

USER GUIDE



MODEL : PLUS A8

Electromechanical Patient Bed

PURPOSE AND CONTENT

The purpose of this owner's manual is to provide the customer with all the necessary information to be able to operate the vehicle as effectively and safely as possible. This manual contains information on technical specifications, function, maintenance, spare parts and safety.

Please read the user manual before using the product. This booklet contains necessary information for use and maintenance. If there are points in the user manual that you do not understand, please contact us and get information from our professional staff. Otherwise, unwanted injury or damage may occur.

Storing the user manual

This use and maintenance manual will be kept with the product and kept away from any substance or liquid that could compromise its readability..

ACCESSORIES AND SPARE PARTS WARNING

Medikal 2000 products and accessories have been specially produced to work in full harmony with each other. Accessories designed by other manufacturers have not been tested by Medikal 2000 A.Ş. Therefore, only Medikal 2000 A.Ş. Use accessories/original spare parts approved by Medikal 2000 A.Ş. cannot be held responsible and the product's warranty is void if it is available.

NOTE

The right to change the information contained in this document without prior notice is reserved.

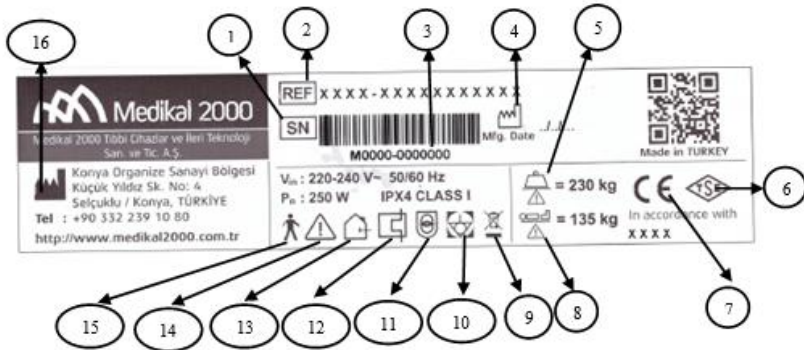
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Labeling

Each device has an identification tag placed on the device itself. This label contains information such as Manufacturer, product, CE mark, serial number (SN) or lot number (LOT). It should never be removed or painted over. should not be covered with.

Symbols on the product



Nu	Symbols	Explanation
1		Serial number
2	REF	Product model
3		Product serial number
4		Production date
5	 = Kg	Safe working load
6		Compliance with all relevant TSE directives
7		Compliance with all relevant CE directives
8	 = Kg	Maximum patient mass

9		Attention! Out-of-use electrical appliances should not be disposed of with household waste. They must be taken to a public collection point for environmentally friendly disposal in accordance with national regulations.
10		Equipotential terminal
11		Fail-safe transformer
12		Insured product
13		Suitable for indoor use only
14		Consider additional documents
15		Type B device
16		Producer

SPECIAL NOTES

In this manual, some words are used to help explain situations and situations that may cause property damage or injury. These words are indicated in the table below.

WORD	MEANING
DANGER	This word indicates potential hazards which, if not avoided, will result in serious injury or death.
CAUTION	This word indicates potential hazards which, if not avoided, could result in death or serious injury.
WARNING	This word indicates potential hazards which, if not avoided, will result in property damage.

TECHNICAL SPECIFICATIONS

Technical Specifications	PLUS A2	PLUS A7	PLUS A8	PLUS A9
BED HEIGHT (Max.) (without mattress)	42,5 cm	80 cm	78 cm	88 cm
BED HEIGHT (Min.) (without mattress)	42,5 cm	43 cm	47 cm	48 cm
TRENDELENBURG ANGLE	Optional	12°	16°	16°
REVERSE TRENDELENBURG ANGLE	N/A	N/A	16°	16°
BACK HEIGHT ANGLE (Max.)	70°	70°	70°	70°
FOOT HEIGHT ANGLE (Max.)	30°	30°	30°	30°
LENGTH	212,5 cm	212,5 cm	212,5 cm	212,5 cm
WIDTH	103,5 cm	103,5 cm	103,5 cm	103,5 cm
LEVEL SURFACE LENGTH	190 cm	190 cm	190 cm	190 cm
LAYING SURFACE WIDTH	85 cm	85 cm	85 cm	85 cm
COMPACT LAMINATE AND ABS LAYING SURFACE	Avaliable	Avaliable	Avaliable	Avaliable
WHEEL DIAMETER	125 mm	125 mm	150 mm	150 mm
SAFE USE WEIGHT (SWL)	230 kg	230 kg	230 kg	230 kg
CENTRAL BRAKE SYSTEM	N/A	N/A	Avaliable	Avaliable
NURSE HAND CONTROL	N/A	N/A	Avaliable	Avaliable
NURSE RAIL CONTROL PANEL	N/A	Optional	Optional	Optional
PATIENT HAND CONTROL	Avaliable	Avaliable	Avaliable	Avaliable
PATIENT GUARDS CONTROL PANEL	Optional	Optional	Optional	Optional
CHAIR POSITION	N/A	N/A	Avaliable	Avaliable
CPR AUTO/MANUAL	N/A //A	A// A	A //A	A// A

TABLE 1: Plus Series Specifications

CONTROL BOX TECHNICAL SPECIFICATIONS

MANUFACTURING COMPANY	MEDİKAL 2000	LINAK	DEWERT	TMOTION
REFERENCE	MEDİKAL 2000			
INPUT VOLTAGE	100 -240 AC			
VOLTAGE TOLERANCE	±10%			
WORKING FREQUENCY	50/60 Hz			
MAX. POWER /VA	8 A			
OUTPUT VOLTAGE	24 VDC			
CLASS	I			
INSURANCE INFORMATION	10 AT			
TYPE	B			
DEGREE OF PROTECTION	IP54			

TABLE 2: Control Box Specifications

BATTERY SPECIFICATIONS

OUTPUT VOLTAGE	TOLERANCE	CLASS	CHARGING TIME	SAFE WORKING TEMPERATURE	DEGREE OF PROTECTION
24 VDC	±10%	II	12 HOUR	+5°C ≈ +40°C	IP54 / IP66

TABLE 3: Battery Specifications

-DANGER -

Never open, incinerate or let a dead battery come into contact with water. If there is contact with your skin or clothing as a result of the leakage of sulfuric acid from the battery, immediately wash with plenty of water. If the acid comes into contact with the eyes, rinse immediately with water and consult a doctor. Battery replacement should only be done by authorized personnel. If the product is in a warehouse (not in use) and powered by a battery, it should be charged every 3 months to prevent battery failures. Only batteries recommended by the

manufacturer should be used in the product. If you want to replace the battery cable, buy it from the manufacturer, otherwise insufficient power capacity may cause fire.

EMC COMPLIANCE TABLES

This device generates, uses and can radiate radio frequency (RF) energy. If this equipment is not used as specified in this manual, it may cause electromagnetic interference.

This device has been tested in accordance with the EN 60601-1-2 Standard for Medical Products and its compliance with acceptable limits has been determined. These limits indicate that the device provides acceptable protection against electromagnetic interference (EMC) when used as directed in the manual.

This device has been designed and manufactured in accordance with the requirements of the EN 60601-1-2 standard.

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

To learn more about this device and EMC, see (the following)

Guidance and manufacturer's declaration – electromagnetic emissions		
This device is intended for use in the electromagnetic environment specified below. The user or customer of this device should assure use in such environments.		
Emissions test	Compatibility	Electromagnetic environment - manual
RF emissions CISPR 11	Group 1	This device uses RF energy only for its internal functions. Therefore, their RF emissions are very low and are unlikely to cause interference to nearby electronic equipment.
RF emissions CISPR 11	Class A	This device is suitable for use in all installations, including local installations and those directly connected to the Low Voltage power supply network supplying buildings used for local purposes.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Compatible	

TABLE 4: Electromagnetic Emissions

Guidance and manufacturer's declaration - electromagnetic immunity			
This device is intended for use in the electromagnetic environment specified below. The user or customer of this device should ensure that it is used in such environments.			
Immunity Test	IEC 60601 Test Level	Compatibility Level	Electromagnetic environment – manual
Electrostatic Discharge (EB) IEC 61000-4-2	+ 8 kV contact + 15 kV air	+ 8 kV contact + 15 kV air	Floors must be wood, concrete or ceramic tiled. If the floors are covered with synthetic material, the relative humidity is at least % It should be 30.
Electrical fast transient/burst IEC 61000-4-4	± 2KV 100 KHZ	± 2KV 100 KHZ	City mains power quality should be that of a typical commercial or hospital environment.
Shock wave IEC 61000-4-5	0.5-1 kV phase(s) to phase(s) 0.5-1-2 kV phase(s) to earth	0.5-1 kV phase(s) to phase(s) 0.5-1-2 kV phase(s) to earth	City mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage fluctuations in power supply input lines IEC 61000-4-11	0% UT; 0.5 pair at 00, 450, 900, 1350, 1800, 2250, 2700, and 3350, 70% UT; 25 pairs 0% UT; 1 pair 0% UT; 250 pairs	0% UT; 0.5 pair at 00, 450, 900, 1350, 1800, 2250, 2700, and 3350, 70% UT; 25 pairs 0% UT; 1 pair 0% UT; 250 pairs	City mains power quality should be that of a typical commercial or hospital environment.
power frequency (50/60Hz) magnetic field IEC 61000-4-8	30 A/m, 50Hz	30 A/m, 50Hz	The magnetic fields of the power frequency should be at typical location-specific levels in a typical commercial or hospital environment.
NOTE Ut value is the AC mains voltage before the test level is applied.			

