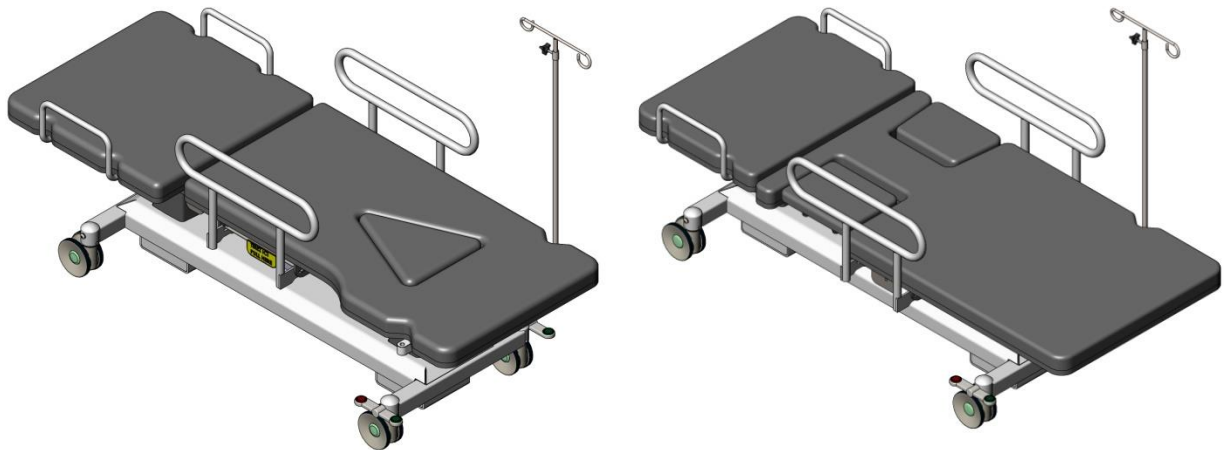


OPERATION MANUAL

Revision: January 2021

ECHO-FLEX™ 5002



ECHO-FLEX

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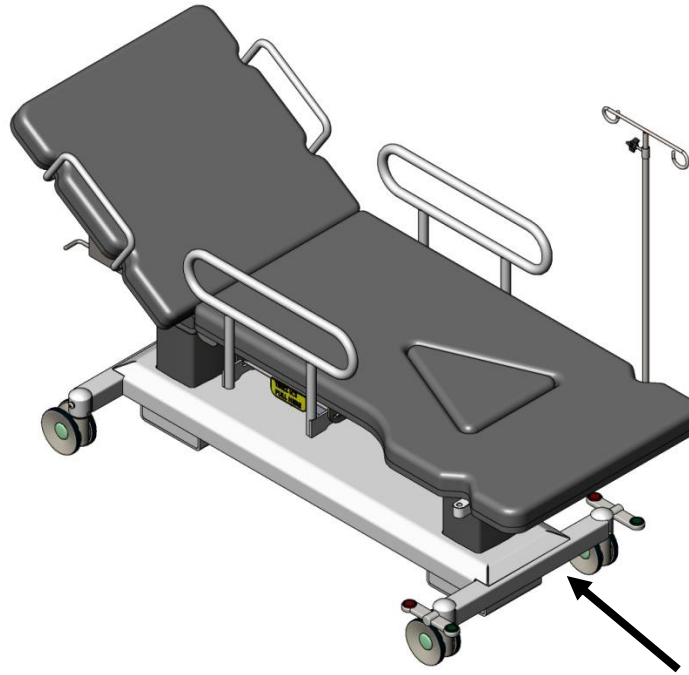
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1. CONTACT US

Before contacting us, make sure to have the following information ready:

- **7-digit serial number (example: 1234567);**
- **Model number or name (example: 5002).**

This information is available on label located on base of the table.



Phone 1-877-563-5777

Fax 450-445-9837

Email info@ibiom.com

Web www.ibiom.com






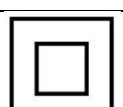




Address IBIOM Instruments Ltd
670 Joseph-Louis-Mathieu Street
Sherbrooke, Quebec
J1R 0X3
Canada

2. INTENDED USE




























ECHO-FLEX table is AC powered table that can be adjusted to different position. It is used to support a patient during medical examination or short procedure. It is intended to be operated by healthcare professional in a medical environment including hospitals, clinics and doctor's office.
















3. SYMBOL IDENTIFICATION

The following symbols and their definitions are used throughout this manual.

Symbol	Definition
	WARNING. Alerts the reader about a situation, which if not avoided, could result in death or serious injury. It may also describe potential serious adverse reactions and safety hazards.
	Warning, electrical shock hazard.
	Operator must read manual before using this equipment.
	Operator must read manual before using this equipment.
	Protective earth (ground).
	Class II or double insulated electrical equipment.
	Electrical safety, type B applied part.
	No sitting.
	No stepping.
	This device contains materials that are potentially hazardous to the environment. In accordance with directive on waste electrical and electronic equipment (WEEE), Product's electrical system and accessories should not be disposed as unsorted municipal waste. Consult your instructional policies and local regulations regarding disposal.

4. WARNINGS

	<p>MANDATORY. Read, understand and keep this manual before starting to use IBIOM's products. This manual must be available for everyone using IBIOM's products.</p>
	
	<p>WARNING. ECHO-FLEX™ table is designed for indoor use on flat surfaces.</p>
	<p>WARNING. Always lock wheels before the patient is placed on table.</p>
	<p>WARNING. Never use braking system to stop a moving table.</p>
	<p>WARNING. Do not use ECHO-FLEX™ table for any purpose other than the intended use.</p>
	<p>WARNING. Do not modify this equipment without IBIOM's authorization.</p>
	<p>WARNING. Do not use in oxygen-rich environment.</p>
	<p>WARNING. Do not use in MRI environment.</p>
	<p>WARNING. Do not use in wet environment.</p>
	<p>WARNING. Do not use for CPR or X-ray procedures or with defibrillator.</p>
	<p>WARNING. Never exceed safe working load of 450lb or 205kg on table. Safe working load includes patient's weight and accessories.</p>
	<p>WARNING. Never exceed safe working load of 150lb or 68kg on cardiac cutout.</p>
	<p>WARNING. Never exceed safe working load of 150lb or 68kg on positioning cushion.</p>
	<p>WARNING. Never exceed safe working load of 25lb or 11kg on IV pole.</p>
	<p>WARNING. Never exceed safe working load of 25lb or 11kg on arm board.</p>
	<p>WARNING. Do not sit on backrest.</p>
	<p>WARNING. Do not sit on arm board.</p>
	<p>WARNING. Always lower table to minimum height for patient access.</p>
	<p>WARNING. Do not leave patient unattended.</p>
	<p>WARNING. Do not use ECHO-FLEX™ table as a transport stretcher to move the patient from one room or floor to another.</p>
	<p>WARNING. To ensure proper operation of the table, maintenance must be done as described in this manual.</p>
	<p>WARNING. Read the warnings in the various sections of this manual.</p>
	<p>WARNING. Do not roll on power cable or hand control cable.</p>
	<p>WARNING. Keep all cables out of reach of children.</p>
	<p>WARNING. Keep all cables away from moving parts.</p>
	<p>WARNING. Do not move table by pulling hand control, power cable or any other cable.</p>

