

User Manual

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KK-800 KK-801 KK-802 Para Transformer Emergency Stretcher



Introduction

Thank you for your patronage of Paramount Bed products.

This manual describes precautions and safety information to be aware of while using the emergency stretcher.

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

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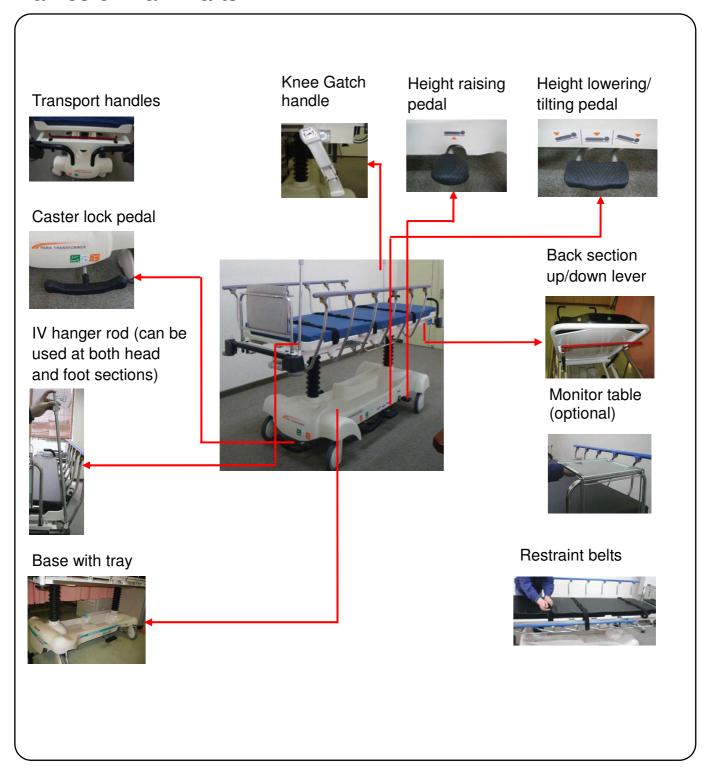
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Intended Use

Scope of Use

■ This product is designed for use in all hospital departments, and particularly for emergency treatment of acute patients.

Names of Main Parts



■ Thoroughly read this section before use to ensure that operation is performed correctly.

Precautions

The precautions and safety information provided in this section are intended to ensure safe use of the stretcher and prevent injuries and property damage. Precautions are classified into three categories: Warning, Caution and Prohibited, depending on the degree of danger, the type of hazard, and the damage or injury that could result from incorrect operation. The information and instructions that accompany these three important safety icons must be followed carefully.

A general description of each icon is provided below. Be sure you read and understand each.

| ⚠ WARNING | Indicates actions that could result in fatal injury if the indication is ignored. | | |
|---------------------|--|--|--|
| △ CAUTION | Indicates actions that could cause injury or property damage if the indication is ignored. | | |
| ○ PROHIBITED | Indicates actions that are prohibited. Specific details may be indicated inside or below the symbol. | | |

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

WARNING

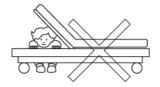
■ Make sure the patient's body parts do not get caught in the gaps in the side rails.



- Do not place the patient's head, neck or other body part into the gaps in the side rail. Doing so could cause injury.
- Make sure that the patient's head, arms and legs do not extend beyond the rail.



- If a patient's head, arms or legs extend beyond the rail, they could be caught in the rail, causing injury.
- Before moving the stretcher to transfer a patient, be sure to set up the side rails.
 - Failure to do so could cause the patient to fall out of the stretcher when the stretcher is moved, causing injury.
- Do not crawl under or place the patient's head, hands, or legs under the stretcher.



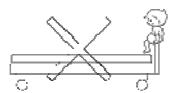
- Do not crawl under the stretcher or allow the patient's head, wrist or feet to extend under the stretcher. Doing so could cause body parts to be caught between the movable parts of the stretcher (such as the stretcher base) and the stretcher frame, causing injury.
- Always be sure casters are locked, except when moving the stretcher.



