

INSTRUCTION MANUAL FOR ELECTRIC LABOUR BED



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INTRODUCTION

About this User Manual

This User Manual contains instructions for the proper and safe use of Motorized/Electric Birthing/Labour Bed, and for, patient & user safety and comfort, which has to be strictly followed.

This User Manual has to be read and observed by every person using or handling these products. In case of any query, kindly contact Elektro Genesis

About this Product

- These Motorized/Electric Birthing Bed are non-invasive medical devices used for obstetrics, gynaec examination and post delivery reuperation (If used as bed) of the patients by medical/paramedical /hospital personnel to help and support the patient in diagnosis, prevention, monitoring, treatment or alleviation of the disease. For Obstetrics there is a telescopic leg section which slides underneath the backrest section. This helps the patient to attain the lithotomic position and easy access for the obstetrician to take delivery near the pelvic region.
- These advanced Motorized/Electric Birthing/Labour Bed have patient support and patient rest facility which help medical personnel in carrying out their medical procedures comfortably, minimizing the risks while moving and handling the patient.
- These advanced Beds are manufactured and supplied in non-sterile condition for use in normal hospital environment.
- These advanced Beds are electrically operated for certain profiling movements to provide clinical positions with the help of patient friendly Handset
- These advanced Beds are not diagnostic, measuring, monitoring or a therapeutic device or we say that it can prevent or alleviate disease.
- These advanced Beds are also useful for intensive care, critical care in hospitals and nursing homes.

Motorized/Electric Birthing/Labour Bed

In this Bed there are three actuators used to attain the clinical positions of backrest, height and Trendelenburg and reverse Trendelenburg tilt operated through a backrest.

This bed is available with a handset, safety side railings and 125mm central locking castors.

Definitions

Operator

Operator is the person appointed by the owner (i.e. clinic, hospital management, etc.) who will be responsible for the safe operation of this Bed.

User

User is a person who is capable of assessing clinical condition of patient e.g. specialist medical personnel, doctors, nursing staff, attendants etc. On the basis of their training experience or through the instructions, they are entitled to operate the Bed on their own responsibility or to carry out work on it and are able to recognize and control possible risks to the patient as well as the Bed.

Patient

The patient is a person who is ill, infirm, disabled or in need of care & occupying this Bed. Each time the Bed is allotted to a new patient it is recommended that the patient is instructed by the operator or the user about the functions important for his/her comfort and safety.

Safety

In this User Manual the following safety symbols are used



Danger: This symbol will appear wherever safety instructions are designed to protect people from physical harm. The symbol stands for imminent danger of death or serious injury.



Caution: This symbol will appear where situations are described, which might be dangerous, and which might inflict slight injuries.



Electrical Hazard: This symbol will appear when a life threatening hazard or hazardous condition is likely to occur.

- Always use Elektro Genesis accessories that have been designed and approved for use with the Bed.
- Ensure that the Bed is assembled and installed in accordance with the instructions given in this User Manual.
- Restrict child visitors without proper attendants. Supervision is necessary to avoid any mishap due to unintended movement of the Bed.
- Persons with reduced physical or mental abilities & children must not be allowed to use & handle the Bed without proper supervision.
- Leave the bed in the lowest position when the patient is unattended. Leaving the bed in a raised position could increase the chance of patient falls and injury.
- Do not allow any visitor to sit on the Bed, as it may cause overloading. (Refer Section-Operation)
- Accessories or any devices used along with the Bed should be as per its intended use specified and approved by Elektro Genesis
- The Bed should always be kept and used in normal indoor hospital environment.
- The Bed is not suitable for use in the presence of a flammable anesthetic mixture with air or with oxygen or nitrous oxide. It may damage the Electro-Mechanical Control System.
- Always use a mattress of the correct size and type.
- Before operating the Bed, make sure that the patient is safely positioned to avoid entrapment or imbalance.
- Do not keep any articles on the Base Frame Cover of the Bed. It can damage the linkages and electrical components.
- Keep the User Manual handy with the Operator/User for ready reference.

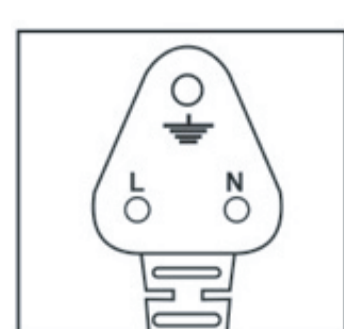


Keep some gap between walls and bed while in stationary position and also while moving from one place to another.

Electrical Safety Points

When the Bed is connected to 230 VAC / 15A (or as per country specific) main supply: Connecting more than one plug to the three pin mains socket using spike guards can cause electrical overload and damage the control system of the Bed.

