



1602 ESSENTIA 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.

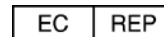
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SECTION 1. SAFETY INFORMATION

1-1. Special User Attention

Prior to use, all personnel that may operate this table must be instructed in the correct operational procedures. The 1602 ESSENTIA 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 1602 table is 500 pounds (227 kg) only when table brakes are locked.

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 1602 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 1602 table:

- a. Remove the power cord.
- b. Place the main power switch in the OFF position.
- c. Tighten all handles and knobs.

Ensure that the following packaging guidelines are adhered to when shipping the 1602 table:

- The 1602 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 two (2) 12 volt, sealed, lead acid batteries available only through SKYTRON.

Certain accessories, such as the Uro-Drain Tray, Arm boards, 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.



WARNING

Injury Hazard, Possible Pinch/Crush Points



Figure 1. Possible Pinch/Crush Points

1-2. Safety Precautions

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



DANGER

Indicates a hazardous situation that, if not avoided, will result in death or serious injury.



WARNING

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

Injury Hazard, Possible Pinch/Crush Points

To avoid risk of electric shock, this equipment must only be connected to supply mains with protective earth.

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

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

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

The operator should remain positioned for proper patient observation, as shown in Figure 11.

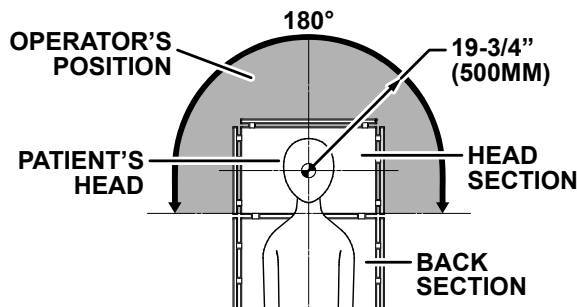


Figure 11. Operator's Position

Ensure brakes are properly set prior to patient transfer. **DO NOT UNLOCK BRAKES** when a patient is on the table. An uneven patient weight load may cause instability.

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 the patient must be positioned to avoid touching any of the metal sections of the table to protect against any possible electrical shock injury.

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

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

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

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

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

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

Remove possible obstacles before lowering or tilting the operating table.



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

Avoid Electrical Injuries by observing a Lockout / Tag Out Policy. Avoid exposure to electrical hazards and unexpected Energizing or startup of the equipment by unplugging the equipment from the energy source and by the plug being under the exclusive control of the employee performing the maintenance or repair. The placement of a lock and tag on the table's plug in accordance with established procedure indicating that the energy isolating device shall not be operated until the removal of the lock / tag is recommended.

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:

- 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).

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

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

To move the table safely, one staff member should be positioned at the head end and one at the foot end. If the patient weight exceeds 250 pounds (114 kg), four (4) staff members are required to move the table and ensure patient safety.

DO NOT reverse the patient on the table without first consulting with your SKYTRON representative.

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 usage are at the discretion of the user to ensure patient and staff safety.

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

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

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

Always inspect the table prior to use to assure safe and correct operation. Any table determined to be malfunctioning must be removed from service immediately and labeled inoperable.

Refer all service issues to a SKYTRON authorized service technician.

CAUTION

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

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

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

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 Use

This surgical table is intended for use by healthcare professionals for human medical purposes only.

The surgical table is not intended to be used for patient transport.



CAUTION

Avoid Electrical Injuries by observing a Lockout/Tag Out Policy. Avoid exposure to electrical hazards and unexpected Energizing or startup of the equipment by unplugging the equipment from the energy source and by the plug being under the exclusive control of the employee performing the maintenance or repair. The placement of a lock and tag on the tables plug in accordance with established procedure indicating that the energy isolating device shall not be operated until the removal of the lock / tag is recommended.

2-2. Installation

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

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

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

2-3. Environmental Conditions

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

- *Ambient Temperature:* -4° to 122°F (-20° to 50° C)
- *Relative Humidity:* 20% 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: 2010

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:

100-120 VAC, 50 - 60 Hz, two (2) 6 amp fuses

Current Leakage: Less than 500 micro amps

Power Cord: 10.9 foot (3.3 m) w/ hospital grade connector (removable)

Duty Cycle: 3 min on, 7 min off

Battery Power: 24 VDC (12V17Ah x 2)

Model : NP18-12B YUASA Battery

SKYTRON Part Number : D5-016-03



WARNING

To avoid risk of electric shock, this equipment must only be connected to supply mains with protective earth.

2-7. Mechanical Specifications

Maximum Lifting Capacity: 227 kg (500 lbs)

Maximum Articulating Capacity: 227 kg (500 lbs)

Unit Weight: 255 kg (562 lbs)

Maximum Patient Weight: 500 lbs (227 kg)

2-8. Movement Over Threshold

Height 10mm (0.39")/Width 80mm (3.15")

1.312 f/s (.4 m/s)

2-9. Dimensions

Refer to Figure 2 for an illustration of the 1602 table and its key dimensions.

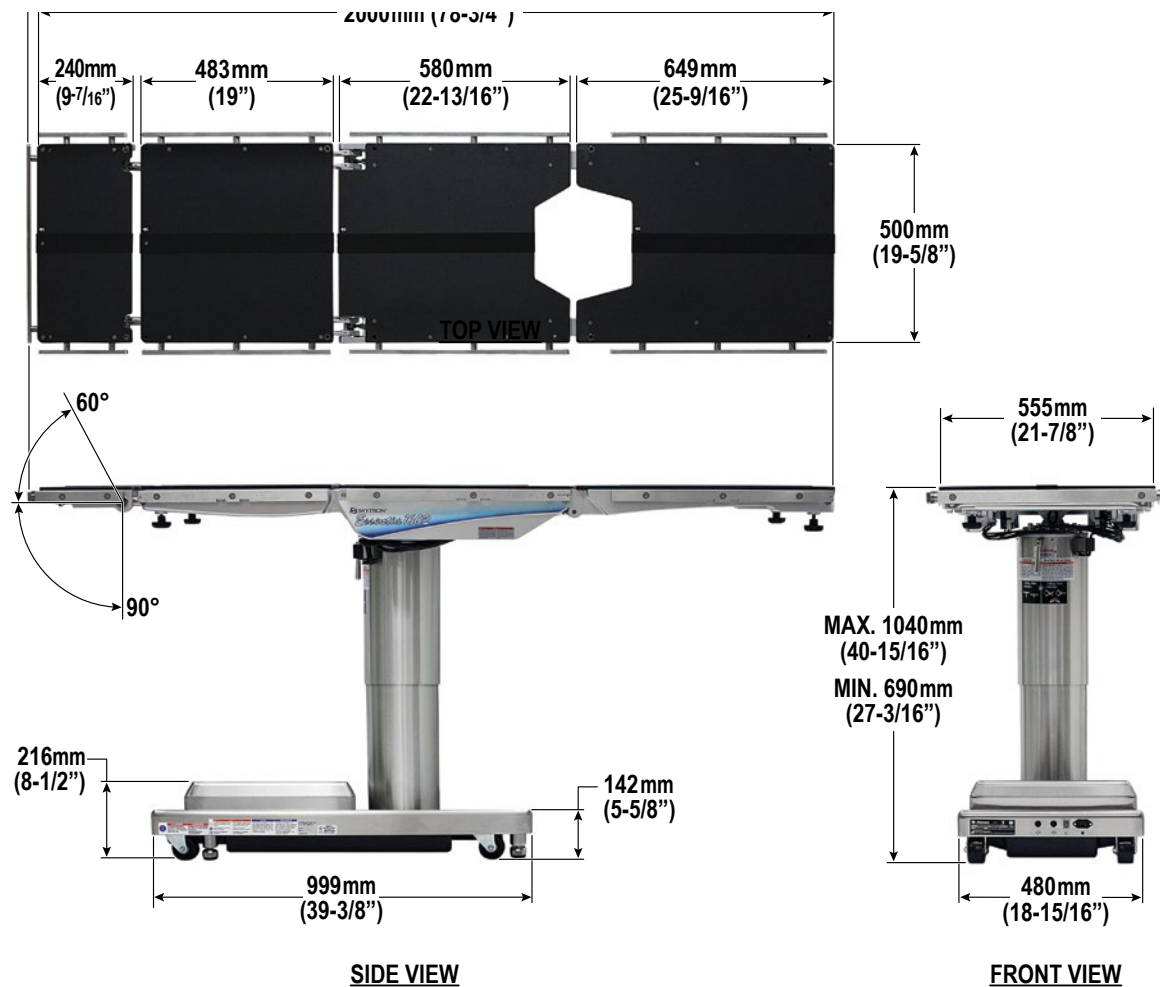
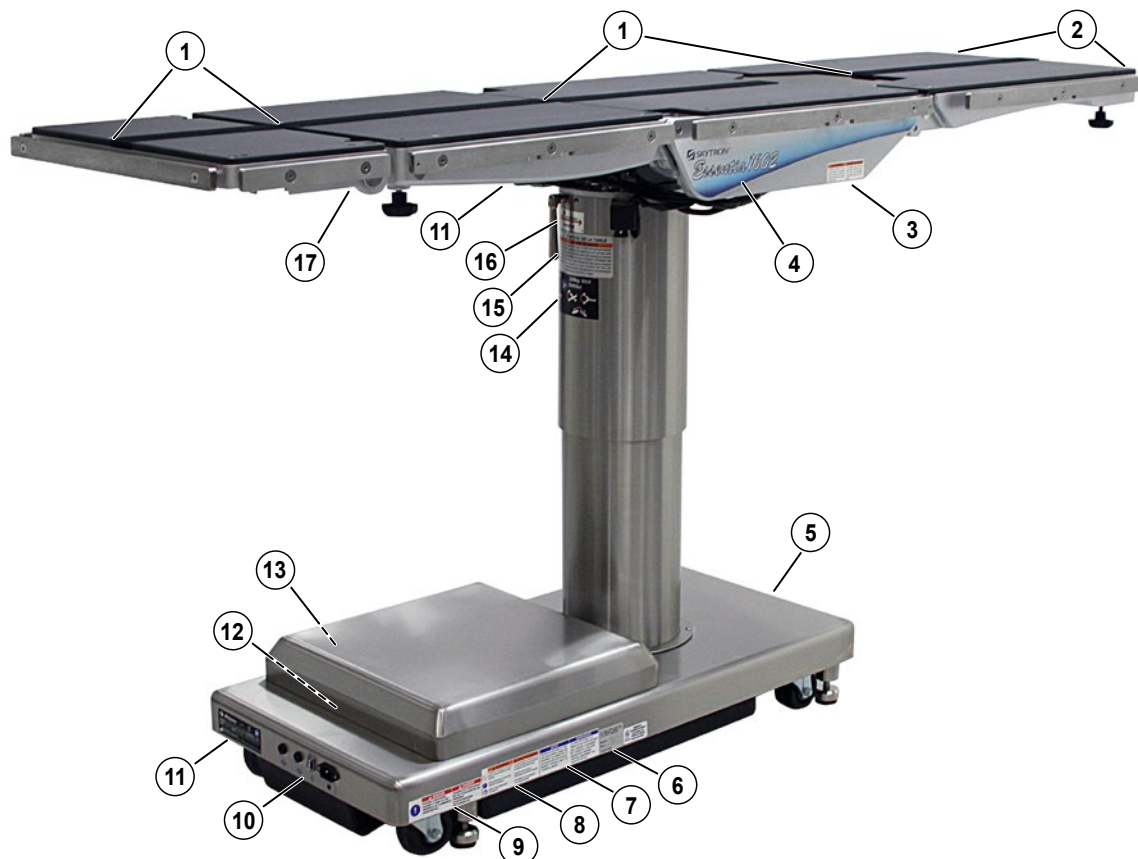













