

INSTRUCTIONS FOR USE

Prioma Medical Bed



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1. INTRODUCTION

NOTE: This Manual is not model specific and covers the complete range of features & options available to the Prioma bed range

NOTE: If fitted the beds battery back-up unit should be charged for 24 hours prior to first use. This requires the bed to be plugged to mains power.

Prioma beds are electrically actuated acute care beds that have a range of functions and positional movements that assist caregivers and provide for patient comfort. Ease of use, functionality, serviceability and cleaning practicality are key features of the Prioma bed. All Prioma beds have a fabricated steel structure with a powder coated finish. The plastic components are made from urethane, PP and POM nylon, ABS and HDPE plastic.

Clinical Applications and Area of Use

Prioma beds are appropriate for high dependency patients who pose a moving and handling risk and or whose clinical condition requires that they are positioned with minimal physical handling. Patients with a moderate amount of independence can, at the carer's discretion, use the patient controls to adjust their own position.

Prioma Key Features

- Total safe working load (SWL) of the bed 250Kg. Maximum Patient Weight 185Kg.
- Electrically adjusted height range - Prioma beds (**depending on castor choice**) work within a height range of 370mm low height to a maximum high height of 835mm.
- Castors depending on model: 125mm Individual locking castors with foot operated brake pedals. Central locking castors with foot pedal operation of the braking and steering castors. Central locking castors are either 125mm, or 150mm diameter and single, or twin wheeled.
- Electrically actuated mattress platform Trendelenburg tilt (14°) and reverse Trendelenburg tilt (14°), which includes an electronic horizontal timed stop function.
- Four sectioned electrically operated profiling mattress platform with independent adjustment of backrest angle (70°), thigh section angle (35°) and manual adjustment of calf section angle (0° down to 25°).
- Retracting backrest to help reduce abdominal squeezing.
- If fitted: Auto Contour Positioning - Provides synchronised movement of the backrest and knee positioning in one operation.
- If fitted: Manually operated (ratchet positioning) calf/foot elevation.
- If fitted: Integral mattress platform extension.
- If fitted: Integral bed linen stripper.
- Side rails depending on model: Three quarter length horizontal steel tubular fold down rails, or light weight, durable plastic split side rails (3/4 length or full length) with or without integrated control panels and angle indicators.
- Light weight, strong and durable interchangeable plastic blow moulded head and foot panels.
- If fitted: Under bed light.

2. WARNINGS & CAUTIONS

Important that this User Manual is read in its entirety prior to the operation of the bed. The manual is designed to ensure that users are equipped with the information required to competently and responsibly operate the bed and its accessories.

It is recommended that the User Manual be kept in an easily assessable place for quick reference. If required Arjo product specialists can provide additional training.

All warnings and cautions within this manual should be strictly adhered to. Failure to do so could result in harm to the patient, or operator.

Warnings highlighted throughout this manual identify possible hazards in procedures or conditions, which if not followed correctly could result in serious injury or fatality.

Cautions highlighted throughout this manual identify possible hazards in procedures or conditions, which if not followed correctly could result in equipment damage or failure.

If in the event of a serious incident occurring in relation to the use of this medical device, affecting user, or patient then the user or patient should report the serious incident to the medical device manufacturer or the nominated distributor of the product. In the European Union, the user should also report the serious incident to the Competent Authority in the member state where they are located.

GENERAL WARNINGS

- Electrical equipment can be hazardous if used incorrectly.
- Do not use electrically operated beds in the presence of flammable gases.
- Do not use electrically operated beds in operating theatres.
- Use the bed to support one patient only. The Prioma bed is intended for one person use and may become unstable if used incorrectly.
- It is recommended that the bed be positioned at its lowest height when unattended by caregivers to minimise the risk of patient injury from falls when getting in and out of the bed.
- Residual current devices (RCD) are not supplied with the Prioma bed. Please consult with your Biomedical Engineer/advisor concerning RCD requirements.
- The full safe working load (SWL) of the Prioma bed is 250Kg with a maximum patient weight of 185Kg. The 250Kg SWL includes the mass of the patient, mattress and any accessories fitted to the bed.
- Do not place the handset if fitted, or the power cord across the mattress surface of the bed. When the bed is not connected to mains power always store the mains power cord within the power cord fixtures fitted to the bed.
- Do not use accessories that are not designed or approved for use with the Prioma bed.

