

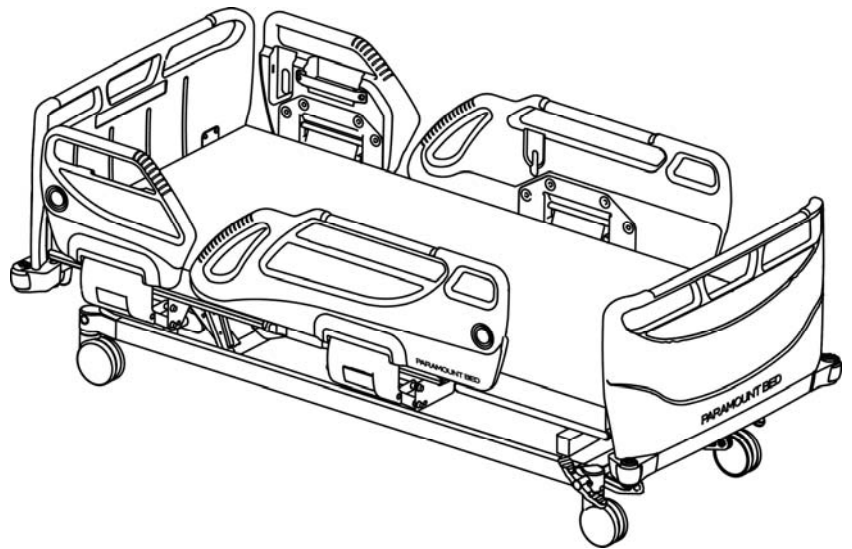
# PARAMOUNT BED

## INSTRUCTION MANUAL

7C00007100A1

CA-48A CA-49A CA-41A

CA – S series  
Electric Hospital Bed



\* The mattress for the electric bed shown above is sold separately.

### Preface

Thank you for your purchase of Paramount Bed products.

This manual describes precautions and safety information to be aware of while using the electric bed.

- Carefully read this manual before use and ensure you thoroughly understand all safety information and precautions.
- After reading through this manual, store it in a place that can be easily accessed for later reference.
- If you have any questions, feel free to contact us directly.

**PARAMOUNT BED CO., LTD.**

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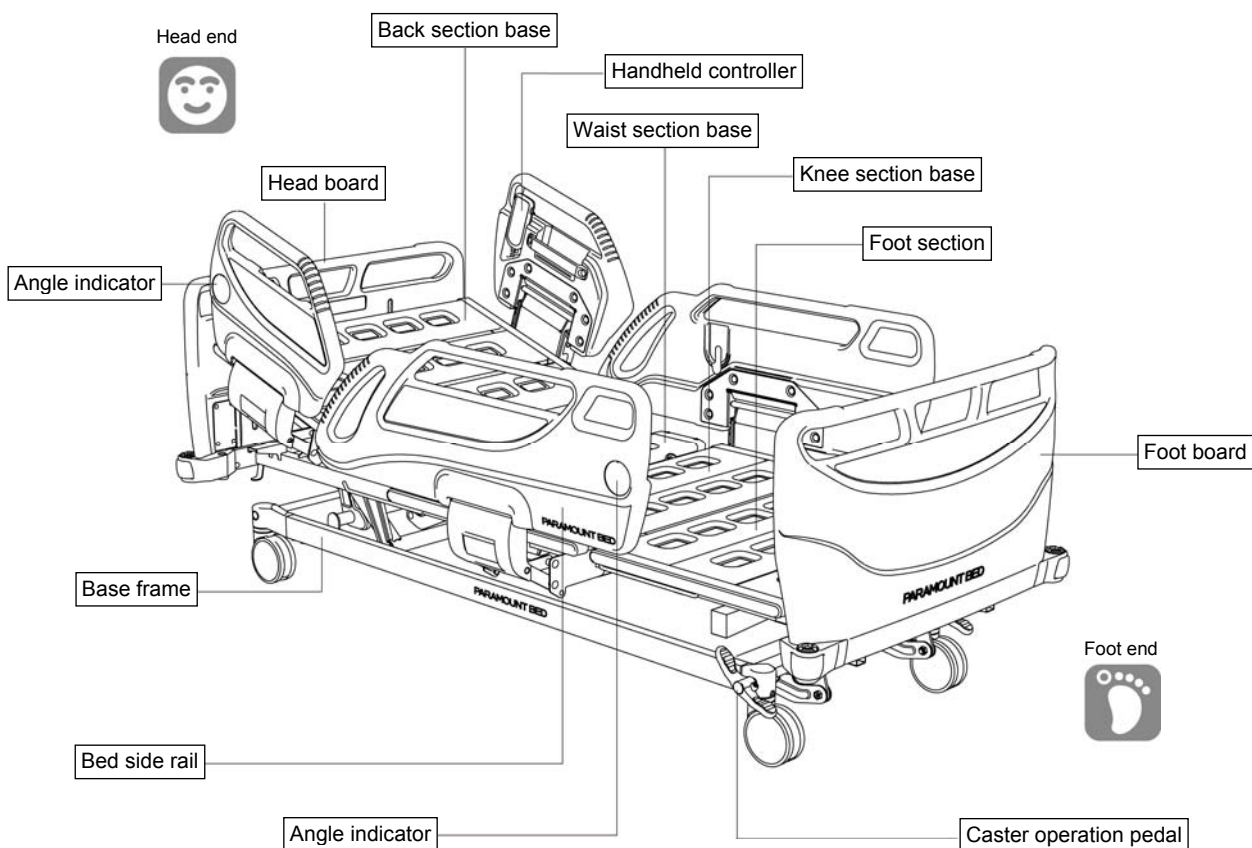
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# 1 INTENDED USE/PART NAMES

## 1. INTENDED USE

- This product is designed for use in ICU or general medical institutions as nursing equipment for patients.

## 2. PART NAMES (Main Structure)



## 2 SAFETY PRECAUTIONS

■ **Be sure to read these safety precautions beforehand to ensure proper usage.**










### ■ **Precautions**

The safety precautions described here are intended to ensure safe use of the product and prevent personal injury and property damage.

Precautions are classified into one of three categories: Warning, Caution and Prohibited, depending on the degree of danger, type of hazard, and the damage or injury that could result from incorrect operation.

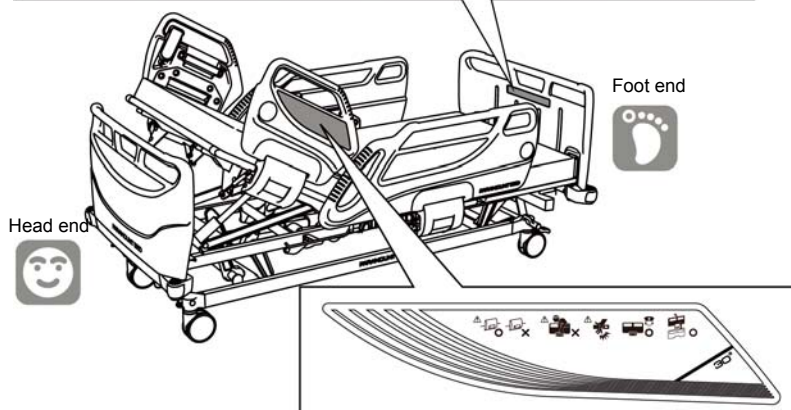
These three icons accompany important safety information and instructions that must be followed carefully.

A general description of each icon is provided below. Be sure you fully understand each before reading the following text.

 <b>Warning</b>	Indicates actions that may result in death or serious injury if the indication is ignored.
 <b>Caution</b>	Indicates actions that may result in light personal injury or property damage if the indication is ignored.
 <b>Prohibition</b>	Indicates actions that are prohibited.
<b>[Examples]</b>  Danger! Electric current  No Disassembling  Pull out power plug	 Indicates warning and caution information. Specific caution details may be indicated inside the symbol. ("Danger: Electric current" is shown to the left)  Indicates actions that are prohibited. Specific details may be described inside or around the symbol. ("No Disassembling" is shown to the left)  Indicates required actions or other important information. Specific details may be described in the symbol. ("Pull out power plug" is shown to the left)

Note: After reading this instruction manual, store it in a place that can be easily accessed for later reference.

### **[Safety labels]**



● Precautions requiring special attention by persons using the bed are described on labels that are affixed inside the foot board, outside the side rail, and outside the side rail spacer. Do not remove or deface any labels.

● If the safety label is removed or defaced, replace with a new one obtained from your distributor.

## 2 SAFETY PRECAUTIONS

### Warning

- Be careful not to allow any part of the body (especially the head or neck) to enter the gap between the side rails, head or foot boards and other areas.

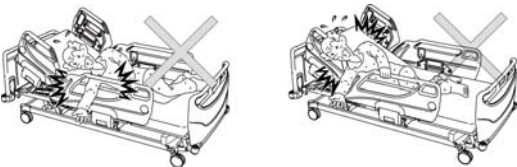


- When the head or neck enters the gap, the patient might not be able to withdraw, and there is a risk of injury.
- Pay special attention to patients who cannot control their posture.

- Care shall be taken to prevent a patient from falling off the bed when using the rail.

- The patient may fall through gaps between rails, the bed base and the rail to cause injury (Split Side Rail).
- Sitting on the rail may cause injury due to falling over.
- If a thicker mattress is used, the rail appears lower, which makes it easier to step across. Therefore, be careful not to fall over.

- Do not allow the patient's head, hands and feet to extend beyond the rails.

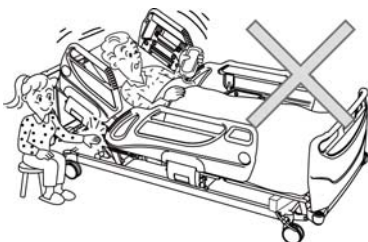


- Doing so could cause body parts to get caught between movable parts, possibly causing injury.

- Do not allow the patient's body parts (especially head and neck) to get caught in the gaps between the rail, bed base and mattress.

- Doing so could cause the patient's body parts to be caught in the gaps, causing injury.

- When performing electric operations, do not stretch hands (or fingers) and feet into the gap between the bed base and frame.

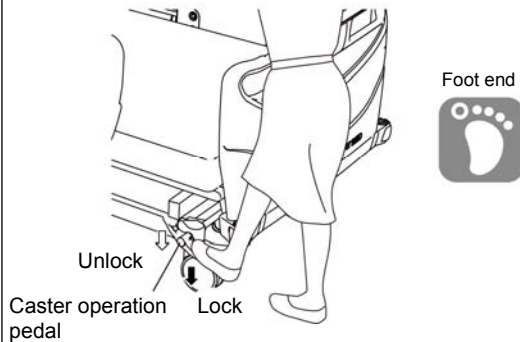


- Doing so could cause body parts to be caught between the movable parts and the frame as well as bed bases, causing injury.

## 2 SAFETY PRECAUTIONS

### Warning

#### ■ Except when moving the bed, please lock the casters.

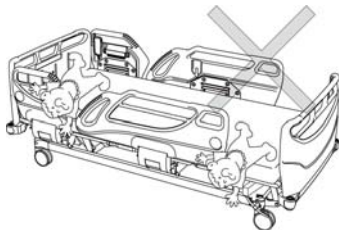


- Unlocking casters could cause the bed to move suddenly and fall over when the patient gets on or off the bed, causing unexpected injury.
- Please unlock casters when moving the bed.

#### ■ Do not attempt to stand on the caster operation pedal for operations

- Doing so may cause injury due to falling over, or result in damage to the bed.

#### ■ Do not allow infants to hang off the bed



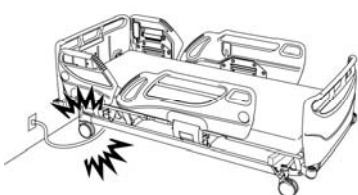
- Infants could fall through gaps in the side rail.

#### ■ Do not allow dust to accumulate on the power plug pins



- Wipe away any dust accumulating on the surface of the power plug using a dry cloth.
- Dust on the power plug can absorb moisture and conduct electricity, causing a short circuit and possibly resulting in electric shock or fire.

#### ■ Do not damage cables (such as the power cable)



- Wipe away any dust accumulating on the surface of the power plug using a dry cloth.
- Dust on the power plug can absorb moisture and conduct electricity, causing a short circuit and possibly resulting in electric shock or fire.

#### ■ When using the internal power supply

- Check the battery regularly and replace it if necessary. If you have any questions, please feel free to contact your dealer.
- If there is a problem when installing the external protection cable, make sure that the device must have an internal power supply to run.

## 2 SAFETY PRECAUTIONS

### Warning

- **Make sure that power cord, handheld controller and nurse control panel connections do not obstruct movement**
  - Failure to do so could damage plugs or wires, causing a dangerous situation such as an electric leak or electric shock.
  - Failure to do so could cause some to trip over a cord, possibly causing injury.
- **Do not put the cables (power line, etc.) of the bed and electrical products other than the bed under the bed.**
  - Doing so could cause body parts to be caught by the caster or movable parts, resulting in damage to the cables and causing electric shock and fire.
- **Always check the patient's condition before adjusting the angle of the bed.**
  - Adjusting the angle of the bed when the patient is moving could cause injury due to the patient falling over. Particularly for patients who cannot maintain their posture, operate the bed while simultaneously supporting the patient's body. In back and knee raised condition, keep paying attention to the patient to prevent them from falling off the bed or getting caught in a gap in the side rail, or side boards, possibly causing injury.
- **Do not allow the bed to be operated by a child aged 12 or under, or someone deemed incapable of comprehending the operation of the bed.**
  - If a child aged 12 or under, or someone deemed incapable of comprehending the operation (such as a person with dementia) operates the handheld controller by themselves, there is a risk of unexpected injury.
  - If such person can come into contact with the handheld controller, please set the handheld controller to an operation disabled state according to the following procedure to prevent faulty operation.
    - Use the handheld controller or nurse control panel to activate the Manual Operation Disabled setting.
    - Pull out the power plug
- **Do not attempt to operate side rails while on the bed**
  - Doing so could cause you to fall, possibly causing injury.
- **When transporting the patient, always use the side rails.**
  - Failure to do so may cause the patient falling off the bed and getting injured.
- **Always use the bed in the correct direction**

Head end



Foot end



- If patients lay in the wrong direction, with head and feet reversed, when the back or knee sections are raised independently or adjusted together, the patient could be injured or be forced into an incorrect sleeping position.