TABLE 5a: Electromagnetic Immunity

Guidance and manufacturer's declaration - electromagnetic immunity

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

Immunity Test	IEC 60601 Test Level	IEC 60601 Test Level	IEC 60601 Test Level
Conducted RF IEC 61000-4-6	150kHz-80MHz, 3V rms, 80% AM (1kHz) (6Vrms for ISM bands)	3 V active 3 V active	Portable and mobile RF communications equipment should be used no closer to any part of the Model 005, including cables, than the separation distance calculated by the equation appropriate for the transmitter frequency. Recommended separation distance 0.15 MHz to 80 MHz 80 MHz to 2.7 GHz Here, P is the highest output power rating of the transmitter specified by the transmitter manufacturer in watts (W), and d is the recommended separation distance in meters (m). b The radiated field strength from fixed RF transmitters determined by an electromagnetic site discovery should be less than the Compliance Level in each frequency range. D Interference may occur due to proximity to equipment marked with the following symbol.
Radiant RF IEC 61000-4-3	80MHz to 2700MHz, 3V/m, 80% AM (1kHz)	3V/m	

NOTE 1 At frequencies of 80 MHz and 800 MHz, the higher frequency range applies.

NOTE 2 These guidelines may not be suitable for all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

a EBT (Industrial, scientific and medical) bands between 150 KHz and 80 MHz, 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 Compliance levels in the EBT frequency band in the 150 KHz and 80 MHz frequency range and in the 80 MHz to 2.5 GHz frequency range are intended to reduce the possibility of interference caused by the unintentional transport of mobile/portable communication equipment to the patient area. Therefore, an additional factor of 10/3 is taken into account in the formula used to calculate the recommended separation distance for transmitters in these frequency ranges.

c Base stations of radiotelephone (cellular/cordless) and mobile ground radios, amateur radio, AM and FM radio broadcast and The intensity of the emitted field from fixed transmitters such as TV broadcast cannot be predicted theoretically with accuracy. Electromagnetic site exploration should be considered for the assessment of the electromagnetic environment from fixed RF transmitters. If the measured field strength where the Model 005 is used exceeds the applicable RF compliance level specified above [ET Hardware or ET System] should be observed to operate normally. If abnormal performance is observed, additional measures may be necessary, such as reorienting or repositioning the Model 005.

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

TABLE 5b: Electromagnetic Immunity

- CAUTION -

The general instructions for use contain important information for the safe use of this product.

SECTION 1 – GENERAL OPERATING INSTRUCTIONS

- Do not use the product near explosive gases.
- Keep the product at least 30 cm away from the heat source.
- The product should only be used by authorized and adequately trained persons.
- When this product is used by children or disabled patients, it should be supervised by a caregiver or authorized person.
- When adjusting the product to the desired position, it is necessary to be cautious against the risk of harming the patient, the people around and the equipment.
- Before using the functions of the product, caregivers should learn to use the movements and usage details of the birth cot as specified in the user manual and gain sufficient experience. All movements of the product must be done as specified in the user manual.
- The product features that are allowed to be used by the patient should be explained to the patient by an authorized caregiver.
- Before using the product, make all its functions and general checks for any damage that may have occurred during shipping. Make sure that all functions are working and that all apparatuses are in place and properly assembled. If you see a damaged part, do not use the product. For technical support, contact the manufacturer.
- Care should be taken against the risk of harming the patient, people around or equipment while the product is placed in the desired position.
- Only use the product on flat and clean surfaces.
- When the patient is on the product, the wheels must be in the locked position. (The locks may be open only when the patient needs to be transported with the product.)
- No one other than the patient should be on the product.
- Mattress thicker than 14 cm should not be used on the product..

- The safe operating weight (SWL) on the product should never be exceeded. If the safe usage weight has to be exceeded, the product should be used in the lowest position and all functions are passive.
- The patient should take a position on the product so that his weight is evenly distributed over the product. The product should not be positioned to give its weight to the head, feet and sides of the product.
- If the product should be used for unconscious patients, fix the patient to the product with the help of a patient restraint belt. Otherwise, injury, accident or damage may occur due to falling.
- Guardrails are designed to prevent the patient from falling. In cases such as overloading, hanging, pushing, sitting on the guardrails, the guardrails may break.
- If the product is not used for a long time; Unplug the product and leave the product on standby by turning the "on/off" switch, if any, to the off position.
- If liquid is spilled on or around the electrically connected parts of the product, unplug the product before cleaning. After cleaning the spilled liquid, plug the product in and wait for the liquid to dry to check whether all its functions are working. Do not plug in the product without making sure that the liquid has dried.
- Only Medikal 2000 A.Ş. Use the spare parts of the brands approved by the company. When unapproved spare parts are used, the manufacturer does not accept responsibility for any damage, accident or injury, and if the product is under warranty, the warranty will be terminated.

The patient or caregiver is definitely in danger if::

- Using the product in an unclean area.
- Using the product on an uneven ground.
- Exceeding the SWL (Safe Transport Weight) limit.
- Use of the product by persons other than the authorized person.
- Power cord tearing, breaking, etc. in cases.
- Placing the accessories on the product different from those specified in the "Product Description Section".
- Use of spare parts and accessories not approved by the manufacturer in the product.
- Incorrect and incomplete product maintenance.

SECTION 2 – PRODUCT DESCRIPTION

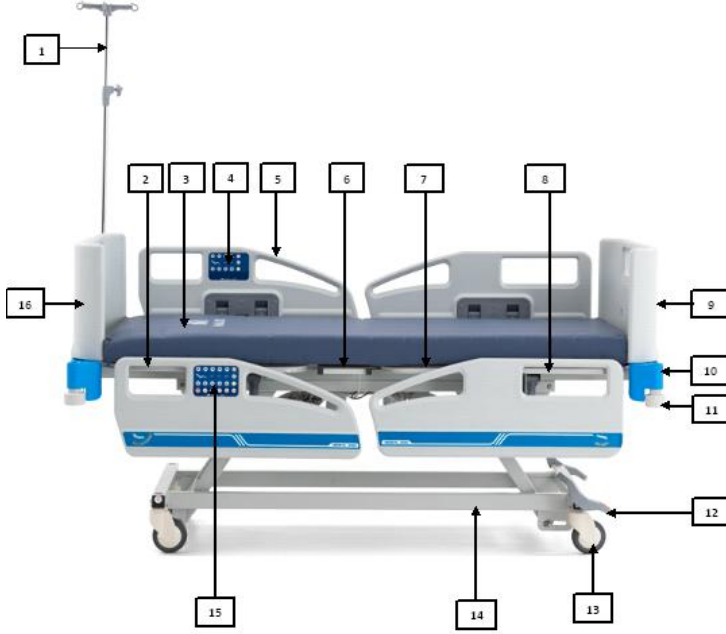


Figure 1. Plus A8 Product Description

1	Serum Hanger	9	Foot Head
2	Bedside Section	10	Accessory Shoe
3	Mattress	11	Bumber
4	Patient Control Panel	12	Brake pedal
5	Side Railing	13	150 mm Wheel
6	Hip Section	14	Lower Chassis
7	Knee Pad	15	Nurse Remote Control
8	Foot section	16	Bedside Headboard

SECTION 3 – SETUP

- CAUTION -

Medikal 2000 products should only be installed and adjusted by an authorized person.

During the installation and use of the product, make sure that the power cable is not on the moving parts of the product and there are no objects between the lower chassis and the upper chassis.

Installation of Plus A8 Electro-Mechanical Patient Bed

Open the package of the product carefully.

Check for any damage that may occur during shipping. If you notice any damage, contact the manufacturer.

Check whether there are any deficiencies in the basic parts and accessories of the product. If you find any missing parts, contact the manufacturer.

Before using the product, be sure to read the user manual.

Carefully assemble all the accessories sent with the product to their places on the product.

Before checking all functions in the product, make sure that the plug of the product is plugged in and that the "on/off" switch on the control box, if any, is in the "on" position.

Check all electronic functions of the product one by one and make sure that it works correctly. If there is any function that does not work / works incorrectly, please contact the manufacturer.

Check the mechanical functions of the product (Bandrail lock mechanisms, Wheel Brake System, Foot Destomat System) one by one and make sure that it works correctly. If there is any function that does not work / works incorrectly, please contact the manufacturer.

SECTION 4 – USAGE

Usage of Plus A8 Electro-Mechanical Patient Bed

Plus Series Electro-mechanical Patient Bed is specially designed for patient comfort and safety and is a suitable option for you. Standard features and usage patterns are listed below.

- DANGER -

Before placing the patient in the product, make a risk assessment for the following conditions. When there is a situation that may pose a risk, the functions of the product must be turned off.

