

**APPLICATION**

The Cmax Surgical Table is a mobile, electrohydraulically operated surgical table designed to support all general surgical procedures including cardiac and vascular, endoscopic, gynecology, urology, nephrectomy, neurology, ophthalmologic, and orthopedics with the addition of STERIS table accessories.

**DESCRIPTION**

The Cmax Surgical Table 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, Zip-Slide™ movable tabletop, and adjustable height functions. This table is designed to safely function with:

- **1100 lb (499 kg)** without patient positioning (tabletop not articulated or slid)
- **1000 lb (454 kg)** patient positioning (tabletop not slid)
- **600 lb (272 kg)** patient positioning (including tabletop slid)

Table is constructed of aluminum alloy, stainless steel, and other high quality materials. Table is equipped with a large sliding tabletop *providing unrestricted radiological access without patient reversing.*

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

The table accepts positioning commands from two sources:

1. A **hand control**.
2. An Auxiliary Control System [physician-controlled **foot control** (which includes Trendelenburg Tilts, Lateral Tilts, and Height functions)].

*NOTE: The Head Section is manually adjustable.*

**Overall size (W x L x H):**

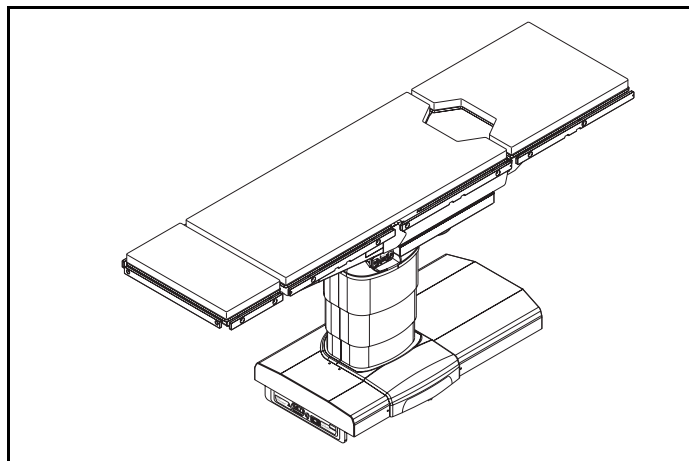
22 x 81 x 26 to 45" (547 x 2055 x 675 to 1136 mm)

**Weight:**

560 lb (250 kg)

**The standard table configuration includes:**

- Power adjustable height, back, leg, Trendelenburg, Zip-Slide movable tabletop, radioluscent Kidney™ elevator mechanism, flex/reflex, and lateral tilt functions



*(Typical only - some details may vary.)*

- Manual, removable, head section
- Pendant hand control
- Mobile base with hydraulically operated floor locks
- **1100 lb (499 kg)** without patient positioning (tabletop not articulated or slid)
- **1000 lb (454 kg)** patient positioning (tabletop not slid)
- **600 lb (272 kg)** patient positioning (including tabletop slid)
- Up to three weeks operation (100-150 procedures) on internal battery power without recharging

**STANDARDS**

Cmax tables are in compliance with the following standards:

- **Underwriters Laboratories (UL) Standard 2601-1 – 1st ED.**, as certified by UL.
- **Standard CSA-C22.2 No. 601.1-M90**, Standard for Electro-Medical Equipment, as certified by UL.
- **EN 60601-1: 1993, Amendment 2, 1995, Electrical Safety**, as certified by UL.
- **IEC 601-1-2: 2001, Electromagnetic Compatibility**, as certified by AEMC Laboratories.
- **EN 55011: Group I, Class B, Emissions Testing**, as certified by Laboratories National D'Essais.
- **EN60601-2-46 – 1st ED.**, as certified by Laboratories National D'Essais.
- **CE Marked to Medical Device Directive, 93/42/EEC**

**The Selections Checked Below Apply To This Equipment**

**VOLTAGE**

- 100-120 Vac, Single-Phase, 50/60 Hz
- 200-230 Vac, Single-Phase, 50/60 Hz

**POWER SOURCE**

- Battery/Electric-Powered Table

**PAD CONFIGURATION**

- Latex-Free Pads (standard)

