APPLICATION

QUANTUM 3080RL Surgical Tables are remote control Image Amplification compatible units that provide flexible articulated posturing of the surgical patient and return to level of the tabletop. Special 3080RL Table Accessories further enhance posturing capabilities. All table articulations for patients up to 400 pounds in weight can be safely performed with floor locks LOCKED. 3080RL tables are available in either line powered or battery powered configurations.

DESIGN AND CONSTRUCTION

General. The Quantum 3080RL Surgical Tables are in compliance with national and international safety standards for electromedical equipment and are so certified by the competent regulatory agencies: • ETL • TUV-GS • TUV-RFI. Microprocessor controlled hydraulic system provides tabletop articulation. Tables feature auxiliary override (backup) systems for the control and hydraulic systems.

Control System. The control system utilizes microprocessor technology to control the hydraulic pump motor and solenoid valves. The primary control system consists of a "master" and a "slave" computer. The master computer is located on the column and selects which outputs are to be actuated based on inputs from the hand control, foot control, and table sensors. The slave computer is located in the hand control and provides user inputs (from touch pad switches) to the master computer. It also receives feedback signals and turns on the proper status LEDs. A sealed 24 VDC battery is used for power back-up. A secondary and separate override control system allows operation of basic table functions should the primary microprocessor system become inoperative. The electrical system can be furnished from the factory for 100, 120, 220 or 230/240 VAC, 50/60 Hz operation.

Hydraulic System. The hydraulic system provides the motive force for all powered articulations of the table. A 24 VDC electric motor drives a 0.25 gallons per minute, 1400 PSI capacity pump. Solenoid valves direct fluid to steel hydraulic cylinders. Hydraulic oil pressure is limited by a relief valve. All hoses are constructed of flexible thermoplastic and all hose, tube, and port connections are sealed with o-rings. Load holding valves are built into or next to critical cylinders. Three main filters plus various small "last-chance" filters are located within the system to maintain oil cleanliness. A manual foot-operated pump is provided for table operation in case of power failure (solenoid valves would be operated from 24 VDC battery).

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Hand Control is constructed of injection molded black plastic (two-piece, o-ring sealed) and is the primary control for table operation. It has a two-foot long coiled cord (15 feet long when extended) with molded strain reliefs on each end. Hand control plugs into color-coded receptacle located on side of control column cap. Membrane touch switches provide input signals to a self-contained PC board to activate all function and articulation. LED indicators provide table operation information and control diagnostic signals.

Base is cast iron with textured-enamel finish. The top is enclosed by a two-section, welded, stainless-steel cover that also forms a shroud for the lower portion of the column. Four conductive swivel casters facilitate easy table relocation and movement. Three conductive floor locks (tripod principle) are self-compensating up to one-fourth inch. Patient grounding post, line-power input, protective fuses, and floor lock override rocker switch are located at the head-end of the base. Manual foot pedal (hydraulic backup) and four protective circuit breakers are located on side of base. Hydraulic pump/motor assembly, power control assembly, and control batteries are located within base on all 3080RL tables. Motor and motor battery charger are also located within base on battery powered 3080RL tables.

Column is offset from center of base and includes tabletop lift cylinder, support column with bearing-mounted saddle frame, hydraulic plumbing, electrical wiring, and table control microprocessor assembly. These components are fully enclosed by four telescoping stainless-steel shrouds. Each shroud section is of two-piece construction for service accessibility. Column cap provides receptacles for hand control and optional foot control on one side and emergency override control switches on the opposite side. Column skirt shields user from mechanical interfaces at top of column. Column cap and skirt are constructed of black thermo-plastic.

Superstructure includes manual gear drive for kidney elevator and hydraulic lines and cylinders required to articulate the tabletop. The superstructure is bearing-mounted to the column. Tabletop section frames are constructed of cast aluminum and finished with textured-enamel paint. Hydraulic positioning mechanisms are located inboard from frame sides to help prevent entanglement of drapes. There are three built-in limit switches to limit excessive movement.