Figure 2. 1602 Table Dimensions

2-10. Equipment Labels



- 1 C651620A**
-
- 2 C651607A (left)**
- 3 C651608A (right)**
- 4 C651610A (left)**
- 5 C651615A**
- 6 C656715A**
- 7 C656741A**
- 8 C651610A**
- 9 C656738A**
- 10 C651618A**
- 11 C630006A**
- 12 C651606A**
- 13 C651610A**
- 14 C651605A**
- 15 C656309C**
- 16 C610501A**
- 17 C651603A**
- ns C610624A ▶ PENDANT PACKAGING**
- WARNING**
DO NOT SIT ON END OF LEG SECTIONS(S) AS LOADS IN EXCESS OF 140 LBS (63 KG), WILL CAUSE INSTABILITY THAT COULD CAUSE THE TABLE TO BE TIPPED OVER.
- MISE EN GARDE**
NE PAS S'ASSOIR SUR LE(S) BORD(S) DE LA TABLE CAR UNE CHARGE DE PLUS DE 63 KG (140 LBS) PEUT ENTRAÎNER UNE INSTABILITÉ ET FAIRE BASCULER LA TABLE.
- WARNING**
A Patient shall be set up to more than 1 cm apart from a side rail so that a patient does not touch on side rails.
- MISE EN GARDE**
Un malade sera mis loin du rail du côté plus que 1 cm afin qu'un malade ne touche pas le rail du côté.
- EMERGENCY BRAKE RELEASE**
① Turn "Emergency Override Floor Unlock Device" counterclockwise to unlock the floor locks.
② Turn "Emergency Override Floor Unlock Device" clockwise carefully and completely to tighten it.
- NOTE**
GROUNDING RELIABILITY CAN ONLY BE ACHIEVED WHEN THE EQUIPMENT IS CONNECTED TO AN EQUIVALENT RECEPTACLE MARKED "HOSPITAL ONLY" OR "HOSPITAL GRADE".
- REMARQUE**
LA FIABILITÉ DE MISE À LA TERRE NE PEUT ÊTRE OBTENUE QUE LORSQUE L'ÉQUIPEMENT EST CONNECTÉ À UNE PRISE ÉQUIVALENTE REPERÉE "HÔPITAL UNIQUEMENT" OU "QUALITÉ HÔPITAL".
- WARNING**
TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER OR BACK.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.
REFER TO ACCOMPANYING DOCUMENTS.
- MISE EN GARDE**
POUR RÉDUIRE LE RISQUE D'ÉLECTROCUTION, NE PAS RETIRER LE COUVERCLE OU LA FACE ARRIÈRE AVANT DE RÉPARER LE RISQUE D'ÉLECTROCUTION.
CONFIER L'ENTRETIEN AU PERSONNEL DE SERVICE QUALIFIÉ.
SE RÉFÉRER AUX DOCUMENTS D'ACCOMPAGNEMENT.
- DANGER**
POSSIBLE EXPLOSION HAZARD IF USED IN THE PRESENCE OF FLAMMABLE ANESTHETICS.
- DANGER**
POSSIBILITÉ D'EXPLOSION EN CAS D'UTILISATION EN PRÉSENCE D'ANESTHÉSIFIQUES INFLAMMABLES.
- REPLACE BATTERIES ONLY WITH SKYTRON REPLACEMENT PART 12V·17.2Ah**
- WARNING**
ALWAYS LOCK THE TABLE TOP IN POSITION AFTER A FULL ROTATION OF 180°. DO NOT ROTATE THE TOP WITH AN UNDISTRIBUTED PATIENT LOAD AS INSTABILITY MAY RESULT. EXERCISE CAUTION WITH THE TABLE TOP ROTATED 90° TO THE BASE SINCE AN IMPROPERLY DISTRIBUTED PATIENT LOAD MAY CAUSE THE TABLE TO BE TIPPED OVER.
- MISE EN GARDE**
TOUJOURS MAINTENIR LA TABLE EN POSITION FERMÉE APRÈS UNE ROTATION COMPLÈTE À 180°. NE PAS FAIRE TOURNER LE PLATEAU AVEC UNE CHARGE DE PATIENT NON RÉPARTIE CAR CELA POURRAIT ENTRAÎNER UNE INSTABILITÉ. FAIRE PRUEVE DE VIGILANCE LORSQUE LE PLATEAU DE LA TABLE TOURNÉ À 90° CAR UNE CHARGE DE PATIENT NON RÉPARTIE POURRAIT FAIRE BASCULER LA TABLE.
- TOP ROTATION HANDLE**
- SKYTRON 160XU01**
- Before placing table in service plug in table power cord and recharge batteries for approximately 8-10 hours.**

2-11. Label Symbols

Symbol	Description	Used On Product	Used In Manual
NOTICE	Indicates important facts or helpful hints.		•
 ISO 7010-W001	General warning sign (e.g., WARNING, CAUTION)	•	•
 IEC 60417-5840	Type B applied part	•	
IPX4 IEC 60529	Enclosure class (Splash-proof)	•	
 WEEE	Indicates waste disposal information	•	
 ISO 7010-M002	Refer to instruction manual	•	
 IEC 60417	Alternating current	•	
 ISO 15223-3.15	Catalogue number	•	
 ISO 15223-3.16	Serial number	•	
 EN980-5.13	AUTHORIZED REPRESENTATIVE IN THE EUROPEAN COMMUNITY	•	•
 EN980-5.12	Manufacturer	•	•
 ISO 7010-M001	General mandatory action sign	•	
 IEC 60417-5019	Protective earth (ground)	•	