Risk of being caught (hand or arm snatching)

Possibility of falling from the product

Disabled people, children, mentally handicapped patients.

First of all, fix the product in its place by pressing the wheel brakes. Make sure the cot and its accessories are at room temperature. After making sure the cleaning and disinfection of the bed, follow the steps below to open the control panels and bring the bed to the desired position.

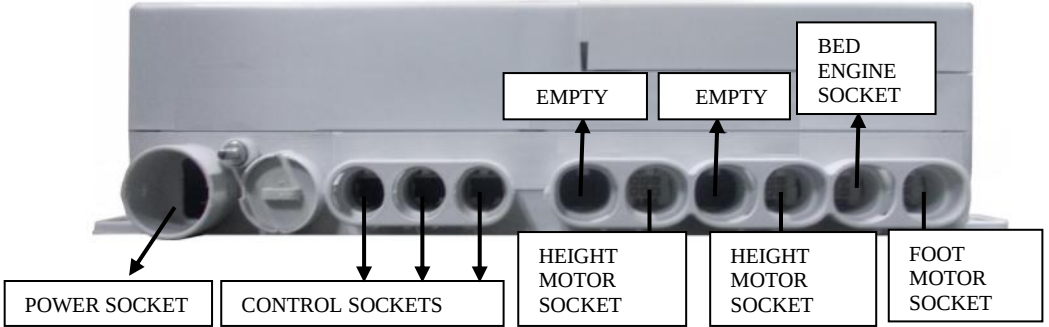


Figure 2a. Control Unit (MCU36B)

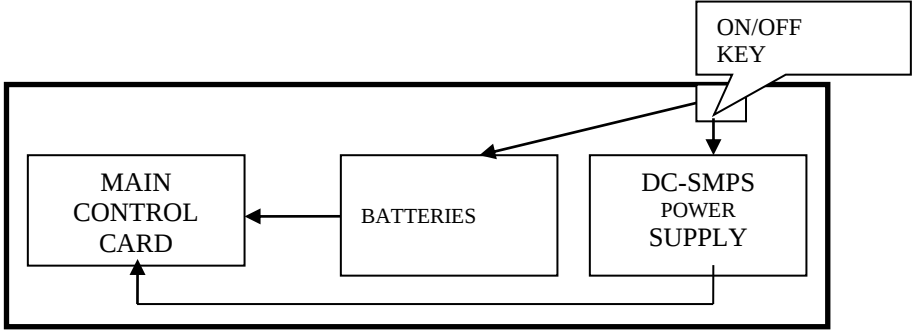


Figure 2b. Control Unit(Med2000)

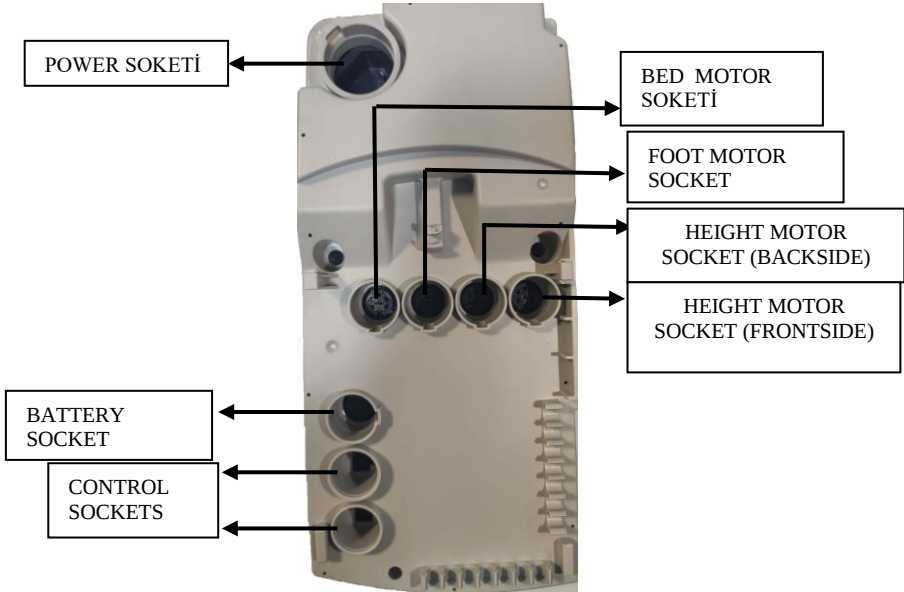


Figure 2c. Control Unit (TC21-S3MA-4)

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

- DANGER -

Make sure that the hospital network complies with the energy requirements (220V 50 Hz) stated on the bed. These operations must be carried out by personnel who have received the necessary training.

Turn the ON/OFF switch to the ON position in the electronic box located on the lower chassis of the bed (valid for models with Medical 2000 Control Box). In this case, electrical input is provided to the control box.

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

- DANGER -

If it is necessary to use an extension cord, make sure that a suitable extension cord is used. Using the wrong extension cord may result in a 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 all electrical wires are away from hot surfaces.

Make sure that the power cable 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 unplug the power cord from the control box.

Do not open parts such as the Engine, Control Unit and Control Panel. There are no user-repairable parts in these parts. Consult only qualified and authorized personnel for technical support. Intervention by unauthorized and unqualified personnel may cause further damage to the product and void the warranty.

If any maintenance is required for the product, unplug the product and set the On/Off switch on the control box, if any, to the Off position.

Radio Frequency Interference

Electronic equipment can be affected by radio frequency interference (RFI). Caution should be exercised when using devices that emit high radio frequency (eg cautery) in the area around such equipment.

Capacity

Medikal 2000 Medical Devices and Advanced Technology Ind. And Trade The carrying capacity of electro-mechanical patient beds (including accessories, mattress, any person or object on the product) produced by A.Ş. is 230 Kg.

No person other than the patient should be on the product.

The patient should lie down so that the body weight is evenly distributed on the surface of the product. When the toe or back of the product is up, the patient should not lie/sit with his body weight on these parts.

Using the Control Panels of the Plus A8 Electro-Mechanical Patient Bed.

Usage of the Patient Control Panel

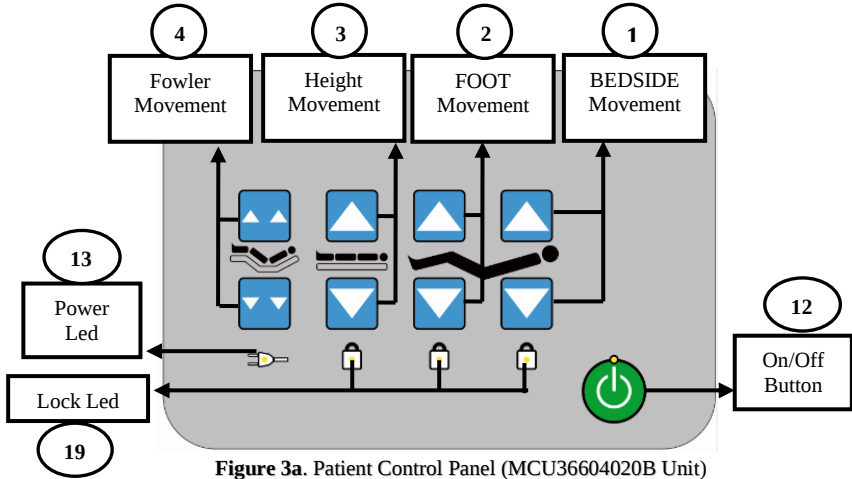


Figure 3a. Patient Control Panel (MCU36604020B Unit)

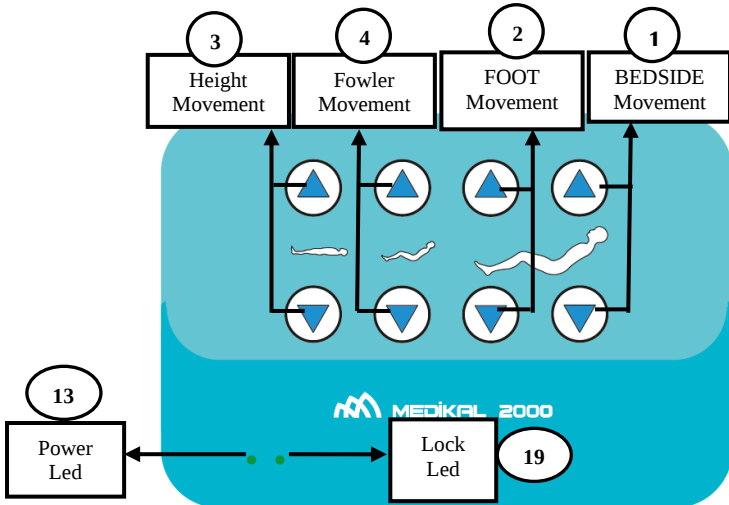


Figure 3b. Patient Control Panel (Med2000 Unit)

