

1512 – LDRP BED

User's Manual

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INTRODUCTION

About this User Manual

This user manual contains instructions for the proper and safe use of the 1512- LDRP Bed, and for patient & user safety and comfort, which has to be strictly followed.

This User Manual has to be read and followed by every person using or handling this 1512- LDRP Bed. In case of any query, kindly contact Midmark India Pvt. Ltd.

ABOUT THIS PRODUCT

- This Motorized Birthing Bed is a non-invasive medical device having multipurpose use for obstetrics, gynaec examination, and post-delivery recuperation (if used as a Bed) of the patient 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 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.
- This Birthing Bed is for 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.
- This Birthing Bed is manufactured and supplied in non-sterile condition for use in normal hospital environment.
- This Birthing Bed is electrically operated for certain profiling movements to provide clinical positions with the help of patient friendly Handset. This Semi Motorized Beds are supported with a Battery Backup.
- This Birthing Beds is not diagnostic, measuring, monitoring or a therapeutic device or we say that it can prevent or alleviate disease.
- This Birthing Beds are also useful for intensive care, critical care in hospitals and nursing homes.

1512 – LDRP Bed Features



Please refer 1512 catalogue for salient features of this product.

1512 – LDRP Bed Technical Data



Please refer 1512 catalogue for technical data of this product.

Add – On Accessories



Please refer 1512 catalogue for various accessories available and compatible with this product

DEFINITIONS

Operator

The 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

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

Patient

A 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.





Advice: This symbol will appear in front of additional helpful pieces of advice.

● A dot in front of the text implies the action that is required to be taken.

Safety Instructions

- Always use original accessories that have been designed and approved for use with the Bed.
- Ensure that the Bed is assembled and installed following 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.
- To prevent the patient from falling, slipping, rolling off from the bed, or any unintended entrapment, periodically check patients for safe positioning in accordance with facility protocols.
- 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 Midmark.
- Don't move the vacant bed in a vertical position or push on the floor, as this will damage the levelling & alignment of the hospital bed. To shift the bed. Lift the bed from the main frame on both the side and then move.
- The Bed should always be kept and used in normal indoor hospital environment.
- 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 some gap between walls and bed while in a stationary position and also while moving from one place to another.
- Keep the user manual handy with the operator/user for ready reference.

 Use of water mattress on the bed is prohibited.

 Please observe and follow the above safety instructions to avoid any injuries to patients, users and attendants.

Electrical Safety Points

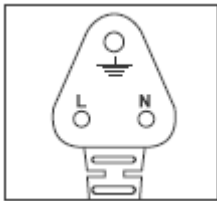
When the Bed is connected to 230V / 15A (or as per country specific) main supply –

Connecting more than one plug to the three pin mains socket 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, damages at regular intervals.



ELECTRICAL SPECIFICATIONS

Mains power supply	100 VAC to 240 VAC 50/60 Hz, Max 5A
Liquid Ingress Protection	IPX6
Electrical Shock Protection	Class 1
Degree of shock Protection	Type B
Duty Cycle	10% (2min. in use /18 min. not in use)

Battery Charger

Battery Charger	Suitable to charge 1.3Ah X 2 batteries Reverse polarity protection Spark free connection Very minimal battery consumption at ideal state, to enhance standby time. Zero idle battery consumption, to enhance standby Battery overcharging protection. Battery low or dip discharge protection
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ENVIRONMENTAL SPECIFICATIONS

Usage, Storage and Transport

Temperature	-10° C to 50°C
Relative Humidity	0% to 95% non-condensing
Atmospheric Pressure	800 to 1060 hPa
Altitude	< 200Qm


INSTALLATION





1. Unpack all the components carefully.
2. If the packing is drenched by rain, water or other liquids, inform this matter to the operator.
3. Each Bed is supplied with the following components as per packing list:-
Bed fitted with Actuators, Castors, Safety Side Rails, Mattress

Telescopic Leg End Extension, Hand Support with Grip, S.S. Tray - 1 No.

