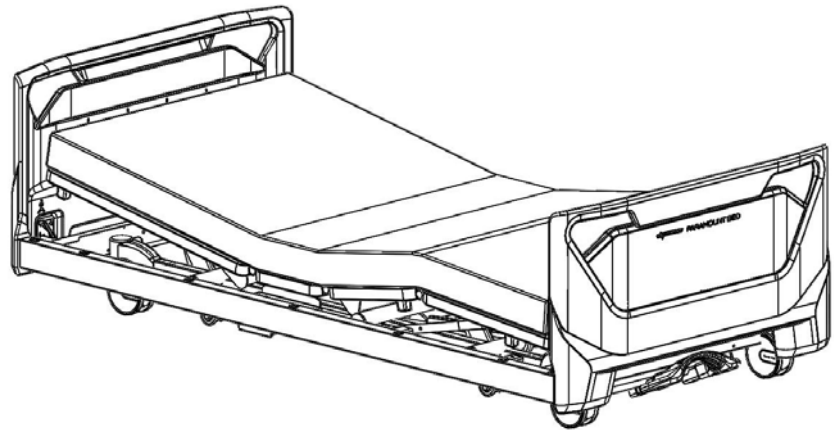


INSTRUCTION MANUAL

PA-90000 Series Bed

7B01005800A2



Preface

Thank you for purchasing the **PA-90000 Series Bed**.

This instruction manual describes precautions and how to safely use and operate the bed.

- Before using this bed, please read this instruction manual to fully understand the safe and proper operating procedures.
- The correct operating procedures should be explained not only to the persons using the bed but also to caregivers.
- After reading this instruction manual, store it where it can be easily accessed for later reference.
- Users and/or carers are requested to report information about any serious incident related to this bed that occurs within the EU to the manufacturer and the regulating authority of the member country of residence. 'Serious incident' means any incident that directly or indirectly led, might have led or might lead to any the following :
 - a) The death of a user, carer or other person.
 - b) The temporary or permanent serious deterioration of a user's, carer's or other person's state of health.
 - c) A serious public health threat.
- The actual product purchased may differ from detailed descriptions given in this instruction manual due to product improvements.
- Values in the specification such as working range, dimensions, angles and mass are subject to normal manufacturing tolerances. Besides some exemptions, display purpose words such as "approximately", "about" etc. are omitted.
- For any queries, please feel free to directly contact Paramount Bed or your distributor.

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1 INTENDED USE AND PART NAMES

1. Intended use

■ This bed is designed to be used for patient care in medical institutions and elderly care facilities.

※ Please refer to the 「SPECIFICATION」 for the patient target groups and the intended users.

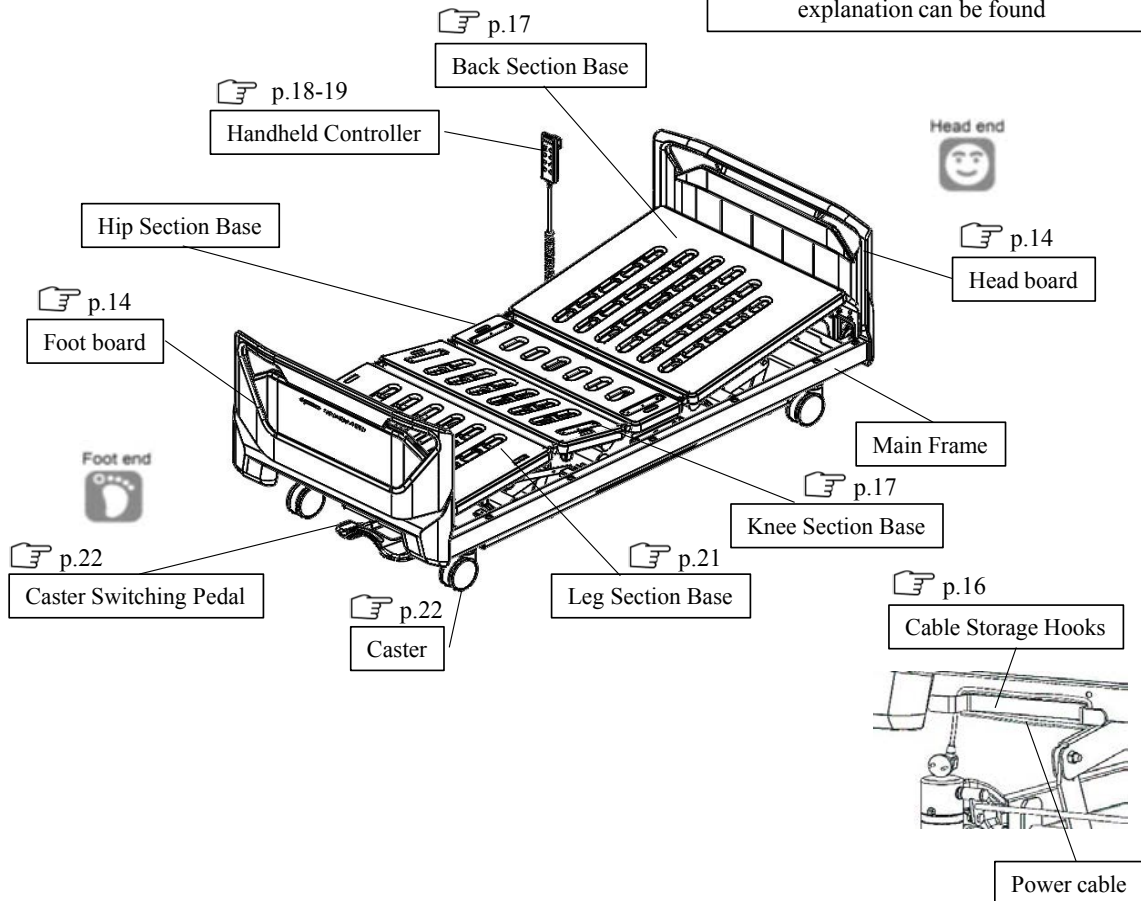
Note: Application environment 1 and 2 in IEC 60601-2-52:2009

2. Part names

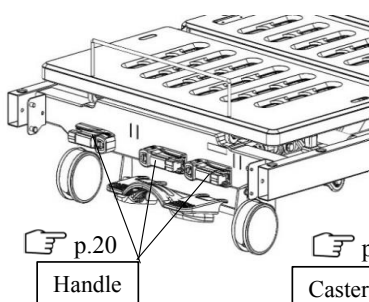
【PA-90000】

● Bed with the central locking system

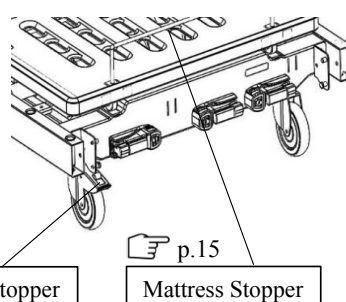
The page number shown next to this symbol indicates where the related explanation can be found



● 3-Crank Manual Hospital Bed (When the foot board is off)

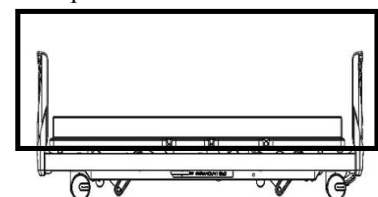


● Bed with Caster with a stopper (When the foot board is off)




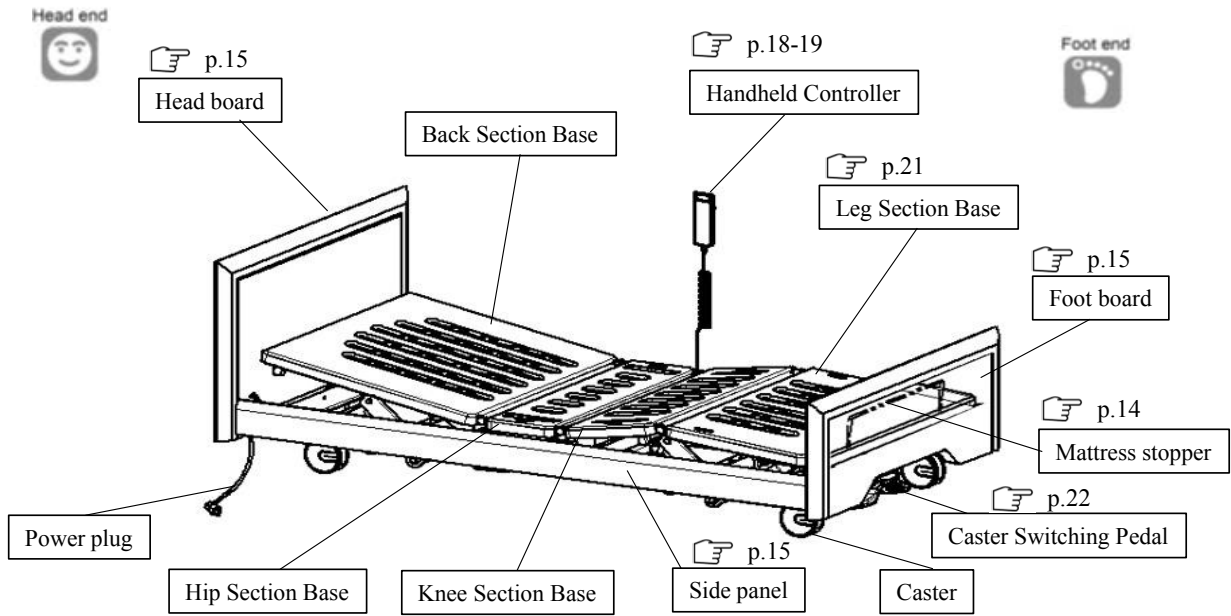
(Applied part)

Part of ME EQUIPMENT that in normal use necessarily comes into physical contact with the patient for ME EQUIPMENT to perform its function





【PA-93485V】

 The page number shown next to this symbol indicates where the related explanation can be found



2 SAFETY PRECAUTIONS

- Be sure to read these safety precautions beforehand to ensure proper usage.
- The safety precautions described here are intended to ensure safe use of the product and prevent personal injury. Precautions are classified as "WARNING", "CAUTION" to indicate the degree of hazard or injury that may result from improper use. **Both are important safety precautions that must be strictly observed.** Details of the pictograms used are shown below. Be sure to fully understand these precautions before reading the instruction manual.

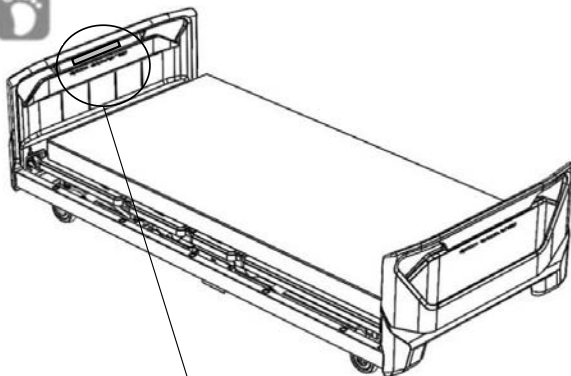
 WARNING	Indicates actions that may result in death or serious injury (broken bones, pressure or paralysis) if the indication is ignored.
 CAUTION	Indicates actions that may result in light personal injury (bruises, wounds, or cuts) or property damage if the indication is ignored.

Among items described in SAFETY PRECAUTIONS, are especially important because ignoring them could result in serious life-threatening accidents. Be sure to read these notes and use the product safely and properly. Be especially careful to check patients who might act in unexpected ways or cannot maintain their posture independently.

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

[Safety label]

Foot end



- Precautions requiring special attention by persons using the bed are affixed to the foot-end frame. Do not remove or deface the label.

- If the safety label is removed or defaced, replace it with a new one obtained from Paramount Bed or your distributor.

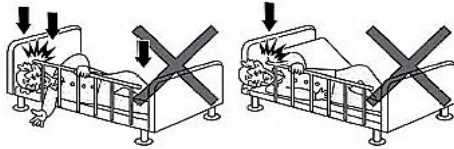
Head end



2 SAFETY PRECAUTIONS

WARNING

- Do not put any body part (especially the head or neck) between a fold-down side rail or board and the raised base (↓).



- When the head or neck enters the gap, the patient and/or user might not be able to withdraw, and there is a risk of injury.

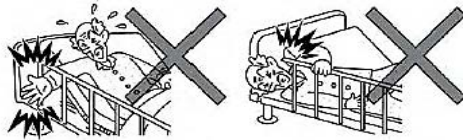
- Due attention should be paid to patients who cannot maintain posture by themselves.

- Even when side rails are used, pay attention to prevent patients from falling of the bed.

- A patient may fall off the bed through the gap between a board and fold-down side rail and get injured.

- If a patient bends forward over a fold-down side rail, they may fall off the bed and get injured.

- Do not extend the head, hands, or feet outside of the bed.



- If the bed is operated with a body part (especially head or neck) placed in the gap, the part may get caught and injured.

- Do not put any body part (especially the head or neck) between a fold-down side rails and the base or mattress.

- When the head or neck enters the gap, the patient might not be able to withdraw, and there is a risk of injury.

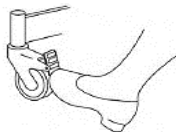
- A hand or finger may get caught in the gap, resulting in injury.

- Do not insert a head (fingers) and between the bed's frame and section base during powered operation.



- The body part may get caught between the lowered base and the bed's frame or board and get injured.

- Lock the casters at all times except when moving the bed.



- The patient may be injured getting on or off the bed should it move.

- Unlock the casters when moving the bed.

- Before a patient gets on or off the bed, push down the safety stoppers of the side rail and completely fold down the side rail.



- The patient leg's could be caught by the side rail, causing the patient to fall off the bed or the patient's finger could be caught between the supportive bars, causing injury.

- When using IV hanger rod, pay attention to prevent tubes from getting caught by the side rail.



- The tubes could be squashed.

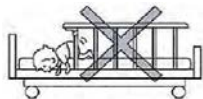
- When folding the side rails, proceed slowly



- Releasing the hands in the middle of the operation or slamming the rail down could cause injury or damage to side rail.

WARNING

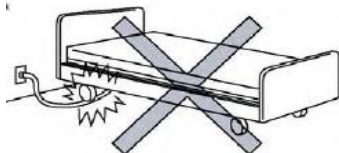
- Do not use with infants.



- Do not allow dust to accumulate on the power plug.



- Do not damage cables (including the power cable).



- They may fall down through the space of a fold-down side rail.
 - When dust adheres to the surface of the power plug, the moisture it holds will allow a current to flow, there will be a worsening of the insulation condition, and a risk of fire
 - Wipe away any dust accumulating on the power plug pins and mating surface using a dry cloth.
 - Damage to cables may cause electric shock or a fire.
 - Prevent cables from getting caught by the bed's movable parts
 - Do not put heavy objects on cables or apply strong force
 - Do not place the bed on cables
 - Request repair (or replacement) for damaged cables.
- Do not trip over the power cable or cables of the handheld controller.
 - Damage plug or cable may induce leakage, and in turn, electric shock.
 - There is a risk of falling down and getting injured.
 - Do not run cables (including the power cable) of the bed or other electric appliances under the bed.
 - The cables may get caught in a caster or movable part and damaged, causing a fire or electric shock.
 - When adjusting the base angle or the bed height, pay attention to the patient's conditions.
 - If a patient on the bed moves when adjusting the base angle, they may fall from the bed and get injured.
 - Perform the adjustment while supporting the patient who cannot maintain posture by themselves. If you cannot watch the patient, flatten the base angle and lower the bed to the lowest position. If not, the patient may fall off the bed or caught in a space of a fold-down side rail or board and get injured.

2 SAFETY PRECAUTIONS

WARNING

- Do not allow operation of the bed by a child aged 12 or under, or someone deemed incapable of comprehending the operation.
 - When a child aged 12 or under, or someone deemed incapable of comprehending the operation (such as someone having a cognitive illness) operates the handheld controller by themselves, there is a risk of unexpected injury such as the body becoming caught in the bed by mistake.
 - If there is a risk of such person touching the handheld controller, disconnect the power plug in order to prevent an accident caused by incorrect operation.
 - When a child aged 12 or under, or someone deemed incapable of comprehending the operation (such as someone having a cognitive illness) operates the handheld controller by themselves, there is a risk of unexpected injury caused by getting caught in the bed by mistake. (3-crank gatch bed only).
- When transporting a patient, attach the fold-down side rails.
 - There is a risk that the patient could fall from the bed and become injured.
 - Do not move the bed with holding the fold-down side rails. The side rails may get damaged or deformed.

- Use the bed in the proper orientation.



- Lying down on the bed with incorrect orientation of head end and foot end will result in an unnatural posture when the bed position is adjusted and this may cause injury.

- Do not perform an angle adjustment when the patient is lying face down.



- Bending the joints in the wrong direction may result in injury.
- There is a risk of injury due to falling or toppling from the bed.

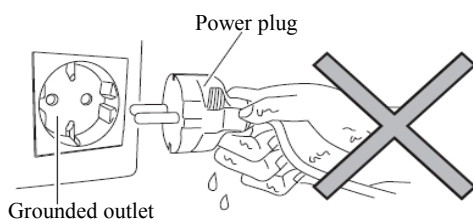
- Do not stand on the bed.



- There is a risk of injury caused by the person falling off the bed or falling down, or the bed could be damaged or deformed. Pay close attention to children.

WARNING

- Do not insert the power plug with wet hands.



- There is a risk of electric shock due to short-circuiting.

- Do not spill liquids on the bed.

- Do not spill liquids on the bed's electrical components, such as the motors, handheld controller, or nurse control panel, otherwise, there is a risk of malfunction. If liquids are accidentally split, unplug the power plug from the power outlet and contact your distributor.

- Do not use a mobile phone or other wireless device in the vicinity of the bed.

- This may cause a malfunction of the bed.

- Do not repair or modify the bed or its components by yourself.

- This may create unintended gaps or may cause malfunction, resulting in injury .

- Always unplug the power plug when using electronic medical equipment.



Unplug

- Using electronic equipment (e.g. microwave or high-frequency medical equipment) at the same time

- When the bed will be used in conjunction with other medical equipment, check the safety considerations

- Do not attach a restraint belt to the main frame or side rails.

- Operation in position such as with the back raised or the knee raised may squeeze the body and cause injury.

- Use the bed properly according to the patient's medical condition.

- Improper use of the bed may adversely affect the patient's medical condition.

Before the patient or a family member operates the bed, make sure that the doctor or nurses explain related details given in the instruction manual and proper usage to suit the patient's medical condition.

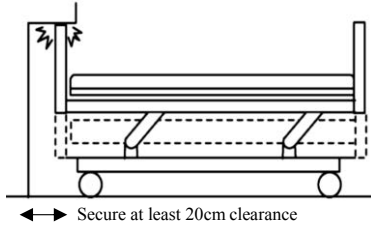
- When leaving the bed, lower the bed to the minimum height.

- If a doctor, nurse, or attendant leaves the bed, lower the bed as much as possible according to the patient's condition because there is a slight chance that the patient may fall of the bed.

2 SAFETY PRECAUTIONS

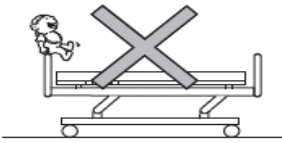
WARNING

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



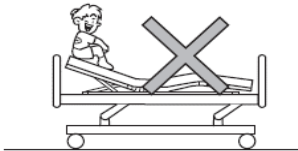
- When using the bed, make sure that the bed does not hit the wall, beam, or power plug during the adjustment of the height or inclination angle. Make sure that there is a least 20cm clearance from the wall or beam.

- Do not sit on a fold-down side rail, head board, or foot board.



- The patient may topple or fall from the bed, or the bed could be damaged or deformed and result in injury.

- Do not climb on the bed in the raised position.



- The patient may topple or fall from the bed, or the bed could be damaged or deformed and result in injury.

- The bed should not be used by two or more persons.



- This bed is designed for use by one person. When used by two or more persons, the bed could be damaged and result in an injury. The maximum weight the bed can bear is 204kg for the bed with the expansion function and 138kg for the bed without the expansion function. If a doctor or nurse needs to get on the bed for a short time. Confirm the following condition beforehand.

- The load to be applied to the bed is less than the maximum weight that the bed can bear.

- Bed with the expansion function: 204kg

- Bed without the expansion function: 138kg

- The base has been lowered and is flat

- If a doctor or nurse often gets on the bed, make sure to have the bed periodically inspected.

WARNING

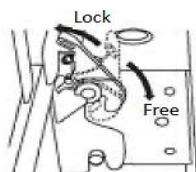
■ Keep away from heaters.

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

■ Check around the bed before operating the bed.

- A position operation could damage items located around the bed, or could cause the bed to be damaged or deformed.

■ Be sure to use the stopper for the headboard and footboard.



- If the board is not mounted properly, the board may suddenly come off when a staff pushes (pulls) the board to move the bed or a patient grabs the board to support their body, resulting in injury. (see p.14)

■ The angle of the leg section base should be adjusted by two or more persons.

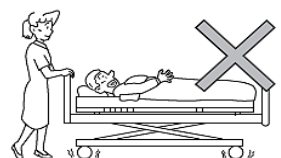


- If the adjustment is done only by one person, their hand may get caught between the leg section base and main frame, resulting in injury. (see p.21)

■ When moving the bed, watch your step.

- You may hit your leg against the caster switching pedal or caster operating step or your foot may get caught by a caster, resulting in injury.

■ Avoid moving over uneven floors.



- It may result in a damaged or deformed bed or failure. If it is necessary, move the bed as slowly as possible.

■ When operating the side rail releasing lever, pay attention not to allow the hands or fingers to get caught.



- There is a risk of injury as a result of being caught by the rotation parts of locking parts.

2 SAFETY PRECAUTIONS

CAUTION

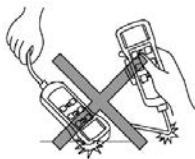
■ Hold the power plug body when unplugging.

- When holding onto only the power cable and pulling it to disconnect the plug from outlet, the cable could be damaged and there is a risk of electrical shock.

■ Always unplug the bed before cleaning.

- There is a risk of electric shock or malfunction due to short circuit.

■ Do not damage the handheld controller.



- There is a risk of electric shock or malfunction due to short circuit.

- When the handheld controller is damaged, request a repair (or replacement).

■ Prevents patients from slipping off the bed.

- When the back is raised or incline, the bed is set to the cardiac position, or a patient sits on the edge of the bed to get on or off, the patient may slip off the bed and get injured. The attendant should support the patient's body to prevent them from slipping off the mattress.

■ Do not combine the bed with product other than the suitable products specified by Paramount Bed.

- For suitable product items directly mounted on the bed such as fold-down side rails and mattress, use suitable products that are specified by Paramount Bed. Using other product may create unwanted gaps, cause interference between products, or lower the product safety which may lead to an injury or bed failure.

2 SAFETY PRECAUTIONS

CAUTION

- Do not spray a spray type of insecticide directly on the bed.
 - Otherwise, there is a risk that the solvents contained in the insecticide could damage, discolor, or dissolve the bed casters or other resin parts. Pay due attention to this, otherwise, there is a risk of unexpected injury due to damaged or dissolve parts.
- Inspect the bed regularly
 - Depending on the frequency of use and the environment, the product will exhibit wear and deterioration. Regularly inspect for parts looseness, the operation of movable parts, and the precense of damage.
- Beds damage in accidents must be inspected and repair bed before re-use.
 - Beds damaged in earthquakes, fires, or floods, must be inspected and repaired by your distributor. Damaged electrically-operated bed may cause electric shock or fire due to a short circuit of electrical parts or an injury due to abnormal operation induced by deformation.

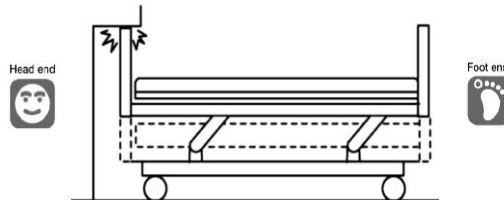
3 INSTALLATION

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

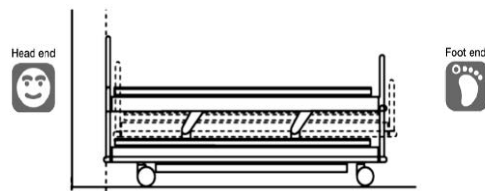
- Locations expose to direct sunlight
- Locations near heat sources such as a stove or heater
- Locations which is heavily electrically charged such as near an MRI.
- Locations that has a high oxygen level
- Locations exposed to excessive amounts of water vapor or oil vapor
- Locations that tend to be exposed to high temperatures, high humidity, low temperatures or dry conditions
 - ※The optimum ambient conditions for the bed are as follows.
Temperature 5°C to 40°C / Humidity 20%RH to 90%RH / Atmospheric pressure 700hPa to 1060hPa.
- Locations with large amount of dust, smoke, salt, sulfur, or corrosive substances
- Locations with poor ventilation
- Locations exposed to vibrations or shocks (including during transportation)
- Locations where the floor is not strong enough
- Locations where the floor is not level

⚠ CAUTION

- When performing height or inclination angle adjustments, pay attention not to hit the wall, beam, or power outlet on the wall. The bed or wall may be damaged or deformed.



- When setting up the bed, make sure that there is at least 20cm clearances from the wall. The bed operations may damage objects located around the bed, or may cause the bed to be damaged or deformed



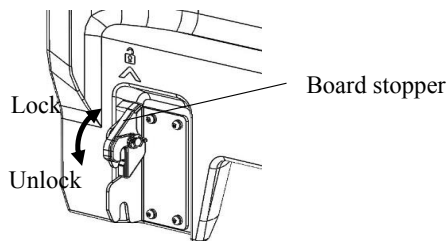
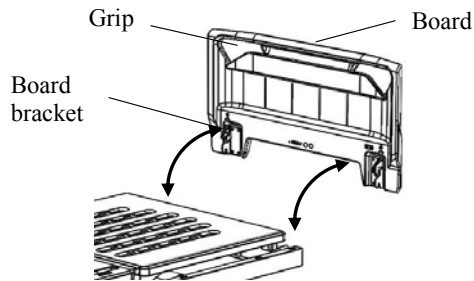
Secure at least 20 cm clearance from the wall.

4 ASSEMBLING THE BED (PA-90000)

1. Attaching /detaching the headboard and footboard

The head board and foot board can be attached or detached.

When washing patients hair, detach the head board. When performing lower limb training or giving a foot bath, detach the foot board.



1. Attaching

- Grasp the grip of the headboard or footboard, lift it, and mount it so that the board bracket engage with the mounting lugs on the bed. (The board stopper is automatically locked). Lightly lift the board and make sure that is locked.

2. Detaching

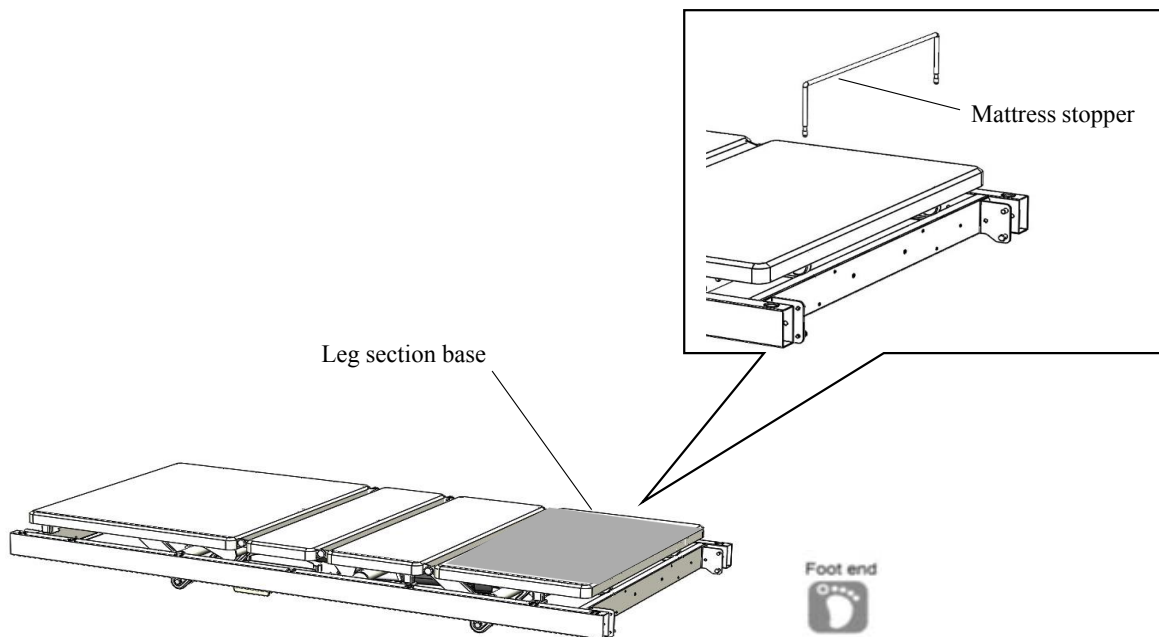
- Move the board stopper to unlock.
- Grasp the grip of the board and detach it.

CAUTION

- When attaching the head board or foot board, make sure that the stopper is used. Otherwise, the board may disengage when the bed is moved, causing an injury due to toppling.

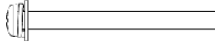



2. Attaching the mattress stopper

Insert the mattress stopper until does not come off as shown in the figure below.

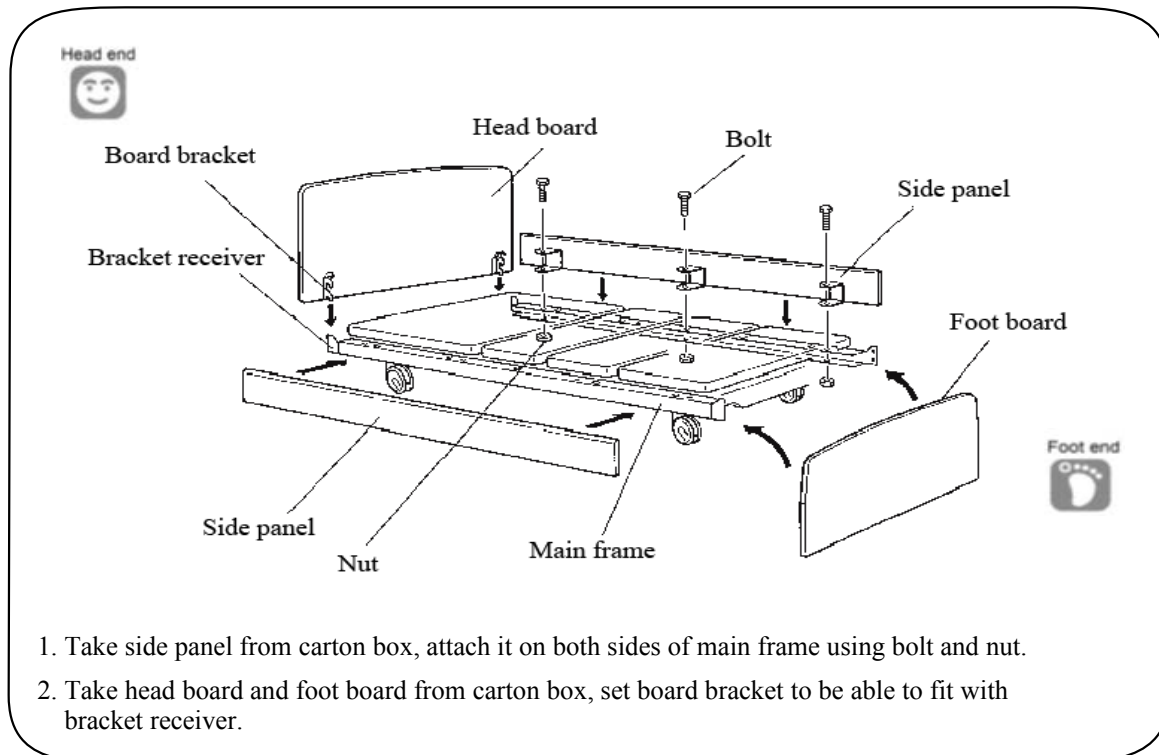


5 ASSEMBLING THE BED (PA-93485V)

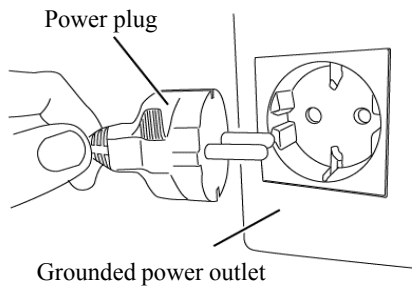
1. Fitting component for assembly

BOLT  6 pcs	NUT  6 pcs	RACHET WRENCH  13 mm	SPANNER  13 mm
---	--	--	--

2. Head board, foot board, side panel installation



1. Power outlet

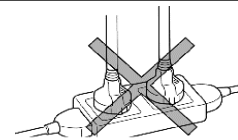


- Each bed should be plugged into a separate, appropriately wired, single-phase AC 220V, 10A or greater grounded power outlet using the power plug.