SECTION 3. OPERATION

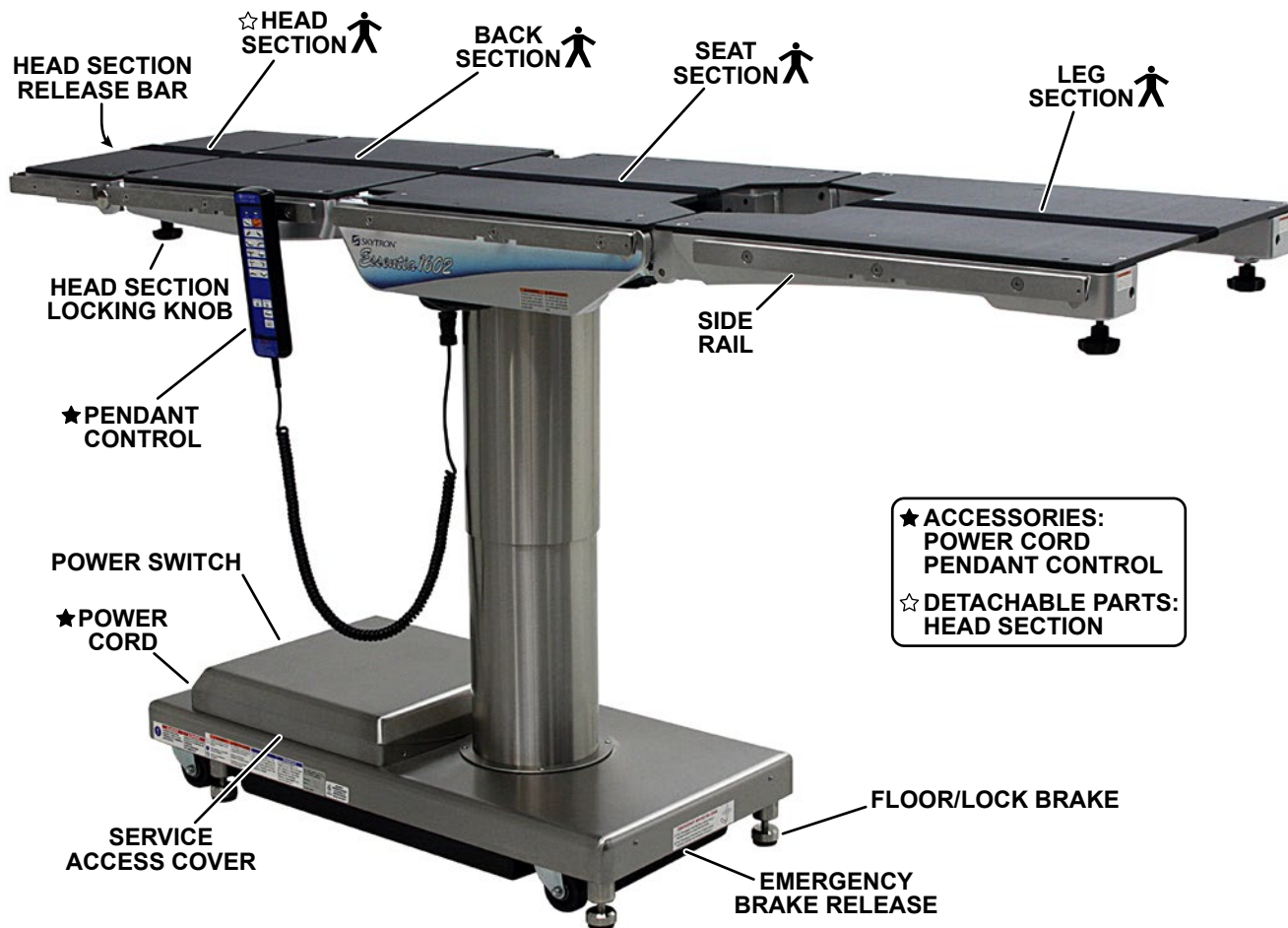


Figure 3. 1602 Surgical Table

3-1. General

SKYTRON's 1602 ESSENTIA Surgical Table is an electro-hydraulic operated, general purpose surgical table (Figure 3).

Positioning functions operated by the hand-held, push button, pendant control are:

- Trendelenburg
- Back Section
- Leg Section
- Floor Lock/Brake
- Power Switch (ON/OFF)
- Lateral Tilt
- Elevation
- Flex/Reflex
- Return-to-Level

Manual controls are provided for head section positioning, table rotation and emergency brake release.

3-2. Power Requirements

- 100-120VAC, 50/60Hz electrical power supply.
- 200-240VAC, 50/60Hz electrical power supply.

The table is equipped with a removable 10.9 foot (3.3 m) long power cord with an approved hospital grade plug. The AC power switch (ON/OFF) is located at the front of the table base (Figure 4).

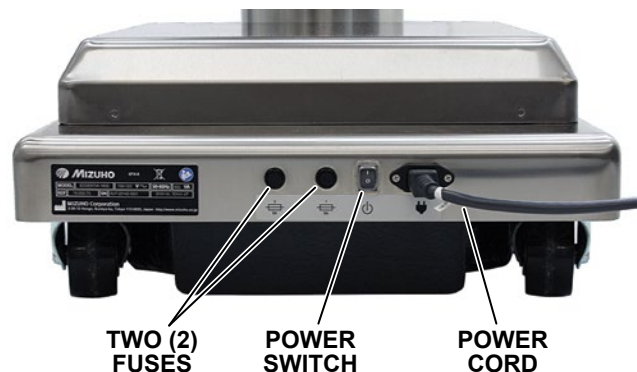


Figure 4. Table Base

3-3. Pendant Control

The hand-held pendant control has 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 5).



Figure 5. Pendant Control

Function buttons are identified with internationally recognized symbols and abbreviated descriptions for all functions (Figure 6).

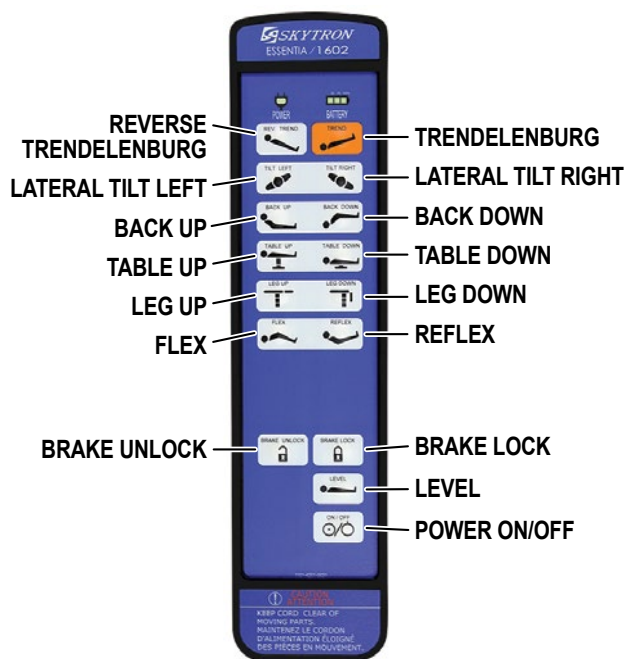


Figure 6. Function Buttons

NOTICE

If any button on the pendant control is pressed continuously for longer than three (3) minutes, a malfunction may occur. This will require approximately seven (7) minutes for the table to recover and return to normal operation.

3-4. 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 (Refer to Figure 3).

Press the BRAKE LOCK button on the pendant control to set the table's brakes.

NOTICE

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

Pressing the BRAKE UNLOCK button on the pendant control will retract the hydraulic brake cylinders, lowering the table base back onto the casters for mobility (Refer to Figure 6).

3-5. Electrical Power

The 1602 table will operate on either AC or battery power.



WARNING

A possible explosion hazard exists if the table is used in the presence of **FLAMMABLE ANESTHETICS**.

Prior to operating the table, observe all table precaution labels and review Section 1-1. Special User Attention, in the front of this manual.

3-6. AC Operation

To operate the table on AC power:

- a. Make sure the power cord is securely attached. To install the power cord, insert the cord into the base connector until it locks in place (Figure 7).

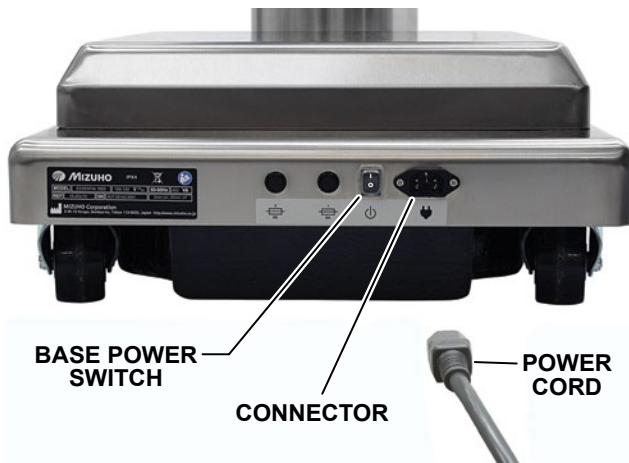


Figure 7. Base Electrical Panel



WARNING

The table must be positioned so that the operator can disconnect the power cord at the table or the electrical outlet.

- b. Plug the cord into a properly grounded, hospital grade, AC outlet. Make sure the power cord is routed to prevent it from being in the way of operating personnel.

