USER MANUAL

MODEL : PLUS A4
Electro-mechanical Hospital Bed

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PURPOSE AND CONTENT

The purpose of this user manual is to provide all necessary information to the customer for using the device in the most effective and safest manner possible. This manual includes details on technical specifications, functionality, maintenance, spare parts, and safety.

Please read the user manual before using the product. This booklet contains the essential information required for use and maintenance. If you encounter any unclear points in the manual, please contact us to obtain information from our professional staff. Otherwise, unwanted injuries or damages may occur.

Storage of the User Manual

This user and maintenance guide should be stored together with the product and kept away from any substances or liquids that might compromise its readability.

ACCESSORY AND SPARE PART WARNING

Medical 2000 products and accessories are specially designed to work in complete harmony with each other. Accessories designed by other manufacturers have not been tested by Medical 2000 Inc., so only accessories/original spare parts approved by Medical 2000 Inc. should be used.

Medical 2000 Inc. will not be held responsible for damages or injuries caused by using non-recommended accessories, and if the product is under warranty, the warranty will be void.

NOTE

The information in this document is subject to change without prior notice.

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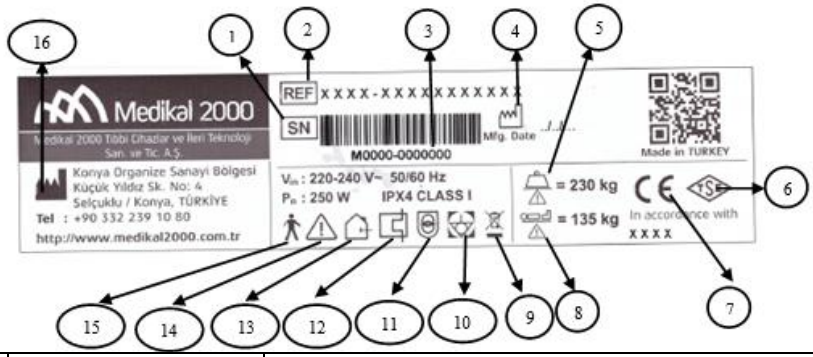
LABELING

Each device has an identification label placed on it. This label contains information such as the Manufacturer, product, CE mark, serial number (SN), or batch number (LOT). It must never be removed or covered with paint or similar substances.

Symbols on the Product



No	Symbol	Description
1	SN	Serial No.
2	REF	Product Model
3	LOT	Product Serial No.
4		Production Date
5	= Kg	Safe Working Load
6	TSE	Compliance with all TSE directives
7	CE	Compliance with all CE directives
8	= Kg	Maximum Patient Weight

9		Caution! Unused electrical devices must not be disposed of with household waste. They should be taken to a public collection point for environmentally friendly disposal in compliance with national regulations.
10		Equipotential Terminal
11		Fault-Safe Transformer
12		Fault-Safe Transformer
13		Suitable for indoor use only
14		Refer to additional documentation
15		Type B Device
16		Manufacturer

SPECIAL NOTES

Certain words are used in this user manual to indicate potential risks of material damage or injury and to aid understanding. These words are detailed in the table below:

WORD	MEANING
DANGER	This word indicates potential dangers that, if not avoided, may result in serious injury or death.
WARNING	This word indicates potential dangers that, if not avoided, could lead to serious injury or death.
CAUTION	This word indicates potential risks that, if not avoided, may cause material damage.

TECHNICAL SPECIFICATIONS

Technical Specifications	PLUS A3	PLUS A4	PLUS A7	PLUS A8
Bed Height (Max.)	78.5 cm	73 cm	80 cm	73 cm
Bed Height (Min.)	43 cm	40 cm	44 cm	40 cm
Trendelenburg Angle	Not Available	12°	12°	12°
Reverse Trendelenburg Angle	Not Available	12°	Not Available	12°
Backrest Angle (Max.)	70°	70°	70°	70°
Legrest Angle (Max.)	30°	30°	30°	30°
Length	212.5 cm	210.5 cm	212.5 cm	212.5 cm
Width	103.5 cm	112 cm	103.5 cm	103.5 cm
Mattress Surface Length	190 cm	190 cm	190 cm	190 cm
Mattress Surface Width	85 cm	85 cm	85 cm	85 cm
Compact Laminate or ABS Mattress Surface	Available	Available	Available	Available
Wheel Diameter	125 mm	125 mm	125 mm	150 mm
Safe Working Load (SWL)	230 kg	230 kg	230 kg	230 kg
Central Brake System	Not Available	Available	Not Available	Available
Nurse Hand Control	Not Available	Available	Not Available	Optional
Nurse Rail Control Panel	Not Available	Not Available	Available	Available
Patient Hand Control	Available	Available	Optional	Optional
Patient Rail Control Panel	Optional	Not Available	Available	Available
Chair Position	Not Available	Available	Not Available	Available
CPR (Automatic/Manual)	Available/ Available	Available/ Available	Available/ Available	Available/ Available

***TABLE 1*:** Plus Series Technical Specifications

CONTROL BOX TECHNICAL SPECIFICATIONS

Manufacturer	MEDICAL 2000	BIBUS	LINAK	TMOTION
Reference	MEDICAL 2000	BIBUS	LINAK	TMOTION
Input Voltage	100-240 AC	100-240 AC	100-240 AC	100-240 AC
Voltage Tolerance	±10%	±10%	±10%	±10%
Operating Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Max. Power/VA	8 A	6-8 A	6-8 A	6-8 A
Output Voltage	24 VDC	24 VDC	24 VDC	24 VDC
Class	I	I	I	I
Fuse Information	10 AT	10 AT	10 AT	10 AT
Type	B	B	B	B
Protection Level	IP54	IPX4	IPX4	IPX4

***TABLE 2*:** CONTROL BOX TECHNICAL SPECIFICATIONS

BATTERY TECHNICAL SPECIFICATIONS

Output Voltage	Tolerance	Class	Charging Time	Safe Operating Temperature	Protection Level
24 VDC	±10%	II	12 Hours	+5°C to +40°C	IP54 / IP66

***TABLE 3*:** BATTERY TECHNICAL SPECIFICATIONS

-DANGER -

Never open, burn, or expose a discharged battery to water. If sulfuric acid leaks from the battery and comes into contact with your skin or clothing, wash immediately with plenty of water. If the acid comes into contact with your eyes, wash thoroughly and consult a doctor. Battery replacement should only be performed by authorized personnel. If the product is stored (not in use) and supported by a battery, it should be recharged every 3 months to prevent battery damage. Only batteries recommended by the manufacturer should be used. If you need to replace the battery cable, purchase it from the manufacturer. Otherwise, inadequate power capacity may lead to a fire.