- AC power supply exceeding 230V or sudden spikes or lack of proper earthing can be hazardous to User / Patient, as well as can cause damage to the Bed and property.
- Ensure stabilized and properly earthed input power supply for the equipment. Also, ensure polarity of the mains socket is as per Standard and matches with the mains plug.
- Inspect all the wires and cables for any cuts, cracks, and damages at regular intervals.



Electrical Specification

Mains power supply	Nominal 230 VAC (150 VAC to 300VAC without battery) (90 VAC to 300VAC with battery)
Frequency	50Hz + /- 5Hz
Protection Voltage	300 V to 450 V for 230 VAC system
Mode of operation Power consumption idle mode without battery	10% (2min. in use /18 min. not in use) 5W
Power consumption idle mode with battery Power consumption at maximum load Mains Fuse & DC Bus Fuse	10W 300 W max. 2A fast blow for mains (external) 10A fast blow fuse (internal)
Protection Class	Class I

Inbuilt Battery Charger

Battery Charger (Inbuilt) (Optional)	<ul style="list-style-type: none"> ● Suitable to charge 1.3AhX 2 batteries ● Reverse polarity protection ● Spark free connection ● Very minimal battery consumption at idle state, to enhance standby time. ● Battery overcharging protection. ● Battery low or dip discharge protection.
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Environmental Specifications

Operating	
Temperature Relative Humidity Atmospheric	0°C to 50°C 0% to 95% noncondensing 800 to 1060 hPa
Pressure Altitude	< 2000m

Storage/Transport	
Temperature	-10°C to 50°C
Relative Humidity	0% to 95% noncondensing
Atmospheric Pressure	800 to 1060 hPa
Altitude	< 2000m
Protection degree	IP54

Installation

- Unpack all the components carefully.
- If the packing is drenched by rain, water or other liquids, inform this matter to the operator.
- Each Bed is supplied with the following components as per packing list:-

Bed fitted with Actuators, castors, hand support, SS Tray, Side Rails, Mattress, crutches, IV rod	1 No
Polymer Molded Head Board	1 Pcs
Miscellaneous items (Optional, If any)	Packet

- Prior to connecting the bed to the mains, get the input voltage & earthing tested through a qualified electrician. It is necessary to ensure that all electrical connections are proper and tightened.
- It is advisable to charge the battery for 24 hours to get the best performance when plugged in for first time, if the battery is provided.
- For using the Handset check all the functions by pressing the respective buttons.
- Demonstrate the functions of the Bed to the User / Operator.
- Notify if any damage has occurred during transportation either to the authorized agent or directly to Elektro Genesis.
- Installation of the Bed should be done only by Elektro Genesis trained technicians.

Accessories

Standard Accessories

1. Head Board :

Fix Head and Foot Board by extending the equal forces with both the hands in the bracket.

Head Board (Removable type)

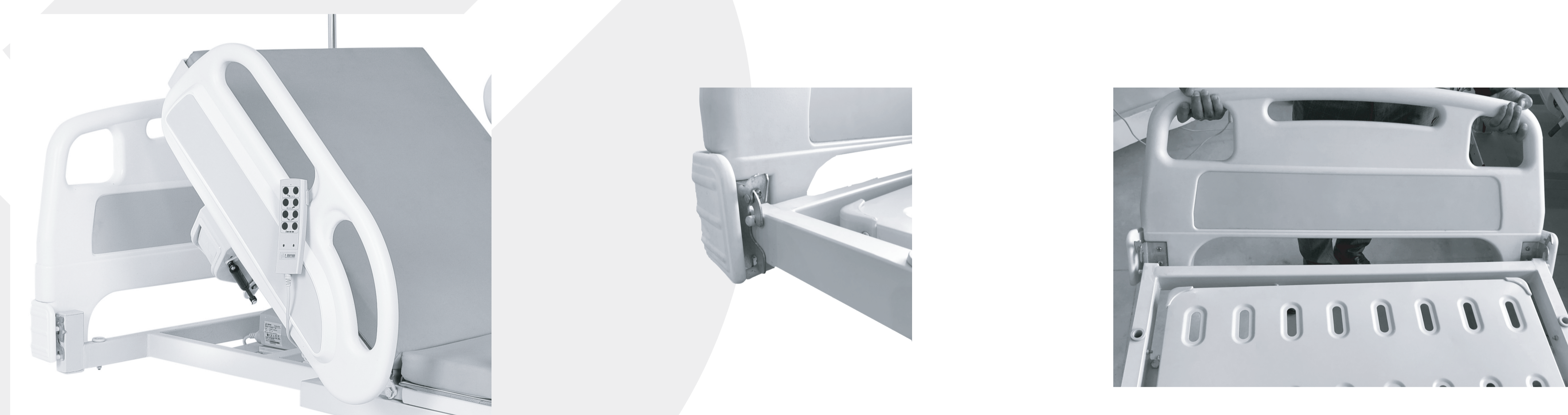


Figure 1

The Head board is located at the head end of the bed frame


The Head board can be removed or attached in a single step (As Figure 1)

 **Do not Hang any heavy items on the head & Foot Boards.**

2. I.V. Pole (2 Hook) / (4 Hook)



Used to hang IV bags for infusion of liquid substances directly into the vein. The provision is on head end only.