NOTICE

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

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

- c. Place the base power switch to the ON position, then press the power ON/OFF button at the lower right hand corner of the pendant control (Figure 8).

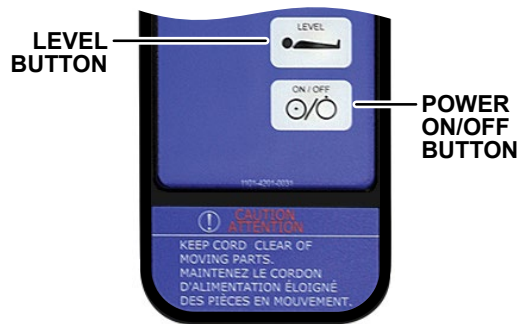


Figure 8. Level & Power On/Off Buttons

The power on indicator light, located in the upper part of the pendant control, will illuminate (Figure 9).



Figure 9. Power Indicator Lights

The table is now ready for AC power operation.

Shutdown the table by pressing the pendant LEVEL button to move the table top to a horizontal position. Press the pendant ON/OFF button and switch the base power switch OFF (Refer to Figure 9).

Remove the power cord by pulling the plug out of the base connector.

3-7. Battery Operation

To operate the table on battery power:

Switch the base power switch OFF and/or disconnect the power cord (Refer to Figure 8).

NOTICE

Prior to all surgical procedures, make sure the battery charge is sufficient for anticipated duration and use.

Press the power ON/OFF button at the lower right hand corner of the pendant control (Refer to Figure 8).

The battery indicator light, located in the upper part of the pendant control, will illuminate (Refer to Figure 9).

The table is now ready for battery operation.

To shutdown the table and extend battery charge life when not in use, press the power ON/OFF button on the pendant control, the battery indicator light will darken.

NOTICE

Battery operation must be turned OFF at the pendant control. It cannot be turned OFF using the base power switch.

3-8. Charging the Batteries

CAUTION




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

Batteries should be charged:

- When the table is placed into initial service
- As indicated by the pendant battery indicator light
- Every week under normal service conditions

Three (3) green LEDs, on the battery indicator are turned on according to the charge state.

The following table shows the battery charge level as indicated by the lighted bars.

Indicator Status	Percent Charge
	75% ~ 100% (Fully charged)
	30% ~ 75% (Charged)
	Less than 30% (Charged) Needs recharging immediately

NOTICE

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

To recharge the batteries, make sure the power cord is connected to the table and plugged into a AC wall outlet, and the base power switch is ON.

The batteries require 8 to 12 hours of continuous recharging to reach a full charge. The charging system will automatically reduce input amperage as capacity reaches 90% to avoid over charging.

It is recommended to charge the batteries at the end of each week to establish a normal routine. The batteries last longer if they are not permitted to fully discharge. The batteries require no maintenance, and should provide an approximate normal life of 4 years under a proper charging program.

3-9. Positioning Functions

The hand-held pendant control activates the following table positioning functions (Figure 10):

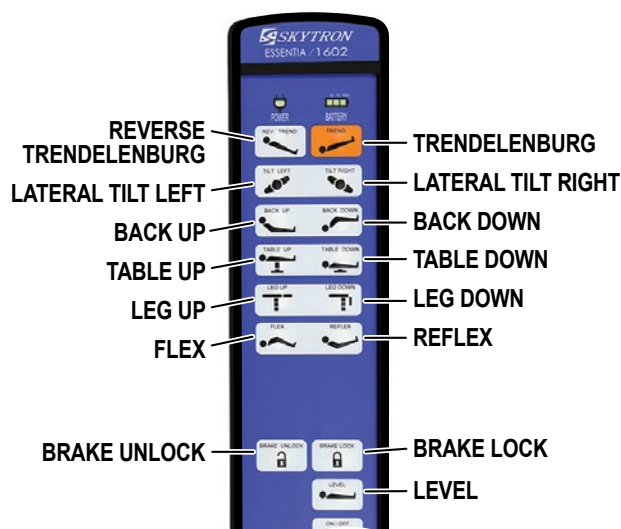


Figure 10. Pendant Control Function Buttons



CAUTION

The operator should remain positioned for proper patient observation, as shown in Figure 11.

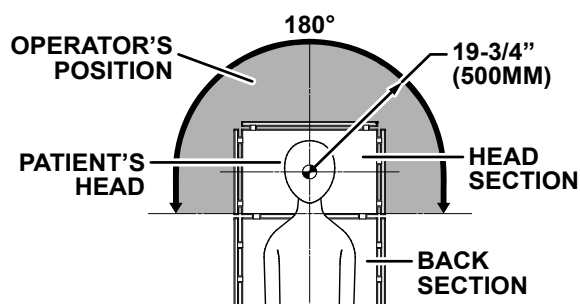


Figure 11. Operator's Position

Press pendant function button to start positioning. Release the button to stop positioning.

NOTICE

With an evenly distributed patient weight load up to 500 lbs (227 kg), all table functions will operate smoothly and quietly.

a. Floor Lock/Brake System



WARNING

Ensure brakes are properly set prior to patient transfer. **DO NOT UNLOCK BRAKES** when a patient is on the table. An uneven patient weight load may cause instability.

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



CAUTION

If circumstances demand table brakes to be unlocked:

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

Maximum patient weight should not exceed 500 pounds (227 kg).

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

Prior to unlocking brakes, check for obstructions on the floor that might prevent the table from moving smoothly to a new location.

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.

Re-lock the brakes immediately once the final position is reached and before commencing surgery.

Press the **BRAKE LOCK** button on the pendant control to activate the brakes (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.

b. Trendelenburg



WARNING

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

To place the table in a Trendelenburg (head down) position, press the **TREND** button. Trendelenburg positioning up to 28° may be obtained (Figure 13).

To place the table in a reverse Trendelenburg (head up) position, press the **REV TREND** button. Reverse Trendelenburg positioning of up to 28° may be obtained.

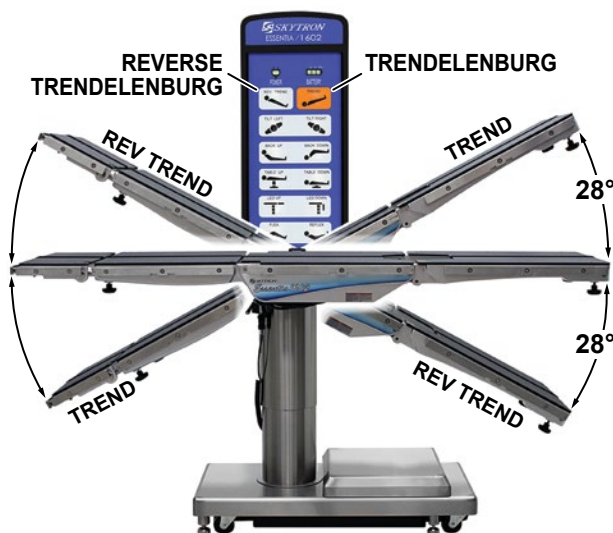


Figure 13. Trendelenburg Positioning

CAUTION

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

c. Lateral Tilt

To achieve lateral tilt right (as viewed from the head end of the table), press the TILT RIGHT button. Tilt of up to 23° ($\pm 2^{\circ}$) may be obtained (Figure 14).

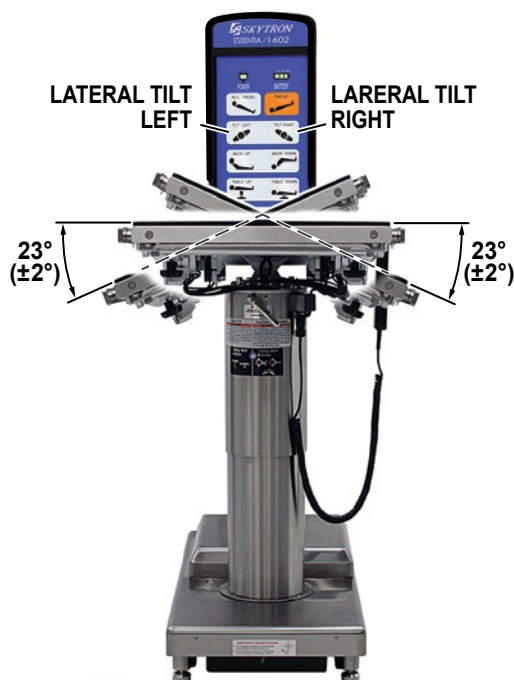


Figure 14. Lateral Tilt Positioning

To achieve lateral tilt left, press the TILT LEFT button. Tilt of up to 20° may be obtained.



WARNING

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

d. Back Section

To raise the back section, press the BACK UP button. The back section will raise up to 90° above horizontal (Figure 15).



Figure 15. Back Section Positioning

With the optional X-ray cassette top, do not raise back plate over 30° . When the back is up 90° , always pay attention when adjusting the tabletop in reverse Trendelenburg to prevent the head plate from falling.