**ACCESSORY PACKAGES**

- Standard Accessory Package

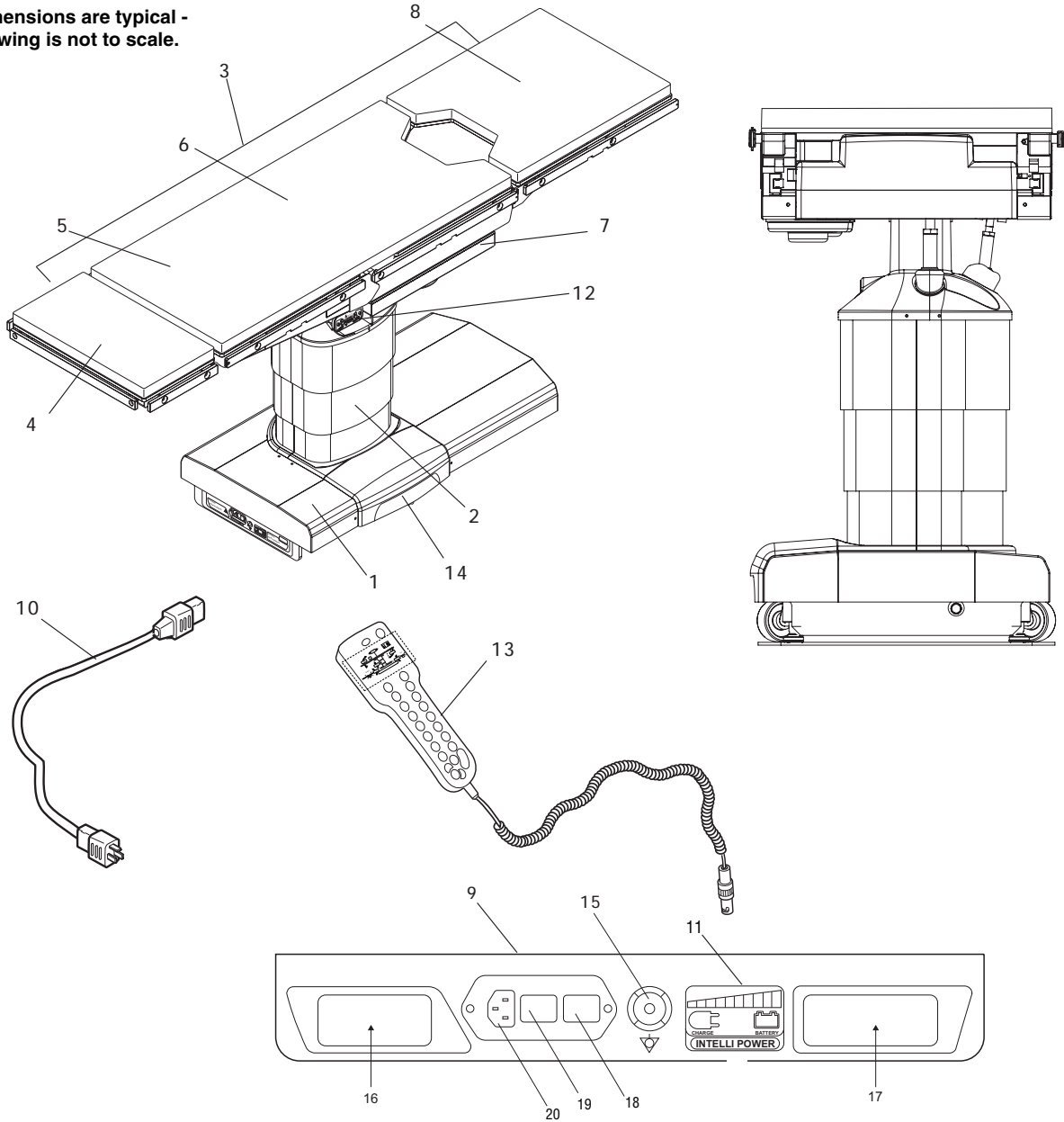
**OPTIONS**

- Foot Control

Item \_\_\_\_\_

Location(s) \_\_\_\_\_

Dimensions are typical -  
drawing is not to scale.



**KEY:**

1	Table Base	11	INTELLIPOWER Display
2	Column	12	Connection Panel
3	Tabletop	13	Hand Control
4	Head Section	14	Auxiliary Control System
5	Back Section	15	Ground Equalization Terminal (Male Connection)
6	Kidney Elevator Mechanism	16	Electrical Characteristics Label
7	Seat Section (Sliding)	17	Data Plate
8	Leg section	18	Primary Fuses
9	Power Panel	19	Main Power Switch
10	Power Cord	20	AC Receptacle

**Cmax Table Components (Typical)**

- **FDA Good Manufacturing Practices Regulations 21CFR820 for Medical Devices**
- **Class 1 Equipment**
- **Type B Equipment**
- **Suitable for intermittent operation**, three minutes per hour
- **IPX-4** (Fluid Ingress Protection)

