# **OPERATOR MANUAL**

Cmax<sup>™</sup> Surgical Table

(03/16/09)

P150830-685

# A WORD FROM STERIS CORPORATION

IMPORTANT: Read this entire manual before attempting to install or operate your Cmax<sup>™</sup> Surgical Table. Ensure all appropriate personnel understand the contents of this manual.

This Operating Manual contains important information on proper use and maintenance of the Cmax Surgical Table. All personnel involved in the use and maintenance of this equipment must carefully review and comply with the warnings, cautions, and instructions contained in this manual. These instructions are important to protect the health and safety of personnel operating the table and should be retained in a conveniently accessible area for quick reference.

Complete instructions for uncrating have been furnished. If missing, contact STERIS for a replacement copy, giving the serial, equipment and model numbers of the unit.

STERIS carries a complete line of accessories for use with this table. STERIS representatives will gladly review these with you.

### **Advisory**

A listing of the *SAFETY PRECAUTIONS* to be observed when operating and servicing this Cmax Surgical Table is found in *SECTION 1* of this manual. Do not operate or service the equipment until you have become familiar with this information.

Any alteration of the surgical table not authorized or performed by STERIS will void the warranty, could adversely affect operator safety and could violate national, state and local regulations.

### **Indications for Use**

#### Service Information

The Cmax Surgical Table is designed for most surgical procedures with unrestricted radiological access without patient reversing.

A thorough preventive maintenance program is essential for safe and proper unit operation. This manual contains maintenance schedules and procedures which should be followed for satisfactory equipment performance. Comprehensive instructions for monthly, quarterly and semi-annual preventive maintenance can be found in the Maintenance Manual (available from STERIS).

Only STERIS-trained personnel should attempt to perform maintenance on the Cmax Surgical Table to avoid personal injury, improper equipment performance, invalidation of the equipment warranty or other costly damage.

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Customers are encouraged to contact STERIS concerning our comprehensive preventive maintenance agreement. Under the terms of this agreement, preventive maintenance, adjustments and replacement of worn parts are provided on a scheduled basis to help ensure optimal equipment performance and help avoid untimely or costly interruptions. STERIS maintains a global staff of well equipped, factory-trained technicians to provide these services, as well as expert repair services. Please contact STERIS for details.

NOTE: A patient grounding post/potential equalization terminal (male connector, DIN 42801) is provided. The female connector for patient grounding is not furnished by STERIS.

# EC Authorized Representative

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Class 1 Equipment Type B Equipment

Splash-Proof Equipment (enclosed equipment protected against splashing water, IPX4)



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

Suitable for intermittent operation 3 min/hr.

The base language of this document is ENGLISH. Any translations must be made from the base language document.

Introduction Operator Manual 150830-685

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# SAFETY PRECAUTIONS

The following *Safety Precautions* **must** be observed when operating or servicing this Cmax<sup>™</sup> Surgical Table. WARNING indicates the potential for personal injury and CAUTION indicates the potential for damage to equipment. For emphasis, certain *Safety Precautions* are repeated throughout the manual. **It is important to review ALL** *Safety Precautions* before operating or servicing the unit.

### **WARNING - PINCHING HAZARD:**



Pinch points are created during tabletop articulation. Carefully review illustrations in Figure 2-1 and Figure 2-2 before operating the table.



To avoid serious injury, keep limbs, fingers and other body areas clear of all pinch points when positioning the table.



When manually positioning table sections, stay clear of potential pinching hazards.

### **WARNING - TIPPING HAZARD:**



Do not place patient on the table unless floor locks are engaged.



Do not disengage floor locks when patient is on table.



Do not use this table for patients exceeding the maximum patient weight (patient in normal orientation) of 1100 lb (499 kg) without patient posturing or tabletop slide (except raise/lower), 1000 lb (454 kg) with patient posturing (except tabletop slide), or 600 lb (272 kg) with full patient posturing (including tabletop slide).



Center tabletop over column before applying chest compressions.



Center tabletop over column before transferring patient on or off of table.

#### **WARNING - EXPLOSION HAZARD:**



Table must not be used in the presence of flammable anesthetics.

### **WARNING - TRIPPING HAZARD:**



Route the power cord to the receptacle in a position so that it will not be tripped over by personnel in the area.

#### **WARNING - PERSONAL INJURY HAZARD:**



Failure to keep the patient properly secured with the patient safety straps at all times could result in death or serious injury to the patient and the operating room staff.



The floor locks must be engaged at all times when a patient is on the table. Failure to engage the floor locks before placing a patient on the table or disengaging the floor locks while a patient is on the table could result in the table rolling unexpectedly during the procedure.



Keep hands and feet clear of the unloading platform and the table base when unloading the table. Serious personal injury could result.



Section 4.1, **Steps 1-6** in "Operating Table" must be executed before patient transfer to the table. Execution of **Steps 1-6** with the patient on the table could result in injury to both the patient and the operating room staff.



Healthcare professionals must ensure patients are positioned and monitored so as to prevent compromising respiration, nerve pathways or circulation.



When installing any table accessory, check for correct attachment and tighten securely (if appropriate). Do not use a worn or damaged accessory. Check installation before using any accessory.



Unanticipated table movement could cause patient injury. Patient must be secured to the table in accordance with recommended positioning practices.



When cleaning/disinfecting table, do not use phenolics which may cause patient skin burns if inadequately rinsed off, or alcohol, which does not have sufficient cleaning/disinfecting properties.



The table leg section is designed to support the patient legs. Do not put body weight on the leg section.



If the integrity of the external protective ground installation or arrangement is in doubt, operate the table from its internal power source.



If an antistatic path is necessary, STERIS recommends antistatic pads (specifically developed for this table) in direct contact with the patient. Table must also be positioned on antistatic floor or connected to equalization device (equipotential connector).



Do not remove table leg section if patient is not properly positioned. Patient's torso and buttocks must be firmly held in place by table back and seat sections and legs supported by leg supports.

#### **WARNING - INSTABILITY HAZARD:**



Possible patient or user injury, as well as table or accessory failure, may result from using STERIS table accessories for other than their stated purpose – or from using, on STERIS tables, accessories manufactured and sold by other companies.

### **WARNING - PINCHING AND TIPPING HAZARD:**



Patient injury may result if the operator of this table is not completely familiar with the controls for patient positioning and table operation.

#### WARNING - PERSONAL INJURY AND/OR EQUIPMENT DAMAGE HAZARD:



Repairs and adjustments to this equipment must be made only by STERIS or STERIS-trained service personnel. Maintenance performed by unqualified personnel or installation of unauthorized parts could cause personal injury, result in improper equipment performance, invalidate the warranty, or result in costly damage. Contact STERIS regarding service options.



Regularly scheduled preventive maintenance is required for safe and reliable operation of this equipment. Contact STERIS to schedule preventive maintenance.



Table is factory set to operate at a certain voltage. Use of any other power supply could result in serious personal injury or table damage.



Use of this table in the presence of flammable anesthetics could result in serious personal injury or table damage.



Placing a patient whose weight exceeds maximum patient weight limit (patient in normal orientation) of 1100 lb (499 kg) without patient posturing or tabletop slide (except raise/lower), 1000 lb (454 kg) with patient posturing (except tabletop slide), or 600 lb (272 kg) with full patient posturing (including tabletop slide) could result in injury to the patient and the operating room staff, and serious equipment damage.



Failure to perform periodic inspections of the table could result in serious personal injury or equipment damage.



The Auto Limit Sensors (ALS) System suggested alternative tabletop movement does not take in account the type of surgery that may be in process or the environment (e.g., other equipment close by) and might not be compatible with the surgical procedure. To avoid an action that could result in death or serious injury to the patient and the operating room staff, and/or serious equipment damage, completely evaluate the feasibility of the suggestion.



ALS System is not active during auxiliary control. Ensure proper tabletop movements to prevent patient/staff injury and/or equipment damage.



During auxiliary control, tabletop functions are available even if table floor locks are NOT engaged. LOCK table before moving tabletop or transferring patient.



Use of accessories, transducers or cables with this table, other than those specified, may result in increased emissions or decreased immunity of the table.

### **WARNING - INFECTION HAZARD:**



To protect against aerosols being reflected from potentially contaminated surfaces, wear rubber or plastic gloves, masks and eye protection, and follow OSHA blood-borne pathogens standards when cleaning.



When cleaning/disinfecting table, do not use alcohol which does not have sufficient cleaning/disinfection properties.

#### WARNING - DISPOSAL HAZARD:



This product contains materials which may require disposal through appropriately licensed and permitted hazardous waste management firms.

#### **CAUTION - POSSIBLE EQUIPMENT DAMAGE:**



Failure to keep all personnel and equipment clear of the table before actuating any inertia-driven or power-driven movement could result in table damage.



When moving the table to or from point of use, roll it carefully at moderate speed and only over smooth floors. Maximum floor clearance is 1/4" (6.4 mm). Avoid door and elevator jambs, and obstructions greater than 1/4" (6.4 mm). If necessary, lift table over obstructions, onto trucks, etc. Lift table evenly and only by the table base. DO NOT transport articles (including accessories) on top of the table, and **DO NOT use a forklift to move the uncrated table.** 



Hang the hand control from side rail of the table when not in use to avoid possible damage to the control.



When cleaning/disinfecting table, thoroughly read the cleaning fluid directions for use and follow all directions and cautions as shown.



Do not spray cleaning fluid into electric receptacles and avoid spraying directly on emergency backup buttons or into clearance space. Spray or drippage may settle onto electric circuits inside table causing corrosion and loss of function.



Cleaning procedures requiring articulation of the table should be performed only by persons familiar with table operation.



Route the hand control cord clear of any pinch points where cord could be damaged.



Use of incorrect hydraulic oil may severely damage the table and/or cause malfunction. Contact STERIS for proper hydraulic oil.



After performing cleaning procedures, ensure pads, tabletop and x-ray tops are completely dry before reinstalling. Moisture trapped between pads and x-ray tops may contribute to equipment damage, such as x-ray top warpage.



Appropriate components of this surgical table have been tested and found in compliance with IEC 60601-1-2:2001, Medical Electrical Equipment - Part 1; General Requirements for Safety; Electromagnetic Compatibility (EMC). There is, however, a potential for electromagnetic or other interference between this equipment and other devices. Should user experience interference, relocate this device or minimize the use of the affected equipment while this device is in operation.

#### **REMEMBER - POSSIBLE TIME DELAY:**



Insufficient clearance space will make repairs more difficult and time-consuming. Refer to the equipment drawing for minimum clearance for service/maintenance access requirements.

# 1.1 Symbols on Table

The following is a key to symbols on the Cmax Surgical Table.

Table 1-1. Definition of Symbols on Surgical Table

Symbol	Definition
<b>*</b>	Type B Equipment
	Protective Earth Ground
	Equipotentiality
<u></u>	Electric Shock Hazard
	Control Power ON
0	Control Power OFF
-	Powered By AC
- OR -	Attention, Consult Manual for Further Instructions
Α	Amperage Rating of the Unit
V	Voltage Rating of Unit
~	Alternating Current
Hz	Frequency Rating of Unit
W	Power Rating

Table 1-1. Definition of Symbols on Surgical Table (Cont'd)

Symbol	Definition
SN IPX4	Serial Number of the Unit Splash-Proof Equipment
(INTELLI POWER)	INTELLIPOWER® Dual Power System Power Panel (Battery Charge/Discharge Status)
	Powered By Battery

# 2.1 Pinch Point Warnings

# **WARNING - PINCHING** A HAZARD:

- · Pinch points are created during tabletop articulation. Carefully review illustrations in Figure 2-1 and Figure 2-2 before operating the table.
- · To avoid serious injury, keep limbs, fingers and other body areas clear of all pinch points when positioning the table.



**CAUTION - POSSIBLE** EQUIPMENT DAMAGE: Failure to keep all personnel and equipment clear of the table before actuating any inertia-driven or power-driven movement could result in table damage.

When inertia-driven or power-driven table parts close (especially during extreme tabletop articulation), pinch-point hazards exist (see Figure 2-1). All personnel involved in tabletop positioning should examine and be aware of these points before operating the Cmax™ Surgical Table.