* The illustration uses a type C power plug for explanation.

CAUTION

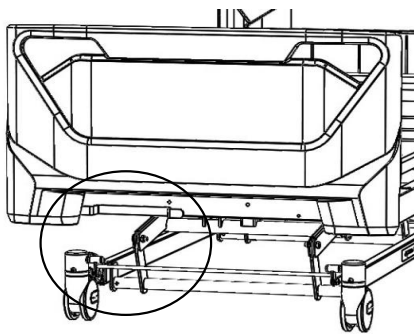
- Never connect more than one cable to a power outlet.



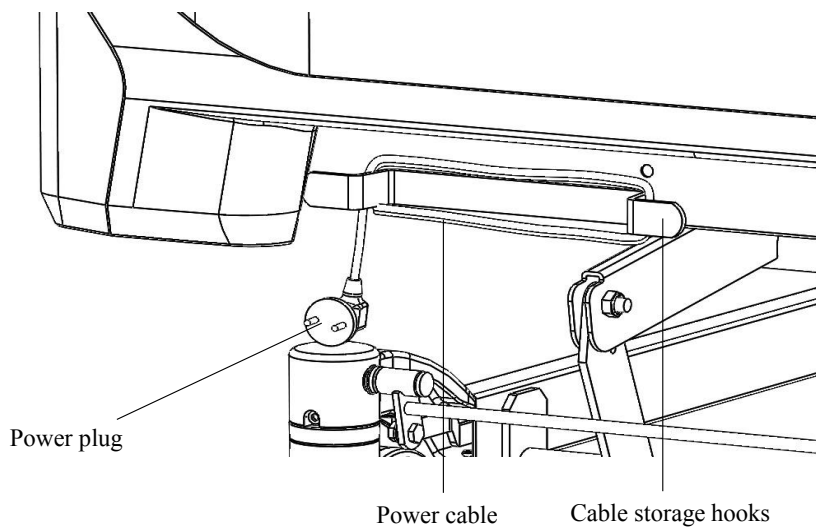
2. Using the cable storage hooks

[Using the cable storage hooks when moving the bed]

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



Head end

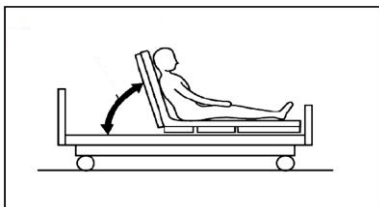


7 OPERATION OVERVIEW

Adjusting the angle of the back or knee section base and the height of the bed

- The angle of the back and knee section base and the height of the bed can be adjusted with no increments. (For operation procedures, see p.18-20)
- The angle of the leg section base can be manually adjusted in two levels. (see p.21)

Back raise

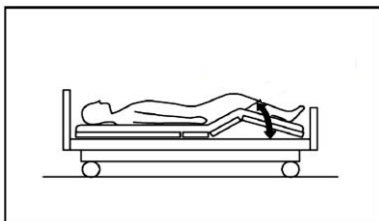


- Electric hospital bed
The back section base angle can be electrically adjusted from 0° to 70°.

- Manual hospital bed
The back section base angle can be manually adjusted from 0° to 75°.

- Electric hospital bed
The knee section base angle can be electrically adjusted from 0° to 25°.

Knee raise

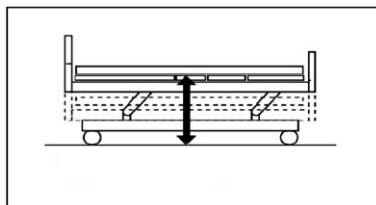


- Manual hospital bed
The knee section base angle can be manually adjusted from 0° to 45°.

- PA-93286, PA-93186, PA-93286N, PA-93186N, PA-93485V
The height from the floor to the base of the bed can be electrically adjusted from 290mm to 670mm.

- PA-93206N, PA-93106N
The height from the floor to the base of the bed can be electrically adjusted from 323mm to 703mm.

Height adjustment



- PA-99286, PA-99186, PA-99286N, PA-99186N
The height from the floor to the base of the bed can be manually adjusted from 330mm to 710mm.

- PA-93256, PA-93156, PA-99256, PA-99156
The height from the floor to the base of the bed can be adjusted from 338mm to 718mm.

- PA-93296, PA-93196, PA-99296, PA-99196
The height from the floor to the base of the bed can be adjusted from 345mm to 725mm.

- PA-99206N, PA-99106N
The height from the floor to the base of the bed can be adjusted manually from 363mm to 743mm.

8 USING THE HANDHELD CONTROLLER (ELECTRIC HOSPITAL BED ONLY)

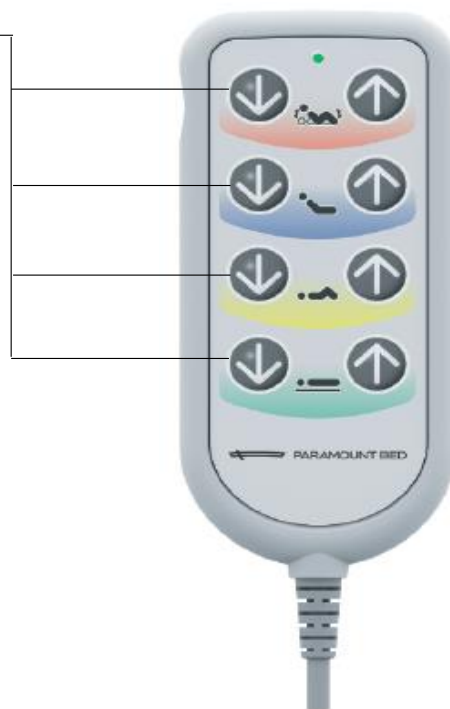
- The angle of the back and knee section base and the height of the bed can be smoothly adjusted with no increments by using the handheld controller.

CAUTION

- When a child aged 12 or under, or someone deemed incapable of comprehending the operation (such as someone having a cognitive illness) operates the handheld controller by themselves, there is a risk of unexpected injury such as the body getting caught in the bed by mistake.
- If there is a risk of such person touching the handheld controller, disconnect the power plug in order to prevent an accident by incorrect operation.

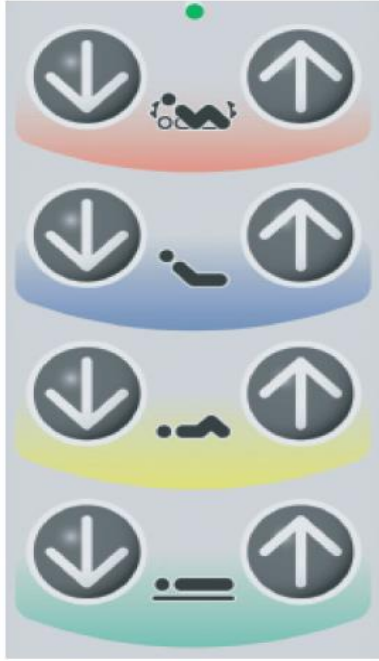
Operation procedure

Pressing the button adjust the bed, and releasing the button stop the adjustment, allowing you to adjust the bed to the desired position. Press two or more buttons simultaneously to stop the operation.



Operation buttons

■ Pressing the button adjust the bed, and releasing the button stops the adjustment, allowing you to adjust the bed to the desired position. Press the button ↑ to raise. Press the button ↓ to lower.



Back and knee UP and DOWN buttons
The back and knee section base angle can be adjusted simultaneously.

Back UP and DOWN buttons
The back section base angle can be adjusted.

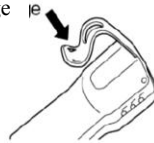
Knee UP and DOWN buttons
The knee base angle can be adjusted.

Bed height UP and DOWN buttons
The bed height can be adjusted.

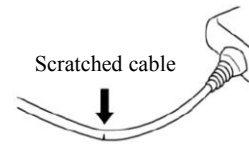
⚠ CAUTION

- Do not drop the handheld controller or pull the cable. The handheld controller may get damaged or deformed and operate incorrectly as a result. When the handheld controller is damaged, request a repair (or replacement).

Hook damage



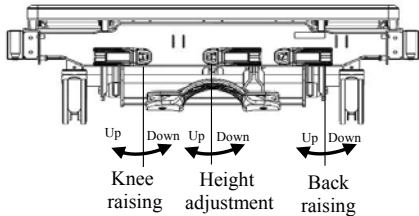
Scratched cable



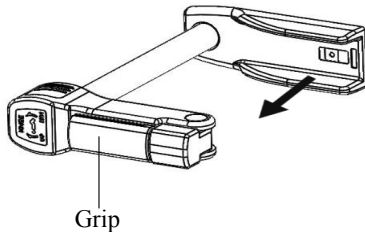
9 OPERATION PROCEDURES

1. Handle operation (3-Crank Manual Hospital Bed)

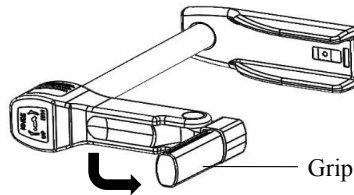
- Use the handle mounted on the frame to raise or lower the back or knee section base and adjust the bed height.



①



②



- ① Grip part a of the handle to be operated and pull it out to the end.
- ② Raise the grip to 90 degrees, hold the grip, and turn the handle.

- Turn the handle clockwise to raise the back, knee or bed height.
- Turn the handle counterclockwise to lower the back, knee, or bed height.

CAUTION

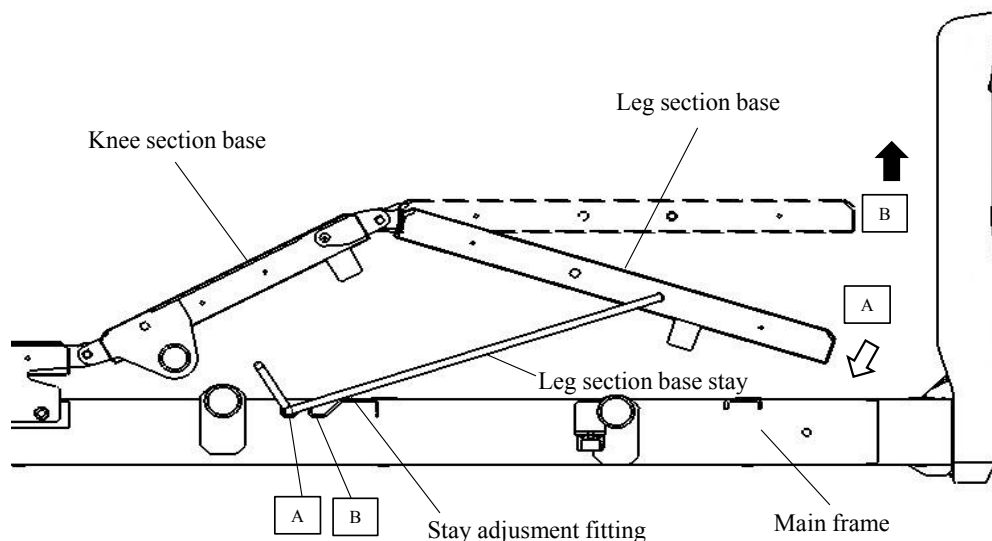
- Using the handle without completely pulling it out may cause a failure. Be sure to pull it out completely before use.
- After use, be sure to press the handle into the original position. If it is out, it may catch people's leg, causing an injury.
- Do not place your leg on the handle. You may fall down and get injured or the handle may break.
- Use one handle at a time. Turning two handles at the same time may result in an injury because hands crush into each other.

2. Adjusting the angle of the leg section base

- The angle of the leg section base can be manually adjusted in two levels. The angle of the leg section base must be adjusted by at least two persons.
- Normally, the leg section base stay is at position **A**. Adjustment to the **B** position should be performed when the knee section base is raised.
- When moving in the **B** direction, hold the end of the leg section base and lift it. The leg section base stay slides toward the foot end. Slowly lower the leg section base when the desired angle is achieved.
- When moving in the **A** direction, apply one hand to the leg section base stay, hold the end of the leg section base with the other hand, and lift it a little. Then, lower the leg section base so that the leg section base stay enters **A**.

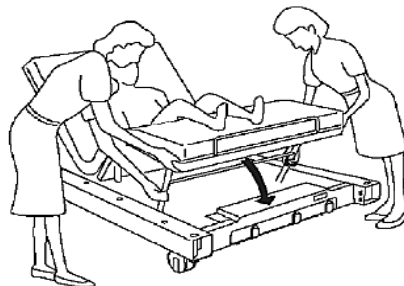


- When returning the knee section base to the horizontal condition, be sure to return the leg section base stay to the normal position **A**.



CAUTION

- The leg section base angle should be adjusted by at least two persons from the both sides. If only one person attempts to adjust the angle, the person may get caught between the leg section base and main frame and get injured.



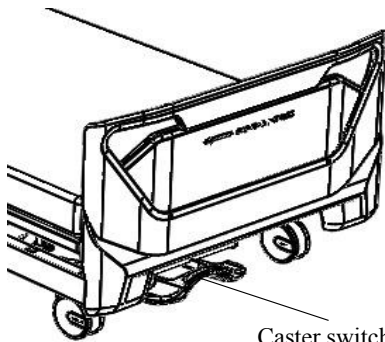
3. Locking the casters

WARNING

- Lock the casters at all times except when moving the bed. The patient may be injured getting on or off the bed should it move.

■ Central locking system

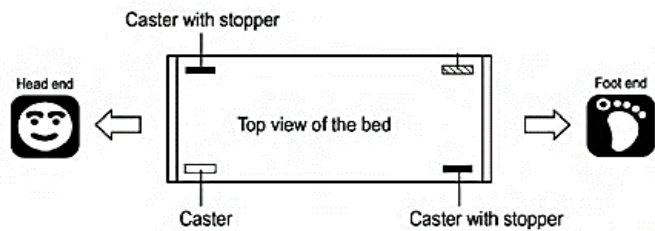
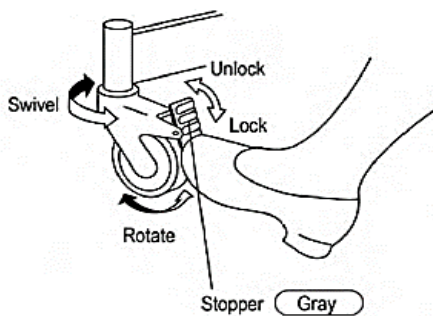
- The casters can be locked or unlocked by operating switching pedal on the foot end.



- **Locking the four wheels**
The casters are locked by depressing the caster switching pedal.
- **Unlocking the four wheels**
The casters are unlocked by raising the caster switching pedal.

■ Diagonal locking system

- Use the stopper to lock or unlock the casters.
- Stoppers are on two casters on opposing corners of the bed. When locking, be sure to lock both of the two casters.
- Depressing the stopper locks the swiveling and rotation of the casters.
- Prior to locking, be sure that the caster is not out of the bed frame.
- To unlock, press the upper part of the stopper with the toe.



CAUTION

- Do not forcibly move the bed when the casters are locked. It may break the bed.



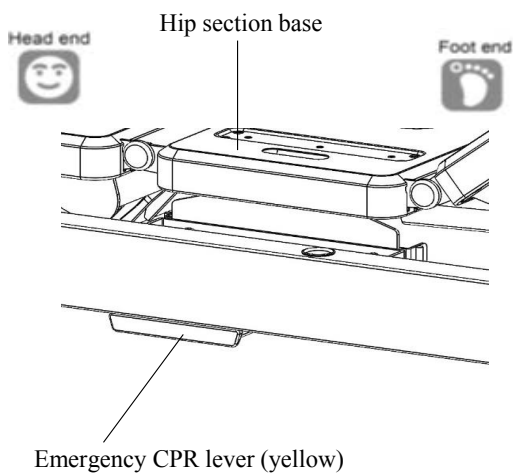
- **NOTE!** Inspect the casters regularly. Depending on the frequency of use and the environment, casters will exhibit wear and deterioration. (Height-temperature and heighy hummidity condition may accelerate the deterioration). In case of declined function of the stoppers or discoloration or crack on the wheel, request repair or after-sales service.

4. 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.

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.



< Emergency CPR procedure >

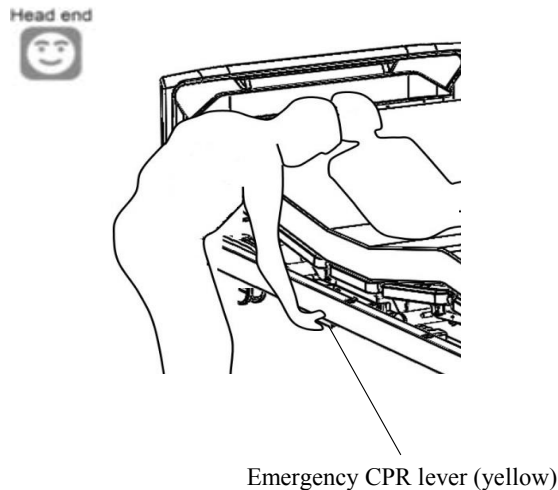
1. Place one hand on the side of the back section base and pull the emergency CPR lever (yellow). Levers are located on both sides of the bed under the hip section base and either lever can be used.
2. Keep pulling the lever until the back section base returns to flat status. If you release the emergency CPR lever halfway through, the back-lowering operation is stopped).



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

< Operation after emergency CPR >

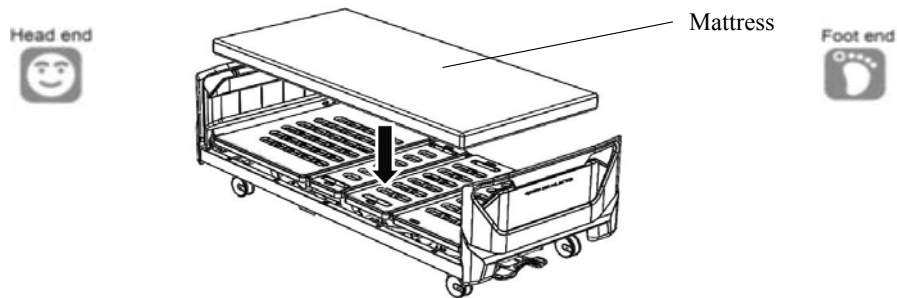
Power on status : back-raising and back lowering can be operated using the buttons on the handheld controller or nurse control panel.



! WARNING

- Do not use the bed when the mattress is not placed. The body part (fingers of hands or legs) may get caught in the gap between the mattress bases, in air holes on the mattress base, resulting in injury.
- Be sure to use a mattress of dimensions specified by Paramount Bed, described below. If an unsuitable mattress is used, patients could get caught between the mattress and side rail and get injured. Unsuitable mattresses exert a burden on the bed and may induce a failure.

■ Compatible Mattresses - Paramount Bed



Width	Length	Thickness
830 (for PA-931**,PA-991**)	1,910 to 2,000	90 to 150
910 (for PA-932**,PA-934**,PA-992**)	1,910 to 2,000	90 to 150

EVERFIT LIGHT:

Model codes : PE-9001/PE-9101/PE-9011/PE-9111/PE-9002/PE-9102/PE-9012 and PE-9112

RPR:

Model codes : PE-7001/PE-7002/PE-7011 and PE-7012

PE-6000 Series:

Model codes : PE-6001/PE-6101/PE-6002/PE-6102/PE-6011/PE-6111/PE-6012/and PE-6112



- For more informations about mattress specification and any queries, please feel free to contact Paramount Bed or your distributor.

1. Suitable products table

WARNING

- Use suitable products after confirming that the combination with the bed is correct. Using the bed with the wrong combination of suitable products could result in injury or could damage the products. The part number of each suitable products is written on the safety label and on the carton box.
- Do not use suitable products other than specified in this instruction manual. This may create unintended gaps or may damage or deform the product, resulting in injury.
- Make sure that there is nothing in the accessories attachment holes, when mounting the suitable products. If there are obstacles in the option attachment holes, you cannot mount the accessories, and the patient may fall off the bed or get caught in the gap, resulting in injury.



- Suitable products may be changed due to specification changes or combinations. In addition, some suitable products may not be listed in the table due to new release or discontinuation of sales. For any queries on suitable products, contact Paramount Bed (see p.51) or your distributor.

Suitable product ^{*1)*2)}	Model No. ^{*1)}	Reference page
IV pole	KC-56A, KC-56B, EC-562	26
Battery	PAB250T	27 - 29
Oxygen cylinder holder	PC-5038	30
Drain bag holder	PC-5123	31
Traction frame	PC-5068	-
Collapsible bedside rail ^{*3)}	PS-023, PS-023A, PS-023V	32
	PS-0232	

*1) These products may not be available in some countries or regions. For details, contact Paramount bed (see p.51) or your distributor.

*2) In some countries or regions, some of the medical device or its accessories fall under the category of medical devices. For details, contact Paramount Bed (see p.51) or your distributor.

*3) Use the PA-90000 series bed in combination with PS-023, PS-023A, PS-023V, or PS-0232 for applying IEC60601-2-52.

2. IV pole

This IV pole is designed to be attached to the medical device when giving an intravenous drip to a patient.

WARNING

- Do not move the bed with holding the IV pole. The IV pole may break causing injury.
- Do not use the IV pole as a support to stand up. The IV pole may come off or break, causing an injury due to falling down.
- When using the IV pole, do not put a hand or arm between the base or side rail and the IV pole. The hand or arm may get caught and get injured.
- Each hook's load capacity because it may damage the hook, resulting in an injury

CAUTION

- Length adjustment of the sliding pipe should be kept within 70cm. If the sliding pipe is pulled out too much, it may come off, resulting in an injury or damage.

Head end

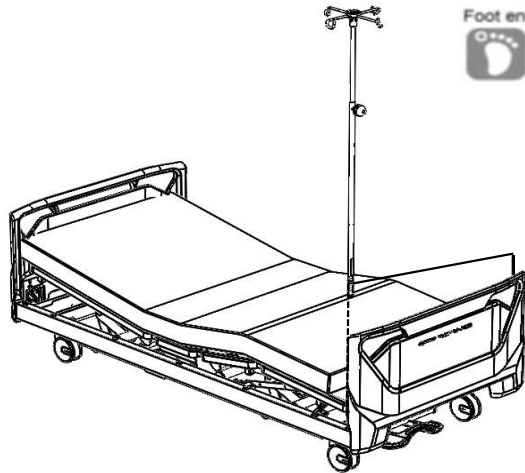


Foot end



Model no.

KC-56A, KC-56B, EC-562



NOTE!

- Be sure to read the instruction manual attached to the IV pole as well.
- The description in the respective instruction manual may be different from the description in this manual due to changes in specification. In case of any question, contact your distributor.

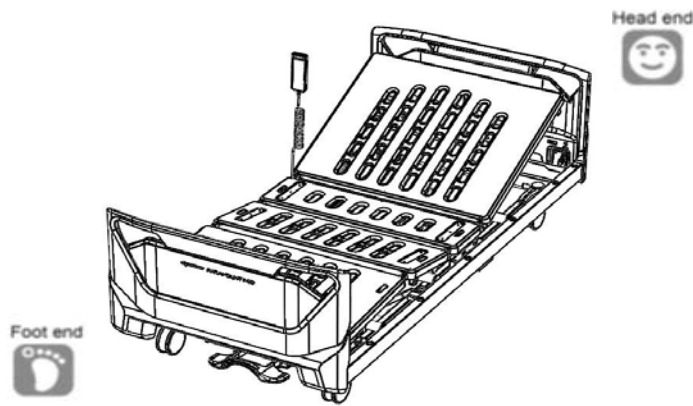
3. Battery (PAB250T/ Electric hospital bed only)

This battery is intended to provide power to the medical device when the external power supply is not available.

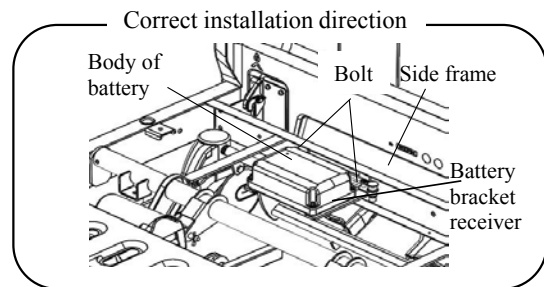
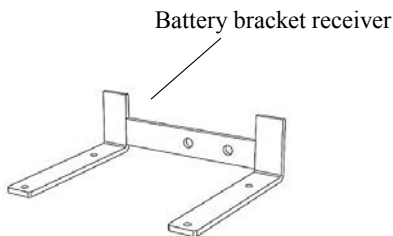
WARNING

- When connecting the battery cable, unplug the power plug and confirm the patient not on the bed. There is a risk of injury due to accidental operation or electric shock due to a short circuit.

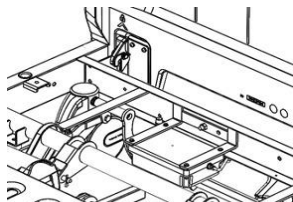
1. Install battery on the foot side of main frame.
※For old product, battery is installed on head frame.



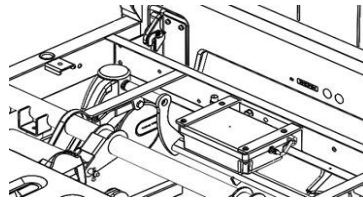
2. Pay attention to direction of battery bracket receiver and its installation.



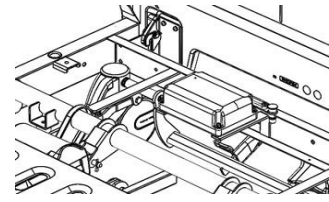
Incorrect installation direction



If installing with incorrect bracket direction.



If bracket installation direction is correct but battery installation position is incorrect.



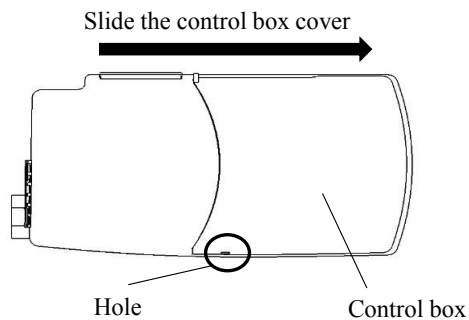
If bracket installation direction and battery installation position is incorrect.



NOTE!

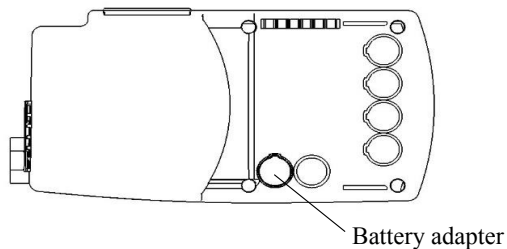
- If installed with incorrect direction, interference with central pedal and foot frame stay will occur, the body of battery and cable may be damaged.

3. The battery cable must be connected to the control box to use the battery.



1. Set minus driver in the hole of side on the control box and slide the control box cover to open it.
2. Connect the battery cable to the battery adapter of the control box.
3. Attach the control box cover.

<After opening the control box cover>



CAUTION

- Incorrect operation in disregard of the details given below will result in personal injury or damage due to leakage, fire, explosion, electric shock, or rupturing.
 - Do not disassemble the battery case or built-in battery.
 - Do not incinerate the battery unit.
 - Do not recharge the battery other than with suitable control box of the bed.
 - Do not use the battery unit with equipment other than the suitable bed.
 - Do not subject the battery unit to impact.
 - Do not recharge the battery unit or operate the bed with the bed turned upside down.
- When the battery reaches the end of its life span, change it immediately. Continual usage of expired battery may cause leakage or fire. Furthermore, please check time to relace as below;
 - A life of the battery span about 2 or 3 years. The battery indicator flash or turn off the light even the battery charging for more than 12 hours, please change the battery.
 - When you change the battery, please contact Paramount Bed or your distributor.

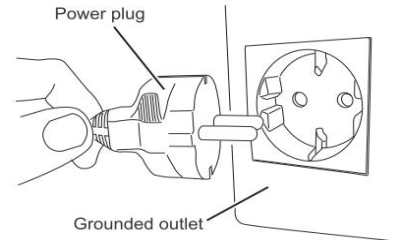
■ The battery is an auxiliary power supply for operating an electrically operated table when not connected to a power outlet.

[Operating the table on battery power]

- The table is powered by the battery when the power plug is not connected to the power outlet or during a power failure.

[Recharging]

- Recharging starts as soon as the table power plug is plugged into the power outlet.



- The battery should be charged (for more than 24 hours) immediately after purchase
- The battery is optional. For detail on the model number, contact Paramount Bed or your distributor.

[Battery life]

- The battery is not designed to be recharged after being totally discharged. Repeatedly recharging the battery from zero charge will reduce its operating life. Always recharge the battery after operating the table on battery power.
- If the table is equipped with a battery, and the table is stored for long periods of time, the battery must be full charged every 3 months. It may cause damage to the battery or decrease its life.



- The battery life will vary depending on the usage frequency, usage conditions and storage conditions. Regardless of whether the battery is used, its life will start to drop off after a few years.

4. Oxygen cylinder holder (PC-5038)

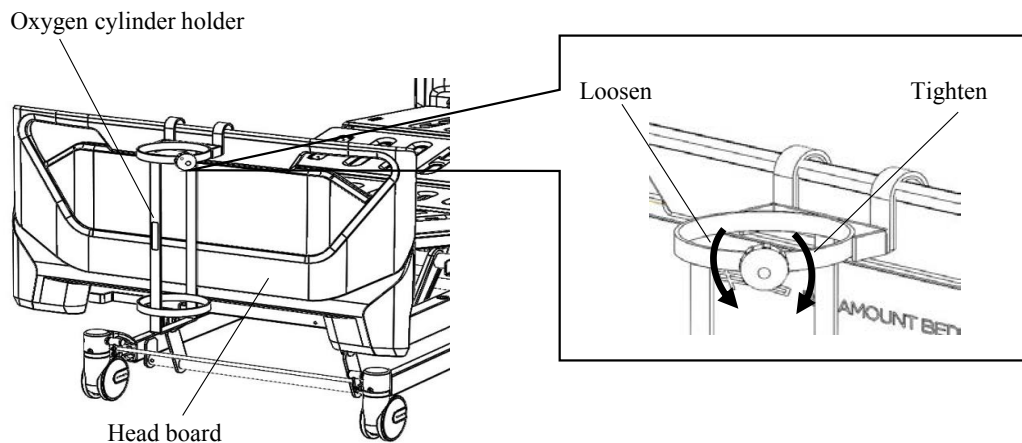
This oxygen cylinder holder is made for attaching to the medical device to use the oxygen cylinder.