EMC COMPLIANCE TABLES

This device generates, uses, and emits energy at radio frequencies (RF). If not used as described in the manual, it may cause electromagnetic interference.

This device has been tested for compliance with the EN 60601-1-2 standard for Medical Devices and determined to meet acceptable limits. These limits demonstrate that the device provides adequate protection against electromagnetic interference (EMC) when used as specified in the manual.

The device is designed and manufactured to comply with the requirements of the EN 60601-1-2 standard.

This device may be affected by portable and mobile RF communication devices. It should not be stored with other equipment.

For more information about this device and EMC, see the information below.

Declaration of Manufacturer – Electromagnetic Emissions		
This device is intended for use in the electromagnetic environment specified below. The customer or user must ensure its use in such an environment.		
Emission Test	Compliance	Electromagnetic Environment – Guidance
RF Emissions (CISPR 11)	Group 1	The device uses RF energy only for its internal functions. RF emissions are low and unlikely to interfere with nearby electronic equipment.
RF Emissions (CISPR 11)	Class A	This device is suitable for use in all establishments, including those directly connected to public low-voltage power supply networks.
Harmonic Emissions (IEC 61000-3-2)	Class A	
Voltage Fluctuations/Flicker Emissions (IEC 61000-3-3)	Complies	

***TABLE 4*:** Electromagnetic Emissions

Declaration of Manufacturer – Electromagnetic Immunity			
This device is intended for use in the electromagnetic environment specified below. The customer or user must ensure its use in such an environment.			
Immunity Test	**IEC 60601 Test Level**	**Compliance Level**	**Electromagnetic Environment – Guide**
Electrostatic Discharge (ESD) (IEC 61000-4-2)	±8 kV contact, ±15 kV air	±8 kV contact, ±15 kV air	Floors should be wood, concrete, or ceramic tile. If covered with synthetic material, relative humidity should be at least 30%.
Electrical Fast Transient/Burst (IEC 61000-4-4)	±2 kV, 100 kHz	±2 kV, 100 kHz	Mains power quality should be equivalent to that of a typical commercial or hospital environment.
Surge (IEC 61000-4-5)	±0.5–1 kV line-to-line; ±0.5–2 kV line-to-ground	±0.5–1 kV line-to-line; ±0.5–2 kV line-to-ground	Mains power quality should be equivalent to that of a typical commercial or hospital environment.
Voltage Dips, Short Interruptions, and Voltage Variations on Power Supply Input Lines (IEC 61000-4-11)	0% UT; 0.5 cycle, 40% UT; 5 cycles, 70% UT; 25 cycles	0% UT; 0.5 cycle, 40% UT; 5 cycles, 70% UT; 25 cycles	Mains power quality should be equivalent to that of a typical commercial or hospital environment.
Power Frequency (50/60 Hz) Magnetic Field (IEC 61000-4-8)	30 A/m, 50 Hz	30 A/m, 50 Hz	Power frequency magnetic fields should be at levels characteristic of a typical location in a commercial or hospital environment.
Note: UT is the a.c. mains voltage prior to application of the test level.			

Table 5a: Electromagnetic Immunity

Declaration by the Manufacturer – Electromagnetic Immunity (Continued)

This device is intended for use in the electromagnetic environment specified below. The customer or user of the device should ensure its use in such an environment.

Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment – Guide
Conducted RF (IEC 61000-4-6)	150 kHz to 80 MHz, 3V RMS, 80% AM (1 kHz) (6V RMS for ISM bands)	3V RMS 3V RMS	Portable and mobile RF communication devices should not be used closer to any part of this device than the recommended separation distance. **Recommended Separation Distance** $d = 1.16\sqrt{P}$ $d = 1.2\sqrt{P}$ 0,15 MHz ila 80 MHz $d = 2.3\sqrt{P}$ 80 MHz ila 2.7 GHz Where: P = maximum power output of the transmitter in watts (W), as specified by the transmitter manufacturer. d = recommended separation distance in meters (m). Fixed RF transmitters' electromagnetic field strength should be below the compliance level for all frequencies.
Radiated RF (IEC 61000-4-3)	80 MHz to 2.7 GHz, 3V/m, 80% AM (1 kHz)	3 V/m	

Note 1: At 80 MHz and 800 MHz, the higher frequency range applies.
Note 2: The above guidelines may not apply in all circumstances due to variations in electromagnetic propagation caused by absorption and reflection from structures, objects, and people.

[a] The EBT (Industrial, scientific and medical) bands between 150 KHz and 80 MHz are 6.765 to 6.795 MHz, 13.553 MHz to 13.567 MHz, 26.957 MHz to 27.283 MHz and 40.66 MHz to 40.70 MHz.

[b] The compliance levels in the EBT frequency band between 150 KHz and 80 MHz and in the frequency range between 80 MHz and 2.5 GHz are intended to reduce the potential for interference caused by mobile/portable communications equipment being unintentionally carried into the patient area. Therefore, in these frequency ranges, an additional factor of 10/3 is considered in the formula used to calculate the recommended separation distance for transmitters.

[c] Field strengths from fixed transmitters, such as radiotelephone (cellular/wireless) base stations and mobile ground radios, amateur radio, AM and FM radio broadcast, and TV broadcast, cannot be predicted theoretically with accuracy. An electromagnetic site survey should be considered when assessing the electromagnetic environment due to fixed RF transmitters. If the measured field strength in the location in which the Model 005 is used exceeds the applicable RF compliance level above, the [ET Equipment or ET System] should be observed to operate normally. Additional measures, such as reorienting or relocating the Model 005, may be necessary if abnormal performance is observed.

[d] Over the frequency range 150 kHz to 80 MHz, the field strength should be less than 1 V/m.

Table 5b: Electromagnetic Immunity

- WARNING -

General usage instructions include critical information necessary for the safe operation of this product.