Pinch points shown (circled) in Figure 2-1:

- 1. Between Head Section and Base Cover.
- 2. Between Leg Section and Floor.
- 3. Between Leg Section and Column Cover.
- 4. Between Leg Section and Base Cover.

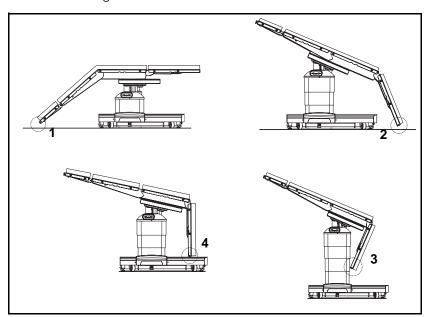


Figure 2-1. Pinch Points



# WARNING - PINCHING A HAZARD:

- Pinch points are created during tabletop articulation. Carefully review illustrations in Figure 2-1 and 2-2 before operating the table.
- · To avoid serious injury, keep limbs, fingers and other body areas clear of all pinch points when positioning the table.

Pinch points shown (circled) in Figure 2-2:

- 1. Between Kidney™ Elevator Mechanism and Seat Section.
- 2. Between Leg Section and Seat Section.
- 3. Side Rail Lock.
- 4. Between Back Section and Seat Section.
- 5. Between Head Section and Back Section.

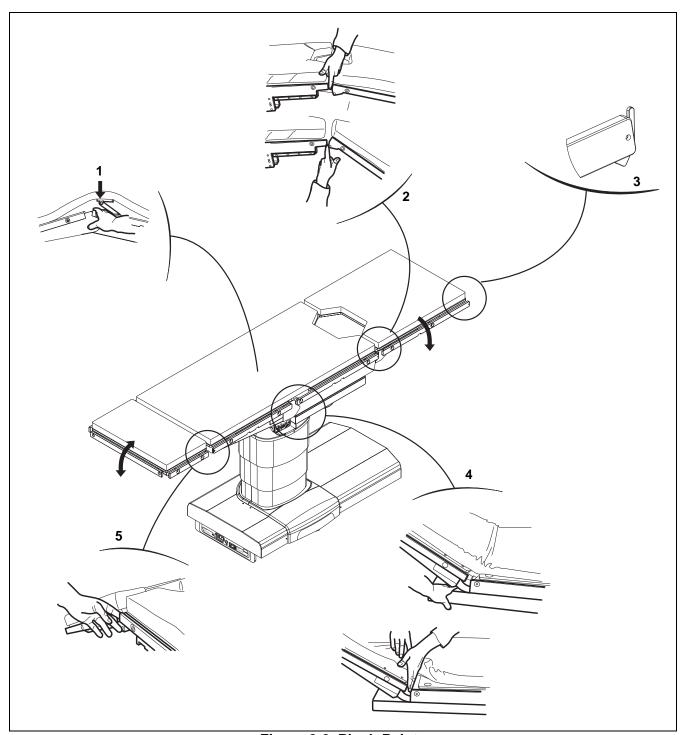


Figure 2-2. Pinch Points

# 2.2 Patient Positioning and Weight Limitation



# **WARNING - TIPPING** A HAZARD:

- · Do not place patient on the table unless floor locks are engaged.
- Do not use this table for patients exceeding the maximum patient weight (patient in normal orientation) of 1100 lb (499 kg) without patient posturing or tabletop slide (except raise/lower), 1000 lb (454 kg) with patient posturing (except tabletop slide), or 600 lb (272 kg) with full patient posturing (including tabletop slide).



### **WARNING - PERSONAL INJURY HAZARD:**

- The floor locks must be engaged at all times when a patient is on the table. Failure to engage the floor locks before placing a patient on the table or disengaging the floor locks while a patient is on the table could result in the table rolling unexpectedly during the procedure.
- Healthcare professionals must ensure patients are positioned and monitored so as to prevent compromising respiration, nerve pathways or circulation.

NOTE: Accessories may have a specified weight limitation that is less than that of the table. Do not exceed the lowest weight limit, table or accessory.

The Cmax General Surgical Table is designed to safely support (with patient in normal orientation): 1100 lb (499 kg) without patient posturing or tabletop slide (except raise/lower); 1000 lb (454 kg) full patient posturing (except tabletop slide); 600 lb (272 kg) full patient posturing (including tabletop slide). Do not exceed the maximum patient weight.

NOTE: When positioning the patient on the table, note the following:

- 1) Always check patient stability when patient is positioned.
- 2) Do not place patient on the table unless floor locks are engaged.
- 3) Use extreme care when transferring patients to or from table.
- 4) Ensure all accessories are properly installed and secured.
- 5) Check for and eliminate harmful patient pressure points once patient is positioned.
- 6) Have a qualified medical professional monitor patient during surgery for all possible patient positioning hazards.
- 7) Do not place patient weight on the Leg Section. Leg Section is designed to support leg weight, not body weight.

All patients must be restrained for proper safety regardless of the length or type of procedure.

NOTE: STERIS recommends only using STERIS manufactured or distributed accessories with this table. If an accessory from another manufacturer is used, it is the user's responsibility to ensure the accessory is compatible with the table and not dangerous to the patient and/or surgical staff.

# 2.3 Patient Safety Straps



WARNING – PERSONAL INJURY HAZARD: Failure to keep the patient properly secured with the patient safety straps at all times could result in death or serious injury to the patient and the operating room staff.

Adjust the patient safety straps such that they restrain the patient according to currently accepted patient restraining practices, keeping in mind the Trendelenburg/Reverse Trendelenburg, back, lateral tilt and height adjustment.

# 2.4 General Description



**CAUTION - POSSIBLE EQUIPMENT DAMAGE:** Appropriate components of this surgical table have been tested and found in compliance with IEC 60601-1-2:2001, Medical Electrical **Equipment - Part 1: General** Requirements for Safety; **Electromagnetic Compatibility** (EMC). There is, however, a potential for electromagnetic or other interference between this equipment and other devices. Should user experience interference. relocate this device or minimize the use of the affected equipment while this device is in operation.

The Cmax Surgical Table (see Figure 2-3) is a mobile, electrohydraulically operated surgical table specifically designed to provide the complete patient positioning flexibility required for modern surgical care facilities. The Cmax Surgical Table features powered lateral tilt, Trendelenburg/Reverse Trendelenburg and adjustable height functions. This table is designed to safely function with patients not exceeding the maximum patient weight limit (patient in normal orientation) of 1100 lb (499 kg) without patient posturing or tabletop slide (except raise/lower); 1000 lb (454 kg) full patient posturing (except tabletop slide);600 lb (272 kg) full patient posturing (including tabletop slide) and is constructed of aluminum alloy, stainless steel and other high quality materials. The Cmax Surgical Table is equipped with a large sliding table top providing unrestricted radiological access without patient reversing.

The Cmax Surgical Table is powered by either internal battery or facility electric through use of the patent-pending INTELLIPOWER® dual power system.

The table accepts positioning commands from three sources:

- 1. A **hand control** (which includes "FLEX", "REFLEX", "SLIDE HEAD", "SLIDE FOOT", "OFF", "Trend.", "REV. TREND", "Height UP", "HEIGHT DOWN", "TILT LEFT", "TILT RIGHT", "BACK DOWN", "BACK UP", "LEG DOWN", "LEG UP", "KIDNEY UP", "KIDNEY DOWN", "LEVEL", "REV. ORIENT" and "FLOOR LOCK". Refer to Figure 4-3 of this document for control feature locations.
- 2. An optional physician-controlled **foot control** (which includes Trendelenburg Tilts, Lateral Tilts and Height functions). Refer to SECTION 4.4, OPTIONAL FOOT CONTROL OPERATION.
- 3. An **Auxiliary Control System** permits table operation in the event of primary control malfunction (refer to *Section 4.5, Auxiliary Control System*).

NOTE: The Head Section is manually adjustable.

\* SAE Measurements are approximate based on metric dimensions.

# **Specifications**

**2.5 Technical** See Figure 2-4 through Figure 2-6.

### 2.5.1 Overall Size (W x L x H) •

22" wide x 81" long x 26 to 45" high\* (550 mm wide x 2055 mm long x 675 to 1136 mm high)

### 2.5.2 Range of Motion

**Height:** 26 to 45" (675 to 1136 mm)\*

Trendelenburg Range: 30° ±1°

Reverse Trendelenburg Range: 30° ±1°

Lateral Tilt Range: 20° ±1°

Slide Motion: HEAD: 9" (227 mm)\*

FOOT: 9" (227 mm)\*

Back Section Motion: UP: 90° ±1°

DOWN: 40° ±1°

Leg Motion: UP: 0°

DOWN: 105° ±1°

Kidney Elevator Mechanism: 4" (110 mm)\*

Flex/Reflex:  $140^{\circ} \pm 1^{\circ} / 90^{\circ} \pm 1^{\circ}$ Head Motion (Manual): 90° ±1°

#### 2.5.3 EMC

Note the following:



**WARNING - PERSONAL** A INJURY AND/OR EQUIPMENT DAMAGE HAZARD: Use of accessories, transducers or cables with this table, other than those specified, may result in increased emissions or decreased immunity of the table.



### CAUTION - POSSIBLE **EQUIPMENT DAMAGE:**

Appropriate components of this surgical table have been tested and found in compliance with IEC 60601-1-2:2001, Medical **Electrical Equipment - Part 1**; **General Requirements for** Safety; Electromagnetic Compatibility (EMC). There is, however, a potential for electromagnetic or other interference between this equipment and other devices. Should user experience interference, relocate this device or minimize the use of the affected equipment while this device is in operation.

- Medical Electrical Equipment needs special precautions regarding EMC and needs 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.
- For table control via e-Serve (RS-232) connection, note the table has been tested for EMC compliance using a 6' (2 m) long, shielded serial cable. A longer or unshielded cable could cause problems and must be observed to verify normal operation.
- The use of accessories, transducers and cables other than those specified by the manufacturer, may result in increased emissions or decreased immunity of the Cmax Surgical Table.
- The Cmax Surgical Table should not be used adjacent to or stacked with other equipment. If so, table should be observed to verify normal operation.

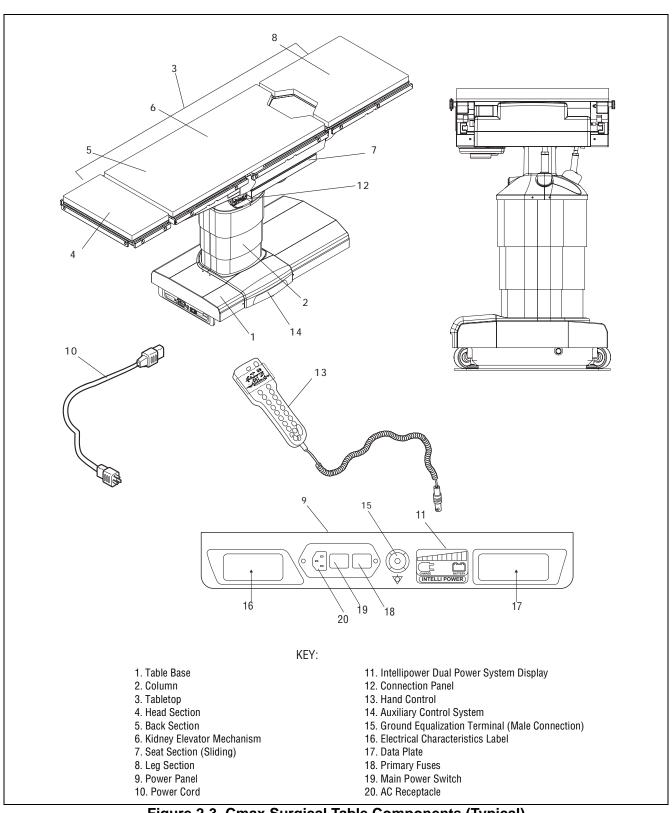


Figure 2-3. Cmax Surgical Table Components (Typical)