	WARNING. Never use the table if the power cable or any other cables are damaged.
	WARNING. Keep the power cable out of heat sources.
	WARNING. Always ensure there is sufficient clearance around the table before activating the various movements to avoid collisions with the environment, equipment and people.
	WARNING. Always have patient enter and exit table from the side.
	WARNING. Avoid placing hands and other body parts near moving parts or locking mechanism.
	WARNING. Once security rail is closed, make sure it is securely locked.
	WARNING. Once cardiac cutout is closed, make sure it is securely locked.
	WARNING. Once positioning cushion is in place, make sure it is securely locked.
	WARNING. Always raise security rail once the patient is in place.
	WARNING. Do not let fall mobile parts.
	WARNING. Never exceed duty cycle of 2/18 (2 minutes ON and 18 minutes OFF).
	WARNING. Medical staff should inform the patient on how to adjust table.
	WARNING. If patient is not able to adjust table, the hand control should be placed out of the patient's reach.
	WARNING. Defective or damaged batteries may leak acid and adequate precautions must be taken during handling and transportation.
	WARNING. Do not open the battery case as damage to the cell or circuitry may develop excessive heat.

5. LABEL

The product identification label is located on the product base. This image and the information contained herein is for informational purposes only.



Symbol identification

	Manufacturer's name and address
REF	Product code or name
SN	7-digit serial number
	Product's weight
	Date of manufacture (YYYY-MM-DD)
	Maximum safe working load (maximum patient weight)
	Made in Canada
	QR code pointing to IBIOM's website
	Barcode including date of manufacture and serial number
	Type B applied part
	Double electrical insulation
	Obligation to read the operation manual
120V ~	Required voltage (120V), alternating current
60 Hz 3.9A	Frequency (60Hz), max amperage (3.9A)
DUTY CYCLE / CYCLE DE SERVICE	Maximum activation time followed by minimum deactivation time

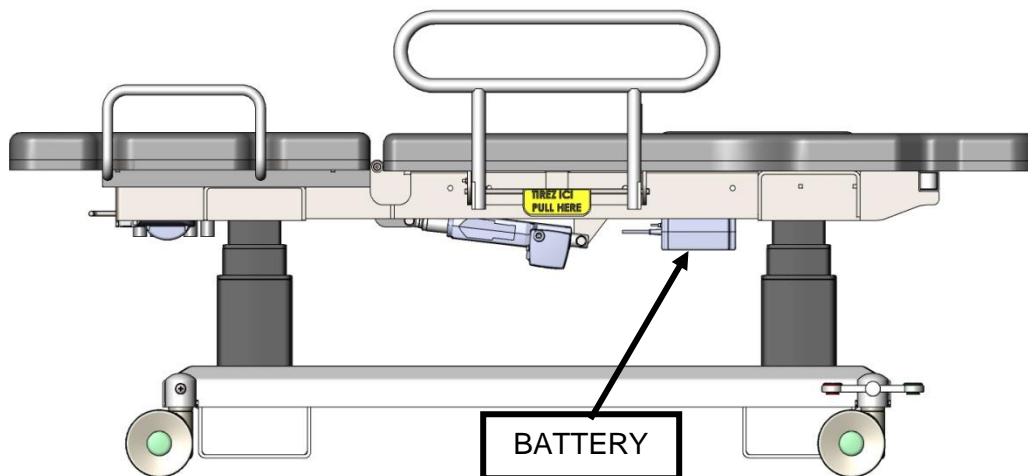
6. OPERATION INSTRUCTIONS

6.1 Procedure after storage



















When table is stored for a long period of time, make sure to do this simple procedure **BEFORE** using the table.

1. Plug table to wall outlet.
2. Move down height of table at its lowest position (until it stops by itself) in order to reset position of electric column. One of next situation may occur:
 - a. Control box will "beep" but table will still move down. Continue to lower table and it should stop beeping when reaching lowest position. After reaching lowest position and if it still beeps, hold down 2 buttons together of Trendelenburg adjustment (3rd row), at the same time, until it stops beeping. It will reset all errors in control box.
 - b. Control box will "beep" but table will not move. Make sure to check all cable connection. Hold down 2 buttons together of Trendelenburg adjustment, at the same time, until it stops beeping. Then, lower down table. If table won't move and it still beeps, contact us and we will assist you.
 - c. Same as b, but control box does not make any noise. Follow same procedure.
3. Do an operation test:
 - a. Move up and down completely height of table;
 - b. Move up and down completely backrest;
 - c. Move up and down completely Trendelenburg and reverse Trendelenburg.
4. If table is equipped with a battery (option), leave table plug to the wall for 12 hours to recharge battery.