- **Do not perform any angle adjustment when the patient is lying face down**

Head end



Foot end



- There is a risk of injury caused by extending the joints backward.



## 2 SAFETY PRECAUTIONS

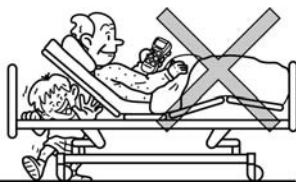
### Warning

#### ■ Do not jump on the bed



- Doing so could cause injury due to falling or tumbling.

#### ■ Do not allow the patient's head, hands and feet to extend beyond the rails



- Doing so could cause body parts to get caught between movable parts, possibly causing injury. Before operation, check for and remove any obstructions around the bed.

#### ■ Do not pull out or insert a power plug with wet hands



Danger! Electric current

- Doing so could cause electric shock or bed failure.

#### ■ Do not spill water into the bed surface

- Be careful that water is not spilled onto electrical sections such as the motor, handheld controller or nurse control panel, which could cause a malfunction. If the above situation occurs, unplug the power cord and contact your sales agent immediately.

#### ■ Do not use mobile phones or similar electronic devices near the bed

- Doing so could cause the bed to malfunction.

#### ■ Do not allow users to make any repair or modification without permission



No Disassembling

- Doing so could cause injury due to unexpected bed behavior.

#### ■ Always disconnect the power plug for the bed from the power outlet when using electronic medical equipment



Pull out power plug

- Using the bed in conjunction with electronic medical equipment (e.g. microwave or ultrashortwave medical equipment) may cause operational failure or malfunction.
- Check for safety considerations before using the bed in conjunction with other medical equipment.



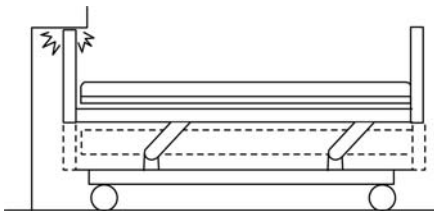
## 2 SAFETY PRECAUTIONS

### Warning

- Do not attach restraint belts to the main frame or rails
  - Doing so could contort the patient's body due when the back or knee section is raised or other operations are performed, possibly causing injury, and could also damage or deform the bed.
- Use the bed in a way that matches the patient's condition.
  - Since patients have different symptoms, their condition could deteriorate if the bed is operated incorrectly. Before allowing patients or family members to independently operate the unit, referring to the Operation Manual, first have a doctor or nurse explain operation methods that take the patient's condition into consideration.
- Be care about the state of bed base angle, height, and rail spacer, etc. when the nurse leaves or temporarily leaves.
  - To prevent the patient falling off the bed when the doctor, nurse or caregiver leaves or temporarily leaves, please adjust the bed base to the horizontal position and lower the bed height to the lowest position.
  - Always use the rail or the one with a spacer for the patient who cannot control his posture or have difficulty in walking.
- Do not attempt to attach other than specified products to the bed
  - Only attach specified rails, mattresses and other accessories directly to the bed. If used with other than specified products, the bed could be exposed to additional load, possibly causing injury or bed failure.

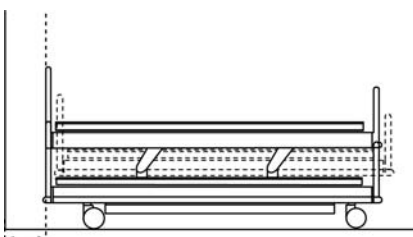
### Caution

- When performing the height adjustment or inclination angle adjustment, pay attention not to hit the wall, beam, or power outlet on the wall.



- When performing the height adjustment or inclination angle adjustment, pay attention not to hit the wall, beam, or power outlet on the wall.

- Make sure that the bed is at least 10cm from the wall when performing the height or inclination angle adjustment.



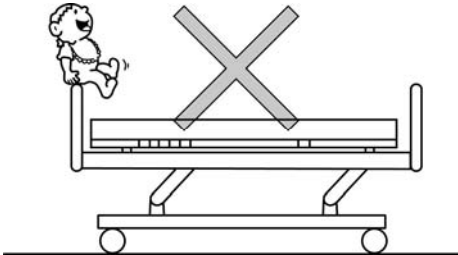
At least 10cm from the wall

- When the height is adjusted, the movement range is about 35cm vertically and about 8cm horizontally. Make sure that the bed will not contact the wall and post when using. Make sure that the bed is at least 10cm from the wall.

## 2 SAFETY PRECAUTIONS

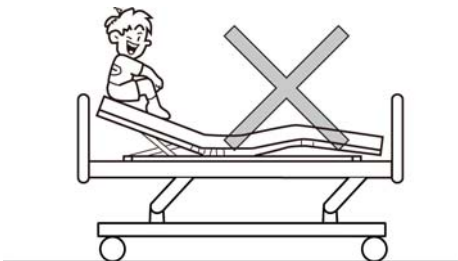
### Caution

#### ■ Do not sit on the side rail, head or foot boards.



- Doing so could cause the patient to fall of the bed, or could deform or damage the bed, possibly causing injury.

#### ■ Do not sit on the part of the bed being raised.



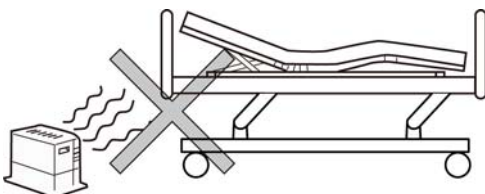
- Doing so could place excessive force on the part of the bed being raised, which could deform or damage it.

#### ■ Do not allow two or more patients to sit on the bed at the same time



- The bed is designed for use by one person only. If used by two or more patients, the bed could be damaged, possibly causing injury.  
Note the following when a doctor, nurse or caregiver is sitting on the bed:
  - The bed cannot safely bear more than a safe working load
  - Adjust the bed section to the horizontal position, then lower the bed height to the lowest position.
- The bed must be inspected regularly when the doctor, nurse or caregiver use it frequently.

#### ■ Keep the bed away from fire



- Do not use thermal appliances such as heaters near the bed. Otherwise, the bed may be damaged or deformed, or even catch fire.

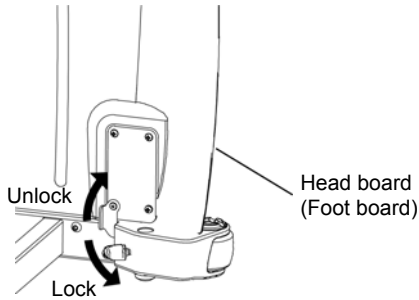
#### ■ Before operation, carefully check the area around the bed

- When the bed is adjusted, objects nearby the bed could be damaged, or the bed itself could be damaged or deformed.

## 2 SAFETY PRECAUTIONS

### Caution

- Always tightly fasten the fasteners of the head board and the foot plate.



- If casters are not locked and you attempt to move the head and foot board or hold them to support yourself, the head or foot board could become loose or fall over off, possibly causing injury.

- The angle of the leg section base must be adjusted by at least two persons from both sides of the bed.



- If only one person attempts to adjust the angle, the person may get caught between the leg section base and main frame, resulting in injury.

- Do not hold the rails to move the bed.

- Doing so could damage or deform the rails.

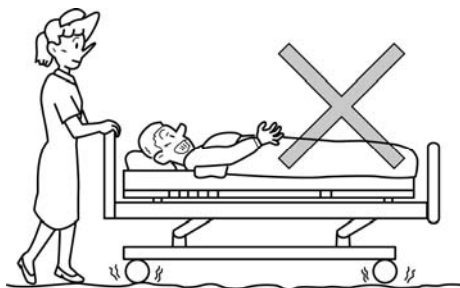
- Do not put the patient's feet under the rails when making height or tilting adjustments with the rails lowered.

- Failure to do so could cause the feet to get caught, causing injury.

- Watch your step when moving the bed.

- Be careful not to touch the caster operation pedal or get caught in the caster, or else it may cause injury.

- Avoid transporting over uneven floors



- Failure to do so could damage or deform the bed, causing a failure. If moving on uneven floor is necessary, move the bed as slow as possible.

## 2 SAFETY PRECAUTIONS

### Caution

- When disconnecting the power plug, hold the power plug body to disconnect.



Pull out power plug

- When holding onto only the power cable and pulling it to disconnect the plug from the outlet, the cable could be damaged and there is a risk of electric shock or fire due to a short circuit.

- Unplug power during maintenance and service work.



Pull out power plug

- Failure to do so could cause an injury or accident due to misuse, or electric shock due to a short circuit

- Do not bump or damage electrical parts such as the handheld controller or nurse control panel.



Danger! Electric current

- The bed may malfunction, resulting in injury, and there is a risk of electric shock or fire due to a short circuit.
- Request repair for the damaged handheld controller.

- Please use the specified handheld controller and nurse control panel to the bed.

- Please use the specified handheld controller and nurse control panel to the bed, otherwise it may cause faulty operation or a failure. Although the beds are the same series, find out whether they are modified ones when using in different situations. If there is any question about the bed structure when replacing the handheld controller and nurse control panel, feel free to contact us directly.

- Do not apply spray-type pesticides directly to the bed.

- Solvents in pesticides could damage, fade or dissolve casters and other resin components. The damaged and dissolved parts may lead to an unexpected injury, so always be sure to read these safety precautions.

- Inspect the bed regularly.

- Inspect and maintain the bed regularly depending on the operating environment and frequency of use. The damaged bed could cause an electric shock, fire, short circuit or injury due to faulty operation caused by deformation.

- Be sure to inspect and repair the affected bed.

- In event of earthquake, fire, flood and other natural disaster, if it is suspected that the bed has been damaged, contact your local sales agent and request inspection and repair, if needed. Failure to do so could cause the bed to be deformed, possibly cause injury due to abnormal behavior.

### 3 SPECIFICATIONS

Bed unit	Product name		CA – S series Electric Hospital Bed		
	Model		CA-48A	CA-49A	CA-41A
	Medical device registration no.		Registration no. 2560069 Approved in 2011 by the Medical Devices Division of JWFDA		
	Product quality standard		YZB / JIANGSU 0053-2011		
	Approved code of medical device manufacturer		Manufacturer no. 2005-0007 Approved by the Medical Devices Division of JWFDA		
	Means and extent of protection for electric shock		Class I Type B equipment <sup>3)</sup>		
	Liquid inlet protection grade		IPX4		
	Working principle		Telescopic linkage device with electro-motor		
	Dimensions	Full length	2175mm (with the extension frame: 2320mm)		
		Full width	980mm	980mm	980mm
		Full height	Approx. 830mm - 1210mm		
		Mattress base height above ground	Approx. 420mm - 800mm		
	Caster		Center braking		
	Product weight		Approx. 143kg	Approx. 144kg	Approx. 146kg
	Material	Bed frame	Steel		
		Mattress base	Steel / X-ray permeable mattress section (user option)		
		Head/foot boards	Resin		
		Bed side rail	Resin / metal		
	Movement range	Back raising	0°~75°		
		Knee raising	0°~45°		
		Hi-Low range	420mm~800mm		
		Inclination angle	-16°~16°		
	Safe working load <sup>1)</sup>		220kg		

Electrical equipment	Mode		Linear actuator		
	Power voltage, frequency		AC 230V 50/60Hz		
	Rated capacity		Below 100VA		
	Max. continuous use time		Approx. 2 minutes (the stop time is approx. 18 minutes) <sup>2)</sup>		
	Protective fuse capacity		5.0A		
	Internal power supply	Battery specifications	Small, sealed lead-acid battery 12VDC/1.3Ah × 2		
		Fuse specifications	60V/3.75A		

1) The safe working load includes the weight of accessories, bed base and other items.

2) The overheating protection of the control box will be enabled automatically after the bed exceeds the max. continuous usage time (approx. 2 minutes).

3) Safety classification: the equipment that cannot be used under the flammable anesthetic gas mixed with the air, oxygen or nitrous oxide.

## 4 SETUP REQUIREMENTS

### ■ Installation site

**To avoid possible malfunctions, do not install the bed in the following locations.**

- Locations exposed to direct sunlight.
- Locations near heat sources such as a stove or heater.
- Locations exposed to excessive amounts of water vapor or oil vapor.
- Places that tend to be exposed to high temperatures, high humidity or dusty environment.

**\* Please use the bed in the following environment**

Temperature 5~40°C, humidity 30~75%, atmospheric pressure 860~1060hpa

- Locations with a large amount of dust, smoke, salt, sulfur, or corrosive substances.
- Locations with poor ventilation.
- Places exposed to vibration or impacts (including when transporting the bed).
- Locations where the floor is not level.

### ■ Transportation and storage

The packed electric bed should be stored in a dry and well-ventilated room not exposed to corrosive gases, and transported using a suitable vehicle. During transportation, the bed should be protected against strong impact, vibration, squeezing and moisture.

**Transport and store the bed in the following environment**

- Ambient temperature: -10°C~55°C
- Relative humidity: ≤75%
- Atmospheric pressure: 500hPa~1060hPa

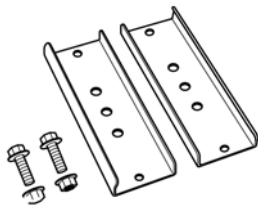
# 5 UNPACKING THE UNIT



## Caution

- Six people are needed to lift the bed. Lifting the bed could cause back or waist pain. Always use correct lifting techniques.
- Keep hands away from the moving parts of the bed during operation. Pay special attention not to be scratched or cut by protrusions.
- Use gloves not to be scratched or cut by protrusions on the bed during assembly work.
- Do not attempt to carry the bed by grasping the side rails, which could be damaged or deformed.