To lower the back section, press the BACK DOWN button. The back section will lower to 30° below horizontal.

e. Elevation

To raise table top, press the TABLE UP button (Figure 16). The table will lift a patient weight of 228 kg (500 lbs) up to 1040 mm (40 15/16").



Figure 16. Elevation Function

To lower the table top, press the TABLE DOWN button. The table top will go down to a minimum height of 26" (660 mm).

f. Leg Section

Press the LEG DOWN button to lower the leg section. The leg section will go down to a maximum of 100° below horizontal. Press the LEG UP section to raise the leg section up to level (Figure 17).



Figure 17. Leg Section Positioning

CAUTION

Whenever the leg section is in the down position, it may hit the table base or floor if the table down or reverse trendelenburg functions are activated.

g. Flex Positioning

To place the table top in a flex position from horizontal, press the FLEX button (Figure 18).

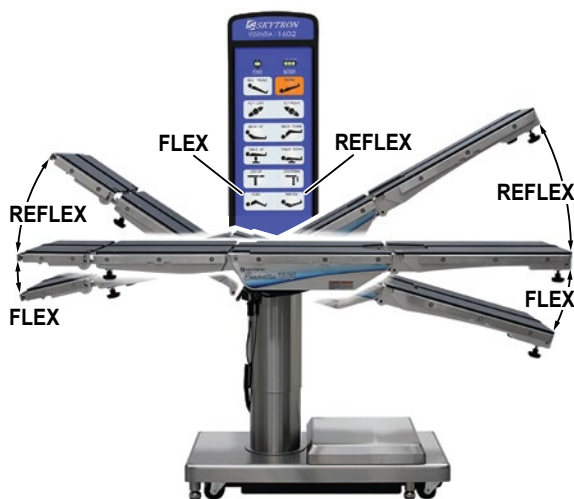


Figure 18. Flex / Reflex Positioning

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

h. Return To Level

To return the table top to a level position, press the LEVEL button. Elevation, and brake system functions are not affected by the level function (Figure 19).



Figure 19. Return To Level

3-10. Emergency Brake Release

In case of a power failure or electrical problem in the table, the table can be moved by manually releasing the brakes with the emergency brake release.

The control knob (valve) is located on the end of the base opposite the power cord, and identified by an EMERGENCY BRAKE RELEASE label. Turn the knob counterclockwise to release the brakes (Figure 20).



Figure 20. 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:

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

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

To move the table safely, one staff member should be positioned at the head end and one at the foot end. If the patient weight exceeds 250 pounds (114 kg), four (4) staff members are required to move the table and ensure patient safety.

NOTICE

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

3-11. Table Top Rotation

A counterclockwise rotation of the locking handle (approximately 4 rotations) unlocks the table top (Figure 21).



Figure 21. Table Top Locking Handle

This allows the table top to be rotated by 180° in a right hand to left hand direction (Figure 22).

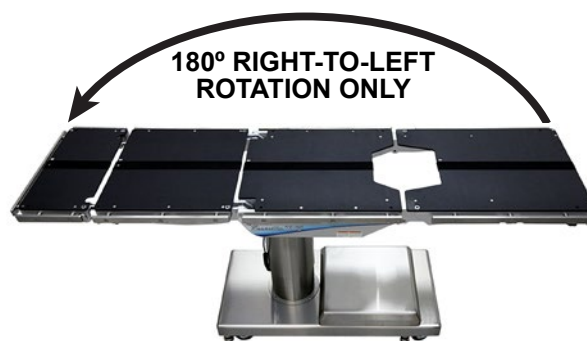


Figure 22. Table Top Rotation

Rotate the locking handle counterclockwise until it becomes secure to lock the table top in position. Always lock the table top securely after rotating.

CAUTION

DO NOT rotate the table top less than 180°. There is a risk of injury to the patient and staff if the table were to tip over.

3-12. Head Section



CAUTION

DO NOT overload the head section.
Maximum load is 22 lbs (10 kg).

a. Adjustment

A release bar is located under the head section. Pull this bar to release the head section from its locked position to manually position it from 60° above to 90° below horizontal in 15° increments. Release the bar to lock the head section in position (Figure 23).



Figure 23. 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 (Figure 24).



CAUTION

DO NOT reverse the patient on the table without first consulting with your SKYTRON representative.

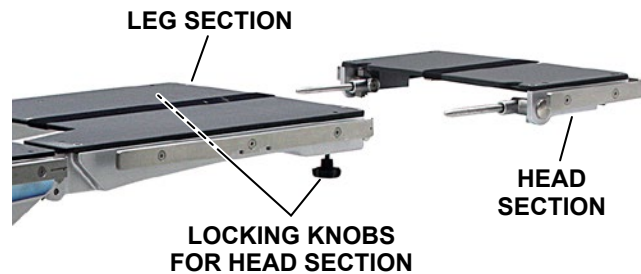


Figure 24. Head Section as a Foot Extension

The 1602 table has the capability of attaching the head section to the leg section for use as a foot extension ONLY.

Two (2) locking knobs are located inside the leg section to secure the head section (Refer to Figure 24).

3-13. Pad Sets



WARNING

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

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

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

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

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



CAUTION

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

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

3-14. Positioning

The use of certain optional accessories available from SKYTRON further extend the positioning capabilities of the 1602 ESSENTIA table.



CAUTION

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

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



CAUTION

Injury Hazard; DO NOT use worn or damaged accessories.

Accessories and products not furnished by SKYTRON have not been tested for performance and safety. In such applications, the user assumes responsibility for patient and staff safety.

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

1602 ESSENTIA General Purpose Patient Positioning Guidelines



Gall Bladder / Thoracic



Upper Body



Vascular / Endovascular



Kidney / Thoracic



Lower Extremity / Edovascular / Podiatry

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

1602 ESSENTIA General Purpose Patient Positioning Guidelines (Cont'd)



Neurosurgery



Shoulder Arthroscopy



Spinal



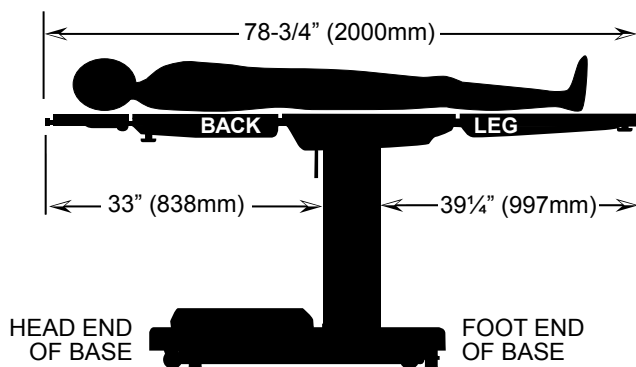
Bariatric Surgery

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

3-15. Positioning and Clearances

TABLE TOP ORIENTATION

WEIGHT CAPACITY
500 LBS (227 KG)
LIFT & ARTICULATE

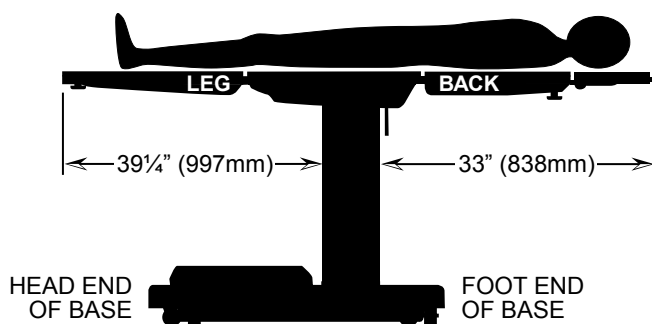


**BRAKES MUST
REMAIN LOCKED
TO THE FLOOR**

**BRAKES MUST
REMAIN LOCKED
TO THE FLOOR**

TABLE TOP ROTATED 180°

WEIGHT CAPACITY
500 LBS (227 KG)
LIFT & ARTICULATE



**BRAKES MUST
REMAIN LOCKED
TO THE FLOOR**

**BRAKES MUST
REMAIN LOCKED
TO THE FLOOR**

**DO NOT REVERSE A PATIENT ON THIS TABLE
CONSULT WITH SKYTRON FOR QUESTIONS**



CAUTION

**DO NOT reverse the patient on the
table without first consulting with your
SKYTRON representative.**

SECTION 4. MAINTENANCE

4-1. Cleaning and Disinfecting



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.

Adhere to all of the product manufacturer's cleaning and disinfecting instructions and warnings.

a. Cleaning

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

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



WARNING

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

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

CAUTION

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

5. Use a ready-to-use detergent diluted as required by manufacturer. Ensure that the active ingredients of the product are compatible with the materials of the SKYTRON table.

6. Apply cleaning fluid liberally to top and sides of each pad and wipe with a clean lint-free cloth.

7. Using a clean, damp, lint-free cloth, wipe the pads to remove the cleaning fluid.

8. Using a clean, dry, lint-free cloth, wipe the pads to remove all moisture.

9. Repeat Steps 6 through 8 to clean the bottom of each pad. Allow to dry.

CAUTION

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

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

CAUTION

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

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

CAUTION

Avoid immersing the pendant control assembly in liquids.