2. WARNINGS & CAUTIONS - Continued

GENERAL SAFETY WARNINGS

- Always use a mattress of the correct size and type. A range of suitable pressure reducing and pressure relieving mattresses are available from Arjo.
- Before operating the bed make sure that the patient is safely positioned to avoid entrapment.
- Before transporting the bed make sure the power cable is disconnected from mains power and stored within the power cord fixtures at the head end of the bed. Adjust the bed to a suitable height to move without stooping or straining.
- Always apply the brakes when the bed is stationary.
- When the patient's condition could lead to patient entrapment the mattress support platform should be left in the flat position whilst unattended.
- The clinically qualified person responsible should consider the age, size and condition of the patient before using the bed and its accessories.
- Always ensure that all hospital lines and power cables are free from possible entanglement with mechanical parts of the bed.
- Always ensure that attendant and patient limbs are free from potential entrapment areas before operating any functions.
- Side Rails must only be used with a mattress of the correct size which is approved for use with the bed.
- The maximum mattress thickness for the Prioma bed is 170mm, the minimum mattress size is 125mm.

WARNING

- Ensure that the patient, caregivers and bedside equipment is not positioned to become either trapped or crushed during bed adjustment.
- Ensure that the power lead is not being stretched.
- Ensure that the handset cable if fitted and electrical supply cable cannot become entangled with moving parts of the bed.
- **DISCONNECT** the electrical power cable from the mains and store before transporting the bed.
- If the power cable shows any sign of damage, replace immediately.
- Some functions may cause injury to the patient if unintentional movement occurs. See Nurse Control Panel instructions for handset lockout to avoid unintentional movement.

CAUTION

- Do not operate the bed controls for more than the control systems prescribed duty cycle (i.e. no more than 6 minutes within a 60 minute period).