### Disassembled parts



Moving clamp

### Tools needed

Box end wrench (13mm)



Ratchet wrench  
(across flats 13mm)

Requires two wrenches

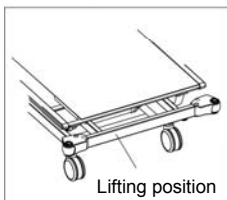
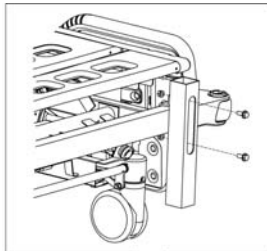
Note: Some pieces are not included with the DS bed

- (1) Remove the hardboard from the body (see illustration below left), then remove the moving clamps that secure the head end frame. (DS bed parts other than the moving clamps are packed in the wooden box.)
- (2) Remove the protective cover installed on the caster after grasping the main frames of head end and foot end.

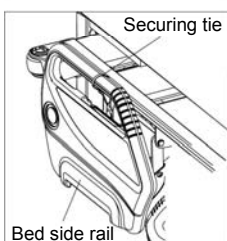


- Lift the bed body as shown below.

- (3) Remove the plastic film and hardboard from the bed section.
- (4) Cut the ties on the main frame of foot end and remove the mattress stopper (big & small) and Operation Instruction Manual.
- (5) Cut and remove the ties that secure the bed body and bed side rails.
- (6) Please cut fixing ties and remove the handheld controller, which is fixed on the urinary drop rack.



Lifting position



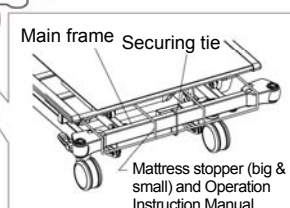
Securing tie

Bed side rail

Foot end



Head end





## 6 CHECKING INCLUDED PARTS

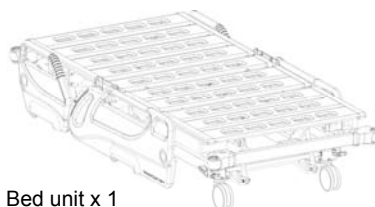
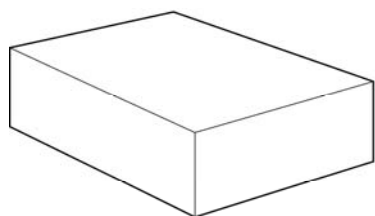
- After unpacking, check the following parts to confirm that they are intact and are not damaged.  
If incomplete or damaged parts are found, contact your local sales agent.



### Caution

- Take care to keep hands from getting caught in moving parts of the bed during assembly work.
- Use gloves not to be scratched or cut by protrusions on the bed during assembly work.

#### ● Bed unit



Bed unit x 1



Operation instruction  
manual x 1



Handheld  
controller x 1

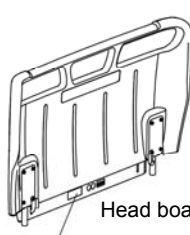
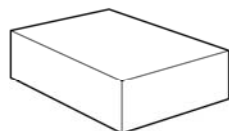


Mattress stopper (small) x 4



Mattress stopper (big) x 1

#### ● Head/foot boards



Head board

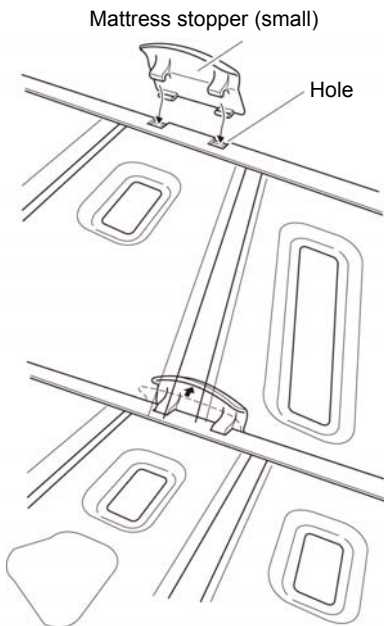


Foot board

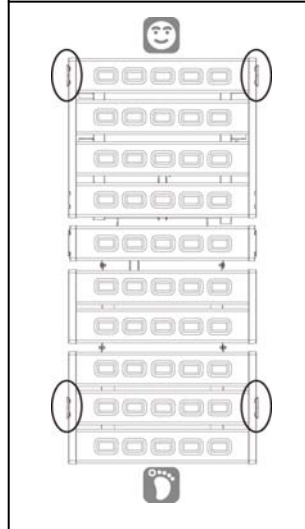
Identification label

# 7 ASSEMBLING THE BED

## 1. Attaching the mattress stopper (small)



■ Installation location of the mattress stopper (small)



■ Parts needed



Mattress stopper (small) x 4

- Tilt and properly position the mattress stopper (small) so that it can be inserted into the two assembly holes on the edge of the waist section base.
- After installing the mattress stopper (small), gently pull from inside to outside to check that it is securely mounted.



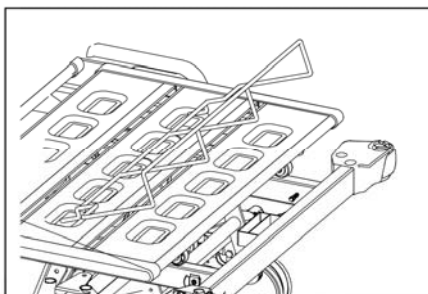
- **Be sure to test the mattress stopper (small) after it is securely mounted**



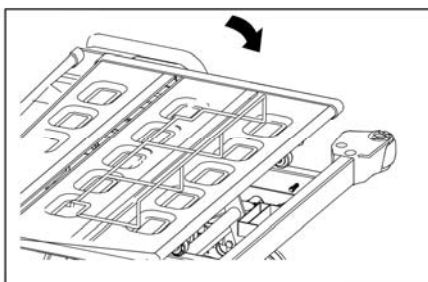
### Caution

- Be careful not to be scratched by the mattress stopper (small) when moving, or else it may cause injury.

## 2. Attaching the mattress stopper (big)



- Please insert the end of the mattress stopper (big) into the hole of the foot end bed base as shown in the left figure.

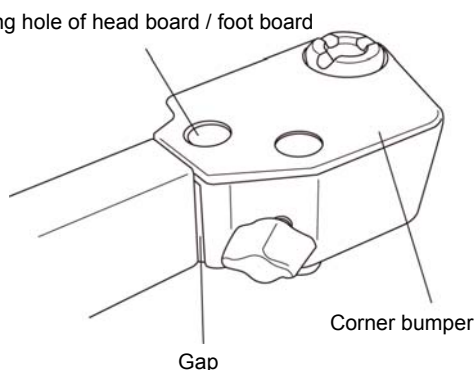
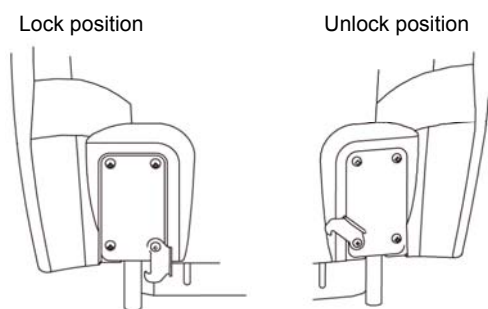
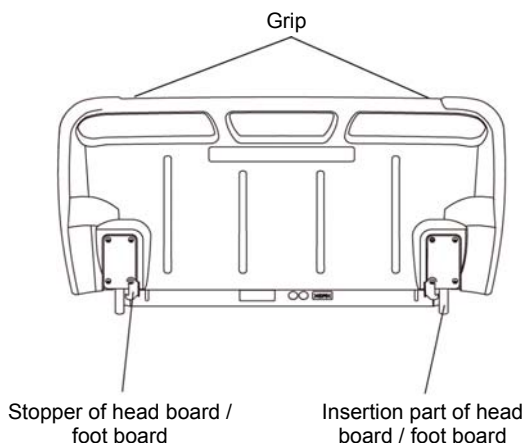


- Put the mattress stopper (big) down.

# 7 ASSEMBLING THE BED

## 3. Attaching the head and foot boards

- The head board / foot board can be installed and disassembled.  
The head board / foot board can be used after disassembly when washing hair, training legs and conducting the foot massage.

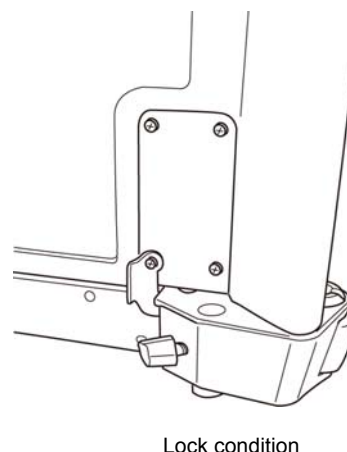


### [Attachment method]

- (1) Adjust the stopper of the head board / foot board to the unlock position.
- (2) Hold the grip of the head board / foot board with your hands to insert their insertion parts into the mounting hole of the bed body.
- (3) Rotate the stopper of the head board / foot board under the corner bumper.
- (4) Gently pull the head board / foot board to check if it is locked.

### [Disassembling method]

- (1) Rotate the stopper of the head board / foot board to the Unlock position.
- (2) Hold the grip of the head board / foot board with your hands, and gently pull the head board / foot board to check if they are locked.



## Caution

- Please check if the stopper of the head board / foot board is secure when installing the head board / foot board. If not, the head board / foot board will come off to cause danger when pulling them.
- Do not install the head board / foot board in the hole other than the mounting hole. Pulling the bed may cause danger if the head board / foot board are not properly installed or there is a clicking sound.
- Do not pull the head board / foot board in an inclined position when disassembling them. Otherwise, the insertion part may have danger.

# 7 ASSEMBLING THE BED

## 4. Installing the handheld controller

### ■ Handheld controller

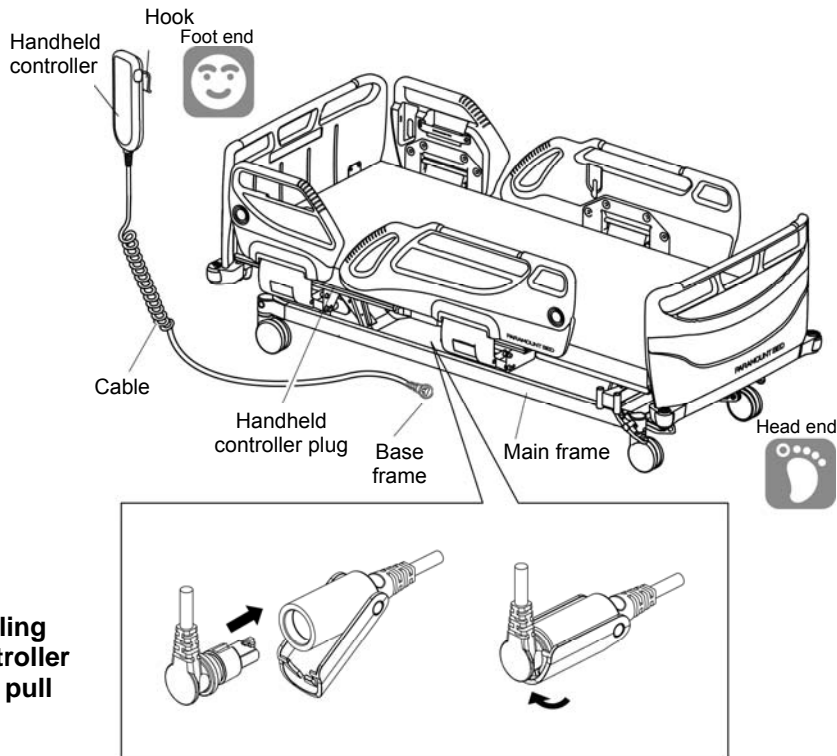
- The handheld controller can be only mounted using the holes on both sides of the bed.
- Please hang the handheld controller on the specified position of the rail.

### Attachment method

- (1) Insert the plug into the handheld controller outlet with the protrusion of the handheld controller plug.
- (2) To prevent the handheld controller plug being damaged, make sure to use the clip on the cable so that it does not come out.



- **When inserting or pulling out the handheld controller plug, always insert or pull the plug out straight**



### Warning

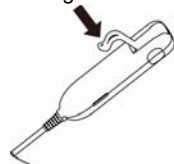
- To prevent faulty operation, please set the handheld controller to an operation disabled state according to the following procedure if necessary.
  - Use the handheld controller operation disabling switch of the handheld controller to disable operation.
  - Use the nurse control panel disabling switch of the handheld controller to disable operation.



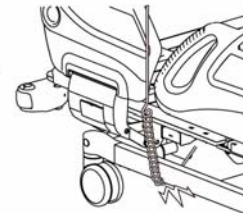
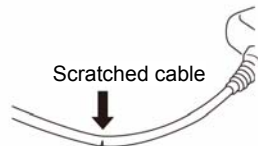
### Caution

- Do not drop the handheld controller or pull the cable. The handheld controller may get damaged or deformed, causing it to operate incorrectly. Request repair (or replacement) of a damaged handheld controller.

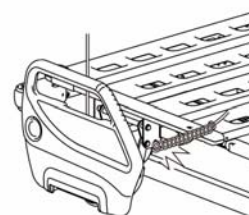
Hook damage



Scratched cable

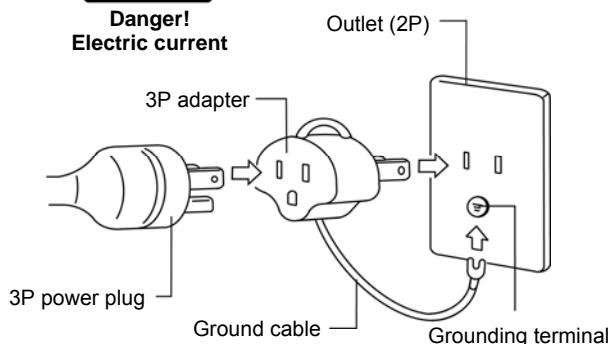
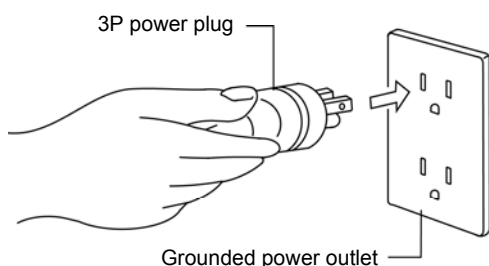


- If the handheld controller passes under the base frame, the cable could be snapped while adjusting the bed height, causing a malfunction.
- If the handheld controller passes under the rail bracket, the cable of the handheld controller could get caught during rail operation, causing a malfunction.



