

# OPERATION AND MAINTENANCE MANUAL

Version R0413

**ECHO-FLEX # 4400  
CHAIR**



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# 1 SAFETY INSTRUCTIONS

Please read carefully the following safety instructions before using IBIOM's products. Every person that works with IBIOM's products must be provided with the necessary information and must have access to this manual.



## **WARNING – MAXIMUM CAPACITY**

The IBIOM's stretchers were conceived to be regularly used with people that weighs 350 pounds (159 kg) or less. NEVER EXCEED THIS LOAD.



## **WARNING - USAGE**

On three-section stretcher, NEVER sit on foot section. This may cause the stretcher to flip over.



## **WARNING - MAINTENANCE**

Before beginning any maintenance tasks on an IBIOM product, refer yourself to this manual.

Always unplug the stretcher before performing maintenance tasks on any electric component (motor, control box, remote control, foot control...)

To assure the proper functioning of the stretcher and the various components, please make sure to do the suggested maintenance in this manual.

## 2 WARRANTY

IBIOM Instruments Ltd offers a lifetime warranty on its products against any manufacturing defect in normal conditions of use. These following components are excluded from this lifetime warranty: the mattresses, the electric components, the retractable rod mechanisms, the brake mechanisms, the armrest mechanisms, the wheels as well as the IV pole. However, these exclusions are covered for a period of **2 years** following the purchase date. This warranty does not apply to any products and components which must be replaced after a normal wear and tear, carelessness, abuse, shipping damages or product use against the indicated instructions and the warnings in this manual. These warranties do not apply to any equipment or component that were repaired or modified by a repairer not authorized by IBIOM Instruments Ltd.

The electric components are guaranteed against any manufacturing defect in normal conditions of use for a period of **3 years** following the purchase date and under the same conditions as those enumerated in the previous paragraph.

All repairs to equipment with an expired warranty will be charged at factory prices.



### 3 IBIOM PRODUCT APPROVALS

All IBIOM products are certified by the CSA regulations on electric medical equipment unless contrary indication. The CSA approval sticker is located on the base of the stretcher



Serial Number



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INSTRUMENTATION **BIOMEDICAL** INSTRUMENTATION

MODEL		VOLT	120	AC
SERIAL		WATT		60Hz

## 4 CONTACT US

Before contacting us, please make sure you have the following information in your possession:

- Stretcher **Serial number** (see previous section of this manual)
- Stretcher **Model number** (see previous section of this manual)

Telephone            450-678-5468

Fax                    450-445-9837

Email                 [info@ibiom.com](mailto:info@ibiom.com)

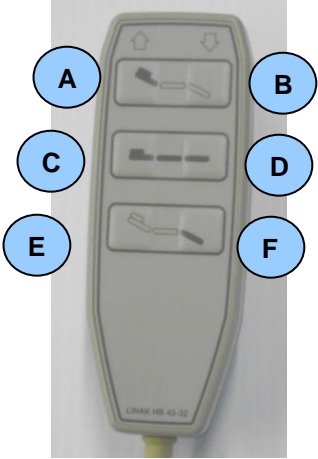
Web site             [www.ibiom.com](http://www.ibiom.com)

Address               IBIOM Instruments Ltée  
1065, rue du Pacifique, suite 403  
Sherbrooke, Québec  
J1H 2G3  
Canada

## 5 USER INSTRUCTION

### 5.1 Stretcher movements

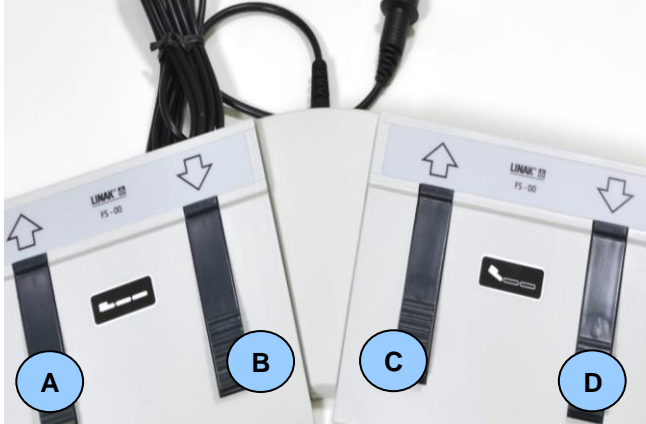
**Hand control of a 3 sections stretcher**