- Failure to do so could cause the patient to fall out of the stretcher.
- Always use the stretcher in a manner consistent with the patient's condition.
 - Improper operation could adversely affect the patient's medical condition. Before allowing patients or family members to independently operate the product, have a doctor or nurse perform any such operation in strict accordance with the instructions in this manual, referring to the patient's condition, and then ask them to explain in detail how to correctly operate the stretcher.

ACAUTION

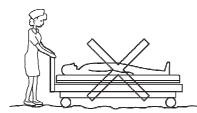
■ Do not sit on the rail.



- Doing so could damage or deform the side rails, or could cause accidental injury or damage due to falling down.
- Keep away from heat sources.



- Do not place heat sources near the stretcher.
 Doing so could damage or deform the stretcher, or even cause the stretcher to catch fire.
- Before operation, carefully check the area around the stretcher.
 - When the patient is resettled in the stretcher or the stretcher is adjusted, objects nearby or under the stretcher could be damaged, or the stretcher itself could be damaged or deformed.
- Do not move the stretcher on uneven surfaces.



- Doing so could cause the stretcher to tip or fall over.
 If you must move the stretcher on an uneven surface, always move slowly and carefully.
- Do not sit on raised sections.



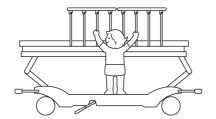
- The extra pressure applied by doing so could damage or deform the stretcher.
- Do not stand on the caster control pedals.



 Doing so could damage or deform the pedals, and could also cause injury due to falling.

ACAUTION

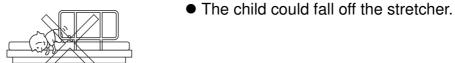
Do not stand on the base.



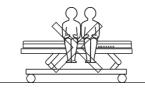
- Doing so could damage or deform the base, and could also cause injury due to falling.
- Do not lift side rails up/down while moving the stretcher.
 - Doing so could damage or deform the rails.
- Do not apply caustic chemicals such as pesticides to the stretcher surface.
 - Doing so could damage the stretcher or fade the surface of the stretcher, or could corrupt or dissolve casters or other plastic parts, which could lead to an accident or injury.

O PROHIBITED

■ Do not allow children to hang off the stretcher when performing treatment.



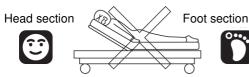
■ Do not allow two or more patients to sit on the stretcher at the same time.



- The stretcher is designed for use by one patient and cannot be used by two or more patients at the same time.
- Do not directly connect or attach other products to this stretcher.
 - Doing so could cause unwanted stress on the stretcher and could cause injury or mechanical failure.
- Do not hang heavy things on the side rails or obstruct the movement of the rails.
 - Doing so could interfere with normal operation of the stretcher, causing the rails to be squeezed, injuring the patient, or damaging or deforming the stretcher.
- Repairs and maintenance must only be performed by a qualified technician.



- Allowing an unqualified person to attempt to repair the stretcher or perform maintenance could cause injury due to a mechanical failure.
- Always be sure that patients are correctly oriented.
 - If patients lay in the wrong direction, when the back or knee sections are raised the patient could be injured or be in an improper sleeping posture.
- When patient is prone, do not raise the back section.



 Doing could cause the patient to be in an improper position, causing injury.

Do not jump on the stretcher.



 Never allow anyone to jump on the stretcher, especially children. Doing so could hamper proper stretcher operation or cause injury.