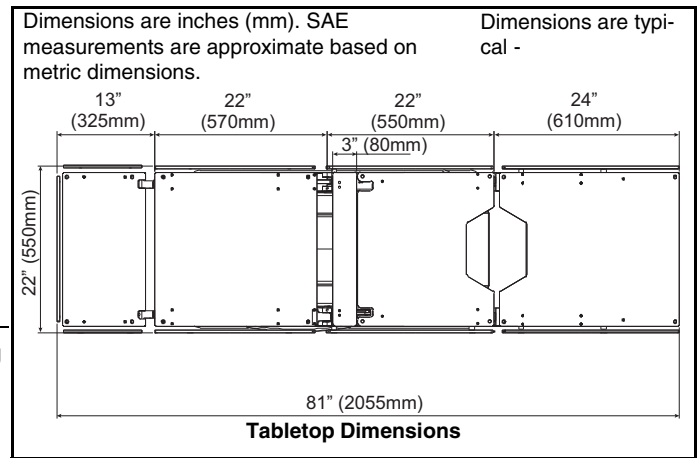
## FEATURES

**Motorized tabletop** is constructed of five-sections (including the motorized fully radiolucent Kidney elevator mechanism) and is 81" (2055 mm) long. Motorized Zip-Slide movable tabletop eliminates the need for patient reorientation and preconfiguration of the table. Unobstructed Imaging Length of 68" (1725 mm) and 100% C-Arm access without table movement is available. For attaching accessories, the tabletop sections include a standard stainless-steel side rail on both sides – located where they will not obstruct the imaging area. Hook-and-loop fastener strips on the tabletop sections permit instant application and removal of the 2" (51 mm) thick, latex-free mattress pad. The radiolucent tabletop sections enable viewing of the entire anatomy (see illustration at bottom of this page). The easily attached X-Ray top design enables cassettes to be loaded from the head, foot, or either side for a full range of exposure angles.

**Column** supports tabletop and includes lift cylinder, bearings, hydraulic piping, hydraulic actuators for Trendelenburg, electrical wiring, and master computer. These components are enclosed by four telescoping stainless-steel column shrouds. The stainless-steel shrouds are of two-piece construction for service accessibility. Hand Control and optional Foot Control connect at top of column.

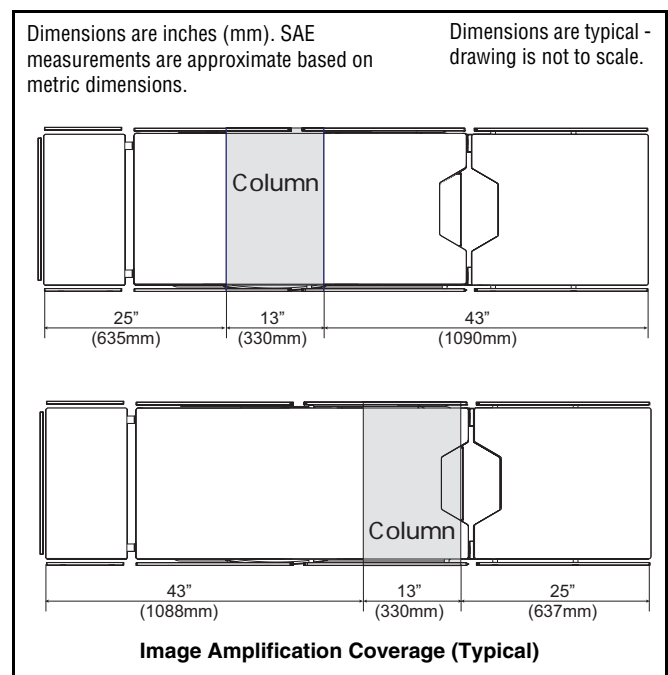
**Base** structure is painted welded steel. The base cover is a two-section, stainless-steel enclosure. Four large diameter swivel casters inside the base cover facilitate table relocation and movement. Four mechanical, hydraulically operated, floorlocks are supplied. The power supply assembly and floor lock actuators are also within the base. Table power cord is plugged into a receptacle centered on the base head-end cover. Auxiliary Control System controls are located beneath a cover plate and stored in a convenient drawer (see illustration on page 5). Included are: SLIDE HEAD/FOOT, HEIGHT UP/DOWN, TREND./REV. TREND., TILT RIGHT/LEFT, BACK UP/DOWN, LEG UP/DOWN, KIDNEY UP/DOWN, and LOCK/UNLOCK switch.