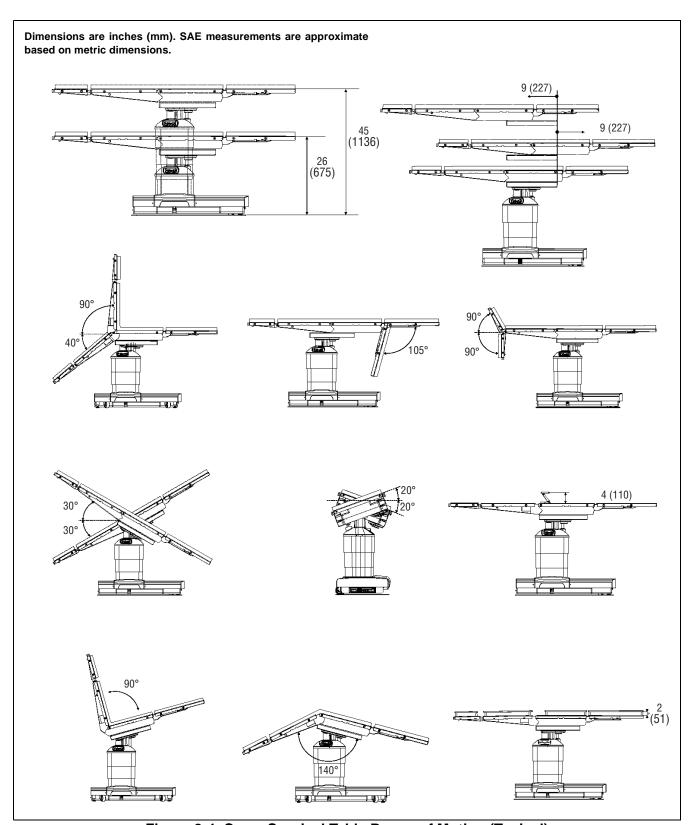


Figure 2-4. Cmax Surgical Table Range of Motion (Typical)

#### 2.5.4 Weight •

• Table: 560 lb (250 kg)

Maximum Patient Weight (patient in normal orientation): 1100 lb (499 kg) without patient posturing or tabletop slide (except raise/lower); 1000 lb (454 kg) full patient posturing (except tabletop slide);600 lb (272 kg) full patient posturing (including tabletop slide).

## 2.5.5 Power Requirements

### **Line Power Input:**

• 100-240 Vac, One-Phase, 50/60 Hz, 4.0 Amp

NOTE: Each table is shipped from the factory configured to the electrical requirement specified on the factory order. If this electrical configuration needs to be changed in the field, consult STERIS for the needed procedure and required materials.

# 2.5.6 Environmental Conditions

**Temperature:** 32-122°F (0-50°C)

Relative Humidity: 20-80% RH

# 2.5.7 Image Amplification Coverage

See Figure 2-6

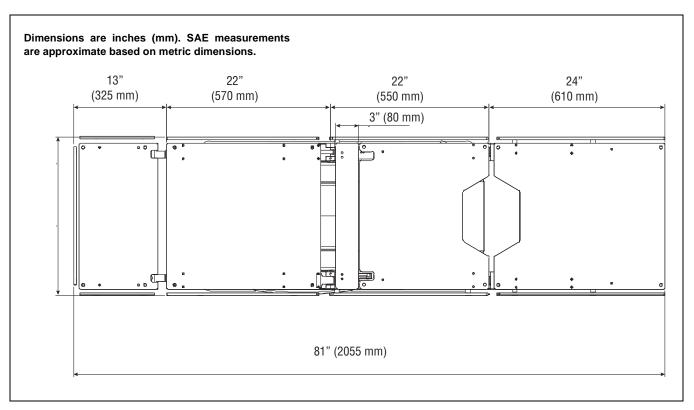


Figure 2-5. Cmax Tabletop Dimensions (Typical)

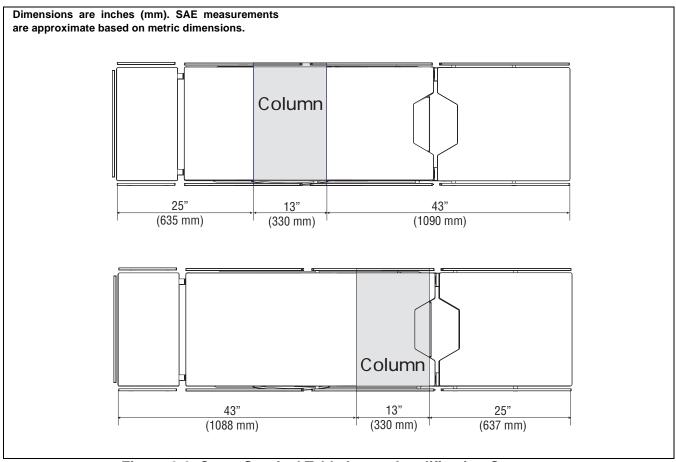


Figure 2-6. Cmax Surgical Table Image Amplification Coverage

# INSTALLATION INSTRUCTIONS



# WARNING - PERSONAL INJURY HAZARD:

- Keep hands and feet clear of the unloading platform and the table base when unloading the table. Serious personal injury could result.
- · If the integrity of the external protective ground installation or arrangement is in doubt, operate the table from its internal power source.



**WARNING - EXPLOSION** A HAZARD: Table must not be used in the presence of flammable anesthetics.



**WARNING - TRIPPING HAZARD:** Route the power cord to the receptacle to minimize being tripped over by personnel in the area.



**WARNING - PERSONAL INJURY AND/OR EQUIPMENT DAMAGE HAZARD: Table is** factory set to operate at a certain voltage. Use of any other power supply could result in serious personal injury or table damage.



CAUTION **POSSIBLE EQUIPMENT DAMAGE: When** moving the table to or from point of use, roll it carefully at moderate speed and only over smooth floors. Maximum floor clearance is 1/4" (6.4 mm). Avoid door and elevator jambs, and obstructions greater than 1/4" (6.4 mm). If necessary, lift table over obstructions, onto trucks, etc. Lift table evenly and only by the table base. DO NOT transport articles (including accessories) on top of the table, and DO NOT use a forklift to move the uncrated table.

Check the overall condition of the Cmax<sup>™</sup> Surgical Table and any applicable accessories upon receipt to ensure nothing was damaged during shipment. If damage appears to have occurred, contact the shipping company and STERIS.

STERIS recommends that only STERIS-trained or STERIS-supervised personnel attempt to uncrate/crate, install and perform maintenance on the Cmax Surgical Table. Uncrating, crating, installation or maintenance by others may result in personal injury or damage to the product. Any alteration of this equipment not authorized or performed by STERIS will void the warranty, could adversely affect proper table functioning, could violate national, state and local regulations.

NOTE: A patient grounding post/potential equalization terminal (male connector, DIN 42801) is provided. The mating female connector for patient grounding is not furnished by STERIS.

IMPORTANT: Before connecting the table to your ac power system, ensure table is marked for your power system (100, 120, 220 or 230/ 240).

Install the table as follows:



If an antistatic path is necessary, STERIS recommends antistatic pads (specifically developed for this table) in direct contact with the patient. Table must also be positioned on antistatic floor or connected to equalization device (equipotential connector).

1. Position table at desired location.

NOTE: The power cord is approximately 20 ft (6 m) long. Ensure table is positioned properly.

- 2. The Cmax table is equipped with INTELLIPOWER® dual power system modes. If table is to be operated on battery power, proceed to **Step 8**.
- 3. If not already installed, install battery fuse into table base as follows (see Figure 3-1):
  - a. Locate correct battery fuse.
  - b. Unscrew and remove black fuse cap.
  - c. Insert fuse in cap.
  - d. Insert fuse (with cap) into fuse holder assembly in table base.
  - e. Push in fuse and cap and turn a quarter turn to lock assembly into table base. Pull on cap to ensure fuse is seated and locked properly.

NOTE: If table is going to be stored for more than six months, remove fuse to limit battery discharge.

- 4. Plug power cord into appropriate socket on table base (see Figure 3-2).
- 5. Plug power cord into appropriate facility outlet.

NOTE: Where the integrity of the external protective earth conductor arrangement is in doubt, use battery power only.

6. Turn Main Power Switch to ON. Switch turns Green and plug symbol on INTELLIPOWER® LED Display lights.

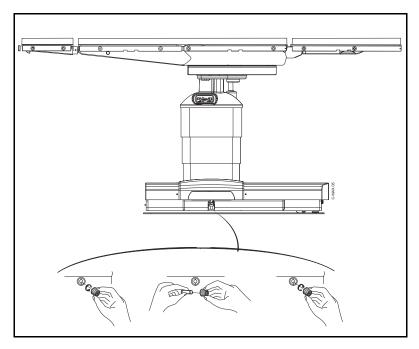


Figure 3-1. Install/Remove Battery Fuse

NOTE: A green Main Power Switch indicates facility power is available to the Cmax table. A lighted plug symbol on the LED Display indicates the batteries are charging. Refer to Section 5.5, Battery Charging Procedure.

- 7. Route power cord to eliminate Tripping Hazard for facility personnel.
- 8. Remove hand control from package and plug into appropriate socket on table column (see Figure 3-3 and Figure 3-4) as follows:
  - a. Lift appropriate protective cover on connection panel.
  - Align red mark (or arrow) on hand control plug with red mark on table socket.
  - c. Push hand control plug into table socket until a "click" is heard.
  - d. Place hand control on table side rail.
- 9. Remove foot control (optional) from package and plug into appropriate socket on table column (see Figure 3-4 and Figure 3-5) as follows:

NOTE: The optional foot control allows operator to control HEIGHT, TREND and TILT movements.

a. Lift appropriate protective cover on connection panel.

- b. Align red mark (or arrow) on foot control plug with red mark on table socket.
- c. Push foot control plug into table socket until a "click" is heard.
- d. Place foot control where it will not be damaged.
- 10. Lock table by using hand control to activate floor locks.

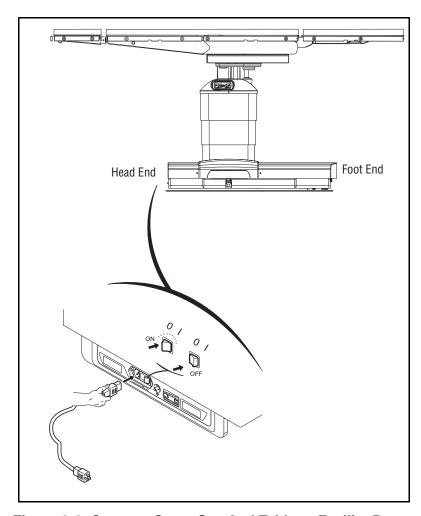


Figure 3-2. Connect Cmax Surgical Table to Facility Power

- 11. Install head section as follows:
  - a. Fully loosen both locking thumbscrews located at bottom edge of back frame (see Figure 3-6).
  - b. Insert both head section installation rods into back frame until fully engaged.

NOTE: The head section should slide easily into back frame. Do not force.

- c. Fully tighten both locking thumbscrews to lock head section in place.
- d. Pull head section (both sides) to ensure correct installation.

3-3

12. Install leg section as follows:

NOTE: The Cmax Surgical Table is equipped with Hi-Lock<sup>TM</sup> locking mechanism enabling quick and easy removal/installation of the leg section with a safety lock feature.

a. Using hand control, position table top seat section to horizontal by pressing **LEG UP** button (refer to *SECTION 4.2, HAND CONTROL*).

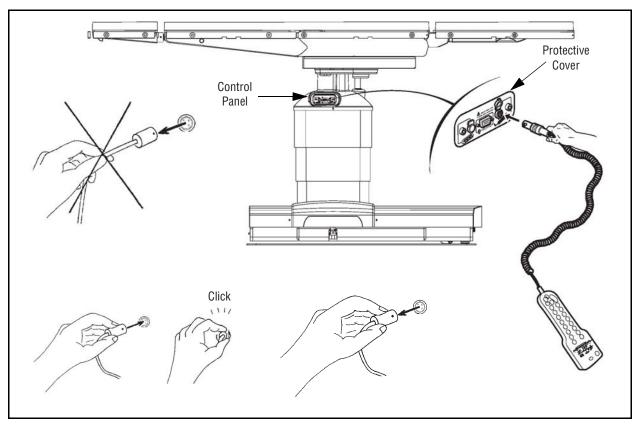


Figure 3-3. Connect Hand Control to Cmax Surgical Table

NOTE: Hand control LCD Display reads **LEG OUT** and displays a blank box for Angle Value (see Figure 3-7).

b. Insert both leg section installation rods into seat frame until fully engaged. Listen for "click" sound to indicate correct installation (see Figure 3-8).