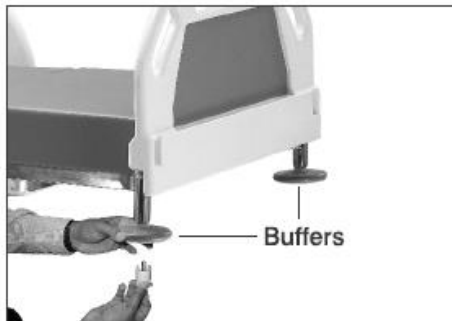
Rubber Buffer with bush - 4 Nos.
Polymer Moulded Head and Foot Board -1 Pair
Lithotomy Crutches, Foot Rest Upper, Foot Rest Lower -1 Set
4. Prior to connecting to the mains, get the input voltage & earthing tested through a qualified electrician. It is necessary to ensure that all electrical connections are proper and tightened.
5. It is advisable to charge the battery for 24 hours to get the best performance when plugged in for first time.
6. Use the Handset and check all the functions by pressing the respective buttons.
7. Demonstrate the functions of the Bed to the User / Operator.

 Installation of the hospital bed should be done only by Midmark trained technicians.

 Packing materials has to be disposed off according to the local regulations for waste disposal.

 With due consideration to environmental limitation, materials used to make the device are not affected by contact with any bio chemicals or bio waste when used as per its intended purpose, all materials used in the product and accessories do not facilitate breeding or growth of bio contaminants on their own.

Buffers



- Fix the rubber buffer in the buffer holder with bush and bolt at all corners.

Head & Foot Boards



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

I.V. Pole



- Insert the Telescopic I. V. Pole in the provision available on either side of the Main Frame.



Dispose the packing material waste in accordance with the local waste disposal regulations prevailing.

ELECTRICAL CONTROL SYSTEM

The electrical control System of this Motorized Birthing Bed consists of:

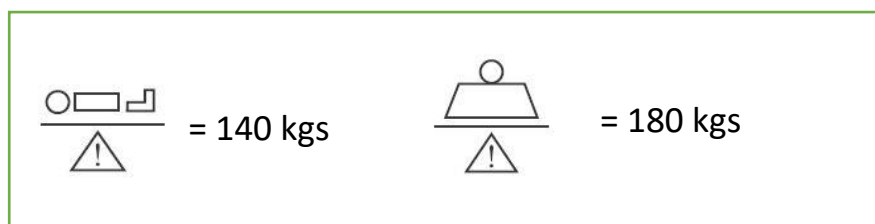
- Three actuators to facilitate the movement of back section, height, and Trendelenburg / reverse Trendelenburg tilt.
- User Friendly Handset for achieving various clinical positions.
- A control unit located below the main frame of the Motorized Birthing Bed to which all the other electrical components are connected.
- A battery box containing two batteries (for Power backup in an emergency and during the power failures) is provided below the main frame of the Motorized Birthing Bed.

OPERATION

- Before putting the Motorized Birthing Bed into use for the first time ensure that all the transport securing devices and packing film are removed.
- Clean and disinfect the Motorized Birthing Bed prior to the first time use.
- The Motorized Birthing Bed should be used on a flat floor.
- The force required to move the Motorized Birthing 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 Motorized Birthing 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



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

Castors & Braking Mechanism



Fig. 1



Fig. 2



Fig. 3

The Motorized Birthing Bed is equipped with four 125 mm High Grade Synthetic Castors and provided with central and directional locking.

Fig. 1: Directional lock.