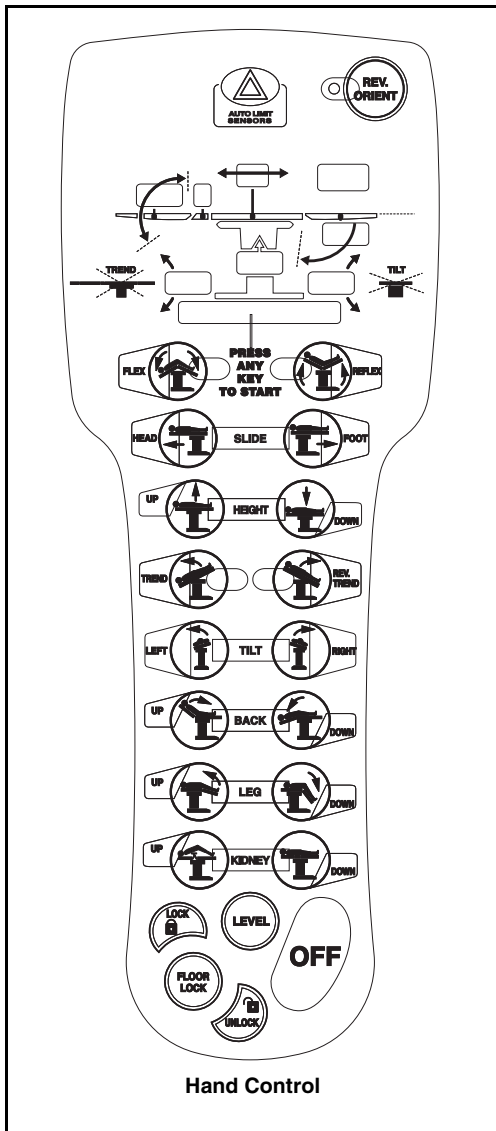
**Electric controlled system** provides powered tabletop positioning. Hydraulic actuators perform all powered table motions (except Zip-Slide movable tabletop which is powered by an electric motor). The primary control system is a master computer located in the table column. This computer selects which outputs are to be actuated based on inputs from an auxiliary CPU in the pendant hand control and/or optional foot control. The hand control is a tethered pendant that hangs from standard side rails. Hand control provides user inputs (from touch pad switches via an auxiliary CPU) to the master computer. It also includes status LEDs and tabletop position



indicators. An auxiliary control, located in the table base, enables all table actuations.

**Electrical System** (the input electrical power) is fed by a detachable three-wire grounded power cord into an isolation transformer. The power is reduced to 24 V, and is rectified to dc. The operating system is powered by the 24 Vdc. Fuses are used for protection of the system. The control operates on 24 Vdc. The hand control (an auxiliary CPU) and optional foot control consist of switches that open or close to signal the computer in the table column. The hand control includes feedback LEDs. If ac main power fails, the battery system can be used to power the table. The Battery System is activated by ensuring the Main Power Switch on the front of the table base is ON and depressing any button on the Hand Control. Activation of the Battery System permits the table to be articulated as necessary for approximately three weeks (without facility ac power) or between 100 and 150 procedures. *The batteries are continuously charging as long as the table is supplied with the appropriate ac voltage and the Main Power Switch is in the ON position.*