NOTE: The leg section should slide easily into the back frame (seat section). Do not force.

- c. Pull leg section (both sides) to ensure correct installation.
- d. Also, press **LEG UP** and **LEG DOWN** hand control buttons and verify LCD Display reads a changing angle value to ensure leg section has been installed properly.

This completes the Cmax Surgical Table installation. Refer to Section 4 for Operating Instructions.

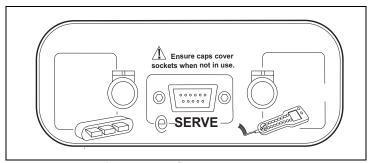


Figure 3-4. Connect Panel

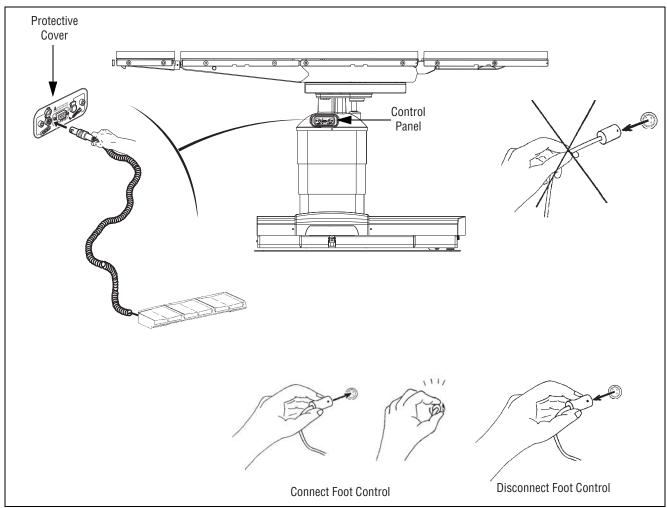


Figure 3-5. Connect Optional Foot Control to Cmax Surgical Table

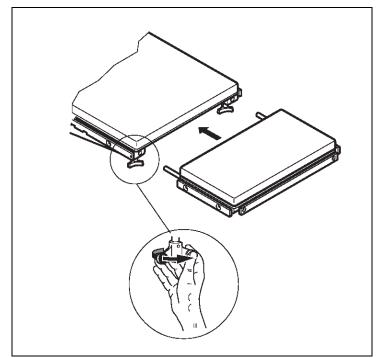


Figure 3-6. Install Head Section

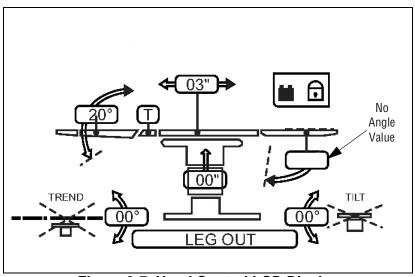


Figure 3-7. Hand Control LCD Display



**WARNING – PERSONAL** INJURY HAZARD: The table leg section is designed to support the patient legs. Do not put body weight on the leg section.

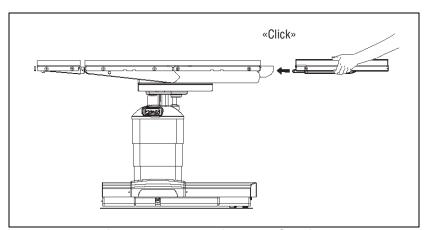


Figure 3-8. Attaching Leg Section

# OPERATING INSTRUCTIONS

### 4.1 Operating Table

# **WARNING - PERSONAL** INJURY HAZARD:

- Section 4.1, Steps 1 6 in "Operating the Table" must be executed before patient transfer to the table. Execution of Steps 1 - 6 with the patient on the table could result in injury to both the patient and the operating room staff.
- Healthcare professionals must ensure that patients are positioned and monitored so as to prevent compromising respiration, nerve pathways, or circulation.
- Unanticipated table movement could cause patient injury. Patient must be secured to the table in accordance with recommended positioning practices.
- · If the integrity of the external protective earth conductor installation or arrangement is in doubt, operate the table from its internal power source.



# **WARNING - PERSONAL** INJURY AND/OR EQUIPMENT **DAMAGE HAZARD:**

- Table is factory set to operate at a certain voltage. Use of any other power supply could result in serious personal injury or table damage.
- · Use of this table in the presence of flammable anesthetics could result in serious personal injury or table damage.

Operate the Cmax<sup>™</sup> Surgical Table as follows:

- Review Pinch Point Warnings as presented in SECTION 2, PINCH POINT WARNINGS of this manual.
- 2. Cmax Surgical Table is equipped with Intellipower® dual power system. If table is to be operated on battery power, proceed to Step 4.

NOTE: For more information on the battery system, refer to Section 5.5, BATTERY CHARGING PROCEDURE.

- 3. Verify power cord is plugged into both the facility outlet and table receptacle and Main Power Switch is in ON position (lighted green).
- 4. For optimum performance, before attempting to operate table, allow table to reach room temperature (see Figure 4-1).
- 5. After referencing Section 4.2.1, HAND CONTROL FUNCTION BUTTONS DESCRIPTION, position tabletop to LEVEL.

NOTE: If the Hand Control AND Foot Control are installed. Hand Control has priority. Also, the Cmax Table Head Section is manually adjusted as follows (if Head Section is not installed, refer to Section 3, INSTALLATION INSTRUCTIONS, Step 11):

- 1) The head section may be positioned UP and DOWN 90° from horizontal (level).
- 2) While holding head section securely in one hand, pull release handle (spring loaded) located under right side of head section (see Figure 4-2) and tilt head section to desired angle (level in this case).
- 3) Release handle to lock head section at desired angle. Move headrest slightly until ratchet mechanism locks headrest in position.

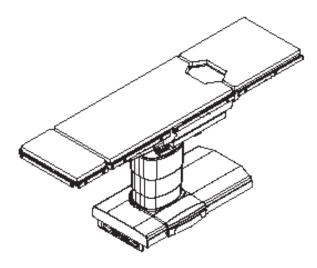


Figure 4-1. Cmax Surgical Table

WARNING - PERSONAL A INJURY AND/OR EQUIPMENT DAMAGE HAZARD: Placing a patient whose weight exceeds maximum patient weight limit (patient in normal orientation) of 1100 lb (499 kg) without patient posturing or tabletop slide (except raise/lower), 1000 lb (454 kg) with patient posturing (except tabletop slide), or 600 lb (272 kg) with full patient posturing (including tabletop slide) could result in injury to the patient and the operating room staff, and serious equipment damage.



# **WARNING - TIPPING** HAZARD:

- Do not place patient on the table unless floor locks are engaged.
- Do not use this table for patients exceeding the maximum patient weight (patient in normal orientation) of 1100 lb (499 kg) without patient posturing or tabletop slide (except raise / lower), 1000 lb (454 kg) with patient posturing (except tabletop slide), or 600 lb (272 kg) with full patient posturing (including tabletop slide).
- Center tabletop over column before applying chest compressions.



**WARNING - PERSONAL** INJURY HAZARD: The Table Leg Section is designed to support the patient legs. Do not put body weight on the Leg Section.

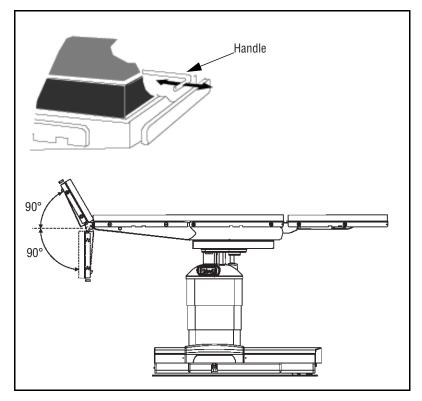


Figure 4-2. Head Section Operation (Typical)

- 6. Engage floor locks by pressing hand control **LOCK** button (see SECTION 4.2.1).
- Before placing patient on table, ensure patient does not exceed 7. maximum patient weight limit (patient in normal orientation) of 1100 lb (499 kg) without patient posturing or tabletop slide (except raise/lower); 1000 lb (454 kg) full patient posturing (except tabletop slide);600 lb (272 kg) full patient posturing (including tabletop slide). Assuming patient weight does not exceed table weight capacity, transfer or position patient and ensure patient is properly restrained (refer to SECTION 2.3, PATIENT SAFETY STRAPS, in this manual).

NOTE: A patient grounding post/potential equalization terminal (male connector, DIN 42801) is provided. The mating female connector for patient grounding is not furnished by STERIS.

### 4.2 Hand Control

If hand control is not installed, plug the hand control into the appropriate socket of the table column (refer to Figure 3-3 and Figure 3-4) per **Step 8**, **Section 3**, **Installation Instructions**. When tabletop is in Standard Operating Mode (versus Reverse Orientation Mode), Auto Limit Sensor system provides instant user feedback on any conflicting tabletop articulations.

# 4.2.1 Hand Control Function Buttons Description

NOTE: The hand control automatically deactivates upon nonuse after 30 minutes if floor locks are released and 10 hours when floor locks are engaged. The hand control is reactivated by depressing **ANY** button but **OFF**.

The Cmax Surgical Table is equipped with a hand control (see Figure 4-3). This hand control contains easy-to-read icons and illuminates the key pad for easy articulation identification when room is dark. For the hand control function buttons to be operational:

1. The table must be turned on. Reference **Steps 3 and 4** in *Section 4.1, Operating the Table*.

NOTE: READY appears on the LCD Display for one second then goes off indicating that the table is ready for operation.

2. The hand control must be turned ON. (Press **ANY** function button on the Hand Control except **OFF**; the keyboard backlighting system will be illuminated.)

The hand control contains a backlighted keyboard and a LCD Display. This display provides table status and instructions for the user. The hand control pushbuttons, LCD Display, and descriptions are as follows (Figure 4-3):

NOTE: Simply release the hand control pushbutton when desired Cmax Tabletop position has been reached and table will automatically stop and lock in position. Refer to Section 2.5.2, Ranges of Motion for the positioning of the following table functions.

**REV. ORIENT:** See Section 4.3, Reverse Patient Orientation.

**FLEX:** When depressed, back section moves down and tabletop moves into Reverse Trendelenburg position.

NOTE: In reverse configuration, FLEX function is NOT available for patient safety. REV. ORIENT appears in the LCD Display and LED will light.

**REFLEX:** When depressed, back section moves up and tabletop moves into Trendelenburg position.

NOTE: In reverse configuration, REFLEX function is NOT available for patient safety. REV. ORIENT appears in the LCD Display and LED will light.

**SLIDE HEAD:** When depressed, Zip-Slide™ moves tabletop toward head end. The LCD Display SLIDE value will change accordingly. When slide returns to central ("0") position, **movement stops for one second before continuing.** 

A

WARNING – PINCHING AND TIPPING HAZARD: Patient injury may result if the operator of this table is not completely familiar with the controls for patient positioning and table operation.



WARNING – PERSONAL INJURY HAZARD: The floor locks must be engaged at all times a patient is on the table. Failure to lock the floor locks before placing a patient on the table or disengaging the floor locks while a patient is on the table could result in the table rolling unexpectedly during the procedure.



CAUTION – POSSIBLE EQUIPMENT DAMAGE: Hang the hand control from side rail of the table when not in use, to avoid possible damage to the control. **SLIDE FOOT:** When depressed, Zip-Slide moves tabletop toward foot end. The LCD Display SLIDE value will change accordingly. When slide returns to central ("0") position, movement stops for one **second before continuing**.