 Do not overload the I.V. Pole with more than 20 kgs. equally distributed on all hooks.

Eg: 10 kg on each hook if 2 hook IV pole is used, and 5 kg on each hook if 4 hook IV pole is used.

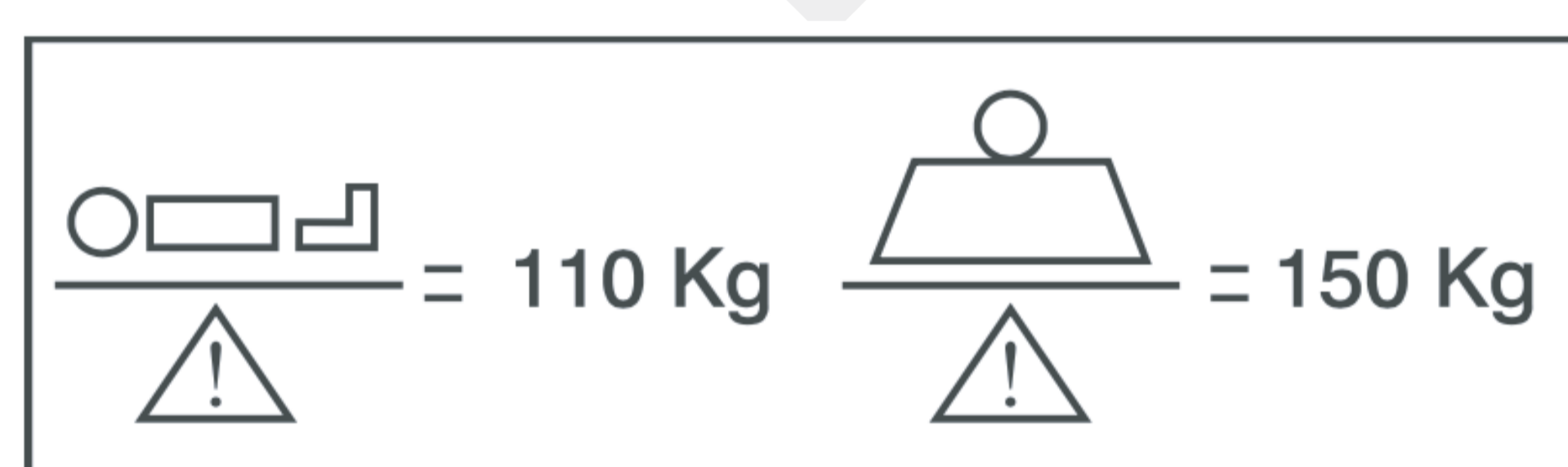
Electrical Control System

The electrical control System of this Bed consists of:

- Three Actuators to facilitate the movement of Back Section, Height, Trendelenburg / Reverse Trendelenburg Tilt.
- User Friendly Handset for achieving various clinical positions.
- A controller unit is located below the main frame of the Bed to which all the other electrical components are connected.
- A battery box containing two batteries (optional) (for power back up in an emergency and during the power failures) is provided below the main frame/ Backrest of the Bed and is directly connected to the controller.

Operation

- Before putting the Bed into use for the first time ensure that all the transport securing devices and packing film are removed.
- Clean and disinfect the Bed prior to the first time use.
- The Bed should be used on a flat floor.
- The force required to move the Bed from one place to another with / without patient, may vary depending on the flooring conditions.
- Check if all the operations are functioning properly.
- This Bed should be operated only by an authorized and trained person who has knowledge of its operation.
- Do not stretch / extend the power supply cord from its plug.



SAFE WORKING LOAD = 150kgs

PATIENT WEIGHT BEARING CAPACITY = 110 kgs
When bed is configured with standard accessories.