WARNING

- Make sure that the knob bolt is firmly tighten. There is a risk of insufficient oxygen supply.
- When using the oxygen cylinder, take care to prevent it from coming into contact with any objects in the vicinity of the bed. There is a risk of an injury by damage of a flow meter or an oxygen cylinder if the cylinder comes into contact with another object.
Load capacity is 15kg. Do not insert the oxygen cylinder exceeding the load capacity because it may damage the oxygen cylinder holder, resulting in injury.

■ The oxygen cylinder holder can be used by hanged on the headboard.

1. Hang the oxygen cylinder holder on the headboard.
2. Loosen the knob bolt on the oxygen cylinder, and then slowly insert the oxygen cylinder into the holder from the top.
3. Firmly tighten the knob bolt to fasten the oxygen cylinder

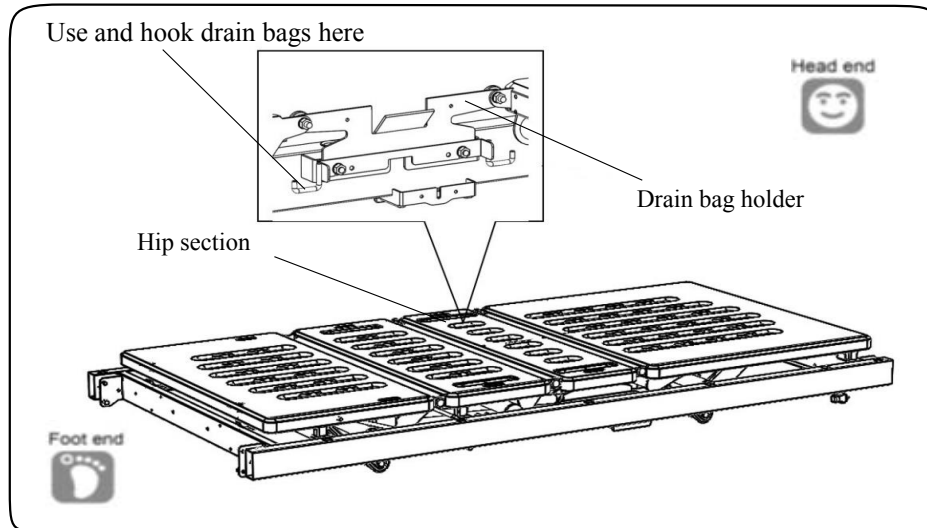


- For any queries, please feel free to contact Paramount Bed or your distributor

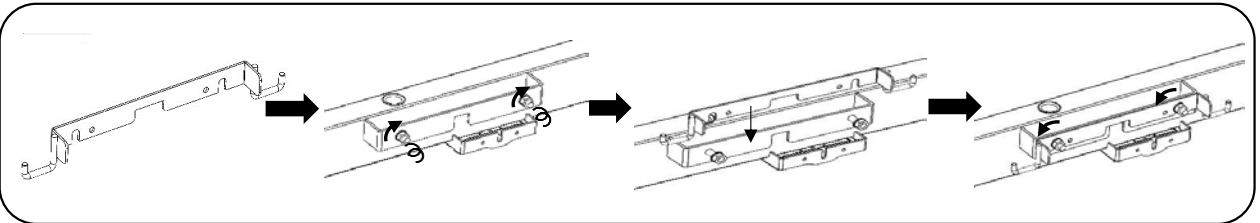
5. Drain bag holder (PC-5123)

This drain bag holder is designed for hanging drain bags.

The drain bag holder are located one each on the left and right at the bottom of hip section. (2 location in total).



1. Attaching



- Prepare the 1pcs drain bag holder.
- Loosen 2 nut a little bit on left and right side.
- Attach drain bag holder from the upside.
- Fix the nut and make sure the installation is corrected.

2. Detaching

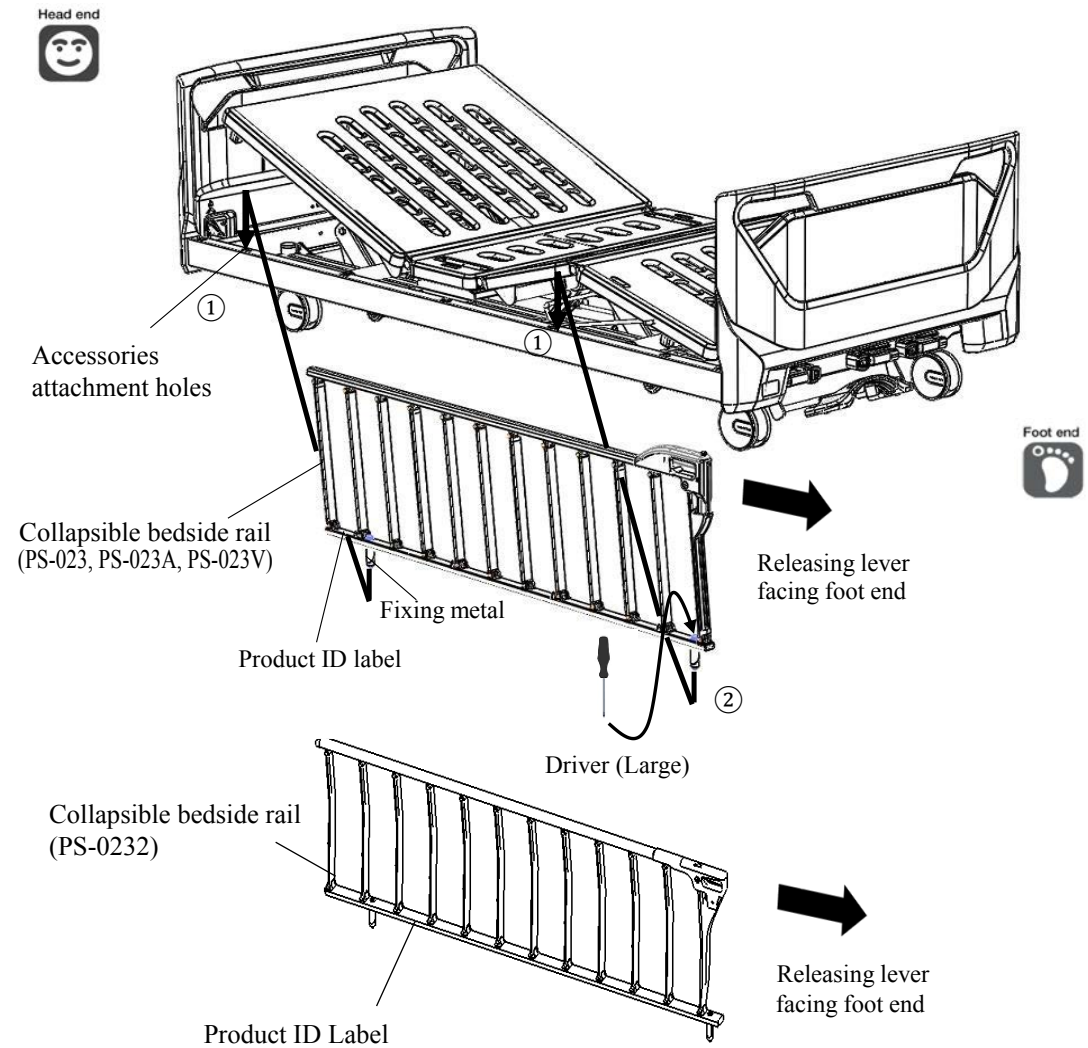
- For detaching drain bag holder, reverse the procedure above.

WARNING

- When using the drain bag holder, tighten the nut firmly and do not install the drain bag holder while the patient is on the bed. There is a risk that hip section may fall and resulting in injury.
- Do not apply a load of 3kg or more to an drain bag holder. This may damage or deform the drain bag holder.
- When hanging a drainage bag, take care to prevent the bag from coming into contact with the floor.

6. Collapsible bedside rail

This collapsible bedside rail is intended to be fit on bed side to use, prevent patients and bed clothing falling off from bed.



1. With releasing lever facing forward foot end, install side rail fixing metals to accessories attachment holes.
2. Make sure to tighten the fixing bolts.
3. Please check the side rail being fixed firmly, before usage.

CAUTION

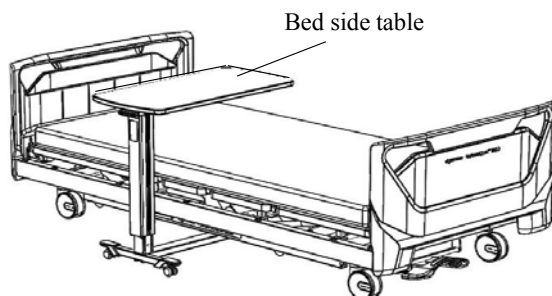
- Please attach and lock firmly. Otherwise, side rail may come off abruptly, resulting in injury, or damage side rail.



- All installation methods are the same.

12 BED SIDE TABLE

Bed side table is used for having meals or doing something on the bed.



Model no.

KF-282

PF-3100A, PF-3110A

PF-3120A, PF-3130A

WARNING

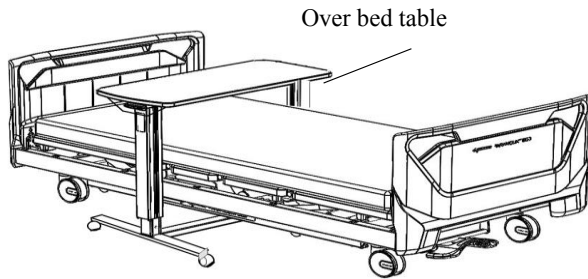
- Remove the table from the bed when performing positioning operations of the bed. Otherwise, the patient may get caught between the table and bed and get injured.



- Be sure to read the instruction manual attached to the bed side table as well.
- The description in the respective instruction manual may be different from the description in this manual due to changes in specifications. In case of any question, contact your distributor.

13 OVER BED TABLE

Over bed table is used for having meals or doing something on the bed.



Mattress base width	Suitable over bed table
910	KF-83*LA/LB/LC KF-813
830	KF-83*SA/SB/SC KF-814

⚠ WARNING

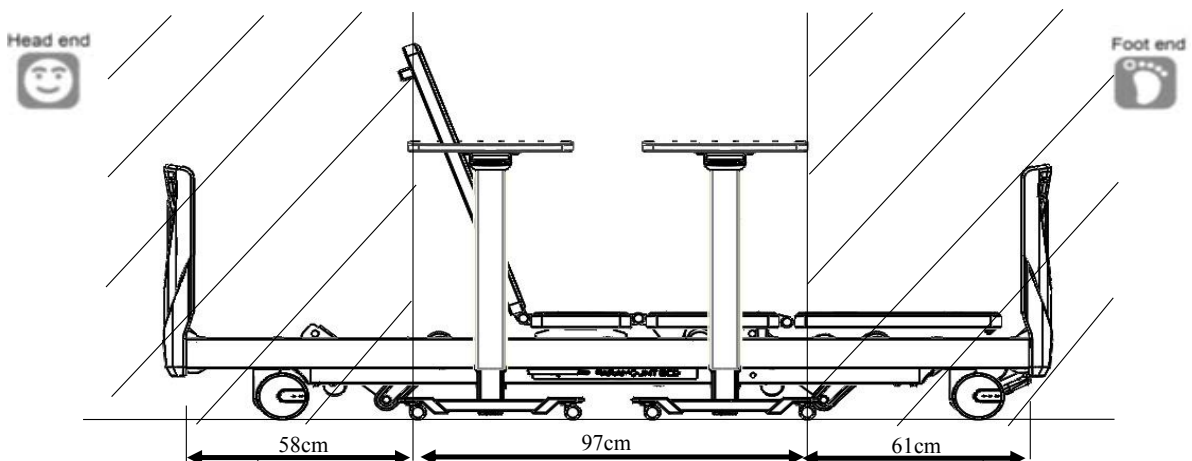
- Remove the table from the bed when performing positioning operations of the bed. Otherwise, the patient may get caught between the table and bed and get injured.



- Be sure to read the instruction manual attached to the bed side table as well.
- The description in the respective instruction manual may be different from the description in this manual due to changes in specifications. In case of any question, contact your distributor.

⚠ CAUTION

- The following figure shows the over bed table and side table usage range (the shaded areas cannot be used). Use the over bed table and side table within this range. Using the over bed table and side table outside the range shown in the figure below may cause damage to or deformation of the over bed table and side table. Note that when the side rail and grip for the bed are used (attached), the over bed table cannot be used in the vicinity of the highest bed height.


















* Use the over bed table and side table within this range
Use it not possible because comes into contact with the bed















- For any queries, please feel free to contact Paramount Bed or your distributor.

14 PRODUCT SYMBOL DEFINITIONS

■ The symbols below are used for the product.

Symbol	Description
	●Indoor use symbol
	●Electrical waste
	●See the instruction manual
	●Read the instruction manual
	●AC input
	●Protective ground terminal
	●Serial number
	●KOHKIN SIAA mark
	●The medical bed for adults.
	●Product weight
	●Safe working load
	●Maximum patient weight
	●Total weight including load capacity
	●Model number
IPx4	●Protection code
	●CE mark

Symbol	Description
	●Take care to prevent the patient's head from getting caught in the gap between side rails and the bed.
	●Take care to prevent neck from getting caught between side-rails and board.
	●Take care to prevent body parts from getting caught in the moving parts on the bed.
	●Take care to prevent patient's hand and foot from getting caught between side-rails and the bed.
	●Do not lean over a side-rail
	●Lot number
	●Type B applied part ●Applied parts are considered to be: Upper frame section, Controllers, Side-rails, Headboard and Footboard
	● This a 2D code (GS1 Data Matrix) that encodes the UDI (Unique Device Identifier) required by the Unique Device Identification System designed to adequately identify device through distribution and use.
	●Manufacture *It may be called "Legal Manufacturer" or "Brand Owner" etc. *The symbol is not applicable in the country of origin.
	●Country of manufacture (made in Indonesia) ●Manufacturing site *In the country of origin, the site acts as the manufacturer. ●Date of manufacture (YYYY-MM-DD)
	● Medical device (This product is a medical device or an accessory for medical device in Europe, and may be such a device in some countries and regions depending on their regulations. An accessory for medical device is required to be labeled as "Medical Device" under medical device regulations in Europe).
	●Authorized representative in the European community

■ Lubrication (if there is abnormal noise)

- Lubrication is needed if there is abnormal noise. Please feel free to contact Paramount Bed or your distributor to be lubricated.



- Water adhesion to the bed or mattress, or moisture may cause corrosion, abnormal noise or contamination. If water adheres to the bed or mattress, wipe off immediately.

■ Bed unit

- To clean the bed, use a cloth that has been soaked in diluted detergent and wrung out well, then wipe off any residual detergent with a cloth soaked in water and wrung out well. Finally, use a dry cloth to wipe the bed to ensure it is dry.
- To wash the bed using water, pour water on the bed to wash out stains. Finally, use a dry cloth to wipe the bed to ensure it is dry.
- To disinfect the bed, always dilute detergents used as specified below and follow the instructions described in the instruction manual.

76.9% - 81.4% ethanol for disinfection
0.05% - 0.2% benzalkonium chloride (e.g. Osvan)
0.05% - 0.2% benzethonium chloride (e.g. Hiamine)
0.05% chlorhexidine gluconate (e.g. Hibitane)
0.02% - 1.0% sodium hypochlorite (e.g. Milton)

- The bed should be disinfected before a different patient uses the bed.

CAUTION

- Do not use volatile cleaning fluids (such as paint thinner, benzene or gasoline) and cresol. Discoloration or deterioration could result.
- Do not use disinfectant other than those specified. There is a risk of damage or deterioration.
- After cleaning the bed detergent, be sure to wipe any residual detergent with a cloth soaked in water and wrung out well. Otherwise, there is a risk of damage to the plastic parts.
- When washing the bed with water, do not pour water from under the base cover. There is a risk of malfunction.
- Do not wash the bed by a bed washer or high-pressure water. There is a risk of malfunction.



- The product cannot be used with an ozone sterilizer or an autoclave sterilizer, etc.

15 REGULAR INSPECTION AND DAILY MAINTENANCE

■ For safety in use, inspect the product regularly, at least once a year. The product exhibits wear and deterioration according to the frequency and conditions of use. Inspect for loose parts, the operation of moving parts on the bed, and the presence of damage regularly. When an irregularity has been noticed or when a detailed

	Operation details	Inspection items
Bed unit	Back-raise operation (p.17)	Proper operation can be achieved. There must not be any strange noises.
	Knee-raise operation (p.17)	Proper operation can be achieved. There must not be any strange noises.
	Hi-lo operation (p.17)	Proper operation can be achieved. There must not be any strange noises.
	Miscellaneous	There must not be any scratches and deformation at the mattress base, frame or any other parts.
		There must not be any deformation, damage, or detachment of bumpers, resin parts or elastic parts. There must not be any peeling of labels, and the text must be legible.
Board	Board mounting condition (p.14)	The board stopper must be locked properly
		There must not be any remarkable rattling.
Caster	Travelling	There must not be any strange noises when the bed is travelling.
		There must not be any strange vibration when the bed is travelling.
		Proper operation can be achieved. The operation must not be unusually difficult.
	Caster locking operation (p.22)	The bed must not move when the caster are locked.
		The bed must move smoothly when the locked is released. When is steering position, swiveling of the steering caster must be locked.
Electrical part (Electrical bed only)	Visual check of electrical parts	Cable must not get tangled in the bed.
		Plugs and cables must have no scratches or damage.
		There must not be any scratches and damage on the handheld controller.

WARNING

- Do not wash the padding. There is a risk of padding degradation.
- Do not use a mattress washer, an ozone sterilizer or autoclave apparatus. There is a risk of damage, deterioration or degradation.
- Do not leave any blood, urine, sudor or sebum on the mattress. Clean dirt frequently with neutral detergent or soap. If left untreated, the surface material may degrade, smell or stain may result.
 - The smell that is left during use may be neutralized with mouthwash.
 - If the mattress is stained, wipe off thoroughly with oxydol (3% hydrogen peroxide).
 - Use thrombolytic agent, if it is difficult to clean blood. In that case, try using it on the end of the firtsly, because there is a risk of discoloration or deterioration.
- Do not use volatile cleaning fluids (such as paint thinner, benzene or gasoline) and cresol. Discoloration or deterioration could result.
- Do not use disinfectant other than those specified. There is a risk of damage or deterioration.

■ **Mattress unit**

- When the mattress get dirty or the persons who use the mattress change, be sure to clean and disinfect both surface of the mattress in accordance with the procedures specified in steps 1 to 4 below. At this time, take care not to bend the mattress.
- Remove any soiling (blood, excreta, etc.)
- Wipe the mattress using a cloth that has been soaked in commercially available soapor neutral detergent diluted with water, and wrung out well.
- Disinfect the mattress by using disinfectant.
 - 0.05% - 0.2% benzalkonium chloride (e.g. Osvan)
 - 0.05% - 0.2% benzethonium chloride (e.g. Hiamine)
 - 0.05% chlorhexidine gluconate (e.g. Hibitane)
 - 0.02% - 1.0% sodium hypochlorite (e.g. Milton)
- Leave the mattress to dry out naturally on the bed or in another location. However, do not dry in the sun.
 - Clean and disinfect the mattress regularly
 - Do not wash the mattress
 - Take care not to soak the padding.

CAUTION

- Do not unzip the fastener and do not remove the cover when cleaning and disinfecting the mattress. Do not unzip the fastener while the mattress is in use. The fastener is provided so that the cover can be repaired or replaced if it damaged.



- The product cannot be used with an ozone sterilizer or an autoclave sterilizer, etc.

16 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 Paramount Bed or your distributor for repair.
- Bed damaged in earthquakes, fires, floods or other incidents must be inspected and repaired by Paramount Bed or your distributor. Otherwise, there is a risk of electric shock or fire due to short circuit

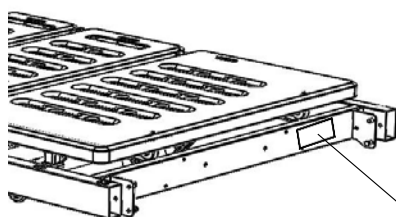
Problem	Check	Corrective action	Reference page
● The bed does not move even when the handheld controller buttons are pressed.	● Check if the power plug is plugged into the outlet.	● Plug the power plug into the outlet.	16
	● The power plug is plugged into the outlet but the bed still does not move.	● Unplug the power plug from the outlet and plug it in again. ● Plug another electrical device into the outlet to check that power is available.	16
● The POWER Lamp on the handheld controller is OFF.	● Check if the power plug is plugged into the outlet.	● Plug the power plug into the outlet.	16
	● Check if the handheld controller lock function is off.	● Press the lock button to switch the handheld controller lock function OFF	—
	● The power plug is plugged into the outlet but the POWER lamp on the handheld controller is OFF.	● Unplug the power plug from the outlet and plug it in again. ● Plug another electrical device into the outlet to check that power is available.	—
● The bed cannot be positioned correctly.	● Check if there is nothing in the moving parts on the bed.	● Remove any obstacles.	—
● The bed cannot be moved.	● Check if the casters are locked.	● Unlock the caster.	22
● The board will not come off.	● Check if the board is locked.	● Unlock the board stopper	14

- When requesting repairs or contacting Paramount Bed or your distributor, please provide the number on the product ID label.

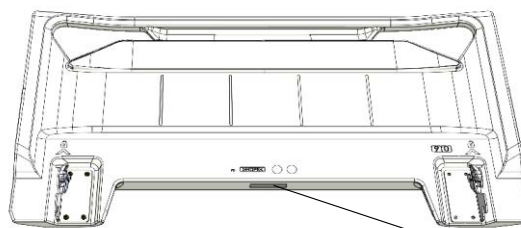
■ Product lifetime

The lifetime of this equipment is typically eight (8) years. Lifetime is defined as the period during which the product will maintain the specified performance and safety, provided it has been maintained and operated in conditions of normal use in accordance with the requirements in this instruction manual.

■ Product ID label locations



(Product ID label)



(Board label)



■ The following precautions should be noted when the bed is not in use for extended periods of time.

1. Lay the back and knee section base flat.
2. Lower the bed to the lowest position.
3. Do not place objects other than mattress on the bed.
4. Do not place anything on the mattress.
5. Store the bed in a low-dust environment away from extreme temperatures or humidity.
Store the bed at a temperature between -10°C and 50°C , humidity between 20%RH and 90%RH.
6. Do not lean the bed against a wall; store it level on the floor.
7. For electrically-operated bed, be sure to disconnect the power plug from the power outlet and coil the power cable on a cable storage hook (see p.16)



● Inspect the product regularly at least once a year, even if it is during storage.

Bed disposal

When the PA-90000 series bed has reached the end of its usable life, discard it according to local standards.

18 SPECIFICATIONS

Family name		PA-90000 Series					
Product name		Electric Hospital Bed					
Model no.		PA-93286	PA-93186	PA-93256	PA-93156	PA-93296	PA-93196
Quantity of motors		3 motors					
Operation procedure	Auto contour	Motorized					
	Back raising	Motorized					
	Knee raising	Motorized					
	Height adjustment	Motorized					
	Power supply voltage/frequency	AC 100-240V \pm 10%V/ 50/60Hz					
Dimensions	Total length	2158mm					
	Total width	1,040mm	960mm	1,040mm	960mm	1,040mm	960mm
	Mattress base width	910mm	830mm	910mm	830mm	910mm	830mm
	Total height	692[+20,-10] to 1,072[+20,-10]mm		740[+20,-10] to 1,120[+20,-10]mm		747[+20,-10] to 1,127[+20,-10]mm	
	Mattress base height (1*)	290[+20,-10] to 670[+20,-10]mm		338[+20,-10] to 718[+20,-10]mm		345[+20,-10] to 725[+20,-10]mm	
	Casters	125mm dia. Double-wheel caster (Central locking system)		125mm dia. Single-wheel caster (Central locking system)		125mm dia. Single-wheel caster (Diagonal locking system)	
	Power cable length	2,500mm					
Product weight		114kg	102kg	112kg	100kg	110kg	98kg
Material	Head/foot boards	HDPE resin molding					
	Base	Made of steel, powder coating (some parts are resin mold items)					
	Main frame	Made of steel, powder coating (some parts are resin mold items)					
Safe working load (*2)		204Kgf (2000N)					
Back section base inclination angle		0 ⁰ to 70 ⁰ [\pm 7] ⁰					
Knee section base inclination angle		0 ⁰ to 25 ⁰ [\pm 2.5] ⁰					
Height adjustment range		380mm					
Operation guarantee conditions	Temperature	5 to 40 ⁰ C					
	Humidity	20 to 90%RH					
Actuator type		Linear actuator (DC motor)					
Power consumption	Back-raising	170VA max.					
	Knee-raising	170VA max.					
	Height adjustment	285VA max.					
Duty cycle		2min. (stop time: 18min (*3))					
Service life		8 years (based on Paramount Bed data), excluding consumable items such as caster					

*1) The mattress base height indicates the height from the floor to the mattress base surface.

*2) Safe working load: Maximum load with which the bed can be operated. (The total load of user's weight and incidental items including the mattress and suitable products).

*3) Time to protect electrical parts from overheating when the bed is used continuously for duty cycle (2min).

18 SPECIFICATIONS

Family name		PA-90000 Series			
Product name		Electric Hospital Bed			
Model no.		PA-93286N	PA-93186N	PA-93206N	PA-93106N
Quantity of motors		3 motors			
Operation procedure	Auto contour	Motorized			
	Back raising	Motorized			
	Knee raising	Motorized			
	Height adjustment	Motorized			
Power supply voltage/frequency		AC 100-240V±10%/ 50/60Hz			
Dimensions	Total length	2158mm			
	Total width	1040mm	960mm	1040mm	960mm
	Mattress base width	910mm	830mm	910mm	830mm
	Total height	692[+20,-10] to 1,072[+20,-10]mm		725[+20,-10] to 1,105[+20,-10]mm	
	Mattress base height (1*)	290[+20,-10] to 670[+20,-10]mm		323[+20,-10] to 703[+20,-10]mm	
	Casters	125mm dia.		150mm dia.	
		Double-wheel caster (Central locking system)		Single-wheel caster (Central locking system)	
Power cable length	2,500mm				
Product weight	119kg	106kg	119kg	106kg	
Material	Head/foot boards	HDPE resin molding			
	Side panel	PVC			
	Base	Made of steel, powder coating (some parts are resin mold items)			
	Main frame	Made of steel, powder coating (some parts are resin mold items)			
Safe working load (*2)		204Kgf (2000N)			
Back section base inclination angle		0° to 70° [±7]°			
Knee section base inclination angle		0° to 25° [±2.5]°			
Height adjustment range		380mm			
Operation guarantee conditions	Temperature	5 to 40° C			
	Humidity	20 to 90%RH			
Actuator type		Linear actuator (DC motor)			
Battery	Type/quantity	Small sealed lead acid battery (12 VDC/1.2 Ah) x 2			
	Rating	24 VDC/1.2 Ah			
Power consumption	Back-raising	170VA max.			
	Knee-raising	170VA max.			
	Height adjustment	285VA max.			
Duty cycle		2min. (stop time: 18min (*3))			
Service life		8 years (based on Paramount Bed data), excluding consumable items such as caster			

*1) The mattress base height indicates the height from the floor to the mattress base surface.

*2) Safe working load: Maximum load with which the bed can be operated. (The total load of user's weight and incidental items including the mattress and suitable products).

*3) Time to protect electrical parts from overheating when the bed is used continuously for duty cycle (2min).

18 SPECIFICATIONS

Family name		PA-90000 Series
Product name		Electric Hospital Bed
Model no.		PA-93485V
Quantity of motors		3 motors
Operation procedure	Auto contour	Motorized
	Back raising	Motorized
	Knee raising	Motorized
	Height adjustment	Motorized
	Power supply voltage/frequency	AC 100-240V \pm 10%V/ 50/60Hz
Dimensions	Total length	2,134mm
	Total width	1,160mm
	Mattress base width	910mm
	Total height	761[+20,-10] to 1,141[+20,-10]mm
	Mattress base height (1*)	290[+20,-10] to 670[+20,-10]mm
	Casters	125mm dia. Double-wheel caster (Central locking system)
	Power cable length	2,500mm
Product weight		145kg
Material	Head/foot boards	Wood
	Side panel	Wood
	Base	Made of steel, powder coating (some parts are resin mold items)
	Main frame	Made of steel, powder coating (some parts are resin mold items)
Safe working load (*2)		204Kgf (2000N)
Back section base inclination angle		0° to 70° $[\pm 7]^\circ$
Knee section base inclination angle		0° to 25° $[\pm 2.5]^\circ$
Height adjustment range		380mm
Operation guarantee conditions	Temperature	5 to 40° C
	Humidity	20 to 90%RH
Actuator type		Linear actuator (DC motor)
Power consumption	Back-raising	170VA max.
	Knee-raising	170VA max.
	Height adjustment	285VA max.
Duty cycle		2min. (stop time: 18min (*3))
Service life		8 years (based on Paramount Bed data), excluding consumable items such as caster

*1) The mattress base height indicates the height from the floor to the mattress base surface.

*2) Safe working load: Maximum load with which the bed can be operated. (The total load of user's weight and incidental items including the mattress and suitable products).

*3) Time to protect electrical parts from overheating when the bed is used continuously for duty cycle (2min).

18 SPECIFICATIONS

Family name		PA-90000 Series					
Product name		Manual Hospital Bed					
Model no.		PA-99286	PA-99186	PA-99256	PA-99156	PA-99296	PA-99196
Operation procedure	Back raising	Manual					
	Knee raising	Manual					
	Height adjustment	Manual					
Dimensions	Total length	2,158mm					
	Total width	1,040mm	960mm	1,040mm	960mm	1,040mm	960mm
	Mattress base width	910mm	830mm	910mm	830mm	910mm	830mm
	Total height	732[+20,-10] to 1,112[+20,-10]mm		740[+20,-10] to 1,120[+20,-10]mm		747[+20,-10] to 1,127[+20,-10]mm	
	Mattress base height (1*)	330[+20,-10] to 710[+20,-10]mm		338[+20,-10] to 718[+20,-10]mm		345[+20,-10] to 725[+20,-10]mm	
	Casters	125mm dia. Double-wheel caster (Central locking system)		125mm dia. Single-wheel caster (Central locking system)		125mm dia. Single-wheel caster (Diagonal locking system)	
Product weight		112kg	101kg	112kg	101kg	109kg	97kg
Material	Head/foot boards	HDPE resin molding					
	Base	Made of steel, powder coating (some parts are resin mold items)					
	Main frame	Made of steel, powder coating (some parts are resin mold items)					
Safe working load (*2)		204Kgf (2000N)					
Back section base inclination angle		0° to 75° [± 7.5] ⁰					
Knee section base inclination angle		0° to 45° [± 4.5] ⁰					
Height adjustment range		380mm					
Operation guarantee conditions	Temperature	5 to 40 ⁰ C					
	Humidity	20 to 90%RH					
Service life		8 years (based on Paramount Bed data), excluding consumable items such as caster					

*1) The mattress base height indicates the height from the floor to the mattress base surface.

*2) Safe working load: Maximum load with which the bed can be operated. (The total load of user's weight and incidental items including the mattress and suitable products).