**HEIGHT UP:** When depressed, the **entire** tabletop will rise. The LCD Display HEIGHT value will change accordingly.

**HEIGHT DOWN:** When depressed, the **entire** tabletop will lower. The LCD Display HEIGHT value will change accordingly.

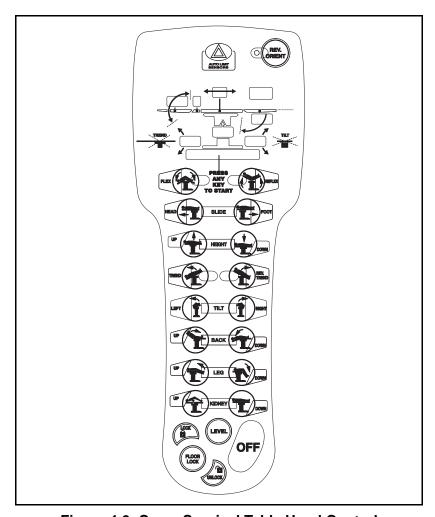


Figure 4-3. Cmax Surgical Table Hand Control

**TREND:** When depressed, the head end of the tabletop will lower; or, foot end will raise. The LCD Display TREND value will change accordingly.

**REV. TREND:** When depressed, the head end of the tabletop will rise; or, foot end will lower. The LCD Display TREND value will change accordingly.

**TILT LEFT:** When depressed, the tabletop will roll to the left (patient's left or viewing the table from the head end). The LCD Display LATERAL TILT value will change accordingly.

**TILT RIGHT:** When depressed, the tabletop will roll to the right (patient's right or viewing the table from the head end). The LCD Display LATERAL TILT value will change accordingly.

**BACK UP:** When depressed, the tabletop back section will raise. The LCD Display BACK SECTION value will change accordingly.

**BACK DOWN:** When depressed, the tabletop back section will lower. The LCD Display BACK SECTION value will change accordingly.

**LEG UP:** When depressed, the tabletop leg section will raise. The LCD Display LEG SECTION value will change accordingly.

**LEG DOWN:** When depressed, the tabletop leg section will lower. The LCD Display LEG SECTION value will change accordingly.

**KIDNEY UP:** When depressed, the tabletop Kidney™ Elevator Mechanism will raise up to the maximum 4" (110 mm). The LCD Display kidney T symbol will come ON accordingly.

**KIDNEY DOWN:** When depressed, the tabletop Kidney Elevator Mechanism will lower. The LCD Display kidney T symbol will go OFF accordingly.

**LEVEL:** When depressed, the tabletop is gradually returned to level or horizontal position by aligning the tabletop sections in the following order:

- Kidney Elevator Mechanism and lateral tilt;
- Trendelenburg and back;
- Leg.

The LCD Display values will change accordingly.

NOTE: When operating in REVERSE ORIENTATION, **LEVEL** function does NOT operate.





**FLOOR LOCK, LOCK, UNLOCK:** When **FLOOR LOCK** button is depressed, the LCD Display will show the symbols for LOCK or UNLOCK. Press **LOCK** and the control system will order the floor locks to lower. While the floor locks are lowering, the LCD Display will show LOCKING. Once the floor locks are engaged, the Lock Symbol will come ON. If Slide is not centered at 0" the message SLIDEHEAD or SLIDEFOOT is displayed and floor locks will not release. Position Slide to 0" for floor lock release.

NOTE: When table is in the UNLOCK configuration, NO tabletop functioning is active. If a tabletop function button is pressed while table is in the UNLOCK configuration, the LCD Display will show LOCK TABLE.

**OFF:** When depressed, all hand control function buttons deactivate. All functions are stopped immediately.

NOTE: The hand control automatically deactivates upon nonuse after 30 minutes if floor locks are released and 10 hours when floor locks are engaged. The hand control is reactivated by depressing **ANY** button but **OFF**.

# 4.2.2 Hand Control LCD Display Description

The Hand Control is equipped with a LCD (Liquid Crystal Display) Display to assist in the table operation (see Figure 4-4). The LCD Display indicator descriptions are as follows:

NOTE: Numbers in () refer to items shown in Figure 4-4

**LCD Display (1):** displays any control system messages to the user about table operation.

**LCD Status Indicators (2):** indicates the table is receiving power from the table batteries (battery icon) or facility power (plug icon) and whether the table floor locks are engaged or not (lock or open lock icons). This also may indicate an operational situation, see Maintenance (11). Refer to Section 6, Troubleshooting, for more information.

**Height Level (3):** indicates the tabletop height from 0 to 19" (0 to 483 mm).

**Trendelenburg/Reverse Trendelenburg Angle (4):** indicates the tabletop angle of Trendelenburg (upward pointing arrow) or Reverse Trendelenburg (downward pointing arrow) from 0 to 30°.

**Lateral Tilt Angle (5):** indicates the tabletop angle of right lateral tilt (upward pointing arrow) or left lateral tilt (downward pointing arrow) from 0 to 20°.

**Back Section Angle (6):** indicates the tabletop back section angle movement in relation to the level seat section. Up (upward pointing arrow) from 0 to 90° or down (downward pointing arrow) from 0 to 40°.

**Leg Section Angle (7):** indicates the tabletop leg section movement in relation to the level seat section. Up (upward pointing arrow) or down (downward pointing arrow) from 0 to 105°.

**Slide Value (8):** indicates the tabletop slide or horizontal movement in relation to centered position. Head slide value (left arrow) and foot slide value (right arrow) from 0 to 9" (0 to 229 mm).

NOTE: Height Level and Slide Value indications can be switched from inches to centimeters (or centimeters to inches) by simultaneously pressing LEVEL and FLEX pushbuttons just after (within five seconds) of turning table ON.

A

WARNING - PERSONAL **INJURY AND/OR EQUIPMENT DAMAGE HAZARD: The Auto** Limit Sensor (ALS) System suggested alternative tabletop movement does not take in account the type of surgery that may be in process or the environment (e.g., other equipment close by) and might not be compatible with the surgical procedure. To avoid an action that could result in death or serious injury to the patient and the operating room staff, and/or serious equipment damage, completely evaluate the feasibility of the suggestion.

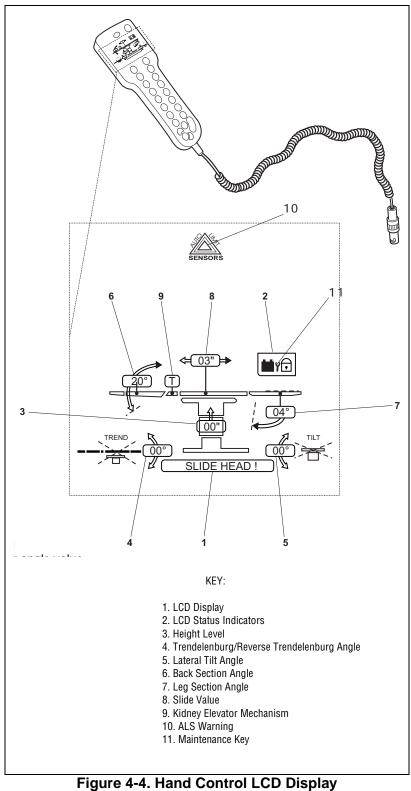
**KIDNEY Elevator Mechanism (9):** when **T** symbol is ON, Kidney Elevator Mechanism is UP; no **T** symbol, KIDNEY Elevator is at level position.

Auto Limit Sensors (ALS) Warning (10): indicates the tabletop has been ordered into a configuration or has moved into a position that may cause tabletop damage or patient injury. This feedback is from the Auto Limit Sensor<sup>TM</sup> (patent pending) control device system. To prevent a tabletop sectional conflict, or collision of tabletop with the table or floor, ALS System immediately stops the movement in process and the ALS LED lights. The control system will alert the user to an alternative movement choice in the LCD Display (1).

NOTE: The ALS System suggested alternative movement is not the only movement available.

**Maintenance Key (11):** when **Y** symbol is ON, the auto-diagnostic system has detected a situation. Check the LCD Display (1) for more information on the nature of the situation. Press **OFF** key and then start the hand control again to see if the situation disappears. If not, refer to **Section 6**, **Troubleshooting** for more information.

NOTE: The LCD Display values are approximate. Their accuracy may vary according to environmental conditions (e.g., altitude, humidity, temperature). Also, if a sensor is not operating properly, the value indicated will be incorrect. Ensure checking patient positioning visually before proceeding.



# 4.3 Reverse Patient Orientation

Some surgeries (e.g., shoulder) require the patient to be in reverse positioning and the table to be operated in a reverse configuration. Press **REV. ORIENT** button on hand control (see Figure 4-3), LED should light. Press **REV. ORIENT** button again to cancel Reverse Orientation function.

When **REV. ORIENT** button is pressed, all other hand control commands (through the control system) note the new patient head position. Trendelenburg and Lateral Tilt movements and Back and Leg Sections are automatically reversed.

**IMPORTANT:**When using the **REV. ORIENT** button, note the following:

- 1) The information displayed on the LCD is NOT reversed.
- When table is turned OFF, control system stores orientation status. Before any new positioning is attempted, ensure table patient configuration is correct.
- 3) The Cmax Table Head Section is manually adjusted and will not be affected by **REV. ORIENT** button operation.
- 4) FLEX and REFLEX functions are NOT available for patient safety.
- 5) When operating in REVERSE ORIENTATION, **LEVEL** function does NOT operate.
- 6) The hand control automatically deactivates after two minutes of nonuse. The hand control is reactivated by depressing ANY button but OFF.

# 4.4 Optional Foot Control Operation

The Cmax Surgical Table may be operated using the optional foot control as follows:

- 1. Connect foot control cord to appropriate control panel socket on table column (refer to Figure 3-5).
- 2. The foot control allows operator to control HEIGHT, TREND, and TILT movements.
- Press and release any positioning pedal to switch table control ON. If the hand control is also attached, PEDAL ON will appear on the LCD Display message window.

NOTE: When using the hand control and optional foot control at the same time, the hand control has priority. Also, if the hand control **OFF** button is pressed, foot control will also switch OFF.

4. If foot control is unplugged from table, ENSURE protective cover is placed over opening.

# 4.5 Auxiliary Control System

The Cmax Surgical Table is equipped with an auxiliary control system. This system can be actuated at any time and will allow table operation in the event of primary control malfunction. A pedal (foot pump to provide hydraulic power) and override hand control (see Figure 4-4 and Figure 4-6) are located on the right side of the table base behind a cover panel and are used for table movements.

NOTE: The Cmax Surgical Table head section must be manually adjusted.

#### 4.5.1 Auxiliary System **Operation**

To operate system, proceed as follows:

- 1. Flip pedal down (see Figure 4-5).
- 2. Pull drawer out and remove auxiliary hand control.
- 3. Return drawer to table.
- 4. To operate table functions, pump pedal while pressing desired function button on auxiliary hand control (see Figure 4-6).

NOTE: When using the auxiliary control system, note the following:

- 1) For **UNLOCK** and **SLIDE** functions, it is not necessary to pump pedal.
- 2) Pressing any button on the auxiliary hand control deactivates main hand control.
- 3) When any key is pressed on auxiliary hand control, the green LED (see Figure 4-6) should light indicating system is active.
- 4) The ALS System is NOT active during auxiliary control operation.
- 5) When table is in the auxiliary **UNLOCK** configuration, tabletop functioning IS active. **LOCK** table before moving tabletop.
- 6) Reverse Orientation is NOT available in auxiliary control operation. If patient was in reverse orientation when auxiliary control was activated, change TREND to REV. TREND, LEFT TILT to RIGHT TILT, etc.

WARNING - PERSONAL **INJURY AND/OR EQUIPMENT** 

 ALS System is not active during Auxiliary Control.

Ensure proper tabletop

movements to prevent

equipment damage.

patient/staff injury and/or

**During Auxiliary Control**,

tabletop functions are available even if table floor

locks are NOT engaged.

tabletop or transferring

patient.

LOCK table before moving

**DAMAGE HAZARD:** 

Figure 4-5. Auxiliary Control System

### 4.5.2 Auxiliary Hand Control Description

The auxiliary hand control pushbutton descriptions are as follows (Figure 4-6):

NOTE: Simply release the auxiliary hand control pushbutton when desired Cmax Tabletop position has been reached and table will automatically stop and lock in position. Refer to Section 2.5.2, Ranges of Motion, for the positioning of the following table functions.