SECTION 1 – GENERAL USAGE INSTRUCTIONS

- Do not use the product near explosive gases.
- Keep the product at least 30 cm away from heat sources.
- The product should only be used by authorized and adequately trained personnel.
- When the product is used by children or disabled patients, supervision by a caregiver or authorized individual is required.
- While adjusting the product to the desired position, take precautions to avoid potential risks of harm to the patient, nearby individuals, or equipment.
- Caregivers must familiarize themselves with the bed's movements and usage details as explained in the manual before operating the product. The instructions for all operations should be strictly followed.
- Features that allow patient operation must be explained to the patient by an authorized caregiver.
- Before using the product, inspect all functions and check for damage that may have occurred during transportation. Ensure that all parts are properly assembled and functional. Do not use the product if any part is damaged. Contact the manufacturer for technical support.
- Always ensure the product is on a flat and clean surface during use.
- The wheels of the product must be locked while a patient is on it (except when the patient needs to be moved with the product).
- No one other than the patient should be on the product.
- Do not use a mattress thicker than 14 cm on the product.
- The safe working load (SWL) of the product must never be exceeded. If exceeding the SWL becomes unavoidable, ensure the bed is in its lowest position and all functions are disabled.

- The patient must be positioned on the bed so that their weight is evenly distributed. Avoid positioning the patient such that their weight is concentrated on the head, foot, or side sections.
- When using the product for unconscious patients, secure them to the bed using patient restraint straps to prevent accidents or injuries caused by falls.
- Side rails are designed to prevent the patient from falling. Excessive force, hanging, pushing, or sitting on the side rails can cause damage.
- If the product is not going to be used for an extended period, unplug the power cord and set the "on/off" switch (if available) to the "off" position.
- If liquid is spilled on or near the electrical components of the product, unplug the power cord before cleaning. Allow the liquid to dry completely before reconnecting the power.
- Only use accessories and spare parts approved by Medikal 2000 Inc. Use of unapproved parts may result in accidents or damage and will void the product's warranty.

Situations That Pose Danger to the Patient or Caregiver:

- Using the product in an unclean area.
- Using the product on uneven ground.
- Exceeding the SWL (Safe Working Load) limit.
- Operation by unauthorized persons.
- Damage to the power cable, such as tearing or breaking.
- Incorrect placement of accessories, as specified in the "Product Description" section.
- Using unapproved spare parts and accessories.
- Inadequate or incorrect general maintenance.

SECTION 2 – Plus A4 Product Description

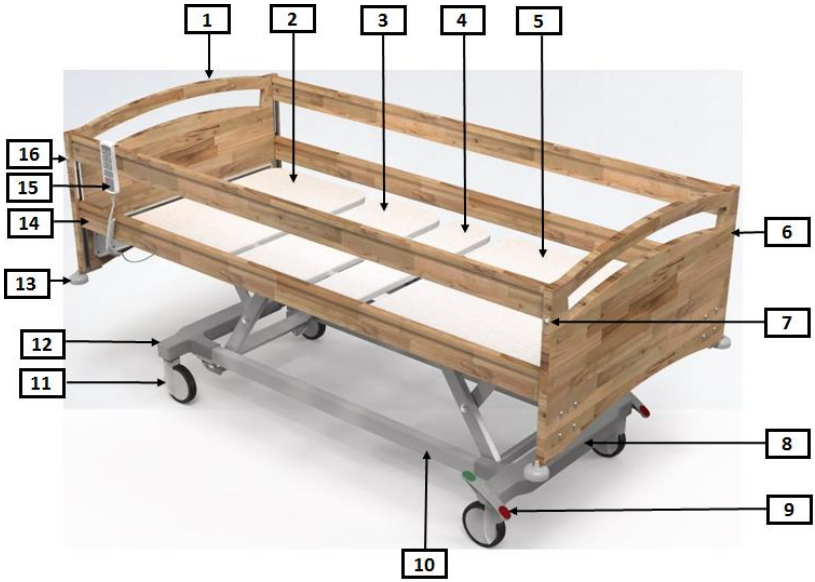


Figure 1. Plus A4 Product Description

1	Headboard	**9**	Brake Pedal
2	Headboard Section	**10**	Lower Chassis
3	Hip Section	**11**	150 mm Wheel
4	Knee Pad Section	**12**	Lower Chassis Closing Plastic
5	Footboard Section	**13**	Bumber
6	Footboard Headboard	**14**	Lower Side Railing
7	Rail Lock Mechanism	**15**	Patient Hand Control Remote
8	Lower Chassis Closing Plastic	**16**	Upper Side Railing

SECTION 3 – INSTALLATION

- WARNING -

Medikal 2000 products should only be assembled and adjusted by authorized personnel.

During installation and use, ensure the power cord is not placed in areas where it could be pinched or come into contact with moving parts of the product. Also, ensure there are no objects between the lower and upper frames of the bed.

Installation of the Plus A4 Electro-Mechanical Intensive Care Bed

1. Carefully unpack the product.
2. Inspect for any damage that may have occurred during transportation. If damage is detected, contact the manufacturer immediately.
3. Check that all essential parts and accessories are present. If anything is missing, contact the manufacturer immediately.
4. Read the user manual thoroughly before starting to use the product.
5. Attach all accessories to their designated locations on the product.
6. Before testing the product's functions, ensure the power cord is plugged in and, if applicable, the "on/off" switch on the control box is set to "on."
7. Test all electronic functions individually to ensure proper operation. If any function does not work correctly, contact the manufacturer.
8. Check all mechanical functions (e.g., side rail lock mechanisms, wheel brake system, foot section adjustments) to confirm proper operation. If any function does not work correctly, contact the manufacturer.

SECTION 4 – USAGE

Usage of the PLUS A4 Electromechanical Intensive Care Bed

The PLUS A4 model electromechanical intensive care bed is specially designed to ensure patient comfort and safety, making it an excellent choice for your needs. The PLUS A4 intensive care beds provide all necessary positions for high-risk patients. Standard features and usage methods are outlined below.

- DANGER -

Before placing the patient on the bed, perform a risk assessment for the following conditions. If a risk is identified, the bed's functions should be disabled:

- **Risk of entrapment (e.g., hands or arms getting caught)**
- **Risk of falling off the bed**
- **Unauthorized use by untrained individuals, children, or mentally disabled patients**

First, fix the product in place by pressing the wheel brakes. Make sure that the bed and its accessories are at room temperature. After making sure that the bed is clean and disinfected, open the control panels and follow the steps below to bring the bed to the desired position.