18 SPECIFICATIONS

Family name		PA-90000 Series			
Product name		Manual Hospital Bed			
Model no.		PA-99286N	PA-99186N	PA-99206N	PA-99106N
Operation procedure	Back raising	Manual			
	Knee raising	Manual			
	Height adjustment	Manual			
Dimensions	Total length	2,158mm			
	Total width	1,040mm	960mm	1,040mm	960mm
	Mattress base width	910mm	830mm	910mm	830mm
	Total height	732[+20,-10] to 1,112[+20,-10]mm		765[+20,-10] to 1,145[+20,-10]mm	
	Mattress base height (1*)	330[+20,-10] to 710[+20,-10]mm		363[+20,-10] to 743[+20,-10]mm	
	Casters	125mm dia. Double-wheel caster (Central locking system)		150mm dia. Single-wheel caster (Central locking system)	
Product weight		112kg	101kg	112kg	101kg
Material	Head/foot boards	HDPE resin molding			
	Side panel	PVC			
	Base	Made of steel, powder coating (some parts are resin mold items)			
	Main frame	Made of steel, powder coating (some parts are resin mold items)			
Safe working load (*2)		204Kgf (2000N)			
Back section base inclination angle		0° to 75° [± 7.5]°			
Knee section base inclination angle		0° to 45° [± 4.5]°			
Height adjustment range		380mm			
Operation guarantee conditions	Temperature	5 to 40° C			
	Humidity	20 to 90%RH			
Service life		8 years (based on Paramount Bed data), excluding consumable items such as caster			

*1) The mattress base height indicates the height from the floor to the mattress base surface.

*2) Safe working load: Maximum load with which the bed can be operated. (The total load of user's weight and incidental items including the mattress and suitable products).

Environmental conditions	Range	
	When transported or stored	When in use
Temperature	-10 to 50°C	5 to 40°C
Humidity	20 to 90%RH	20 to 90%RH
Air pressure	700 to 1,060hPa	700 to 1,060hPa

Patient target group	User weight (min-max)	40kg to 138kg
	Minimum user height	146cm
	Minimum user body mass index (BMI)	17
	Supported age range	13 years of age or older *Do not use the bed for children (aged 12 or under) or patient weighing more than 138kg
Intended users	Health care workers, patients, relative of patient, and maintenance staff	
Clinical benefit	Patient comfort Quality patient care and efficient care provision	

● Essential performance

Function to support the body of patient, Emergency CPR (back lower) function.

● Frequently used function

Back-raising, knee-raising, height adjustment, side rail raising and lowering operation.

● Classification and Standards

The electrical hospital bed is designed and manufactured according to the following equipment classification and standards.

• Classification as medical device in Europe : Class 1

• Safety standards applied : IEC 60601-1:2005, COR1:2006, COR2:2007, AMD1:2012 (or IEC 60601-1:2012 reprint)
: IEC 60601-1-2:2014
: IEC 60601-2-52:2009+AMD1:2015 for use with IEC 60601-1:2005
: EN 60601-1:2006+A12:2014
: EN 60601-1-2:2015
: EN 60601-2-52:2010+A1:2015



• Electric shock protection : Class 1 , Type B

※ Equipment not suitable for use in the presence of a flammable anaesthetic mixture.

For the PA-90000 Series, special attention is required to EMC-related safety.

Install, operate and use bed in accordance with the following information.

Bed is intended for use in the electromagnetic environment specified by "electromagnetic disturbance" of bed. The following abnormality may occur if using bed in unintended environment.

*The function for supporting patient's weight does not maintain.

WARNING

- If using the other specified accessories, transducers and cable as a replacement part for internal components, except for transducers and cables sold by the manufacturer of bed, there is a risk of increasing the emissions or reducing the immunity of bed.
- Use portable RF transceiver more than 30 cm away from any part of bed (including peripheral equipment such as antenna cable and external antenna). If it is used within 30 cm, the bed performance may degrade.
- Bed cannot be used with adjacent to or stacked with other equipment. If it must be used adjacent to or stacked with other equipment, make sure to monitor that it can operate properly in the location where bed is used.

Bed is intended for use in clinic, restricted medical facilities, hospital (except near high-frequency surgical instrument, RF shielded room for magnetic resonance). Users or customers must use bed in this environment. Bed is device that suitable to used in hospital due to emission characteristics. If it used in housing environment, the equipment may not provide adequate protection againsts wireless radio frequency transceiver. The user may need to take mitigation measures such as relocating or redirecting the device.

No.	Cable	Maximum length [m]	Remarks
1	AC power cable	4.6	Without shield
2	Handheld controller cable	1.4	Without shield

Guidance and Manufacturer's Declaration - Electromagnetic Emissions

The PA-90000 Series is intended for use in the following electromagnetic environment. The customer or user of the PA-90000 Series should make sure it is used in such an environment.

Emission test	Compliance	Electromagnetic Environment - Guidance
RF emissions CISPR 11/EN 55011	Group 1	The PA-90000 Series uses RF energy only for its internal functions. Therefore, its RF emissions are low and are not likely to cause any interference with nearby electronic equipment. The PA-90000 Series is suitable for use in all establishments other than domestic and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
RF emissions CISPR 11/EN 55011	Class A	
Harmonic emissions IEC 61000-3-2/EN 61000-3-2	Class A	
Voltage fluctuations/flicker emissions IEC 61000-3-3/EN 61000-3-3	Complies	

18 SPECIFICATIONS

Guidance and Manufacturer's Declaration - Electromagnetic Immunity

The PA-90000 Series is intended for use within healthcare facility environment. Users or customers must use bed in this environment.

Immunity test	IEC 60601-1-2/EN 60601-1-2 Test level	Compliance level
Static electricity discharge (ESD) IEC 61000-4-2 /EN 61000-4-2	Contact discharge: $\pm 8\text{kV}$ Air discharge: $\pm 2\text{kV}$, $\pm 4\text{kV}$, $\pm 8\text{kV}$, $\pm 15\text{kV}$	Contact discharge: $\pm 8\text{kV}$ Air discharge: $\pm 2\text{kV}$, $\pm 4\text{kV}$, $\pm 8\text{kV}$, $\pm 15\text{kV}$
Electrical fasttransient/burst IEC 61000-4-4 /EN 61000-4-4	$\pm 2\text{kV}$ Power supply line	$\pm 2\text{kV}$ Power supply line
Surge IEC 61000-4-5 /EN 61000-4-5	Line - line: $\pm 0.5\text{kV}$, $\pm 1.0\text{kV}$ Line - ground: $\pm 0.5\text{kV}$, $\pm 1.0\text{kV}$, $\pm 2.0\text{kV}$	Line - line: $\pm 0.5\text{kV}$, $\pm 1.0\text{kV}$ Line - ground: $\pm 0.5\text{kV}$, $\pm 1.0\text{kV}$, $\pm 2.0\text{kV}$
Power Frequency Magnetic Fields IEC 61000-4-8 /EN 61000-4-8	30 A/m	30 A/m
Voltage Dips IEC 61000-4-11 /EN 61000-4-11	0% UT: 0.5 cycles Phase: 0° , 45° , 90° , 135° , 180° , 225° , 270° , 315°	0% UT: 0.5 cycles Phase: 0° , 45° , 90° , 135° , 180° , 225° , 270° , 315°
	0% UT: 1 cycle 70% UT: 25/30 cycles Single phase: 0°	0% UT: 1 cycle 70% UT: 25/30 cycles Single phase: 0°
Short interruptions IEC 61000-4-11 /EN 61000-4-11	0% UT: 250/300 cycles	0% UT: 250/300 cycles

Note: UT is the AC power voltage before applying the test level.

Guidance and Manufacturer's Declaration - Electromagnetic Immunity

The PA-90000 Series is intended for use in an electromagnetic environment that used wireless RF transceiver. Electromagnetic interference can be prevented by maintaining the minimum distance between RF transceiver and PA-90000 series depend on the maximum output and frequency of the communication device as recommended below.

Immunity test	IEC 60601-1-2 /EN 60601-1-2 Test level	Compliance level (V/m)	Band (MHz)	Service	Modulation	Maximum power (W)	Distance (m)
Enclosure port to RF wireless communications equipment IEC 61000-4-3 /EN 61000-4-3	27V/m 385MHz	27	380-390	TETRA 400	Pulse modulation 18Hz	1.8	0.3
	28V/m 450MHz	28	430-470	GMRS 460, FRS 460	FM±5kHz deviation 1kHz sine	2	0.3
	9V/m 710MHz	9	704-787	LTE Band 13, 17	Pulse modulation 217Hz	0.2	0.3
	9V/m 745MHz						
	9V/m 780MHz						
	28V/m 810MHz	28	800-960	GSM 800/900, TETRA 800, iDen 820, CDMA 850, LTE Band 5	Pulse modulation 18Hz	2	0.3
	28V/m 870MHz						
	28V/m 930MHz						
	28V/m 1720MHz	28	1700-1990	GSM 1800; CDMA 1900; GSM 1900; DECT; LTE Band 1, 3, 4, 25; UMTS	Pulse modulation 217Hz	2	0.3
	28V/m 1845MHz						
	28V/m 1970MHz						
	28V/m 2450MHz	28	2400-2570	Bluetooth, WLAN 802.11 b/g/n RFID 2450, LTE Band 7	Pulse modulation 217Hz	2	0.3
	9V/m 5240MHz	9	5100-5800	WLAN 802.11 a/n	Pulse modulation 217Hz	0.2	0.3
	9V/m 5500MHz						
	9V/m 5785MHz						

Guidance and Manufacturer's Declaration - Electromagnetic Immunity

The PA-90000 Series is intended for use in the following electromagnetic environment. The customer or user of the PA-90000 Series should make sure it is used in such an environment.

Immunity test	IEC 60601-1-2 /EN 60601-1-2 Test level	Compliance level	Electromagnetic Environment - Guidance
Conducted disturbance induced by RF fields IEC 61000-4-6 /EN 61000-4-6	3V 0.15MHz-80MHz	3V 0.15MHz-80MHz	Field intensity from the fixed RF transmitter determined by a field investigation of the magnetic field must be lower than the compliance level of the respective frequency band. Near devices with the following symbol, interference could occur.
	6V in ISM bands between 0.15MHz-80MHz 80%AM at 1kHz 80% AM at1kHz	6V in ISM bands between 0.15MHz-80MHz 80%AM at 1kHz 80% AM at1kHz	
Radioactive RF electromagnetic field IEC 61000-4-3 /EN 61000-4-3	3V/m 80MHz-2.7GHz 80% AM at 1kHz	3V/m 80MHz-2.7GHz 80% AM at 1kHz	



a. The intensity of a magnetic field from fixed transmitters such as a radio (mobile/radio) telephone base station, land mobile radio, amateur radio, AM and FM radio broadcasting, and TV broadcasting cannot be theoretically predicted accurately. To determine the electromagnetic environment for a fixed RF transmitter, consider investigating the electromagnetic field in the location where the bed is used. If the intensity of the magnetic field in the location where the PA-90000 Series is used exceeds the above RF compliance level, make sure to monitor if the PA-90000 Series operates appropriately. If abnormal movement is found, take additional measures as needed, such as changing the direction or position of the PA-90000 Series.

b. These guidelines are not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.

1. When requesting repairs

First check the items described in “16. TROUBLESHOOTING” (p. 40) in this instruction manual. If the problem persists, disconnect the bed power plug from the power outlet and contact Paramount Bed or your distributor.

- Details necessary when requesting repair
 - Product name, model number
 - Product ID label number (see p.40)
 - Date of purchase
 - Details of fault or problem (please provide as much detail as possible)
 - Your name, organization, address, and phone number

- Consumable parts
 - Casters, handheld controller are consumable parts.



2. Minimum stock availability period

Paramount Bed keeps replacement parts (necessary to maintain bed performance) in stock for at least 8 years after the discontinuation of production.

3. Questions regarding after-sales service

For any queries, please feel free to contact Paramount Bed or your distributor.
 Website: <https://www.paramount.co.jp/english/>



Location in Japan (Manufacturer)	Location in Indonesia (Manufacturing premises)
 Paramount Bed Co., Ltd. 14-2-14 Honcho, Higashisuna, Koto-ku, Tokyo, 136-8670, Japan TEL : +81-(0)3-3648-2961 FAX : +81-(0)3-3648-5781 <small>● Date of Manufacture</small>	 PT. Paramount Bed Indonesia MM2100 INDUSTRIAL TOWN, BLOCK M-1-1, GANDAMEKAR, CIKARANG BARAT, BEKASI 17530 JAWA BARAT, INDONESIA TEL : +62-(0)21-8981051 FAX : +62-(0)21-89981611

● Authorised representative
in the european community



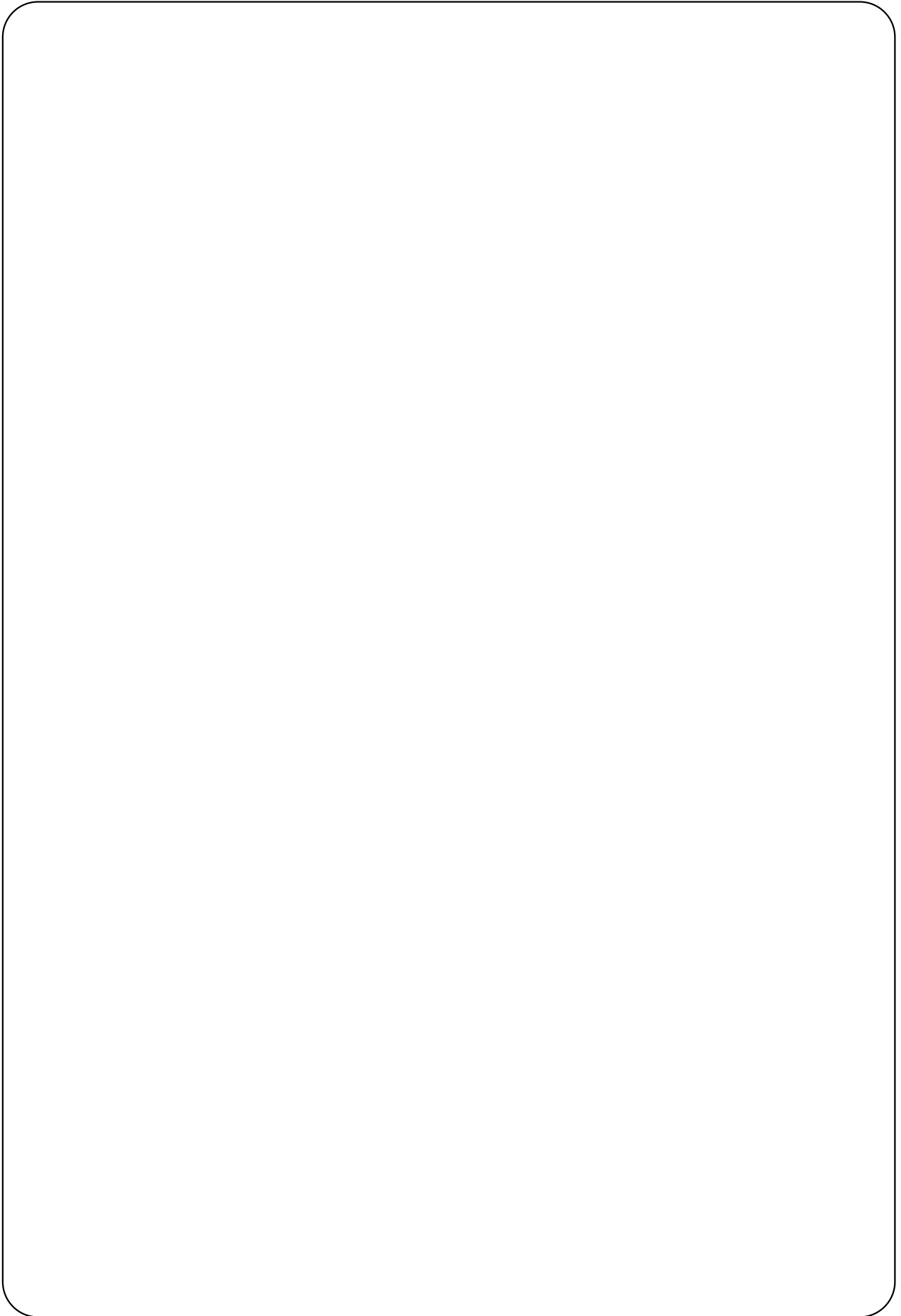
EMERGO EUROPE
 Westervoortsedijk 60,
 6827 AT Arnhem
 The Netherlands



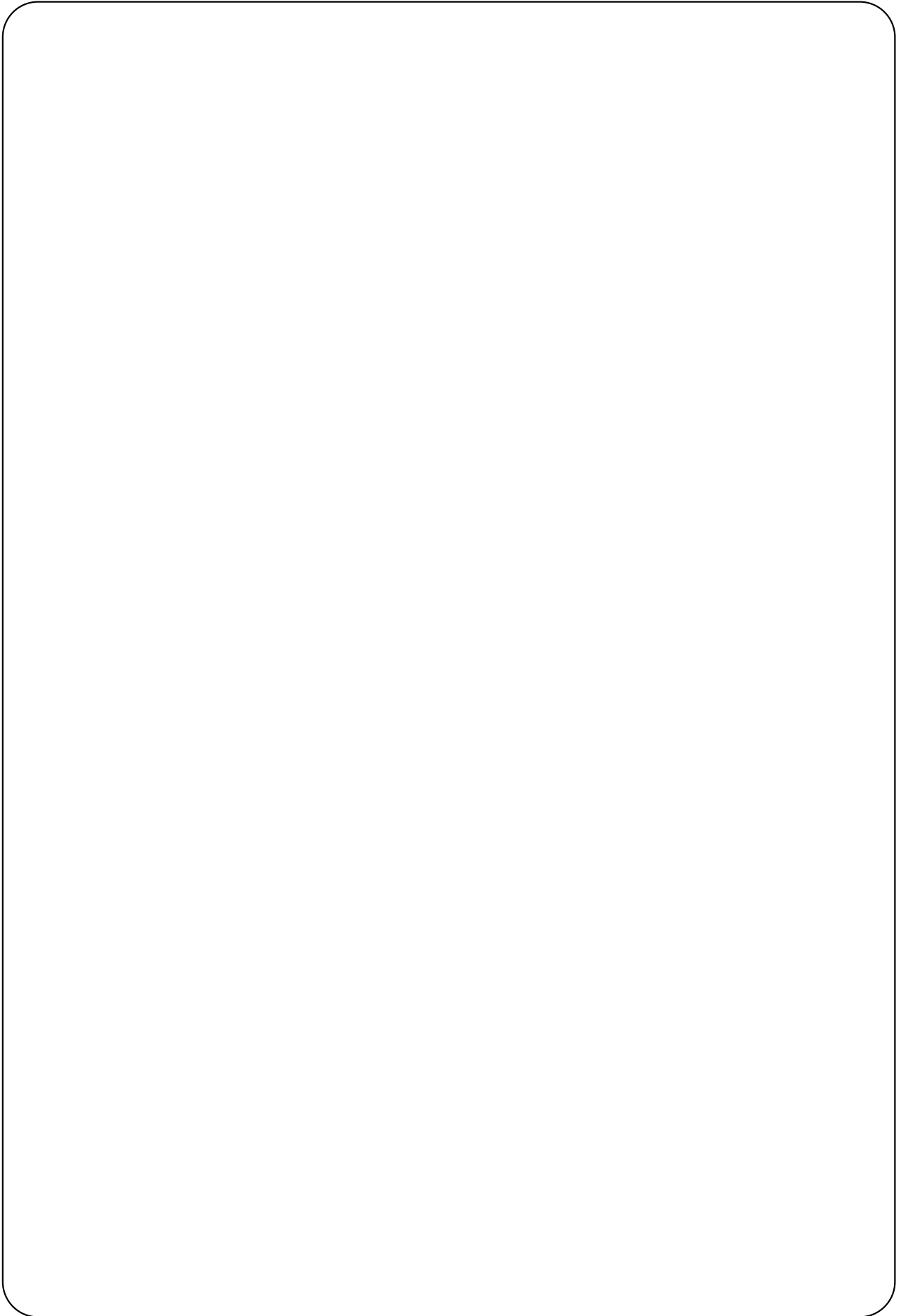
The SIAA mark is displayed on products for which quality management and information have been published in the guidelines of Society of International sustaining growth for Antimicrobial Articles based on results evaluated according to the ISO22196 method.

Inorganic antimicrobial agent/kneading: Head board, foot board.
 JP0122394A0002Y

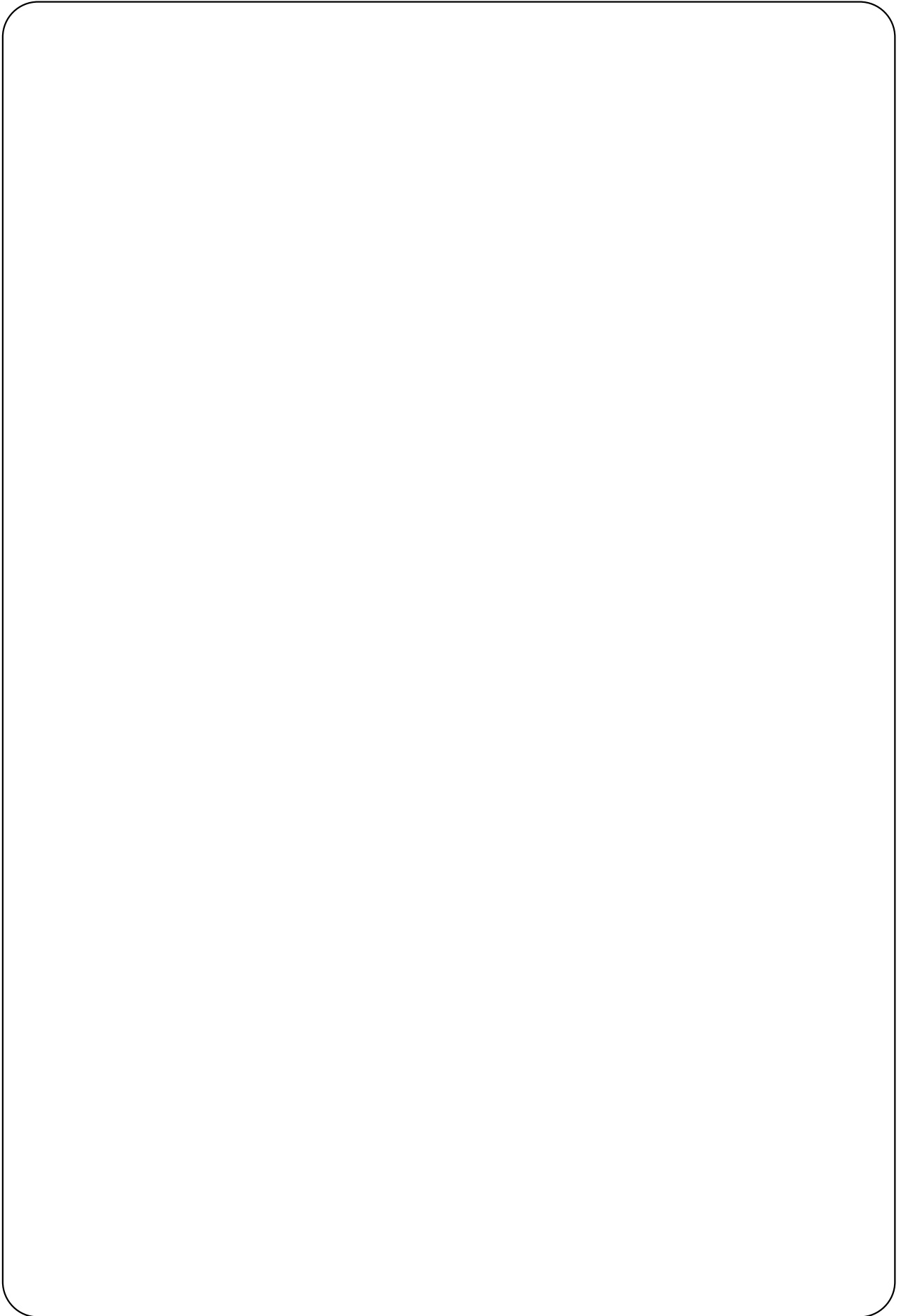
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NOTES



NOTES



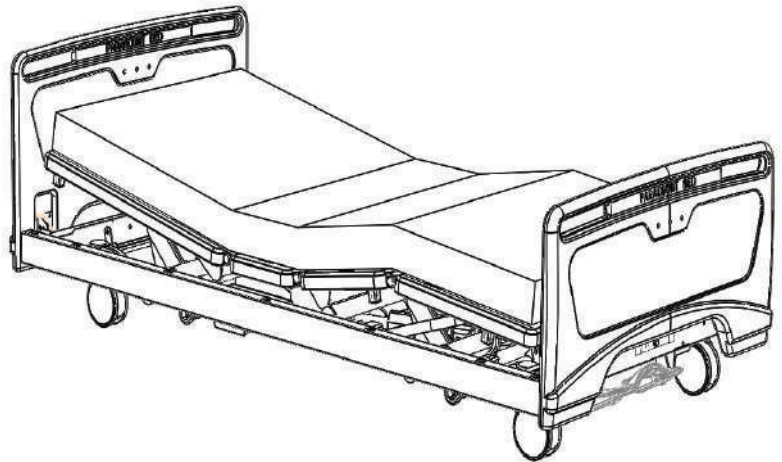
 PARAMOUNT BED



INSTRUCTION MANUAL

7A10625900A7

PA-90000 Series Bed



Preface

Thank you for purchasing the **PA-90000 Series Bed**.

This instruction manual describes precautions and how to safely use and operate the bed.

- Before using this bed, please read this instruction manual to fully understand the safe and proper operating procedures.
- The correct operating procedures should be explained not only to the persons using the bed but also to caregivers.
- After reading this instruction manual, store it where it can be easily accessed for later reference.
- Users and/or carers are requested to report information about any serious incident related to this bed that occurs within the EU to the manufacturer and the regulating authority of the member country of residence. 'Serious incident' means any incident that directly or indirectly led, might have led or might lead to any of the following:
 - a) The death of a user, carer or other person.
 - b) The temporary or permanent serious deterioration of a user's, carer's or other person's state of health.
 - c) A serious public health threat.
- The actual product purchased may differ from detailed descriptions given in this instruction manual due to product improvements.
- Value in the specification such as working range, dimensions, angles and mass are subject to normal manufacturing tolerances. Besides some exemptions, display purpose words such as "approximately", "about" etc. are omitted.
- For any queries, please feel free to contact your distributor directly.

PARAMOUNT BED CO, LTD.

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1 INTENDED USE / PART NAMES

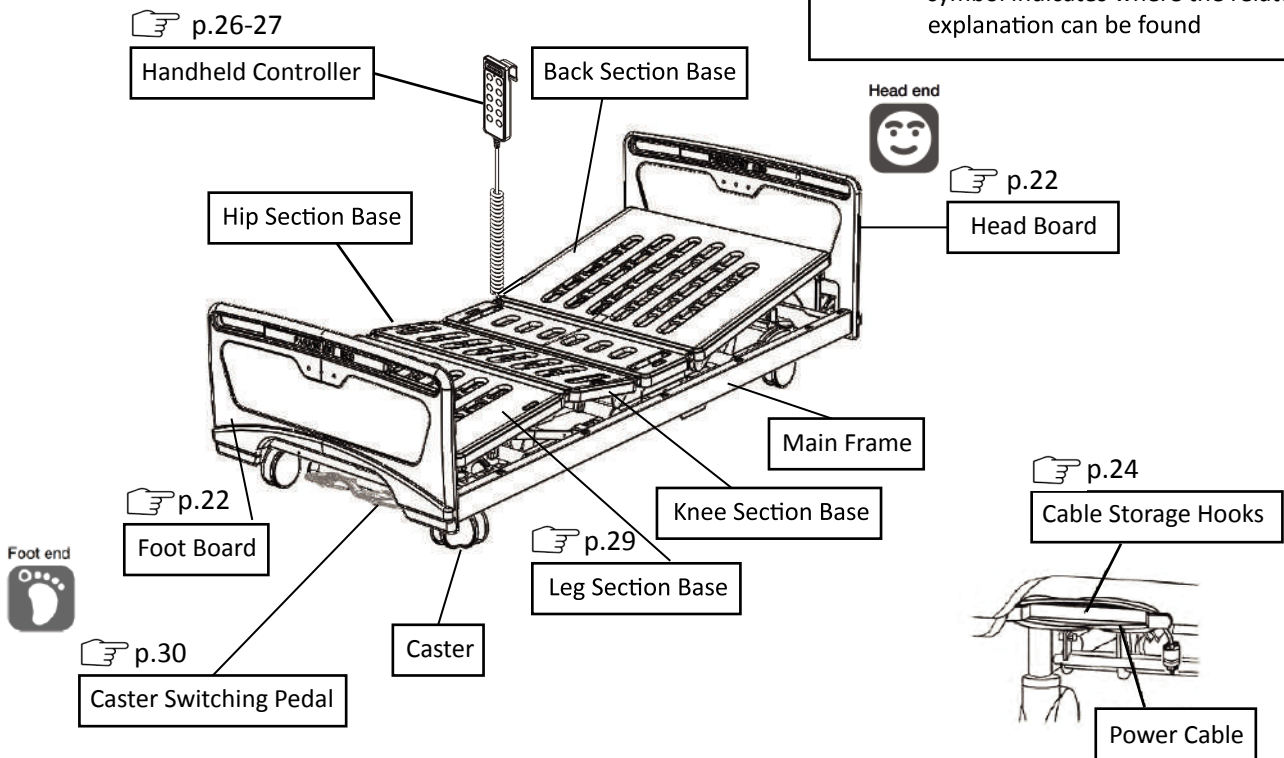
1. INTENDED USE

- This bed is designed to be used for patient care in medical institutions and elderly care facilities.
- ※ Please refer to the 「SPECIFICATION」 for the patient target groups and the intended users.
- Note : Application environment 1 and 2 in IEC 60601-2-52:2009

2. PART NAMES

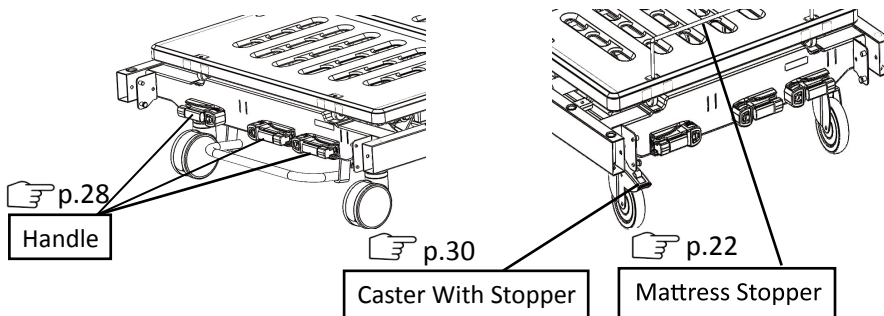
【PA-90000】

● Bed with The Central Locking System

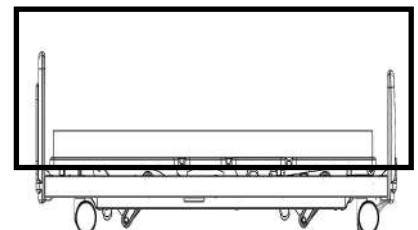


● 3-Crank Manual Hospital Bed (When the foot board is off)


● Bed with Caster with a stopper (Applied part) (When the foot board is off)



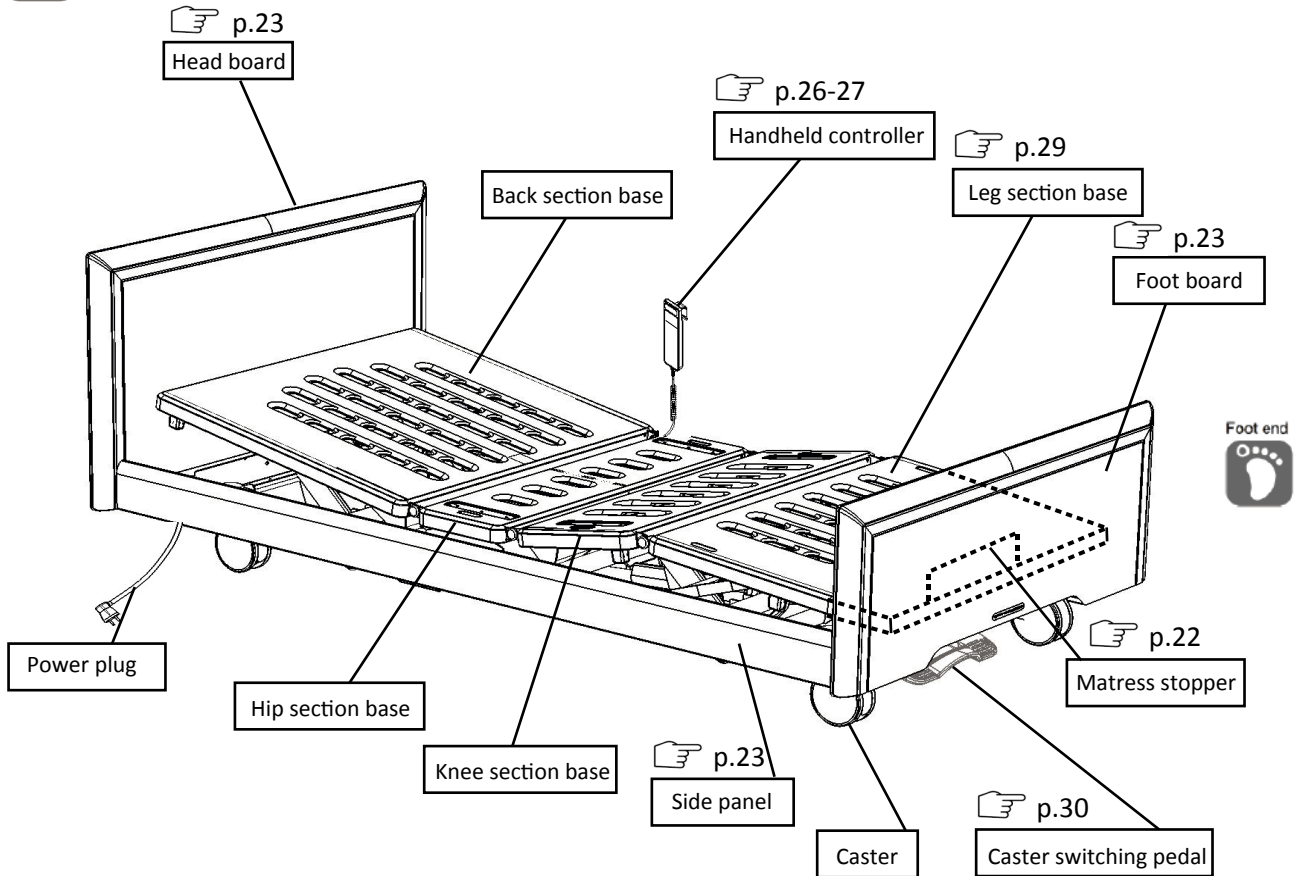
Part of ME EQUIPMENT that in normal use necessarily comes into physical contact with the patient for ME EQUIPMENT to perform its function.