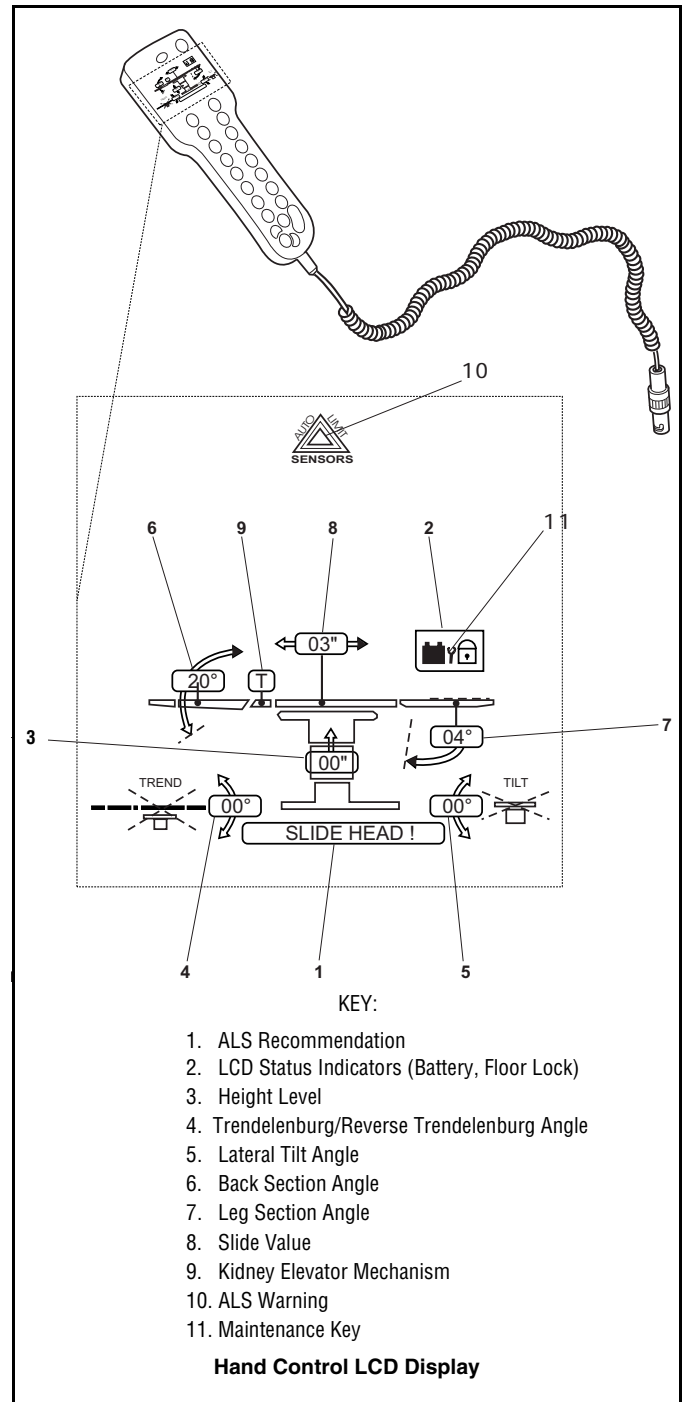
**Hand Control**

**Pendant Hand Control** is ergonomically designed, is constructed of one-piece thermoformed plastic that holds and seals the keypad, is the primary interface for table operation, and the key pad is illuminated for easy table articulation identification when room is dark. Hand Control is equipped with a coiled 3' (0.9 m), 12' (3.7 m) extended, long cord. The Hand Control plugs into a receptacle located at the top of the column. Membrane touch switches provide, through an auxiliary CPU, input signals to activate table functions and articulations. LED indicators and LCD Display (see illustration above) provide the following table operation information:

- Auto Limit Sensors
- Battery Power
- Low Battery
- Floor Lock Position
- Maintenance Required
- Reverse Patient Orientation
- Tabletop Positioning

Touch Pads include:

- FLEX/REFLEX
- SLIDE HEAD/FOOT
- HEIGHT UP/DOWN



- TREND./REV. TREND.
- TILT LEFT/RIGHT
- BACK UP/DOWN
- LEG UP/DOWN
- KIDNEY UP/DOWN
- LEVEL
- FLOOR LOCK (LOCK and UNLOCK)
- OFF

**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. Check patient positioning visually before proceeding.

**Auxiliary Control System** can be actuated at any time and will allow table operation in the event of primary control or power malfunction. The controls are located beneath a cover plate and stored in a convenient drawer (see illustration). A pedal (foot pump to provide hydraulic power) and Override Hand Control (see illustration) comprise this system. Included functions on Override Hand Control are: SLIDE HEAD/FOOT, HEIGHT UP/DOWN, TREND./REV. TREND., TILT RIGHT/LEFT, BACK UP/DOWN, LEG UP/DOWN, KIDNEY UP/DOWN, and LOCK/UNLOCK switch.

UNLOCK and SLIDE functions do not require foot pump actuation. A green LED on the Override Hand Control indicates the system is active.

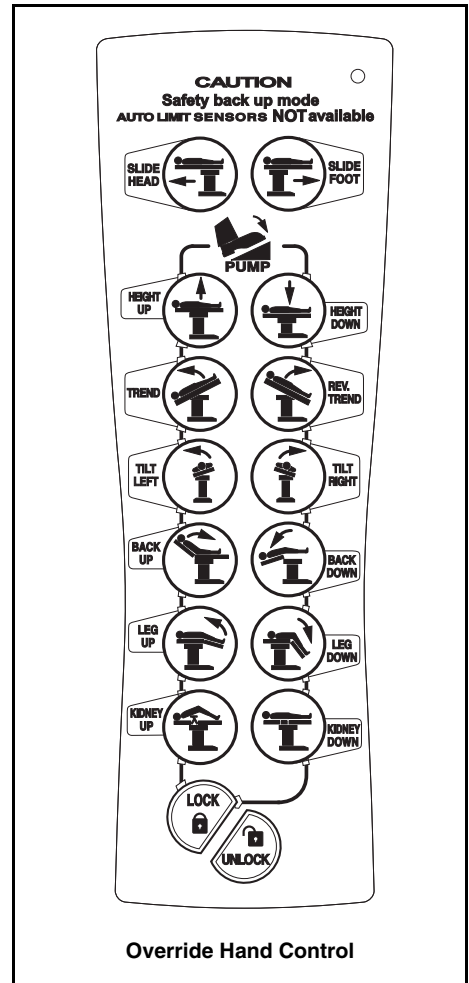
## TABLE OPERATION

Press the desired position touch pad on the pendant hand control or optional foot control to position/articulate the Cmax Surgical Table tabletop.