## 8 CONNECTING TO THE POWER SUPPLY

### 1. Power outlets

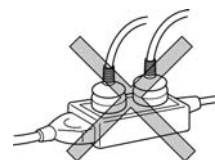


- Each bed uses a 3-pin grounded outlet that is configured for at least 220V 15A single-phase AC. Insert the 3-pin plug into the outlet properly.
- If the room only has a two-pronged (2P) outlet, use a three-pronged (3P) adapter (sold separately). In that case, make sure to connect the end of the ground cable on the three-pronged (3P) adapter to the ground terminal of the outlet.

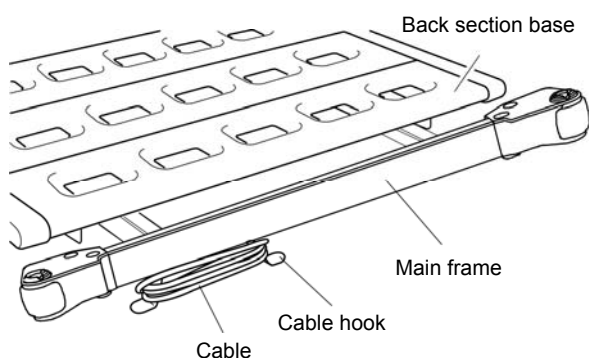


### Caution

- Do not connect multiple cables to a single power outlet.



### 2. Using the cable storage hook



#### Using the power cord holder

- Wind the power cable onto the cable storage hook when moving the bed.

## 9 UP/DOWN FUNCTION INSTRUCTIONS



### Warning

- Do not place the patient's head, hands and feet beyond the rail or in the gaps in the head board. Doing so could cause them to get caught in the moving parts when using the bed or rail.
- Do not attempt to crawl under the bed and do not place head, hands or feet under the bed, which could cause body parts to get caught in moving parts, the bed frame or rails.
- When rails are folded, while adjusting the bed height and inclination angle, pay special attention to the distance between the rail and ground to ensure toes are not pressed, which could possibly cause an injury

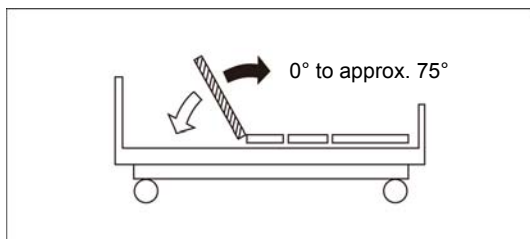


### Caution

- Do not place items under the bed or rails. Items could be caught in the bed frame or between the rails and the ground when the bed is moved, which could damage or deform the bed and rails.

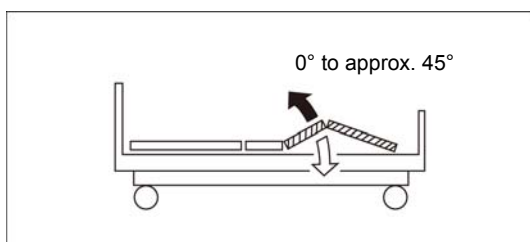
- Back section up/down, knee section up/down, the overall bed height and the inclination angle can be adjusted in a stepless manner using the motor drive. This can be done by using both the handheld controller and nurse control panel.
- The leg angle can be manually adjusted in three levels.

#### Back-raise



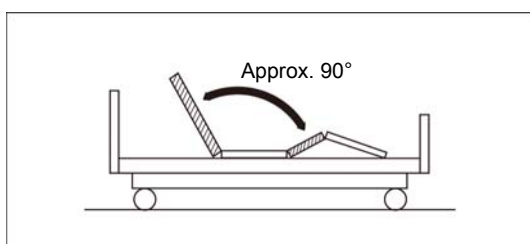
- The back section base can be adjusted from an angle of 0° to approximately 75°.

#### Knee-raise



- The knee section can be adjusted from an angle of 0° to approximately 45°.

#### Angle limit function

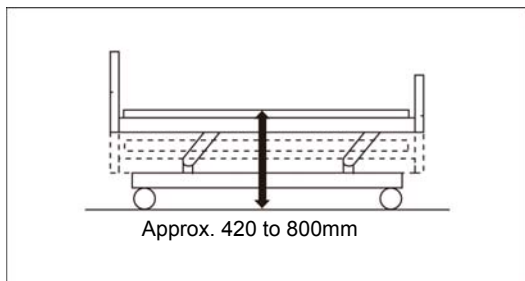


- In order to reduce the feeling of pressure on the chest and abdomen, the bed operates while maintaining the angle between the back and knee section bases at 90° or more.



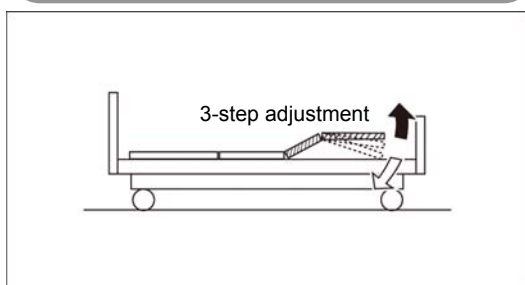
## 9 UP/DOWN FUNCTION INSTRUCTIONS

### Height adjustment



- The height from the floor to the mattress base top can be adjusted in a range between approximately 420 mm and 800mm.

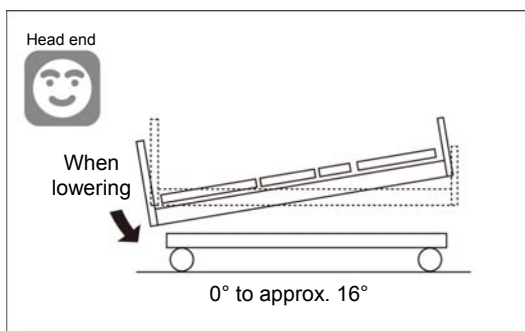
### Adjusting the angle of leg angle



- After the knee section is elevated, the angle of the foot section can be adjusted to one of three positions.

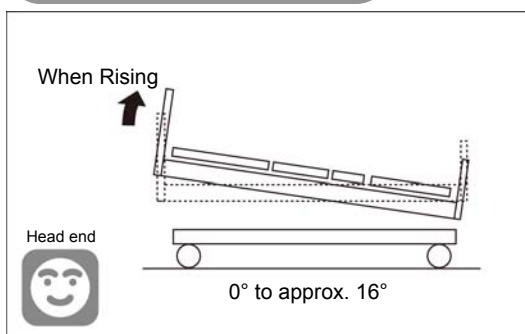
- The tilt angle of the bed can be adjusted in a stepless manner using the motor drive. This can be performed using the nurse control panel.

### Trendelenburg



- The head end of the bed can be lowered. The inclination angle can be adjusted up to approximately 16°

### Reverse Trendelenburg



- The head board of the bed can be raised. The inclination angle can be adjusted up to approximately 16°.

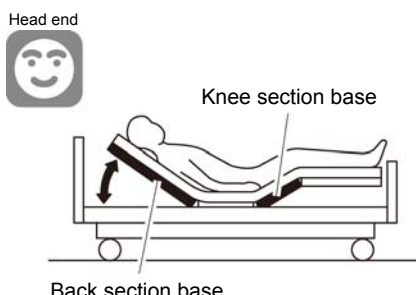


# 9 UP/DOWN FUNCTION INSTRUCTIONS

## Auto-contour motion

### Auto-Contour up

- (1) The back and knee section are raised at the same time
- (2) The knee section stops when it is raised to 25° while the back section continues to rise until it is raised to 65°.

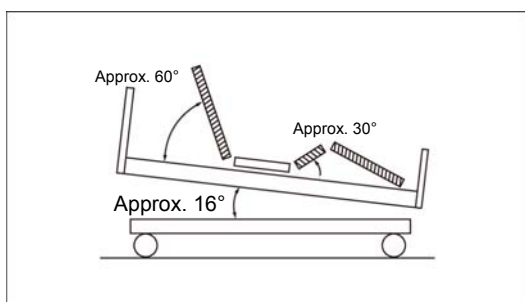


### Auto-Contour down

- (1) The back and knee section are lowered at the same time
- (2) The knee section stops when it is lowered to horizontal position while the back section continues to decline until it is lowered to horizontal position.

## Cardiac position

- As the back section and knee section are raised, the entire bed tilts toward the foot end, at the same time forming a chair-like configuration. This is called Cardiac chair status. This position can be accessed using the nurse control panel.



- By pressing the CARDIAC/FLAT button on the nurse control panel and then holding the UP button, the cardiac position illustrated in the figure to the left can be obtained.
- The back section base and knee section base move in conjunction until the angle of the back section base reaches approximately 60° and that of the knee section base reaches approximately 30°. The bed then inclines and the head end rises until the angle between the main frame and base frame reaches approximately 16°.



## Warning

- When operating the Cardiac chair, make sure that the patient's head, hands, feet and other body parts do not get caught in the gaps between the rails, back section and bed frame, which could possibly cause injury.



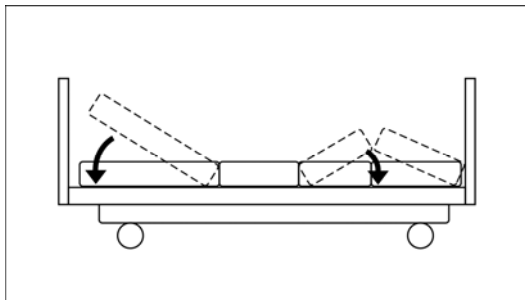
## Caution

- When making height and tilting adjustments with the side rails folded, do not put the patient's feet under the side rails, which could catch the patient's feet, possibly causing injury.
- Do not allow the patient to attempt to get out of the bed in Cardiac chair position; the patient could fall off the bed, possibly causing injury.
- Only use the Cardiac chair function under doctor or caregiver supervision.



### Flat function

- The horizontal state can be obtained by one key recovery



- The angle between the back section base and knee section base can be returned to  $0^{\circ}$  after the inclination angle of the bed reaches approx.  $0^{\circ}$ .

### Electric CPR

- It can make the bed return to the horizontal state in case of emergency.
- The back and knee section can return to  $0^{\circ}$  and so does the inclination angle 2 sec after pressing the electric CPR button.
- The back section restores at the speed of approx. 2 times faster than the normal state.

# 10 OPERATION OVERVIEW

## 1. Handheld controller

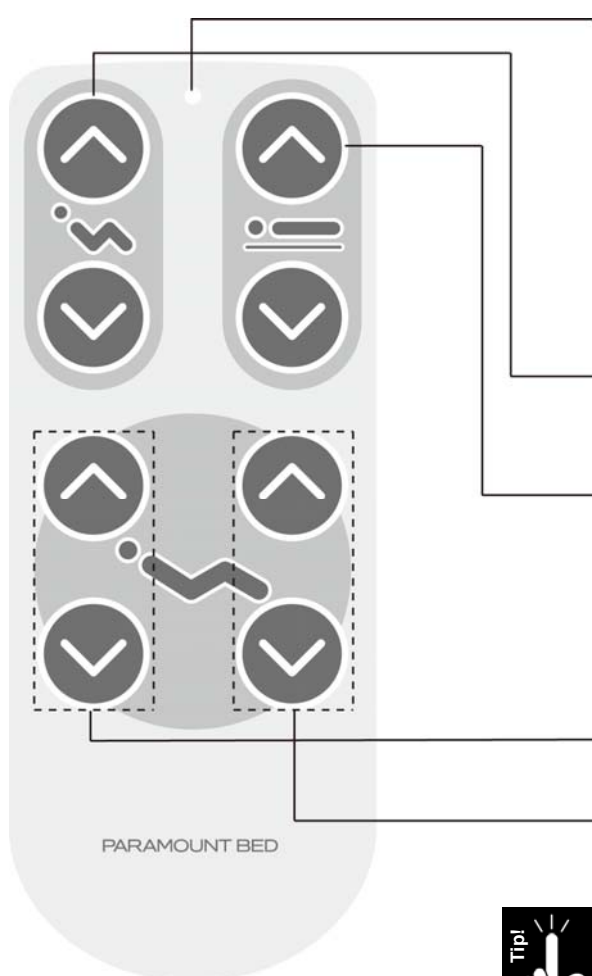
- The angle of the back and knee section bases and the bed height can be adjusted with no increments using the handheld controller operation.



### Warning

- If a child aged 12 or under, or someone deemed incapable of comprehending the operation (such as a person with dementia) operates the handheld controller by themselves, there is a risk of unexpected injury.
- If such person can come into contact with the handheld controller, limit the operation by either of the following methods in order to prevent accidents caused by incorrect operation.
  - Use the handheld controller operation disabling switch to disable operation.
  - Use the nurse control panel to disable the handheld controller operation.
  - Unplug the power and turn off the battery
- After setting handheld controller operation disabled, press the handheld controller operation disabling switch again to enable operation.

- Pressing the button adjusts the bed, and releasing the button stops adjustment, allowing you to adjust the bed to the desired position. Pressing the ↑ button to raise the desired section and press the ↓ button to lower the desired section.



#### Indicator light of the handheld controller

- ON (green): Normal power ON status
- Flash (green): The control panel on the rail may have a failure
- OFF: Disconnection of handheld controller, failure, out of power, outage, and emergency stop switch pressed, etc.

#### UP and DOWN buttons for Auto-Contour

- The knee section base operates appropriately during back-raising or back-lowering operation.

#### UP and DOWN buttons for the bed height

- The bed height can be adjusted.

#### UP and DOWN buttons for back section

- The angle of the back section base can be adjusted.