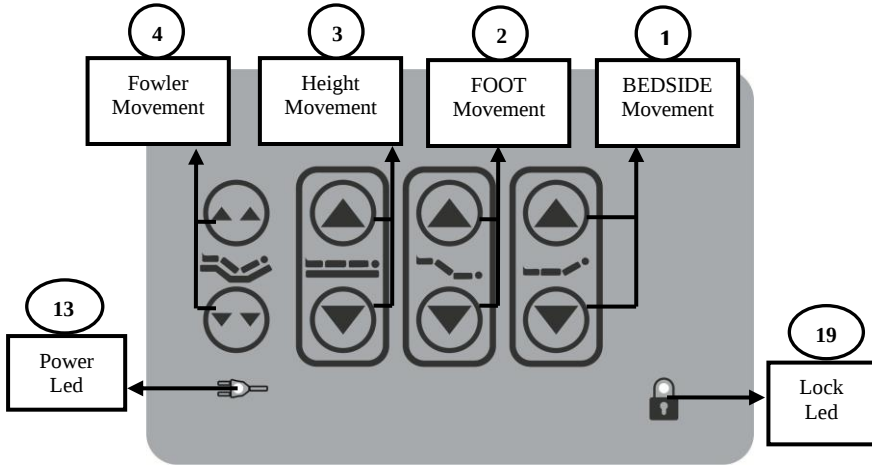


Figure 3c. Patient Control Panel (TC21-S3MA-4 Unit)

Hasta El Kontrol Kumandasının Kullanımı (Opsiyonel)

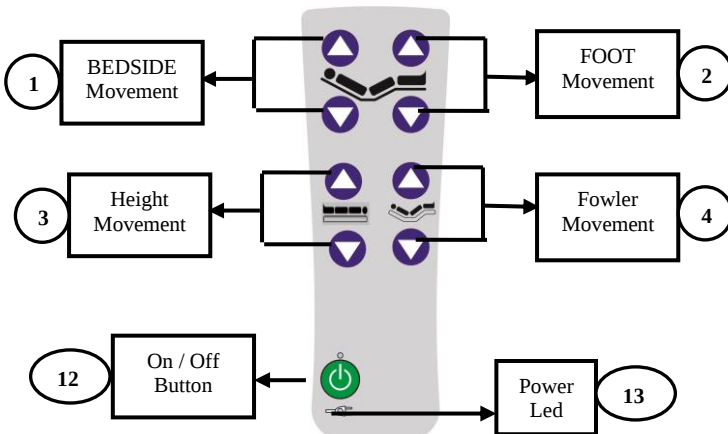


Figure 4a. Patient Hand Controller (MCU36604020B Unit)

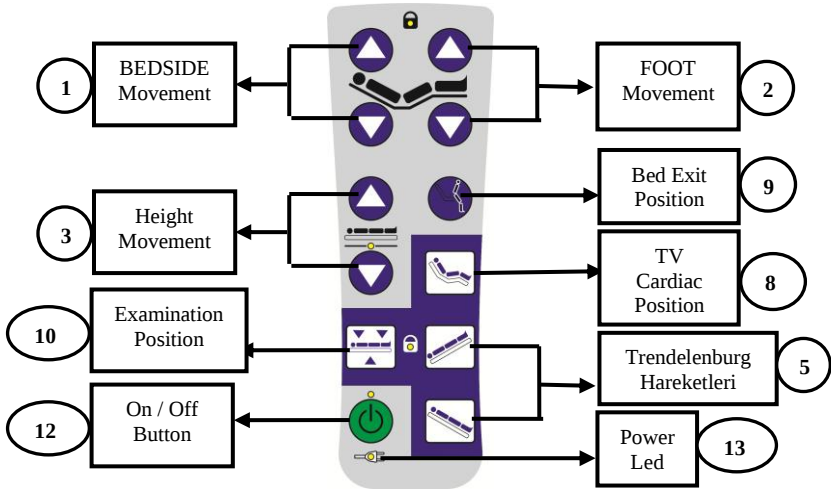


Figure 4b. Patient Hand Controller (MCU36604020B Unit)

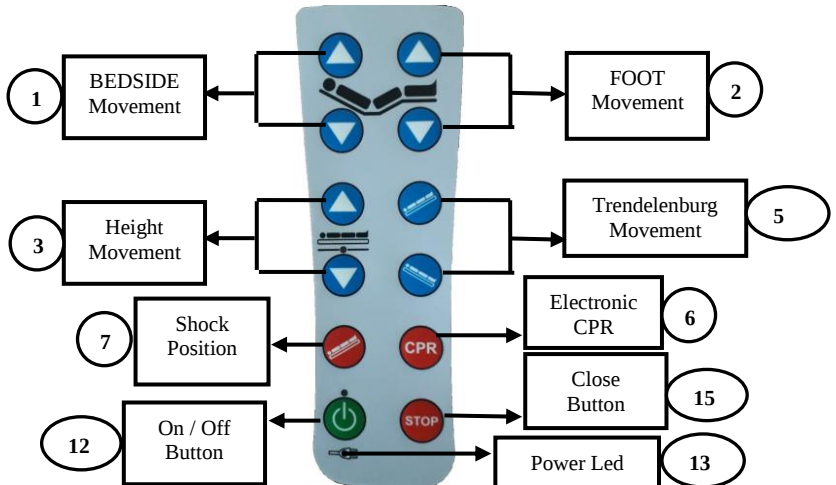


Figure 4c. Patient Hand Controller (MCU36604020B Unit)

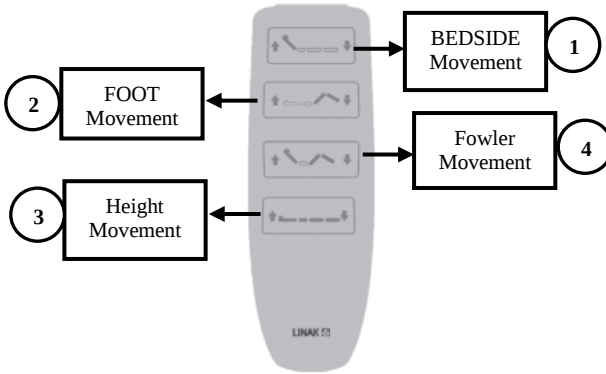


Figure 4d. Patient Hand Controller (Med2000 Unit)

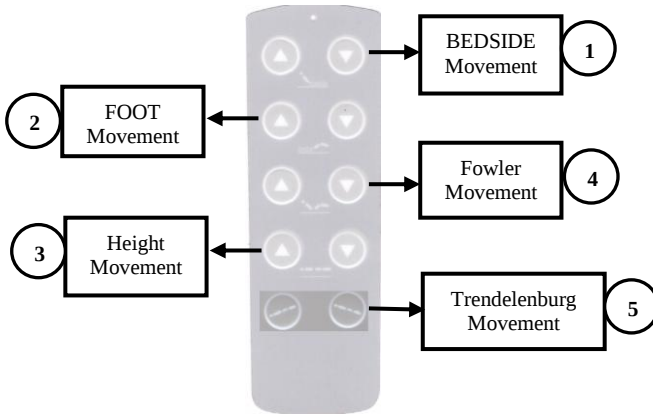


Figure 4e. Patient Hand Controller (TC21-S3MA-4 Unit)

Using the Nurse Control Panel

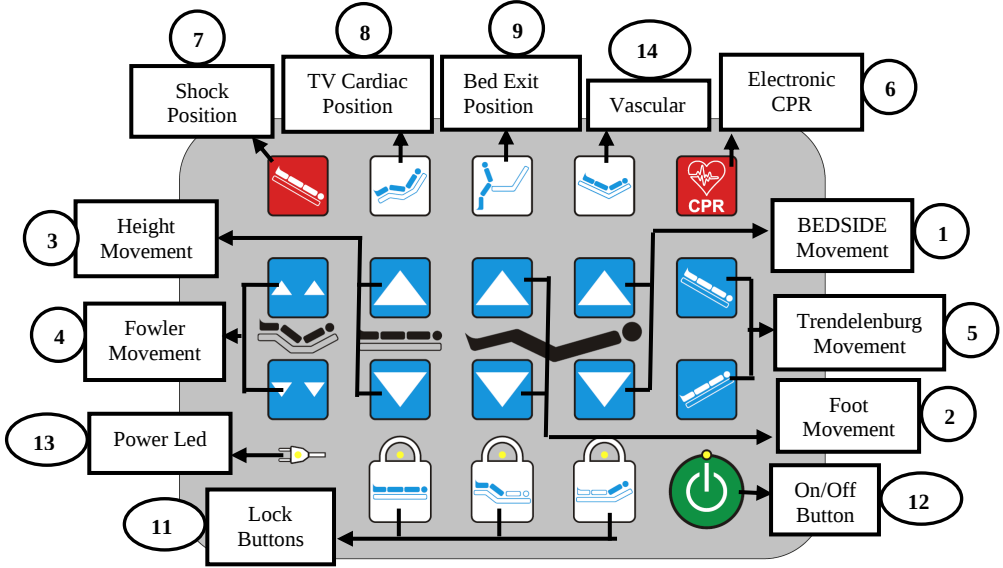


Figure 5a. Nurse Control Panel (MCU36604020B Unit)