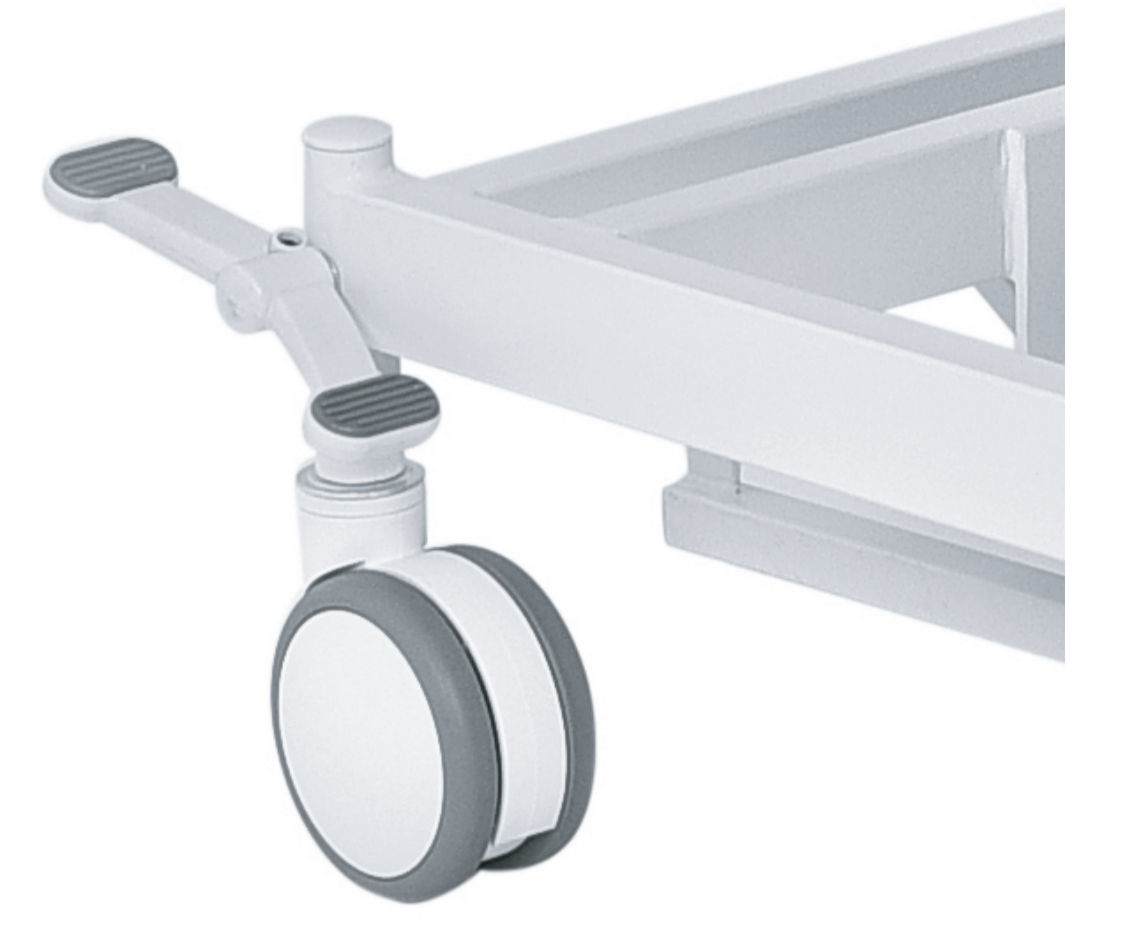
 Do not load the Bed more than the Safe Working Load as mentioned above.

