

UROLOGY C-ARM TABLE & BRACHYTHERAPY C-ARM TABLE

OPERATION MANUAL

058-800
058-805
058-810
058-815



BIODEX

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UROLOGY AND BRACHYTHERAPY C-ARM TABLE







This manual covers installation and operation procedures for the following Urology and Brachytherapy C-Arm Table products:

- #058-800 Urology C-Arm Table, 115 VAC
- #058-805 Urology C-Arm Table, 230 VAC
- #058-810 Brachytherapy C-Arm Table, 115 VAC
- #058-815 Brachytherapy C-Arm Table, 230 VAC

NOTE: All or some of the following symbols, cautions, warnings and notes may apply to your Biomed product and correspond to this operation manual.

Symbol Meaning

-  Attention, consult accompanying documents.
-  Symbol signification: Attention, se référer à la notice.
-  Warning: Injuries to health may result from incorrect or excessive training.
-  Attention: Incorrect ou extrême entraînement peut aboutir des lésions au santé.

NOTE: Circuit diagrams for this product are available upon request.



UROLOGY AND BRACHYTHERAPY C-ARM TABLES

INTRODUCTION

The Urology and Brachytherapy C-Arm Tables feature motorized actuation of height, X-Y tabletop, lateral roll and Trendelenburg motions, and is fully accessorized for urologic procedures.

Multiple positioning control units with pre-programmed features ensure quick and safe tabletop positioning during any phase of a procedure. The rail-mounted main control panel with backlit liquid crystal display, portable hand-held controller, and foot-operated controller can be positioned for convenient access from any point around the table. The LCD screen displays actual tabletop position (all axes) in real time, and provides menus and prompts for other functions. Up to ten position sets may be stored in system memory, and recalled at any time for automatic positioning. A "Level" button brings the table to 0-degree tilt and 0-degree lateral roll. "Home" levels the table and lowers the tabletop to minimum height for patient transfer. Control buttons are identified with easily recognizable icons. The portable hand-held and foot-operated controllers offer the freedom to adjust height, lateral roll, X-Y and Trendelenburg motions from positions away from the main panel, or when hands are busy with other functions. The hand-held controller hangs on an accessory rail when not in use.

The joystick controller for motorized X-Y positioning offers intuitive positioning with proportional speed control. After setting an adjustable icon indicator on the joystick's base, X-Y motion correlates directionally to actual tabletop motion. To prevent undesired motion by accidental contact with the joystick, a thumb button on top of the joystick must be pressed for activation.

The Fowler Back, manually adjustable to an 80-degree angle (20°, 30°, 40°, 50°, 60°, 70°, 80°) incorporates a touch-handle lock/unlock mechanism for effortless patient positioning. Both tables come equipped with removable x-ray film cassette tray and x-ray grid. Standard accessories include rail-mounted knee crutches and arm boards, I.V. pole, patient transfer extension. A retractable drain pan with splash screen, plastic drain bag holder with disposable bag, and radiolucent extension are available for the Urology C-Arm table only. The radiolucent extension provides capability for vascular, cardiac, and other general C-Arm applications.

Designed for procedures where stability, access, and precise, quiet, vibration-free positioning are essential, these tables are an ideal choice for image-guided procedures. The narrow Fiberesin™ tabletop is cantilevered to accommodate portable or ceiling suspended C-Arms. Radiolucent areas are free of cross members, allowing full fluoroscopic visualization and unobstructed C-Arm positioning. Functional design provides complete access with reduced radiation exposure to clinicians. Patient comfort and stability is assured by two-inch thick table padding and a pair of adjustable straps with Velcro® hook and loop fastening.

Both AC and battery power are standard. When operating on battery, there are no power cords to catch on feet or block table wheels. Battery charging can be accomplished during off-hours by plugging in the AC power cord. An additional, optional battery and charging unit can provide continuous cordless operation.



IMPORTANT NOTE: Remove battery if storing table for prolonged time.



IMPORTANT NOTE: Lever le batterie si le table se garder en reserve por temps prolongement.