3 Specifications

| Commercial name | | Para Transformer | | | |
|--|-------------------------|--|----------------------------------|----------------------------------|--|
| Product name | | Emergency Stretcher | | | |
| Model | | KK-800 | KK-801 | KK-802 | |
| Medical device registration no. | | Registration no. 1560022 Approved by the Medical Devices Division of JWFDA, 2010 | | | |
| Product quality standard | | YZB / JIANGSU (WUXI) 0022-2010 | | | |
| Approved code of medical device manufacturer | | Manufacturer no. 2005-0007 Approved by the Medical Devices Division of JWFDA, 2010 | | | |
| Dimensions | Mattress base length | 1880 mm | 1880 mm | 1880 mm | |
| | Mattress base width | 620 mm | 620 mm | 620 mm | |
| | Height adjustment range | 560 to 910 mm | 560 to 910 mm | 560 to 910 mm | |
| | Back raise | 0° to 90° | 0° to 90° | 0° to 90° | |
| Functions | Knee raise | 0° to 40° | 0° to 40° | - | |
| | Tilting | 0° to ±18° | 0° to ±18° | 0° to ±18° | |
| Caster | | Diameter 200 mm (with 125 mm diameter central wheel system) | | | |
| Product weight | | Approx. 90 Kg | | | |
| Safe working load | | 225 Kg | | | |
| | Size | 1830 mm (L) x 610 mm (W) x 70 mm (H) | | | |
| Mattress | Cover | PU leather | | | |
| | Inner material | Urethane foam | | | |
| | Mattress base | ABS plastic | Back section (X-ray translucent) | Full length (X-ray translucent) | |
| Materials | Main structure | Steel with powder coating | | | |
| | Stretcher side rail | Stainless steel bars, transverse aluminum strut | | | |
| | Base with tray | ABS resin | | | |
| Oxygen cyli | nder volume | 4L (max.); Diameter: 140 mm | | | |
| | Back raise | Air spring actuator | | | |
| Raising | Knee raise | Feed screw actuator | | | |
| mechanism | Hi-lo raise | Hydraulic oil cylinder actuator | | | |
| | Tilt raise | Hydraulic oil cylinde | Hydraulic oil cylinder actuator | | |

Note: The safe working load value includes the weight of accessories.

4 Installation Requirements

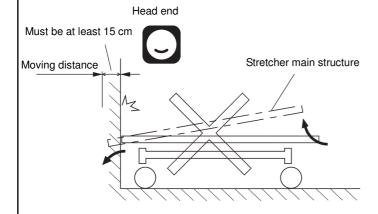
Installation requirements

To ensure safe and proper use, do not install or operate the stretcher in the following:

- Locations exposed to direct sunlight.
- Locations near thermal sources.
- Excessively wet locations or areas used to store liquids such as volatile petrochemicals.
- High temperature, high humidity, low temperature or extremely dry places.
- Locations exposed to excessive amounts of dust or smoke, or locations exposed to sulfides or other corrosive gases.
- Poorly ventilated places.
- Places exposed to vibration and swaying (including when transporting the stretcher).
- Locations with uneven ground or floors.

⚠ CAUTION

 To allow sufficient room to raise and lower the head and foot sections of the stretcher, make sure that the stretcher is least 15 cm from the wall.



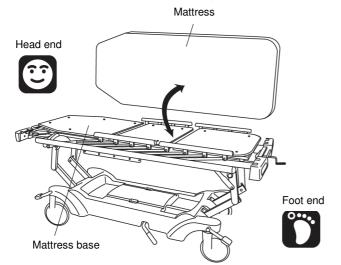
5 About the Mattress

Mattress

O PROHIBITED

 The mattress is specifically designed for use with the emergency stretcher. Mattresses made by other manufacturers and other types of mattresses cannot be used; attempting to use some other mattress could cause injury or affect clinical treatment.

The mattress is correctly mounted and unmounted as shown below.



Mounting the mattress
Mount the mattress as shown to the
left, so that the four corners can be
completely secured to ensure they do
not move in any direction.

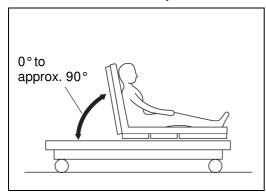
Unmounting the mattress Pull the mattress up and forward.



 Before using the mattress, inspect it for damage; if any damage is found, contact your dealer or Paramount Bed.

6 Up/Down Functions Instructions

Back section up/down



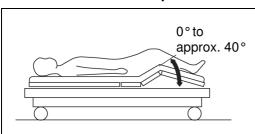
 The back section base can be manually adjusted in a range of 0° to 90°.