#### UP and DOWN buttons for knee section

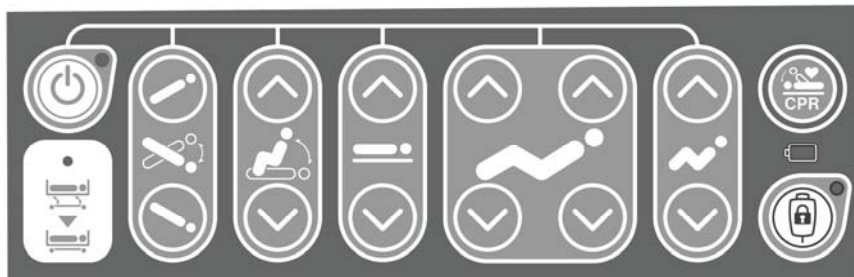
- The angle of the knee section base can be adjusted.



- Pressing two or more buttons also stops adjustment. To operate again, release all buttons and then press the required function button.
- If the handheld controller does not work, check if the Handheld controller Lock key is in the lock state after confirming there is no failure.

# 10 OPERATION OVERVIEW

## 2. Rail control panel



### ■ Operation description



- Lock (orange) / unlock (green) buttons on the rail control panel

It can effectively control the locking and unlocking of the rail control panel to prevent faulty operation. After the operation, the control panel can be locked automatically if there is no operation within 30 sec. The light flashes when the rail control panel fails. If the battery is out of power, the light will be off after pressing the emergency stop switch.



- Confirmation light for the minimum height of the bed

The light flashes green when the bed height is in lowest position. The light flashes orange when the bed leaves the lowest position (420mm - 440mm). If the battery is out of power, the light will be off after pressing the emergency stop switch.



- Bed inclination / anti-inclination buttons

The bed can be adjusted in a stepless manner with an angle of 16° to -16° by pressing the buttons.



- One touch CARDIAC/FLAT button

The cardiac chair state can be obtained by pressing and holding down the up button shown in the figure. And the bed can be returned to horizontal state by pressing and holding down the down button shown in the figure.



- UP and DOWN buttons for the bed height

Pressing the button can adjust the height of the bed.



- UP and DOWN buttons for knee raise

Pressing the button can adjust the height of the knee section.

- UP and DOWN buttons for back raise

Pressing the button can adjust the height of the back section.



- UP and DOWN buttons for Auto-Contour

Pressing the button can adjust the height of the Auto-Contour motion.



- CPR button (start moving 2 sec after pressing the button)

In case of emergency, the bed can be returned to horizontal state immediately after pressing the button.



- Battery status confirmation light

The light is normally on when the battery is fully charged. The light flashes when the battery is charging. And the light is off when the battery is out of power. The light is also off after pressing the emergency stop switch.



- Lock / unlock buttons for the operation of the handheld controller

It can effectively control the locking and unlocking of the handheld controller to prevent faulty operation. The orange light is normally on when the operation is disabled. If the battery is out of power, the light will be off after pressing the emergency stop switch.

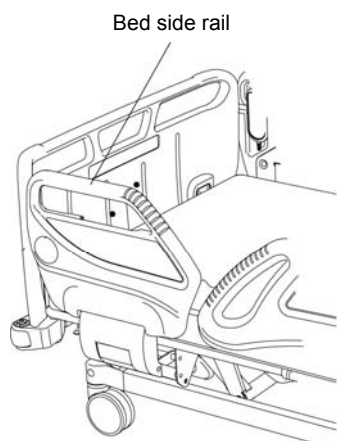


- Pressing two or more buttons also stops adjustment. To operate again, release all buttons and then press the required function button.

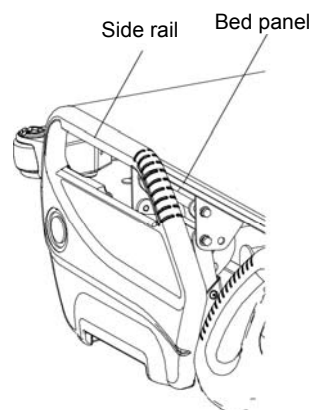
# 10 OPERATION OVERVIEW

## 3. Bed side rail

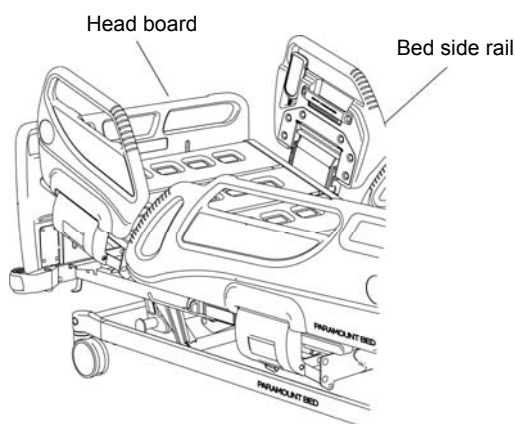
- The side rails on the head side are installed on the bed panel. To protect the upper body of the patient as much as possible, the side rail lifts together with the back section.
- Side rails can be dropped down below the mattress base when not in use. When the patient is getting on/off the bed, or during inspection or treatment, you can drop the side rail down to store it for later use.



**Side rail in use**



**Side rail dropped down**



**Side rail in use (back raise status)**



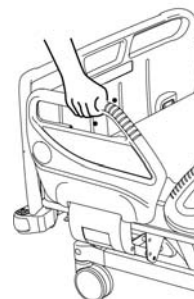
### Warning

- To prevent injury, do not attempt to raise or lower the side rail from a position on the bed.
- To prevent damage, do not hang objects on the side rail.
- If a thicker mattress is used, the side rail appears lower, do not step across it.
- If side rail falls off the bed, to prevent damage, be careful not to step on it.
- When using side rails, to prevent damage, be careful to avoid clamping the transfusion frame, drainage bag, etc. in the gap between the side rail and mattress.



# 10 OPERATION OVERVIEW

## ■ Putting the side rail in place

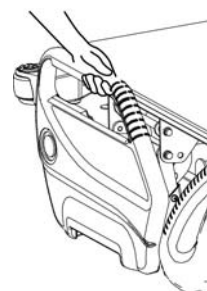
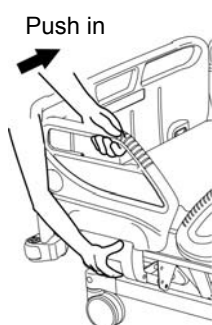


- (1) Pull upward by holding the grip. Installation is completed when it is firmly locked in place with a click sound.
- (2) Pull the side rail out slightly until you hear it click into place.



- If the lever is up, the side rail is not locked. Be sure to use after confirming the lever is not up.

## ■ Dropping down the side rail



- (1) Hold the side rail grip one hand and pull the lever out with the other hand.
- (2) Pull the side rail out slightly until you hear it click into place.



## Warning

- When using the side rail, confirm that the lever is locked. An unlocked side rail could cause injury due to tilting or falling.
- When dropping the side rail down, do not put your foot under the bed when adjusting the height and inclination angle. Doing so could cause your foot to get caught, causing injury.
- Do not pull the lever in folded state. Doing so carelessly could cause injury.



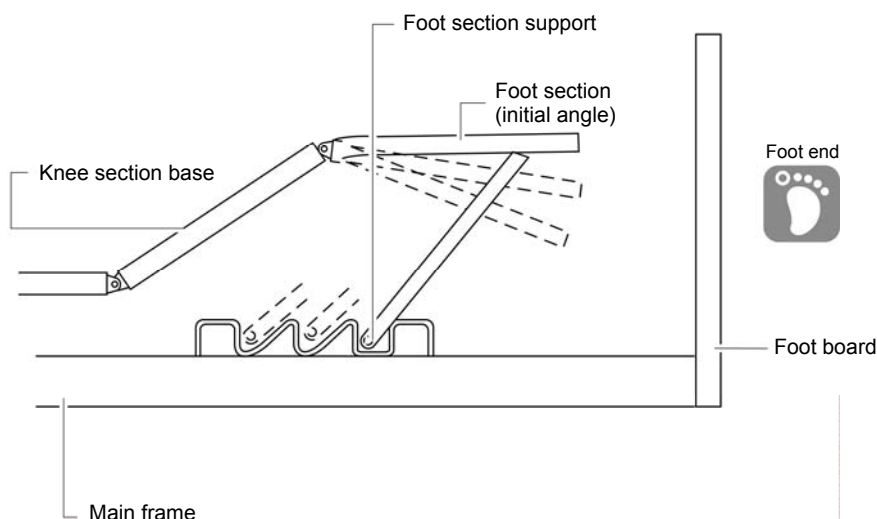
## Caution

- When operating the side rails, make sure that the patient's hands or feet have not entered the gap between the side rail and mattress base. When the hands or feet enter the gap, the patient could get caught in the gap, resulting in injury. Failure to do so may cause injury. When operating the side rail with the back section base raised, operate the side rail with caution. Depending on the back section base angle, the side rails may move unexpectedly and there is a risk of injury.

# 10 OPERATION OVERVIEW

## 4. Adjusting the leg angle

- After the knee section is lifted, operate the foot board and support it with your hand to adjust the angle.



### ● Reducing the angle

Lift the front end of the foot section with one hand, and at the same time lift the support of the foot section with the other hand, then slowly lower the foot section down. Loosen the support of the foot section when the desired angle is obtained, and then slowly lower the foot section, until the weight of the foot section cannot be felt.

### ● Increasing the angle

Lift the front end of the foot section and slowly lower it until the desired angle is obtained.



- When the angle is adjusted, if the knee section is lowered to horizontal position, it will return to the initial angle when lifted again.



## Caution

- When adjusting the angle, the assigned position shall be held by two persons. Stop if you cannot feel the weight of the foot board. Do not release the foot section when holding it as doing so could cause hands to be caught between the foot section and the main frame.

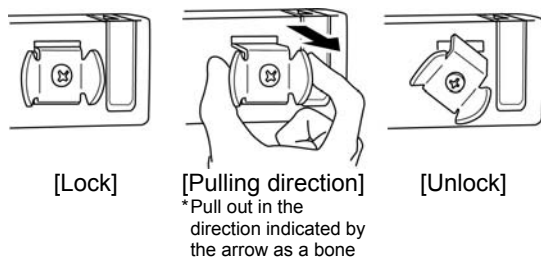


# 10 OPERATION OVERVIEW

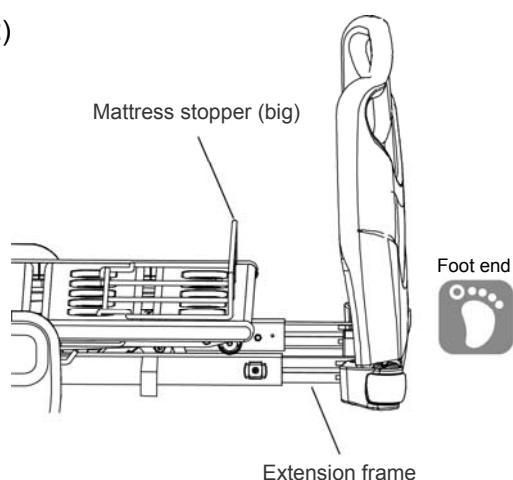
## 5. Extension frame function

(1) (3)

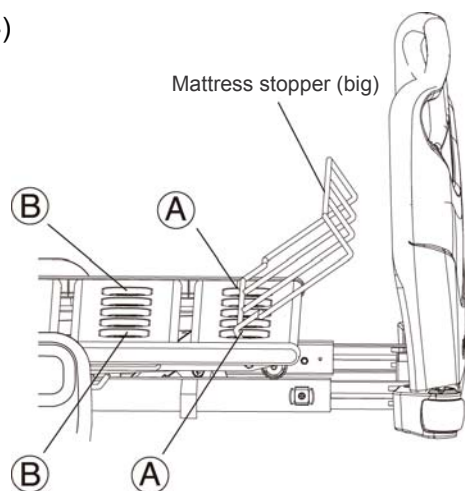
- How to use the stopper of the extension frame



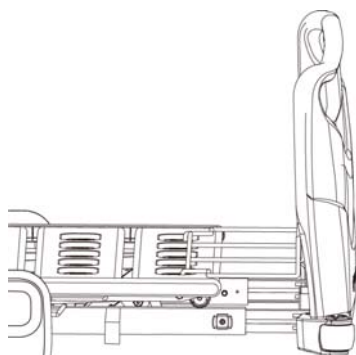
(2)



(4)



(5)



- The bed will be suitable for taller patients after installation of the extension frame and the special extended mattress.

### [Pulling out the extension frame]

- (1) Pull out the lock buttons of the frame on left and right positions of foot end and rotate them to 45° to put the lock buttons in unlocking status.
- (2) Hold and pull out the extension frame as shown in the figure.
- (3) Rotate the lock button of the frame back to the locking position. Gently pull the foot board to check if the lock button is locked.
- (4) Pull up the mattress stopper (big) in an inclined state and install it in the position shown in Fig. (A).
- (5) Position the upper extended mattress (sold separately), and then fix the extended mattress on the mattress stopper with its fixed rope (1 place each side).

### [Dropping down the extension frame]

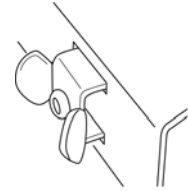
- ① Untie the fixed rope of the extended mattress (sold separately) and remove the extended mattress.
- ② Pull up the mattress stopper (big) in an inclined state and install it in the position shown in Fig. (B).
- ③ Pull out the lock buttons of the frame on left and right positions of foot end and rotate them to 45° to put the lock buttons in unlocking state.
- ④ Hold and pull in the extension frame as shown in the figure.
- ⑤ Rotate the lock button of the frame back to the locking position. Gently pull the foot board to check if the lock button is locked.