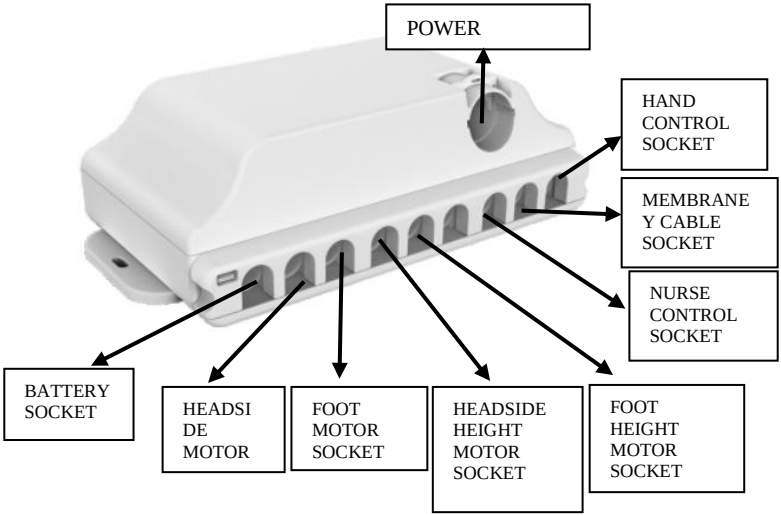


Figure 2. Control Unit Socket Connection Type (JCB35R)

To operate the bed, connect the power cable to a 220V 50Hz outlet.

- Battery Socket -

Ensure the hospital power grid meets the bed's energy requirements as specified (220V 50Hz). Only trained personnel should perform these tasks.

Press any button you want to bring the bed to the desired position. If the bed does not take the desired position or operates in the wrong position, first read the "Service Manual", if the fault persists, contact the manufacturer.

- DANGER -

If an extension cord needs to be used, make sure that a suitable extension cord is used. Using the wrong extension cord may result in the risk of fire and electric shock.
If there is any damage to the power cord or plug on the Control Box, never plug the bed into the socket. Contact the manufacturer.
Make sure that all electrical cords are away from hot surfaces.
Make sure that the power cord is mounted in such a way that it cannot be caught in any part of the bed. Otherwise, damage or injury may occur.
Do not remove the power cord from the control box.
Do not open parts such as the Motor, Control Unit and Control Panel. There are no parts that the user can repair in these parts. For technical support, contact only qualified and authorized personnel. Intervention by unauthorized and unqualified personnel may cause further damage to the product and void the warranty.
If any maintenance is required on the product, unplug the product from the socket.

Radio Frequency Interference

Electronic equipment may be affected by radio frequency interference (RFI). Be cautious when using high-frequency devices (e.g., electrocautery) near this equipment.

Load Capacity

The Plus A4 Electromechanical Intensive Care Bed has a load capacity of 230 kg, including accessories, mattress, patient, or any objects on it.

- Avoid placing anyone other than the patient on the bed.
- Ensure the patient’s weight is evenly distributed on the bed surface.
- Do not allow the patient to lie or sit concentratedly on the elevated head or foot sections.

Use of Control Panels of Plus A4 Electro-Mechanical Intensive Care Bed

Using the Patient Hand Control

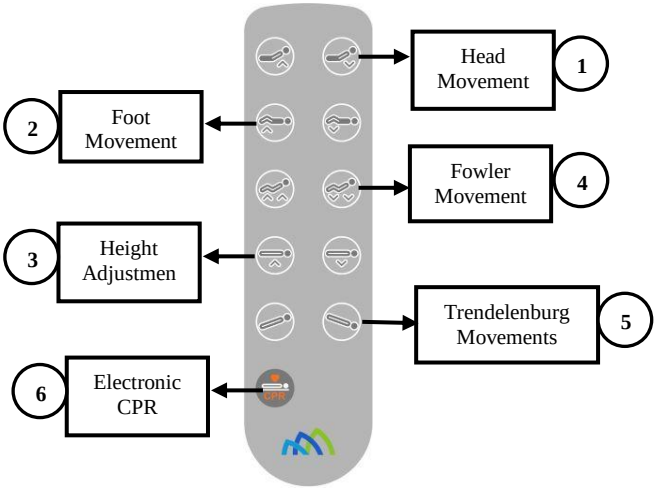


Figure 3. Hand Control (JCB35R)