Fig. 2: Unlocked, all four wheels are unlocked

Fig. 3: Locked, all four wheels are locked

Head Boards:

- 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 by extending equal force with both the hands in the backrest by ensuring the proper matching of the brackets with board holder fitted on the main frame
- The head board can be removed for the ease of access to the patient from head side

Foot Boards:

- The foot board is located at the foot end of the bed frame
- The foot board can be removed or attached in a single step by extending the equal force with both the hands in the bracket by ensuring the proper matching of the backrests with board holder fitted on the main frame

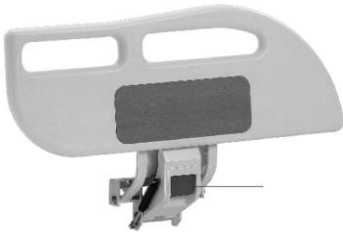


Do not hang any heavy items on the Head & Foot Boards




Use the Bed accessories in accordance with the manufacturer's instructions for patient safety and comfort. Use recommended spares and accessories suitable design manufactured by "Midmark India Pvt. Ltd." to eliminate hazards.


Safety Side Railings





To use the Safety Side Railings –


- Immobilize the Motorized Birthing 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 the raised position while lowering the height of the Motorized Birthing Bed. Do not use the Safety Side Railing to lift or move the Motorized Birthing Bed.
- To prevent the patient from falling, ensure that the Safety Side Railings are in raised position.
- 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.

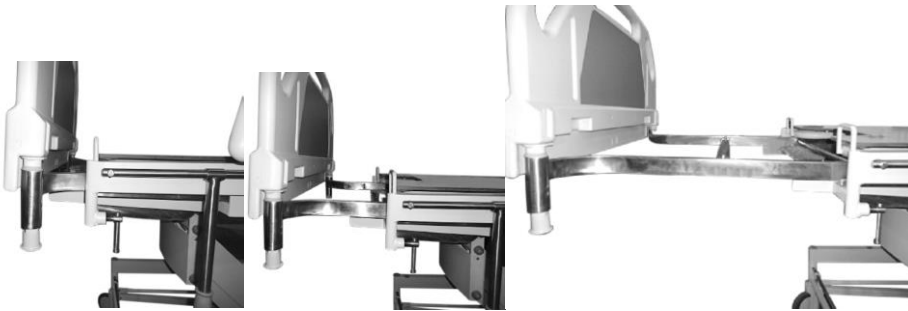
 Users should carefully evaluate the need for Safety Side Railings and periodically check patients in accordance with facility protocols for safe positioning.

 The Safety Side Railings should always be in raised position when attaining lowest height position or when attaining Trendelenburg / Reverse Trendelenburg Tilt positions.

 To facilitate and allow the gynaec, delivery and post delivery procedures on patients; this LDRP bed is specially provided with telescopic leg section and lithotomy crutches due to which the safety side rails near leg section are not provided. In absence of safety side railings near leg Section, user discretion and supervision is advised for patients using the LDRP Bed for post-delivery resting purpose.

 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 entrapment.

Adjustment of Telescoped Leg End Section



To operate the leg end section,

- Remove the Leg End Mattress and place it in a safe place.
- Remove the Leg Bow and place it in a safe place.
- Pull up the Leg End Telescopic frame and slide it inside the main frame.

For extending the Leg End Telescopic frame, follow the above three steps in reverse order

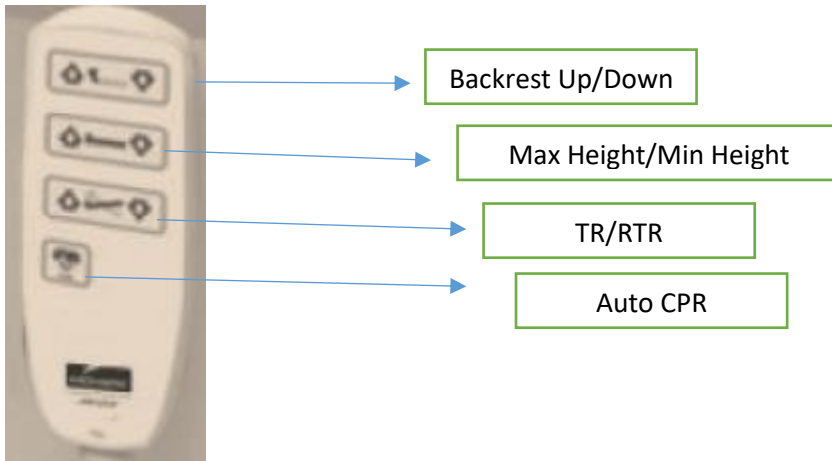
Lithotomy Crutches




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


Electrical Adjustments


Using the Handset




- The Handset is used for activating the above clinical positions by the User or the Operator.
- Press any key to activate the Handset.
- Press the desired function button and simultaneously press the up or down control key to get the required position.
- Hang the Handset on the Safety Side Railings