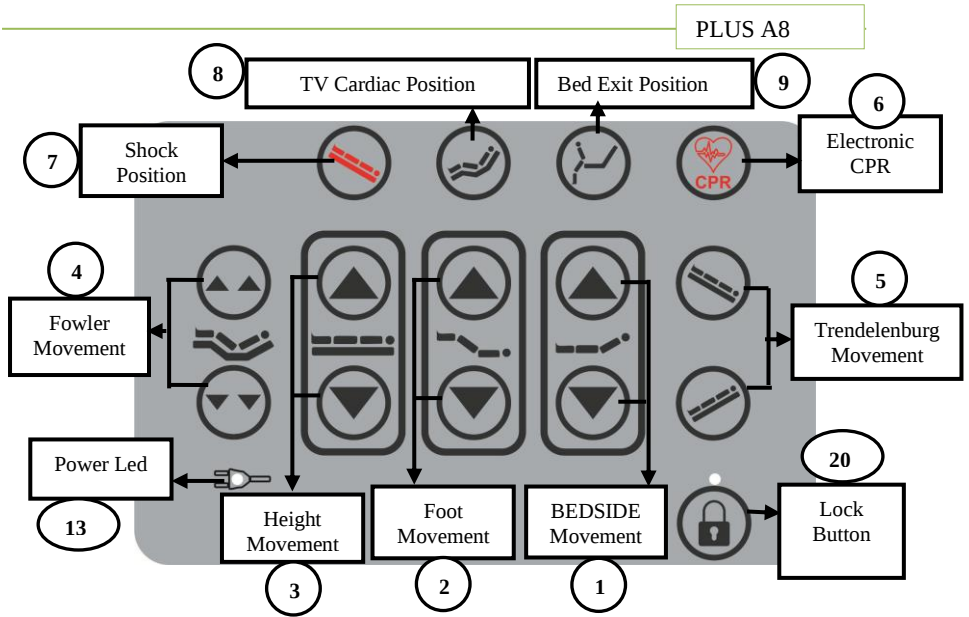


Figure 5b. Nurse Control Panel (TC21-S3MA-4 Unit)

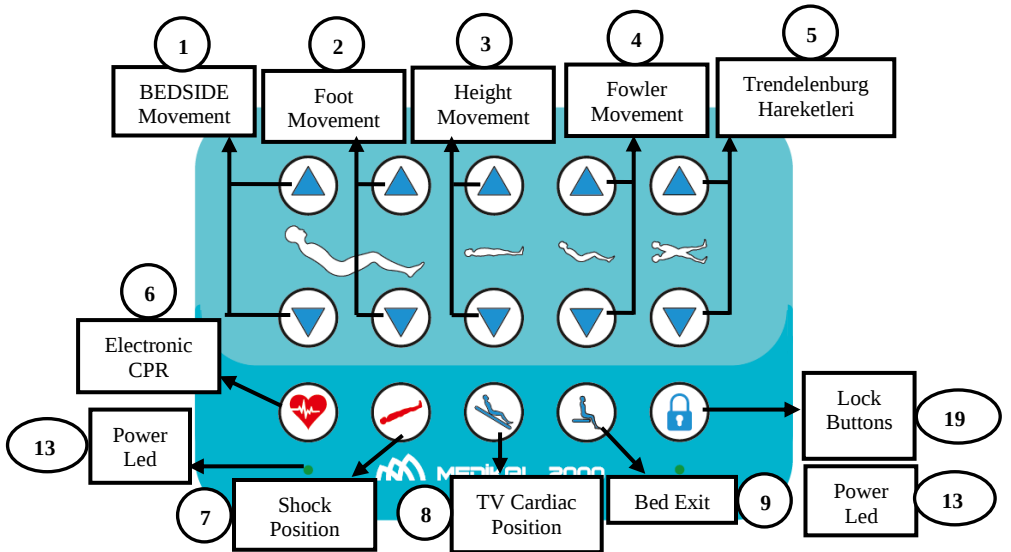


Figure 5c. Nurse Control Panel (Med2000 Unit)

Hemşire El Kontrol Kumandasının Kullanımı (Opsiyonel)

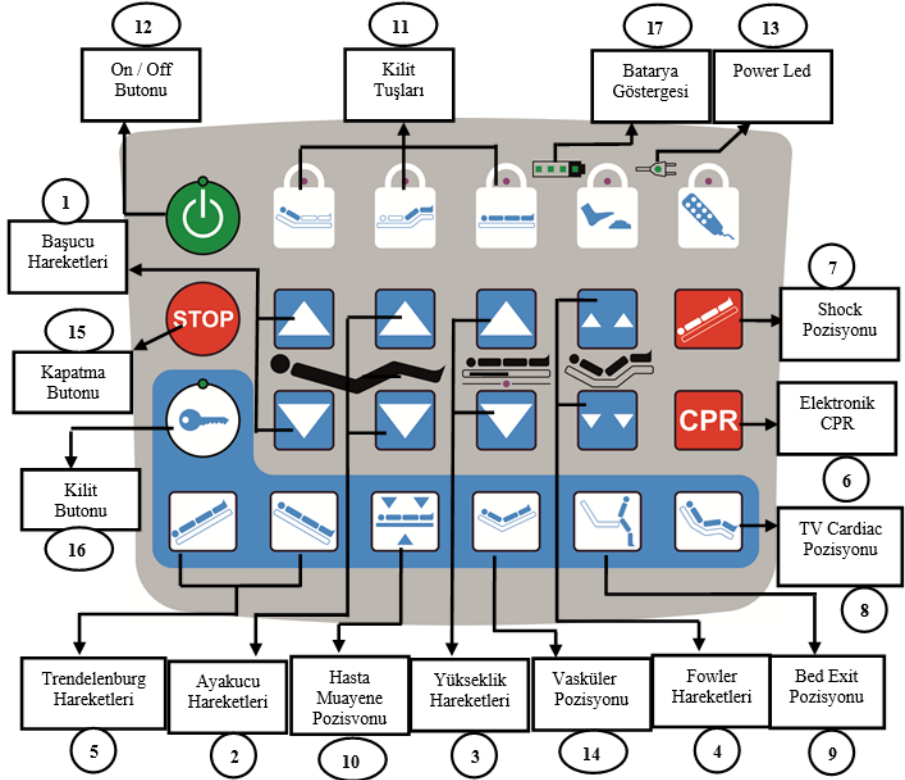


Figure 6a. Nurse Hand Controller (MCU36604020B Unit)

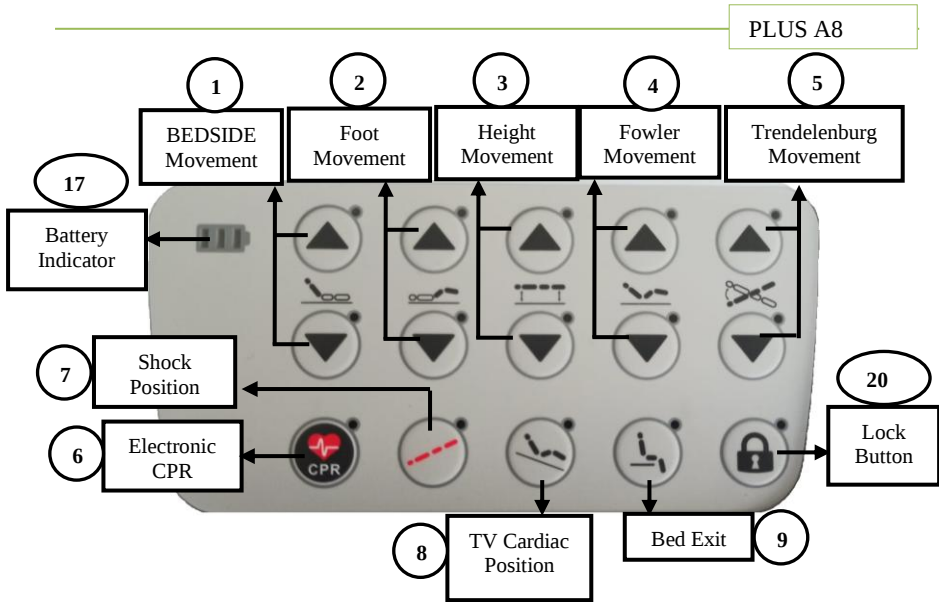


Figure 6b. Nurse Hand Controller (TC21-S3MA-4 Unit)

1. Press the "Bedside Up Button" for the "Bedside" function of the bed to move upwards until the bed reaches the desired height. For the downward movement of the "Bedside" function of the bed, press the "Bedside Down Button" until the bed reaches the desired height.
2. To move the "Foottip" function of the bed in the upward direction, press the "Foots Up Button" until the bed reaches the desired height. For the downward movement of the "Foottip" function of the bed, press the "Foottip 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 "Fowler (head and foot end)" function of the bed, press the "Fowler Up Button" until the bed reaches the desired height. For the downward movement of the "Fowler (head and foot end)" function of the bed, press the "Fowler Down Button" until the bed reaches the desired height.
5. To put the bed in Trendelenburg position, press the "Trendelenburg Up Button" until the bed reaches the desired height. To move the bed to the Rev. Trendelenburg position, press the "Trendelenburg Down Button" until the bed reaches the desired height.
6. To reset all the functions of the bed to the 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. To put the bed in the TV Cardiac (Sitting) position, press the "TV Cardiac Button" until the bed reaches the desired height.
9. For easy and safe transfer of the patient from the bed, press the "Bed Exit" button until the bed reaches the desired height.
10. If it is necessary to put the patient in the examination position, press the "Examination Position" button until the bed reaches the desired height.
11. In order to prevent misuse by unauthorized persons or to prevent an undesired situation, when any of the lock buttons (Bedside, Footrest, Height) on the nurse control panel is pressed, the led of the lock button of the relevant function becomes active, (The lock led on the front will also be active.) and allows the desired function to switch to the lock position. In this case, the relevant function will not work from any panel. In order to reactivate the locked function, the led is turned off by pressing the

lock button of the relevant function. (At the same time, the lock led on the Patient Control Panel will also be inactive.) In this case, the relevant function becomes active. (Applicable to Model MCU36B Control Units).