Mechanical Adjustments

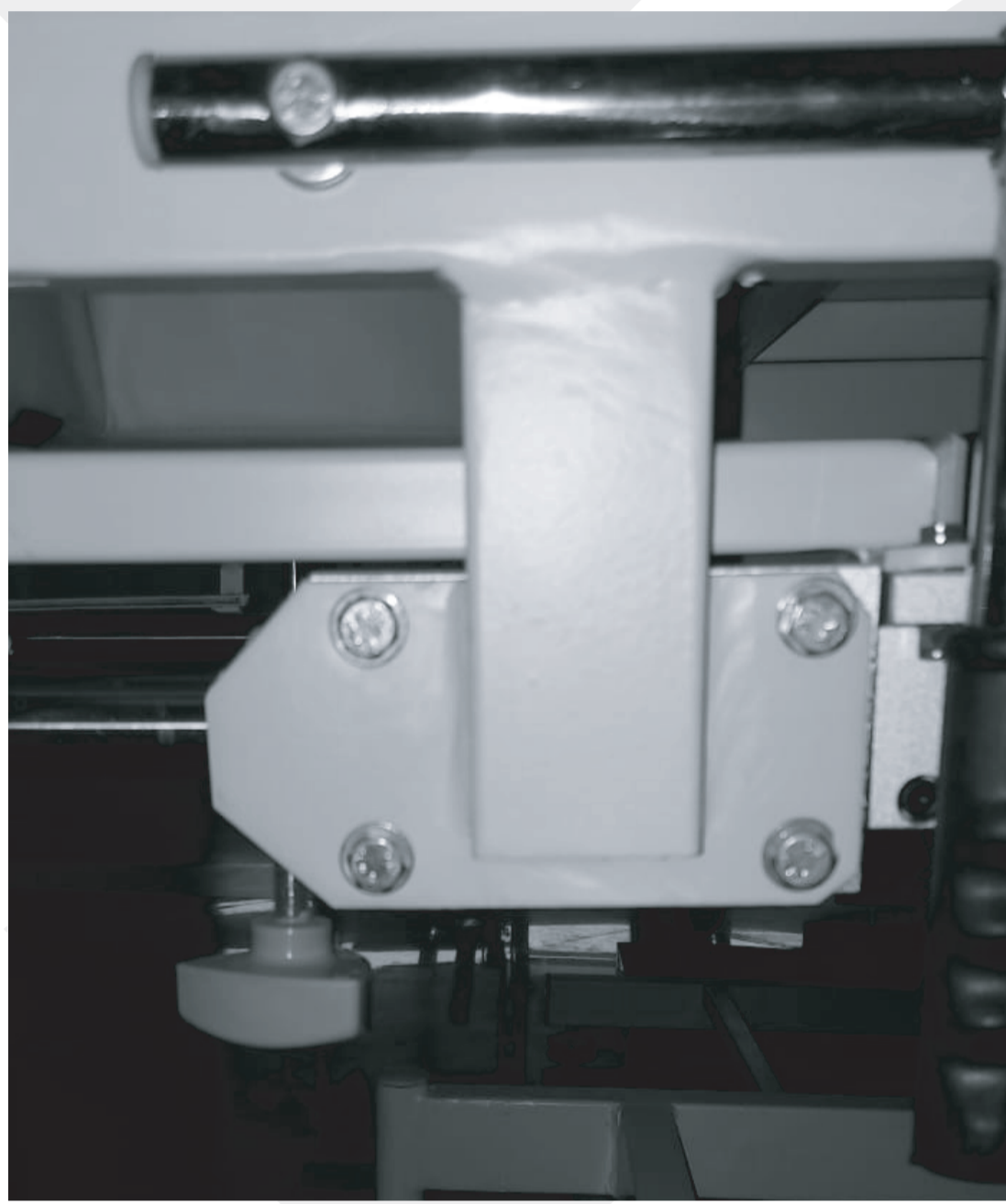
Operation of the Central Locking

The Central Locking Castors are provided with a lever which has got three positions

- When pushing the foot rod downwards, all Castors completely get locked and the Bed does not move at all
- When pushing the foot rod to its middle position, all the Castors are free and can be moved to any position.
- When pushing the foot rod to its upper most position, the steering Castors gets locked to swivel which help the Bed to move in a straight direction.



Adjustment of Telescopic Leg Section:



To operate the Telescopic Leg end section, For extending the leg end telescopic frame, Loosen the knob

Hand Grips



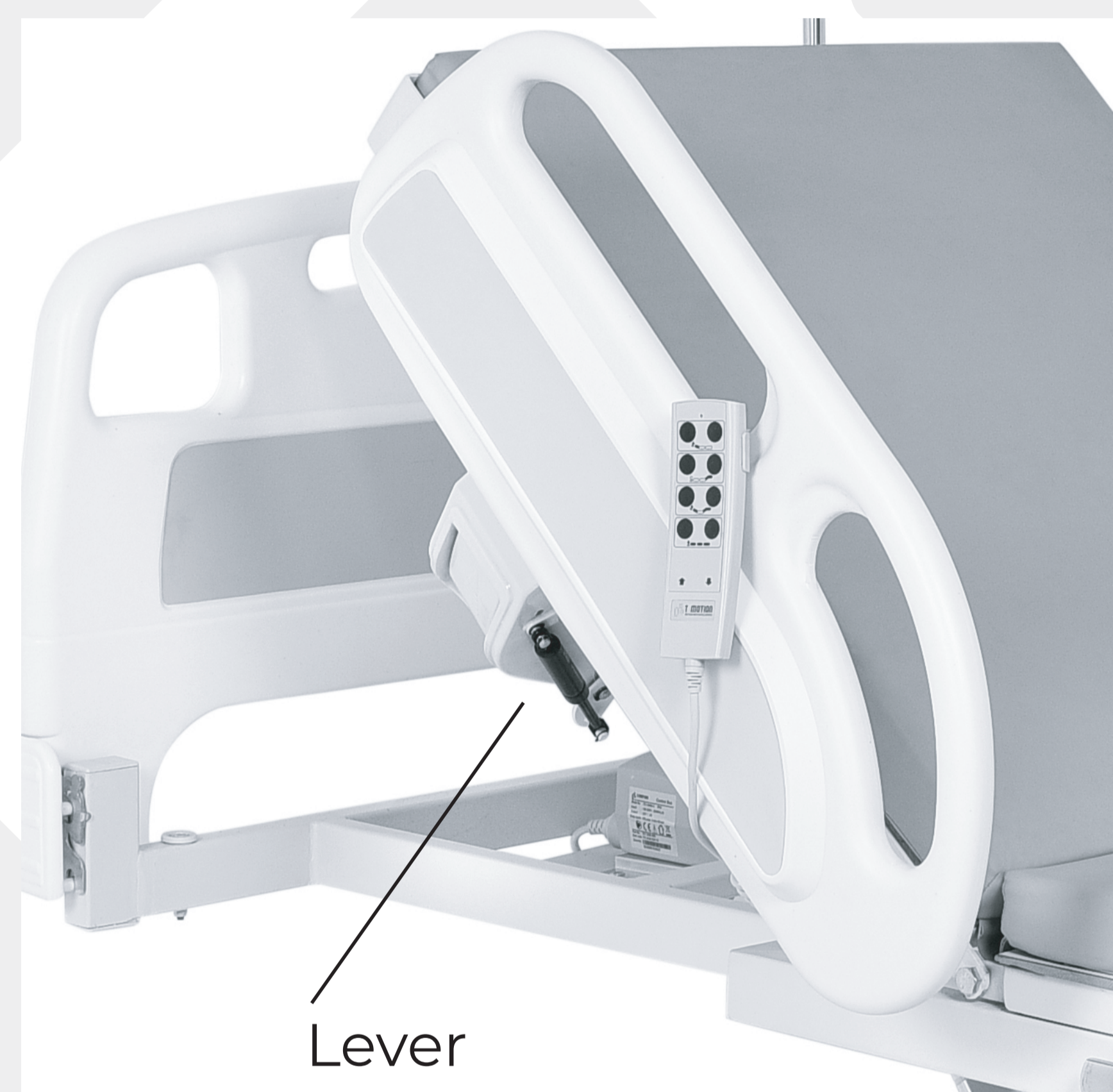
Hand grips are fitted at both Left hand & right hand side of the birthing bed main frame.