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Back section up/down lever

Knee section up/down



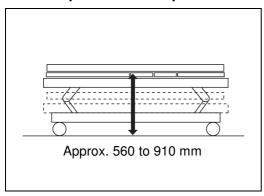
 The knee board can be manually adjusted in a range of 0° to 40°



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Knee Gatch handle

Hi/Lo position up/down



• The height of the mattress base can be adjusted in a range of 560 to 910 mm from the ground.

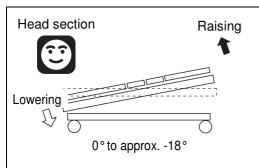


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Hi/Lo control pedal

6 Up/Down Functions Instructions

Tilting (Trendelenburg)



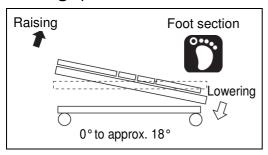
 The tilt adjustment pedal can be used to tilt the head section of the stretcher to an angle of 0° to -18°.



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Adjustment pedal

Tilting (reverse Trendelenburg)



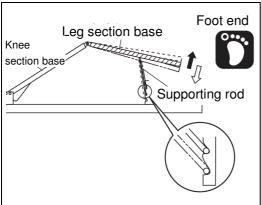
 The tilt adjustment pedal can be used to tilt the foot section to an angle of 0° to 18°



Page 16

Adjustment pedal

Adjusting the angle of the leg section



• The leg section base can be adjusted.



 When returning the knee section base to the horizontal position, you must first raise the leg section base to the highest position, then lower it back down.



• When a patient is laying on the stretcher and it is necessary to raise the leg section base, if someone or something is blocking the operator's ability to observe adjustment of the leg section base, to ensure the operation is performed smoothly first clear the obstacle that is blocking the operator's vision.

Back section up/down adjustment

The back section up/down lever can be used to adjust raising/lowering angles.

Head section





Note: For explanatory purposes, in the above photo the mattress is removed, but it is not necessary to remove it during adjustment.





WARNING

 When adjusting the angle of the back section base, you must lock the casters first. Not locking the casters could cause the stretcher to move suddenly, causing injury or damage to equipment.

Raising operation

 Holding the back section up/down lever with both hands, squeeze it, then lift up and release the lever when it is in the desired position.

Lowering operation

 Hold the back section up/down lever with both hands, squeeze it, then press down and release the lever when it is in the desired position.





 To the extent possible, this adjustment should always be done with two hands.

Knee section up/down adjustment

- Holding the knee Gatch handle, pull out to the rotating shaft start position, then push the crank handle down.
- Rotating the handle clockwise raises the knee section base; rotating the handle counterclockwise lowers the knee section base.



Knee Gatch handle position



 Holding the handle, push the handle forward, then when done fold the handle back in its original position

MARNING

 When not using the handle make sure it is folded in the storage position. Failure to do so could cause injury due to bumping against it.



- When the handle is rotated up to the highest position, rotation stops. Do not attempt to force the handle further, as doing so could cause a mechanical failure.
- Do not stand on or step on the handle. Doing so could cause injury or could damage the stretcher.

Hi-Lo position adjustment

■ The up/down pedals can be used to raise or lower the height of the stretcher from the ground.



 Before raising or lowering the stretcher, always check that the casters are locked.
 If casters are not locked and you attempt to raise/lower.

If casters are not locked and you attempt to raise/lower stretcher, the stretcher could move suddenly, causing injury or damaging the stretcher.



Raising pedal

■ Using the pedal to raise the stretcher Step on the pedal until the stretcher is raised to the desired height, then release the pedal. The stretcher will stay at that position.



Lowering pedal

Using the pedals to lower the stretcher Step on the lowering pedal to lower the stretcher to the desired height, then release the pedal. The stretcher will stay at that position.



 When making height and tilt adjustments, first confirm the patient's condition and then perform any such operations slowly.

Tilting adjustment (Trendelenburg / reverse Trendelenburg)

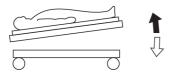
Step on the head side tilt pedal to carry out Trendelenburg adjustment of the emergency stretcher. If the stretcher is in Trendelenburg state, stepping on the foot side tilt pedal brings the stretcher back to the horizontal position.