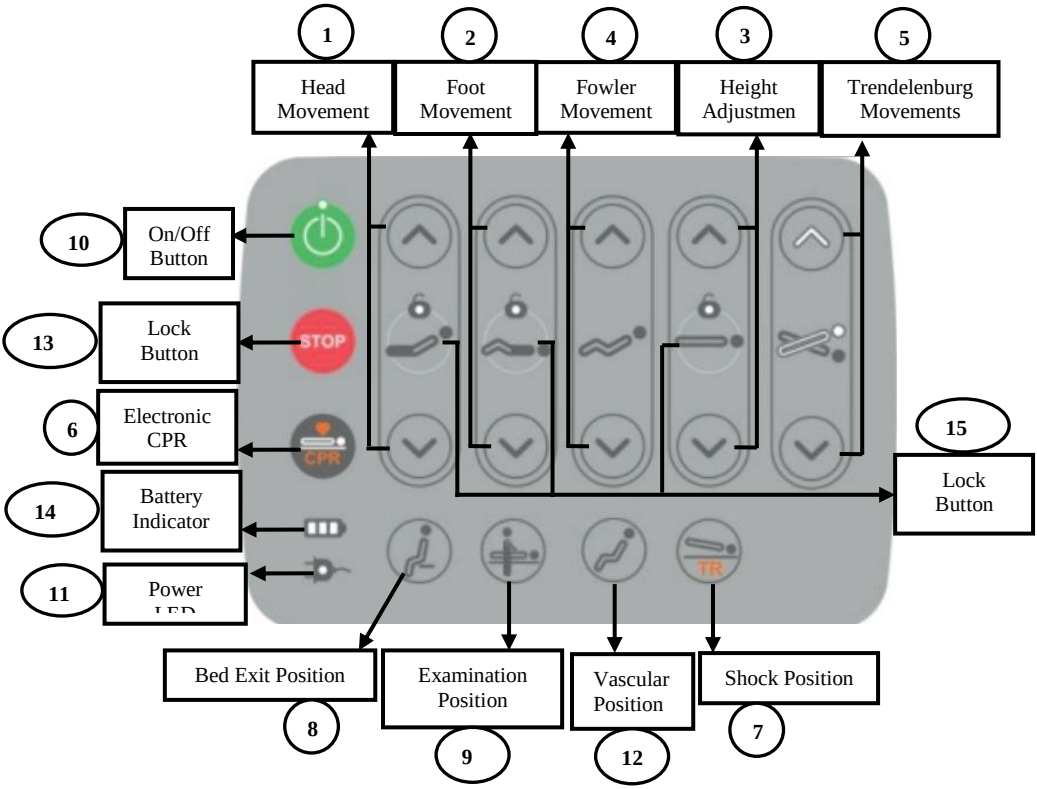


Figure 4. Nurse Control Hand Controller (JCB35R)

1. For the upward movement of the "Headside" function of the bed, press the "Headside Up Button" until the bed reaches the desired height. For the downward movement of the "Headside" function of the bed, press the "Headside Down Button" until the bed reaches the desired height.
2. For the upward movement of the "Footside" function of the bed, press the "Footside Up Button" until the bed reaches the desired height. For the downward movement of the "Footside" function of the bed, press the "Footside Down Button" until the bed reaches the desired height.

3. To raise the bed, press the “Raise Button” until the bed reaches the desired height. To lower the bed, press the “Lower Button” until the bed reaches the desired height.
4. For the upward movement of the bed’s “Fowler (head and foot)” function, press the “Fowler Up Button” until the bed reaches the desired height. For the downward movement of the bed’s “Fowler (head and foot)” function, press the “Fowler Down Button” until the bed reaches the desired height.
5. To put the bed in the Trendelenburg position, press the “Trendelenburg Up Button” until the bed reaches the desired height. To put the bed in the Rev. Trendelenburg position, press the “Trendelenburg Down Button” until the bed reaches the desired height.
6. To bring all the functions of the bed to zero position, press the “CPR Button” until the bed reaches the desired height.
7. To put the bed in the shock position, press the “Shock Button” until the bed reaches the desired height.
8. For easy and safe transfer of the patient from the bed, press the “Bed Exit” button until the bed reaches the desired height.
9. If you need to put the patient in the examination position, press the “Examination Position” button until the bed reaches the desired height.
10. To activate all the functions of the bed, press the “On/Off Button” to turn on the LED on the button. (At the same time, the LED on the “On/Off Button” on the Patient Control Panel will also be active.) Thus, all the functions of the bed are activated.
When the bed is operated with batteries, the bed goes into standby mode after a certain period of time (3 minutes) to prevent unnecessary energy consumption of the unit and automatically deactivates the LED on the “On/Off Button”. In such cases, when you want to use the bed, press the “On/Off Button” to turn on the LED on the button. Thus, all the functions of the bed are activated.
11. When energy is supplied to the bed, the Power Led is activated.
12. To put the bed in the Vascular position, press the Vascular Button until the bed reaches the desired height.
13. To deactivate all functions of the bed, press the Stop Button to turn off the LED on the On/Off Button. Thus, all functions of the bed are deactivated. To reactivate all functions of the bed, press the On/Off Button to turn on the LED on the On/Off Button. Thus, all functions of the bed are activated.

14. You can follow the charge status of the batteries on the control box of the bed with this indicator.
15. In order to prevent misuse by unauthorized persons or to prevent an undesirable situation, press any of the lock buttons (Headside, Footside, Height) on the nurse hand control remote control to turn on the LED on the relevant function button. In this case, the relevant function is deactivated. To reactivate the relevant function, press the lock button to turn off the LED on the relevant function. In this case, the relevant function becomes active.

- DANGER -

- Before using bed functions (e.g., Head, Foot, Height, Trendelenburg, Shock), ensure there are no obstructions (e.g., objects, cables, accessories) beneath the bed. Failing to do so may result in severe injuries, fatalities, or material damage.
- The absence of the Trendelenburg or Shock position in cases of hemodynamic trauma or severe respiratory distress may endanger patient health.
- Only trained personnel (nurses, caregivers) should operate positions like Trendelenburg, Reverse Trendelenburg, Shock, and CPR.
- Never leave a patient unattended in Trendelenburg, Reverse Trendelenburg, or Shock positions.

Manual Functions of the Plus A4 Intensive Care Bed

Side Rail Usage

The Plus A4 Electromechanical Intensive Care Bed is equipped with four side rails designed to reduce the risk of accidental patient falls.

- ATTENTION –

- **Ensure the side rails operate smoothly. If they do not move easily or resist movement, do not force them.**
- **Using a mattress thicker than specified may reduce the effectiveness of the side rails in preventing falls. In such cases, monitor the patient closely. Medical 2000 is not responsible for any issues arising from the use of non-recommended mattresses.**
- **Side rails must always be locked in the topmost position when a patient is on the bed.**
- **If the patient exhibits unusual behavior (e.g., agitation, disorientation, lack of spatial awareness), ensure they are closely monitored, either directly or via a monitoring system, to ensure safety.**
- **If the patient is unconscious, use safety straps to secure them to the bed.**

1. Press the side rail release button, so the locking mechanism on the side where the lever is located will move to the free position.
2. If you want to move the side rail upwards, lift the side rail upwards as shown by arrow number 1 in Figure 5 and ensure that it fits into its slot. If you want to move the side rail downwards, lower the side rail downwards as shown by arrow number 2 in Figure 5 and ensure that it fits into its slot.
3. Repeat the same process by pressing the button on the other side of the rail.