**SLIDE HEAD:** When depressed, Zip-Slide moves tabletop toward head end. When slide returns to central ("0") position, movement stops for one second before continuing.

**SLIDE FOOT:** When depressed, Zip-Slide moves tabletop toward foot end. When slide returns to central ("0") position, movement stops for one second before continuing.

**HEIGHT UP:** When depressed and pumping simultaneously, the **entire** tabletop will rise.

**HEIGHT DOWN:** When depressed and pumping simultaneously, the **entire** tabletop will lower.

**TREND:** When depressed and pumping simultaneously, the head end of the tabletop will lower; or, foot end will raise.

**REV. TREND:** When depressed and pumping simultaneously, the head end of the tabletop will rise; or, foot end will lower.

**TILT LEFT:** When depressed and pumping simultaneously, the tabletop will roll to the left (patient's left or viewing the table from the head end).

**TILT RIGHT:** When depressed and pumping simultaneously, the tabletop will roll to the right (patient's right or viewing the table from the head end).

**BACK UP:** When depressed and pumping simultaneously, the tabletop back section will raise.

**BACK DOWN:** When depressed and pumping simultaneously, the tabletop back section will lower.

**LEG UP:** When depressed and pumping simultaneously, the tabletop leg section will raise.

**LEG DOWN:** When depressed and pumping simultaneously, the tabletop leg section will lower.

**KIDNEY UP:** When depressed and pumping simultaneously, the tabletop KIDNEY Elevator will raise up to the maximum 4" (110 mm).

**KIDNEY DOWN:** When depressed and pumping, the tabletop Kidney Elevator Mechanism will lower.

**LOCK:** When depressed and pumping simultaneously, floor locks are slowly lowered. To ensure table is correctly secured to the floor, gently push on table.

**UNLOCK:** When depressed, floor locks are slowly released. To ensure floor locks are completely disengaged, gently push on table.

NOTE: When table is in the auxiliary **UNLOCK** configuration, tabletop functioning IS active. **LOCK** table before moving tabletop.

### 4.5.3 Return Auxiliary Control System

When situation has been corrected and normal table operation is available, replace auxiliary control system as follows (see Section Figure 4-5):

- 1. Pull drawer out from right side of table base.
- 2. Place auxiliary hand control face down in right side of drawer.
- 3. Wind cable and place in left side of drawer.
- 4. Push drawer back into table base.

NOTE: When returning drawer to table base, ensure cable is not jammed.

5. Fold pedal back to original position.

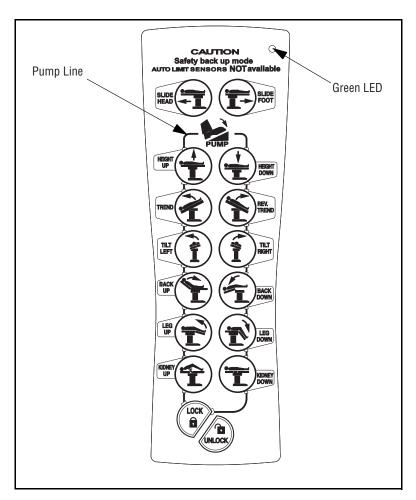


Figure 4-6. Auxiliary Hand Control

# 4.6 Leg Section Removal

The Cmax Surgical Table leg section is designed to be easily removed (Hi-Lock $^{\text{TM}}$  locking mechanism) to enable procedures requiring optional leg supports. Remove the leg section as follows:



WARNING – PERSONAL INJURY HAZARD: Do not remove table leg section if patient is not properly positioned. Patient's torso and buttocks must be firmly held in place by table back and seat sections and legs supported by leg supports.

- 1. Using hand control (see Figure 4-3), level leg section (bring to horizontal).
- 2. While holding leg frame, press both handles and simultaneously pull backwards (see Figure 4-7).
- 3. Safely store leg section to prevent damage.

NOTE: When leg section is removed from the Cmax Surgical Table, the LCD Display will show a blank display for angle value and LEG OUT will be displayed if the LEG UP or LEG DOWN hand control pushbutton is pressed (see Figure 4-7).

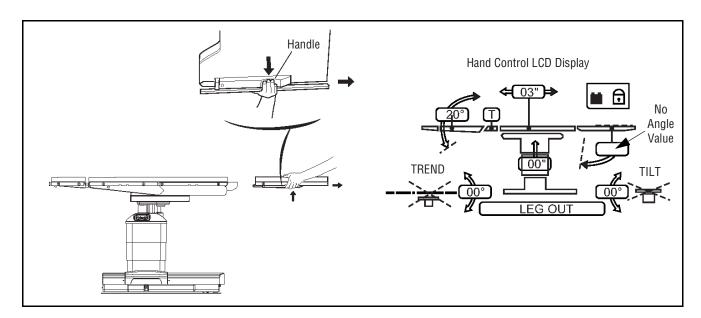


Figure 4-7. Leg Section Removal

#### 4.7 Table Pads

The conductive Tabletop Pads (see Figure 4-8) are backed with fastening strips which fasten to mated strips on the tabletop. To install, proceed as follows:

- 1. Place pads in position and firmly press fastening strips together.
- 2. To remove pads, gently "peel" pad away from tabletop.

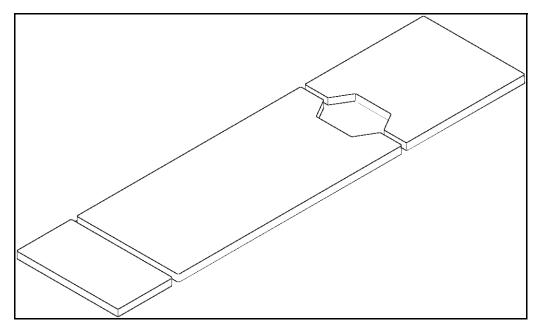


Figure 4-8. Tabletop Pads

# 4.8 X-Ray Top Installation

The Cmax Surgical Table is designed to enable installation of an X-ray top to allow use of X-ray cassette film. Attach the four-part X-ray top as follows (see Figure 4-9):

- 1. Carefully remove X-ray top sections from packing container.
- 2. Remove pads from tabletop (see SECTION 4.7).
- 3. Position X-ray top section over corresponding tabletop section, aligning posts to mounting holes.
- 4. Press down on X-ray top section until a "click" is heard.
- 5. Ensure X-ray top sections are securely mounted by gently pulling up on section.
- 6. Reinstall tabletop pads.
- 7. Remove and store X-ray top by reversing above steps.

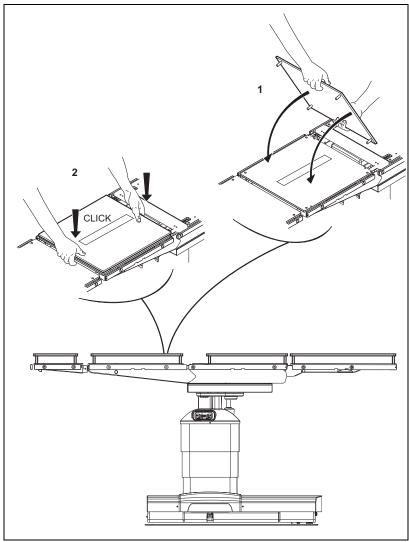


Figure 4-9. X-Ray Top Installation

# 4.9 Accessories/Side Rails

The standard STERIS permanently attached 3/8" wide x 1-1/8" tall side rails allow for the use of many standard surgery table attachments and accessories. The rails consist of one rail mounted to each side of each tabletop main section.

For complete information on accessory options, consult STERIS.

WARNING - PERSONAL INJURY HAZARD: When installing any table accessory, check for correct attachment and tighten securely (if appropriate). Do not use a worn or damaged accessory. Check installation before using any accessory.



**WARNING - INSTABILITY** A HAZARD: Possible patient or user injury, as well as table or accessory failure, may result from using STERIS table accessories for other than their stated purpose - or from using, on STERIS tables, accessories manufactured and sold by other companies.

Table 4-1. Cmax Surgical Table Specific Accessories\*

Accessory	Equipment Number
Foot Control	BF58-600
Hand Control	BF61-000
Table Pads (Complete Set)	BF58-000
X-Ray Top (Complete Set)	BF58-400

<sup>\*</sup> Contact STERIS for ordering information,

#### **ROUTINE MAINTENANCE**

#### **5.1 Read Before Performing Routine Maintenance**

#### WARNING - PERSONAL **INJURY AND/OR EQUIPMENT** DAMAGE HAZARD:

- Repairs and adjustments to this equipment must be made only by STERIS or STERIS-trained service personnel. Maintenance performed by unqualified personnel or installation of unauthorized parts could cause personal injury, result in improper equipment performance, invalidate the warranty, or result in costly damage. **Contact STERIS regarding** service options.
- Regularly scheduled preventive maintenance is required for safe and reliable operation of this equipment. Contact STERIS to schedule preventive maintenance.

The routine maintenance procedures described in this section of the manual should be performed whenever necessary and as outlined in TABLE 5-2, PREVENTIVE MAINTENANCE SCHEDULE. Any maintenance procedures not included in this section should be performed only by STERIS-trained service personnel fully acquainted with the Cmax<sup>TM</sup> Surgical Table.

In addition to the routine maintenance described in this section, regularly scheduled preventive maintenance is essential for safe and reliable operation of the equipment. Annual maintenance programs are available to provide scheduled maintenance, adjustments and replacement of worn parts performed by a qualified technician, to help ensure peak equipment performance and help avoid unscheduled downtime. Contact STERIS for details.

Maintain a record of all maintenance procedures performed on this Cmax Surgical Table. If a problem occurs, refer to SECTION 6, TROUBLESHOOTING, or contact STERIS.

NOTE: Never permit unqualified persons to service this equipment.

#### **5.2 Cleaning Table**



### WARNING – INFECTION HAZARD:

- To protect against aerosols being reflected from potentially contaminated surfaces, wear rubber or plastic gloves, masks and eye protection, and follow OSHA blood-borne pathogens standards when cleaning.
- When cleaning/disinfecting table, do not use alcohol which does not have sufficient cleaning/ disinfection properties.



WARNING -PERSONAL INJURY HAZARD: When cleaning/disinfecting table, do not use phenolics, which may cause patient skin burns if inadequately rinsed off, or alcohol, which does not have sufficient cleaning/ disinfection properties.

NOTE: The user must follow the requirements of the national committee responsible for hygiene and disinfection when cleaning table

See **Table 5-1** for recommended cleaning products. Clean the entire table per the following procedures.

Table 5-1. Recommended Cleaning Products\*

Product Name	Product Use
Coverage® Spray HB Plus Ready-to-Use One-Step Disinfectant Cleaner	Hospital-grade quaternary- based disinfectant spray
Coverage® HB Concentrated Disinfectant Cleaner	EPA-registered Hepatitis-B- effective quaternary
T.B.Q <sup>®</sup> Hard Surface Disinfectant	Detergent-based germicide
Germicidal Surface Wipes Disinfecting/Deoderizing/ Cleaning Wipes	Surface disinfectant

<sup>\*</sup> Contact STERIS for ordering information.

#### 5.2.1 General

Use the following materials to perform the cleaning procedures described in this section:

- Several clean, dry lint-free cloths.
- Container of clean water.
- Cleaning products listed in **Table 5-1**, *RECOMMENDED CLEANING PRODUCTS*.

NOTE: When using disinfectants, follow all manufacturer's label recommendations.

#### 5.2.2 After Each Usage



WARNING – INFECTION
HAZARD: To protect against aerosols being reflected from potentially contaminated surfaces, wear rubber or plastic gloves, masks and eye protection, and follow OSHA blood-borne pathogens standards when cleaning.



WARNING -PERSONAL INJURY HAZARD: When cleaning/disinfecting table, do not use phenolics, which may cause patient skin burns if inadequately rinsed off, or alcohol, which does not have sufficient cleaning/ disinfection properties.