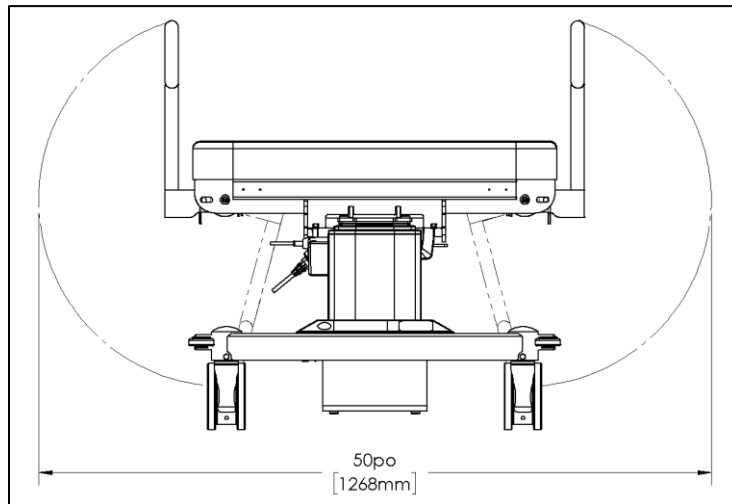
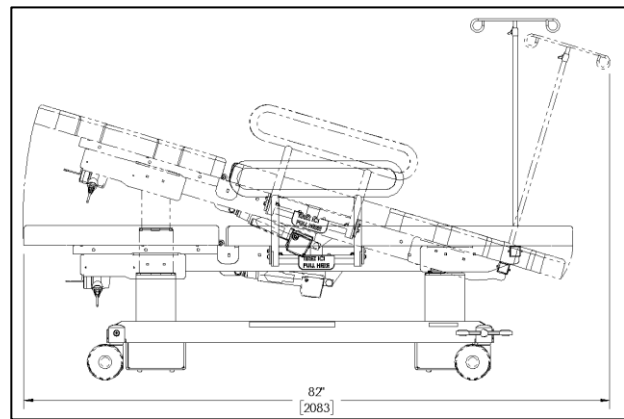
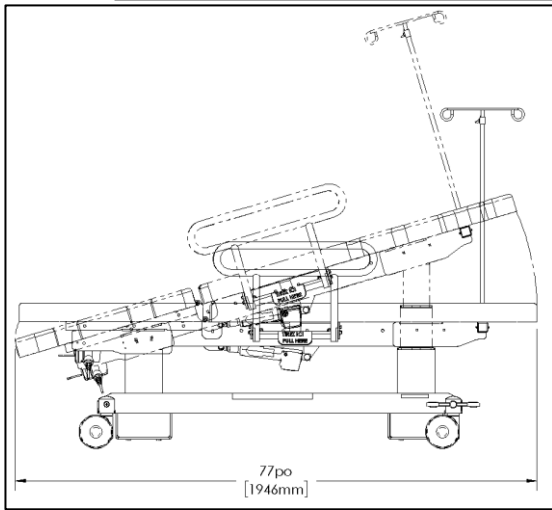
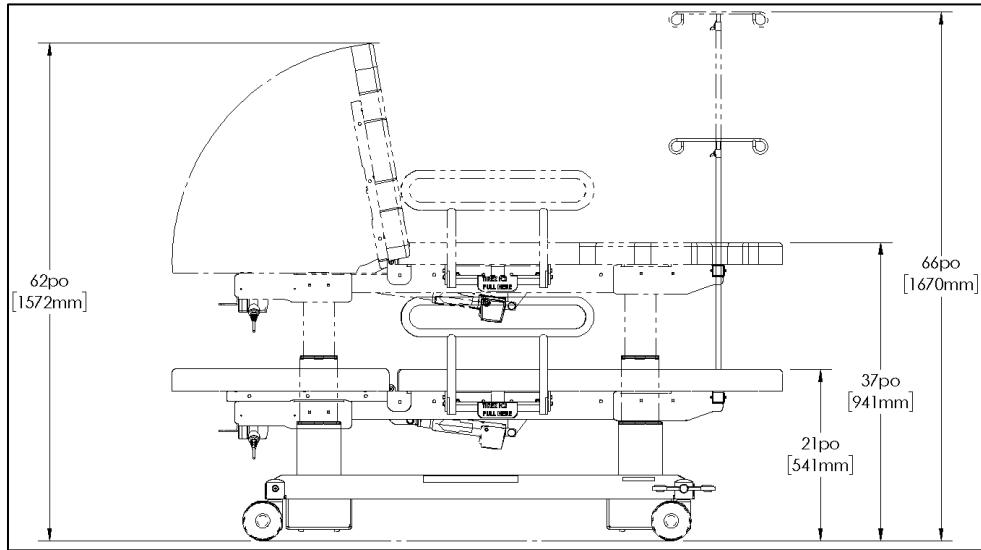
5. Table is ready to use.

6.2 Installation

	WARNING. Always ensure there is sufficient clearance around the table before activating the various movements to avoid collisions with the environment, equipment and people.
	WARNING. ECHO-FLEX™ table is designed for indoor use on flat surfaces.
	WARNING. Always lock wheels before the patient is placed on table.
	WARNING. Never use braking system to stop a moving table.
	WARNING. Do not leave patient unattended.
	WARNING. Do not use in oxygen-rich environment.
	WARNING. Do not use in MRI environment.
	WARNING. Do not use in wet environment.
	WARNING. Do not use for CPR or X-ray procedures or with defibrillator.
	WARNING. Do not roll on power cable, hand or foot control cable.
	WARNING. Keep all cables out of reach of children.
	WARNING. Keep all cables away from moving parts.
	WARNING. Do not move table by pulling hand control, power cable or any other cable.
	WARNING. Never use the table if the power cable or any other cables are damaged.
	WARNING. Keep the power cable out of heat sources.
	WARNING. Never exceed duty cycle of 2/18 (2 minutes ON and 18 minutes OFF).






ECHO-FLEX™ table is delivered fully assembled and ready for use. The table must be unpacked and inspected upon receipt to ensure that there has been no damage during transport.

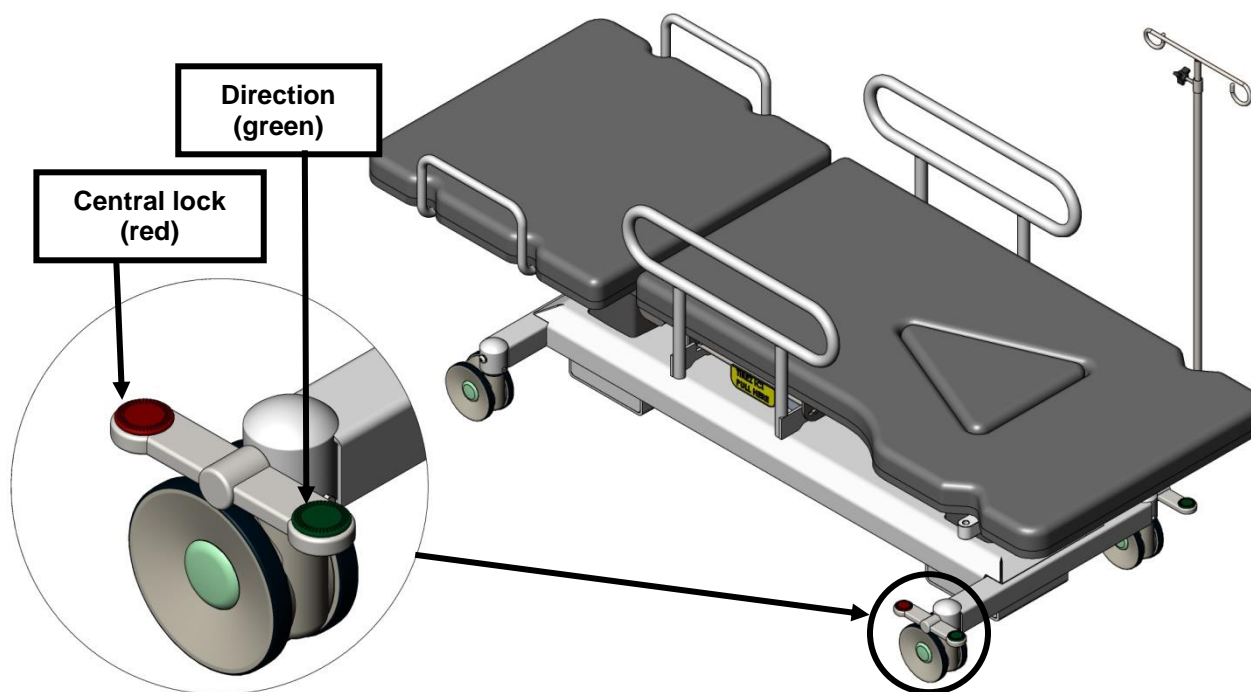
1. Position table to desired location. **IMPORTANT:** Make sure you have enough space around table to avoid collisions between its surroundings in ALL POSITIONS. Dimensions show maximum space needed. Dimensions may be less than the one indicated below depending on options.



2. Once in place, install all accessories (IV pole, arm board, if applicable).
3. Once in place, lock all wheels.
4. Remove any remaining packaging from the product. Example: Protective plastic on the hand control cable.
5. Connect the power cord.
6. Perform an operation test to ensure that everything is working properly.