Lithotomy Crutches



Adjustable Swivelling crutches already fitted with rod. Insert the lithotomy crutches rod in the provision given on mainframe of the bed. Tightens the rod as shown in picture. Height of lithotomy can be adjusted at any desired level.

Safety Side Railings



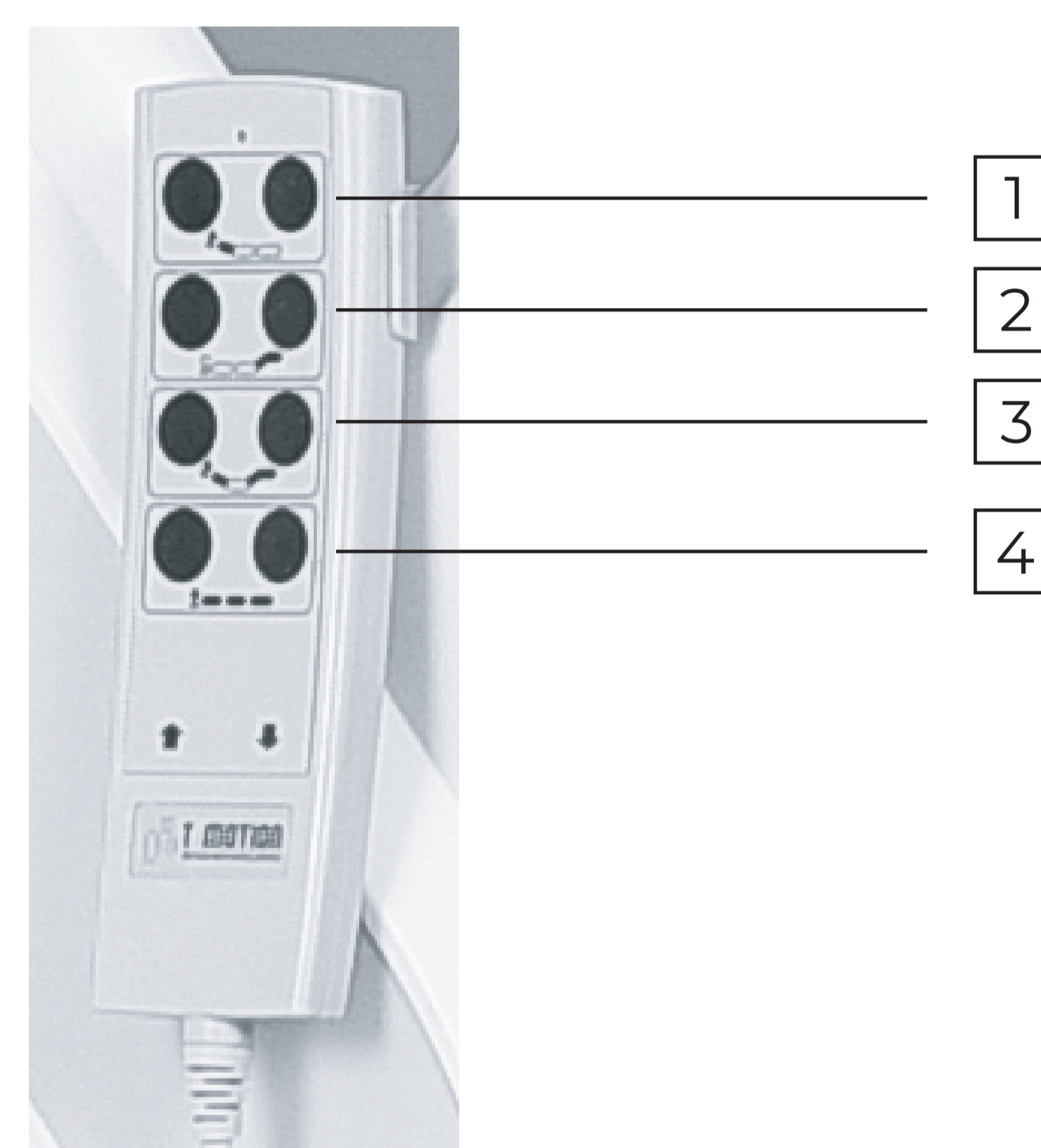
- Immobilize the Bed.
- To raise the Railing, pull it to the top position until it gets locked.
- To release / lower the Safety Side Railing , ensure that there are no obstacles in the path of the railing.
- Lift the lever and push the Safety Side Railing down to its end position.
- Always keep the Safety Side Railing in raised condition when moving the patient with the Bed. Do not use the Safety Side Railing to lift or move the Bed.
- Safety Side Railings must only be used with a mattress of the correct size and which is approved for used with the Bed.
- To prevent the patient from falling, ensure that the Safety Side Railings are in raised position.
- The clinically qualified person responsible should consider the age, size and condition of the patient before allowing the use of the Safety Side Railings.
- Other manufacturer's Safety Side Railings are not compatible with these Beds.
- Please take care of fingers and hands while operating the Safety Side Railings.