The image shows a hand control device with six buttons labeled A through F. Buttons A and B are at the top, C and D in the middle, and E and F at the bottom. Each button has a small icon representing its function: A (upward arrow), B (downward arrow), C (upward arrow with horizontal lines), D (downward arrow with horizontal lines), E (upward arrow with diagonal lines), and F (downward arrow with diagonal lines).

Button	Function
A	Raise Backrest
B	Lower Backrest
C	Raise stretcher
D	Lower stretcher
E	Raise legs section
F	Lower legs section

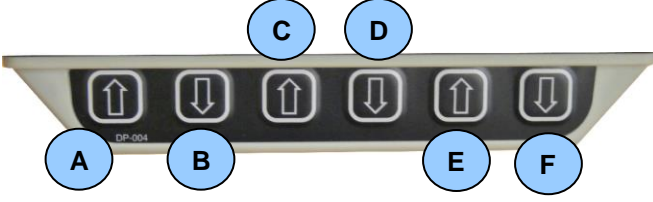
**Foot control**



The image shows a foot control device with four buttons labeled A through D. Buttons A and B are on the left side, and C and D are on the right side. Each button has a small icon representing its function: A (upward arrow), B (downward arrow), C (upward arrow with horizontal lines), and D (downward arrow with horizontal lines).

Buttons	Function
A	Raise Stretcher
B	Lower stretcher
C	Raise backrest
D	Lower backrest

**Buttons**



Button	Function
A	Raise stretcher
B	Lower stretcher
C	Raise backrest
D	Lower backrest
E	Raise legs section
F	Lower legs section



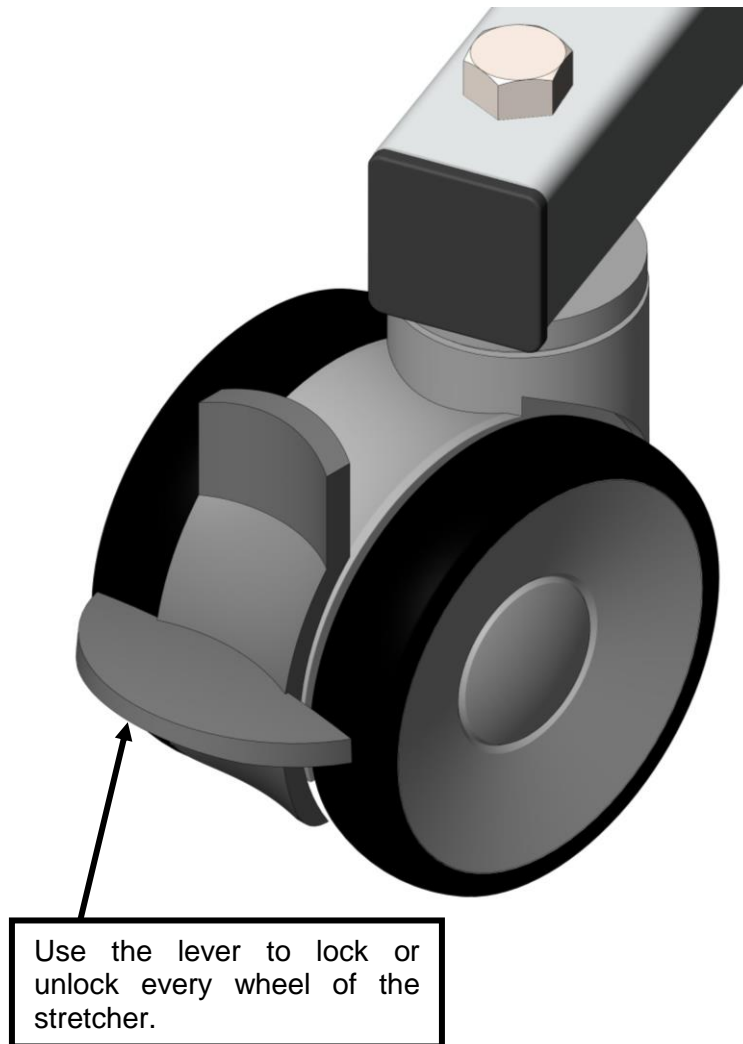
To avoid any damage to the hand control cable, please use the tie located under the backrest mattress.