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

 Do not operate any clinical position for more than TWO minutes at a stretch; it might overheat 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 Motorized Birthing Bed and endanger the patient.

 Handset, if dropped can cause malfunctioning.

Battery

The Motorized Birthing 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.



It is necessary to fully charge the battery at least once a month, especially when the Motorized Birthing Bed has not been in use for a long time. Otherwise the battery could get permanently discharged and/or damaged.

Always keep the Motorized Birthing Bed connected to the main supply to get a fully charged battery for any emergency use.

Operations of the Motorized Birthing Bed on battery should be only as per its duty cycle (refer Electrical Specifications given above)



Do not bring fire or a heated object close to the Product as the batteries in the Motorized Birthing Bed may emit hydrogen gas.



With due consideration to environmental limitations, materials used to make the device are not affected by contact with any bio chemicals or bio waste. When used as per its intended purpose, all materials used in the product and accessories do not facilitate any breeding or growth of bio contaminants on their own.

MAINTENANCE & CLEANING

Each time before putting the bed into service the user must ensure that-

- All the functions are in satisfactory working condition before allotting the bed to the patient
- Lubrication of all mechanical joints/ pins/ moving parts/ tightening of the bolts should be carried out at least once in three months, to avoid unnecessary sound and wear & tear of the bed
- Visual inspection is carried out at regular intervals and check for any mechanical damage (e.g. loose/ missing rivets, screws, etc.)
- If any damage or malfunction is observed, transfer the patient to other bed and report this matter to the operator
- If the bed is not being used, it should be stored in a dry and flat indoor environment which is rodent free with gradient not more than 5 degrees
- If the bed is not in use for long time, it is necessary to conduct a test to check for functioning and any mechanical damage that might have been caused
- Depending on the usage certain moving parts may require replacement due to wear & tear. We recommend timely replacement with genuine 'Midmark' spares for safety and trouble free operation

Cleaning & Disinfecting-

- The bed should be properly cleaned and disinfected to avoid infection and stains before the bed is allotted to a new patient.
- Immobilize the bed & remove all the detachable accessories and components. Use suitable rubber or plastic sheet below the mattress to prevent dampness from coming in contact within the bed's support surface. Any prolonged contact of urine or acid on mild steel can corrode the surface. Keep the surface dry at all times.
- Wearing suitable protective clothing, clean all surfaces with a disposable cloth soaked in a neutral detergent and hot water. We recommended use of Bacillocid to clean the bed.
- Start by cleaning the upper sections of the bed & work along all horizontal surfaces. Work methodically towards the lower sections of the bed Take extra care to clean areas that may trap dust or dirt. All detachable accessories and its components can be cleaned and separately.
- Do not expose the bed to excessive moisture as corrosion may cause personal injury or equipment damage.
- Do not use any steam cleaning device on the bed. The bed is not suitable for machine wash. Do not pour water on bed or use high- pressure water jets for cleaning purpose.



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 material should be disposed off in accordance with the statutory rules and regulations prevailing for such disposal of waste. The user is advised to contact 'Midmark India Pvt. Ltd.' for further assistance.