### CAUTION - POSSIBLE EQUIPMENT DAMAGE:

- When cleaning/disinfecting table, thoroughly read the cleaning fluid directions for use and follow all directions and cautions as shown.
- Cleaning procedures requiring articulation of the table should be performed only by persons familiar with table operation.
- Do not spray cleaning fluid into electric receptacles and avoid spraying directly on emergency backup buttons or into clearance space. Spray or drippage may settle onto electric circuits inside table causing corrosion and loss of function.
- After performing cleaning procedures, ensure pads, tabletop and x-ray tops are completely dry before reinstalling. Moisture trapped between pads and x-ray tops may contribute to equipment damage, such as x-ray top warpage.

After each use of the Cmax Surgical Table, clean/disinfect as follows:

NOTE: Ensure all protective covers are installed over any open receptacles.

- 1. Remove gross soil with a disposable cloth and place used cloth in an appropriate biohazardous waste disposal container.
- 2. Clean tabletop and pads as follows:
  - a. Articulate tabletop to level and place at comfortable working height.
  - b. Gently "peel" pad away from tabletop fastening strips and place on another table or flat surface.
  - c. Hold can 6-8" (152-203 mm) from surface and spray cleaning fluid liberally on top and sides of pads. (It is recommended to clean only one pad at a time.) Carefully avoid any pad seams.
    - NOTE: Do not use any oxidizing products with chloric derivative base such as bleach, or oxygenic derivatives such as peracetic acid.
  - d. Wipe sprayed surfaces with a clean lint-free cloth dampened with water to remove cleaning fluid (dampening cloth will minimize streaking).
  - e. Wipe cleaned surfaces again with clean, damp, lint-free cloth to remove residue.
  - f. Wipe cleaned surfaces again with clean, dry, lint-free cloth to remove all moisture.
  - g. Repeat Steps c, d, and e for other pads. Repeat Steps c, d, e, and f for tabletop surfaces exposed when pads are removed. Thoroughly dry bottom of pads and tabletop surfaces.
  - h. Place pads back onto tabletop by aligning with sides of table and pressing into place on fastening strips.
- 3. Raise table to maximum height to access lower surfaces.
- 4. Clean yoke, shrouds and entire base surface as follows:
  - a. Hold can 6-8" (152-203 mm) from surface and spray cleaning fluid liberally on yoke and shrouds. Avoid spraying in direction of connectors.
  - b. Wipe sprayed surfaces with a clean cloth dampened with water to remove cleaning fluid (dampening cloth will minimize streaking).
  - c. Wipe cleaned surfaces again with a clean, damp, lint-free cloth to remove residue.
  - d. Repeat **Steps a, b, and c** for base surface.

#### 5. Turn hand control OFF and clean as follows:

NOTE: Do NOT immerse hand control in liquid.

- a. Hold can 6-8" (152-203 mm) from surface and spray cleaning fluid liberally on hand control.
- b. Wipe sprayed surfaces with a clean cloth dampened with water to remove cleaning fluid (dampening cloth will minimize streaking).

### 5.2.3 End-of-Day Cleaning Procedure

### 5.2.4 Weekly Cleaning Procedure

At the end of each day, perform the cleaning procedures as outlined in Section 5.2.2, AFTER EACH USAGE.

After each weekly use of the Cmax Surgical Table, clean/disinfect table as follows:

- 1. Perform **Steps 1 through 4** of *Section 5.2.2, After Each Usage*.
- 2. Check table casters and floor locks for any accumulated debris and clean as follows:
  - Ensure floor locks are properly engaged (raising casters off floor).
  - b. Hold cleaner spray can 6-8" (152-203 mm) from caster and spray cleaning fluid liberally on the caster.
  - c. Wipe caster with a cloth, dampened with water, to remove cleaning fluid and debris.
  - d. Perform **Steps b and c** for remaining three casters.
- 3. Articulate table through all movements and clean all additional surfaces exposed during these articulations as follows:
  - a. Hold spray cleaner can 6-8" (152-203 mm) from surface to be cleaned and spray cleaning fluid liberally on surface.
  - b. Wipe sprayed surfaces with a clean lint-free cloth, dampened with water to remove cleaning fluid.
  - c. Wipe cleaned surfaces again with a clean, damp, lint-free cloth to remove any remaining residue.
- 4. Turn hand control **OFF** when finished with cleaning procedure.
- 5. Perform **Steps 5 and 6** of *Section 5.2.2*, *After Each Usage*.

# 5.3 Bi-Weekly Maintenance

Operate each Cmax Surgical Table function (refer to *Section 4*, *Operating Instructions*). Operation should be smooth and quiet. If table operation is not smooth, have a qualified technician repair the table. Never permit inexperienced, unqualified persons to attempt to make any repairs to the table.

## 5.4 Monthly Maintenance

Check Cmax Surgical Table casters and floor locks for any accumulated debris and clean as follows:

- 1. Ensure floor locks are properly engaged.
- 2. Hold spray cleaner can 6-8" (152-203 mm) from caster and spray cleaning fluid liberally on the caster.

## 5.5 Battery Charging Procedure



**WARNING - PERSONAL INJURY AND/OR EQUIPMENT DAMAGE HAZARD: Repairs** and adjustments to this equipment must be made only by STERIS or STERIS-trained service personnel. Maintenance performed by unqualified personnel or installation of unauthorized parts could cause personal injury, result in improper equipment performance, invalidate the warranty, or result in costly damage. **Contact STERIS regarding** 



WARNING – TRIPPING HAZARD: Route the power cord to the receptacle in a position so that it will not be tripped over by personnel in the area.

service options.

- 3. Wipe caster with a cloth, dampened with water, to remove cleaning fluid and debris. Ensure items such as suture, oils, and floor wax are removed.
- 4. Perform **Steps 2 and 3** for remaining three casters.

Cmax Surgical Table is equipped with INTELLIPOWER® dual power system. The table is powered either by facility power or by internal batteries. If table is to be operated on battery power, note the following:

**IMPORTANT:** Batteries are recharged automatically as long as the Main Power Switch is set to **ON** (lighted green) and the ac power is connected to the Cmax Surgical Table. The PLUG icon appears on Power Panel LED Display (see Figure 5-1) indicating ac power and diode bar indicates battery condition.

Bar graph description for 120 V tables:

- When table is plugged into facility ac and Main Power Switch is ON, diode bar shows battery charge state. This battery charge state is also indicated by icon on primary hand control (refer to Figure 4-4).
- When table is on battery power and primary hand control is active (on), diode bar shows battery charge state. This battery charge state is also indicated by icon on primary hand control (refer to Figure 4-4).

Bar graph description for 220 V tables:

- When table is plugged into facility ac and Main Power Switch is ON, diode bar shows battery charge state. This battery charge state is also indicated by icon on primary hand control (refer to Figure 4-4).
- When table is on battery power and primary hand control is active (on), diode bar is off. Battery charge state is indicated by icon on primary hand control (refer to Figure 4-4).

Batteries will require recharging on a periodic basis depending on frequency of table usage. Low or discharged battery conditions are indicated by HALF FILLED or EMPTY BATTERY icon on the Hand Control (refer to Figure 4-4 and Section 4.2.2, Hand Control LCD DISPLAY DESCRIPTION) and some or all green diode bars on Power Panel LED Display are OFF.

NOTE: Fully charged batteries enable between 100 and 150 procedures (approximately three weeks) without recharging. Note the charge/discharge icon on the LED Display (see Figure 5-1) of Power Panel.

Lead acid batteries last longer if not fully discharged. Therefore, to obtain the longest life and capacity from your Cmax Surgical Table batteries, always connect ac power cord to table base and plug into an appropriate ac receptacle as often as possible, and as long as possible, with the Main Power Switch set to **ON** (lighted green). If this is not always possible, recharge batteries at the following times:

NOTE: When two green diode bars on Power Panel LED Display are OFF, batteries are half charged. This level of power enables normal

table operation without damaging the batteries. However, when the last green diode bar is OFF, batteries must be recharged without further delay or battery damage will occur. If all diodes are OFF, batteries are completely drained and the table can only operate on main facility power.

- Every 15 days when the table is in normal service; more often if usage demands.
- Whenever HALF FILLED BATTERY icon appears on LCD Status Control Indicator (Figure 4-4 Item 2).
- If the table remains in extended storage for longer than three months; batteries must be charged every three months.

NOTE: If the sealed lead-acid gel electrolyte-type batteries do not charge, check for the following:

- 1) Battery fuse is blown replace (refer to Figure 3-1 and SECTION 3, INSTALLATION INSTRUCTIONS **Step 3**).
- 2) Ac power cord is defective replace if necessary.
- 3) Main Power Switch is OFF (not illuminated).
- 4) Charger Circuit is not operating.

Recharge batteries as follows:

- 1. Connect ac power cord to table base and plug into an appropriate ac receptacle.
- 2. Turn Main Power Switch to **ON** (lighted green).
- 3. Allow approximately 12 hours for full battery charge.
- 4. Verify FILLED BATTERY icon on hand control. Disconnect ac power.

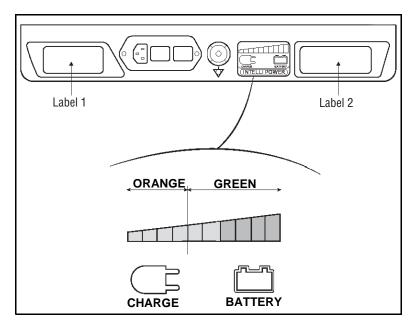


Figure 5-1. INTELLIPOWER Panel LED Display

#### 5.6 Preventive Maintenance Schedule

A

WARNING – PERSONAL INJURY AND/OR EQUIPMENT DAMAGE HAZARD: Failure to perform periodic inspections of the table could result in serious personal injury or equipment damage.

Maintenance procedures described in *Section 5.2* through *5.5* must be performed regularly at the indicated intervals. Use the Preventive Maintenance Schedule in **Table 5-2** as a guide for further Cmax Surgical Table maintenance. Table usage may require more frequent maintenance than indicated. See *Section 5.7* for *Replacement Parts*.

Customer should maintain a record of all maintenance procedures performed on the table.

If a problem occurs, refer to SECTION 6, TROUBLESHOOTING.

NOTE: Never permit unqualified persons to service the table and Preventive Maintenance is not covered under warranty.

Table 5-2. Preventive Maintenance Schedule for Cmax Surgical Table

Service Required	Minimum Frequency
1.0 PREPARATION FOR PREVENTIVE MAINTENANCE	
Discuss equipment operation with department personnel.	1 x per year
Remove pads. Examine pad covers and fastening strips (pads and table).	1 x per year
Examine clamps and other side rail hardware.	1 x per year
Tighten side rails.	1 x per year
Unfasten and remove table shrouds and base cover.	1 x per year
Remove and inspect x-ray tops on each tabletop section (if equipped).	1 x per year
2.0 HYDRAULIC SYSTEM	
Check hydraulic oil level.	1 x per year
Inspect floor directly beneath table and all hoses, fittings and components of hydraulic system for evidence of oil leaks.	1 x per year
Verify operation of Auxiliary Control System foot pedal.	1 x per year
3.0 CASTERS AND FLOOR LOCKS	
Clean and inspect casters.	1 x per year
Lubricate casters.	1 x per year
Check floor-lock mechanism for proper operation.	1 x per year
4.0 CONTROLS	
Using hand control or optional foot control, check table positioning.	1 x per year
5.0 ELECTRICAL CHECKS	
Ensure all circuit board connectors and cable plugs are tight.	1 x per year
Check all cables for damage or fraying.	1 x per year
Inspect electrical cord and hand control cable.	1 x per year
Verify operation of Auxiliary Control System.	1 x per year

Table 5-2. Preventive Maintenance Schedule for Cmax Surgical Table (Cont'd)

Service Required	Minimum Frequency
Verify condition of batteries and battery charger status.	1 x per year
Verify Auto Limit Sensor status.	1 x per year
6.0 TABLETOP OPERATION	
Check operation of <b>Level</b> function.	1 x per year
Check operation of back section.	1 x per year
Check operation of leg section.	1 x per year
Check lateral tilt operation.	1 x per year
Check Trendelenburg, then Reverse Trendelenburg operation.	1 x per year
Check raise and lower operation.	1 x per year
Check headrest Section operation.	1 x per year
Check SLIDE function. Inspect sliding chain tension. Check rack and pinion gear play.	1 x per year
7.0 TABLE RIGIDITY	
Verify head and leg sections locking devices.	1 x per year
Check for any play in floor-lock legs.	1 x per year
8.0 FINAL TEST	
Examine all lubricated parts. Apply lubrication as needed.	1 x per year
Secure all covers and shrouds.	1 x per year
Reinstall any pads that were removed. Check for rips, tears, etc.	1 x per year
Inspect area to ensure removal of all materials used during inspection.	1 x per year

#### **5.7 Replacement Parts**

The parts listed in this section are those that would be necessary to do minor maintenance on the Cmax Surgical Table.