6.3 Central and direction lock

	WARNING. Always lock wheels before the patient is placed on table.
	WARNING. Never use braking system to stop a moving table.
	WARNING. Do not move table by pulling hand control, power cable or any other cable.
	WARNING. Always ensure there is sufficient clearance around the table before activating the various movements to avoid collisions with the environment, equipment and people.
	WARNING. Do not use ECHO-FLEX™ table as a transport stretcher to move the patient from one room or floor to another.



Central lock mechanism can be engaged with pedal located on both sides of table. Pedal needs to be triggered by foot to one of the 3 positions:

- Red: all 4 casters are locked;
- Neutral: all casters unlocked and free to roll;
- Green: 1 caster at foot end locks in direction and 3 others remain free.

6.4 Table functions

	WARNING. Always ensure there is sufficient clearance around the table before activating the various movements to avoid collisions with the environment, equipment and people.
	WARNING. Always lock wheels before the patient is placed on table.
	WARNING. Always lower table to minimum height for patient access.
	WARNING. Always have patient enter and exit table from the side.
	WARNING. Do not leave patient unattended.
	WARNING. Medical staff should inform the patient on how to adjust table.
	WARNING. If patient is not able to adjust table, the hand control should be placed out of the patient's reach.
	WARNING. Avoid placing hands and other body parts near moving parts or locking mechanism.
	WARNING. Never use the table if the power cable or any other cables are damaged.
	WARNING. Keep all cables away from moving parts.

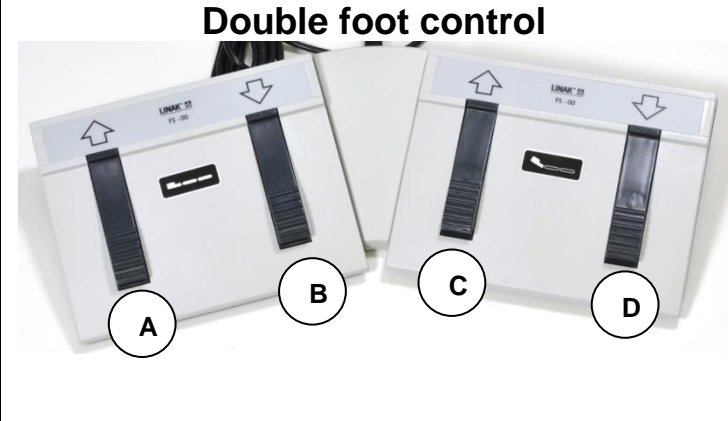
Hand control

Button	Function
A	Tilt up back rest section
B	Tilt down back rest section
C	Move up table
D	Move down table
E	Trendelenburg
F	Reverse Trendelenburg

Buttons

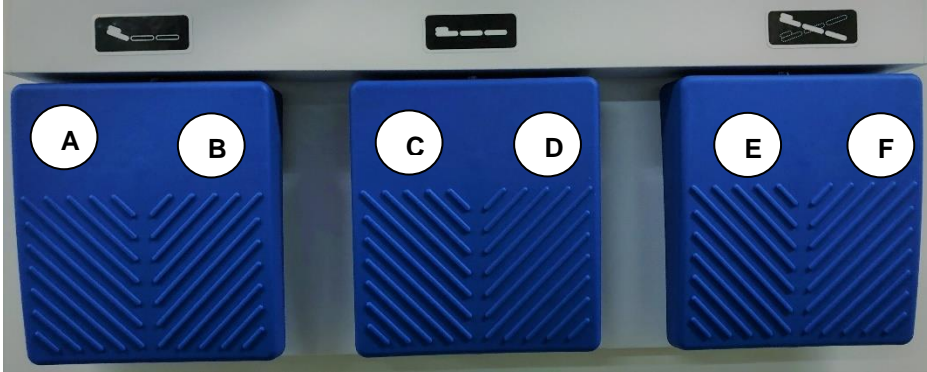
Button	Function
A	Move up table
B	Move down table
C	Tilt up back rest section
D	Tilt down back rest section
E	Trendelenburg
F	Reverse Trendelenburg

Double foot control












Button	Function
A	Move up table
B	Move down table
C	Tilt up back rest section
D	Tilt down back rest section

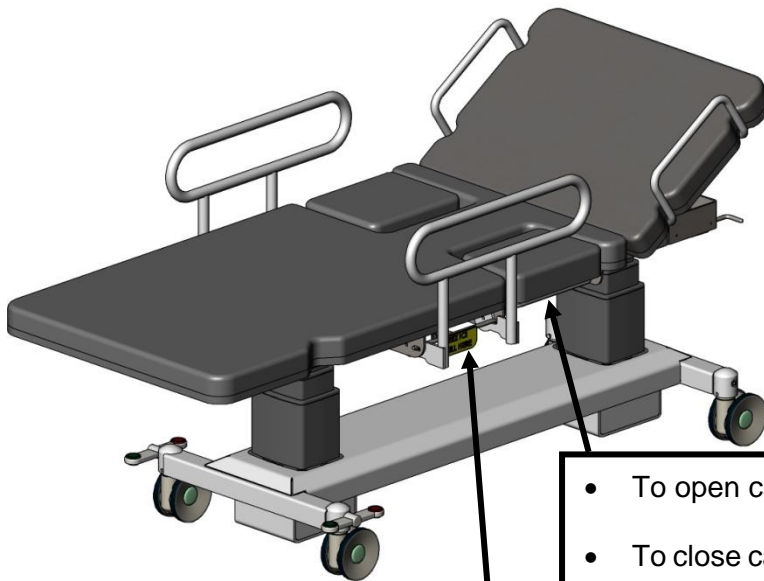
Triple foot control



Button	Function
A	Move up table
B	Move down table
C	Tilt up back rest section
D	Tilt down back rest section
E	Trendelenburg
F	Reverse Trendelenburg

6.5 Security rail and cardiac cutout

	WARNING. Never exceed safe working load of 150lb or 68kg on cardiac cutout.
	WARNING. Do not place your hand in or near cardiac cutout locking mechanism during operation.
	WARNING. Do not place your hand in or near security rail locking mechanism during operation.
	WARNING. Once security rail is closed, make sure it is securely locked.
	WARNING. Once cardiac cutout is closed, make sure it is securely locked.
	WARNING. Always raise security rail once the patient is in place.
	WARNING. Do not leave patient unattended.
	WARNING. Always have patient enter and exit table from the side.
	WARNING. Do not let fall mobile parts.