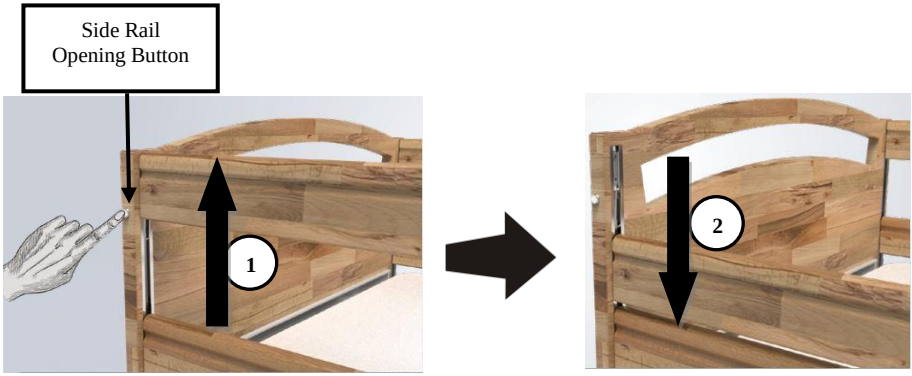


Figure 5. Use of Guardrails

- NOTE -

The lock button does not need to be held throughout the movement. Release it once the rail is free.

Manual Adjustment of the Head Section (CPR)

In emergencies, the Plus A4 Electromechanical Intensive Care Bed allows the head section to be quickly and smoothly lowered using the manual CPR feature. This functionality is available regardless of the bed's current position.

In case of a power outage, the head section can be lowered by pulling the manual CPR lever located on the side of the bed, as shown in **Figure 6.**

Pull the manual CPR lever toward you, and the head section will automatically lower.

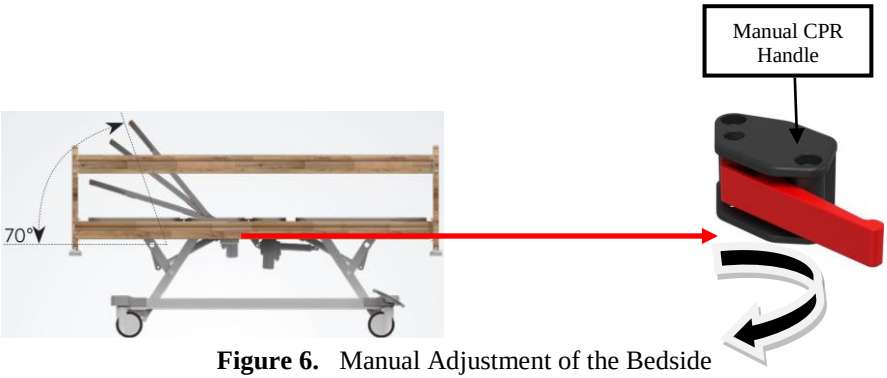


Figure 6. Manual Adjustment of the Bedside

- ATTENTION –

- **Do not use the manual CPR feature to raise the head section.**
- **Ensure no obstructions are present beneath the head section while using the manual CPR feature.**
- **Use the manual CPR feature only in emergencies.**

- ATTENTION –

If the manual CPR handle remains attached after use, the bed head motor may not work. Therefore, if the motor does not work after using the CPR handle, check the CPR wire.

Manual Adjustment of the Foot Section

The foot section of the Plus A4 Electromechanical Intensive Care Bed can also be manually adjusted. Adjust the footrest support bar (Rastomat) to one of the six available positions, as shown in **Figure 7.**

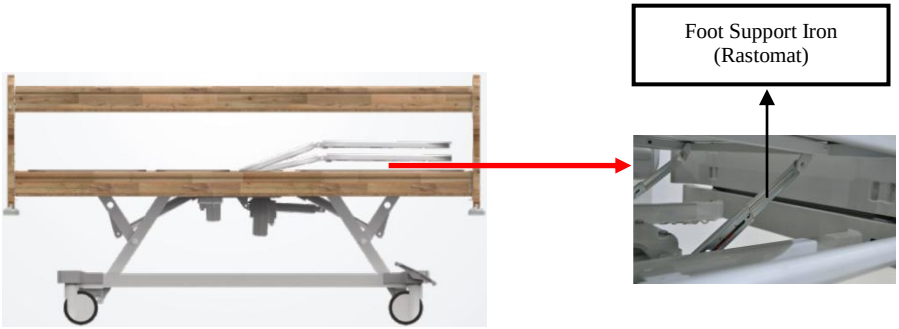


Figure 7. Using the Footrest Manually

- ATTENTION –

- **Be careful not to pinch your hand during this process.**
- **Do not release the footrest support bar abruptly.**
- **To utilize all six positions of the footrest, raise the foot section to its highest position using the control panels before adjusting. Failing to do so may prevent access to all positions and cause damage.**
- **Avoid excessive weight on the footrest while it is supported in any of the six positions.**

- ATTENTION –

Headboards should not be used as handles when transferring a bed. You can remove the headboards and hold them by the profile during the transfer.

Wheel Locking Mechanism (Cross Lock)

1. To lock the wheels: Press the brake pedal downward, as shown in Figure 8a. This locks the wheels and prevents the bed from moving.
2. To unlock the wheels: Lift the brake pedal upward, as shown in Figure 8b. This releases the wheels, allowing the bed to move freely.

Figure 8a. Locked Position

Figure 8b. Unlocked Position

Wheel Locking Mechanism (Central Lock)

1. Central Lock Position: Press the brake pedal downward, as shown in Figure 9a, to lock all the wheels. This keeps the bed stationary.
2. Free Position: Leave the brake pedal in the middle position, as shown in Figure 9b, to release all wheels, allowing free movement of the bed.
3. Transport Position: Lift the brake pedal to the upper position, as shown in Figure 9c, to engage the transport mode. In this position, three wheels are free, and one wheel remains fixed for controlled movement.

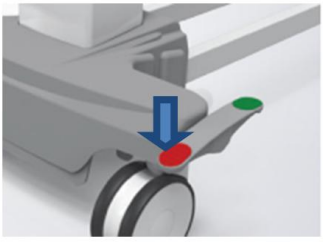


Figure 9a. Locked

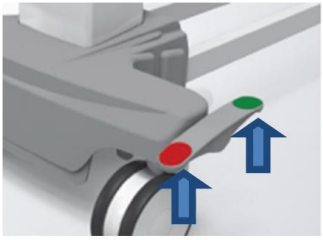


Figure 9b. Unlocked

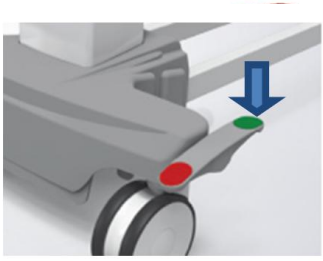


Figure 9c. Transport Position

- **ATTENTION** -

- **Ensure the wheels are fully locked before transferring a patient to or from the bed to prevent the risk of falling.**
- **Do not attempt to move the bed when the wheels are locked. Doing so may cause patient injuries or material damage. Medical 2000 is not responsible for such outcomes.**

Use of the X-Ray Cassette Section (Optional)

An optional **"X-Ray Cassette Section"** can be added to the **Plus A4 Electromechanical Intensive Care Bed**.