Tabletop is 20-inches (508 mm) wide and divided into four hinged sections: headrest, back, seat and leg. All sections are constructed of radiopaque material and drilled holes are provided for attachment of optional radiographic top sections. The seat section includes a perineal cutout. All tabletop sections (except the headrest) are electro-hydraulically positioned by solenoid valve actuated hydraulic cylinders. The headrest section is positioned by a manual, spring-loaded ratchet mechanism. A Velcro (Velcro Corporation) tape strip on the longitudinal centerline of the tabletop sections permits instant application and removal of two-inch thick (60 mm) mattress pads. Stainless-steel siderails extend the full length of table (including superior edge of headrest) and are notched to receive optional accessories. Siderails will accommodate most previous design AMSOLO/Lam多多 XL table accessories (see separate product literature) plus the Special 3080RL Table Accessories listed in this document.

Headrest Section is attached to the back section for NORMAL patient orientation or can be attached to leg section for REVERSE patient orientation. Headrest section can be raised or lowered 0-90 degrees from horizontal and locked in 15 degree increments. The spring-loaded handle is located under the outer end of section for easy access.

Hand Control

Kidney Elevator is centrally located between the back and seat sections and is manually raised and lowered with a ratchet that flips up into stored position when not in use. The ratchet operates a dual rack and pinion mechanism through a jointed drive shaft. The kidney elevator is constructed of stainless steel. Maximum height of elevator is four inches above tabletop.

TABLE OPERATION

The 3080RL Table is operated by the Hand Control (see illustration). The hand control provides the following:

- Power ON/OFF touch pad with ON indicator LED
- Power mode/condition indicator LEDs (AC line, battery and low battery)
- Floor lock function and actuate touch pads
- Patient orientation touch pads
- Position function and actuate touch pads

The tabletop is articulated by use of the hand control position function and actuate touch pads (or optional foot control pedals). The following pre-operative actions must be completed before positioning touch pads will function:

- Line Powered Tables - Table plugged into an appropriate voltage AC receptacle
- Battery Powered Tables - Batteries properly charged
- Power turned ON
- Floor Locks LOCKED
Adjust tabletop position as follows:

- Press the desired function touch pad in the center row on the hand control and within six seconds (while function LED is still lit), press the desired actuate touch pad adjacent to it.
- Release the actuate touch pad when desired position has been reached to automatically stop tabletop and lock it in position.

The range of tabletop movements are as follows:

- **Trendelenburg** - 25 degrees maximum from horizontal
- **Reverse Trendelenburg** - 25 degrees maximum from horizontal
- **Height** - 27 inches (686 mm) minimum to 44 inches (1118 mm) maximum
- **Side Tilt** - 18 degrees maximum to right or to left of horizontal
- **Back** - Up 55 degrees maximum (80 degrees in REVERSE orientation) or down 25 degrees maximum (105 degrees in REVERSE orientation) from horizontal
- **Leg** - Up 80 degrees maximum (55 degrees in REVERSE orientation) or down 105 degrees maximum (25 degrees in REVERSE orientation) from seat section

**NOTE:** Flex and Reflex position controls are disabled when in REVERSE patient orientation.

- **Flex** - Back down 20 degrees maximum with Seat down 25 degrees maximum from horizontal
- **Reflex** - Back up 25 degrees maximum with Seat up 35 degrees maximum from horizontal

**Return To Level** — The tabletop can be returned to level by simultaneously pressing both "level" buttons. The table will move in anatomically correct increments until it reaches level.

**Auxiliary Override Systems** are provided on the 3080RL table that allow table operation in the event of primary control malfunction. Table control system automatically actuates NORMAL patient orientation and shuts down primary control when override switches are actuated.

- **Electric Pump Power Available** - Articulate table using toggle switches located on control column cap. Move switches UP or DOWN for desired movement and release when desired position is attained.

- **No Electric Pump Power Available (Manual Hydraulic Pump)** - Articulate table using toggle switches located on control column cap (or hand or optional foot control selectors) in conjunction with manual hydraulic pump. (1) Flip manual pump foot pedal down and move toggle switches UP or DOWN for desired movement. (2) Manually pump foot pedal while holding toggle switch. (3) Stop pumping foot pedal and release switch when desired position is attained.

- **Floor Lock Overrides** - A floor lock override rocker switch is located under the table base, inward from the AC power connection. If electric pump power is available, move switch towards edge of base to UNLOCK floor locks or move switch towards center of base to LOCK floor locks. Release switch when floor locks are fully extended or retracted. If no electric pump power is available, move and hold rocker switch in position for desired function while manually pumping (or have assistant pump) foot pedal. Stop pumping foot pedal and release switch when desired function is completed.