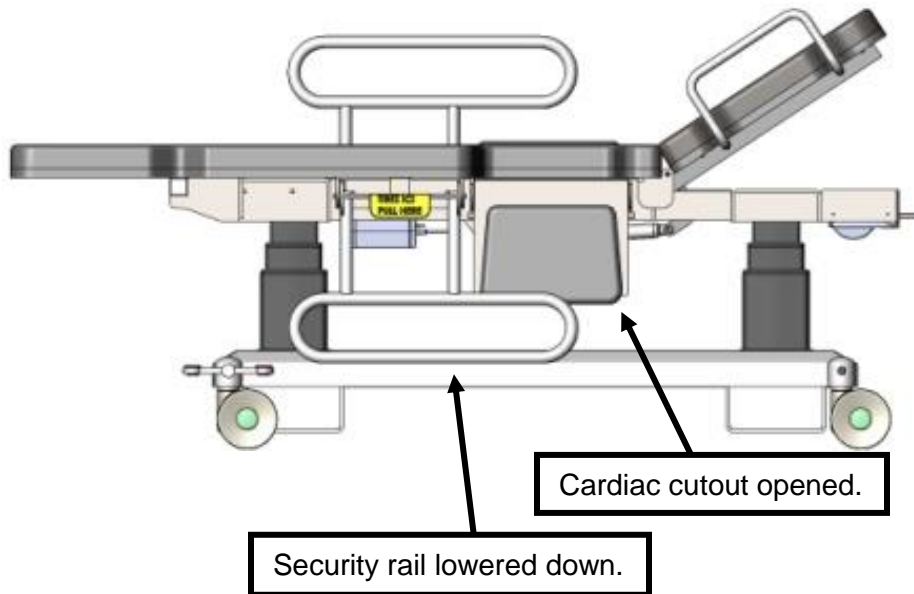
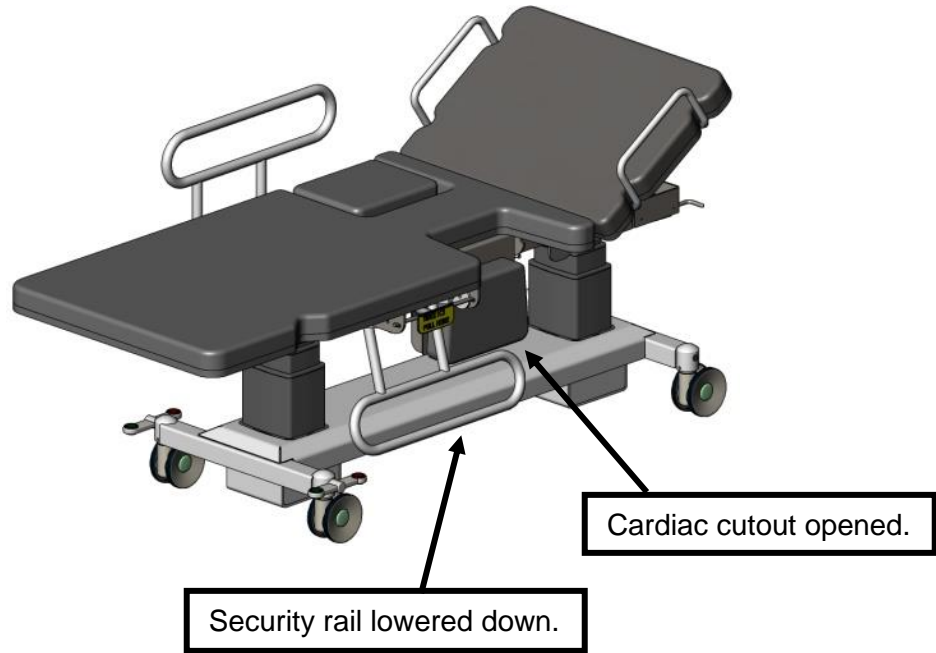


- To open cardiac cutout, pull handle.
- To close cardiac cutout, lift up cutout and it will engage automatically. Always make sure it is securely locked.





- To lower security rail, pull handle with one hand and hold security rail with other hand.

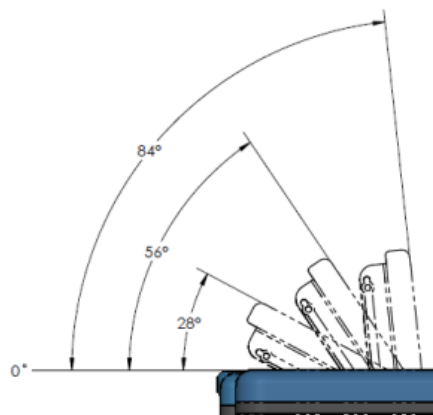
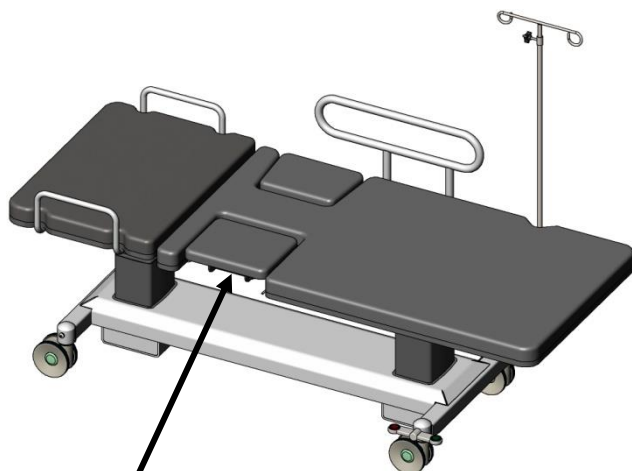
**TIREZ ICI
PULL HERE**

- To move up security rail, lift up rail and it will engage automatically. Always make sure it is securely locked.

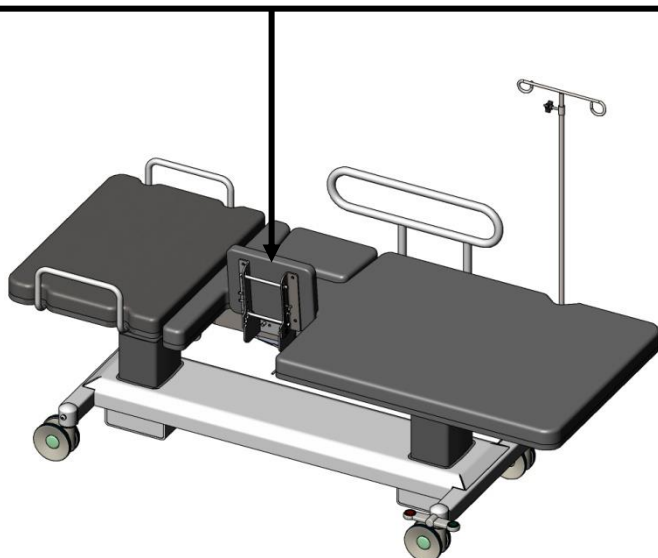


6.6 Positioning cushion



	WARNING. Never exceed safe working load of 150lb or 68kg on positioning cushion.
	WARNING. Avoid placing hands and other body parts near moving parts or locking mechanism.
	WARNING. Once positioning cushion is in place, make sure it is securely locked.
	WARNING. Do not leave patient unattended.