**5.2 To use the stirrups**


- 1- To remove the stirrups, remove the metallic rod from the supports by pulling upwards.
- 2- The stirrups can be moved forwards or backwards according to needs. You only need to lightly unscrew the handles located under the stirrups and slide the stirrups at the desired position and then retighten the handles.
- 3- The stirrups can be directed in various angles according to needs. You only need to lift the metallic rod of the stirrup and to direct the stirrup at the desired angle. Make sure to put back the rod at the bottom of the support to avoid any movement from the stirrup during the use.

### 5.3 To use the individual locking swivel casters



### 5.4 To use the rechargeable battery pack

- The battery pack is fully charged when the stretcher is delivered.
- After every day of use, make sure to recharge the battery pack for a period of 8 hours. You only need to plug the electric cable in the power supply.
- If the battery pack is not use every day, charge the battery as required.

## 6 FEATURES

### 6.1 *Technical characteristic*

#### **Dimensions:**

- Width: Standard 27 in. (69 cm.).
- Length: Standard 71 in. (181 cm.).
- Other widths and lengths available according to needs.
- Height adjustment: 24.5 to 36.5 in. (62 cm. to 93 cm.).
- Fowler back: adjustable from 0 to 80 degrees.
- Legs section adjustment from 0 to 90 degrees.

#### **Maximum capacity:**

- Maximum capacity of 350 lbs. (159 kg.).

#### **Mattress:**

- 3 in. (7.6 cm.) or 4 in. (10 cm.) semi-rigid polyurethane foam.
- Covered with a waterproof, heat-conduction synthetic material.
- Covered with PVC free material.

#### **Movements:**

- The stretcher movements can be controlled by a hand controller, a foot controller or a integrated buttons controllers.

#### **Wheels:**

- 4 in. (10 cm.) double wheels with individual locking swivel casters.

#### **Advantages and other features:**

- Clear/open space at the base of the stretcher following the user position.
- The patient can easily get on the stretcher without using any footstool.
- All motor are CE and CSA certified (120 VAC, 60 Hz).
- Made and assembled in Quebec

## 6.2 *Mattress cleaning instructions*

Recommended cleaning products :

- Disinfectant containing sodium hypochlorite (bleaching product) diluted in a ratio of 1 :10.
- Disinfecting with hydrogen peroxide products need a maximum concentration of 0.5% p/p (Virox wipe for example).

If the IBIOM products are cleaned with other products or these products in different concentrations, the mattresses warranty won't be applied.

### Turner 11 Brick TURNE11 SPECIFICATIONS

<b>Description</b>	Turner 11 Brick
<b>Abrasion</b>	Exceeds 500,000 Double Rubs.
<b>Backing Content</b>	30% Cotton 70% Polyester
<b>Cleaning Instruction</b>	See Features/Cautions.
<b>Cold Crack</b>	Product Cold Crack is equal to or greater than -40 degrees Celsius (-40 Fahrenheit)
<b>Colors Available</b>	26 colors available.
<b>Construction</b>	Vinyl
<b>Content</b>	100% Polyurethane ( PU)
<b>Description</b>	Simulated Leather Vinyl, Contract Rated
<b>Elongation</b>	ASTM D5034: Warp: 23.4%, Fill: 38.1 %
<b>Features</b>	PVC Free Wipe with a soft cloth, with cold water and a mild soap. Dry immediately. Phthalate Free
<b>Fire Retardancy</b>	California Bulletin 117-Section E, Motor Vehicle Safety Standard 302. NFPA 260 Class 1. UFAC Class 1
<b>Roll Size</b>	30 yards (27.4 m)
<b>Style</b>	Solids / Plain
<b>Tear Strength</b>	Passes ASTM D2261 - Warp = 20 lbs and Fill = 12 lbs.
<b>Tensile Strength</b>	Passes ASTM D5034 - Warp = 105 lbs and Fill = 74 lbs.
<b>Ultraviolet</b>	Colorfastness to Light AATCC16 Class 4.5
<b>Uses</b>	Upholstery
<b>Weight</b>	14.12 ounces per square yard. 21.18 Ounces per Lineal Yard
<b>Width</b>	54" (137 cm)

## 7 MAINTENANCE

We recommend to perform simple maintenance tasks to prevent problems on a long term basis. We suggest before doing any maintenance, to read the security measures at the beginning of this manual.