To use the X-Ray cassette section:

1. Raise the head section of the bed to a minimum angle of **20 degrees**.
2. Hold the X-Ray cassette holder with one hand and pull it upward, as shown by **arrow 1** in **Figure 10**, until it reaches the desired position.
3. When not in use, gently push the X-Ray cassette back into its slot.

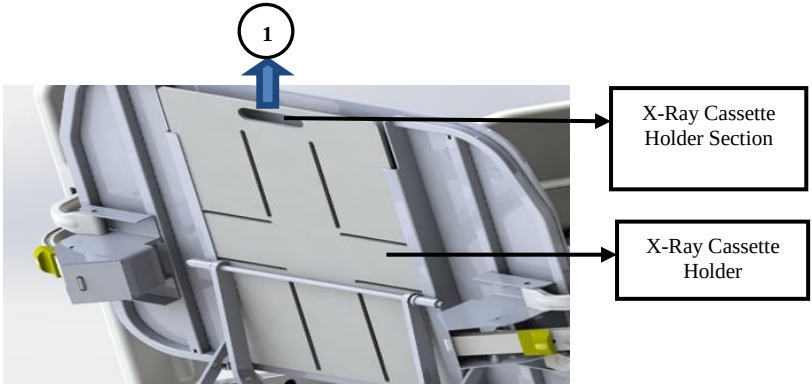


Figure 10. X-Ray Cassette Section

Attaching Accessories to the Plus A4 Bed

Mattress

The product comes with a mattress of 28 DNS density, measuring 85x190x12 cm. Its channeled structure is designed to align with all the functional movements of the bed. The breathable material prevents sweating, reducing the risk of pressure sores for long-term patients. To install the mattress, align it with the securing points on the bed's surface, ensuring a proper fit.

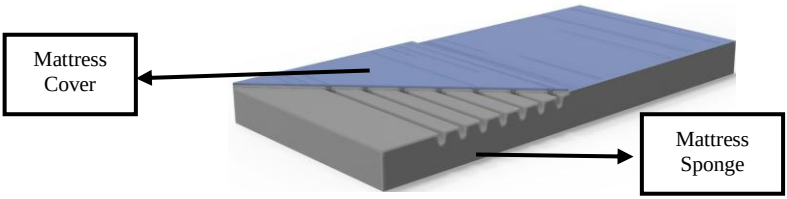


Figure 11. Mattress Installation

- Warning -

Use only mattresses approved by Medical 2000. The use of unapproved mattresses with different properties (thickness, fabric, density, etc.) may result in patient injuries or material damage. Using a mattress thicker than the recommended 120 mm may reduce the effectiveness of the side rails and increase the risk of injuries.

Drainage Bag Hangers

In the Plus A4 Model Electro-Mechanical Patient Bed, there are two drainage hangers on both sides of the bed to attach urine and waste bags.

Figure 12. Drain Hanger

Instructions for Safely Powering Off the Electro-Mechanical Bed

When the Plus 3T Electro-Mechanical Intensive Care Bed encounters a malfunction or needs to be relocated, follow these steps to safely power it off:

I. Switch the on/off button on the control unit to the "off" position, cutting off power to the control unit. (This applies to models equipped with Medical 2000-branded control units.)

II. Unplug the power cable from the wall outlet.

III. Neatly fold the power cable and secure it in a safe location on the bed to prevent damage.

- Warning -

If the power cable needs replacement, it must be done exclusively by authorized personnel.

Transportation and Storage

Before transporting the product, ensure it is properly packaged to prevent damage from impacts or falls during transit. Damage sustained during transportation is not covered under warranty. Repairs or replacements of damaged parts are the customer's responsibility. Store the product away from direct sunlight in a cool, dry environment. Avoid exposure to chemicals or substances that could compromise the product's safety features.

Storage Guidelines:

Position the bed in its lowest setting during storage.
Lock all wheels and secure movable parts.
Protect the product from liquid exposure.
Store in an environment with a temperature range of -10°C to +50°C, humidity between 20% and 80% (at 30°C), and pressure between 500 hPa and 1060 hPa.

- Warning -

Beds must never be stacked during storage or transport.

Cleaning and General Maintenance

1. Move the product to the designated cleaning area.
2. Ensure the product and its accessories are at room temperature.
3. The materials used in the product are designed for easy cleaning:
    - Plastics (ABS and polypropylene)
    - Metal surfaces coated with electrostatic powder paint

Cleaning Procedure:

After removing the patient from the bed, follow these steps to clean and disinfect the product: Use a soft cloth with neutral soap and warm water to remove most medication residues and dirt. Avoid using harsh cleaners, solvents, or detergents. Do not use abrasive materials, such as steel wool or sandpaper. Avoid chemicals like thinner or acetone that can damage plastic surfaces. For intricate areas, use standard household vinyl cleaners and a soft-bristle brush. Clean with a soft, damp cloth and the recommended disinfectants. Avoid using pressurized liquids exceeding 1 bar. Dry the product thoroughly before reuse.

- Disinfectants -

Phenolic disinfectants are the most suitable for the bed. Properly diluted quaternary solutions are also acceptable.
Iodine-based disinfectants (iodophors) may cause stains. Address stains within 20 minutes using a diluted bleach solution (1:10).

- Warnings -

- **Avoid exposing the bed to excessive moisture, as this can lead to liquid accumulation.**
- **Ensure the bed does not move during cleaning.**
- **Do not use high-pressure hoses or cleaning tools.**
- **High-concentration solutions may damage the mattress surface.**

Failure to follow these cleaning and maintenance procedures may result in patient injury, damage to the bed, or voiding of the product warranty.

- NOTE -

The intensive care bed cannot be machine-washed but can be dried.