12. In order to activate all the functions of the bed, pressing the "On/Off Button" causes the led on the button to light up. (At the same time, the led on the "On/Off Button" on the Patient Control Panel will also be active.) Thus, all functions of the bed will be active.

When the bed is powered by battery, in order to prevent unnecessary energy use of the unit, the bed goes into stand-by mode after a certain period of time (3 minutes) and automatically deactivates the led on the "On/Off Button". In such cases, when the bed is desired to be used, pressing the "On/Off Button" causes the led on the button to light up. Thus, all functions of the bed become active. (Applicable to Model MCU36B Control Units).

13. Power LED becomes active when energy input is provided to the bed

14. To move the bed to the Vascular position, press the "Vascular Button" until the bed reaches the desired height.

15. In order to deactivate all the functions of the bed, the led on the "On/Off Button" is turned off by pressing the "Stop Button". (At the same time, the led on the "On/Off Button" on the Patient Control Panel will also be passive.) Thus, all functions of the bed will be passive. In order to reactivate all the functions of the bed, pressing the "On/Off Button" causes the led on the "On/Off Button" to light up. (At the same time, the led on the "On/Off Button" on the Patient Control Panel will also be active.) Thus, all functions of the bed will be activated.

16. In order to prevent misuse by unauthorized persons or to prevent an undesired situation, the led on the "Lock Button" is deactivated by pressing the "Lock Button". In this case TV Cardiac, Bad Exit, Vascular, Exam Position, Trendelenburg and Rev. All Trendelenburg positions become passive. By pressing the "Lock Button" to activate the relevant positions, the led on the button is activated. In this case TV Cardiac, Bad Exit, Vascular, Exam Position, Trendelenburg and Rev. All Trendelenburg positions are activated. (Applies to Model MCU36B Control Units).

17. You can monitor the charge status of the batteries on the control box of the bed with this indicator.

18. In order to prevent misuse by unauthorized persons or to prevent an undesirable situation, pressing any of the lock buttons on the nurse control panel and the key of the

function that does not want to work (Bedside, Footrest, Height, Fowler, Trendelenburg) at the same time, the led on the relevant function button lights up. is provided. In this case, the relevant function becomes inactive. In order to reactivate the relevant function, the lock button and the relevant function button are pressed on the same mirror, and the led on the relevant function is turned off. In this case, the relevant function becomes active (valid for Linac Unit).

19. In order to prevent misuse by unauthorized persons or to prevent an unwanted situation, the LED on the "Lock Button" is activated by pressing the "Lock Button". (At the same time, the lock led on the Patient Control Panel will also be active.) In this case, all of the Bedside, Footrest, Height, Fowler and Trendelenburg positions become passive. By pressing the "Lock Button" to activate the relevant positions, the led on the button is switched to the passive position. In this case, Head, Foot, Height, Fowler and Trendelenburg positions are all active. (Applies to Med2000 Unit.)

20. In order to prevent misuse by unauthorized persons or to prevent an unwanted situation, the led on the "Lock Button" is activated by pressing the "Lock Button". (At the same time, the lock led on the Patient Control Panel will also be active.) In this case, all functions are passive except the shock and cpr functions. By pressing the "Lock Button" to activate the relevant positions, the led on the button is switched to the passive position. In this case, all functions are activated. (Applies to TC21-S3MA-4 Unit.)

- DANGER -

Before using the bed's functions (bedside, foot, height, trend. Shock, etc.), make sure that there is nothing (any object, cable, accessory) under the bed. Otherwise, serious injuries, loss of life and property damage may occur.

In cases of hemodynamic trauma or severe respiratory distress, the absence of Trendelenburg and Shock status may endanger patient health.

Trendelenburg, Rev. Trendelenburg, Shock and CPR should only be operated by qualified and trained persons (nurses, caregivers, etc.).

The patient should never be left unattended when the cot is in Trendelenburg, Rev Trendelenburg and Shock position.

Usage of the Manual Functions of the Plus A8 Electro-Mechanical Bed

Usage of Side Rails

Plus series Electro-Mechanical Patient Bed has four side rails. Side rails are designed to help reduce the risk of patients accidentally falling out of the cot.

- CAUTION -

When moving the side rails, pay attention to their smooth operation. If he does not move comfortably, if he has difficulty while moving, please do not force him to move.

Using a thicker mattress than specified may reduce the effectiveness of the side rails in preventing falls. In this case, the patient should be closely monitored. For problems arising from the use of mattresses that do not match what we recommend in this booklet, Medikal 2000 Medical Devices and

Advanced Technology Ind. And Trade Inc. assumes no liability whatsoever.

The side rails must be locked in the highest position when the patient is in the cot. In case the patients have different behavioral disorders (agitation, mental confusion, loss of sense of direction, weakness, etc.) and the patient is not monitored closely – or from the monitor – patient safety should be ensured in accordance with the rules.

With an unconscious patient in the cot, restrain the patient to the cot with a restraint strap.

a. Concealing the Side Rails

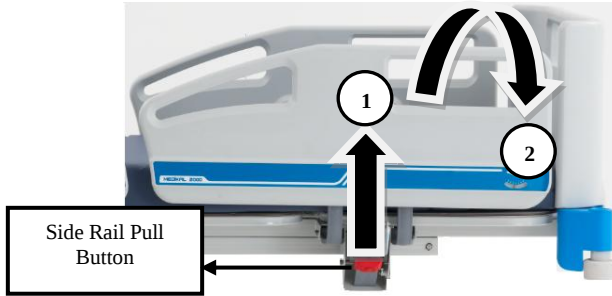


Figure 7a. Hiding the Railings

1. Push the side rail pull button **Figure 7a**. Pull upwards as indicated by **arrow 1**.
2. Side rails **Figure 7a**. Slide down to the lowest position as indicated by **arrow 2**.

b. Revealing the Side Rails



Figure 7b. Revealing the Railings

1. Side rail **Figure 7b**. Lightly pull upwards towards you as indicated by arrow number 1 in Fig.

- NOTE -

The lock button does not have to be pulled throughout the movement. The guardrail must be released when it is released.

Manual Adjustment of Bedside (CPR)

In case of emergency, you can lower the bedside part of the bed quickly and softly with the Manual CPR feature on the bedside motor. With the manual CPR system, the bedside can be lowered regardless of the position of the bed.

If you need to lower the headboard in case of a power cut, you can lower the headboard of the bed by using the manual CPR levers on both sides of the bed.

Pull the manual CPR lever towards you as shown in **figure 8**. Bedside part will go down by itself.



Figure 8. Manual Adjustment of Bedside

- CAUTION -

Do not use the manual CPR feature to raise the back of the bed.

When using the manual CPR feature, make sure that there are no obstructions under the back of the cot.

Use manual CPR only in emergencies.

Manual Adjustment of the Footrest

You can also manually adjust the foot part of the Plus series Electro-Mechanical Patient Bed. For this, move the foot support iron (Destomat) shown in **figure 9.** to one of the 6 positions of the foot section.

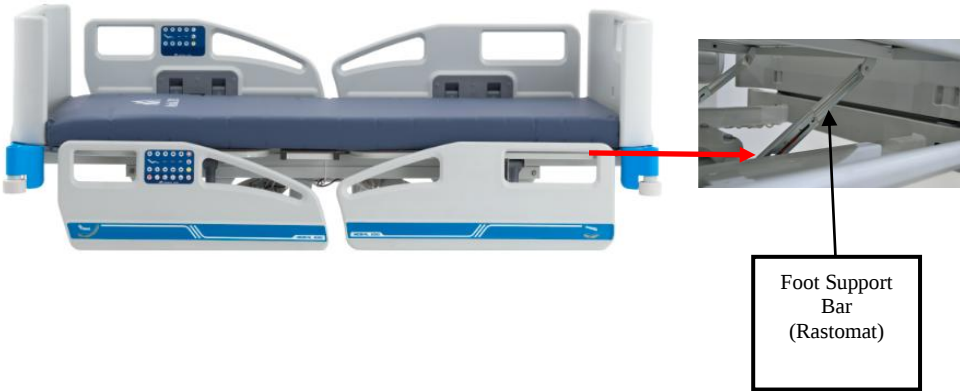


Figure 9. Manually Using the Footrest of the Bedstead

- CAUTION -

Be careful not to pinch your hand while doing this. Do not quickly release the footrest support bar. In order to bring the footrest support iron to any of the 6 levels, first bring the foot end section of the bed to the highest level with the help of control panels. Otherwise, you cannot use all the steps of the foot support iron and you may cause material damage. While the footrest is supported in any of the 6 levels, make sure that the patient's body weight does not overload this section.