To order replacement parts, proceed as follows:

- 1. Include part number and description listed in **Table 5-3**.
- 2. Include model and serial numbers of your equipment on your order.
- 3. Send your order directly to STERIS.

NOTE: NOTE: For Replacement Parts, note the following:

- 1) Use only STERIS authorized parts on the equipment. Use of unauthorized parts will void the warranty.
- 2) This table uses lead-acid batteries. Lead-acid batteries normally are subject to self-discharge and battery-life deterioration in long-term storage. Therefore, STERIS does not recommend that batteries be procured and then stored as

spare parts. If batteries are procured and stored, they should be kept covered and in a cool, dry area. Stored batteries should be recharged every six months to minimize deterioration. Use a charging current commensurate with the battery amp-hour size. Charge to a floating charge voltage equivalent to 13.6-13.8 volts.

**Table 5-3. Replacement Parts** 

DESCRIPTION	PART NUMBER	RECOMMENDED SPARES
Hand Control Assembly	150832-500	1
Cord, Hand Control	542200420	1
Power Cord	093909-354	1
Fuse (Main), 4.0 Amp	150832-335	1
Fuse (Set)	342213555	1
Pad, Head Section	542200239	1
Pad, Back/Seat Section	542200240	1
Pad, Leg Section	542200241	1

#### 5.8 ALS Check



WARNING - PERSONAL **INJURY AND/OR EQUIPMENT DAMAGE HAZARD: The Auto** Limit Sensor (ALS) System suggested alternative tabletop movement does not take in account the type of surgery that may be in process or the environment (e.g., other equipment close by) and might not be compatible with the surgical procedure. To avoid an action that could result in death or serious injury to the patient and the operating room staff, and/or serious equipment damage, completely evaluate the feasibility of the suggestion.

The Cmax Surgical Table is equipped with the Auto Limit Sensor system. This system provides instant user feedback on any conflicting tabletop articulations. An Auto Limit Sensors (ALS) Warning (refer to Fig. 4-4, Item 10) on the hand control indicates the tabletop has been ordered into a configuration or has moved into a position that may cause tabletop damage or patient injury. To prevent a tabletop sectional conflict, or collision of tabletop with the table or floor, ALS System immediately stops the movement in process and the ALS LED lights. The control system will alert the user to an alternative movement choice in the LCD Display (refer to Figure 4-4, Item 1).

NOTE: The ALS System suggested alternative movement is not the only movement available.

Test the Auto Limit Sensor system as follows:

- 1. Review and follow instructions presented in Section 4, OPERATING TABLE, and prepare the Cmax Surgical Table for operation.
- 2. Raise tabletop to highest position possible.
- 3. Use **SLIDE HEAD** and move tabletop to head end limit.
- 4. Press **LEG DOWN** button until ALS Warning lights and tabletop motion stops. If system doesn't engage, stop tabletop movement before collision and call STERIS.

#### 5.9 LEVEL Check

Check the Cmax Surgical Table tabletop LEVEL function as follows:

- 1. Review and follow instructions presented in *Section 4*, *OPERATING TABLE* and prepare Cmax Surgical Table for operation.
- 2. Press **LEVEL** pushbutton.

NOTE: When operating in REVERSE ORIENTATION, **LEVEL** function does NOT include the back section for compliance with anesthesia procedures. Ensure **REV. ORIENT** is not active.

- 3. When depressed, tabletop is gradually returned to level or horizontal position by aligning tabletop sections in following order:
  - a. KIDNEY Elevator and lateral tilt.
  - b. Trendelenburg and back.
  - c. Leg.

NOTE: The LCD Display values will change accordingly.

4. Use a level and ensure tabletop is level. If not, call STERIS.

#### 5.10 Auxiliary Control Check

Check the Cmax Surgical Table auxiliary control system as follows:

- 1. Review and follow instructions presented in *Section 4, Auxiliary Control System* and prepare the Cmax Surgical Table for auxiliary control system operation.
- 2. With tabletop at extreme low point, press **HEIGHT UP** pushbutton and pump pedal.
- 3. Ensure tabletop rises correctly. If not, call STERIS.

### TROUBLESHOOTING



#### WARNING – PERSONAL INJURY AND/OR EQUIPMENT DAMAGE HAZARD:

- Failure to perform periodic inspections of the table could result in serious personal injury or table damage.
- Repairs and adjustments to this equipment must be made only by STERIS or STERIS-trained service personnel. Maintenance performed by unqualified personnel or installation of unauthorized parts could cause personal injury, result in improper equipment performance, invalidate the warranty, or result in costly damage. Contact STERIS regarding service options.



**CAUTION - POSSIBLE EQUIPMENT DAMAGE: When** moving the table to or from the point of use, roll it carefully at moderate speed and only over smooth floors. Maximum floor clearance is 1/4" (6.4 mm). Avoid door and elevator jambs, and obstructions greater than 1/4" (6.4 mm). If necessary, lift table over obstructions, onto trucks, etc. Lift table evenly and only by the table base. DO NOT transport articles (including accessories) on top of the table, and DO NOT use a forklift to move uncrated table.

This section of the manual describes the types of table malfunctions which may occur and indicates probable causes.

If you are unable to correct the situation following the Troubleshooting Charts (or if a problem occurs which is not described on the charts) or *Routine Maintenance Section* of this publication, please contact STERIS. Service charges may be incurred, consult your warranty for details. A trained service technician will promptly place your  $Cmax^{TM}$  Surgical Table in proper working order.

NOTE: Never permit unqualified persons to service the table. If you are unable to correct a table malfunction, please contact STERIS.

**Calling For Service:** First, try to define the situation and determine whether you can solve it yourself (see **Table 6-1 or Table 6-2).** If you can't solve the situation, call STERIS and give the following information for the table: model number, serial number, date of purchase.

NOTE: To prevent possible hand control functioning issues, return table to level between a series of hand control commands.

**Table 6-1. Troubleshooting Chart** 

SITUATION	ACTION
Hand Control does not activate when table is plugged into electrical outlet and any pushbutton (except <b>OFF</b> ) is pressed .	Main battery fuse blown – replace. Faulty power cord – replace. Hand control not plugged in properly – correct. Faulty hand control** – replace. Call STERIS.*
Table remains on battery power even when main power cord is plugged into facility power.	Incorrect power cord connection – correct. Faulty power cord – replace. Main fuse blown – replace. Call STERIS.*
No functions using hand control.	Hand Control not plugged in properly – correct.  No Power – table deactivates after two minutes of non-use. Press any button on hand control (except <b>OFF</b> ).  Faulty hand control** – replace.  Call STERIS.*
Table will not tilt right/left using hand control.	Hand control not on – Press any button on hand control (except <b>OFF</b> ). Faulty Hand control** – replace. Call STERIS.*
Table will not Trendeleburg/Reverse Trendeleburg using hand control.	Hand control not on – Press any button on hand control (except <b>OFF</b> ). Faulty Hand Control** – replace. Call STERIS.*
Table will not raise/lower using hand control.	Hand control not on – Press any button on hand control (except <b>OFF</b> ). Faulty hand control** – replace. Call STERIS.*
Floor locks will not release and SLIDE HEAD or SLIDE FOOT message is displayed.	Move SLIDE to 0".

<sup>\*</sup> Service charges may be incurred. Consult your warranty for details.

150830-685 Operator Manual Troubleshooting

<sup>\*\*</sup> Use optional foot control or auxiliary (override) control system if hand control is faulty [refer to SECTION 4.5, AUXILIARY CONTROL SYSTEM].

**Table 6-2. Troubleshooting Chart (LCD Message)** 

FAULT DISPLAYED	FAULT DESCRIPTION	FAULT ACTION
1 KEY ONLY	Two pushbuttons are pressed at the same time	Press one button only
DUAL COMMAND	Commands are sent from the optional foot pedal and the hand control at the same time.	Hand control has priority
REV ORIENT	Flex and Reflex are disabled in reverse orientation.	Press REV. ORIENT
LOW BATT	Battery voltage below 23 V.	Plug the power cord into facility power and ensure Power switch is ON
LOCK AGAIN	The pressure switch status does not change after FLOOR LOCK is pressed or status does change and FLOOR LOCK was not pressed.	Inspect for oil leakage; verify pressure switch connect; change floor lock valve block
WRONG USE	Hand control pushbutton is pressed and held for longer than one minute.	Release button
SENSOR DEF	The sensor voltage is out of range (0.3 - 4.7 V)	Check sensor, wire and connection; calibrate sensor; change sensor
SENSOR FAIL	Voltage difference between sensor and expected value by control board.	Calibrate table
BATT FUSE	No fuse or blown fuse.	Check fuse; plug the power cord into facility power
BATT DEF	Battery voltages differ by more than 0.6 V.	Check voltage of each battery; replace battery
CHARGER DEF	Battery charger is defective or fuse (inside the charger) is blown.	Check fuse F1; change battery charger
POWER DEF	Transformer too hot or fuse F2 is blown. Table still operates on battery power.	Wait for transformer to cool; check fuse F2 (inside power supply); replace power supply
PUMP DEF	No hydraulic pump control.	Change power supply
VALVE DEF	No valve control.	Change control board
MOTOR DEF	No SLIDE motor control. SLIDE inoperative.	Replace sliding board
MOTOR FAIL	The power control is always on. SLIDE inoperative.	Replace sliding board
SLIDE DEF	No SLIDE control. SLIDE inoperative.	Change sliding board
SLIDE FAIL	SLIDE continuously operating. SLIDE inoperative.	Replace sliding board
PUMP FAIL	Pump does not shut off.	Change power supply
BAD VERSION	Hand control software version is incompatible with control board software version.	Replace hand control
VOLTAGE PEAK	Battery voltage reaches 31 V.	Replace power supply
VALVE FAIL	Valve does not shut off.	Replace control board
SLIDE HEAD or SLIDE FOOT	SLIDE is not within 1" (25 mm) of center position when unlock floor locks is attempted.	Position SLIDE to 0".

### DISPOSAL HAZARDS



**WARNING - DISPOSAL** HAZARD: This product contains materials which may require disposal through appropriately licensed and permitted hazardous waste management firms.



**CAUTION - POSSIBLE** EQUIPMENT DAMAGE: Use of incorrect hydraulic oil may severely damage the table and/or cause malfunction. **Contact STERIS for proper** hydraulic oil.

The following materials may be contained within the table. When disposing of the table or its parts, ensure the proper disposal of hazardous and other regulated waste in compliance with federal, state, and local regulations.

**Lead Acid (Pb/H<sub>2</sub>SO<sub>4</sub>):** gelled cell batteries located in the table base at the head end of the table. Approximate weight 5 lb (2 kg).

Lead (Pb) in Solder: contained in solder on circuit boards and in some miscellaneous wire connections. Minute amounts.

Electronic and Electrical Parts: not known to require special disposal at date of this manual.

Metal Parts: made from aluminum (Al), steel (Fe), cast iron (Fe), copper (Cu), and copper alloys (Cu/x), plastic, synthetic rubber, plating (Cr, Ni, Zn, Au), and adhesives not known to require special disposal methods at date of this manual.

Hydraulic Oil: contained in hydraulic components located in the base, column, leg section, back section, and hydraulic system lines and hoses.