12. Apply cleaning solution to the pendant control and cord.

13. Use a clean cloth dampened with water to remove cleaning solution.

14. Use another clean damp cloth to remove any remaining residue.

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

16. Clean casters and floor lock brakes.

b. Disinfection

Perform the following steps when disinfecting the surgical table.

NOTICE

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

- Sodium Hypochlorite 6% diluted to 0.1% (halogen containing compound)
 - Hypo Alcohol (iodine color removing agent)
 - Chlorhexidine (chlorhexidine gluconate 0.5%)
 - Benzalkonium chloride (invert soap 10%)
 - Povidone iodine
 - Ethanol 80%
 - Oxydol (hydrogen peroxide)
 - Isopropyl alcohol (IPA) 99.5%
1. Remove all table pads from the table.
 2. Apply a proper quantity of disinfectant on a clean and lint-free cloth, then wipe the top, sides, and bottom of the pads with the cloth.

NOTICE

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

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

4-2. 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 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 operation of the base 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 all steps of the cleaning procedure.
9. Check/recharge the batteries.

b. Performed Weekly

1. Check each function for movement to ensure quiet and smooth operation.
2. Check the overall condition of the pendant control.

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 pendant control cord condition.
4. Inspect the condition of the table pad.

4-3. Preventive Maintenance

NOTICE

Maintenance must be performed by a SKYTRON authorized service technician using SKYTRON authorized replacement parts and service techniques.

The following preventive maintenance checks and services are recommended to ensure the serviceability and proper operation of your SKYTRON surgical table.

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 if 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. Check/recharge the batteries:
 - Whenever the table is placed into use.
 - When the table is unused for an extended period of time.
- g. Check table top level function.

4-4. Operator Troubleshooting

When troubleshooting a table malfunction, first determine if the problem affects all control functions or only one? If the problem affects one control function is it in both directions? Is the problem intermittent?

MALFUNCTION	POSSIBLE CAUSE	CORRECTIVE ACTION
Pendant Control does not function	Defective pendant control	Replace pendant control
	Excessive power (voltage) supply	Plug into a correct electrical outlet
No power to oil pump motor, table is not functional	Defective power cord	Replace power cord
	Defective fuse	Replace fuse
	Power supply wiring	Check wiring
	Pump motor overheating	Allow motor to cool
	Defective control circuit	Replace control circuit
No table top movement with oil pump motor working	Burnt solenoid valve coil	Replace solenoid valve.
	Hydraulic oil pressure too high	Adjust oil pressure valve
Table top drifting out of elevation, trendelenburg, lateral tilt, back section, or floor lock settings	Loose solenoid valve or cylinder	Tighten valve or cylinder
	Defective oil tubing	Replace
	Check valve O-ring failure	Replace
	Metal filings in check valve	Clean or replace
No movement	Totally discharged batteries	Charge table batteries.
	Defective hydraulic pump	Contact SKYTRON Service.
	Defective control box	
	Defective hydraulic valve	
	Defective pendant control	Replace pendant control
Jerky table top movement	Old or dirty hydraulic oil	Replace hydraulic oil
Table top movement too fast	Solenoid valve adjustment	Readjust solenoid valves
Table top is unstable (loose)	Loose table top rotation locking handle	Tighten locking handle
	Loose hydraulic cylinders	Tighten
	Solenoid valve check valve leakage	Contact SKYTRON Service
	Defective connecting gear due overweight operation	
Arm board cannot be adjusted or is binding	Arm board was bent by siderail of back or seat section	Replace arm board

4-5. Maintenance Checks & Services

Refer to Section 5 Replacement Parts for component locations.



CAUTION

Always inspect the table prior to use to assure safe and correct operation. Any table determined to be malfunctioning must be removed from service immediately and labeled inoperable.

Refer all service issues to a SKYTRON authorized service technician.

a. Head Section

1. Ensure both head section locking knobs are installed, they have full range of motion, and their threads are not stripped (Figure 25).



Figure 25. Head Section

2. Ensure the acorn nuts on head section release bar are tightly secured.
3. Ensure the release bar plunger properly engages the head section trunnion gears.
4. Ensure all side rail fasteners are installed and secured tightly.
5. Ensure the head section extension shafts 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 the head section is level (parallel to the floor) and even with the back section. If not, notify a SKYTRON authorized service technician.

b. Top Section Components

1. Ensure that all warning and caution labels are present and readable.
2. Ensure the table top sections are not cracked or warped. Replace as needed.
3. Ensure the table top sections securing screw heads do not have sharp burrs.
4. Place an X-ray top into the table top sections to ensure that it has a snug fit.
5. Ensure the leg section is not searching (continual raising and lowering) when returning to level. If needed, this adjustment can only be performed by a SKYTRON authorized service technician.
6. Inspect for hydraulic oil leaks.
7. 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.
2. Observe that pendant control cover is not torn or has sections missing. Replace as needed.
3. Ensure the pendant control cord is not frayed, pinched, or otherwise damaged.
4. Test each pendant control articulation button for full range of travel.
5. Test the pendant's BRAKE UNLOCK button and BRAKE LOCK button functions.
6. Open the EMERGENCY BRAKE RELEASE valve to ensure proper operation.
7. Inspect for hydraulic oil on the base, under the access cover, and on all four (4) brakes.
8. Ensure that shroud assemblies are not damaged and slide smoothly.
9. Ensure all screws are secured tightly.
10. Ensure all four (4) casters rotate 360° on both axis. Check for flat spots on the casters.
11. Ensure there are four (4) brake pads and the pads are not chipped or otherwise damaged.

d. Hydraulic Oil Level Check**NOTICE**

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

1. Remove four (4) screws that secure the service access cover to the base and remove the service access cover.
2. Remove the filler cap from the oil reservoir by firmly lifting straight up. Do not attempt to turn the cap as it is a notched pressure-fit configuration (Figure 26).

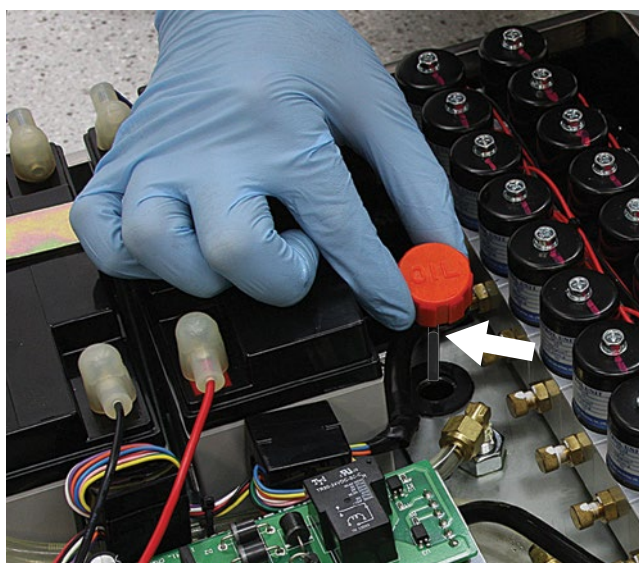


Figure 26. Oil Reservoir

3. Wipe the oil residue from the dipstick and reinsert the cap until it contacts the opening.
4. Remove the cap and inspect the dipstick, the oil level should be near the indent about two thirds (2/3) upward the dipstick. If necessary, add hydraulic oil (ISO VG32 or equivalent) to the oil reservoir and clean up any oil spillage, if necessary.
5. When replacing the oil filler cap, line up the notches inside the cap and press down firmly.
6. Secure the service access cover with the four (4) screws removed in step 1.

e. Battery Replacement**NOTICE**

Batteries must always be replaced in pairs.

1. Remove four (4) screws that secure the service access cover to the base and carefully remove the service access cover.
2. Loosen and remove the hex bolt and washer that secure the battery hold down bar in place over the batteries. Remove the battery hold down bar (Figure 27).

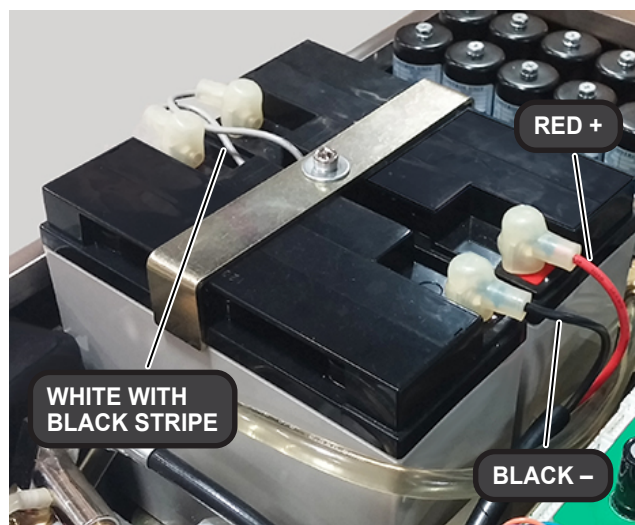


Figure 27. Battery Hold Down Bar.