Installation of Headers

There are two headboards in the Plus series Electro-Mechanical Patient Bed. One of them is at the head of the bed and the other at the foot.

The headboards are designed to protect the patient lying on the cot from environmental effects and to increase their comfort. Heads can be easily attached and removed when necessary. In order to remove the cap, it should be pulled upwards by holding the top of the cap as shown in the figure below. To put these easily removable caps back on; it can be attached by holding the heads from the top, adjusting the head feet to enter the foot slot of the head, and pressing lightly from top to bottom.

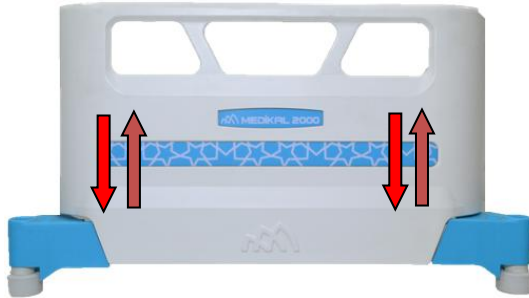


Figure 10. Installation of Headers

- CAUTION -

Headboards should not be used as handles for cot transfer. You can perform the transfer process by removing the headers and holding them from the profile during the transfer.

Wheel Lock Mechanism (Cross Lock)

- 1) If you press the Wheel Brake downwards (**Fig. 11a.**); wheel is locked. In this case, the bed remains fixed in its position.
- 2) If you lift the Wheel Brake upwards (**Fig. 11b.**); the wheel is released. In this case, you can move the bed in the direction you want.



Figure 11a.



Figure 11b.

Tekerlek Kilit Mekanizması (Merkezi Kilit)

- 1) If you press the brake pedal downwards (**Fig. 12a.**); All wheels are locked. In this case, the bed stays in its position (Central Lock).
- 2) If you leave the brake pedal in the middle position (**Fig. 12b.**); none of the wheels are locked. In this case, you can move the bed in the direction you want (Free Position).
- 3) If the brake pedal remains in the upper position (**Fig. 12c.**); the bed takes the road layout. In this case the three wheels remain in a fixed direction with a free wheel (Road Position)



Figure 12a.



Figure 12b.



Figure 12c.

- CAUTION -

If the wheels are not completely locked while the patient is getting up or down from the bed, the patient may face the danger of falling. With such a situation Lock the wheels completely before putting the patient on the cot to avoid encounters. Do not try to move the bed while the wheels are in the locked position. Otherwise, Medikal 2000 Medical Devices and Advanced Technology Ind. And Trade Inc. Takes no responsibility.

Using the Foot Extension Extension (Optional)

If desired, "foot extension section" can be added as an additional feature in Plus series Electro-Mechanical Patient Bed. In order to use the "Foot Extension Section", the pull buttons on both sides of the foot end section of the bed are pulled forward as indicated by the **arrow number 1 in figure 13**. In this way, the "foot extension section" is released. Then, the "foot extension section" is pulled outwards as much as desired and the pull buttons are released when the desired length is reached. When the "foot extension section" is wanted to be inserted back into its slot, the pull buttons are pulled outwards in the same way and inserted into the "foot extension section" slot.

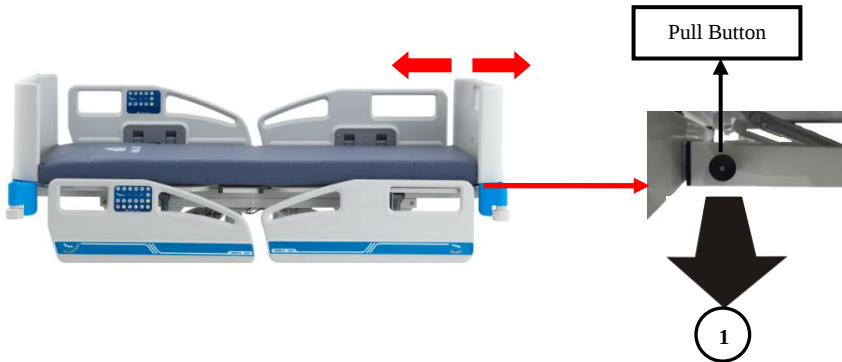


Figure 13. Foot Extension Section

Installation of Accessories on Plus A8 Electro-Mechanical Patient Bed.

Serum Hanger

Plus A8 Electro-Mechanical Patient Bed has accessory slots on all four corners. You can insert your IV pole into any of these slots by pushing it towards the accessory slot. You can adjust the height of the IV pole with the adjustment lever on the IV pole and you can fix your IV pole at the desired point with the help of the adjustment lever.

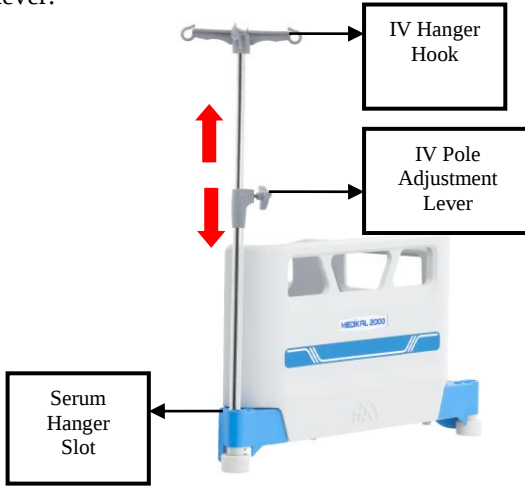


Figure 14. Assembling the IV Hanger

Mattress

Place the mattress, which is shipped with the product, on the product so that it coincides with the fasteners on the upper lying surface.

- CAUTION -

In our product, only Medikal 2000 Medical Devices and

Advanced Technology Ind. And Trade Inc. Use mattresses approved by Otherwise, Medikal 2000 Medical Devices and Services, due to patient injuries and material damages that may occur due to the characteristics of the product (feature, thickness, fabric, density, etc.).

Advanced Technology Ind. And Trade Inc. Does not accept responsibility.

The use of mattresses thicker than recommended (120 mm) may reduce the effectiveness of the guardrails and cause injury.

Drain Hanger

Electro-mechanical Patient Bed has two drainage hooks on both sides of the bed for attaching urine and waste bags.

Safe Closing Instructions for Plus A8 Electro-Mechanical Bed.

Electromechanical Patient Bed; In case of malfunction or when it is necessary to change its location for any reason, it is necessary to close the bed safely. For this;

- I. I. First of all, turn off the power to the control box by turning the on/off switch on the control box of the bed to the off position. (Valid for models using Medical 2000 brand control box.)
- II. II. Unplug the bed's energy cord from the socket it is connected to.
- III. III. Fold the power cable of the bed properly and fix it anywhere on the bed where it will not be damaged.

- CAUTION -

When power cord replacement is required, power cord replacement should only be performed by authorized personnel.

Transport and Storage

Before transporting the product, make sure that it is properly packaged and that there is no risk of impact, impact or falling during transport.

Damages during shipping and handling are not covered by the warranty. Repair or replacement of damaged parts is the responsibility of the customer. The product should be stored in a dry and cool place away from direct sunlight. The product should not be placed where it may come into contact with any substance or chemical that could cause damage and reduce its safety characteristics.

Do not place heavy materials on the product during storage. The product should not be considered and used as a support surface for any material..

During Storage;

All positions of the product must be in the lowest position.

The wheels of the product must be in the lock position and all moving parts must be fixed.

The product must be protected from the ingress of liquid

The environment in which the product is located must be at a temperature between -10° and +50°

Humidity (at 30°) should be between 20% and 80%

Pressure should be between 500hPa and 1060hPa.

- WARNING -

Beds should never be stored or transported on top of one another.

Plus A8 Elektro-Mekanik Hasta Karyolasını Temizleme ve General Maintenance

As the first step, pull the product to the area where the cleaning will be done. Make sure that the product and its accessories are at room temperature. All parts used in the product are designed for easy cleaning; plastics (ABS) and PP (Polyproblene) plastic, metal surfaces are painted with electrostatic powder paint. After the patient is evacuated from the product, follow the steps below to perform the cleaning and disinfection of the product. You can remove most of the drug residues and dirt on the product using a soft cloth with neutral soap and warm water. Do not use harsh cleaners, solvents or detergents.

Avoid using steel wool and sanding material during cleaning.

Avoid the use of thinner, acetone, etc. chemicals that will damage the plastic structure. You can use standard household vinyl cleaners and a soft bristle brush on the troublesome spots of the product.

Clean the product with a soft, damp cloth and disinfectants specified in the "disinfectants" section. Do not use liquids with a pressure higher than 1 bar.

Dry the product thoroughly before reuse..