## 10 OPERATION OVERVIEW



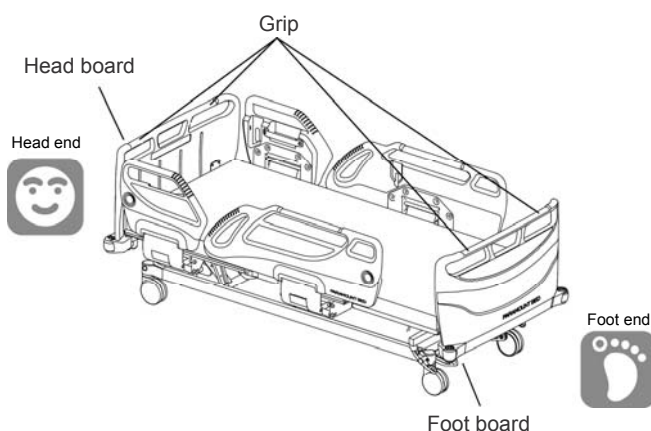
### Caution

- When dropping down the extension frame, be care that hands and feet may get caught in the gap between the bed body and extension frame, causing injury.
- Confirm that the stopper of the extension frame is locked and there is no gap between the bed body and stopper. When moving the bed, the stopper may pop up and cause damage if the extension frame is touched accidentally.
- Do not put objects with a weight of more than 10kg on the extension frame. Otherwise, it may cause damage to the bed and result in injury.
- When used, always use the fixed rope to fix the extension frame (sold separately), because it may cause injury once falling over.
- Do not put hands, feet, etc. on the end of the extension frame (sold separately), because the support will make the frame lose balance and fall down.



# 10 OPERATION OVERVIEW

## 6. Moving the bed



- Hold the operating grip of the head board and foot plate.



- When moving the bed, pull the plug out of the power outlet and wrap the power cable around the power cable holder hooks.



### Warning

- While moving the bed, be sure not to hold down the caster and inadvertently catch the power wire; doing so could damage the power cable, causing electrical leakage or an electric shock.

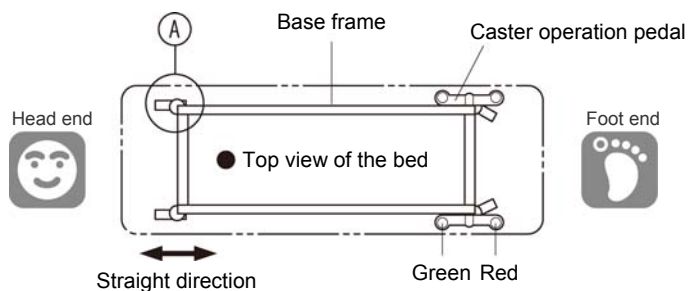


### Caution

- Always tightly fasten the fasteners of the head board and the foot plate. Accidental dropping or tripping could cause injury.

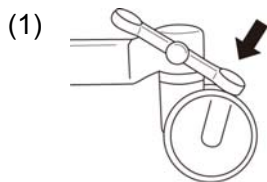
## 7. Locking the casters

- **Total locking system**  
The casters can be set to one of three setting.



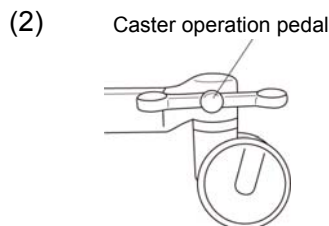
### (1) Locking the four wheels (Lock position)

Step on the red pedal to lock swiveling and rotation of the four wheels.



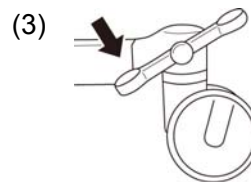
### (2) Unlocking the four wheels (Free position)

Returning the foot pedal to the horizontal position unlocks the four wheels, allowing them to swivel and rotate.



### (3) Locking for straight-line movement (Steering position)

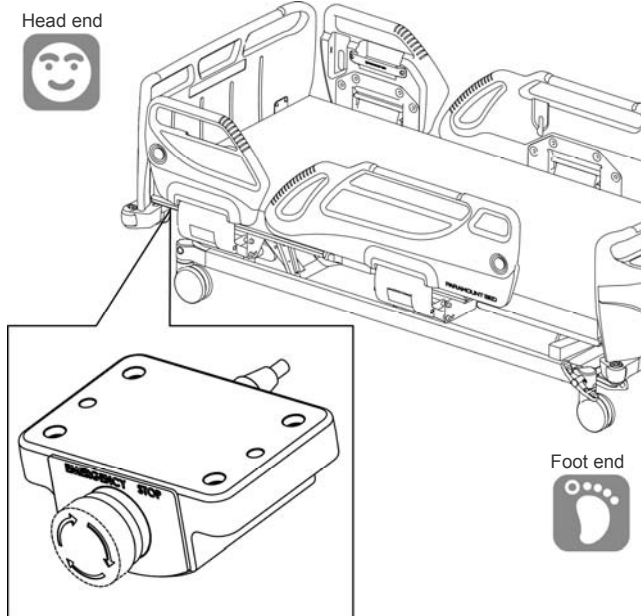
Step on the green pedal to lock swiveling of the caster (one wheel only) in a straight forward direction.



# 10 OPERATION OVERVIEW

## 8. Emergency stop button

- In case of emergency, you can stop motion of the electrical drive part of the bed.



### <Emergency stop button procedure>

- (1) Press the red emergency stop button down to activate the emergency stop button.
- (2) To release the emergency stop button, rotate the red button in the indicated direction until the button pops up automatically.



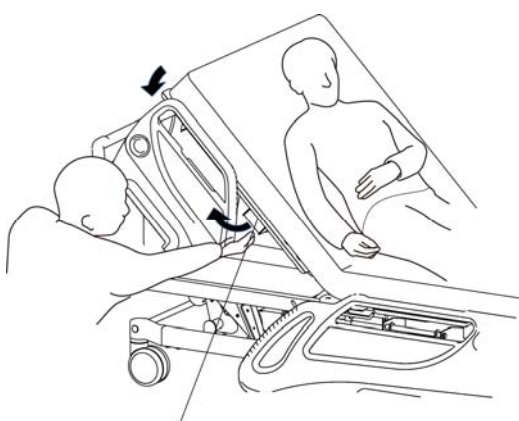
After the emergency stop button is pressed down, the electrical drive is disabled; if the back section is raised and you want to return it to horizontal status, the back section emergency lowering function can be used to do so.

## 9. Emergency CPR (back-lowering) function

- In case of an emergency or a power failure, the raised back section base can be quickly returned to flat status.
- Emergency back lowering levers (orange) are located on the lower side of the waist section; every operating lever can be operated.



- After lowering the emergency back, press the back-lowering button of the handheld controller to reset operation (when the back section base is in the lowest position, press the back-lowering button for about 3 sec. For more information, please refer to page 41). The back section base without reset cannot be raised again.



Emergency CPR lever (orange)



- Depending on the patient's weight, the back section base may not be lowered. In such a case, lightly push down the back section base.

### <Emergency CPR procedure>

- (1) Place one hand on the side of the back section base and pull the emergency CPR lever (orange).
- (2) Keep pulling the lever until the back section base returns to flat status. (If you release the emergency CPR lever halfway through, the back-lowering operation is stopped.)



## Warning

- During the emergency CPR operation, make sure that the patient's head, arms, feet, or other body parts have not entered the gap between the back section base and the frame. There is a risk of getting caught, resulting in injury.

# 10 OPERATION OVERVIEW

## 10. Accessory rail



- Suspend the urine bag on the accessory rail.

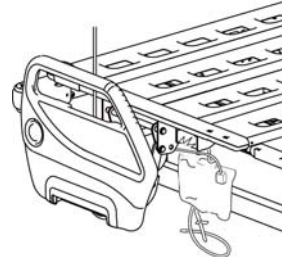


- Due to differences in the height of different urine bag models, the urine bag might contact the ground.



### Caution

- Do not apply more than a 3 kg load to the accessory rail. This may cause damage and deformation of the accessory rail.
- When suspending a urine bag, place it by referring to the urine bag operation manual. If the position is incorrect, the urine bag may accidentally fall and contaminate the ground.
- When attaching a urine bag, take care to prevent the bag or tube from getting caught when operating the bed or side rails



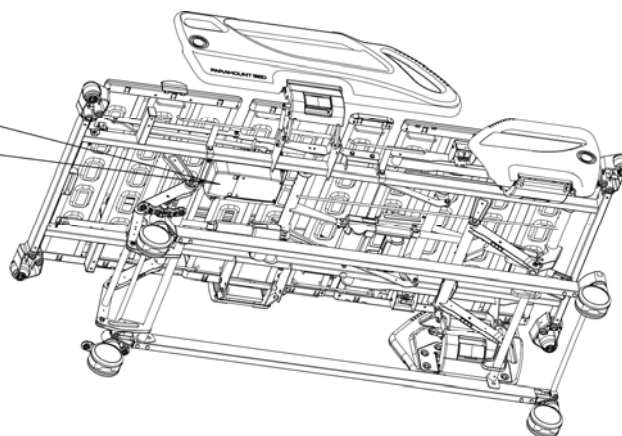
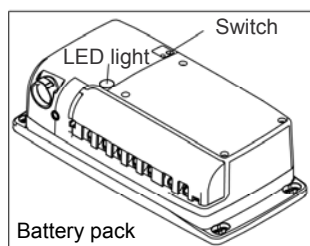
# 10 OPERATION OVERVIEW

## 11. Battery

- In there is a power failure or similar situation, the emergency handle can be used to adjust the height and angle of inclination, perform and back and knee lifting operations. (If the bed is equipped with a battery, after the battery control switch is switched ON, adjustment can be performed using the handheld controller or nurse control panel.)
- The main power switch is turned off by default. After purchasing, the battery shall be fully charged after use.
- After the battery is fully charged (about 8 hours), it can handle a normal work load.
- Hospital beds can be used normally while the battery is charging.

ON): When the power is turned on, the battery will start charging automatically, and ON button will be enabled automatically. At this moment, LED light will light up (green)

OFF): When cleaning the bed or store it for a long period of time, unplug the power line, turn off the battery and rotate the button to OFF. At this moment, LED light will be off.



### Caution

- If electrolyte leaks from the battery case and comes into contact with the skin or clothing, rinse immediately with copious amounts of water. If electrolyte comes into contact with the eyes in particular, rinse immediately with large amounts of clean water and seek medical attention. The battery electrolyte is dilute sulfuric acid, and contact with the eyes or skin will cause blindness or burns.
- Replace the battery with a new one when it reaches the end of its service life. Continuing to use an expired battery could cause liquid to leak, cause a fire or result in some other accident.
- During bed cleaning, be careful not to get caught between the movable parts of the bed when switching between the battery and main power. Being caught in the gap between the bed panel and main frame or between the main frame and base frame may cause injury.

Improper use and ignoring the following could cause [liquid leaks], [fire], [explosion], [electric shock], [a broken housing] or other situation, possibly causing personal injury and damage to equipment.

- Do not disassemble the battery case or internal battery unit.
- Do not dispose of a battery in a fire.
- Do not use a battery provided by other companies.
- Do not use the battery in a bed manufactured by another company.
- Do not expose the battery to a strong impact.
- Do not charge or operate when the bed is upside down.



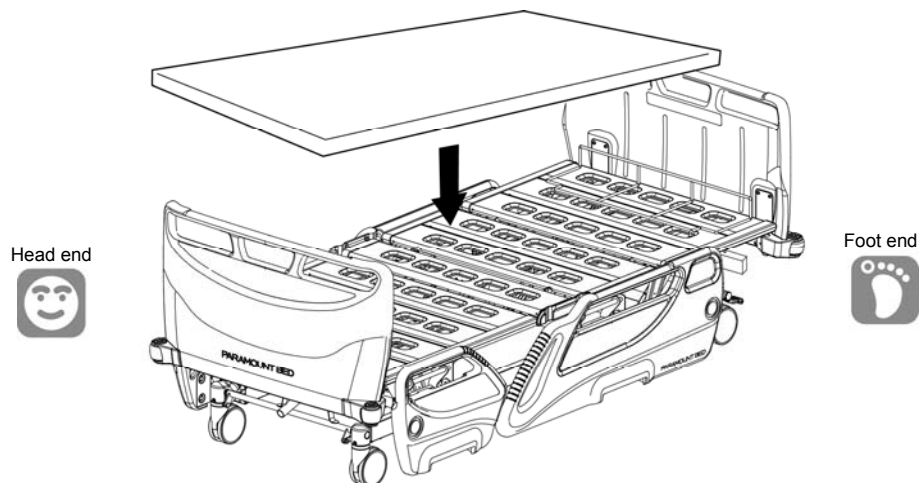
# 11 MATTRESS PRECAUTIONS



## Caution

- Please combine the bed with specified mattresses. Mattresses other than those specified by our company not only could make the mattress distorted due to improper size, but also make the rail difficult to lock and give the bed additional burden, thus causing failure.

- Please combine the bed with mattresses specified by our company

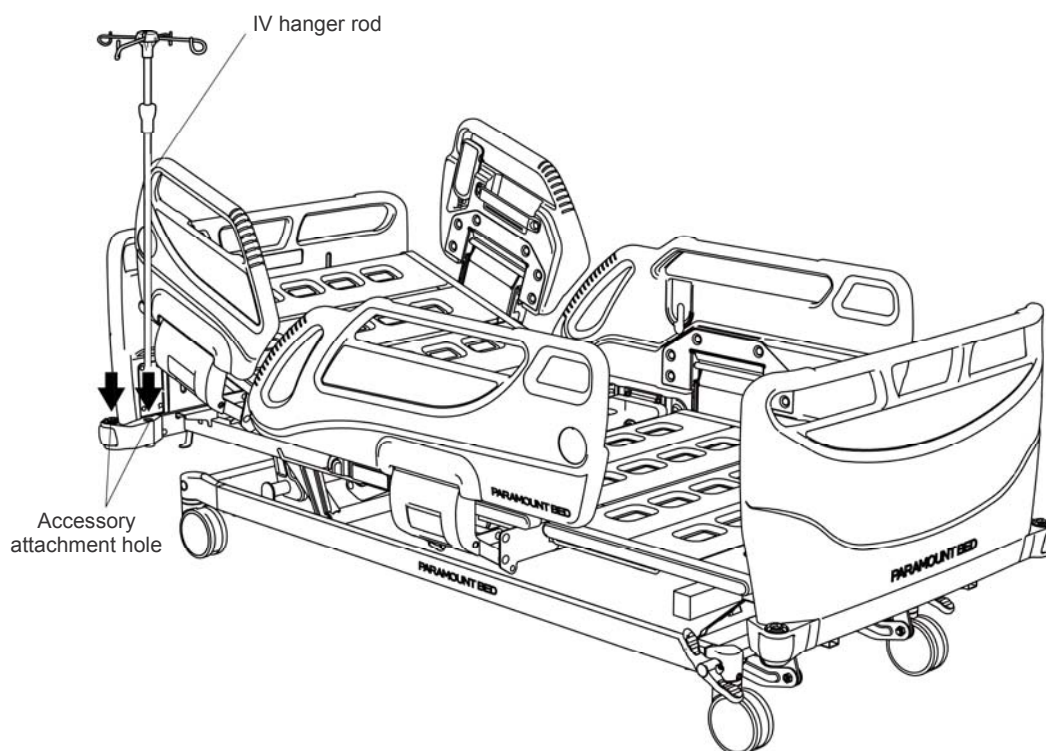




# 12 ACCESSORIES

## 1. IV hanger rod

- Insert the IV hanger rod into the accessory attachment holes into one of the four corners of electric bed. Before installation and use, carefully read the accompanying operation instructions.