Lowering stretcher height / tilting pedal



 Before stepping on the pedal, make sure the casters are locked. If casters are not locked and you attempt to adjust the stretcher, the stretcher could move suddenly, causing injury or damage.



1

■ Tilting pedal operation

Trendelenburg adjustment
Step on head side of tilt pedal → Lowers head section

Trendelenburg adjustment
Step on foot side of tilt pedal → Lowers foot section

8 Casters

Central Lock Systems

MARNING

 Always keep the casters locked except when moving the stretcher. If casters are unlocked, the patient could fall out of stretcher, causing injury.



 The central lock system pedal is mounted under the base with tray. The central lock system pedal can be used to lock or unlock all four casters at the same time. (See the diagram to the left.)

Operation

- (1) Lock all four casters at the same time (Lock position) Stepping on the pedal with orange label locks all four casters at the same time. The stretcher cannot be moved with the casters locked.
- (2) Unlock all four casters at the same time (Free position)
 Returning the pedal to the horizontal position unlocks the four wheels. The stretcher can be moved freely.
- (3) Set the casters to move only straight (Steering position) Stepping on the pedal with green label sets the casters so that the stretcher can only be moved in a straight line.



- When the casters are locked, do not forcefully attempt to move the stretcher. Doing so could cause injury or could damage the stretcher.
- Do not stand on the central caster lock system pedal. Doing so could damage or deform the pedal.

9 Side Rails

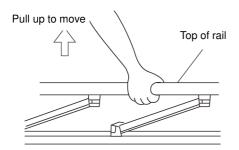
Side rails are installed on both sides of the stretcher to keep patients and objects such as the mattress from falling off the stretcher and also to make it easier to transport patients.

△ CAUTION

- Do not lean against the side rails or attempt to move the stretcher by pushing/pulling the rails. Doing so could damage or deform the rails.
- When raising or lowering rails, take care to keep the patient's head, neck, arms and legs from getting caught in the rails, which could cause injury.

OPROHIBITED

 If the patient is lying or sitting on the stretcher, do not attempt to move the stretcher without the rails in position.
 Doing so could cause the patient to fall out of stretcher, causing injury.



Lifting the rails up and into position

- Lift the rails to their highest position. They will automatically lock into place.
- Holding the top of the rail, push it toward the head and foot section, then confirm that the rails are locked in the proper position.





Lowering the rails

 Holding the top of rail with one hand, use your other hand to lift up the safety lock lever until the rail is released. Once released, slowly lower the rail.

∆WARNING

 After lifting the rail, confirm that the safety lock lever is inserted into the lock slot and is locked in place. Failure to do so could cause the patient to fall out of the stretcher if the rails suddenly release, causing injury.

10 Oxygen Cylinder Holder

Head end





 The oxygen cylinder holder can hold an oxygen cylinder with a diameter of 100 to 400 mm.



 Position the oxygen cylinder in the holder as shown on the left.





 The oxygen cylinder holder is designed specifically for oxygen cylinders; do not put other things in it.



- When using an oxygen cylinder, use care not to touch other things. Doing so could damage the unit.
- Do not stand on the holder or use it to crawl up onto the stretcher. Doing so could cause injury due to falling.

11 Transport Handles

△ CAUTION

- When moving the emergency stretcher, always use the transport handles. Attempting to move the stretcher by pulling or pushing other parts of the stretcher could deform or damage the stretcher, or cause injury.
- Do not attempt to move the stretcher by pushing the transport handles vertically. Doing so could cause the transport handles to release or fall suddenly, possibly causing operator accident or injury.



■ The transport handles are mounted in the head end.

(see the photo on the left)



Lifting the transport handles into place

- (1) Holding the transport handles, lift them up vertically.
- (2) Gently insert the raised transport handles into the locking slot.



Returning the transport handles to their original position

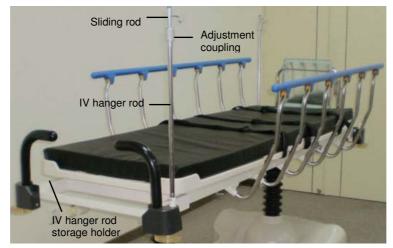
- (1) Pull the transport handles up out of the locking slots.
- (2) Gently fold the transport handles down into their original storage position.