3. Remove the wire terminal connections to both batteries.
4. While making sure the battery terminal wires are clear, carefully remove the batteries by lifting each straight up and out.
5. While making sure battery terminal wires are clear, carefully install the new batteries (Skytron PN J090X03).
6. Connect the correct wires to the battery terminals.
7. Install battery hold down bar over batteries and secure with the hex bolt and washer.
8. Secure the service access cover with the four (4) screws removed in step 1.

4-6. Maintenance Matrix

The specific items listed in the MAINTENANCE MATRIX should be inspected and repaired or replaced as necessary. The suggested time intervals are intended as a guideline only and actual

maintenance will vary by use and conditions. For optimal usage, safety and longevity of the product, have it serviced only by a SKYTRON authorized service technician using SKYTRON authorized replacement parts and service techniques.

FIGURE 28. SURGICAL TABLE MAINTENANCE MATRIX

Component	1 Year	2 Years	3 Years	5 Years	7 Years
Pad Surface	X				
Side Rails	X				
Velcro	X				
Shrouds and Base Cover					
Hydraulic Oil Level	X				
AC Power Cord	X				
Self-Leveling Brake Pads	X				
Casters	X				
Lubricate Elevation Column	X				
Lubricate & Inspect Hoses	X				
Tighten X-Ray Top Standoffs & Apply Blue Loctite®	X				
Back Section Cylinder	X				
Trendelenburg Cylinder	X				
Lateral Tilt Cylinder	X				
Elevation Cylinder	X				
Leg Section Cylinder	X				
Brake Cylinders	X				
EMERGENCY BRAKE RELEASE Valve	X				
Plumbing	X				
Pressure Relief Valve Assembly	X				
Labels & Operation Decals	X				
Batteries, 12 Volt		X			
Hydraulic Oil System Flush			X		
Brake Pads				X	
Pendant Control Assembly				X	
Main ON/OFF Switch (POWER SWITCH)					X
Power Cord Assembly					X
Power Cord Receptacle (POWER CORD)					X
Pendant Control Connectors					X
Pump/Motor Assembly					X
Elevation Shroud Gasket					X
Access Cover Gasket					X

4-7. 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.

4-8. 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 representative for disposal instructions regarding the SKYTRON surgical table or parts in accordance with current environmental regulations for medical products.

a. Environmental Protection



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

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.

4-9. Storage

Always separate hand control and table when not in use for more than 1 month to save battery power and protect battery use life.

Always recharge the batteries at least once every 4 weeks to protect battery use life when the hand control is connected to table.

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

- AC power function – ON/OFF operation and battery function
- Battery power function/mode
- Pendant control operation
- 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 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 5. REPLACEMENT PARTS

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

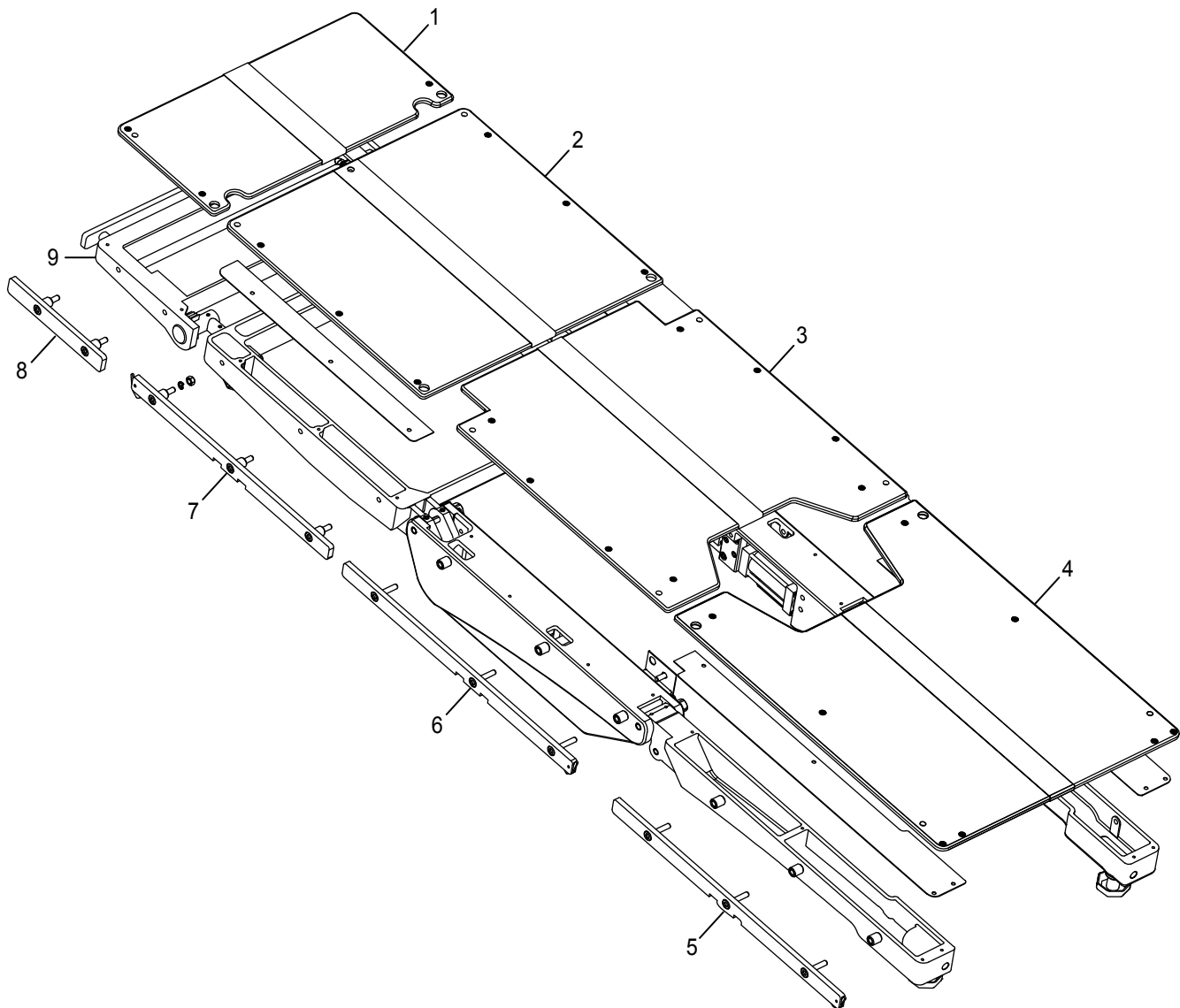
The following abbreviations are used in this section:

- 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 a SKYTRON authorized service technician only. This is necessary to avoid the possibility of damage to the equipment.