### Warning

- Do not move the electric bed by grasping the IV hanger rod. Doing so is likely to deform or damage the rack.
- When standing upright, do not use the IV hanger rod as a support. Doing so is likely to cause the rack to break off, possibly causing injury.
- Do not put hands or wrist under the bed plate or in the space between the side rail and IV hanger rod.
- Do not hang objects heavier than 1kg on the hook of the IV hanger rod.



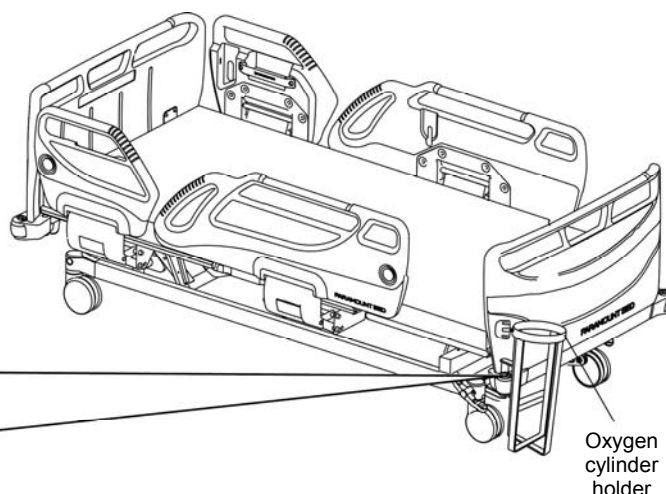
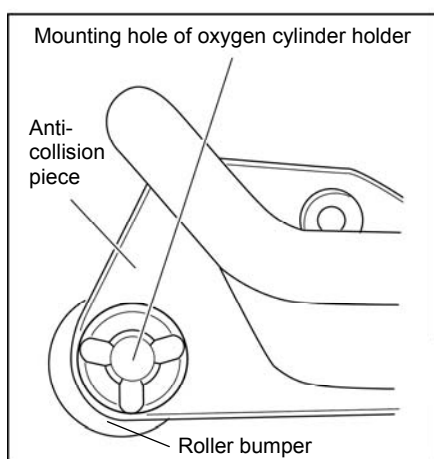
### Caution

- The length of IV hanger rod can be adjusted to up to 690mm, keeping the rod from breaking off due to excessive height.
- Before use, insert firmly the IV hanger rod into the attachment hole to prevent it breaking or falling off, which could cause injury.
- When adjusting the IV hanger rod, tighten the plastic coupling to keep the rack from breaking off and being damaged.

# 12 ACCESSORIES

## 2. Oxygen cylinder holder

- The oxygen cylinder can be used after installing its holder.
- Install the oxygen cylinder in the mounting hole of its holder (located in the anti-collision piece at four corners of the bed).



### Warning

- Do not put the items or feet into the oxygen cylinder holder, or else it may cause damage or injury due to getting caught when making height or inclination adjustments.
- The oxygen cylinder holder must be installed in the specified mounting hole, or else it may damage or deform the oxygen cylinder due to falling off when the bed moves.



### Caution

- When using the oxygen cylinder, be careful not to touch the flow meter during moving, or else it may cause damage to the flow meter, resulting in failure or injury.



- Before installation, carefully read the accompanying operation instructions.

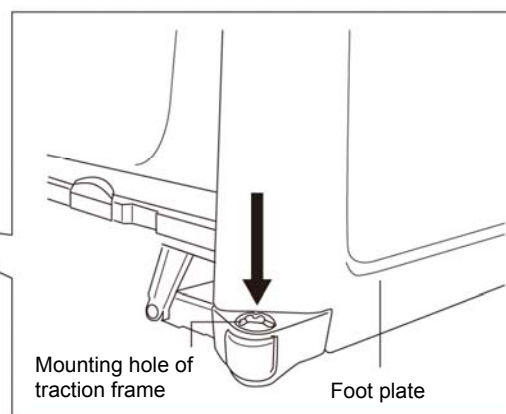
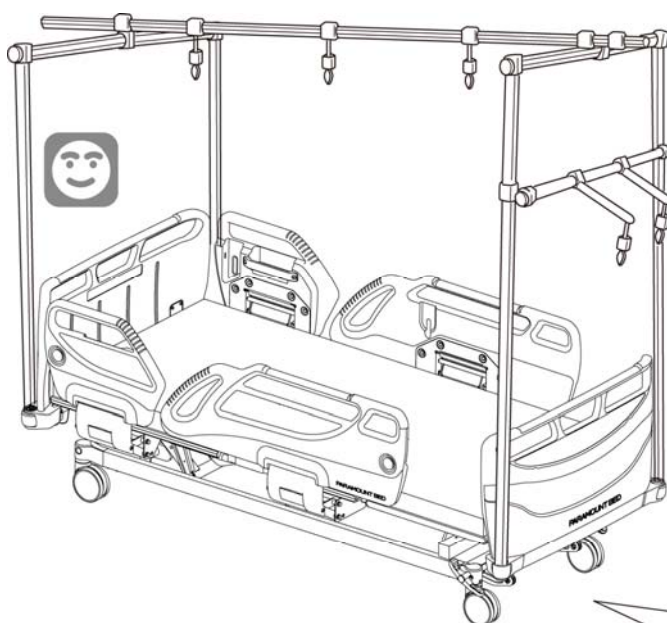
# 12 ACCESSORIES

## 3. Traction frame

- Insert the traction frame to its mounting holes before use.



- Please read the attaching Installation and Operation Instruction of the traction device for installation details and usage.
- The traction frame and IV hanger rod (infusion rod) cannot be used at the same time.



### Warning

- Be careful not to let body parts (especially head and neck) get caught in the gap between the post of the traction device and the rail as well as the head board / foot board. Otherwise, it may cause injury. Special attention shall be paid to the patient who cannot control his posture.
- Do not hang the traction device. If so or climb the traction device, it will cause damage and deformation, resulting in injury.
- Do not pull the traction device to move the bed. Excessive force could damage or deform the device, thus causing injury.



### Caution

- Be careful about the ceiling and surrounding wall when operating the bed. Failure to do so may cause damage to the bed.
- The traction device shall not be used for any other purpose other than traction. If the device is used as a support when standing, it may cause injury, and damage and deform the traction frame.

## 12 ACCESSORIES

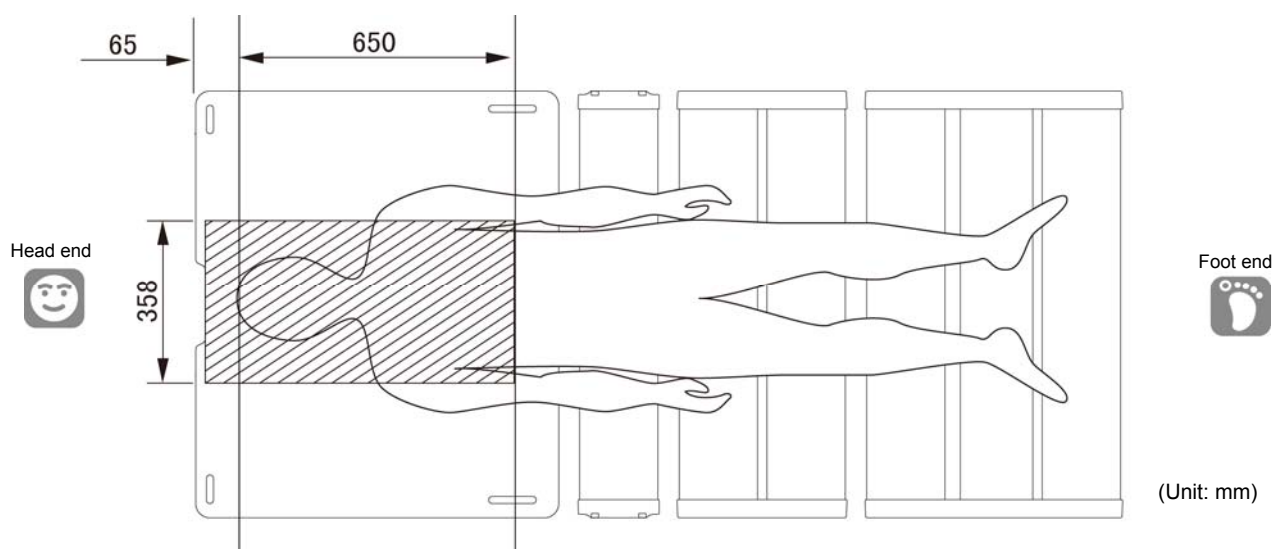
### 4. X-ray cassette holder



#### Caution

- Please pull out the power plug when using the X-ray apparatus. Otherwise, it may cause the bed failure or malfunction during X-ray filming.

■ X-ray filming can be conducted on the slash part as shown below



#### Caution

- Please use the X-ray cassette with specified dimensions, or else, the cassette may damage and fall off, resulting in injury.



- Please put the cassette in the lowest position of its guide rail when carrying out X-ray filming with the back section base raised and the filming range as shown above.

#### Available cassette size

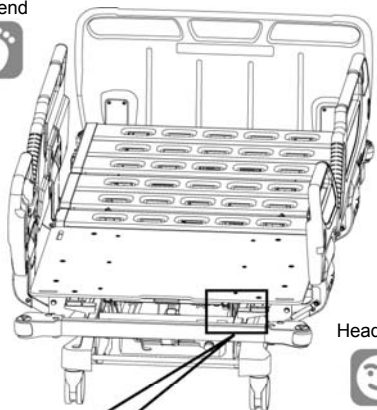
- Size.....below 383.5mm × 459.5mm (below 14 × 17 inches)
- Thickness.....below 15mm

## 12 ACCESSORIES

### ■ Cassette setting

Please set the cassette when the back section base is in horizontal position.

Foot end

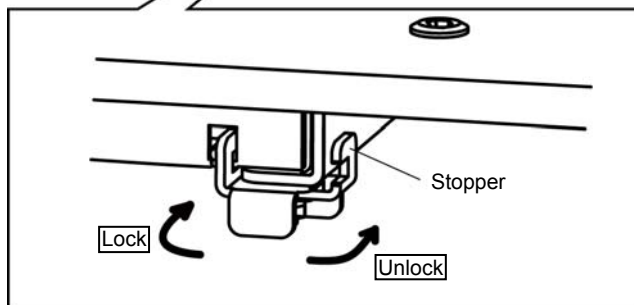


Head end



(1) Remove the head board

\* The bed with head board removed is showed to the left.

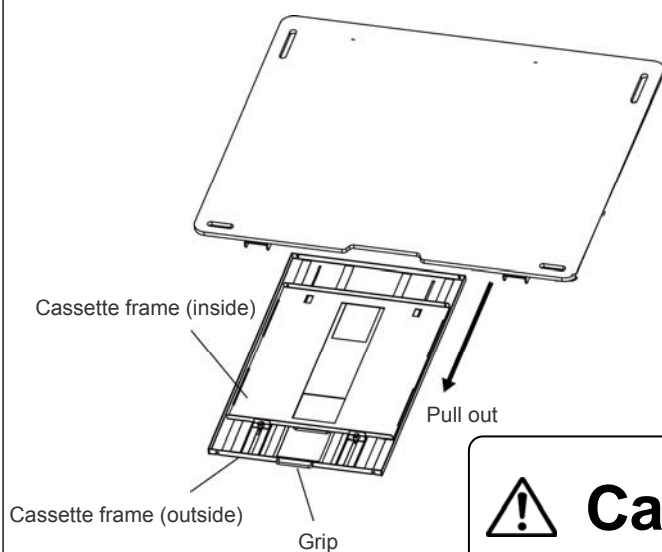


(2) Pull out the stopper, i.e., unlocking.



### Caution

- Please pull out the stopper until it stops when unlocking. It may cause damage when operating in the cassette frame.



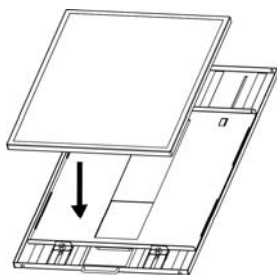
(3) Hold the grip to pull out the cassette



### Caution

- Unlock the stopper while pull out the cassette frame.

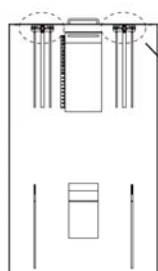
## 12 ACCESSORIES



Head end



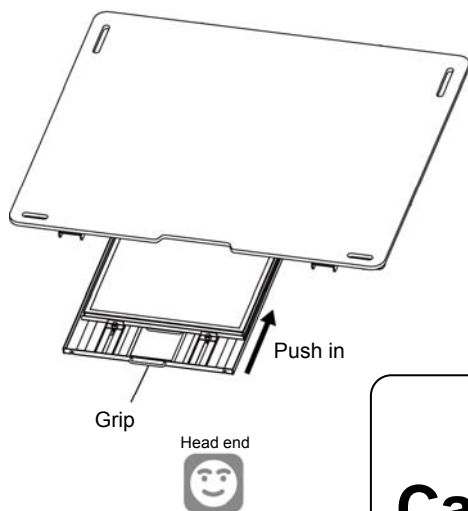
- (4) Put the X-ray cassette in the cassette frame.



Cassette slider

- (5) Adjust the cassette to the position appropriate for filming with a slider, and tighten the butterfly bolt on the reverse side of the slider to fix the cassette.