【PA-90000VIP】

 The page number shown next to this symbol indicates where the related explanation can be found

Head end





2 SAFETY PRECAUTIONS

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

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

Precautions are classified as “WARNING”, “CAUTION” to indicate the degree of hazard or injury that may result from improper use. **Both are important safety precautions that must be strictly observed.** Details of the pictograms used are shown below. Be sure to fully understand these precautions before reading the instruction manual.

 WARNING	Indicates actions that may result in death or serious injury (broken bones, pressure or paralysis) if the indication is ignored.
 CAUTION	Indicates actions that may result in light personal injury (bruises, wounds, or cuts) or property damage if the indication is ignored.

[Example pictograms]



Electric shock



This symbol indicates warning or cautionary details. Specifics details are indicated inside the symbol. (The symbol on the left indicates “Caution: Electric shock.”)



Do not disassemble

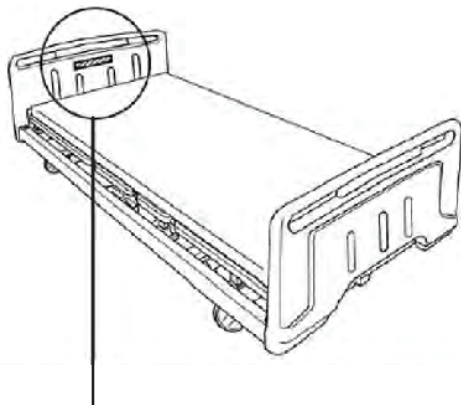


This symbol indicates actions that are prohibited. Specific details are indicated inside or below the symbol. (The symbol on the left indicates “Do not disassemble.”)

This symbol indicates instructions or actions that are mandatory. Specific details are indicated inside the symbol. (The symbol on the left indicates “Unplug the power plug.”)

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

[Safety label]



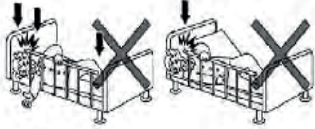
- Precautions requiring special attention by persons using the bed are affixed to the foot-end frame. Do not remove or dedace the label.
- If the safety label is removed or defaced, replace with a new one obtained from your distributor.



2 SAFETY PRECAUTIONS

WARNING

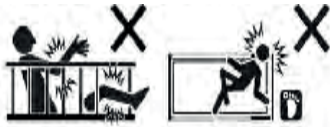
- Do not put any body part (especially the head or neck) between a fold-down side rail or board and the raised base (↓).



- When the head or neck enters the gap, the patient and/or user might not be able to withdraw, and there is a risk of injury.
- Due attention should be paid to patients who cannot maintain posture by themselves.

- Even when side rails are used, pay attention to prevent patients from falling off the bed.
 - A patient may fall off the bed through the gap between a board and fold-down side rail and get injured.
 - If a patient bends forward over a fold-down side rail, they may fall off the bed and get injured.

- Do not extend the head, hands, or feet outside of the bed.



- If the bed is operated with a body part (especially head or neck) placed in the gap, the part may get caught and injured

- Do not put any body part (especially the head or neck) between a fold-down side rails and the base or mattress.
 - When the head or neck enters the gap, the patient might not be able to withdraw, and there is a risk of injury.
 - A hand or finger may get caught in the gap, resulting in an injury.

- Do not insert a head (fingers) and between the bed's frame and section base during powered operation.



- The body part may get caught between the lowered base and the bed's frame or board and get injured.

- Lock the casters at all times except when moving the bed.



- The patient may be injured getting on or off the bed should it move.
- Unlock the casters when moving the bed.

- Before a patient gets on or off the bed, push down the safety stoppers of the side rail and completely fold down the side rail.



- The patient leg's could be caught by the side rail, causing the patient to fall off the bed or the patient's fingers could be caught between the supportive bars, causing injury.

- When using IV hanger rod, pay attention to prevent tubes from getting caught by the side rail.



- The tubes could be squashed.

- When folding the side rails, proceed slowly.

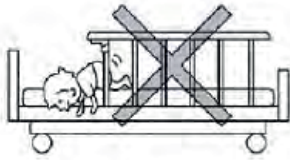


- Releasing the hands in the middle of the operation or slamming the rail down could cause injury or damage to side rail.

2 SAFETY PRECAUTIONS

WARNING

- Do not use with infants.



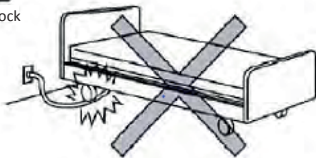
- They may fall down through the space of a fold-down side rail.

- Do not allow dust to accumulate on the power plug.



- When dust adheres to the surface of the power plug, the moisture it holds will allow a current to flow, there will be a worsening of the insulation condition, and a risk of fire.
- Wipe away any dust accumulating on the power plug pins and mating surfaces using a dry cloth.

- Do not damage cables (including the power cable).



- Damage to cables may cause electric shock or a fire.
 - Prevent cables from getting caught by the bed's movable parts.
 - Do not put heavy objects on cables or apply strong force
 - Do not place the bed on cables.
- Request repair (or replacement) for damaged cables.

- Do not trip over the power cable or cables of the handheld controller.

- Damaged plug or cable may induce electric leakage, and in turn, electric shock.
- There is a risk of falling down and getting injured.

- Do not run cables (including the power cable) of the bed or other electric appliances under the bed.

- The cables may get caught in a caster or movable part and damaged, causing a fire or electric shock.

- When adjusting the base angle or the bed height, pay attention to the patient's conditions.

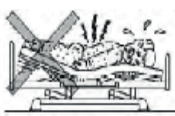
- If a patient on the bed moves when adjusting the base angle, they may fall from the bed and get injured.
- Perform the adjustment while supporting the patient who cannot maintain posture by themselves. If you cannot watch the patient, flatten the base angle and lower the bed to the lowest position. If not, the patient may fall off the bed or get caught in a space of a fold-down side rail or board and get injured.

WARNING

- Do not allow operation of the bed by a child aged 12 or under, or someone deemed incapable of comprehending the operation.
 - When a child aged 12 or under, or someone deemed incapable of comprehending the operation (such as someone having a cognitive illness) operates the handheld controller by themselves, there is a risk of unexpected injury such as the body becoming caught in the bed by mistake.
 - If there is a risk of such person touching the handheld controller, disconnect the power plug in order to prevent an accident caused by incorrect operation.
 - When a child aged 12 or under, or someone deemed incapable of comprehending the operation (such as someone having a cognitive illness) operates the handheld controller by themselves, there is a risk of unexpected injury caused by getting caught in the bed by mistake. (3-crank gatch bed only)
- When transporting a patient, attach the fold-down side rails.
 - There is a risk that the patient could fall from the bed and become injured.
 - Do not move the bed with holding the fold-down side rails. The side rails may get damaged or deformed.

- Use the bed in the proper orientation.

Head end



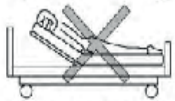
Foot end



- Lying down on the bed with incorrect orientation of head end and foot end will result in an unnatural posture when the bed position is adjusted and this may cause injury.

- Do not perform an angle adjustment when the patient is lying face down.

Head end



Foot end



- Bending the joints in the wrong direction may result in injury.

- Do not stand up on the bed.



- There is a risk of injury due to falling or toppling from the bed.

- Do not go under the bed or put your head, hand, or foot under the bed.



- You may get caught between the bed's movable part and the frame or fold-down side rail, resulting in injury. Prior to operating the bed, make sure that there is no obstacles around the bed.

2 SAFETY PRECAUTIONS

WARNING

- Do not insert the power plug with wet hands.



Electric shock

- There is a risk of electric shock due to short-circuiting.

- Do not spill liquids on the bed.

- Do not spill liquids on the bed's electrical components, such as the motors, handheld controller, or nurse control panel, otherwise, there is a risk of malfunction. If liquids are accidentally spilt, unplug the power plug from the power outlet and contact your dealer.

- Do not use a mobile phone or other wireless device in the vicinity of the bed.

- This may cause a malfunction of the bed.

- Repair or modification is not to be performed by the customer.



Do not disassemble

- There is a risk of abnormal operation and resulting injury.

- Always unplug the power plug when using electronic medical equipment.



Unplug

- Using electronic equipment (e.g. microwave or high-frequency medical equipment) at the same time may cause the bed to malfunction.
- When the bed will be used in conjunction with other medical equipment, check the safety considerations before use.

- Do not attach a restraint belt to the main frame or side rails.

Operation in position such as with the back raised or the knee raised may squeeze the body and cause injury.

- Use the bed properly according to the patient's medical condition.

Improper use of the bed may adversely affect the patient's medical condition.

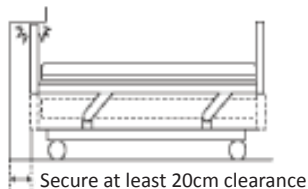
Before the patient or a family member operates the bed, make sure that the doctor or nurses explain related details given in the instruction manual and proper usage to suit the patient's medical condition.

- When leaving the bed, lower the bed to the minimum height.

If a doctor, nurse, or attendant leaves the bed, lower the bed as much as possible according to the patient's conditions because there is a slight chance that the patient may fall off the bed.

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 using the bed, make sure that the bed does not hit the wall beam, or power plug during the adjustment of the height or inclination angle. Make sure that there is at least 20 cm clearance from the wall or beam.

- Do not sit on a fold-down side rail, head board, or foot board.



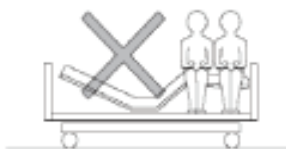
- The patient may topple or fall from the bed, or the bed could be damaged or deformed and result in injury.

- Do not climb on the bed in the raised position.



- The patient may topple or fall from the bed, or the bed could be damaged or deformed and result in injury.

- The bed should not be used by two or more persons.



- This bed is designed for use by one person. When used by two or more persons, the bed could be damaged and result in an injury. The maximum weight the bed can bear is 204 kg for the bed with the expansion function and 138 kg for the bed without the expansion function. If a doctor or nurse needs to get on the bed for a short time. Confirm the following condition beforehand.
 - The load to be applied to the bed is less than the maximum weight that the bed can bear.
 - Bed with the expansion function :204 Kg
 - Bed without the expansion function :138 Kg
 - The base has been lowered and is flat.
- If a doctor or nurse often gets on the bed, make sure to have the bed periodically inspected

2 SAFETY PRECAUTIONS

CAUTION

■ Keep away from heaters.

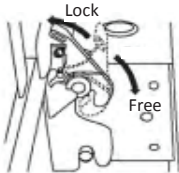


- Do not use heaters near the bed. Otherwise, the bed may be damaged or deformed, or even catch fire.

■ Check around the bed before operating the bed.

- A position operation could damage items located around the bed, or could cause the bed to be damaged or deformed.

■ Be sure to use the stopper for the headboard and footboard.



- If the board is not mounted properly, the board may suddenly come off when a staff pushes (pulls) the board to move the bed or a patient grabs the board to support their body, resulting in an injury. (see p.19)

■ The angle of the leg section base should be adjusted by two or more persons.



- If the adjustment is done only by one person, their hand may get caught between the leg section base and main frame, resulting in injury. (see p.26)

■ When moving the bed, watch your step.

- You may hit your leg against the caster switching pedal or caster operating step or your foot may get caught by a caster, resulting in an injury.

■ Avoid moving over uneven floors.



- It may result in a damaged or deformed bed or failure. If it is necessary, move the bed as slowly as possible.

■ When operating the side rail releasing lever, pay attention not to allow the hands or fingers to get caught.



- There is a risk of injury as a result of being caught by the rotation parts of locking parts.

2 SAFETY PRECAUTIONS

CAUTION

■ Hold the power plug body when unplugging.



- When holding onto only the power cable and pulling it to disconnect the plug from outlet, the cable could be damaged and there is a risk of electrical shock.

■ Always unplug the bed before cleaning.



- There is a risk of injury due to a malfunction, or electrical shock due to a short circuit.

■ Do not damage the handheld controller.



- There is a risk of electric shock or malfunction due to short circuit.
- When the handheld controller is damaged, request a repair (or replacement).

■ Prevent patients from slipping off the bed.

- When the back is raised or incline, the bed is set to the cardiac position, or a patient sits on the edge of the bed to get on or off, the patient may slip off the bed and get injured. The attendant should support the patient's body to prevent them for slipping off the mattress.

■ Do not combine the bed with products other than the suitable products specified by Paramount Bed.

- For optional items directly monted on the bed such as fold-down side rails and mattress, use suitable products that are specified by Paramount Bed. Using other product may create unwanted gaps, cause interference between products, or lower the product safety which may lead to an injury or bed failure.

2 SAFETY PRECAUTIONS

CAUTION

- **Do not spray a spray tip of insecticide directly on the bed.**
 - Otherwise, there is a risk that the solvents contained in the insecticide could damage, discolor, or dissolve the bed casters or other resin parts. Pay due attention to this; otherwise, there is a risk of unexpected injury due to damaged or dissolved parts.

- **Inspect the bed regularly.**
 - Depending on the frequency of use and the environment, the product will exhibit wear and deterioration. Regularly inspect for parts looseness, the operation of movable parts, and the presence of damage.

- **Beds damaged in accidents must be inspected and repair bed before reuse.**
 - Beds damaged in earthquakes, fires, or floods, must be inspected and repaired by your dealer. Damaged electrically-operated bed may cause electric shock or fire due to a short circuit of electrical parts or an injury due to abnormal operation induced by deformation.

3 SPECIFICATIONS

Family Name		PA-90000 Series					
Product Name		Electric Hospital Bed					
Model No. (*1)		PA-93485	PA-93385	PA-93275	PA-93175	PA-93295	PA-93195
Quantity of Motors		3 Motors					
Operation Procedure	Auto Contour	Motorized					
	Back Raising	Motorized					
	Knee Raising	Motorized					
	Height Adjustment	Motorized					
Power Supply Voltage/ Frequency		AC 100-240V \pm 10%V / 50/60Hz					
Dimensions	Total Length	2,158mm					
	Total Width	1,040mm	960mm	1,040mm	960mm	1,040mm	960mm
	Mattress Base Width	910mm	830mm	910mm	830mm	910mm	830mm
	Total Height	688[+20, -10] to 1,068 [+20,-10]mm		741[+20, -10] to 1,121 [+20,-10]mm			
	Mattress Base Height (*2)	290[+20, -10] to 670 [+20,-10]mm		343[+20, -10] to 723 [+20,-10]mm			
	Casters	125mm dia. Double-wheel caster (Central locking system)		125mm dia. Single-wheel caster (Central locking system)		125mm dia. Single-wheel caster (Diagonal locking system)	
	Power Cable Length	Effective length: 2,500mm					
Product Weight		122 Kg	110 Kg	117 Kg	105 Kg	111 Kg	99 Kg
Material	Head/Foot Boards	HDPE resin molding					
	Base	Made of steel, powder coating (some parts are resin mold items)					
	Main Frame	Made of steel, powder coating (some parts are resin mold items)					
Safe Working Load (*3)		204 Kgf (2000N)					
Back Section Base Inclination Angle		0° to 70°[\pm 7]°					
Knee Section Base Inclination Angle		0° to 25°[\pm 2.5]°					
Height Adjustment Range		380mm					
Operation Guarantee Conditions	Temperature	5 to 40°C					
	Humidity	20 to 90%RH					
Actuator Type		Linear actuator (DC motor)					
Power Consumption	Back-Raising	170VA max.					
	Knee-Raising	170VA max.					
	Height Adjustment	285VA max.					
Duty cycle		2min. (stop time: 18min (*4))					
Service life		8 years (based on Paramount Bed data), excluding consumable items such as caster					

*1) The mattress base height indicates the height from the floor to the mattress base surface.

*2) Safe working load: Maximum load with which the bed can be operated. (The total load of user's weight and incidental items including the mattress and suitable product).

*3) Time to protect electrical parts from overheating when the bed is used continuously for duty cycle (2min).

3 SPECIFICATIONS

Family Name		PA-90000 Series					
Product Name		Manual Hospital Bed					
Model No. (*1)		PA-99285	PA-99185	PA-99275	PA-99175	PA-99295	PA-99195
Operation Procedure	Back Raising	Manual					
	Knee Raising	Manual					
	Height Adjustment	Manual					
Dimensions	Total Length	2,158mm					
	Total Width	1,040mm	960mm	1,040mm	960mm	1,040mm	960mm
	Mattress Base Width	910mm	830mm	910mm	830mm	910mm	830mm
	Total Height	728[+20, -10] to 1,108 [+20,-10]mm		741[+20, -10] to 1,121 [+20,-10]mm			
	Mattress Base Height (*2)	330[+20, -10] to 710 [+20,-10]mm		343[+20, -10] to 723 [+20,-10]mm			
	Casters	125mm dia. Double-wheel caster (Central locking system)		125mm dia. Single-wheel caster (Central locking system)		125mm dia. Single-wheel caster (Diagonal locking system)	
Product Weight		117 Kg	105 Kg	117 Kg	105 Kg	111 Kg	99 Kg
Material	Head/Foot Boards	HDPE resin molding					
	Base	Made of steel, powder coating (some parts are resin mold items)					
	Main Frame	Made of steel, powder coating (some parts are resin mold items)					
Safe Working Load (*3)		204 Kgf (2000N)					
Back Section Base Inclination Angle		0° to 75°[±7.5]°					
Knee Section Base Inclination Angle		0° to 45°[±4.5]°					
Height Adjustment Range		380mm					
Operation Guarantee Conditions	Temperature	5 to 40°C					
	Humidity	20 to 90%RH					
Service life		8 years (based on Paramount Bed data), excluding consumable items such as caster					

*1) The mattress base height indicates the height from the floor to the mattress base surface.

*2) Safe working load: Maximum load with which the bed can be operated. (The total load of user's weight and incidental items including the mattress and suitable product).

3 SPECIFICATIONS

Family Name		PA-90000 Series
Product Name		Electric Hospital Bed
Model No.		PA-93485V
Quantity of Motors		3 Motors
Operation Procedure	Auto Contour	Motorized
	Back Raising	Motorized
	Knee Raising	Motorized
	Height Adjustment	Motorized
Power Supply Voltage/ Frequency		AC 100-240V \pm 10%V / 50/60Hz
Dimensions	Total Length	2,134mm
	Total Width	1,160mm
	Mattress Base Width	910mm
	Total Height	761[+20, -10] to 1,141 [+20,-10]mm
	Mattress Base Height (*1)	290[+20, -10] to 670 [+20,-10]mm
	Casters	125mm dia. Double-wheel caster (Central locking system)
	Power Cable Length	Effective length: 2,500mm
Product Weight		145 Kg
Material	Head/Foot Boards	Wood
	Side panel	Wood
	Base	Made of steel, powder coating (some parts are resin mold items)
	Main Frame	Made of steel, powder coating (some parts are resin mold items)
Safe Working Load (*2)		204 Kgf (2000N)
Back Section Base Inclination Angle		0° to 75°[\pm 7.5]°
Knee Section Base Inclination Angle		0° to 45°[+4.5]°
Height Adjustment Range		380mm
Operation Guarantee Conditions	Temperature	5 to 40°C
	Humidity	20 to 90%RH
Actuator Type		Linear actuator (DC motor)
Power Consumption	Back-Raising	170VA max.
	Knee-Raising	170VA max.
	Height Adjustment	285VA max.
Duty cycle		2min. (stop time: 18min (*3))
Service life		8 years (based on Paramount Bed data), excluding consumable items such as caster

*1) The mattress base height indicates the height from the floor to the mattress base surface.

*2) Safe working load: Maximum load with which the bed can be operated. (The total load of user's weight and incidental items including the mattress and suitable product).

*3) Time to protect electrical parts from overheating when the bed is used continuously for duty cycle (2min).

3 SPECIFICATIONS

Environmental conditions	Range	
	When transported or stored	When in use
Temperature	-10 to 50°C	5 to 40°C
Humidity	20 to 90%RH	20 to 90%RH
Air pressure	700 to 1,060hPa	700 to 1,060hPa

Patient target groups	User weight (min-max)	40kg to 138kg
	Minimum user height	146cm
	Minimum user body mass index (BMI)	17
	Supported age range	13 years of age or older *Do not use the bed for children (aged 12 or under) or patient weighing more than 138kg
Intended users	Health care workers, patients, relative of patient, and maintenance staff	
Clinical benefit	Patient comfort Quality patient care and efficient care provision	

- Essential performance

Function to support the body of patient, Emergency CPR (back lower) function.

- Frequently used functions

Back-raising, knee-raising, height adjustment, side rail raising and lowering operation.

- Classification and Standards

The electrical hospital bed is designed and manufactured according to the following equipment classification and standards.

- Classification as medical device in Europe : Class 1
- Safety standards applied : IEC 60601-1:2005, COR1:2006, COR2:2007
AMD1:2012 (or IEC 60601-1:2012 reprint)
- : IEC 60601-1-2:2014
- : IEC 60601-2-52:2009+AMD1:2015 for use with IEC 60601-1:2005
- : EN 60601-1:2006+A12:2014
- : EN 60601-1-2:2015
- : EN 60601-2-52:2010+A1:2015
- Electric shock protection : Class 1, Type B

※ Equipment not suitable for use in the presence of a flammable anaesthetic mixture.

For the PA-90000 series, special attention is required to EMC-related safety.

Install, operate and use bed in accordance with the following information.

Bed is intended for use in the electromagnetic environment specified by “electromagnetic disturbance” of bed.

The following abnormality may occur if using bed in unintended environment.

*The function for supporting patient’s weight does not maintain.

WARNING

- If using the other specified accessories, transducers and cable as a replacement part for internal components, except for transducers and cables sold by the manufacturer of bed, there is a risk of increasing the emissions or reducing the immunity of bed.
- Use portable RF transceiver more than 30 cm away from any part of bed (including peripheral equipment such as antenna cable and external antenna). If it is used within 30 cm, the bed performance may degrade.
- Bed cannot be used with adjacent to or stacked with other equipment. If it must be used adjacent to or stacked with other equipment, make sure to monitor that it can operate properly in the location where bed is used.

Bed is intended for use in clinic, restricted medical facilities, hospital (except near high-frequency surgical instrument, RF shielded room for magnetic resonance). Users or customers must use bed in this environment.

Bed is device that suitable to used in hospital due to emission characteristics. If it used in housing environment, the equipment may not provide adequate protection againsts wireless radio frequency transceiver. The user may need to take mitigation measures such as relocating or redirecting the device.

No.	Cable	Maximum length [m]	Remarks
1	AC power cable	4.6	Without shield
2	Handheld controller cable	2.2	Without shield

Guidance and Manufacturer's Declaration - Electromagnetic Emissions

The PA-90000 Series is intended for use in the following electromagnetic environment. The customer or user of the PA-90000 Series should make sure it is used in such an environment.

Emission test	Compliance	Electromagnetic Environment - Guidance
RF emissions CISPR 11/EN 55011	Group 1	The PA-90000 Series uses RF energy only for its internal functions. Therefore, its RF emissions are low and are not likely to cause any interference with nearby electronic equipment. The PA-90000 Series is suitable for use in all establishments other than domestic and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
RF emissions CISPR 11/EN 55011	Class A	
Harmonic emissions IEC 61000-3-2/EN 61000-3-2	Class A	
Voltage fluctuations/ flicker emissions IEC 61000-3-3/EN 61000-3-3	Complies	

3 SPECIFICATIONS

Guidance and Manufacturer's Declaration - Electromagnetic Immunity

The PA-90000 Series is intended for use within healthcare facility environment. Users or customers must use bed in this environment

Immunity test	IEC 60601-1-2/EN 60601-1-2 Test level	Compliance level
Static electricity discharge (ESD) IEC 61000-4-2 /EN 61000-4-2	Contact discharge: $\pm 8\text{kV}$ Air discharge: $\pm 2\text{kV}$, $\pm 4\text{kV}$, $\pm 8\text{kV}$, $\pm 15\text{kV}$	Contact discharge: $\pm 8\text{kV}$ Air discharge: $\pm 2\text{kV}$, $\pm 4\text{kV}$, $\pm 8\text{kV}$, $\pm 15\text{kV}$
Electrical fast transient/burst IEC 61000-4-4 /EN 61000-4-4	$\pm 2\text{kV}$ Power supply line	$\pm 2\text{kV}$ Power supply line
Surge IEC 61000-4-5 /EN 61000-4-5	Line - line: $\pm 0.5\text{kV}$, $\pm 1.0\text{kV}$ Line - ground: $\pm 0.5\text{kV}$, $\pm 1.0\text{kV}$, $\pm 2.0\text{kV}$	Line - line: $\pm 0.5\text{kV}$, $\pm 1.0\text{kV}$ Line - ground: $\pm 0.5\text{kV}$, $\pm 1.0\text{kV}$, $\pm 2.0\text{kV}$
Power Frequency Magnetic Fields IEC 61000-4-8 /EN 61000-4-8	30 A/m	30 A/m
Voltage Dips IEC 61000-4-11 /EN 61000-4-11	0% UT: 0.5 cycles Phase: 0° , 45° , 90° , 135° , 180° , 225° , 270° , 315°	0% UT: 0.5 cycles Phase: 0° , 45° , 90° , 135° , 180° , 225° , 270° , 315°
	0% UT: 1 cycle 70% UT: 25/30 cycles Single phase: 0°	0% UT: 1 cycle 70% UT: 25/30 cycles Single phase: 0°
Short interruptions IEC 61000-4-11 /EN 61000-4-11	0% UT: 250/300 cycles	0% UT: 250/300 cycles

Note: UT is the AC Power voltage before applying in the test level

Guidance and Manufacturer's Declaration - Electromagnetic Immunity


The PA-90000 Series is intended for use in an electromagnetic environment that used wireless RF transceiver. Electromagnetic interference can be prevented by maintaining the minimum distance between RF transceiver and PA-90000 Series depend on the maximum output and frequency of the communication device as recommended below.

Immunity test	IEC 60601-1-2 /EN 60601-1-2 Test level	Compliance level (V/m)	Band (MHz)	Service	Modulation	Maximum power (W)	Distance (m)
Enclosure port to RF wireless communications equipment IEC 61000-4-3 /EN 61000-4-3	27V/m 385MHz	27	380-390	TETRA 400	Pulse modulation 18Hz	1.8	0.3
	28V/m 450MHz	28	430-470	GMRS 460, FRS 460	FM±5 kHz deviation 1 kHz sine	2	0.3
	9V/m 710MHz	9	704-787	LTE Band 13, 17	Pulse modulation 217Hz	0.2	0.3
	9V/m 745MHz						
	9V/m 780MHz						
	28V/m 810MHz	28	800-960	GSM 800/900, TETRA 800, iDen 820, CDMA 850 LTE Band 5	Pulse modulation 18Hz	2	0.3
	28V/m 870MHz						
	28V/m 930MHz						
	28V/m 1720MHz	28	1700-1990	GSM 1800; CDMA 1900; GSM 1900; DECT; LTE Band 1,3, 4,25; UMTS	Pulse modulation 217Hz	2	0.3
	28V/m 1845MHz						
	28V/m 1970MHz						
	28V/m 2450MHz	28	2400-2570	Bluetooth, WLAN, 802.11 b/g/n RFID 2450, LTE band 7	Pulse modulation 18Hz	2	0.3
	9V/m 5240MHz	9	5100-5800	WLAN 802.11 a/n	Pulse modulation 217Hz	0.2	0.3
	9V/m 5500MHz						
	9V/m 5785MHz						

3 SPECIFICATIONS

Guidance and Manufacturer's Declaration - Electromagnetic Immunity

The PA-90000 Series is intended for use in the following electromagnetic environment. The customer or user of the PA-90000 Series should make sure it is used in such an environment.

Immunity test	IEC 60601-1-2 /EN 60601-1-2 Test level	Compliance level	Electromagnetic Environment - Guidance
RF Conductivity IEC 61000-4-6 /EN 61000-4-6	3V 0.15MHz-80MHz	3V 0.15MHz-80MHz	Field intensity from the fixed RF transmitter determined by a field investigation of the magnetic field must be lower than the compliance level of the respective frequency band. Near devices with the following symbol, interference could occur.
	6V in ISM bands between 0.15MHz- 80MHz 80%AM at 1kHz	6V in ISM bands between 0.15MHz- 80MHz 80%AM at 1kHz	
Radioactive RF electromagnetic field IEC 61000-4-3 /EN 61000-4-3	3V/M 80MHZ-2.7GHz 80%AM at 1kHz	3V/M 80MHZ-2.7GHz 80%AM at 1kHz	

- a. The intensity of a magnetic field from fixed transmitters such as a radio (mobile/radio) telephone base station, land mobile radio, amateur radio, AM and FM radio broadcasting, and TV broadcasting cannot be theoretically predicted accurately. To determine the electromagnetic environment for a fixed RF transmitter, consider investigating the electromagnetic field in the location where the bed is used. If the intensity of the magnetic field in the location where the PA-90000 Series is used exceeds the above RF compliance level, make sure to monitor if the PA-90000 Series operates appropriately. If abnormal movement is found, take additional measures as needed, such as changing the direction or position of the PA-90000 Series.
- b. These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.