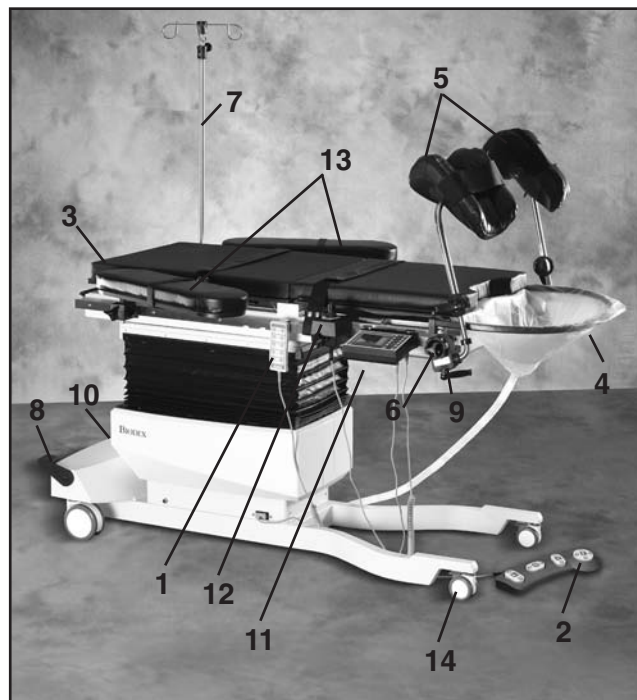


Figure 1. Parts and adjustment mechanisms.

1. Hand-Held Controller
2. Foot Controller
3. Fowler Back
4. Radiolucent Drain Bag Holder and Disposable Bag
5. Left and Right Knee Crutches
6. X-Ray Grid and Film Cassette Tray
7. Rail-Mounted I.V. Pole
8. Head End Locking Brakes and Swivel Casters
9. Vertical Doors
(for adding transfer or radiolucent extension)
10. Battery Pack
11. Main Control Panel
12. Joystick Controller
13. Arm Boards
14. Foot End Individual Locking Casters

NOTE: The Brachytherapy C-Arm Table is the same as the Urology C-Arm Table except it does not have the Drain Pan, Radiolucent Drain Bag Holder and Disposable Bags.

OPERATING INSTRUCTIONS

NOTE: This table can be operated with the power cord connected to an outlet or by using the battery. The battery recharges automatically while the table is plugged into an outlet even if the table is being used.

NOTA: Cette table fonctionne avec le cordon d'alimentation branché sur une prise ou à l'aide de la batterie. La batterie se recharge automatiquement lorsque le cordon est branché sur une prise, même si la table est en cours d'utilisation.



CAUTION: Hospital grade plug to be plugged into a hospital grade receptacle only to achieve grounding reliability.



ATTENTION: La fiche de qualité hùpital ne doit être branchée que sur une prise de courant de qualité hùpital, pour une mise à la terre fiable.



CAUTION: Before transferring a patient onto or off the table, ensure all four caster brakes are locked. Secure the restraining straps immediately after positioning the patient on the table.



ATTENTION: Avant le transfert du patient sur la table ou hors de la table, s'assurer que les quatre freins des roulettes sont bloqués. Fixer les lanières d'immobilisation dès qu'on a positionné le patient sur la table.



CAUTION: The restraining straps are not intended to restrain an uncontrolled patient.



ATTENTION: Les lanières d'immobilisation n'ont pas pour objet l'immobilisation d'un patient hors de contrôle.

The Locking Brakes and Swivel Casters

(See Figure 2.)

The locking brakes and swivel casters allow this table to glide effortlessly on hard surfaces and across firm rugs.

1. To release the brakes, use your toe to lift up on the castor locking lever (located at the head end of the table).
2. To lock the brakes and roll the table, step down on the castor brake lever.
3. The Foot End Casters are locked and released individually. Press down on the castor brake lever to lock, pull up on the castor break to release.

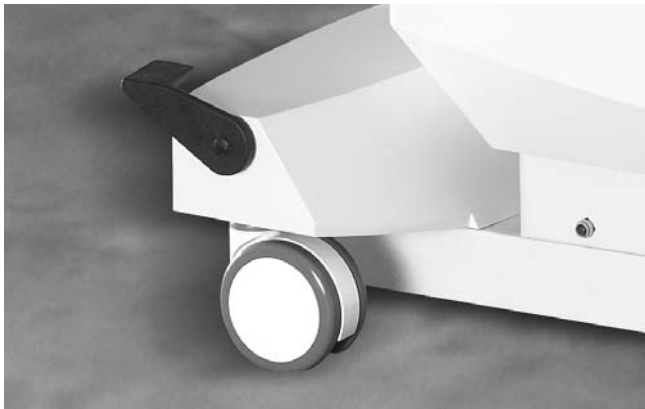


Figure 2. Locking brakes and swivel casters.

The Fowler Back

The Fowler Back can be manually adjusted from 0 to 80°, locking into any of eight positions.