Cleaning Procedure

Lock the wheels of the bed.
Lift the headboard and footboard to the top, this will provide ease of access during cleaning.
Unplug the bed from the mains.

After performing all these procedures, you can disinfect the bed.
Daily Cleaning: This is the daily cleaning performed on the bed surface.
It includes cleaning the bed rails, headboards, control panels, lying surface and side accessories.
Cleaning to be Performed After Discharging the Patient: This is the cleaning that should be performed when a new patient is to be admitted to the bed.
In addition to the sections performed in daily cleaning; It includes cleaning all plastic materials, side and front surfaces of the bed, electrical cables, impact wheels, pedals, lower wheels, motors, shock absorbers, and compact bottoms.

Maintenance

Inspect the motors and moving parts of the bed every three months. Check the following:

- General functionality of the product
- Cleanliness (insufficient cleaning can increase the risk of cross-infection)
- Condition of moving parts, wheels, motors, etc.
- Integrity of components
- Condition of accessories (check for wear or damage)
- Wheels and brake system functionality
- Cracks or breaks in welds
- Signs of bending or cracks in profiles or sheets
- Side rails and mechanisms
- Condition of head, foot, and height adjustment motors
- Bolts and nuts in moving parts

Other maintenance tasks should be carried out by the manufacturer’s service team.

- Warnings -

If any errors or inconsistencies are detected during maintenance, stop using the product and contact the manufacturer or authorized dealer immediately.

Medical 2000 is not responsible for damage or injuries resulting from the use of devices that have not undergone routine maintenance. Such devices are also excluded from warranty coverage.

Identifying damaged or worn parts is the responsibility of the maintenance personnel. However, repairs or replacements must be carried out exclusively by the manufacturer.

Terms of Use

Improper use of the product may result in damage or injury to patients or staff. Please pay attention to the following examples of improper use:

- Using the bed for purposes other than general or intensive care.
- Operating multiple functions simultaneously or by more than one person.
- Connecting the bed to a power source other than the specified 220V 50Hz.
- Moving the bed on slopes exceeding a 10-degree incline.
- Untrained or unauthorized individuals continuously pressing the control panel buttons.
- Using the product in a high-pressure room.
- Operation by individuals who have not read the user manual or been informed about the product.
- Using accessories not approved by the manufacturer.
- Using the product outdoors or in a vehicle.
- Operating or storing the product under conditions not specified.
- Using the product on uneven surfaces or overly soft ground.
- Operating the product in environments with flammable gases or vapors.
- Using the product outside the specified temperature range.
- Violating the terms described in the user manual.

Environmental Instructions

Compliance with WEEE Regulations and Disposal of Waste Products

This product does not contain any hazardous or prohibited substances as specified in the Waste Electrical and Electronic Equipment (WEEE) Regulations issued by the Turkish Ministry of Environment and Urbanization. The product complies with WEEE standards and is manufactured with high-quality recyclable and reusable components.

To dispose of the product at the end of its service life:

- Do not discard it with household or other waste.
- Take it to a designated collection point for the recycling of electrical and electronic devices. Check with local authorities for the nearest collection points.
- Ensure environmental and resource conservation by properly recycling used products.

Before disposal:

- Cut the power cord and disable the locking mechanism of the loading cover to prevent accidental operation and ensure safety.

Packaging Information

The product packaging is made of recyclable materials per national regulations. Dispose of packaging waste at collection points designated by local authorities, and do not discard it with household waste.

Maintenance Record

This document must be retained for 10 years after the product's end of service life. Perform maintenance as specified in the user manual during the product's service life.

Product Code and Description:
Purchase Date:
Serial Number (S/N):
Purchaser:

SERVICE DATE	SERVICE TYPE (Maintenance /Control/Life Extension)	PROCEDURES PERFORMED ON THE DEVICE	RESULT	SERVICE PERSONNEL (Manufacturer/Operator)

Troubleshooting

PROBLEM	CAUSE	SOLUTION
Bed does not work.	1. No power supply to the bed. 2. Power cable may be damaged. 3. The bed may have been turned off using the remote control. 4. Control unit may have malfunctioned.	1. Ensure the outlet has power. Check the power cable. 2. The power cable must be replaced. 3. Check the on/off button on the remote control. 4. Contact the manufacturer.
One motor is not working.	1. The motor cable may be damaged. 2. The motor cable may have disconnected from the motor or control unit. 3. The control panels may be faulty. 4. The motor may be defective.	1. The motor cable must be repaired or replaced. 2. Check the motor cable connections. 3. Replace the faulty control panel(s). 4. Contact the manufacturer.
Motors are very slow.	1. The bed may not be receiving sufficient power (the bed will continue to operate until the battery is discharged). 2. Control unit may have malfunctioned.	1. Check if the outlet has power and ensure the power cable is connected properly. Turn the on/off switch to "on." 2. Contact the manufacturer.
Clicking sound from control unit, but no motor works.	1. The bed may not be receiving sufficient power (the bed will continue to operate until the battery is discharged). 2. Control unit may have malfunctioned.	1. Check if the outlet has power and ensure the power cable is connected properly. 2. Contact the manufacturer.

Warranty

The information in this document is subject to change without prior notice by Medical 2000 Medical Devices and Advanced Technology Inc. Medical 2000 products are exported to various countries where the same regulations may not always apply. Therefore, discrepancies may exist between the information provided here and the actual product delivered.

Medical 2000 follows a continuous improvement policy and reserves the right to make changes to the equipment, figures, layout, or technical details described here without prior notice.

Our products are covered under a 2-year warranty against manufacturing and assembly defects. After the free warranty period, we undertake to provide annual maintenance, repairs, and spare parts for a fee for up to 10 years.

The responsibility for completing and delivering the warranty certificate to the consumer lies with the seller, distributor, or representative. If the warranty certificate is altered, or the product's original serial number is removed or tampered with, the warranty becomes invalid.

The following are not covered under warranty:

- Maintenance performed on mechanical systems, batteries, electrical components, and actuators by unauthorized personnel.
- Damage and malfunctions resulting from improper use.
- Damage or malfunctions occurring during loading, unloading, or transportation after product delivery.
- The use of unapproved spare parts or accessories not authorized by the manufacturer.
- Failure to adhere to specified cleaning and maintenance procedures or improper use as described in the user manual.

Service Centers

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