4 INSTALLING THE BED

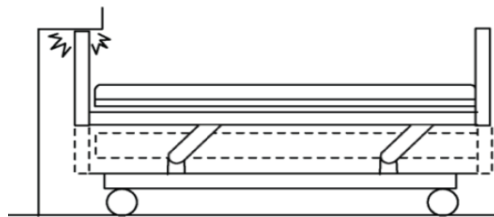
■ Installation location

To avoid possible malfunctions, avoid installing the bed in the following locations:

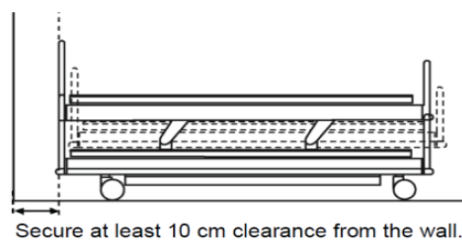
- Area exposed to direct sunlight
- Near a heat source (stove, heater, etc.)
- Area exposed to excessive water vapor content or oil vapor
- Area which is extremely hot, cold, humid, or dry
 - ※ The optimum ambient conditions for the bed are as follows:
Temperature 5 to 40°C/ Humidity 20 to 90%RH/ Atmospheric pressure 700hpa to 1060hPa.
- Area with a large amount of dust, smoke, salt, sulfur, or corrosive substances
- Area with poor ventilation
- Area with vibration or shock (including during transportation)
- Area where the floor is not strong enough
- Area where the floor is not level

⚠ CAUTION

When performing height or inclination angle adjustments, pay attention not to hit the wall, beam, or power outlet on the wall. The bed or wall may be damaged or deformed.



When setting up the bed, make sure that there is at least 10 cm clearances from the wall. The bed operations may damage objects located around the bed, or may cause the bed to be damaged or deformed.

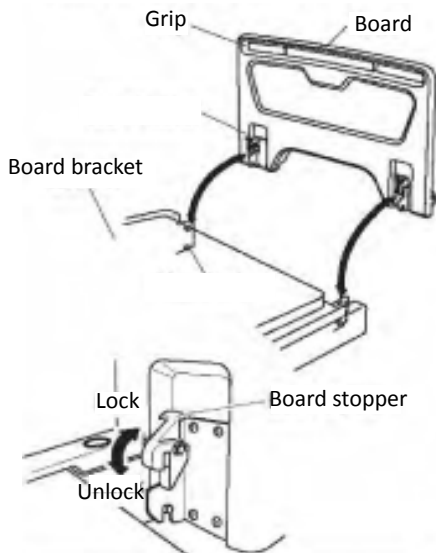


5 ASSEMBLING THE BED (PA-90000)

1. Attaching/ detaching the headboard and footboard

The head board and footboard can be attached or detached.

When washing patients hair, detach the headboard. When performing lower limb training or giving a foot bath, detach the footboard.



1 Attaching

- Grasp the grip of the headboard or footboard, lift it, and mount it so that the board bracket engage with the mounting lugs on the bed. (The board stopper is automatically locked). Lightly lift the board and make sure that it is locked.

2 Detaching

- Move the board stopper to unlock.
- Grasp the grip of the board and detach it.

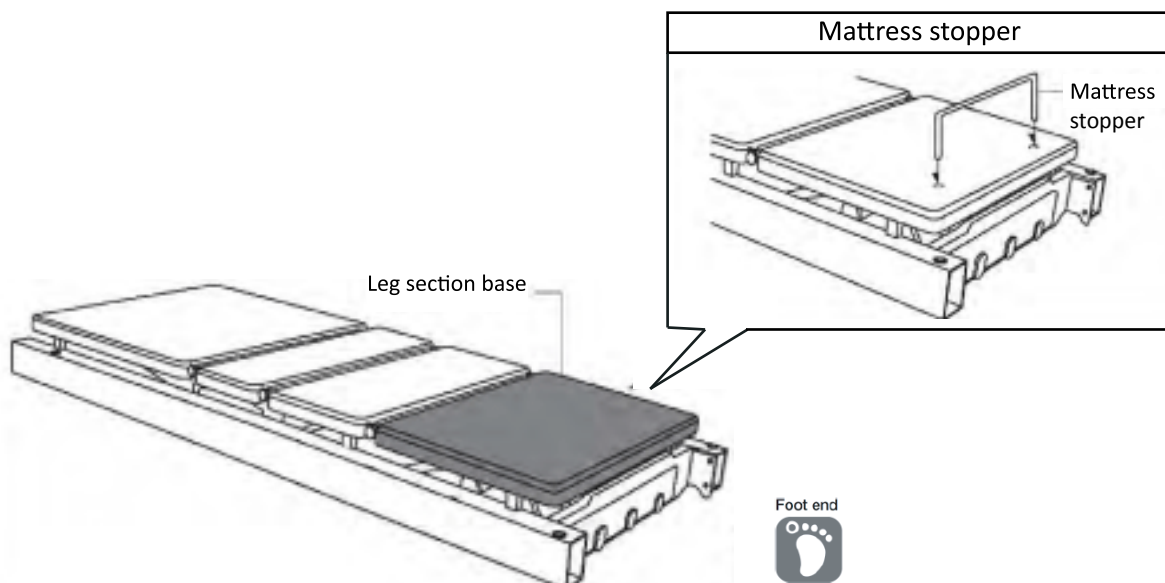


CAUTION

- When attaching the headboard or footboard, make sure that the stopper is used. Otherwise, the board may disengage when the bed is moved, causing an injury due to toppling.

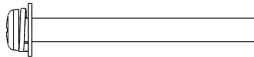



2. Attaching the mattress stopper

- Insert the mattress stopper until does not come off as shown in the figure below.

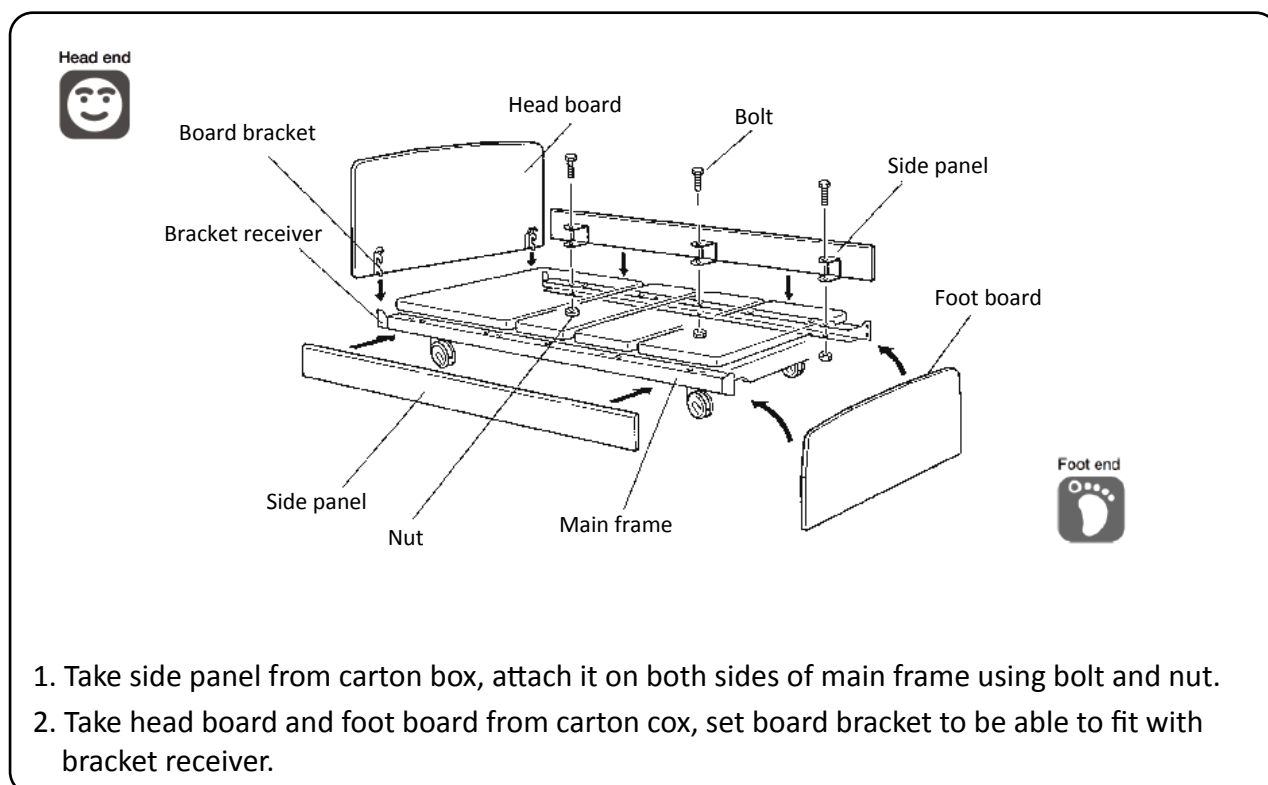


6 ASSEMBLING THE BED (PA-90000VIP)

1. Fitting component for assembly

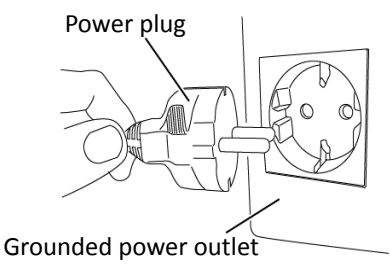
BOLT  6 pcs	NUT  6 pcs	RACHET WRENCH  13 mm	SPANNER  13 mm
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2. Head board, foot board, side panel installation



7 CONNECTING TO THE POWER SUPPLY (ELECTRIC HOSPITAL BED ONLY)

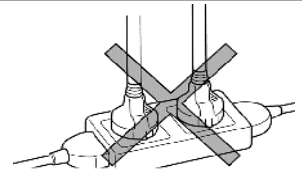
1. Power outlet



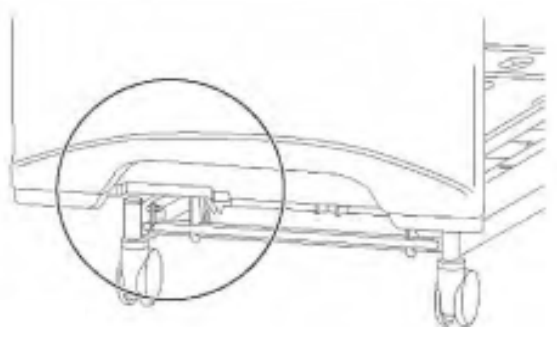
- Each bed should be plugged into a separate, appropriately wired, single-phase AC 220 V, 10 A or greater grounded power outlet using the power plug

CAUTION

- Never connect more than one cable to a power outlet



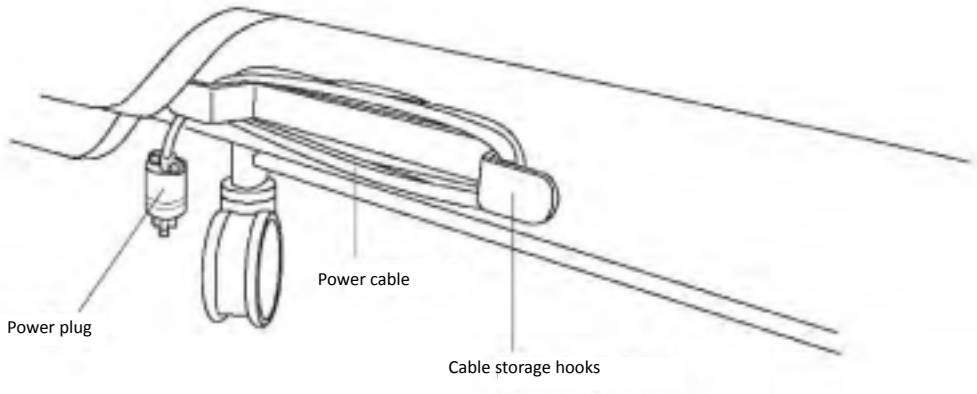
2. Using the cable storage hooks



[Using the cable storage hooks when moving the bed]

- Wind the power cable onto the cable storage hooks when moving the bed

Head end

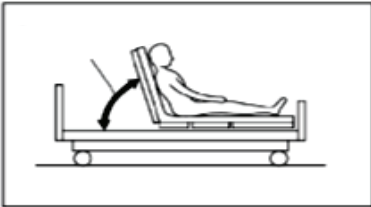


8 OPERATION OVERVIEW

Adjusting the angle of the back or knee section base and the height of the bed

- The angle of the back and knee section bases and the height of the bed can be adjusted with no increments. (For operation procedures, see p.26-28)
- The angle of the leg section base can be manually adjusted in two levels. (See p.29)

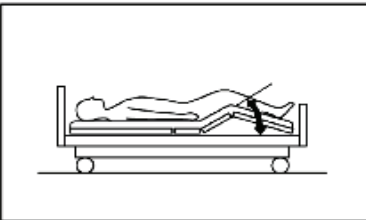
Back raise



- Electric Hospital Bed
The back section base angle can be electrically adjusted from 0° to 70°.

- Manual Hospital Bed
The back section base angle can be manually adjusted from 0° to 75°.

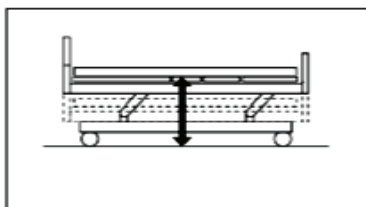
Knee raise



- Electric Hospital Bed
The knee section base angle can be electrically adjusted from 0° to 25°.

- Manual Hospital Bed
The knee section base angle can be manually adjusted from 0° to 45°.

Height adjustment



- PA-93485, PA-93385, PA-93485V
The height from the floor to the base of the bed can be electrically adjusted from 290mm to 670mm.

- PA-99285, PA-99185
The height from the floor to the base of the bed can be manually adjusted from 330mm to 710mm.

- PA-93275, PA-93175, PA-93295, PA-93195
PA-99275, PA-99175, PA-99295, PA-99195
The height from the floor to the base of the bed can be adjusted from 343mm to 723mm.

9 USING THE HANDHELD CONTROLLER (ELECTRIC HOSPITAL BED ONLY)

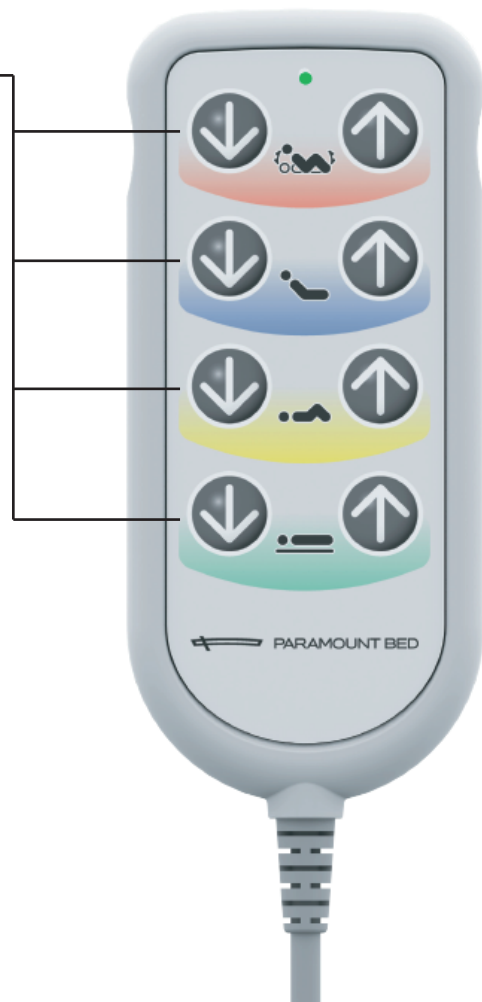
- The angle of the back and knee section bases and the height of the bed can be smoothly adjusted with no increments by using the handheld controller.

WARNING

- When a child aged 12 or under, or someone deemed incapable of comprehending the operation (such as someone having a cognitive illness) operates the handheld controller by themselves, there is a risk of unexpected injury such as the body getting caught in the bed by mistake.
- If there is a risk of such person touching the handheld controller, disconnect the power plug in order to prevent an accident caused by incorrect operation.

Operation procedure

Pressing the button adjust the bed, and releasing the button stops the adjustment, allowing you to adjust the bed to the desired position. Press two or more buttons simultaneously to stop the operation.



9 USING THE HANDHELD CONTROLLER (ELECTRIC HOSPITAL BED ONLY)

Operation buttons

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



Back and knee UP and DOWN buttons

The back and knee section base angle can be adjusted simultaneously.

Back UP and DOWN buttons

The back section base angle can be adjusted.

Knee UP and DOWN buttons

The knee section base angle can be adjusted.

Bed height UP and Down buttons

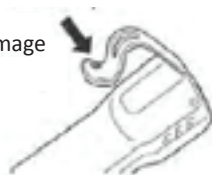
The bed height can be adjusted.



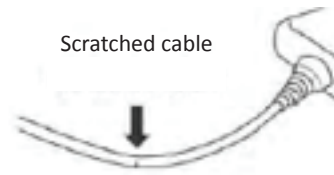
CAUTION

- Do not drop the handheld controller or pull the cable. The handheld controller may get damaged or deformed and operate incorrectly as a result. When the handheld controller is damaged, request a repair (or replacement).

Hook damage



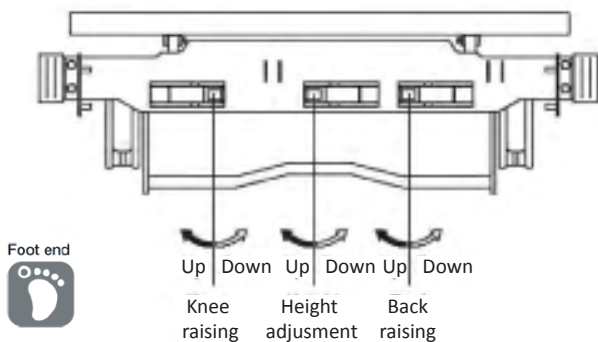
Scratched cable



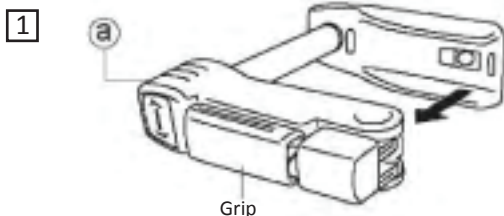
10 OPERATION PROCEDURES

1. Handle operation (3-Crank Manual Hospital Bed)

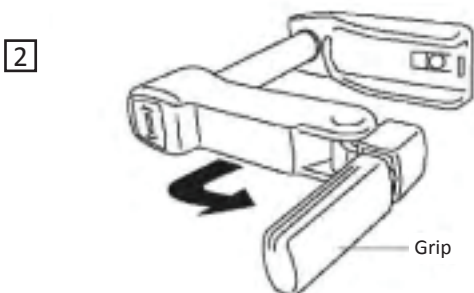
- Use the handle mounted on the frame to raise or lower the back or knee section base and adjust the bed height.



- 1 Grip part a of the handle to be operated and pull it out to the end.
- 2 Raise the grip to 90 degrees, hold the grip, and turn the handle.



- Turn the handle clockwise to raise the back, knee or bed height.
- Turn the handle counterclockwise to lower the back, knee, or bed height.



CAUTION

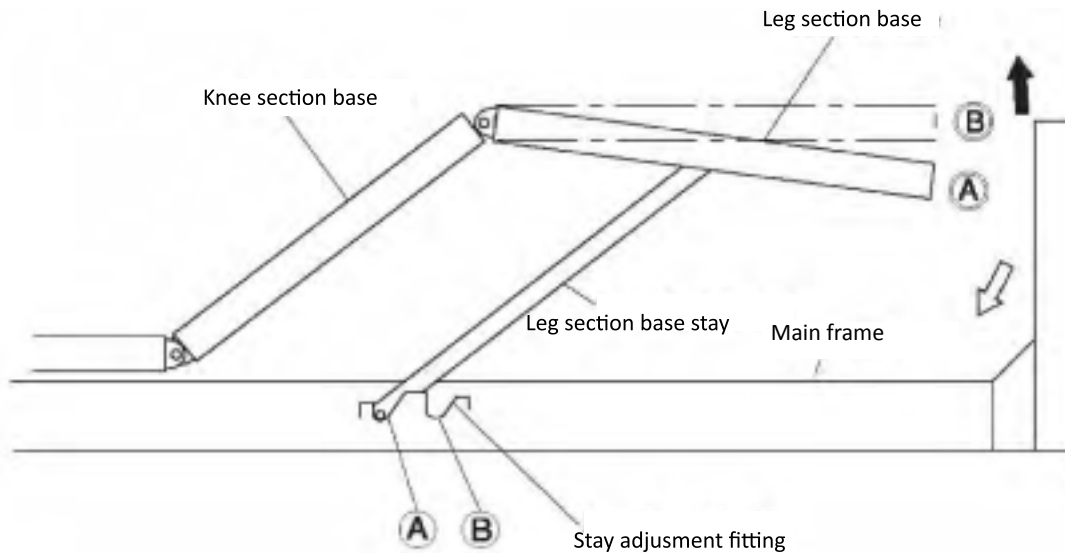
- Using the handle without completely pulling it out may cause a failure. Be sure to pull it out completely before use.
- After use, be sure to press the handle into the original position. If it is out, it may catch people's leg, causing an injury.
- Do not place your leg on the handle. You may fall down and get injured or the handle may break.
- Use one handle at a time. Turning two handles at the same time may result in an injury because hands crush into each other.

2. Adjusting the angle of the leg section base

- The angle of the leg section base can be manually adjusted in two levels. The angle of the leg section base must be adjusted by at least two persons.
- Normally, the leg section base stay is at position ①. Adjustment to the ② position should be performed when the knee section base is raised.
- When moving in the ② direction, hold the end of the leg section base and lift it. The leg section base stay slides toward the foot end. Slowly lower the leg section base when the desired angle is achieved.
- When moving in the ① direction, apply one hand to the leg section base stay, hold the end of the leg section base with the other hand, and lift it a little. Then, lower the leg section base so that the leg section base stay enters ①.

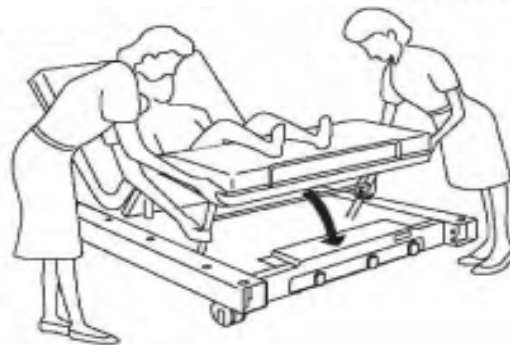


- When returning the knee section base to the horizontal condition, be sure to return the leg section base stay to the normal position ①.



⚠ CAUTION

- The leg section base angle should be adjusted by at least two persons from the both sides. If only one person attempts to adjust the angle, the person may get caught between the leg section base and main frame and get injured.



3. Locking the casters

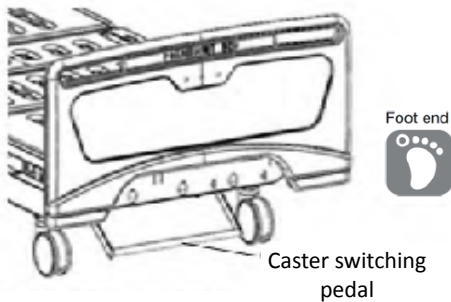


WARNING

- Lock the casters at all times except when moving the bed. The patient may be injured getting on or off the bed should it move.

■ Central locking system

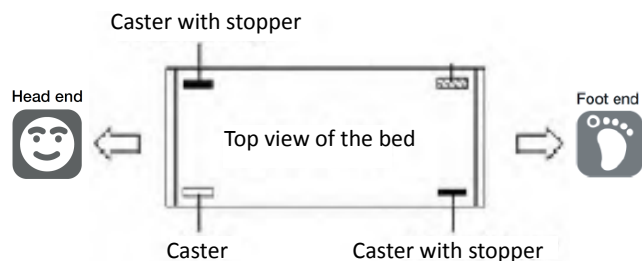
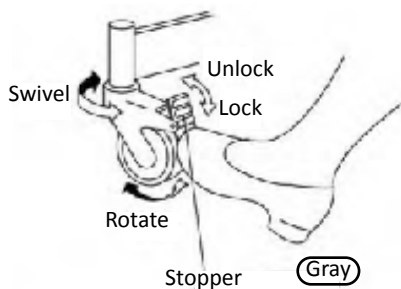
- The casters can be locked or unlocked by operating switching pedal on the foot end



- ① Locking the four wheels
The casters are locked by depressing the caster switching pedal.
- ② Unlocking the four wheels
The casters are unlocked by raising the caster switching pedal.

■ Diagonal locking system

- Use the stopper to lock or unlock the casters.
- Stoppers are on two casters on opposing corners of the bed. When locking, be sure to lock both of the two casters.
- Depressing the stopper locks the swiveling and rotation of the caster.
- Prior to locking, be sure that the caster is not out of the bed frame
- To unlock, press the upper part of the stopper with the toe.



CAUTION

- Do not forcibly move the bed when the casters are locked. It may break the bed.



NOTE!

- Inspect the casters regularly. Depending on the frequency of use and the environment, casters will exhibit wear and deterioration. (Height-temperature and heighy hummidity condition may accelerate the deterioration). In case of declined function of the stoppers or discoloration or crack on the wheel, request repair or after-sales service.

4. 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.



WARNING

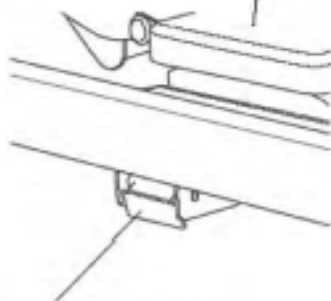
- During the emergency CPR operation, make sure that the patient's head, arms, feet, or other body parts have not entered the gap between the back section base and the frame. There is a risk of getting caught, resulting in injury.

Head end



Hip section base

Foot end



Emergency CPR lever (orange)

<Emergency CPR procedure>

- (1) Place one hand on the side of the back section base and pull the emergency CPR lever (orange). Levers are located on both sides of the bed under the hip section base and either lever can be used.
- (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.)



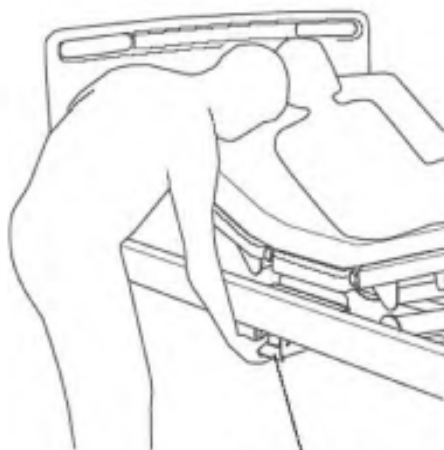
NOTE!

- 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.

<Operation after emergency CPR>

Power on status: Back-raising and back lowering can be operated using the buttons on the handheld controller or nurse control panel.

Head end



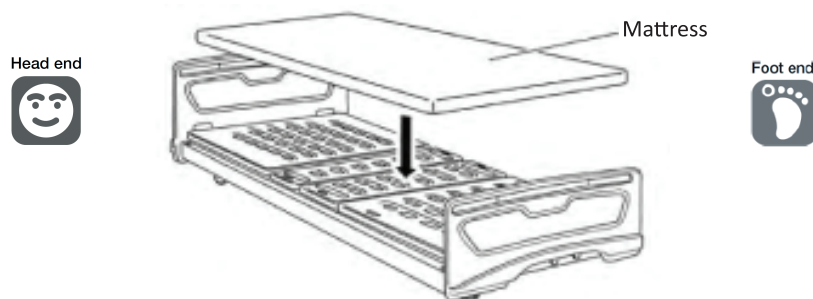
Emergency CPR lever (orange)

11 MATTRESS (OPTIONAL)

WARNING

- Do not use the bed when the mattress is not a placed. The body part (fingers of hands or legs) may get caught in the gap between the mattress bases, in air holes on the mattress base, resulting in injury.
- Be sure to use a mattress of dimensions specified by Paramount Bed, described below. If an unsuitable mattress is used, patients could get caught between the mattress and side rail and get injured. Unsuitable mattresses exert a burden on the bed and may induce a failure.

■ Compatible Mattresses - Paramount Bed



Width	Length	Thickness
830 (for PA-931**,PA-933**,PA-991**)	1,910 to 2,000	90 to 150
910 (for PA-932**,PA-934**,PA-992**)	1,910 to 2,000	90 to 150

EVERFIT LIGHT :

Model Codes : PE-9001/PE-9101/PE-9011/PE-9111/PE-9002/PE-9102/PE-9012 and PE-9112

RPR :

Model Codes : PE-7001/PE-7002/PE-7011 and PE-7012

PE-6000 Series :

Model Codes : PE-6001/PE-6101/PE-6002/PE-6102/PE-6011/PE-6111/PE-6012/and PE-6112



- For more informations about mattress specification and any queries, please feel free to contact Paramount bed or your distributor.

12 SUITABLE PRODUCTS

1. Suitable products table

WARNING

- Use suitable products after confirming that the combination of bed is correct. Using the bed with the wrong combination of suitable products could result in injury or could damage the products. The part number of each suitable products is written on the safety label and on the carton box.
- Do not use suitable products other than those specified in this instruction manual. This may create unintended gaps or may damage or deform the product, resulting in injury.
- Make sure that there is nothing in the accessories attachment holes, when mounting the suitable products. If there are obstacles in the accessories attachment holes, you cannot mount the suitable products, and the patient may fall off the bed or get caught in the gap, resulting in injury.



- When suitable products may be changed due to specification changes or combinations. In addition, some suitable products may not be listed in the table due to new release or discontinuation of sales. For any queries on suitable products, contact Paramount Bed (see p.50) or your distributor.

Suitable product ^{*1)*2)}	Model no. ^{*1)}	Reference page
IV pole	KC-56A, KC-56B, EC-562	34
Battery	PAB250T	35 - 36
Oxygen cylinder holder	PC-5038	37
Traction frame	PC-5068	-
Collapsible bedside rail ^{*3)}	PS-023, PS-023A, PS-023V	39
	PS-0232	

*1) These products may not be available in some countries or regions. For details, contact Paramount bed (see p.50) or your distributor.

*2) In some countries or regions, some of the medical device or its accessories fall under the category of medical devices. For details, contact Paramount bed (see p.51) or your distributor.

*3) Use the PA-90000 series bed in combination with PS-023, PS-023A, PS-023V, or PS-0232 for applying IEC60601-2-52.

2. IV Pole

This IV pole is designed to be attached to the medical device when giving an intravenous drip to a patient.

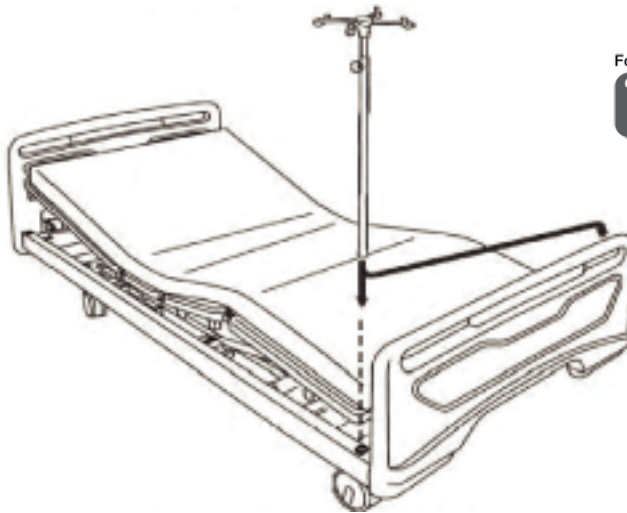
WARNING

- Do not move the bed with holding the IV pole. The IV pole may break causing injury.
- Do not use the IV pole as a support to stand up. The IV pole may come off or break, causing an injury due to falling down.
- When using the IV pole, do not put a hand or arm between the base or side rail and the IV pole. The hand or arm may get caught and get injured.
- Each hook's load capacity because it may damage the hook, resulting in an injury

CAUTION

- Length adjustment of the sliding pipe should be kept within 70cm. If the sliding pipe is pulled out too much, it may come off, resulting in an injury or damage.