CAUTION: You must support the Fowler Back as it is being raised or lowered. The back must lock into one of the eight positions provided.



ATTENTION: On doit soutenir le dossier Fowler pendant qu'on l'élève ou qu'on l'abaisse. Le dossier doit s'enclencher dans l'une des huit positions de verrouillage.

1. To raise the Fowler Back, press the back lock release button on the underside of the Fowler Back handle grasp. Keeping the release button depressed, lift up on the Fowler Back until it attains the desired position. The Fowler Back must be set in one of the eight positions provided.

2. To lower the Fowler Back, depress and hold the Fowler Back button on the underside of the Fowler Back grip and position the top as desired.

Using the Main Control Panel

The Main Control Panel displays actual tabletop position (all axes) in real time, and provides menus and prompts for positioning the table and saving up to ten table position settings which can be recalled.

The Main Control Panel can run off battery or AC power. When the table is turned ON, the display shows the current table position.

The table motion buttons (tabletop X,Y, Trendelenburg, reverse Trendelenburg and lateral roll) are located on the right side of the Main Control Panel and correspond to the illustrations on the display panel. To activate any table motion button, press and hold the Activate button on the bottom left side of the control panel. While holding the Activate button down, press any of the table motion buttons to move the table to the desired position.

At the bottom right of the display, a Level button can be pressed (while holding down the Activate button) to bring the tabletop level at any time. The Home button, located next to the Level button, is used to bring the table to its lowest, level position.

Up to ten table set positions can be stored from the Current Table Position screen using the Main Control Panel. Buttons to perform the save procedure are located immediately to the right of the screen. To save any position in which you place the table, press the Save (top) button. The system will save the appropriate information and assign a numeric value from one to ten for that position. The position values will be displayed on the screen.

If all ten position set values are stored, the display will ask if you would like to delete a position. If so, allow the screen to return to the Current Table Position screen, then press the button opposite the "Display Saved Table Positions" prompt. You can now use the top button to scroll through the position set values until the one you wish to delete is displayed. Press the button opposite the prompt "Delete Saved Position Set." The system will request confirmation to delete. Press the button opposite "Yes" to confirm.

At this point, you can follow the prompts to delete another table position set, choose to move the table to the currently displayed position, or select another position.

Using the Hand-Held Controller

The hand-held controller may be used to adjust table height, Trendelenburg/Reverse Trendelenburg, lateral roll and X-Y positioning. When not in use, the Hand-Held Controller can be hooked onto the metal loop on the restraining strap, or on the the accessory rail.



CAUTION: Before moving the table top, be sure that all I.V. lines, attachments and restraining straps, etc., are out of the way. Ensure the patient is fully secured to the table top by the restraining straps.



ATTENTION: Avant tout déplacement du dossier, veiller à en dégager les lignes de goutte-à-goutte intravéneux, les accessoires, les lanières d'immobilisation, etc. S'assurer que le patient est solidement fixé au dossier à l'aide des lanières d'immobilisation.

To adjust the table position, press and hold the appropriate switch on the hand-held controller. The tabletop will move or rotate in the direction indicated by the switch. Release the switch when the table top achieves the desired position.

Using the Joystick Controller

The joystick controller for motorized X-Y positioning allows intuitive positioning with proportional speed control. An adjustable icon indicator, on the top base of the joystick, can be rotated to so that the joystick X-Y positioning correlates directionally to actual tabletop motion. If you move the joystick to the opposite guardrail be sure rotate the icons to match.

To prevent undesired motion by accidental contact with the joystick, a thumb button on the top of the joystick must be pressed for activation.

Using the Foot-Controller

(See Figure 3.)

The Foot-Controller actuates all motions. The four separate rocker style pedals control two movements each. From left to right on the Foot-Control, press and hold down the appropriate rocker switch to adjust Trendelenburg/Reverse Trendelenburg positioning, lateral roll, tabletop height and X-Y motion. Releasing the rocker switch at any time immediately stops the motion.

NOTE: When the table is used in a wet environment, it is recommended that the foot controller be covered with a plastic bag and sealed as watertight as possible.



Figure 3. The Foot-Controller can be used to adjust Trendelenburg/Reverse Trendelenburg positioning, lateral roll, tabletop height and X-Y motion.

The Transfer Extension and the Radiolucent Extension

(See Figure 4.)

The transfer extension is used to extend the table when putting a patient on or taking a patient off the tabletop. It is not used for imaging. The radiolucent extension, significantly longer than the transfer extension, has a 31" radiolucent C-Arm area with no metal cross members. Both extensions are installed using the same procedure.