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**3080RL ACCESSORIES**

The following special accessories have been developed specifically for use with 3080RL tables and are not intended to be used with previous design AMSCO tables. The 3080RL table will, however, accept most* accessories from most AMSCO previous design tables (see separate product literature).

**Foot Control Assembly** is available for use in conjunction with the hand control. It is splash-proof constructed of cast aluminum with a stainless-steel guard and has a three-foot long coiled cord (14 feet long when extended). Do not immerse any part of the foot control assembly in liquids. Cover foot control with plastic bag before using. Cord has molded strain reliefs on each end and plugs into color-coded receptacle on column cap. Assembly provides foot pedal operation of TRENDENBURG, REVERSE TRENDENBURG, RAISE, LOWER, and LEFT and RIGHT SIDE TILT functions.

*Will not accept Hess Drain Tray, Infant Attachment or I.A. Board accessories from previous design tables.
X-ray Toppers mount on and cover full width and length of tabletop. Sections are constructed of radiotranslucent phenolic and are electrically conductive. The radiographic tops are designed in accordance with the Radiation Control for Health and Safety Act of October 18, 1968. A 14 x 17 inch (356 x 432 mm) radiographic cassette can be inserted from head- or foot-end; 12 x 14 inch (305 x 356 mm) from side, head-end or foot-end. (Radiographic cassettes are not furnished by AMSCO.)

Neuro Seat Plate extends leg section seat length and provides for less-than-90 degree seating for unique reversed chair posture. It is placed under pad by hooking seat plate support legs onto side rail supports and allowing plate to rest on top of raised kidney elevator.

Drain Pan slides onto perineal edge of seat section or Uro-Endo/I.A. Extension. Attachment is furnished with stainless-steel pan and screen insert. The pan provides a flexible tubing connection in the bottom for routing drainage fluids to a remote container.

Perineal Cutout Filler provides additional patient support.

Foot Extension provides additional patient support. It clamps to siderails at either end of table.

Uro-Endo/Image Amplification Extension provides an additional eight inches of I.A. coverage (with headrest attached) and also expands the Uro-Endo procedure capability of the table. Extension attaches to back section.

Transfer Board supports patient's legs during transfer to the table and is intentionally flexible. Support inserts into Uro-Endo/I.A. Extension and is intended to be removed after patient is positioned.

Eye-ENT-Neuro Headrest Adaptor permits use of all previous design headrest accessories on the 3080RL table. Adaptor maintains the same end-of-table relationship for accessories as when used with previous design tables. It inserts into the frame headrest bores in back or leg section. Also offered with 4 inch extension.

Akros Pads provide effective pressure management and enhance patient comfort. The patented combination of foam and gel cells relieve pressure on the sacral-coccygeal area while providing cushioned support for other body parts.

Fem/Popl Board increases lower body I.A. coverage to 55" for arterial imaging, for example, procedures such as femoral/popliteal bypass and laser angioplasty.

Uro X-Ray Top simplifies imaging requirements during urological procedures by permitting the loading of x-ray cassettes from either side of the table. It eliminates x-ray shadowing and will not interfere with the kidney elevator or compromise surgical or anesthesia access.

NOTES:
1. Approximate weights:
   * Line Power Table -- 730 lbs (331 Kg.)
   * Battery Power Table -- 770 lbs (349 Kg.)
2. Power cord length is 20 ft (6.1 meter).

WARNING!
- Separate ground wire to ground the patient is not furnished by AMSCO. Customer must furnish appropriate ground wire.
- This table is not to be used in the presence of flammable anesthetics.

IMAGE AMPLIFICATION COVERAGE

Head End -- 28 inches (712 mm) with headrest on (plus 3 inch max. extension of headrest).

Foot End -- 33 inches (839 mm) without headrest
   * 45 inches (1143 mm) with headrest (no extension permitted)

Width -- 14.5 inches (369 mm) average

POWER REQUIREMENTS (50/60 Hz)

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DIMENSIONS ARE INCHES (MILLIMETERS) -- DRAWING IS NOT TO SCALE

This print is for guidance when planning space and utility services. Actual installation prints may be obtained from any AMSCO office or representative.