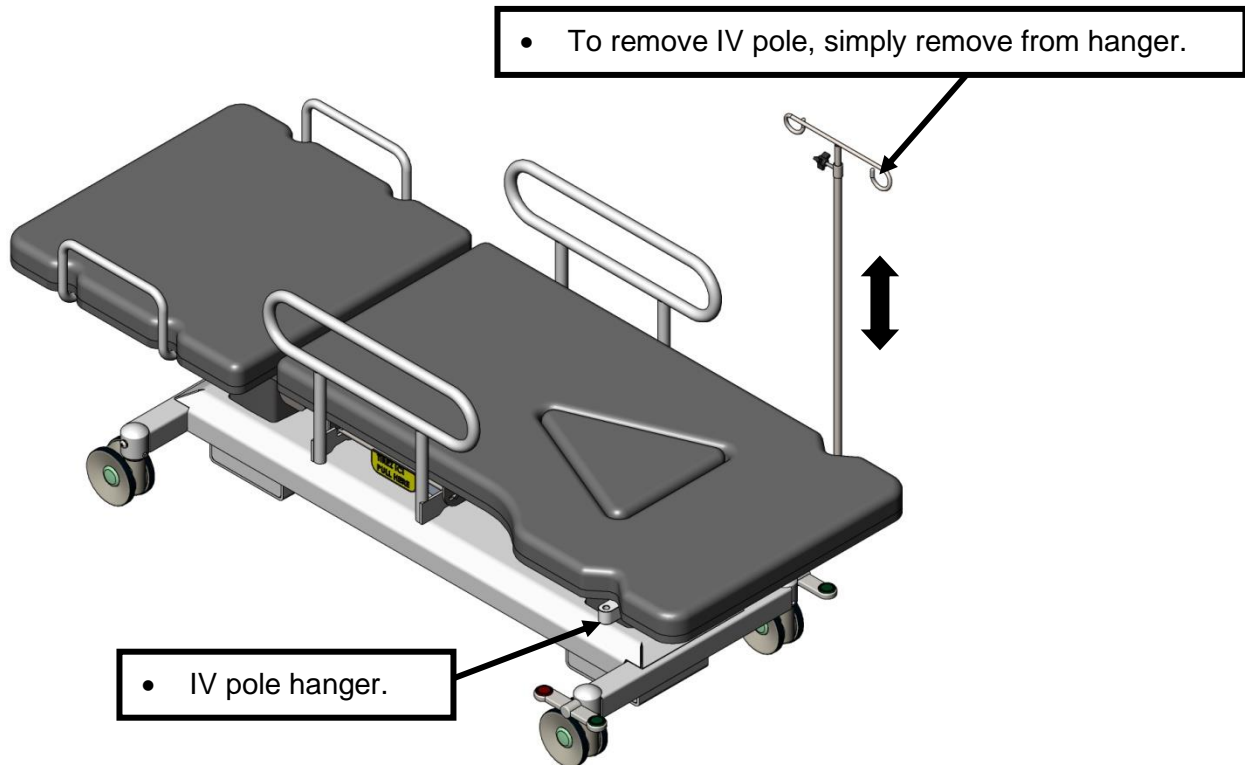


- To lift positioning cushion, pull handle. Move up cushion to one of the 3 positions and release handle and it will lock automatically. **Make sure it is well lock in place before using with patient.**
- To lower cushion, pull handle and lower down cushion to horizontal position and release handle. It will lock automatically. **Make sure it is well lock in place before using with patient.**






6.7 IV pole

	WARNING. Always ensure there is sufficient clearance around the table before activating the various movements to avoid collisions with the environment, equipment and people.
	WARNING. Never exceed safe working load of 25lb or 11kg on IV pole.








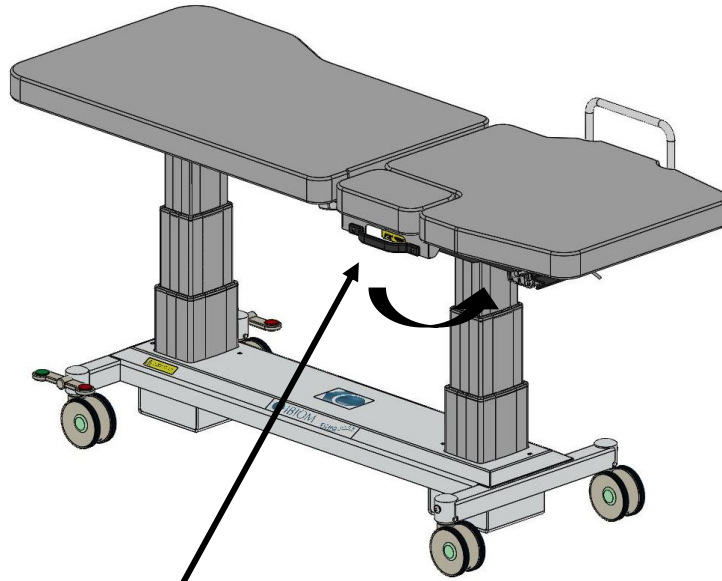
6.8 Rechargeable battery

	WARNING. Never exceed duty cycle of 2/18 (2 minutes ON and 18 minutes OFF).
	WARNING. Defective or damaged batteries may leak acid and adequate precautions must be taken during handling and transportation.
	WARNING. Do not open the battery case as damage to the cell or circuitry may develop excessive heat.

- **CAUTION.** NEVER discharge completely battery or it may be damaged and reduce its lifetime.
- Always allow battery to settle to room temperature before use.
- Do not exceed duty cycle 2/18 as it will shorten the life and reduce performance of the battery.
- After every day of use, make sure to charge battery for 8 hours. Plug power outlet to the wall to charge.
- If battery is not used every day, charge as needed.
- It is possible to use battery while it is plugged to wall outlet without any risk of damage.
- When battery level is low and needs to be charged, it will emit audible signal.

6.9 Cardiac cutout in backrest

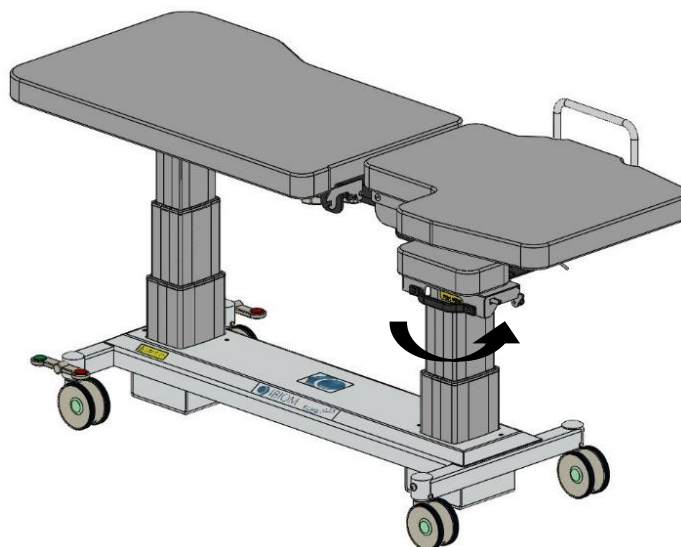
	WARNING. Never exceed safe working load of 150lb or 68kg on cardiac cutout.
	WARNING. Avoid placing hands and other body parts near moving parts or locking mechanism.
	WARNING. Once cardiac cutout is closed, make sure it is securely locked.
	WARNING. Do not leave patient unattended.
	WARNING. Always have patient enter and exit table from the side.