12 IV Hanger Rod

Using an IV or other small medical devices

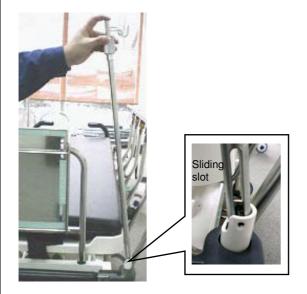
Head end





Foot end





Adjusting the sliding rod

(1) Loosen the adjustment coupling and adjust the sliding rod to the desired height, then tighten the coupling.

Putting the sliding rod away

- (1) Loosen the adjustment coupling, push the sliding rod into the stand tube of the hanger rod, then tighten the coupling to secure the sliding rod in place.
- (2) Pull the entire hanger rod up to the bottom of the sliding slot, then fold it. (See the photo on the left.)
- (3) One end of the sliding rod can be stored in the hanger rod storage hole on the other side of the stretcher. (See the photo on the left.)





- When using the IV hanger rod, make sure not to allow hands or arms to be caught in the gap between the mattress base and hanger rod. Failure to do so could cause injury.
- The maximum load for each hook is 1 kg. Hanging more weight than that on a hook could damage the hook or cause injury.

13 Restrait Belt

- Restraint belts can be used to secure patients (especially patients in a severe coma and others who are immobile).
- Restraint belts can be installed in three locations, the back, knee and leg sections of the mattress base.

△WARNING

- Do not raise or lower the back or knee sections when the patient is secured to the strethcer. Doing so could injure the patient.
- Do not run the restraint belt through the side rails or stretcher steel structure when the patient is being secured.
 Doing so could place excessive tightening force on the patient when the stretcher is adjusted, causing injury.
- If the restraint belt is not secured properly it could cause the patient to fall out of stretcher, causing serious injury.



Securing the restraint belt

- (1) Thread the end of the restraint belt through the mounting hole on the stretcher. (The restraint belt goes up through the mattress base.)
- (2) Pull with sufficient force to check belt strength.



Restraint belt mounting hole

Using the restraint belt

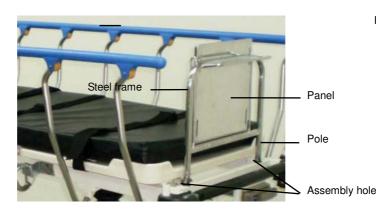
- (1) Place the patient on the stretcher and then connect the two buckles.
- (2) Tighten the belt until it is snug, then check that the patient is securely positioned on the stretcher.

14 Accessories (Monitor Table)

The optional monitor table allows you to customize the stretcher and make it easier to view records. It can also be removed or put away when not in use.

Head end











Using an optional monitor table

(1) Insert the poles of the monitor table into the assembly holes at the end of the stretcher, and leave the monitor table positioned vertically.

To use the monitor table, pull the table upwards and then flip it down into the horizontal position (available back and forth).



When not in use

(1) When not in use, put the panel in the vertical position.

\triangle CAUTION

- Check that the poles are correctly positioned in the assembly holes.
- To keep the monitor table from falling, remove objects at the end of the stretcher.
- The safe working load of the monitor table is 20 kg; putting more weight than that on the table could warp the panel board, or could damage or deform the monitor table.
- Be sure that the monitor table is set up properly. Failure to do so could cause the monitor table to fall suddenly, possibly causing injury.
- When closing the panel, be careful not to catch your hand in the table.

15 Maintenance

- Carry out safety inspections regularly. To keep the stretcher in good working order and extend the working life of the stretcher, tighten loose bolts and apply oil where needed.
- Always keep the stretcher frame and the mattress dry. Water and moisture can corrode metal parts, possibly causing loud noise or the growth and reproduction of bacteria. If any part of the stretcher is wet, wipe it dry immediately.