To install the extension:

1. Open the vertical doors at the foot end of the table (the doors pivot toward the outside of the table.)
2. Pick up the extension from the end and slide the silver, tapered ends into the openings created by opening the vertical doors.
3. Slide the extension fully into the table until you feel the extension lock into place.

To remove the extension from the table:

NOTE: The x-ray grid, film tray and drain pan can remain in place if using the Transfer Extension but must be removed if the Radiolucent Extension is used.

1. Stand at the foot end of the table and press the extension release levers located under the middle of each leg extension rail. You can now slide the extension out from the table.
2. Close the vertical doors.

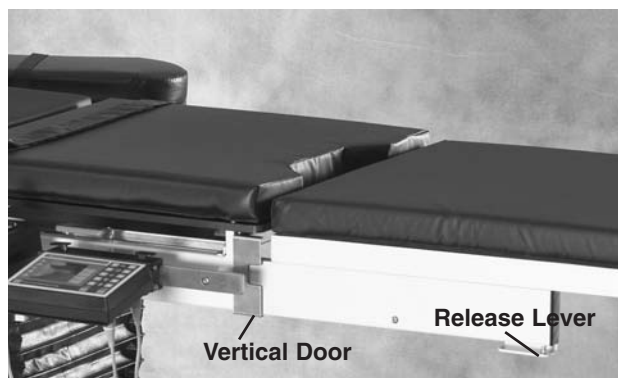


Figure 4. Insert either table extension into the extension receiving tubes. To remove the extension from the table, press the extension release levers and slide the extension out of the table.

Knee Crutch Installation

(See to Figure 5.)

The table is provided with a left and right knee crutch clamp and two offset arms with knee crutches. Install the rail clamps onto the accessory rails and then the offset arms with knee crutches into the rail clamps. Note that the offset ratchet arms should be inserted into the knee clamps from the foot end of the table. The wide end of the knee crutches face toward the head end of the table.

To adjust positioning of the offset arms, loosen locking lever on the crutch clamps, move the arms to the desired position and re-tighten the lever.

To adjust positioning of the crutch cushions, loosen the crutch cushion locking levers and tilt the pads as required.



Figure 5. Knee crutches properly installed.

Arm Boards

Two arm boards are provided with the table. Install the rail clamps onto the accessory rails and then insert the arm board posts into the clamps and tighten to secure. To move the armboards in a horizontal plane, loosen the locking knob on the block, move the armboard to the desired position and re-tighten the knob.

I.V. Pole

The adjustable height I.V. pole should be installed onto the accessory rail. Loosen the I.V. pole locking knob at the base of the slide block and slide the block and pole onto the accessory rail until it is in the desired position. Tighten the locking knob to secure the pole.

To adjust the height of the I.V. pole, loosen the height adjustment locking knob and raise or lower the top section of the pole to the appropriate height. Tighten the locking knob to secure.

The Drain Bag Holder (Urology C-Arm Tables only) (See Figure 6.)

A flexible drain bag holder is provided with this table. To install, loosen the clamps on the drain bag holder bar provided. Slide the clamps over the accessory rails at the foot end of the table and tighten the clamps when the bar is appropriately positioned. Lift up the table cushion at the foot end of the table and slide the front (square) section of the flexible disposable bag under the cushion. You can now work the remainder of the drain bag into position around the bar. The top of the bag folds over the bar.



Figure 6. The drain bag holder and flexible, disposable drain bag properly installed.

The Drain Pan (Urology C-Arm Tables only) (See Figure 7.)

The table is also provided with a stainless steel drain pan and wire mesh screen. To insert the drain pan, open the vertical doors at the foot end of the table (the doors pivot toward the outside of the table.) Pull out on the drain pan support bars until they are fully extended. You can now place the pan between the bars so that it is supported by the bars. Slide the pan along the bars until you feel it drop into the notches. If desired, the pan can be stored in the table by simply pushing in on the drain pan support bars.



Figure 7. The drain pan properly installed.

X-Ray Grid

This table is provided with a 103 line, 8:1 ratio, 36" to 44" focal range grid. There is a set of tracks about 1" above the film cassette tray tracks which hold the grid in the body of the table. The grid can be inserted or removed from either side of the table.

To remove the x-ray grid, lift the grid up approximately 1/4" and then slide it out that side of the table. To insert the grid, place the grid on the track with the center line of the grid running "head to toe" and the center line facing upward. Insert the grid into the body of the table until it "drops in" past the stop notch mechanism. The x-ray grid should remain in the table at all times except when the table is being used for fluoroscopic purposes.