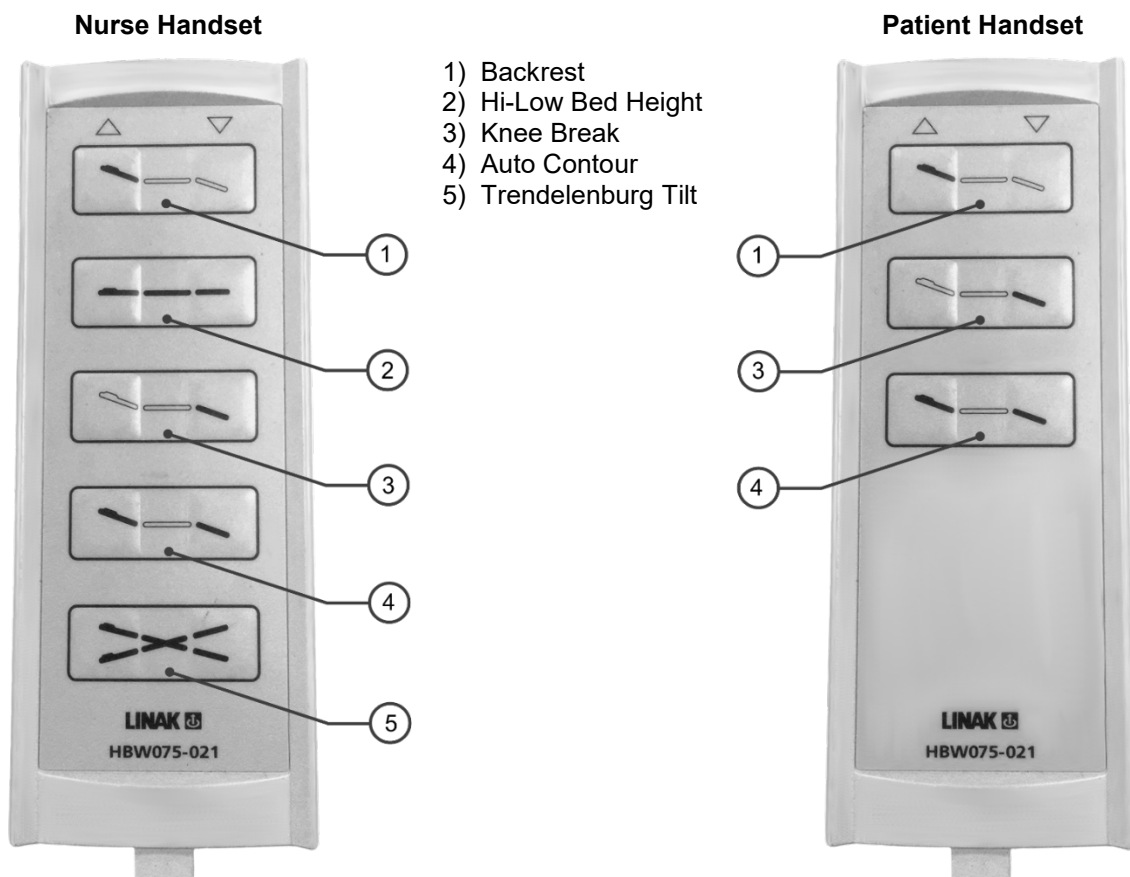
3. ELECTRONIC CONTROL DEVICES

3.1 Nurse & Patient Handsets

NOTE: The following category covers the range of electronic control devices and functions that are available on the Prioma bed range. The devices that are relevant depends on the model supplied. Some devices can be added if not fitted at time of purchase. Your Arjo specialist can assist you with after sales support on Prioma accessories and options.

NOTE: IF FITTED adjustment occurs only while a button is pressed. Adjustment will stop when the button is released, or the movement selection reaches the end of its range of adjustment.

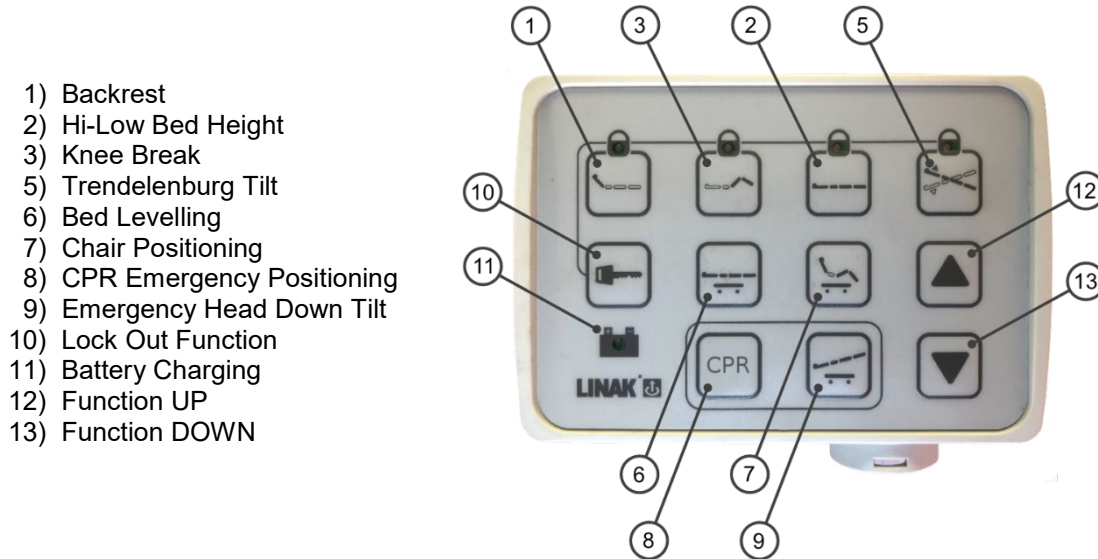
The Prioma bed Linak handsets are specific to nurse and patient. The patient handset with limited functions ensures patient safety from incorrect, or accidental function use. The handsets can be used around the perimeter of the bed and can be hooked over the beds rails, or head and foot panels for storage.



3. ELECTRONIC CONTROL DEVICES - Continued

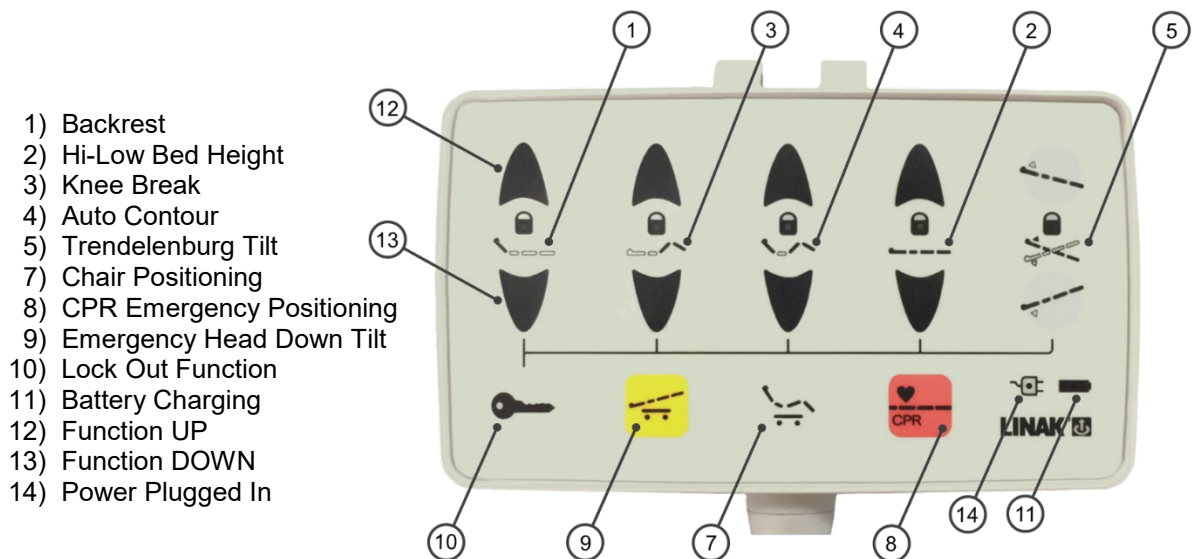
3.2 Attendant Control Panel (ACP) – Lock Out Box