Cleaning the Stretcher Body

Soak a clean towel in a solution of diluted detergent, then wring it out and wipe the surface of the stretcher. Repeat with a dry towel to wipe dry.

Note: Do not use volatile detergents to clean the stretcher, such as thinners, benzene cleaner, or gasoline, as such chemicals could not only cause resin on metal surfaces to flake off or fade, but also could discolor plastic products or even possibly cause them to dissolve.



When using detergent, the chemicals below must be diluted to the specified concentration before use.

- Ammonium chloride disinfectant: 0.05% to 0.2%
- Phenyl chloride disinfectant: 0.05% to 0.2%
- Chlorhexidine solution: 0.05%

Cleaning the mattress

- The removable mattress cover features a water-resistant coating, making it easier to clean. It can be washed either by hand or in a machine.
- When washing, use a neutral detergent. When washing by hand, rub gently without scrubbing hard, then rinse with water and air dry.
- Use warm water that is less than 30 ℃ and do not use bleach.
- Do not use a dryer. After washing, air dry in the shade, not exposed to direct sunlight.
 Make sure the unit is completely dry before use; if used before completely dry or placed in long-term storage while still damp, mildew could develop.
- Do not iron the mattress cover.
- In normal usage conditions, the mattress should be cleaned and dried regularly (once or twice a month) to eliminate moisture and sweat.



 Do not use an ozone sterilization device or autoclave to clean the stretcher body and mattress.

16 Long-Term Storage

Storage

- If the stretcher will be not used for a long period of time, strictly observe the following maintenance and storage instructions.
- 1. Adjust the back section base and knee section base to their base horizontal position, and lower the stretcher height to the lowest position.
- 2. Do not place items on the stretcher surface.
- 3. Do not place items on the mattress.
- 4. Avoid placing the stretcher in a high temperature, humid, or dusty environment.
- 5. Please do not leave the stretcher in erect or inclined status.

Inspection

- Before use, confirm the following items.
- 1. Back Raise / Knee Raise / Hi-Lo / Tilting / Leg Section Base Angle adjustment (pages 11-16)
- 2. Caster locking / release adjustment (page 17).
- 3. Side rail locking / release adjustment (page 18).

17 Troubleshooting

- Not all problems are mechanical failures, so you should read through the following information before requesting repair. If your problem is not listed or you are still unable to resolve the issue, stop using the stretcher and contact us.
- If a natural disaster such as an earthquake, fire, or flood occurs, contact us immediately to request maintenance and/or repair.

| Symptom | Inspection | Solution | Page |
|--|--|---|------|
| When the knee section base is adjusted to the highest or lowest position, operation by rotating the hand crank cannot be carried out in reverse. | exert excessive force at the highest or | Rotate the hand crank in the opposite direction. | 14 |
| When the knee section base is lowered to the level position, the leg section base cannot be returned to the horizontal position. | Was the strut bar of the leg section base in the normal position? | • Lift the leg section base to the highest position, then put it back down. | 12 |
| Could not return all parts of the stretcher to their proper position. | Are there any obstructions that prevent proper operation of the stretcher? | Remove obstacles. | - |
| Cannot move the stretcher. | • Are the casters locked? | Unlock the casters. | 17 |
| Although there is no problem moving the stretcher on a smooth surface without any barriers, it is difficult to turn. | Is the central wheel system blocked by something? Clear the obstruction. | Check the movement of the central wheel system. | - |

- When requesting maintenance or repair, you will need the information on the product identification label.
- Label is pasted here







Product identification label

Certification

17 Follow-Up Service

1. When you require repair

First read through the descriptions in Section 17, "Troubleshooting" (page 26). If you are still not able to resolve the issue, or the stretcher does not work normally, contact us for additional assistance.

- When contacting us, you will need the following information:
- Product name and type
- Manufacture lot number and serial number written on product ID label
- Detailed description of issue
- Purchase date
- Name of buyer or contact person, address and telephone number

2. Replacement Parts

As products are upgraded, from time to time we may not be able to supply original parts.

3. Follow-up service

If any aspect of our service is unclear, please contact your dealer or Paramount Bed at the address below.

P PARAMOUNT BED

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