Radiographic Film Cassette Tray

(See Figure 8.)

The Radiographic Film Cassette Tray supplied can be inserted or removed from either side of the table. This tray will hold a 14" x 17" film lengthwise or crosswise between the four pegs in the tray. Also provided with the tray is a small film cassette mask. This film cassette mask is designed to hold a 10" x 12" film down at that perineal end of the table or for pediatric retrograde pyelogram studies.

To insert the film into the tray, grasp the tray handle and lift upward approximately 1/4" and then extend the film tray out to the desired side of the table. Insert the film cassette into the tray, then push the film tray back into the body of the table until you feel it "drop in" past the stop notch mechanism.

To remove the cassette, grasp the tray handle and lift it up 1/4" before sliding it toward the side of the table. It is not necessary to remove the tray to remove the cassette. There are holes under the cassette tray. Push up under the tray to raise the cassette enough to grab it and remove it from the table.

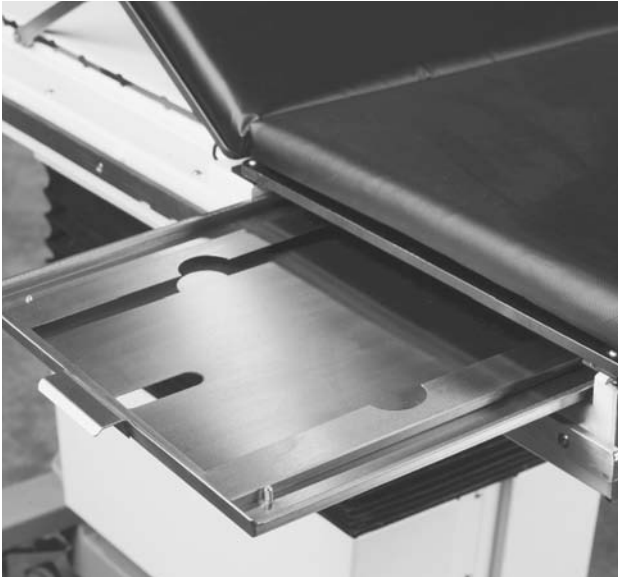


Figure 8. The Radiographic Film Cassette Tray.

Disposable Skirt

(See Figure 9.)

The Biodex Urology Table comes supplied with Plastic Sanitary Skirts to protect the table bellows from patient blood, liquids, etc. The table is encircled by a magnetic-backed rubber strip, located immediately above the bellows. Secure the skirt to the bellows as described.

1. Lift the lower section of the strip on each side of the table.
2. Slide the plastic skirt underneath the strip at the foot end of the table, then lower the strip to hold the skirt in place.
3. Work around the table, tucking the top edge of the plastic skirt under each strip and lowering the strip to secure the plastic until the bellows are completely unwrapped. Be sure to overlap the skirt across the entire length of the table's foot end.
4. Remove and replace the plastic skirt for each new patient.

NOTE: Additional sanitary skirts (part #056-802) can be ordered from Biodex Medical Systems, Inc.



Figure 9. Lift the lower section of the strip on each side of the table, slide the plastic skirt underneath and lower the strip to hold the skirt in place.

Charging The Battery

This table can be operated with the power cord connected to an outlet or by using the battery. The battery recharges automatically while the table is plugged into an outlet even if the table is being used. An optional wall-mounted battery charger is also available.



SAFETY GUIDELINES

1. Secure restraining straps and ankle safety straps immediately after placing the patient on the table. The ankle safety straps prevent the patient from sliding off the table in the Trendelenburg position. The restraining straps prevent the patient from rolling off the side of the table.

NOTE: The restraining straps are not intended to restrain an uncontrolled patient.

2. Always lock the casters before moving a patient onto or off the table.

3. This table is rated to support patients weighing up to a maximum of 400 pounds.



CONSIGNES DE SECURITE

1. Fixer les lanières d'immobilisation et les lanières de cheville immédiatement après avoir placé le patient sur la table. Les lanières de cheville empêchent le patient de glisser sous la table en position de Trendelenburg. Les lanières d'immobilisation empêchent le patient de rouler par-dessus le côté de la table.

NOTA: Les lanières d'immobilisation n'ont pas pour objet l'immobilisation d'un patient hors de contrôle.