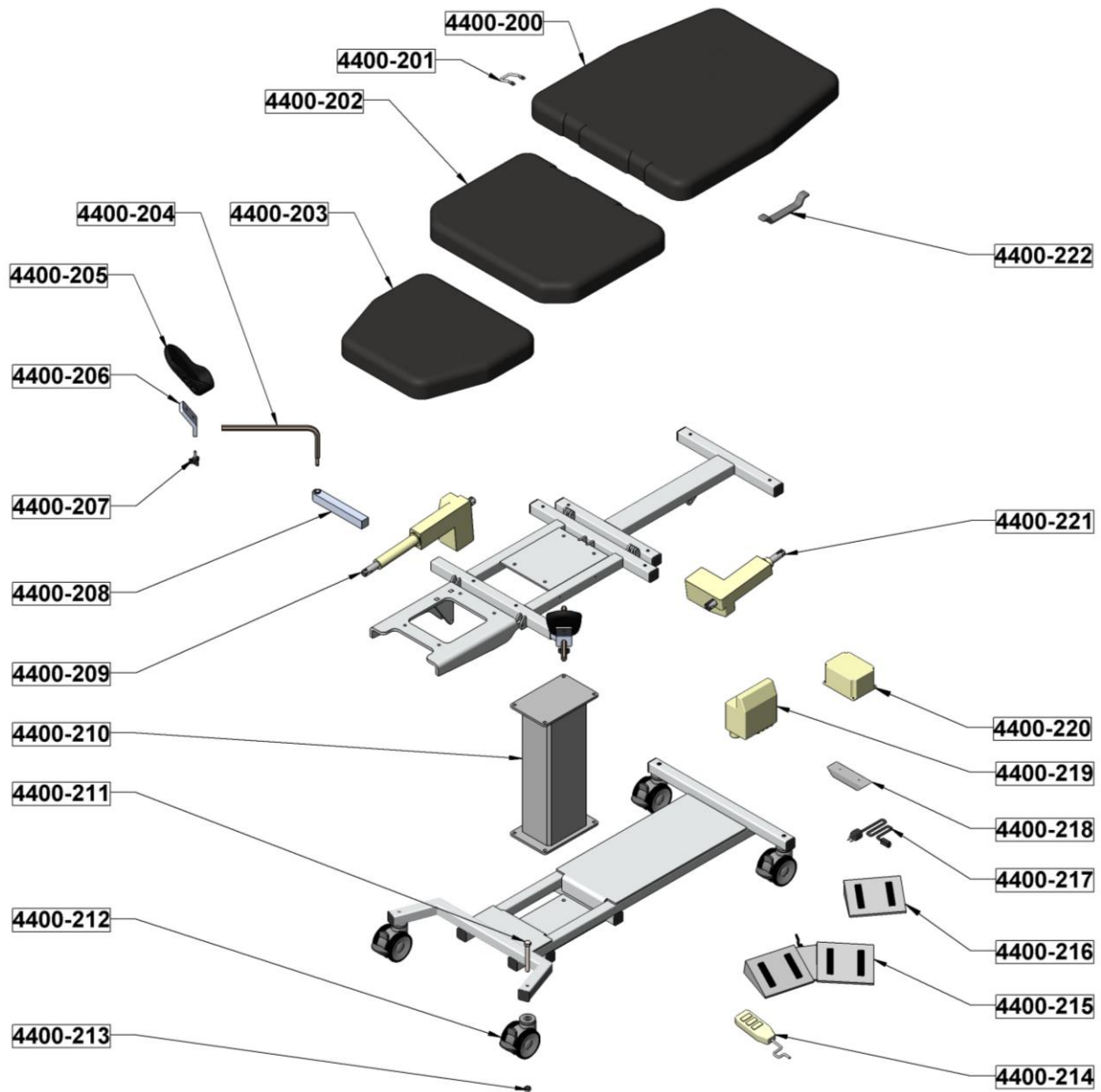
Task	What to do	Frequency		
		Weekly	Semi-annually	Annually
Cleaning.	IBIOM stretchers must be cleaned regularly to remove any dirt.	<b>X</b>		
Inspection of all mobile parts.	All mobile parts must be inspected to detect mechanical damage, wear and breaks. For example, any cracks, missing components, missing fasteners or any other visible damage that can affect the stretcher performance.		<b>X</b>	
Inspection of all electric components.	Electric components must be inspected at attachment points, cables, wires and plugs for wear and breaks or any other visible damage that can affect the stretcher performance.		<b>X</b>	
Mattresses inspection.	Visually check the mattresses to detect any visible sign of wear or tear.		<b>X</b>	
Operational test.	<ul style="list-style-type: none"> <li>• Move stretcher completely up and down to detect any problem (noise, visible damage, loose components..)</li> <li>• Move backrest section completely up and down to detect any problem.</li> <li>• Move legs section completely up and down to detect any problem.</li> <li>• Open and close all mobile parts to detect any problem.</li> </ul>			<b>X</b>
Greasing stretcher's pivots.	If the stretcher is making noise when you raise or lower the stretcher, the pins needs to be lubricated. In that case, contact us to obtain the lubricating procedure.	<b>Only if the stretcher is noisy.</b>		