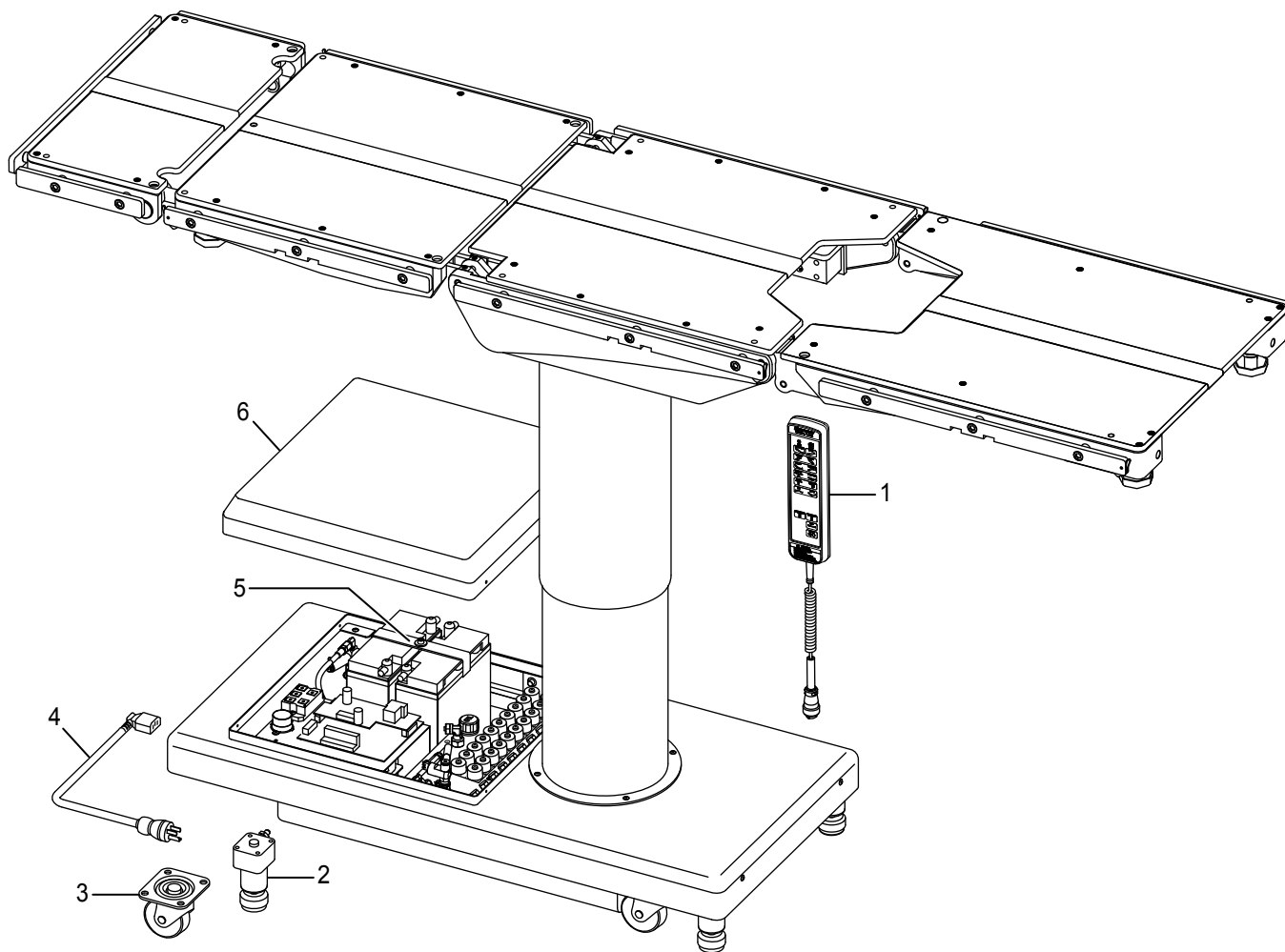
5-1. Head & Top Section Components



5-1. Head & Top Section Components (Continued)

Item	Part No.	Description	Qty.
1	D3-016-20	TOP, head section (includes velcro strap)	1
2	D3-016-21	TOP, back section	1
3	D3-016-22	TOP, seat section (includes velcro strap).....	1
4	D3-016-23	TOP, foot / leg section (includes velcro strap).....	1
5	D3-016-26	SIDE RAIL, foot / leg section, right	1
NS	D3-016-29	SIDE RAIL, foot / leg section, left.....	1
6	D3-016-25	SIDE RAIL, seat section, right (includes 2 hex screws).....	1
NS	D3-016-28	SIDE RAIL, seat section, left.....	1
7	D3-016-24	SIDE RAIL, back section, right..... (includes 22 hex nuts, 24 lock washers, 24 sleeves, 22 hex screws)	1
NS	D3-016-27	SIDE RAIL, back section, left.....	1
8	D3-016-30	SIDE RAIL, head section	1
		(includes 22 hex nuts, 24 lock washers, 24 sleeves, 22 hex screws)	
9	D3-016-19	FRAME ASSEMBLY, head section	1

5-2. Base Components



Item	Part No.	Description	Qty.
1	D6-016-01	PENDANT CONTROL ASSEMBLY	1
2	D1-016-04	KIT, brake cylinder assy (includes 4 complete cylinders).....	1
3	D1-016-06	CASTER (includes 4 casters, 16 hex screws, 16 washers).....	1
4	D5-016-01	POWER CORD ASSY (includes 1 outlet, 1 cable, 2 screws, 1 cable set, 1 fuse).....	1
5	D5-016-03	BATTERY, 12V (includes 2 batteries 4 wire caps, 1 bracket, 1 hex bolt, 1 washer)	1
6	D1-016-03	COVER, service access (includes 4 truss head screws).....	1

SECTION 6. ELECTROMAGNETIC EMISSIONS

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

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

The use of Accessories, transducers, and cables other than those specified, with the exception of transducers and cables sold by the Manufacturer of this device as replacement parts for internal components, may result in increased Emissions or decreased Immunity of the 1602 Surgical Table.

The 1602 Surgical Table should not be used adjacent to or stacked with other equipment and that if adjacent or stacked use is necessary, the 1602 Surgical Table should be observed to verify normal operation in the configuration in which it will be used.

GUIDANCE AND MANUFACTURER'S DECLARATION – ELECTROMAGNETIC EMISSIONS		
The 1602 Surgical Table is intended for use in the electromagnetic environment specified below. The customer or the user of the 1602 Surgical Table should assure that it is used in such an environment.		
Emissions Test	Compliance	Electromagnetic Environment – Guidance
RF emissions CISPR 11	Group 1	The 1602 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 1602 Surgical Table is suitable for use in all establishments, other than domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations / flicker emissions IEC 61000-3-3	Complies	

RECOMMENDED SEPARATION DISTANCES BETWEEN PORTABLE AND MOBILE RF COMMUNICATIONS EQUIPMENT AND THE 1602 SURGICAL TABLE

The 1602 Surgical Table is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the 1602 Surgical Table can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the 1602 Surgical Table as recommended below, according to the maximum output power of the communications equipment.


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

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

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

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

GUIDANCE AND MANUFACTURER'S DECLARATION – ELECTROMAGNETIC IMMUNITY			
The 1602 Surgical Table is intended for use in the electromagnetic environment specified below. The customer or the user of the 1602 Surgical Table should assure that it is used in such an environment.			
Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment – Guidance
Electrostatic discharge (ESD) IEC 61000-4-2	±6 kV contact ±8 kV air	±6 kV contact ±8 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%
Electrical fast transient/burst IEC 61000-4-4	±2 kV for power supply lines ±1 kV for input/output lines	±2 kV for power supply lines ±1 kV for input/output lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±1 kV line(s) to line(s) ±2 kV line(s) to earth	±1 kV line(s) to line(s) ±2 kV line(s) to earth	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5 % U_T (>95 % dip in U_T) for 0.5 cycle 40 % U_T (60 % dip in U_T) for 5 cycles 70 % U_T (30 % dip in U_T) for 25 cycles <5 % U_T (>95 % dip in U_T) for 5 sec	<5 % U_T (>95 % dip in U_T) for 0.5 cycle 40 % U_T (60 % dip in U_T) for 5 cycles 70 % U_T (30 % dip in U_T) for 25 cycles <5 % U_T (>95 % dip in U_T) for 5 sec	Mains power quality should be that of a typical commercial or hospital environment. If the user of the 1602 Surgical Table requires continued operation during power mains interruptions, it is recommended that the 1602 Surgical Table be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A / m	3 A / m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment
NOTE: U_T is the a.c. mains voltage prior to application of the test level.			

GUIDANCE AND MANUFACTURER'S DECLARATION – ELECTROMAGNETIC IMMUNITY			
The 1602 Surgical Table is intended for use in the electromagnetic environment specified below. The customer or the user of the 1602 Surgical Table should assure that it is used in such an environment.			
Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment – Guidance
<p>Conducted RF IEC 61000-4-6</p> <p>Radiated RF IEC 61000-4-3</p>	<p>3 Vrms 150 kHz to 80 MHz</p> <p>3 V/m 80 MHz to 2.5 GHz</p>	<p>3 Vrms 150 kHz to 80 MHz</p> <p>3 V/m 80 MHz to 2.5 GHz</p>	<p>Portable and mobile RF communications equipment should be used no closer to any part of the 1602 Surgical Table, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.</p> <p>Recommended separation distance</p> $d = 1.2\sqrt{P}$ $d = 1.2\sqrt{P} \quad 80 \text{ MHz to } 800 \text{ MHz}$ $d = 2.3\sqrt{P} \quad 800 \text{ MHz to } 2.5 \text{ GHz}$ <p>where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in metres (m).</p> <p>Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, ^a should be less than the compliance level in each frequency range. ^b</p> <p>Interference may occur in the vicinity of equipment marked with the following symbol:</p> 
<p>NOTE 1: At 80 MHz and 800 MHz, the higher frequency range applies.</p> <p>NOTE 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.</p>			
<p>^a Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the 1602 Surgical Table is used exceeds the applicable RF compliance level above, the 1602 Surgical Table should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the 1602 Surgical Table.</p> <p>^b Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.</p>			

SECTION 7. REVISION HISTORY

Date Published	Revision	Revision History
03/23/2015	0	Initial release.
05/20/2015	1	Added warning "Consult with Skytron before reversing a patient on the table"
07/02/2015	2	Changed part number on Pg 9 from J090X39 to D5-016-03. Fixed formatting issues on Page 9. Removed images of improper positioning on pages 22 and 23. Changed image in page 24 to emphasize restriction on reversing a patient on the table.
8/27/2015	3	Addition of warning: To avoid risk of electric shock, this equipment must only be connected to supply mains with protective earth.
09/05/2017	4	Inside cover page and Pg 10: Updated the Emergo Europe address
09/27/2017	5	Update the Emergo Europe address

NOTES