- - Disinfectants -

Phenolic disinfectants are the most suitable choice for bedsteads, but should be in properly diluted quaternary.

Idopher (iodine carrying) type disinfectants can cause staining. Treat this type of staining with a diluted (1:10) bleach solution within 20 minutes..

- CAUTION -

Do not expose the product to moisture that may cause liquid collection.

Make sure that the bed does not move during cleaning.

Do not use a high pressure hose or any cleaning tool to clean the bedstead.

Highly concentrated solutions can damage the mattress surface.

You must follow the cleaning and general maintenance procedures outlined in this booklet. Otherwise, the patient may be injured or the bed and its equipment may be damaged. In addition, neglecting one or more of these warnings may prevent the use of the cot and void the warranty.

- NOTE -

The patient bed cannot be machine washed, it can only be dried.

Cleaning Procedure

Lock the wheels of the bed.

Unplug the bed from the mains and set the On/Off switch on the control box, if any, to the Off position. Lift the head and foot end up to the top, this will give you easy access during cleaning.

After doing all these operations, you can disinfect the bed.

Daily Cleaning: It is the daily cleaning of the bed surface.

Includes cleaning of bed rails, Headboards, Control Panels, Sleeping Surface and Side accessories.

Cleaning to be done after the patient's discharge: It is the cleaning that should be done when a new patient is taken to the bed.

In addition to the sections made in daily cleaning; includes cleaning of all plastic materials, side and front surfaces of the bed, electrical cables, impact wheels, pedals, lower wheels, motors, shock absorbers, compact bottoms..

CARE

It is necessary to review the motors and moving parts of the cot every 3 months. For this, review the items written below.

- General functionality of the product
- Cleaning of the product (keep in mind that poor cleaning can lead to the risk of cross-infection)
- Condition of use (moving parts, wheels, motors, etc.)
- Integrity of components
- Integrity of accessories (Are there any signs of wear or wear?)
- Condition of wheels and brake system
- Whether there are any cracks or breaks in the welds
- Any signs of bending or cracks in any profile or sheet
- Condition of side rails and mechanisms
- Bedside motor and footer motor status
- Condition of bolt and nut parts in moving places

It is recommended that other maintenance work be done by the manufacturer's service.

- CAUTION -

If you detect an error or inconsistency during maintenance, do not use the product. In such a case, contact the manufacturer (or vendor) immediately.

Medikal 2000 Medical Devices and Advanced Technology and Trade Inc. The product does not accept any responsibility for damage to the patient or user as a result of the use of devices that have not been subjected to routine maintenance, and the product warranty will be void in accordance with the Medical Device Regulation.

The person responsible for routine maintenance can identify damaged/worn parts, but their replacement or repair can only be done by the manufacturer.

Terms of Use

In case of incorrect use, the product may be damaged and the patient or personnel may be injured. Note the following examples of inappropriate use.

- Use of the cot for any purpose other than general or intensive care
 - Operation of functions simultaneously or by more than one person.
 - Connecting to a power source other than specified (220V 50Hz)
 - Do not move the bed along slopes with a gradient exceeding 10 degrees.
 - Continuous pressing of the control panels on the cot by unauthorized and untrained persons.
 - Use of the product in a high pressure room
 - Use of the product by someone who has not read or been informed of the user manual
 - Use of accessories other than those defined by the manufacturer
 - Using the product outdoors or in a vehicle
 - Operation and storage other than defined
 - Use of the product on surfaces with elevation difference
 - Moving the product on very soft ground or unsuitable surfaces
 - Using the product in the presence of flammable gas or vapor
 - Using the product at different temperatures than specified
 - A use that violates the terms described in the user manual.
-

Environmental Guidelines

Compliance with WEEE Regulation and disposal of waste product

This product is T.C. It does not contain harmful and prohibited substances specified in the "Regulation on Control of Waste Electrical and Electronic Equipment" published by the Ministry of Environment and Urbanization. It complies with the WEEE Regulation. This product is manufactured from high quality parts and materials that can be recycled and reused. Therefore, do not dispose of the product with household or other waste at the end of its service life. Take it to a collection point for the recycling of electrical and electronic equipment. Ask your local government about these collection points. Help protect the environment and natural resources by recycling used products. Before disposing of the product, cut the power plug for the safety of children and break the locking mechanism of the loading door to render it inoperable.

Packing information The packaging of the product is produced from recyclable materials in accordance with our National Legislation. Do not dispose of packaging waste together with household or other wastes, dispose of it at packaging collection points specified by local authorities.

Maintenance Record

This document will be kept for 10 years at the end of the product's useful life. Perform the necessary maintenance throughout the life of the product as specified in the user manual by the manufacturer.

Product Code and Description:
Purchase Date:
Serial Number S/N:
Buyer:

SERVICE DATE	SERVICE TYPE (Maintenance/ Inspection/ Life Extension)	OPERATIONS ON THE DEVICE	CONCLUSION	SERVICE STAFF (Manufacturer / Operator)

Troubleshooting

PROBLEM	REASON	SOLUTION
Bed Not Working.	1- There may be no energy input to the cot. 2- The power cable may be damaged 3- On/Off switch may be in Off position. (Valid for Medical 2000 Brand Control Unit.) 4- The control unit may have gone into a malfunction.	1- Plug the bed into the socket and turn the On / Off switch to the On position (valid for the Medical 2000 Brand Control Unit). 2- The power cable must be replaced. 3- Turn the key to the On position. 4- Contact the manufacturer.
One of the engines is not running.	1- Motor cable may be damaged. 2- Motor cable may be disconnected from motor or control card. 3- There may be malfunctions in the control panels. 4- The motor may be broken.	1- The motor cable must be repaired or replaced. 2- The motor cable should be checked. 3- The defective membrane(s) in the control panels must be replaced. 4- Contact the manufacturer.
Engines run very slowly.	1- There may be no energy input to the bed (the bed continues to work until the battery is discharged). 2- The SMPS (Power supply) in the control box may have failed. (Valid for Medical 2000 Brand Control Unit.) 3- The cables of the SMPS (Power supply) in the control box may be disconnected. (Valid for Medical 2000 Brand Control Unit.)	1- It should be checked whether there is energy in the socket where the bed is attached. The power cable should be checked. If there is an On/Off switch, the switch must be in the on position. 2- The energy connection of the bed should be removed from the socket and the On/Off switch of the control box should be set to the Off position. The control box must be opened carefully. SMPS should be replaced. (Valid for Medical 2000 Brand Control Unit.) 3- The energy connection of the bed should be removed from the socket and

		the On/Off switch of the control box should be set to the Off position. The control box must be opened carefully. The corresponding cable of the SMPS must be replaced. (Valid for Medical 2000 Brand Control Unit.)
There is a clicking sound from the control box, but no motor is running.	1- There may be no energy input to the bed (the bed continues to work until the battery is discharged). 2- The SMPS (Power supply) in the control box may have failed. (Valid for Medical 2000 Brand Control Unit.) 3- The cables of the SMPS (Power supply) in the control box may be disconnected. 4- The battery may be completely dead. 5- The main control board/box may be malfunctioning.	1- It should be checked whether there is energy in the socket where the bed is attached. The power cable should be checked. 2- The energy connection of the bed should be removed from the socket and the On/Off switch of the control box should be set to the Off position. The control box must be opened carefully. SMPS should be replaced. (Valid for Medical 2000 Brand Control Unit.) 3- The energy connection of the bed should be removed from the socket and the On/Off switch of the control box should be set to the Off position. The control box must be opened carefully. The corresponding cable of the SMPS must be replaced. 4- The battery needs to be replaced. Contact the manufacturer. 5- The main control board needs to be replaced. Contact the manufacturer.

Guarantee

The information contained in this document is available without prior notice to Medikal 2000 Medical Devices and

Advanced Technology Ind. And Trade Inc. Can be changed by Medikal 2000 products are exported to many countries where the same regulations are not always available. Therefore, there may be discrepancies between the information described here and the product actually delivered. Medikal 2000 continues to improve its products within the framework of its continuous development policy. That's why Medikal 2000 A.Ş. reserves the right to make changes in the equipment, shape, layout or technical aspects described herein without prior notice.

Our products are under warranty for 2 (two) years against system manufacturing and assembly faults. We accept and undertake that we will provide annual maintenance and repair and spare parts for 10 (ten) years after the end of the free warranty period.

Responsibility for the completion of the warranty certificate and the delivery to the consumer belongs to the seller, dealer, agency or representative office from which the consumer purchased the goods. This warranty is void if the warranty document has been tampered with, the original serial number on the product has been removed or tampered with.

This warranty, given by Medikal 2000, does not cover the elimination of malfunctions arising from the abnormal use of the product, and the following cases are also out of warranty:

Maintenance performed on mechanical systems, batteries, electrical components and drives other than authorized persons.

Damages and malfunctions caused by usage errors,

Damages and malfunctions that occur during loading, unloading and transportation after the delivery of the product to the customer

The use of spare parts and accessories of companies or persons that are not authorized and approved by the manufacturer in the product

Failure to comply with the specified cleaning and maintenance procedures, any use other than the instructions specified in the user manual (cleaning, service, etc.).

Service Stations

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