**NOT DOING THE MAINTENANCE TASKS MAY CAUSE PROBLEMS OR EVEN INJURIES TO USERS. IBIOM WON'T BE RESPONSIBLE FOR ANY INCIDENT IF THE MAINTENANCE TASKS AREN'T DONE.**

## 8 TROUBLESHOOTING

<b>Problem</b>	<b>Cause</b>	<b>Check</b>	<b>Correction</b>
Hand or foot switch isn't working properly	Hand or foot switch may be damaged.	<p>Make sure that the hand or foot switch is properly connected in the control box.</p> <p>Make sure that the stretcher electric cable is properly connected in the wall outlet.</p>	The hand or foot switch must be replaced. See spare parts list section to find the spare parts number and contact us.
A button from the hand or foot switch isn't working.	Hand or foot switch may be damaged.	<p>Make sure that the hand or foot switch is properly connected in the control box.</p> <p>Make sure that the stretcher electric cable is properly connected in the wall outlet.</p>	The hand or foot switch must be replaced. See spare parts list section to find the spare parts number and contact us.
	The control box may be damaged.	<p>Make sure that all cables are properly connected (control box, power cable, motor)</p> <p>Invert motor cables in control box to see if the problem remains.</p>	<p>If the problem remains, the control box is working properly, the hand or foot switch needs to be replaced. See spare parts list section to find the spare parts number and contact us.</p> <p>If the problem has changed, the control box is damaged and must be replaced. See spare parts list section to find the spare parts number and contact us.</p>

## 9 REPLACEMENT PARTS



<b>PART #</b>	<b>DESCRIPTION</b>
4400-200	Backrest mattress
4400-201	Hook for hand controller
4400-202	Seat mattress
4400-203	Legs mattress
4400-204	Stirrup rod
4400-205	Molded stirrup
4400-206	Stirrup plate
4400-207	Stirrup fixation screw
4400-208	Support for stirrup
4400-209	150mm electric motor - legs
4400-210	300mm electric column- height
4400-211	Bolt 1/2 in. -13NC x 4 in. for wheel fixation
4400-212	100mm double wheels with individual brake
4400-213	1/2 in.-13NC Nut
4400-214	Triple hand controller
4400-215	Double foot controller
4400-216	Single foot controller
4400-217	Power cord
4400-218	Triple button
4400-219	Control box with integrated charger
4400-220	Battery
4400-221	150mm Backrest electric motor
4400-222	Handle