- Although the Safety Side Railings have been designed to reduce the risk of patient injury, the potential exists for patient entrapment, particularly in agitated or disoriented patients, patients who have cognitive disability or have uncontrolled body movement as well as patients who lack the physical strength to extract themselves, if they get entrapped.
- Users should carefully evaluate the need for Safety Side Railings and periodically check patients in accordance with facility protocols for safe positioning.
- The Safety Side Railings should always be in raised position when attaining lowest height position or when attaining Trendelenburg / Reverse Trendelenburg Tilt positions.
- If these safety measures are not observed, injuries can be caused to hands, knees, fingers, feet, legs or other body parts of patient due to unintended and unintentional entrapment.

Electrical Adjustments

Using the Handset:

1. Backrest
2. Trendelenburg
3. Backrest & Trendelenburg
4. Height



The Bed should be brought to its lowest position, to facilitate the convenient movement of patient in & out of the Birthing bed.

- Do not operate any clinical position for more than 2 minutes at a stretch, it might over heat the control system.
- Do not misuse or allow children to play with the handset as it can cause inadvertent change in clinical position of the bed and endanger the patient.
- Handset, if dropped can cause malfunctioning

Battery (OPTIONAL)

The Bed is equipped with battery to allow emergency operation of the electric drive system. This ensures that all the power requirements can still be supplied in the event of power failure. The battery also has inbuilt fuse protection for the safety of battery as well as users.

Maintenance & Cleaning

Maintenance

- All the functions are in satisfactory working condition before the bed is allotted to the next patient.
- Unplug the mains supply before carrying out any maintenance activity.
- Lubrication of all the mechanical joints / pins / moving parts/ tightening of the bolts should be carried out at least once in 3 months
- If any damage or malfunction is observed , immediately report this matter to provider
- If the bed is not in use , it should be stored in a dry and flat indoor environment.

Cleaning & Disinfecting

- The bed is not suitable for machine wash or steam cleaning
- Do not use water jet for cleaning
- Always disconnect the mains power cord from the electrical power supply before cleaning.
- Wipe the electrical components with dry cloth only. No traces of water or disinfectant should be present on any electrical component.
- The bed cannot tolerate the influence of strong solvent, basic or alkaline liquids & Caustic agents.
- Clean the Surface with a disposable cloth soaked in a neutral detergent and hot water.
- Do not expose the bed to excessive moisture as corrosion may cause personal injury or equipment damage.

Do not expose the Bed to excessive moisture as corrosion may cause personal injury or equipment damage.

