg 44 & 45: Add item 3 pn D090102. Pg 46: Updated part number 10 to full brake assembly. Pg 47: Changed J091A25 to D4-031-100. Add kit D4-031-101. Add Bolt A0020630.
03/18/2020	5	Updated part numbers to match the parts manual: 360J6B1 to 363DU75, 580Bo15 to 363D7B2, A0440510 to A020515, 350A473 to 363D331, 360J7B1 to 363D7B1,360J8B1 to 363DU76, 371M005 to 363DU62 / 363DU61, 360D003 to 360KU28 / 360KU23, 671M003 to 671HU16 / 671HU15, 560CC06A to 560CC07,560CC07A to 560CC07, 650A235B to 650A235, 5000864 / 5000865 to 360AU01, C810007A to C810007, 5000563E to 5000563, 5000562E to 5000562, 5000014C to 5000014, 363DU12 to 363D012, 363DU11 to 363D011. Pg 8: P/N E0002356 sold separately was P/N E0002293 set of four. Pg 36: P/N E0002356 was pn E0002293. Add each battery sold separately. Pg 47: Item 9 pn E0002356 Qty1 was Qty4
06/26/2023	6	Updated manual to current Skytron standards. Cover page - Add Medical Device symbol. Back of Cover - Add manufacturer & European Authorized Representative headers. Pg 3 - Add Section 1-2 Reporting Serious Incidents section. Pg 8 - Updated Intended User and Intended Use statement. Changed Atmospheric Pressure from 21 in-Hg to 30 in-Hg (700 hPa to 1060 hPa). IEC 60601-2-46:2016 Ed.3 was IEC 60601-2-46:2010 Pg 9 - Revised table dimensions. Pg 10 - item 3 added additional label and UDI label. Deleted Rev from part numbers & added French translation to Item 25 label C643003. Pg 11 - Add MD symbol to list. Pg 13 - Changed 720.1mm to 720mm in three places. Pg 17 - Removed one (1) red LED from the charging mode and changed (4) 12 volt batteries to (4) 6 volt batteries. Pg 19 - Changed The brake delay circuit retracts from 7-8 seconds to 10 seconds. Pg 24 - Revised figures 25 and 25. Removed The Emergency Brake Lock switch caution because the 3603 is not a timer type. Pg 30 - Updated Positioning and Clearance figure dimensions. Pg 32 - Updated approved disinfecting solutions for use on the table. Pg 40 - Updated waste disposal section. Added MDR Annex 1 14.7. Pg 43 - Removed Rev from part number 360A042. Pg 45 - Removed Rev from part numbers and changed 363DU75 to 363DU73 and A0240515 to A0440506 and revised description. Pg 47 Removed Rev from part numbers. Changed part numbers D5-031-14 to M002340, item 9 Battery to qty 4, D4-031-101 to J091A25, D4-031-100 to J090B12, Caster 105HBP to HG-75GNB, Oil D6010-90 to D080001. Pg 50 & 51 - Updated Section 8 Electromagnetic Emissions.

NOTES

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