Head end



Foot end



IV Pole
Suitability Table

KC-56A, KC-56B, EC-562



- Be sure to read the instruction manual attached to the IV pole as well.
- The description in the respective instruction manual may be different from the description in this manual due to changes in specifications. In case of any question, contact your dealer.

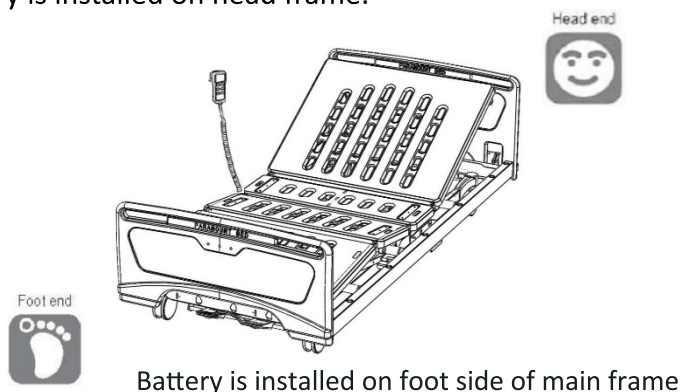
3. Battery (PAB250T/ Electric hospital bed only)

This battery is intended to provide power to the medical device when the external power supply is not available.

WARNING

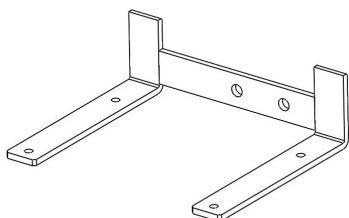
- When connecting the battery cable, unplug the power plug and confirm the patient not on the bed. There is a risk of injury due to accidental operation or electric shock due to a short circuit.

1. Install battery on the foot side of main frame.
 ※For old product, battery is installed on head frame.

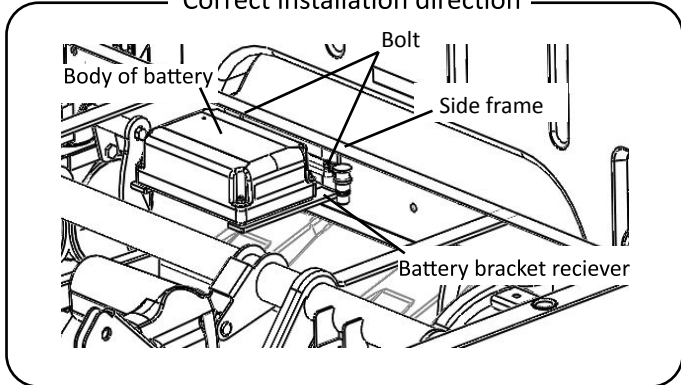


2. Pay attention to direction of battery bracket receiver and it's installation.

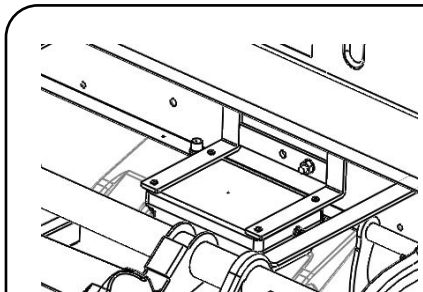
Battery bracket receiver



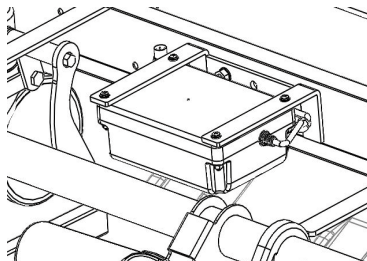
Correct installation direction



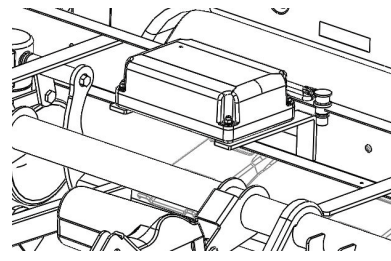
Incorrect installation direction



If installing with incorrect bracket direction.



If bracket installation direction is correct but battery installation position is incorrect.

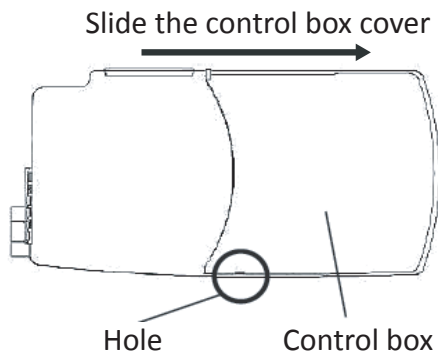


If bracket installation direction and battery installation position is incorrect.



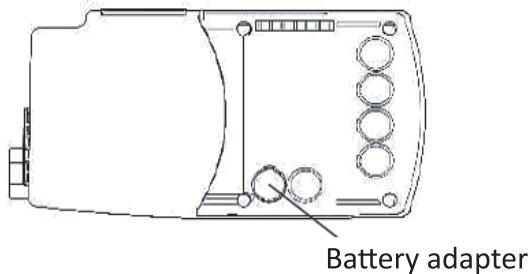
※ If installed with incorrect direction, interference with central pedal and foot frame stay will occur, then body of battery and cable may be damaged.

3. The battery cable must be connected to the control box to use the battery.



- ① Set minus driver in the hole of side on the control box and slide the control box cover to open it.
- ② Connect the battery cable to the battery adapter of the control box.
- ③ Attach the control box cover

<After opening the control box cover>

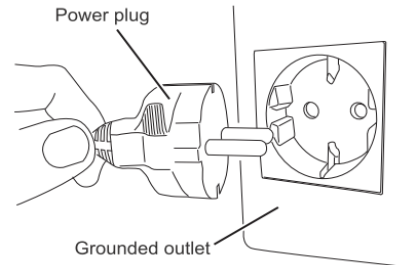


CAUTION

- Incorrect operation in disregard of the details given below will result in personal injury or damage due to leakage, fire, explosion, electric shock, or rupturing.
 - Do not disassemble the battery case or built-in battery.
 - Do not incinerate the battery unit.
 - Do not recharge the battery other than with suitable control box of the bed.
 - Do not use the battery unit with equipment other than the suitable bed.
 - Do not subject the battery unit to impact.
 - Do not recharge the battery unit or operate the bed with the the bed turned upside down.
- When the battery reaches the end of its life span, change it immediately. Continual usage of expired battery may cause leakage of fire. Furthermore, please check time to replace as below;
 - A life of the battery span about 2 or 3 years. The battery indicator flash or turn off the light even the battery changing for more than 12 hours, please change the battery.
 - When you change the battery, please contact Paramount Bed or your distributor.

■ **The battery is an auxillary power supply for operating an electrically operated table when not connected to a power outlet**

[Operating the table on battery power]



- The table is powered by the battery when the power plug is not connected to the power outlet or during a power failure.

[Recharging]

- Recharging starts as soon as the table power plug is plugged into the power outlet.



- The battery should be charged (for more than 24 hours) immediately after purchase.
- The battery is optional. For detail on the model number, contact Paramount Bed or your distributor.

[Battery life]

- The battery is not designed to be recharged after being totally discharged. Repeatedly recharging the battery from zero charge will reduce its operating life. Always recharge the battery after operating the table on battery power.
- If the table is equipped with a battery, and the table is stored for long periods of time, the battery must be full charged every 3 months. It may cause damage to the battery or decrease its life.



- The battery life will vary depending on the usage frequency, usage conditions and storage conditions. Regardless of whether the battery is used, its life will start to drop off after a few years.

3. Oxygen cylinder holder (PC-5038)

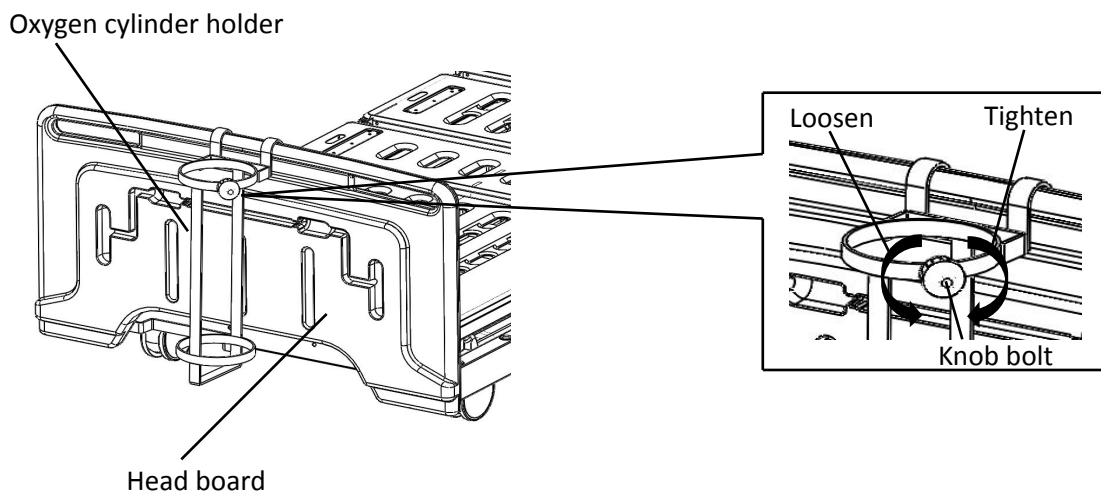
This oxygen cylinder holder is made for attaching to the medical device to use the oxygen cylinder.

WARNING

- Make sure that the knob bolt is firmly tighten. There is a risk of insufficient oxygen supply.
- When using the oxygen cylinder, take care to prevent it from coming into contact with any objects in the vicinity of the bed. There is a risk of an injury by damage of a flow meter or an oxygen cylinder if the cylinder comes into contact with another object.
Load capacity is 15kg. Do not insert the oxygen cylinder exceeding the load capacity because it may damage the oxygen cylinder holder, resulting in injury.

■ The oxygen cylinder holder can be used by hanged on the headboard.

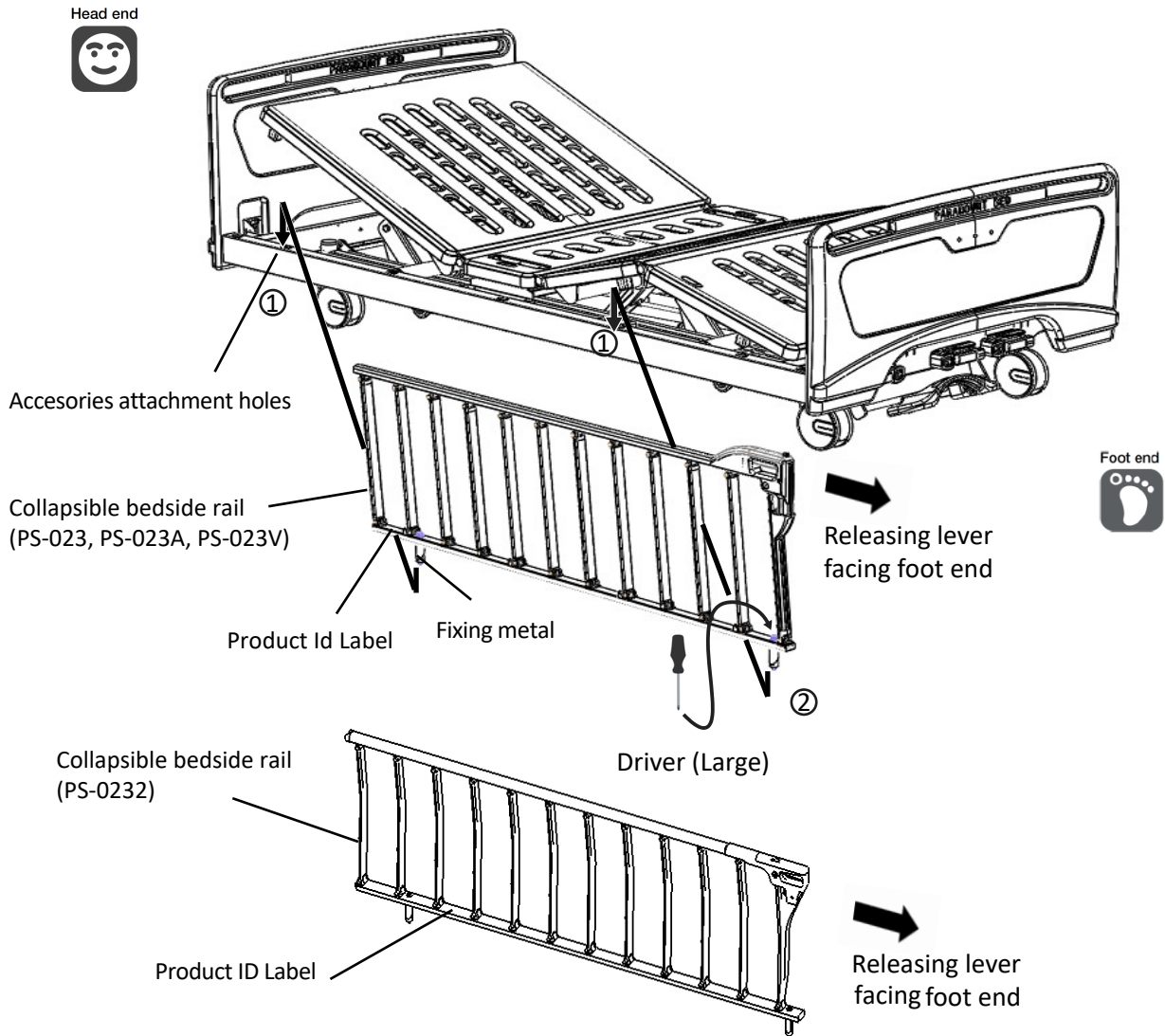
1. Hang the oxygen cylinder holder on the headboard.
2. Loosen the knob bolt on the oxygen cylinder holder, and then slowly insert the oxygen cylinder into the holder from the top.
3. Firmly tighten the knob bolt to fasten the oxygen cylinder.



- For any queries, please feel free to contact Paramount Bed or your distributor.

4. Collapsible bedside rail

This collapsible bedside rail is intended to be fit on bed side to use, prevent patients and bed clothing falling off from bed.



1. With releasing lever facing forward foot end, install side rail fixing metals to accessories attachment holes.
2. Make sure to tighten the fixing bolts.
3. Please check the side rail being fixed firmly, before usage.

CAUTION

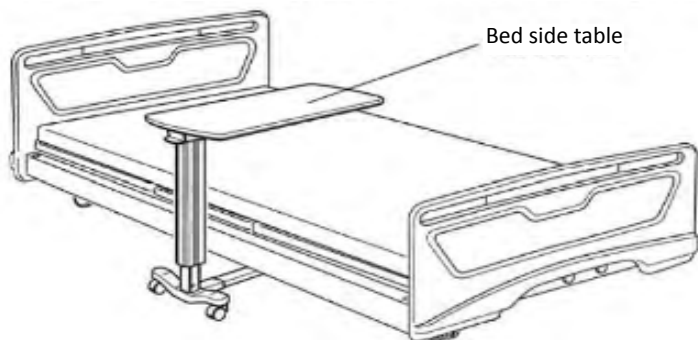
Please attach and lock firmly. Otherwise, side rail may come off abruptly, resulting in injury, or damage side rail.



● All installation methods are the same.

13 BED SIDE TABLE

Bed side table is used for having meals or doing something on the bed.



Suitable bed side table

KF-282
PF-3100A, PF-3110A
PF-3120A, PF-3130A



WARNING

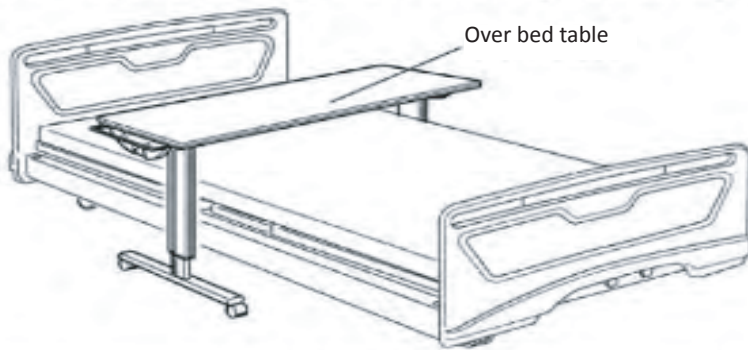
- Remove the table from the bed when performing positioning operations of the bed. Otherwise, the patient may get caught between the table and bed and get injured.



- Be sure to read the instruction manual attached to the bed side table as well.
- The description in the respective instruction manual may be different from the description in this manual due to changes in specifications. In case of any question, contact your distributor.

14 OVER BED TABLE

Over bed table is used for having meals or doing something on the bed.



Mattress base width	Suitable over bed table
910	KF-83*LA/LB/LC KF-813
830	KF-83*SA/SB/SC KF-814



WARNING

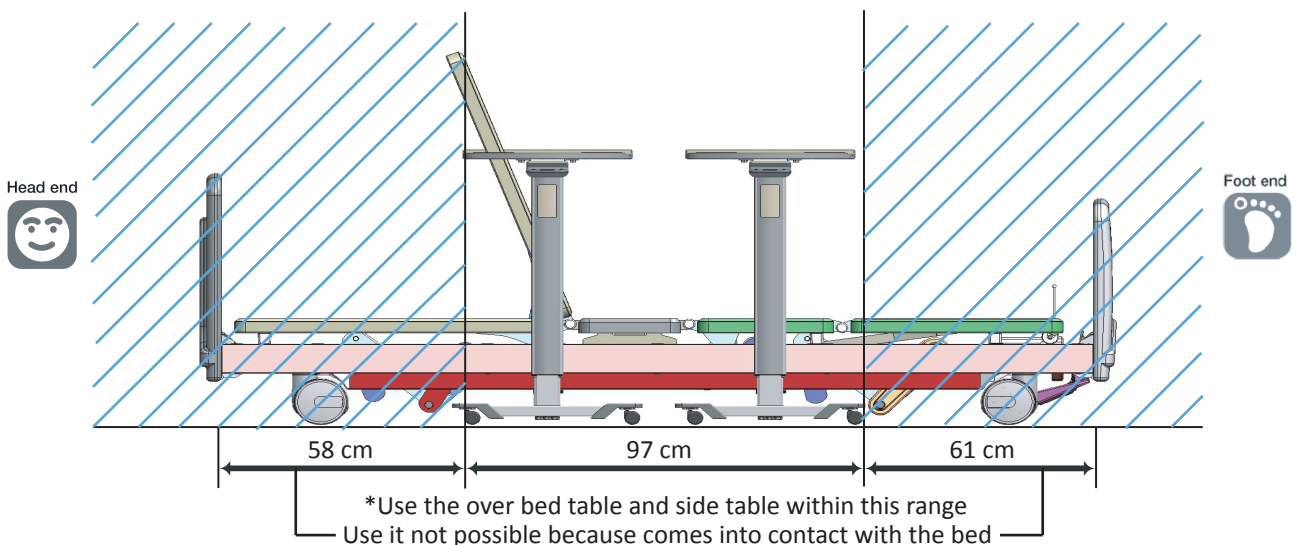
- Remove the table from the bed when performing positioning operations of the bed. Otherwise, the patient may get caught between the table and bed and get injured.



- Be sure to read the instruction manual attached to the bed side table as well.
- The description in the respective instruction manual may be different from the description in this manual due to changes in specifications. In case of any question, contact your distributor.

CAUTION










- The following figure shows the over bed table and side table usage range (the shaded areas cannot be used). Use the over bed table and side table within this range. Using the over bed table and side table outside the range shown in the figure below may cause damage to or deformation of the over bed table and side table. Note that when the side rail and grip for the bed are used (attached), the over bed table cannot be used in the vicinity of the highest bed height.


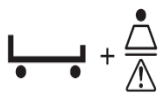



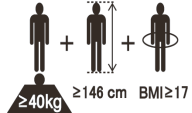




- For any queries, please feel free to contact Paramount Bed or your distributor.

15 PRODUCT SYMBOL DEFINITIONS




The symbols below are used for this product.

Symbol	Description
	● Indoor use symbol
	● Electrical waste
	● See the instruction manual
	● AC input
IPX4	● Protection code
	● Protective ground mark
	● Safe working load
	● Maximum patient weight
	● Type B applied part Applied parts are considered to be : upper frame section, controllers, side rails, headboard and footboard
	● Take care to prevent the patient's hand and foot from getting caught between side-rails and the bed.
MD	Medical device (This product is a medical device or an accessory for medical device in Europe, and may be such a device in some countries and regions depending on their regulations. An accessory for medical device is required to be labeled as "Medical Device" under medical device regulations in Europe).

Symbol	Description
	● Product weight
	● Total weight including load capacity
	● Take care to prevent body parts from getting caught in the moving parts on the bed
	● Take care to prevent the patient's head from getting caught in the moving parts on the bed
	● Take care to prevent the patient's finger from getting caught in the moving parts on the bed
SN	● Serial number
LOT	● Lot number
#	● Model number
	● The medical bed for adults $\geq 40\text{kg}$ $\geq 146\text{ cm}$ $\text{BMI} \geq 17$
	● Country of manufacture (made in Indonesia) Manufacturing site * In the country of origin, the site acts as the manufacturer. Date of manufacture (YYYY-MM-DD)
	● Manufacture * It may be called "Legal Manufacturing" or "Brand Owner", etc. * The symbol is not applicable in the country of origin.

15 PRODUCT SYMBOL DEFINITIONS

■ The symbols below are used for this product.

Symbol	Description
	<ul style="list-style-type: none">● This a 2D code (GS1 Data Matrix) that encodes the UDI (Unique Device Identifier) required by the Unique Device identification system defined to adequately identify device through distribution and use.
	<ul style="list-style-type: none">● CE mark
	<ul style="list-style-type: none">● Authorized representative in the european community

16 REGULAR INSPECTION AND DAILY MAINTENANCE

<Lubrication (if there is abnormal noise)>

- Lubrication is needed if there is abnormal noise. Please feel free to contact your distributor to be lubricated.



- Water adhesion to the bed or mattress, or moisture may cause corrosion, abnormal noise or contamination. If water adheres to the bed or mattress, wipe off immediately.

<Bed unit>

- To clean the bed, use a cloth that has been soaked in diluted detergent and wrung out well, then wipe off any residual detergent with a cloth soaked in water and wrung out well. Finally, use a dry cloth to wipe the bed to ensure it is dry.
- To wash the bed using water, pour water on the bed to wash out stains. Finally, use a dry cloth to wipe the bed to ensure it is dry.
- To disinfect the bed, always dilute detergents used as specified below and follow the instructions described in the instruction manual.

76.9% - 81.4% ethanol for disinfection
0.05% - 0.2% benzalkonium chloride (e.g. Osvan)
0.05% - 0.2% benzethonium chloride (e.g. Hiamine)
0.05% chlorhexidine gluconate (e.g. Hibitane)
0.02% - 1.0% sodium hypochlorite (e.g. Milton)

- The bed should be disinfected before a different patient uses the bed.

CAUTION

- Do not use volatile cleaning fluids (such as paint thinner, benzene or gasoline) and cresol. Discoloration or deterioration could result.



- Do not use disinfectant other than those specified. There is a risk of damage or deterioration.
- After cleaning the bed detergent, be sure to wipe any residual detergent with a cloth soaked in water and wrung out well. Otherwise, there is a risk of damage to the plastic parts.
- When washing the stretcher with water, do not pour water from under the base cover. There is a risk of malfunction.
- Do not wash the stretcher by a bed washer or high-pressure water. There is a risk of malfunction.



- The product should not be cleaned with an ozone sterilizer or autoclave apparatus.

- For safety in use, inspect the product regularly, at least once a year. The product exhibits wear and deterioration according to the frequency and conditions of use. Inspect for loose parts, the operation moving parts on the bed, and the presence of damage regularly. When an irregularity has been noticed or when a detailed inspection is desired, contact Paramount Bed or your distributor.

	Operation details	Inspection items
Bed unit	Back raise operation (p.25)	Proper operation can be achieved.
		There must not be any strange noises.
	Knee raise operation (p.25)	Proper operation can be achieved.
		There must not be any strange noises.
	Hi-lo operations (p.25)	Proper operation can be achieved.
		There must not be any strange noises.
	Miscellaneous	There must not be any scratches and deformation at the mattress base, frame, or any other parts.
		There must not be any deformation, damage, or detachment of bumpers, resin parts or elastic parts.
There must not be any peeling of labels, and the text must be legible.		
Board	Board mounting condition (p.22)	The board stopper must be locked properly.
		There must not be any remarkable rattling.
Caster	Travelling	There must not be any strange noises when the bed is traveling.
		There must not be any strange vibrations when the bed is traveling.
	Caster locking operation (p.30)	Proper operation can be achieved.
		The operation must not be unusually difficult.
		The bed must not move when the casters are locked.
		The bed must move smoothly when the lock is released.
		When in steering position, swiveling of the steering caster must be locked.
Electrical part (Electrical bed only)	Visual check of electrical parts	Cable must not get tangled in the bed.
		Plugs and cables must have no scratches or damage.
		There must not be any scratches and damage on the handheld controller.

WARNING

- Do not wash the padding. There is a risk of padding degradation.
- Do not use a mattress washer, an ozone sterilizer or autoclave apparatus. There is a risk of damage, deterioration or degradation.
- Do not leave any blood, urine, sudor or sebum on the mattress. Clean dirt frequently with neutral detergent or soap. If left untreated, the surface material may degrade, smell or stain may result.
 - The smell that is left during use may be neutralized with mouthwash.
 - If the mattress is stained, wipe off thoroughly with oxydol (3% hydrogen peroxide).
 - Use thrombolytic agent, if it is difficult to clean blood. In that case, try using it on the end of the firstly, because there is a risk of discoloration or deterioration.
- Do not use volatile cleaning fluids (such as paint thinner, benzene or gasoline) and cresol. Discoloration or deterioration could result.
- Do not use disinfectant other than those specified. There is a risk of damage or deterioration

<Mattress unit>

- When the mattress gets dirty or the persons who use the mattress change, be sure to clean and disinfect both surface of the mattress in accordance with the procedures specified in steps 1 to 4 below. At this time, take care not to bend the mattress.
- Remove any soiling (blood, excreta, etc.)
- Wipe the mattress using a cloth that has been soaked in commercially available soap or neutral detergent diluted with water, and wrung out well.
- Disinfect the mattress by using disinfectant.
 - 0.05% - 0.2% benzalkonium chloride (e.g. Osvan)
 - 0.05% - 0.2% benzethonium chloride (e.g. Hiamine)
 - 0.05% chlorhexidine gluconate (e.g. Hibitane)
 - 0.1% - 1.0% sodium hypochlorite (e.g. Purelox)
- Leave the mattress to dry out naturally on the stretcher or in another location. However, do not dry in the sun.
 - Clean and disinfect the mattress regularly
 - Do not wash the mattress
 - Take care not to soak the padding.

CAUTION

- Do not unzip the fastener and do not remove the cover when cleaning and disinfecting the mattress. Do not unzip the fastener while the mattress is in use. The fastener is provided so that the cover can be repaired or replaced if it is damaged.



- The product cannot be used with an ozone sterilizer or an autoclave sterilizer, etc.

17 TROUBLESHOOTING

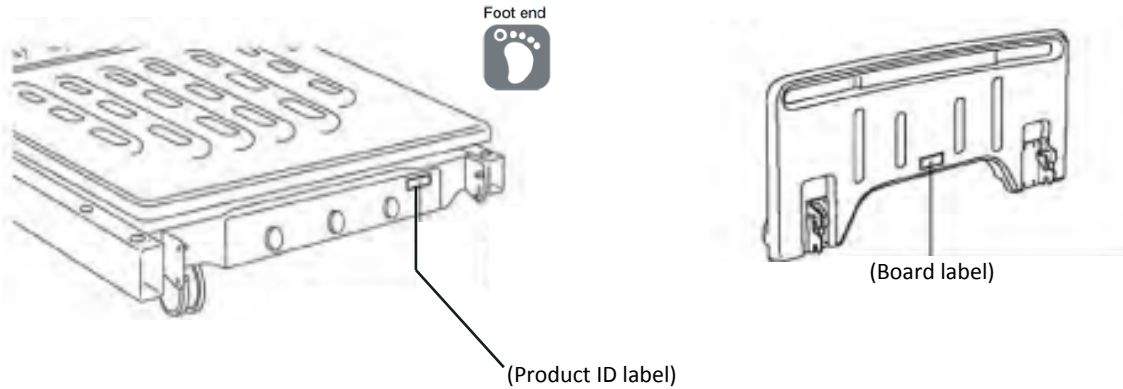
- Problem may not always indicate faults. Check the following once again before requesting repair.
- If the problem persists after checking these points, stop using the bed immediately, disconnect the power plug from the outlet, and contact Paramount Bed or your distributor for repair.
- Bed damaged in earthquakes, fires, floods or other incidents must be inspected and repaired by Paramount Bed or your distributor. Otherwise, there is a risk of electric shock or fire due to short circuit or current leakage from electrical parts, of injury due to malfunction caused by deformation of the bed.

Problem	Check	Corrective action	Reference page
● The bed does not move even when the handheld controller buttons are pressed.	● Check if the power plug is plugged into the outlet.	● Plug the power plug into the power outlet.	24
	● The power plug is plugged into the power outlet, but the bed still does not move.	<ul style="list-style-type: none"> ● Disconnect the power plug from the outlet and plug it in again. ● Plug another electrical device into the outlet to check that power is available. 	-
● The bed cannot be positioned correctly.	● Check if there is nothing in the moving parts on the bed	● Remove any obstacles.	-
● The leg section base cannot be laid flat when the knee section base is laid flat.	● Is the leg section base stay at basic position A of the stay adjustment fitting?	● Move the leg section base stay to basic position A of the stay adjustment fitting.	29
● The bed cannot be moved.	● Check if the casters are locked.	● Unlock the caster.	30
● The board will not come off.	● Check if the board is locked.	● Unlock the board stoppers.	22
● The POWER Lamp on the handheld controller is OFF.	● Check if the power plug is plugged into the outlet.	● Plug the power plug into the outlet.	-
	● Check if the handheld controller lock function is OFF.	● Press the lock button to switch the handheld controller lock function OFF.	-
	● The power plug is plugged into the outlet but the POWER lamp on the handheld controller is OFF.	<ul style="list-style-type: none"> ● Unplug the power plug from the outlet and plug it in again ● Plug another electrical device into the outlet to check that power is available. 	-

- When requesting repairs or contacting your distributor, please provide the number on the product ID label as shown below.

■ Product ID label locations

Product ID labels are affixed to the foot end of the main frame and on the inside of the headboard.



■ Product lifetime

The lifetime of this equipment is typically eight (8) years. Lifetime is defined as the period during which the product will maintain the specified performance and safety, provided it has been maintained and operated in conditions of normal use in accordance with the requirements in this instruction manual.