Disposal:

Product and its defective parts especially elements made of plastic, steel, rubber and electrical / electronics (including battery) material should be disposed off in accordance with the statutory rules and regulations prevailing for such disposal

Routine Inspection Check List : Inspection by the user :

Checks	Observations	Ok	Not Ok	Description of faults
Visual check of the electrical components				
Handset	Damage, loose, hanging			
Mains cable	Damage, loose, hanging			
Control elements	Damage, loose, hanging			
Visual check of the mechanical components				
Main frame, base frame	Damage deformation			
Mattress	Damage			
Sliding Leg Section	Damage deformation			
Side railing	Damage, position			
Railing dampeners (Gas springs)	Damage			
Screws and rivets	Missing, loose			
Performance check of the electrical components				
Handset	Function test			
Control unit	Function test			
Motors	Function test			
Performance check of all mechanical components				
Detachable head boards	Secure retention			
Castors	Locking & release			
Detachable Lithotomy Crutches	Secure retention			
Side railing	Engagement, release, secure fastening			
Sliding leg section	Function test			
Accessories	Fastening, damage, missing			
Sign	Result of inspection		Date	

Troubleshooting Guide

Problem	Possible Causes	Remedy
The Bed is not working	No main voltage at mains socket	Check in the supply current
	The Mains cable is not plugged in	Plug in the mains cable
	Mains fuse blown	Replace the fuse (2A)
Certain function not working	Actuator not functioning	Check the Actuator connector for any loose connection
	Control unit not functioning	Repair or replace the control unit
	Handset not functioning	Repair or Replace the handset
	Cables of the actuators are loosened	Fix the cables firmly
Castors not working	Castors are damaged	Replace the castors
	Castors are not locking	Check the Locking lever for any damage & replace the castor
Abnormal sound / vibrations during any operation	Linkages are tight	Lubricate the Linkages from its joints.
	Nut / Bolts are loosen	Tighten the bolts.
Unusual burning smell	Check for any short circuit in the Mains wire	Switch off the mains supply & Unplug the Bed from its mains socket & contact 'United' for further assistance.
	Short circuit in the Control Unit	
Railing not locking in Raised position	Gas spring is not working due to Oil leakage	Check & replace the Gas Spring
	Locking Lever is not properly functioning	Check & replace the Lever

Warranty

Elektro Genesis warrants, solely to the end users of this product that for a period specified in the warranty certificate, such product shall perform as per its intended use. The foregoing warranties shall not apply if the Product has been subjected to:

- (a) physical abuse, misuse, abnormal use, or use not consistent with Elektro Genesis published directions,
- (b) any modification by anyone other than Elektro Genesis or third parties designated by Elektro Genesis; or
- (c) fraud, tampering, negligence or accidents, depending upon the nature of the products.

Limitation Of Liability: In no event shall Elektro Genesis be liable or obligated to the end user in any manner for any special, non-compensatory, consequential, indirect, incidental, statutory or punitive damages of any kind, including, without limitation, for injury or loss of life, lost profits, lost sales, lost revenue, loss of any software or data, or loss of use of any hardware, software or data, regardless of the form of action, whether in contract, tort, negligence, strict product liability, or otherwise, even if Elektro Genesis has been informed of or is aware of the possibility of any such damages in advance. United Surgical Industries total aggregate liability under this agreement and in relation to anything which Elektro Genesis has done or not done in connection with this agreement shall be limited to the price of the products purchased and paid for by the end user during the period in which such liability arises. The limitations set forth above shall be deemed to apply to the maximum extent permitted by applicable law and not with standing the failure of the essential purpose of any limited remedies. In order to maintain functional safety and right to claim under the warranty only original replacements parts may be used.

For ordering replacement parts, customer service request and further question, please contact our technical support department.

Disclaimer

Elektro Genesis, its dealers and representatives reserve the right to make changes in equipment built and/or sold by them at any time without incurring any obligation to make the same or similar changes on equipment previously built and /or sold by them.

1. If safety instructions are not followed/ implemented, usage of this equipment in operation theatre can be hazardous. Risk associated with the product/procedure cannot be denied, if not used as per 'user & safety instructions' provided in 'User/ Instruction Manual'.

2. The equipment has to be strictly used only by qualified, trained & licensed surgeon/physician.

3. Optimized & safe usage of equipment is warranted only if manufacturer's approved accessories are used along with the equipment. Company will not be responsible for any damage/injuries/complications caused to user or patient due to the use of unsafe, non-approved Bed accessories.

4. Company is not responsible for any damage/ complications to patient or user due to use of any equipment which has not been maintained.

5. The equipment maintenance has to be done by a Company trained & qualified technician/engineer.

6. Company is not responsible for any kind of losses to equipment/ patient/ user caused due to the incorrect operation/ maintenance of the equipment by any other personnel.

7. Consumables/Accessories have to be used as per the instructions given in the accompanying documents. Use of expired or re-used accessories beyond the lifecycle may lead to injury/damage/complication to patient or user. Company will not be responsible for such injury/damage/complications.

8. The equipment's warranty is in lieu of all other warranties, expressed or implied, including without limitations, the warranties of merchantability and fitness for a particular purpose, and of all other obligations or liabilities on the part of the Company. Company neither assumes nor authorizes any other person to assume for any other liability in connection with the sale or use of any of the Company products.

9. Every effort has been made to ensure that the information in this user manual is valid. Elektro Genesis reserves the right to change the information in this document without prior notice.