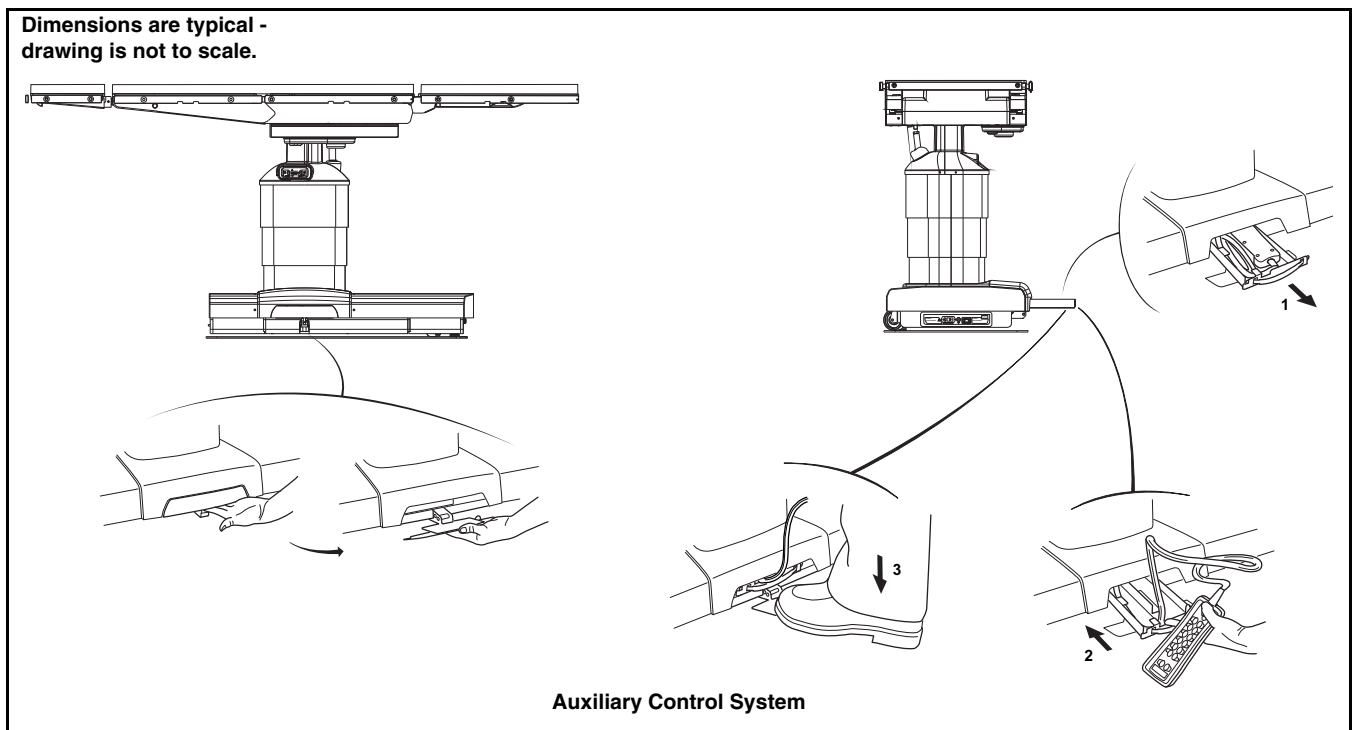
*The following pre-operative actions must be completed before the table can be used:*

- **Power activation:** Use battery power or plug the table power cord into the head of the table base and facility power receptacle and toggle Main Power Switch to ON for facility AC power.
- **Turn the table on:** Press any button on the hand control to turn table ON. Hand control remains powered for 10 hours from last button press.
- **Lock the table:** Press the FLOOR LOCK button on the Hand Control and then the LOCK button to order the floor locks into the "locked" position.

**NOTE:** *Tabletop must be centered before floor locks may be "unlocked."*



Auto Limit Sensor™ control device (using the Intelligent Limit Sensors) provides instant user feedback on conflicting tabletop articulations when the table is positioned in standard configuration and how to resolve the conflict.