2. Toujours bloquer les roulettes avant de faire monter le patient sur la table ou de le faire descendre.

3. La table est certifiée comme pouvant supporter un patient pesant au plus 182 kg (400 lb).

MAINTENANCE AND CLEANING

This Biodex table is virtually maintenance free. By following the instructions below at suggested time intervals, or as often as necessary, your table will remain in "like new" condition.

1. As required, clean all exterior painted surfaces, tabletop and restraining straps with a mild detergent solution.

2. Wheels and wheel locks should remain free of foreign materials and dirt accumulation. Keeping wheel assemblies free of this matter will ensure smooth table transportation and free lock/unlock wheel operation.

NOTE: The Brachytherapy C-Arm Table is the same as the Urology C-Arm Table except it does not have the Drain Pan, Radiolucent Drain Bag Holder and Disposable Bags.

SPECIFICATIONS

058-800 Table, Urology C-Arm, 115 VAC
058-805 Table, Urology C-Arm, 230 VAC
058-810 Table, Brachytherapy, 115 VAC
058-815 Table, Brachytherapy, 230 VAC

Dimensions: 84.5" l x 25.5" w (214.6 x 64.8 cm) with OR accessory rails

Tabletop: 53" l x 21" w (134.6 x 53.3 cm); 84" l (213.4 cm) with extension

Lightweight Extension (For patient transfer only, not for imaging): 26.5" l x 21" w (67.3 x 53.3 cm)

Radiolucent Extension: 31" l x 25.5" w (78.7 x 64.8 cm) with OR accessory rails

Radiolucent Area: 54" l x 17.5" w (137.2 x 44.5 cm)

Tabletop Material: Three Fibersin™ sections – each with individual 2" mattress

Table Sections: Four Sections: Adjustable Fowler Back 0° to 80°, abdominal section with removable mattress pad, radiolucent removable extension and a lightweight non-imaging transfer extension for transferring patients on and off the table

Mattress: Individual 2" thick (5 cm), one for each section

Motions:

Height: Adjustable from 34" to 43.5" (86.4 to 110.5 cm)

Tabletop X Motion (head-to-toe): 20" (51 cm)

Tabletop Y Motion (side-to-side): 10" (25.4 cm)

Trendelenburg: 0° to 20°

Reverse Trendelenburg: 0° to 20°

Lateral Roll: 0° to 20°

Fowler Back: Adjusts from 0° to 80° with powered touch handle lock/unlock

Controls:

Hand Control: actuates all motions

Foot Control: actuates all motions

Main Control Panel: LCD screen displays actual tabletop position (all axes) in real time, and provides menus and prompts for other functions

Joystick Controller: for motorized X-Y positioning

X-Ray Film Tray: Removable film cassette tray for 14" x 17" film with cassette mask for 10" x 12" film. Film cassette tray can be removed from either side of the table.

X-Ray Grid: Removable X-Ray grid, 103 line, 8:1 ratio

Wheels:

Foot End – 3" (7.62 cm) individual locking swivel casters

Head End – 5" (6.4 cm) swivel casters with central locking

Accessory Rails: Standard OR accessory rails 1.125" x .375" (2.86 x .95 cm) on table (rails also on table imaging extension)

Patient Restraints: Two body straps, two ankle straps

Patient Load Capacity: 400 lb (181.4 kg); weight tested to four times the patient load rating.

Power: 115 VAC or 230 VAC and Battery. Battery automatically charges when table is plugged in. An additional battery can be charged with optional wall-mounted charger.

Standard Accessories:

- retractable stainless steel pan with screen (058-800 and 058-805 only)
- plastic drain bag holder and disposable bag (058-800 and 058-805 only)
- rail mounted knee crutches
- rail mounted IV pole
- rail mounted arm boards
- radiolucent extension
- transfer extension
- bellows skirt (disposable, 250/roll) and dispenser

Warranty: One year

Certifications: UL-2601-1®, CAN/CSA® C22.2

No.: 601-1-M90, EN 60601-1, IEC 60601-1-2:2001-09

Optional:

056-862 Battery, Wall Charging Unit, 115 VAC
056-851 Drain Bag Frame (058-800 and 058-805 only)
058-860 Drain Pan Assembly

Replacement:

056-857 Drain Bags, Sterile, Disposable, 10/pkg
Fits 056-851 Drain Bag Frame
056-802 Bellows Skirt, disposable plastic, 250/roll
*Fits Surgical C-Arm Tables 830, 840,
Urology C-Arm Table and Brachytherapy Table*

*Authorized European Community Representative:
Prothia, Paris, France*

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