18 LONG-TERM STORAGE

- The following precautions should be noted when the bed is not in use for extended periods of time.
 1. Lay the back and knee section base flat.
 2. Lower the bed to the lowest position.
 3. Do not place objects other than mattress on the bed.
 4. Do not place anything on the mattress
 5. Store the bed in a low-dust environment away from extreme temperatures or humidity
Store the bed at a temperature between -10°C and 50°C , humidity between 20%RH and 90%RH.
 6. Do not lean the bed against a wall; store it level on the floor.
 7. For electrically-operated bed, be sure to disconnect the power plug from the power outlet and coil the power cable on a cable storage hook (See p.24).



- Inspect the product regularly at least once a year, even if it is during storage.

Bed Disposal

When the PA-90000 Series bed has reached the end of its usable life, discard it according to local standards.

19 AFTER-SALES SERVICE

1. When requesting repairs

First check the items described in "17. TROUBLESHOOTING" (p.48,49) in this instruction manual. If the problem persists, disconnect the bed's power plug from the power outlet and contact Paramount Bed or your distributor.

■ Details necessary when requesting repair

- Product name, model number
- Product ID label number (see p.49)
- Date of purchase
- Details of fault or problem (please provide as much detail as possible)
- Your name, organization, address, and phone number

■ Consumable parts

Mattress, casters, handheld controller, nurse control panel, battery, the rubber parts are consumable parts.

2. Minimum stock availability period



Paramount Bed keeps replacement parts (necessary to maintain bed performance) in stock for at least 8 years after the discontinuation of production.

3. Question regarding after-sales service

For any queries, please feel free to contact your distributor or to the following addresses.

Website: <https://www.paramount.co.jp/english/>



Location in Japan (Manufacturer)	Location in Indonesia (Manufacturing premises)
 <p>Paramount Bed Co., Ltd. 14-5, 2-Chome, Higashisuna, Koto-ku, Tokyo, 136-8670, Japan Tel : +81-(0)3-3648-2961 Fax: +81-(0)3-3648-5781</p>	 <p>PT.Paramount Bed Indonesia MM2100 Industrial Town, Blovk M-1-1 Gandamekar, Cikarang Barat, Bekasi 17530, Jawa Barat, Indonesia Tel : +62-(0)21-8981051 Fax: +62-(0)21-89981611</p>



EMERGO EUROPE
Westervoortsedijk 60,
6827 AT Arnhem
The Netherlands



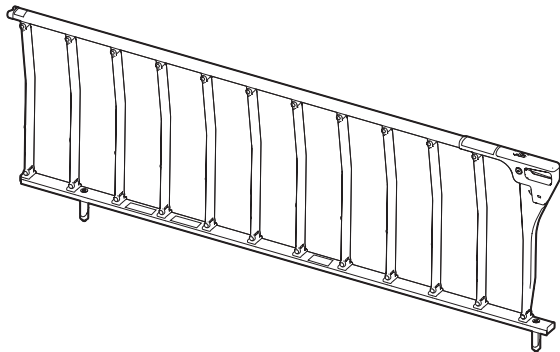
 PARAMOUNT BED



PS-0232S/PS-0232D

Collapsible Bedside Rail

7F13074900A0



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- 1 INTENDED USE..... 1**
- 2 PART NAMES AND CHECKING PARTS 1**
- 3 SAFETY PRECAUTIONS2**
- 4 ATTACHMENT METHOD6**
- 5 OPERATION PROCEDURE7**
- 6 REGULAR INSPECTION AND MAINTENANCE.....8**
- 7 LONG-TERM STORAGE.....9**
- 8 SPECIFICATIONS AND SUITABLE PRODUCTS (BEDS).....9**
- 9 PRODUCT SYMBOL DEFINITIONS 10**
- 10 AFTER-SALES SERVICE..... 11**




Preface

Thank you for purchasing this product.

This instruction manual describes precautions and how to safely use and operate the product.

- To ensure safe and proper use of the product, be sure to read the instruction manual before use.
- The instruction manual should be read not only by the person using a bed with the product for medical treatment but also by the user’s caregiver.
- After reading this instruction manual, store it in a place that can be easily accessed for later reference.
- Users and/or patients are requested to report information about any serious incident that occurs within the EU to the regulating authority of the member country of residence.
 Serious incident means any incident that directly or indirectly resulted in, may have resulted in, or may result in any of the following.
 - Death of a patient, user, or other person
 - Serious temporary or permanent adverse effects on the health of a patient, user, or other person
 - Serious public health threat
- Some of the descriptions in this instruction manual may differ from the product you have purchased due to model improvements.
- Values described for the operation ranges, dimensions, angles, and weights are subject to normal manufacturing tolerances. Except for special cases, words such as approximately and about are omitted in this instruction manual to improve readability.
- If you have any queries, contact your distributor or Paramount Bed.

Marks used in this instruction manual

 Note	Indicates particularly important, easy to misunderstand, or cautionary information.
	Indicates the direction (head end) of the bed.
	Indicates the direction (foot end) of the bed.

Note

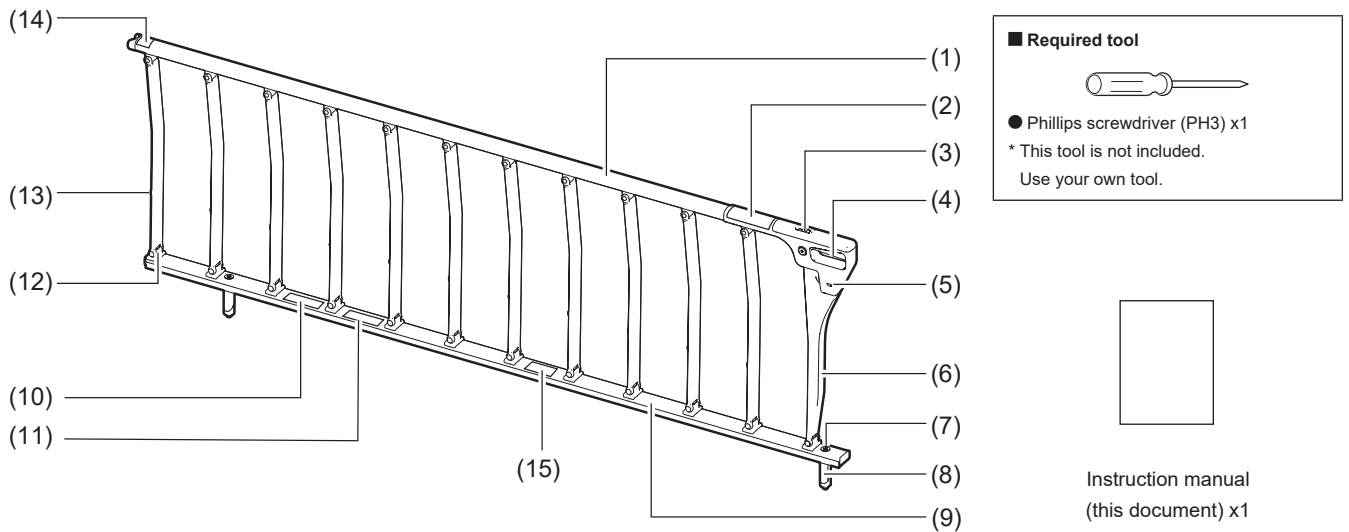
After this page, some part names described in the text are abbreviated as follows.

- Collapsible bedside rail ➔ Bedside rail

1 INTENDED USE

This Collapsible Bedside Rail is intended to be fit on bed side to use, prevent patients and bed clothing falling off from bed.

2 PART NAMES AND CHECKING PARTS



No.	Name	No.	Name	No.	Name
(1)	Top pipe	(6)	Support bar	(11)	CE label
(2)	Safety label A	(7)	Fixing bolt	(12)	Attachment part A
(3)	Double lock	(8)	Fixing shaft	(13)	Attachment part B
(4)	Unlock lever	(9)	Bottom pipe	(14)	Safety label B
(5)	Indicator window	(10)	Product ID label*	(15)	Safety label C

* The model number of the bedside rail is printed on the product ID label. Example: PS0232S indicates PS-0232S.

2 PART NAMES AND CHECKING PARTS

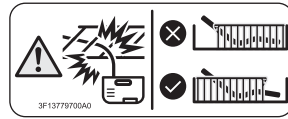
<Safety label A>



<Safety label B>



<Safety label C>



Safety labels

- Warnings and precautions requiring special attention by persons using the bedside rail are described on the labels that are affixed to the top pipe and bottom. Do not remove or deface them.
- If a safety label is removed or defaced, replace it with a new one obtained from Paramount Bed or your distributor (see the back cover).

3 SAFETY PRECAUTIONS



WARNING

Indicates that improper handling by ignoring this indication may cause death or serious injury (broken bones, pressure being applied, or paralysis).

■ Watch the gaps.

- There are gaps in the bed and bedside rail. Injury may occur due to a part of the body (especially the head or neck) getting caught in those gaps. Injury may also occur due to falling through those gaps.
- Be especially careful to check a person who might act in unexpected ways or cannot maintain their posture independently.
- Pay attention to the following points.

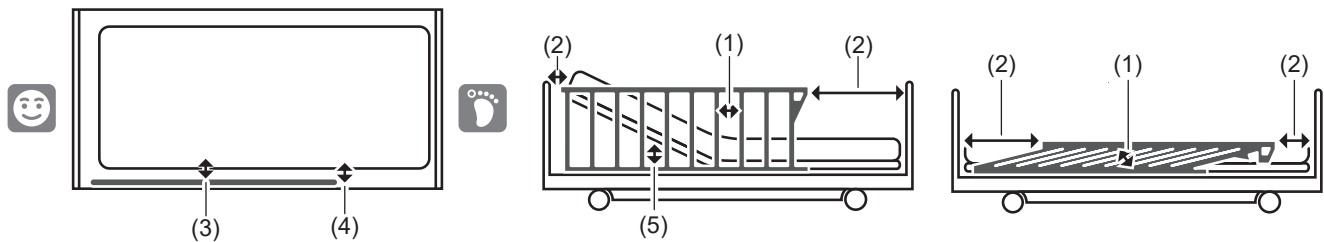
(1) Gap in bedside rail

(2) Gap between bedside rail and board

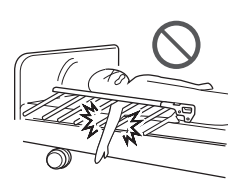
(3) Gap between bedside rail and mattress

(4) Gap between bedside rail and mattress base

(5) Gap between bedside rail and raised mattress base



Be careful not to get your body caught or fall (the figures show examples).



3 SAFETY PRECAUTIONS



WARNING

Indicates that improper handling by ignoring this indication may cause death or serious injury (broken bones, pressure being applied, or paralysis).

■ Do not operate the bed or bedside rail with part of the body placed in a gap.



- The body part may get caught in the gap, resulting in injury.
- Be especially careful to check a person who might act in unexpected ways or cannot maintain their posture independently.

■ Take care that the user does not fall off the bed when the bedside rail is operated from on the bed.

The user may fall at the moment when the bedside rail is moved, resulting in injury.

■ Even when the bedside rail is used, pay sufficient attention to prevent the user from falling off the bed.

- The user may fall through a gap between the bed board and bedside rail or bend over the bedside rail and fall, resulting in injury.
- If the bedside rail is used while the back section base is raised, the bedside rail may not be sufficiently effective in keeping the user from falling off the bed since the user will no longer be supported at the side by the bedside rail due to the angle (high position).
- Be especially careful to check a person who might act in unexpected ways or cannot maintain their posture independently.

■ Attach the bedside rail in the correct position and orientation, and fix it properly (see ATTACHMENT METHOD on p. 6).

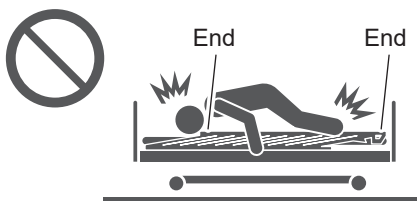


- There is a risk of the user falling off the bed resulting in injury, or the bedside rail hitting the board resulting in the board or bedside rail being damaged or deformed.
- If the bedside rail is attached in the wrong position or orientation, unexpected gaps may be created and part of the body (especially the head or neck) may get caught, resulting in injury.

■ Do not sit on the bedside rail or use it as a hand rail.

If the bedside rail falls while your body weight is placed on it, you may fall off the bed or fall down, resulting in injury. The bedside rail is designed to prevent the user of the bed and the bedding from falling off the bed.

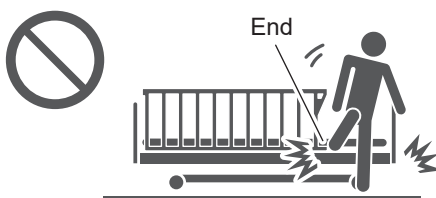
■ Be careful about the protruding parts (such as the ends of top pipe) of the bedside rail.



- When the user gets on or off the bed, a foot or clothing may get caught and the user may fall off the bed or fall down, resulting in injury.
- If the bed or bedside rail is operated with clothing caught, the clothing may be pulled, resulting in injury.

■ When the user gets on or off the bed, pay attention to the ends of the bottom pipe.

A foot or other body part may hit an end, resulting in injury.





WARNING

Indicates that improper handling by ignoring this indication may cause death or serious injury (broken bones, pressure being applied, or paralysis).

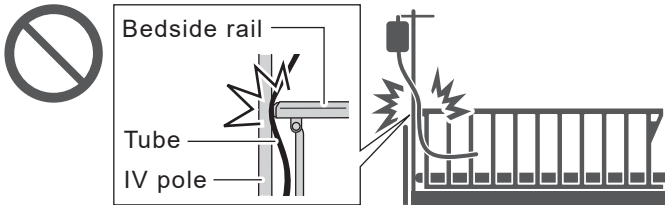
■ When folding down the bedside rail, take care to prevent a handheld controller cable, drain tube, bedding, or other item from getting caught.

The cable, drain tube, or other item may come off or be crushed, resulting in injury or damage.



■ When using an IV pole, take care to prevent a drain tube or other item from getting caught.

The drain tube may come off or be crushed, resulting in an accidental injury.



■ Do not allow the bedside rail to be operated by a person deemed incapable of understanding bedside rail operation (a child aged 12 or under or a person with dementia).

Incorrect operation may result in injury.

■ Do not use the bedside rail for infants or small children.

- This product is not designed for infants or small children. A part of the body may get caught in a gap in the bedside rail, resulting in injury.
- Even when the bedside rail is used, an infant or small child may fall through a gap, resulting in injury.

■ Do not repair or modify by yourself.

Unintended gaps or other problems may be created, resulting in injury.

■ For the bed used in combination with the bedside rail, use a suitable product specified by Paramount Bed.

The use of products other than the specified ones or those from other companies may create unintended gaps, cause contact between products, or lower stability, resulting in injury, or the bedside rail may be damaged or deformed. For suitable products, see “**3** SPECIFICATIONS AND SUITABLE PRODUCTS (BEDS)” (p. 9). If you have any queries about suitable bed other than those listed or suitable products, contact your distributor or Paramount Bed (see the back cover).

■ Inspect the bedside rail regularly.

The product wears out and deteriorates differently depending on the frequency of use and the environment. Inspect for loose parts and damage and the operation of the moving parts regularly. Use of a worn or deteriorated bedside rail may result in accidental injury.

■ Request repair or inspection of a bedside rail damaged in a disaster.

If the side is damaged in an earthquake, fire, flood, or other incident, contact your distributor or Paramount Bed for inspection or repair. An injury may occur as a result of a damaged or deformed bedside rail.

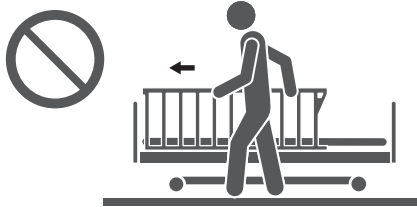
3 SAFETY PRECAUTIONS



CAUTION

Indicates that improper handling by ignoring this indication may cause minor injuries (such as bruises, scratches, or cuts) or property damage.

■ Do not move the bed while holding the bedside rail.



This applies excessive force to the bedside rail and may result in damage or deformation.

■ When using the bedside rail in the folded down state, do not place a hand or finger in the support bars section of the bedside rail.



The hand or finger may get caught, resulting in injury.

■ When carrying the bedside rail, be careful not to hit it against the floor, etc.

The floor, etc. may be damaged or the bedside rail may be damaged or deformed.

■ Do not apply a spray-type insecticide directly to the bedside rail.

Solvents contained in the insecticide may damage, discolor, or dissolve the resin parts. Furthermore, damaged or dissolved parts may cause accidental injury.

■ Keep away from fire.

Do not use thermal appliances such as heaters near the bedside rail. This may cause deterioration or deformation.

■ Check around the bedside rail before operating the bedside rail.

Bedside rail operation may damage objects around the bedside rail, or may cause the bedside rail to be damaged or deformed.

4 ATTACHMENT METHOD

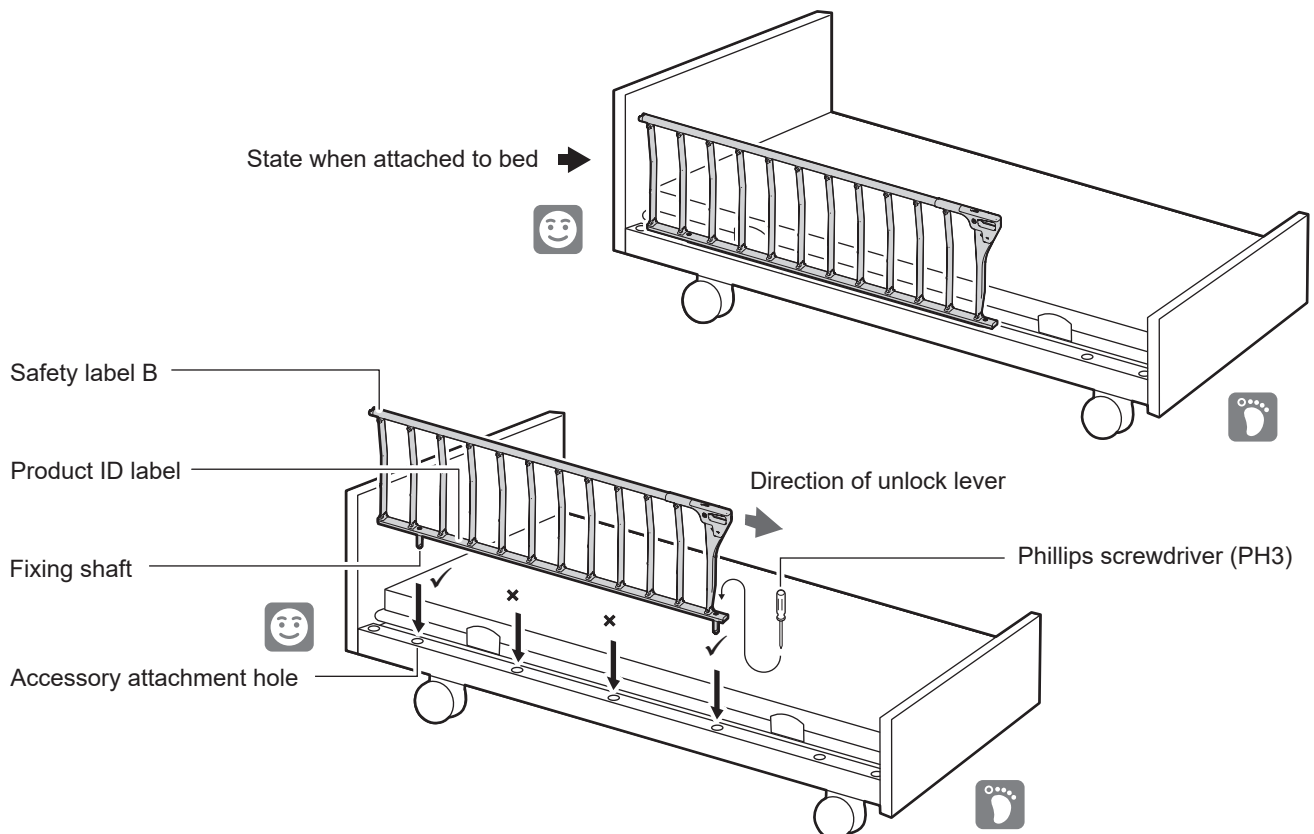


WARNING

- Attach the bedside rail in the correct position and orientation, and fix it properly. There is a risk of the user falling off the bed resulting in injury, or the bedside rail hitting the board resulting in the board or bedside rail being damaged or deformed. If the bedside rail is attached in the wrong position or orientation, unexpected gaps may be created and part of the body (especially the head or neck) may get caught, resulting in injury. When attaching it, orient the end with safety label B toward the head end.
- When attaching the bedside rail, make sure that there are no foreign objects in the accessory attachment holes. If there are foreign objects, the bedside rail cannot be attached correctly and there is a risk of falling off the bed or unexpected gaps being created and part of the body getting caught, resulting in injury.

Note

- When the top pipe is raised from the folded down state after opening the package, the bedside rail is locked automatically (see OPERATION PROCEDURE on p. 7).
- Do not attach the bedside rail to accessory attachment holes other than those indicated by the ✓ marks.
- Be sure to orient the end with safety label B toward the head end.




1. Orient the unlock lever toward the foot end and then align the fixing shafts with the specified accessory attachment holes in the bed, and firmly insert them.
2. Firmly tighten the fixing bolts in 2 places with a Phillips screwdriver (PH3).
3. Check that the bedside rail is fixed properly before use.


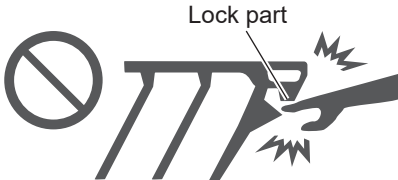
5 OPERATION PROCEDURE

■ Raising (to use the bedside rail)

- When the top pipe is raised from the folded down state, the bedside rail is locked automatically.
- Check that the indicator window is completely green at this time.

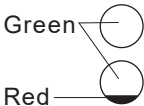
Note If even a small amount of red is visible, the bedside rail is not fully locked. Pull up the top pipe hard again so that the window is completely green before use.

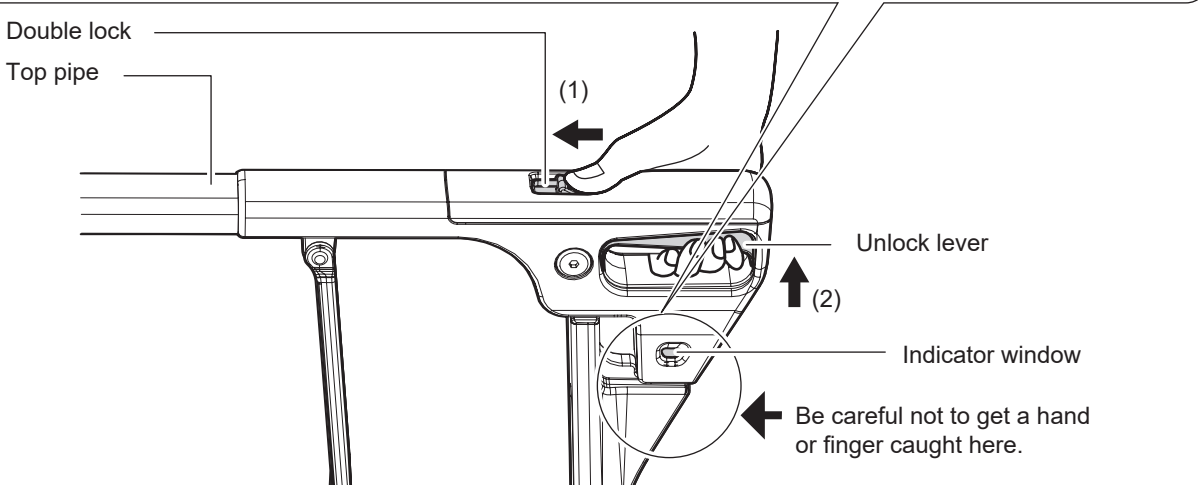
 WARNING	Before using the bedside rail, check that the bedside rail is locked properly (indicator window is completely green). If the bedside rail is not locked properly (a small amount of red is visible in the indicator window), it may fold down unintentionally when touched by a hand or gripped and the user may fall or get a hand or foot caught, resulting in injury.
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 CAUTION	 <p>When operating the unlock lever, be careful not to get a hand or finger caught. There is a risk of injury due to getting caught in the lock part.</p>
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■ Folding down

- (1) Press the double lock all the way in the direction of the arrow with a finger.
- (2) Grip the unlock lever while keeping the double lock pressed, and slowly fold down the bedside rail.

Explanation of indicator window	 <p>Green — When the window is green, the bedside rail is locked. Red — If even a small amount of red is visible, the bedside rail is not locked.</p>
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Note If the double lock is not operated, the unlock lever cannot be operated. Follow the correct operation procedure.

 WARNING	When folding down the bedside rail, perform the operation slowly. If you release your hand or lower the bedside rail quickly during the operation, you may be injured or the bedside rail may be damaged or deformed.
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6 REGULAR INSPECTION AND MAINTENANCE

Regular inspection

- To ensure safety, inspect the bedside rail regularly, at least once a year. The product wears out and deteriorates differently depending on the frequency of use and the environment. Inspect for loose parts and damage and the operation of the moving parts regularly.
- If you notice an irregularity or want a detailed inspection, contact your distributor or Paramount Bed (see the back cover).

Inspection items	There must not be any damage or deformation.
	The fixing bolts must not be loose.
	The bedside rail can be raised smoothly.
	The bedside rail locks and is not unlocked even if shook gently.
	There must not be any peeling of labels, and the text must be legible.
	There must be no detached parts.

Maintenance

Removing stains

Perform steps 1 to 3 below.

1. Wipe off stains with a cloth soaked in a neutral detergent diluted with water and wrung out well.
2. Wipe off any residual detergent with a cloth soaked in water and wrung out well.
3. Wipe off any residual moisture with a dry cloth.

Disinfecting parts

Use one of the disinfectants listed below at the specified concentrations by following the instructions in the instruction manual for the disinfectant.

76.9% to 81.4%	Ethanol for disinfection
Up to 0.2%	Benzalkonium chloride (e.g., Osvan)
Up to 0.2%	Benzethonium chloride (e.g., Hyamine)
Up to 0.05%	Chlorhexidine gluconate (e.g., Hibitane)
Up to 1.0%	Sodium hypochlorite (e.g., Milton)

* It is recommended to disinfect the bedside rail before another person uses the bedside rail.



CAUTION

- Do not use volatile cleaning solutions (such as paint thinner, benzene, or gasoline) or cresol. Discoloration or deterioration may result.
- Do not use disinfectants other than those listed above. Damage or deterioration may result.
- Thoroughly wipe off parts with a damp cloth after using a neutral detergent or sodium hypochlorite. Not doing so may cause cracking of the resin parts.

Note

An ozone sterilizer, autoclave, bed cleaning machine, etc. cannot be used for the bedside rail.

7 LONG-TERM STORAGE

■ The following precautions should be followed when the bedside rail will not be in use for a long period of time.

- Do not place any objects on the bedside rail.
- Avoid storing the bedside rail in a location subject to high temperature or humidity, low temperature, dryness, or excessive dust.

Store the bedside rail at a temperature between -10°C to 50°C and humidity between 20% to 90% RH.

- Keep the instruction manual in a safe place so that it does not become lost.

■ Bed disposal

- When the PS-0232S and PS-0232D have reached the end of its usable life, discard it according to local standards.

8 SPECIFICATIONS AND SUITABLE PRODUCTS (BEDS)

Product name		Collapsible Bedside Rail
Model No.		PS-0232
Color of top pipe		S: Silver D: Walnut (dark)
Dimensions (cm) Length x height*1)	When using	145.3 x 45.0
	When folded down normally	180.8 x 12.8
Product weight (kg) (per bedside rail)		7
Main materials		S: Aluminum (solvent coating) D: Aluminum (solvent coating) + Wood grain pattern (olefin sheet affixed)
Suitable products (beds)*2)		PA-9****
Patient target groups	User weight (min-max)	See the instruction manual for the bed to be attached with the bedside rail.
	Minimum user height	
	Minimum user body mass index (BMI)	
	Supported age range	13 years of age or older*3)
Intended users		Health care workers, patients, relative of patient, and maintenance staff
Clinical benefit		Prevent patients falling off from bed.
Service life		8 years (based on Paramount Bed data), excluding consumable items such as attachment part A and attachment part B

*1) The height is from the bottom pipe to top pipe.

*2) Also see the instruction manual for the bed to be attached with the bedside rail.

*3) Do not use the bed for children (aged 12 or under).










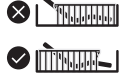

- Classification as medical device in Europe: Class 1











Environmental conditions	Range	
	When transported or stored	Operation
Temperature	-10 to 50°C (14 to 122°F)	10 to 40°C (50 to 104°F)
Humidity	20 to 90% RH	30 to 75% RH

Note

Suitable products may be changed due to specification changes or combinations. In addition, some suitable products may not be listed in the table due to new release or discontinuation of sales. For any queries about suitable products, contact your distributor or Paramount Bed.

9 PRODUCT SYMBOL DEFINITIONS

Symbol	Description
	Be careful not to get a hand or foot caught in a gap in the bedside rail.
	Be careful not to let go during operation.
	Be careful not to get your head, neck, or other body part caught in a gap in the bedside rail.
	When using an IV pole, be careful not to get the tube or other part caught.
	Unlock method of bedside rail stopper
	Status of bedside rail stopper x (both red and green indicated): half-engaged state ✓ (green only indicated): locked state
	Be careful not to get a hand or finger caught.
	Refer to the instruction manual.
	Do not pass a tube or other part through support bars.
	Attach the bedside rail in the correct position and orientation.
	CE mark

Symbol	Description
	Refer to the instruction manual
	Manufacturer * It may be called “Legal Manufacturer” or “Brand Owner” etc. * This symbol is not applicable in the country of origin.
	Date of manufacture
	<ul style="list-style-type: none"> ● Country of manufacture (Made in Vietnam) ● Manufacturing site * In the country of origin, the site acts as the manufacturer.
	Serial number
	Model number
	Medical device (This product is a medical device in Europe, and may be a medical device in some countries and regions depending on their regulations.)
	Authorised representative in the european community
	This is a 2D Code (GS1 DataMatrix) that encodes the UDI (Unique Device Identifier) required by the Unique Device Identification System designed to adequately identify devices through distribution and use.
	Lot number

* Some symbols may not be displayed depending on the model.

10 AFTER-SALES SERVICE

1. When requesting repairs

Contact your distributor or Paramount Bed (see Contact Information below) to request repair.

■ Details necessary when requesting repair

- Product name and model number
- Number on product ID label (affixed location: see “2 PART NAMES AND CHECKING PARTS” on p. 1)
- Date of purchase
- Details of the damage or problem (please provide as much detail as possible)
- Your name, organization, address, and phone number

■ Consumable parts



Attachment part A and attachment part B are consumable parts.

2. Minimum stock availability period

Paramount Bed keeps replacement parts (necessary to maintain performance of the product) in stock for at least 8 years after the discontinuation of production.

3. Questions regarding after-sales service

Contact your distributor or contact PARAMOUNT BED CO., LTD. (Location in Japan). Please do not contact PARAMOUNT BED VIETNAM CO., LTD (Location in Vietnam) directly.

[Location in Japan (Manufacturer)]	[Location in Vietnam (Manufacturing premises)]
 PARAMOUNT BED CO., LTD. 14-5, 2-chome, Higashisuna, Koto-ku, Tokyo, 136-8670, Japan Tel : +81-(0)3-3648-2961 Fax : +81-(0)3-3648-5781	 PARAMOUNT BED VIETNAM CO., LTD Lot H-1, Long Duc Industrial Park, Long Duc Ward, Long Thanh District, Dong Nai Province, Vietnam Tel : +84-251-368-1181

For other contact information, please visit the website.
Website: <https://www.paramount.co.jp/english/>