**Auxiliary Control System**

## TABLE MOTION

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Refer to illustration on next page for the following ranges of table motion:

- Flex/Reflex: 140°/90°
- Slide Motion: HEAD: 9" (227 mm)  
FOOT: 9" (227 mm)
- Height Range: 26 to 45" (675 to 1136 mm)
- Trendelenburg Range: 30°±1°
- Reverse Trendelenburg Range: 30°±1°
- Tilt Range: 20°±1°
- Back Section Motion: UP: 90°±1°  
DOWN: 40°±1°
- Leg Section Motion: UP: 0°  
DOWN: 105°±1°
- Kidney Elevator Mechanism: 4" (110 mm)

## PREVENTIVE MAINTENANCE

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Customers are encouraged to contact STERIS concerning our comprehensive preventive maintenance program. Under the terms of this program, 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.

## NOTES

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1. Approximate Table Operating Weight: 560 lbs (250 kg).
2. Patient Weight Capacity:
  - **1100 lb (499 kg)** without patient positioning (tabletop not articulated or slid)

- **1000 lb (454 kg)** patient positioning (tabletop not slid)
  - **600 lb (272 kg)** patient positioning (including tabletop slid)
3. Cmax table accessories have specific weight claims/ capacities. Accessories may limit table patient weight capacity.
  4. A patient grounding post/potential equalization terminal (male connector, DIN 42801) is provided with the table. The female connector for patient grounding is not furnished by STERIS.

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

## UTILITY REQUIREMENTS

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### Line Power Input:

100-120 Vac, 50/60 Hz, 4.0 Amp

200-230 Vac, 50/60 Hz, 4.0 Amp

### Environmental Conditions:

Temperature: 32-122°F (0-50°C)