\* Cassette position during head filming

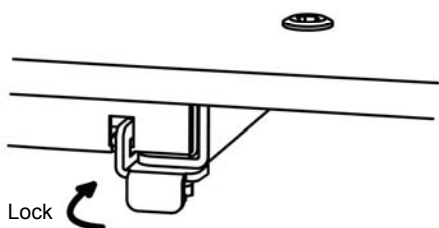


- (6) Hold the grip to gently pull in the cassette frame.



**Caution**

- Please make sure that the cassette frame is pushed in place. Offset may cause obstacles for filming.
- Please always hold the grip to operate the cassette frame, or else hands or fingers may get caught or injured.



- (7) Push the cassette frame in such a position that the stopper can be locked.



**Caution**

- In addition to setting the cassette, the cassette frame must be pushed in place to ensure using in the locking state. Otherwise, the cassette and cassette frame may fall off when moving the bed, which could cause damage to the bed and cassette and personal injury.
- Do not tilt the bed when setting the state of the cassette. Failure to do so may cause damage to the cassette due to falling off or personal injury.

# 13 REGULAR INSPECTION

- For safe use, please carry out the periodic inspection once a year. The product could subject to wear or deteriorate depending on the frequency of use and operating environment. Periodic inspection shall be conducted on the movements of all elastic parts and moving parts for damage.

	Operation	Inspection point
Bed body	Back raising	Check if it can operate normally
		Check for abnormal sound
	Knee raising	Check if it can operate normally
		Check for abnormal sound
	Height inclination	Check if it can operate normally
		Check if there is obvious abnormal sound
	Others	Check if the fender wheel and resin parts are free from damage and deformation without any falling off
		Check if the label is free from unclear text without any peeling off.
		Check if the bed base and frame are free from scratching and deformation.
Head board / foot board	Installation of the head board / foot board	Check if the stopper is locked
		Check if there is obvious shaking
Caster	Moving	Check if there is abnormal sound when moving the bed
		Check if there is abnormal vibration when moving the bed
	Caster locking	Check if it can operate normally
		Check if there is abnormal load bearing sense during operation
		Check if the bed moves when locked
		Check if the bed moves smoothly when unlocked
Rail	Rail operation	Check if the straight-line caster shakes when locked in a straight forward direction
		Check if it can operate normally
		Check if there is abnormal sound and shaking
Motor	Visual inspection	Check if there is abnormal load bearing sense during operation
		Check if any power line winds on the bed
		Check the plug and cable for damage.
		Check the handheld handheld controller and rail control panel for damage



# 14 TROUBLESHOOTING

- Problems may not always indicate faults. Check the following once again before requesting repair.
- If the problem persists after taking corrective actions, stop using the bed immediately, disconnect the power plug from the outlet, and contact your dealer for repair. With respect to an electric bed with battery, turn OFF the battery at the same time.

Phenomenon	Check	Corrective action	Reference page
■ The bed does not work or have a failure after pressing the handheld controller, rail and control panel button.	● Check if the power plug is plugged into the outlet.	● Plug the power plug into the outlet.	19
	● The power plug is plugged into the outlet but the bed still does not move.	● Plug another electrical device into the outlet to check that power is available.	—
	● Check if the operation selection lamp on the handheld controller is OFF. (handheld controller only)	● Use the nurse control panel operation disabling switch to select a setting that allows operation.	25
	● Check if the rail control panel is set to disable state. (Rail control panel only)	● Unlock the control panel	25
	● Check if the emergency stop switch is pressed.	● Unlock the emergency stop switch	32
	● Check if the indicator lights on the handheld controller and nurse control panel is on/off or flash.	● Contact your dealer to replace the nurse control panel.	24·25
	● Check if the battery is turned OFF?	● Turn ON the battery.	34
	● Check if the battery charging warning light on the rail control panel is on.	● Charge the battery.	25
■ The POWER lamp on the handheld controller is off.	● None of above	● Please refer to Reset for details	41
	● Check if the handheld controller plug is disconnected from the handheld controller outlet.	● Plug the power plug into the outlet.	19
	● Check if the handheld controller cable falls out of the handheld controller outlet?	● Please insert the plug of handheld controller into the outlet.	24
	● Check if the operation selection lamp on the handheld controller is OFF.	● Use the nurse control panel operation disabling switch to select a setting that allows operation.	25

# 14 TROUBLESHOOTING

Phenomenon	Check	Corrective action	Reference page
<ul style="list-style-type: none"> <li>The back does not raise after pressing the handheld controller</li> </ul>	<ul style="list-style-type: none"> <li>Check if the motor is reset after emergency back-lowering.</li> </ul>	<ul style="list-style-type: none"> <li>Please reset the motor before restart.</li> </ul>	44
<ul style="list-style-type: none"> <li>The handheld controller and nurse control panel lamps are off. The power lamp flashes when the button is pressed.</li> </ul>	<ul style="list-style-type: none"> <li>Did you try to operate the bed repeatedly?</li> </ul>	<ul style="list-style-type: none"> <li>Please reset it before restart.</li> </ul>	—
<ul style="list-style-type: none"> <li>Parts do not move normally.</li> </ul>	<ul style="list-style-type: none"> <li>Is there an obstruction in moveable parts?</li> </ul>	<ul style="list-style-type: none"> <li>Remove any obstructions.</li> </ul>	5
<ul style="list-style-type: none"> <li>The bed cannot be moved.</li> </ul>	<ul style="list-style-type: none"> <li>Check if the casters are locked.</li> </ul>	<ul style="list-style-type: none"> <li>Unlock the casters</li> </ul>	31
<ul style="list-style-type: none"> <li>The board will not come off.</li> </ul>	<ul style="list-style-type: none"> <li>Check if the board is locked</li> </ul>	<ul style="list-style-type: none"> <li>Unlock the board stoppers</li> </ul>	17

## Reset

- Please always reset it if any abnormal phenomena are found when performing the operations as described in the table below. If the back section, knee section and height of the bed cannot be adjusted after resetting, please contact us directly.
- If the problem persists after resetting, please contact us directly.



- When the emergency stop switch is ON, the bed will stop moving. The bed can start moving after rotating the emergency stop switch to OFF.

Operations and situations		Resetting parts
●	After using the emergency back-lowering function for back lowering	Back section
●	The bed stops halfway or does not move after pressing the operation button when the LED light of the handheld controller and lock button light of the rail control panel are on or flash	Stop the moving parts halfway and no moving parts
●	After restarting the control box	Back section, knee section, height

### Resetting procedure

- (1) When reset is needed, the moving part shall be lowered to the lowest position with the handheld controller or rail control panel.
- (2) You will hear a clicking sound from the control box after pressing the lowering button of the moving part for 3 sec again.

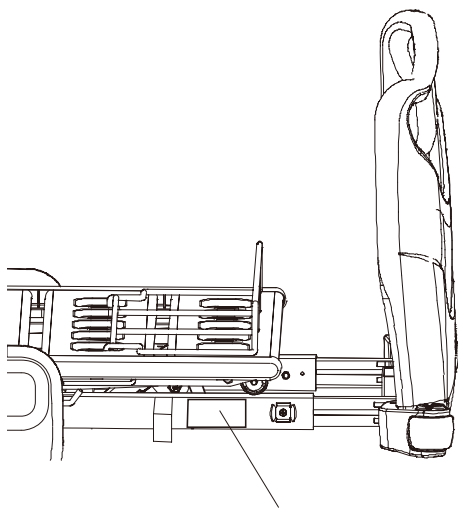


- Please reset the part one by one if several parts need to be reset. Please confirm if the bed can operate normally after resetting, if so, you can continue to use it.
- When resetting with a handheld remote controller, do not perform resetting if the LED light on the controller is off. The reset can be performed only when the LED light is on or flashes.
- When resetting with a rail control panel, do not perform resetting if the lock light on the panel is orange or off. The reset can be performed only when the LED light is green (ON).

# 14 TROUBLESHOOTING

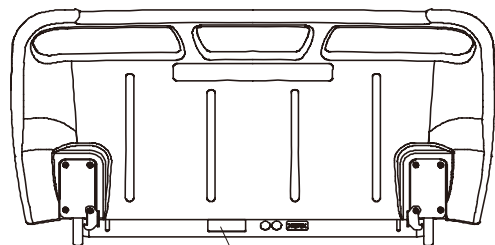
- When requesting repairs or contacting your dealer, please provide the number on the product ID label.
- Position of product ID label

A product ID label is affixed to the side of main frame and the inner side of head board and foot board.



PARAMOUNT BED	
Model:	_____
Product name:	_____
Medical device registration no.:	_____
Product quality standard:	_____
Manufacture lot number:	_____
Manufacturing no.:	_____
Safe working load:	_____

PARAMOUNT BED CO., LTD.



PARAMOUNT BED	
Model:	_____
Product no.:	_____
Manufacture lot number:	_____

PARAMOUNT BED CO., LTD.

# 15 LONG-TERM STORAGE

## 1. Storing the bed

### ■ The following instructions shall be observed if the bed will not be used for a long time.

1. Please keep the back section and knee section bases in a horizontal level and lowest position.
2. Do not place objects other than the mattress on the bed.
3. Do not put objects under the mattress.
4. Do not store the bed in high temperature, high humidity or dusty environment.  
Store the bed in an environment with a temperature of 5 to 40°C and relative humidity of 30 to 70%.
5. Do not position the bed upright against a wall; always store it horizontally.
6. Pull the power plug out of the outlet and wrap the power cord around the power cord holder.



- For a bed with battery, turn OFF the battery before storage.

**Note:** Please charge the battery before reuse if it has not been charged for three months, even if the battery is turned off.

## 2. Perform spot check upon reuse

### ■ Please check the following points before reuse.

#### ● Bed unit

##### \* Before inserting the power plug into the outlet

1. The bed board, bed frame and power plug are free of dust and dirt.
2. The power cord and remote control cable are not damaged.
3. Casters work well.
4. Caster locking/unlocking operation works well.
5. Side rail locking/unlocking operation works well.

##### \* After inserting the power plug into the outlet

1. The light on the remote control turns ON.
2. The light on the nurse control panel turns ON.
3. Back and knee section linkage, back raise, knee raise, hi-lo raise, tilt angle adjustment and adjustment of heart chair work correctly.
4. The battery is charged. The electric bed can be operated using battery power.  
(Only applies to an electric bed with battery.)

#### ● Other

1. The head board and foot board locking/release operations work well.

### ■ If any abnormality is found, stop using the bed immediately and pull the power plug out of power outlet and contact us to arrange repair.

(With respect to an electric bed with battery, turn OFF the battery at the same time.)

# 16 DAILY MAINTENANCE

- To prolong the service life of the bed, examine and perform maintenance every year to confirm the bolts are not loose, and add lubricating oil to movable parts.
- Do not let the bed and mattress absorb water and moisture, as the bed is likely to rust, make unusual sounds and breed bacteria. If there is a water on the surface, wipe it off right away.



## Caution

- When cleaning the bed or changing sheets, to prevent scratches or cuts, pay attention to corners, edges and bolts of the framework.



## Warning



Pull out power plug



Danger!  
Electric current

- Pull out the power plug before performing repair and maintenance.
- To prevent being caught in bed parts due to misoperation, before beginning repair or maintenance work, be sure to pull out the power plug from the outlet first. Before performing repair and maintenance of a bed with battery, turn OFF the battery power supply first.
- Do not get water on the bed.
- Do not splash water to clean the bed. There is a risk of electric shock due to a short circuit.

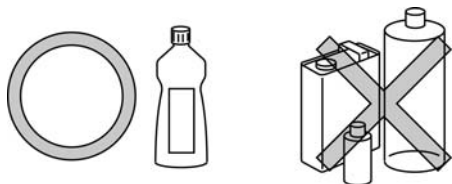


- The produce will wear differently depending on the operating environment and frequency of use. Conduct spot checks periodically. If an abnormality is found, stop using the bed immediately and contact us to arrange repair.
- Do not clean the bed with special cleaners used for beds.

### ■ Bed main body

- When cleaning the bed, dip a cloth in a diluted solution of neutral detergent, then wring it out thoroughly and use it to wipe the bed. Next, rinse the cloth in clean water, wring it out thoroughly again and use it to remove residual detergent. Finally, wipe it dry with a dry cloth.

\* Do not use volatile substances (diluting agents, propellant and gasoline, etc.), as doing so is likely to produce a chemical reaction and could damage the bed. If cleaning the bed with disinfectant, dilute it according to the following concentration before use.



0.05~0.2%	Benzalkonium chloride
0.05~0.2%	Benzethonium chloride
0.05%	Chlorhexidine gluconate
0.05~0.2%	Sodium hypochlorite



- Due to the differing composition of disinfectants, their use can corrode metal or damage resin parts, causing discoloring, deformation, cracking or other adverse effects. Thus, it is suggested that the above disinfectants be used.
- Carefully read the operating Instructions for the disinfectant being used and confirm their composition before use.
- Ozone sterilizers or high pressure sterilizers are not applicable.
- Cleaning with cresol (or carbolic acid) is likely to cause the headboard or footboard decorative veneer part to discolor and deteriorate.

### ■ Accessories

Repair and maintain them to meet the accompanying specifications.

### ■ Mattress

Repair and maintain them to meet the accompanying specifications.

# 17 AFTER-SALES SERVICE

## 1. Warranty card

Be sure to check that the required information (such as the dealer name and purchase date) has been entered on the warranty card.

## 2. When requesting repairs

First check the items described in “14. TROUBLESHOOTING” on p. 43 to 45 in the instruction manual. If the problem persists, contact your dealer or Paramount Bed dealer.

### ■ Details necessary when requesting repair:

- Product name and model number
- Manufacturing (batch) numbers marked on the product ID label (please see page 61 for places)
- Purchase date
- Failure details
- Purchase organization name or name, address and phone No. of the contact.

## 3. Parts replacement

Due to the upgrading of the products, parts of the original product might not be able to be provided lifelong.

(We ensure to provide the required parts for replacement within 6 years after the end of production.)

## 4. After-sales service

If you have any questions, feel free to contact us directly.

Remarks

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# PARAMOUNT BED

Global Business Division

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