- To open cardiac cutout, pull handle located under mattress and pivot cutout.

**TIREZ ICI
PULL HERE**

- To close cardiac cutout, pull handle located under mattress, pivot cutout to closed position. It will lock automatically. Make sure it is locked properly.



7. CLEANING INSTRUCTIONS

	WARNING. Always clean table between patient to avoid contamination.
	WARNING. Clean table immediately after spillage of bodily or other fluids.
	WARNING. Protect mattress cover from sharp and rough objects to avoid damaging it.
	WARNING. Always inspect mattress to ensure its integrity. A damaged mattress can absorb contaminated liquids. In case of tear or wear, contact IBIOM to immediately replace the damaged mattress.
	WARNING. Do not wash with pressure or steam.
	WARNING. It is the user's responsibility to wear adequate protective equipment to avoid contamination from bodily fluids or other dirt on table.
	WARNING. Any damage to the mattresses caused by the use of a product other than those mentioned in this section or at a different concentration is not covered by the warranty.
	WARNING. Do not use cleaning products containing other products or in concentration other than those specified in this section.
	WARNING. Do not use abrasive cleaning products.
	WARNING. Avoid placing hands and other body parts near moving parts or locking mechanism.
	WARNING. It is the user's responsibility to ensure that these instructions are in accordance with the institution's internal infection control procedures.

7.1 Recommended cleaning products

- Disinfectant containing sodium hypochlorite (bleaching product) in a maximum concentration of 0.5%. Always rinse with clean water and dry with a clean cloth.
- Disinfectant containing hydrogen peroxide diluted in a maximum concentration of 0.5%. Always rinse with clean water and dry with a clean cloth.
- Disinfectant containing alcohol diluted in a maximum concentration of 22%. Always rinse with clean water and dry with a clean cloth.
- It is recommended to use “*ready-to-use*” cleaning products.

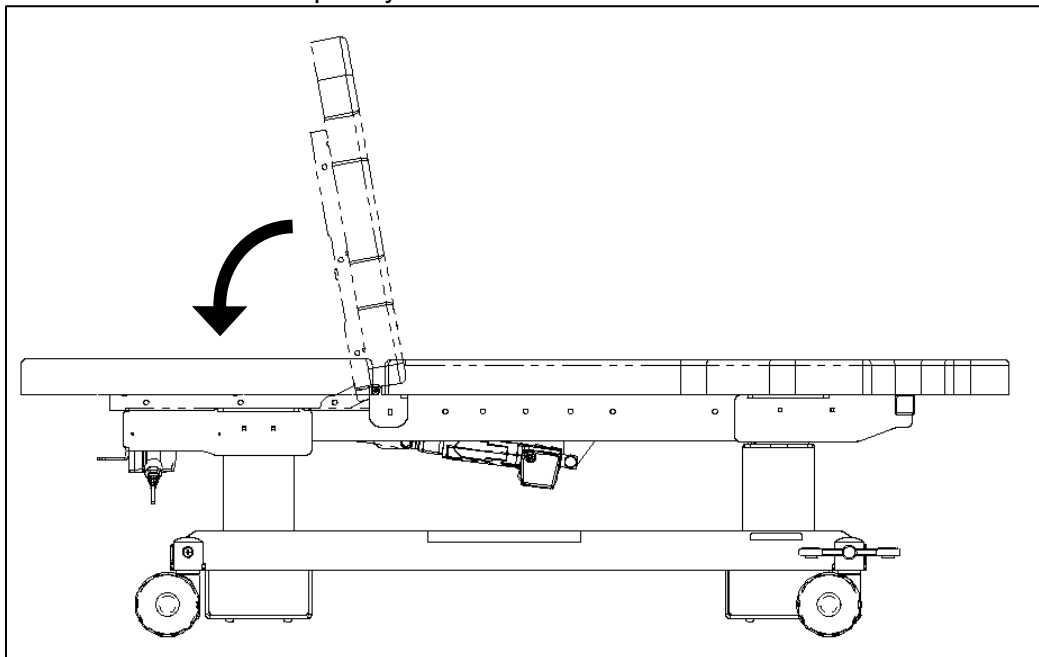
Notes:

- Always test the cleaning product in an inconspicuous place to check the effect of this product on the cleaned surface.
- Always follow manufacturer’s cleaning products instructions.
- Clean spill as soon as possible to prevent penetration and becoming a permanent stain.

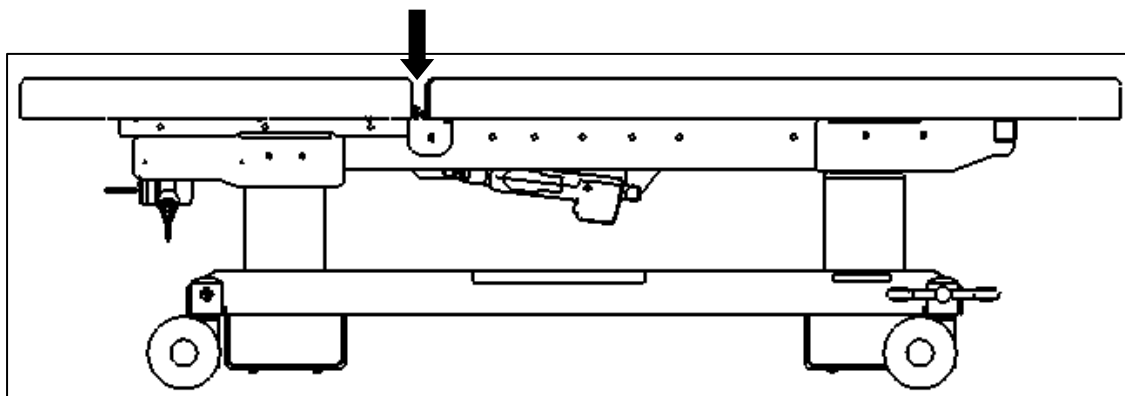
7.2 Cleaning procedure

Procedure for effective cleaning of surfaces and openings.

1. Lower the backrest completely.



2. Clean all mattress surfaces, including surfaces in openings between the backrest and main section. **IMPORTANT:** Allow the surfaces to dry before raising the backrest.



- NOTE: In case of major spill, it is possible to remove all mattresses for a complete cleaning. Please contact IBIOM for further details.
3. Clean all parts that may be contaminated and/or that are in contact with the patient, such as security rails, IV pole, handles, table base, etc.

8. SPECIFICATIONS

8.1 Product specifications


Width without security rail	27 in / 69 cm
Width with security rail	31 in / 79 cm
Length	77 in / 196 cm
Operation	<ul style="list-style-type: none"> • 3 functions lighted hand control device (backrest, height, Trendelenburg and reverse Trendelenburg). • Foot switch (option). • Button controller (option).
Adjustable backrest	0° to 80°
Adjustable height	21 to 37 in / 53 to 94 cm
Trendelenburg	0 to - 15°
Reverse Trendelenburg	0 to + 15°
Security rail length	24 in / 61 cm
Maximum safe working load	450 lb / 205 kg
Wheel diameter	5 in / 12.7 cm
Weight*	250 lb / 114 kg
Mattress	3 in / 7.6 cm 4 in / 10 cm (option) Semi-rigid polyurethane foam
Mattress cover	Vinyl <ul style="list-style-type: none"> • Waterproof • Anti-microbial • Stain resistant** • Fire retardant <ul style="list-style-type: none"> • FMVSS-302 • CA TB 117-2013 (Section 1-Cover Fabric) • BIFMA Class A • NFPA 260 • UFAC Class 1

IBIOM Instruments Ltd. reserves the right to change specifications without notice.