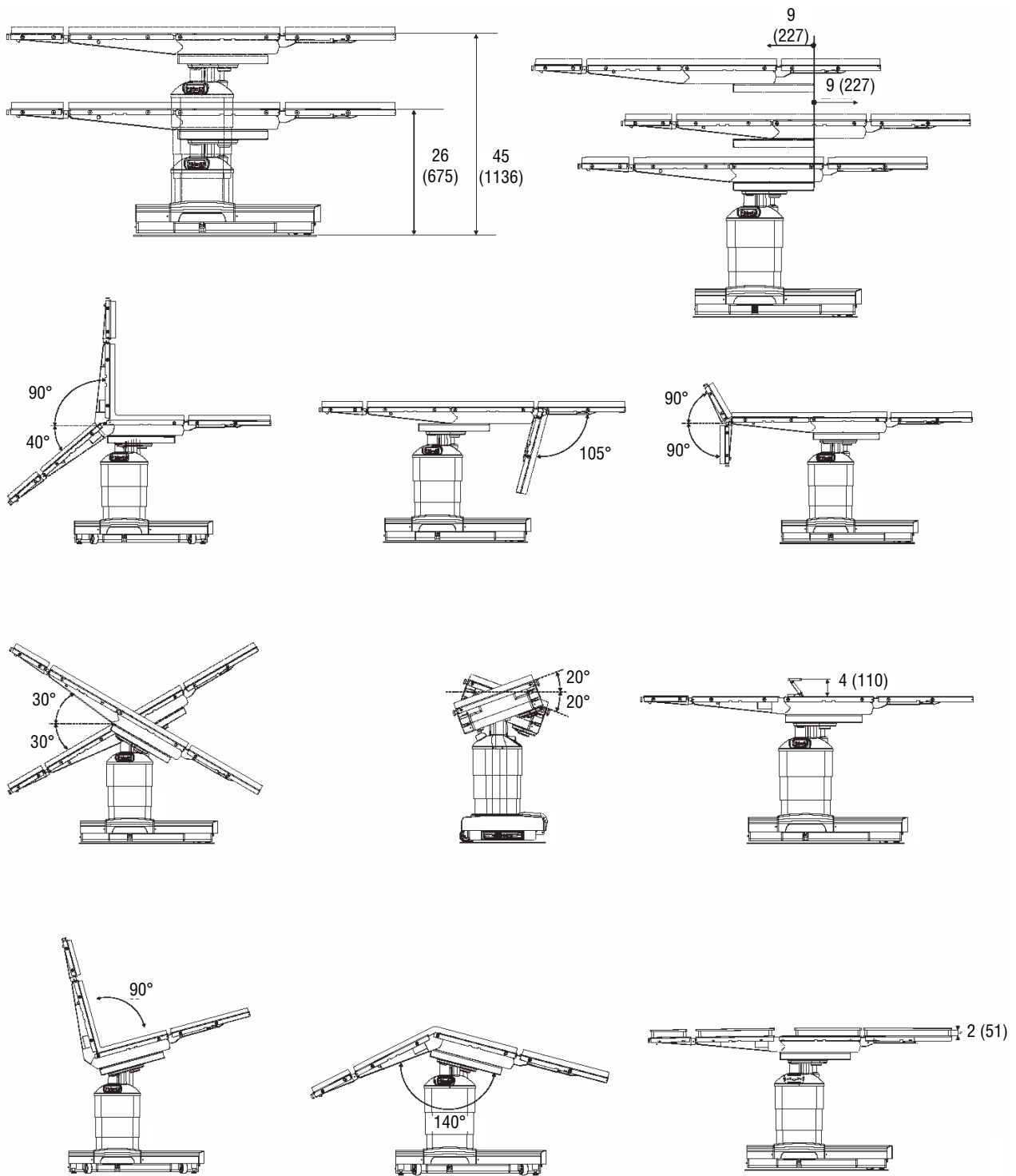
Relative Humidity: 20-80% RH

**CUSTOMER IS RESPONSIBLE FOR COMPLIANCE WITH APPLICABLE LOCAL AND NATIONAL CODES AND REGULATIONS.**

**STERIS Surgical Technologies SAS,  
Saran, France is an  
ISO 13485 certified facility.**

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

Dimensions are typical -  
drawing is not to scale.



Dimensions are inches (mm). SAE  
measurements are approximate based on  
metric dimensions.

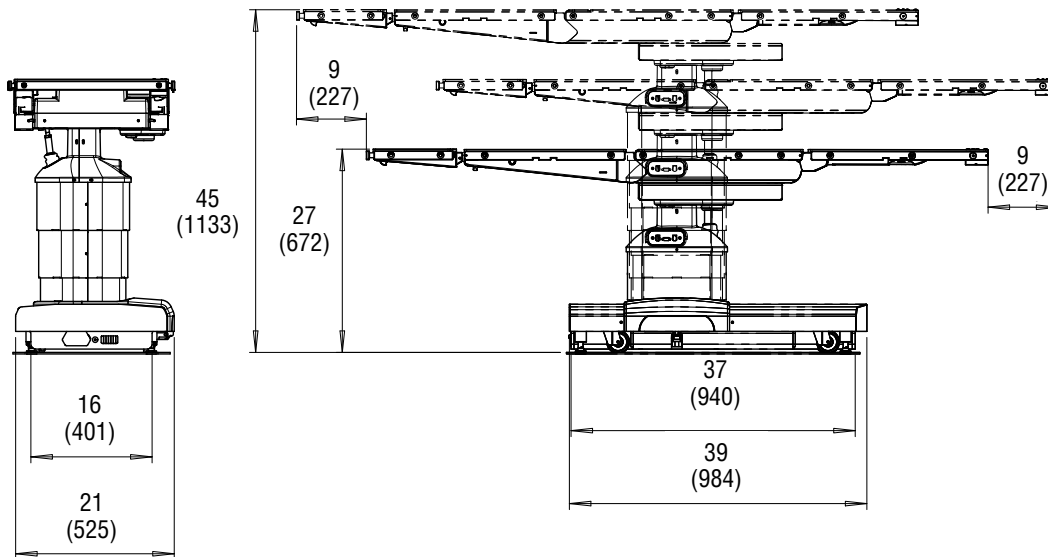
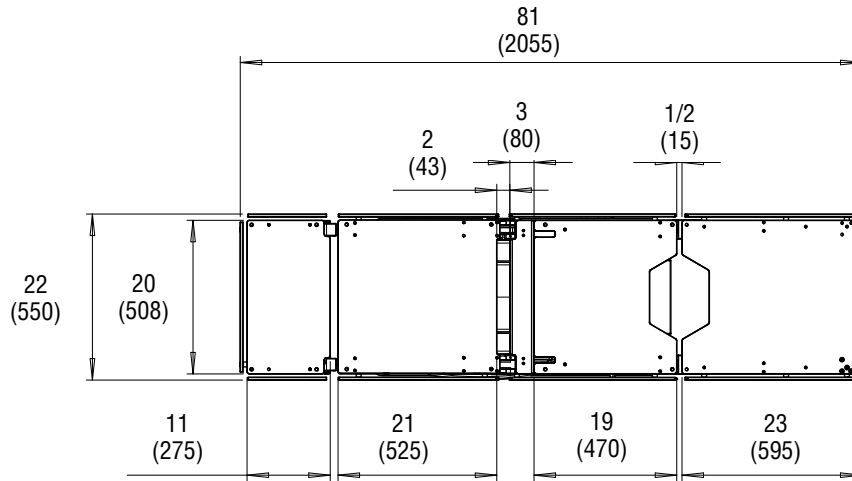
Cmax Table Range Of Motion (Typical)

Reference the following equipment drawing for installation details

Equip. Dwg. No.	Equipment Drawing Title
150832-052	Cmax Surgical Table

Dimensions are typical - drawing is not to scale.

Dimensions are inches (mm). SAE measurements are approximate based on metric dimensions.



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

**For Further Information, contact:**



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