ROUTINE INSPECTION CHECK LIST: INSPECTIONS BY THE USER

(Recommended Frequency: Every new allotment but not later than three month)

Checks	Observations	OK	NOT OK	Description of faults
Visual check of the Electrical components				
Handset	Damage, Loose, Hanging			
Main Cable	Damage, Loose, Hanging			
Control elements	Damage, Loose, Hanging			
Visual check of the Mechanical components				
Main frame	Damage, deformation			
Sliding leg section	Smooth movement			
Mattress	Damage			
Side railing	Locking / Un-locking, Secure fastening			
Screws and rivets	Loosened, Missing			
Performance check of the Mechanical components				
Handset	Functional test			
Control unit	Functional test			
Actuators	Functional test			
Performance check of all mechanical components				
Detachable head and foot boards	Secure retention			
Detachable Lithotomy Crutches	Secure retention			
Castors	Locking, release			
Safety side railings	Locking / Un-locking, Secure fastening			



JANAK[®]
Because we care.

Sliding Leg Rest	Engagement			
Accessories	Fastening, Damage, Missing			
Sign	Result of Inspection		Date	

Troubleshooting Guide

Problem	Possible Causes	Remedy
The Bed is not working	<ul style="list-style-type: none"> • No main voltage at mains socket • The Mains cable is not plugged in • Mains fuse blown 	<ul style="list-style-type: none"> • Check in the supply current • Plug in the mains cable • Replace the fuse (2A)
Certain function not working	<ul style="list-style-type: none"> • Actuator not functioning • Control unit not functioning • Handset not functioning • Cables of the actuators are loosened 	<ul style="list-style-type: none"> • Check the Actuator connector for any loose connection • Replace the Actuator • Repair or replace the control unit • Repair or replace the Handset • Fix the cable firmly
Bed is not functioning during mains power failure	<ul style="list-style-type: none"> • Battery discharged • Battery fuse blown off • Battery wire loosened 	Recharge the battery as recommended <ul style="list-style-type: none"> • Replace the fuse • Fix the battery wire firmly
Beeping sound from the Control Unit	<ul style="list-style-type: none"> • Overloading on the bed • Internal or external fuse blown off • Battery discharged 	<ul style="list-style-type: none"> • Reduce the load on the battery • Replace the fuse • Recharge the battery
Castors not working	<ul style="list-style-type: none"> • Castors are damaged • Castors are not locking 	<ul style="list-style-type: none"> • Replace the castors • Check the locking lever for any damage & replace the castors
Abnormal sound/vibrations during any operation	<ul style="list-style-type: none"> • Nut / Bolts are loosen • Linkages are tight 	<ul style="list-style-type: none"> • Tighten the bolts. • Lubricate the Linkages from its joints
Unusual burning smell	<ul style="list-style-type: none"> • Check for any short circuit in the main supply • Short circuit in the Control unit 	<ul style="list-style-type: none"> • Switch off the main supply & Unplug the Bed from its mains socket & contact 'Midmark' for further assistance
Railing not locking raised position	<ul style="list-style-type: none"> • Gas spring is not working due to oil leakage • Locking lever is not properly functioning 	<ul style="list-style-type: none"> • Check & replace the gas spring • Check and replace the lever

WARRANTY & SERVICE

Midmark India Pvt. Ltd., warrants, solely to the end users of this bed that for a period specified in the warranty certificate, such bed 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 Midmark India Pvt. Ltd.'s published directions, (b) any modification by anyone other than Midmark India Pvt. Ltd. or third parties designated by Midmark India Pvt. Ltd., or (C) fraud, tampering, negligence or accidents, depending upon the nature of the products.

Limitation of Liability: In no event shall Midmark India Pvt. Ltd., 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 Midmark India Pvt. Ltd. has been informed of or is aware of the possibility of any such damages in advance. Midmark India Pvt. Ltd.'s total aggregate liability under this agreement in relation to anything which Midmark India Pvt. Ltd., 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 notwithstanding 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 'Midmark' replacements parts must be used. For ordering replacements parts, customer service requests and further questions, please contact our technical support department.

DISCLAIMER

Every effort has been made to ensure that the information in this user manual is valid. Midmark India Pvt. Ltd., reserves the right to change the information in this document without prior notice.

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