* May vary depending on options.

** If cleaning instructions are followed.

8.2 Electrical specifications

Volt	120 VAC, alternating current
Amperage	3.9A
Actuators	24 VDC, direct current
Frequency	60 Hz
Hospital grade plug	Yes
Electrical protection	Class I
Applied part	 Type B
Battery type (option)	Rechargeable sealed lead acid
Battery capacity (option)	1.3 Ah
Protection class (IP)	Control box : IPX6 Actuator : IPX4 Lifting column: IPX6 Hand control: IPX6 Double foot switch: IPX6 Triple foot switch: IP20 Button controller: IPX0 Battery: IPX6
Duty cycle	Intermittent 2/18 Max 2 minutes on 18 minutes off

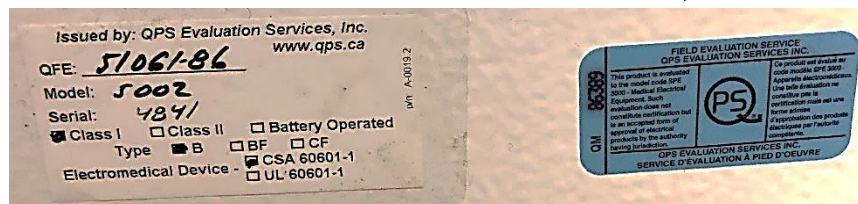
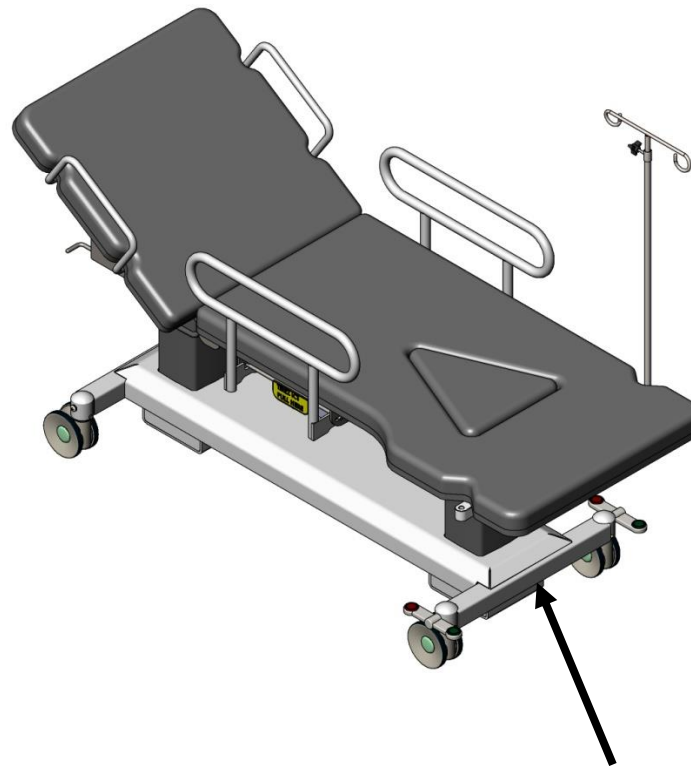
IBIOM Instruments Ltd. reserves the right to change specifications without notice.

8.3 Environmental conditions

Conditions	Temperature	Relative humidity	Pressure
Normal condition	5 °C to 40 °C	20% - 90%	70-106 kPa
Storage	-10 °C to 50 °C	20% - 90%	70-106 kPa
Transport	-10 °C to 50 °C	20% - 90%	70-106 kPa

8.4 Certification

All IBIOM's product are certified according to CSA standard for electrical medical device except contrary indication. Label is located on the base of the product.



9. LIMITED LIFETIME WARRANTY

IBIOM instruments ltd has a lifetime warranty for all their products against all manufacturing defects under normal operating conditions as described in manual. These following components are excluded from this lifetime warranty: mattresses, retractable rod mechanisms, brake mechanisms, armrest mechanisms, wheels and all mobile parts. These exclusions are however covered for a period of 2 years following purchase date.

This warranty doesn't apply to the products and components that must be replaced after normal usage or because of negligence, abuse, or breakage during transportation or by misuse of the user guide instructions and warnings. Also, it doesn't apply if modifications or repairs have been done by someone not authorized by IBIOM instruments ltd.

Electrical components are guaranteed against all manufacturing defects under normal operational conditions for a 3-year period following date of purchase and under the same conditions as mentioned in the preceding paragraph. The battery is covered by a 1-year warranty.

All repairs done on IBIOM products, once the warranty is over, will be billed at regular rates.

The warranty is not transferable.

Limited warranty to the original purchaser at the original delivery address.

The warranty begins on the date of delivery of the product.




The use of cleaning products other than those specified in the manual may void the warranty.

Maintenance must be carried out or the warranty may be cancelled.

IBIOM must authorize any return of merchandise.



10. WASTE DISPOSAL

	WARNING. Before disposal, clean equipment properly to avoid contamination.
	WARNING. Disposal of this equipment should only be done by qualified personnel.
	WARNING. This equipment contains electronic components that may cause environmental damage. Please dispose of it properly in accordance with the regulations in force in your region.

- Before disposal, equipment must be clean properly to avoid contamination.
- Equipment can be disposed of by separating the different components for recycling and/or disposal.
- Always follow local regulations for proper disposal of the various components of the equipment.

COMPONENT GROUP	MATERIAL GROUP
Actuators, lifting column, control box, controls, cables and other electronic components	Electronic
Metal structure	Metal
Battery pack	Batteries
Plastic parts	Plastic
Mattress	Foam and textiles

11. MAINTENANCE

See service manual.

12. TROUBLESHOOTING

This is a short troubleshooting guide. See service manual for full troubleshooting guide.

Problem	Verification	Cause	Corrective
No movement is working.	Fast beep with green light off on control box.	The battery is low and equipment is not connected to the wall outlet.	Connect the equipment to the wall for 8 hours. Once plugged in, try the movements. If problem persists, go to next cause. (CAUTION: Never allow the battery to discharge completely, as this may damage the battery).
	Green light on the control box with or without audible alarm	Control box fault.	Hold the two buttons in the third row of the hand control for 10 seconds. If the problem persists, continue to the next cause.
	No audible alarm and green light off on the control box.	Equipment not connected to the wall outlet.	Connect equipment to wall outlet. If the problem persists, continue to the next cause.
		Wall outlet is defective.	Make sure there is power in the electrical outlet. If the problem persists, the control box is defective.

13. SPARE PARTS LIST

See service manual.



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