The Attendant Control Panel (ACP) is a fixed unit at the foot end of the bed which can be used to operate the beds functions. The function of the ACP is to lock out and prevent unauthorised operation of the beds main functions. The ACP is located at the foot end of the bed.



3.3 Attendant Control OpenBus Mini Panel (ACOM) – Lock Out Box

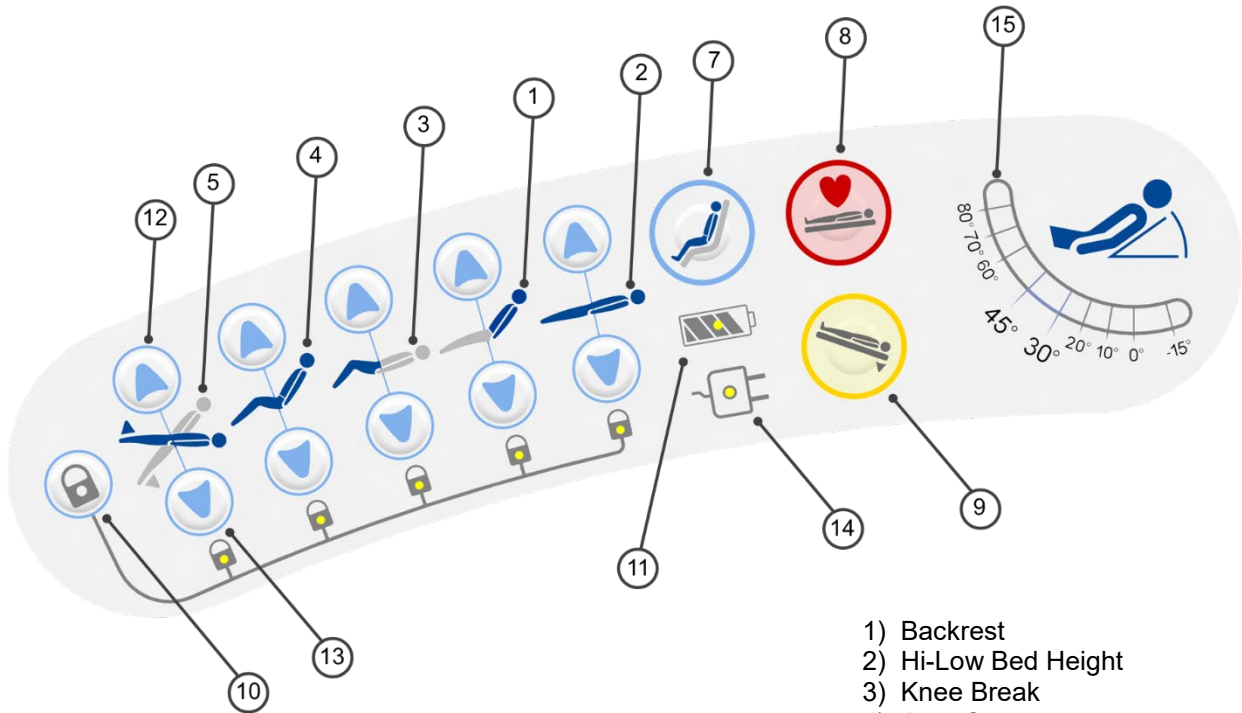
The Attendant Control OpenBus Mini (ACOM) is a highly functional control unit that is used in a similar way to a handset. The coiled cable allows for freedom of movement around the perimeter of the bed and can be hooked over the head, foot and side panels of the bed when not in use. It is also a lock out device preventing unauthorised operation of the beds main functions.



3. ELECTRONIC CONTROL DEVICES - Continued

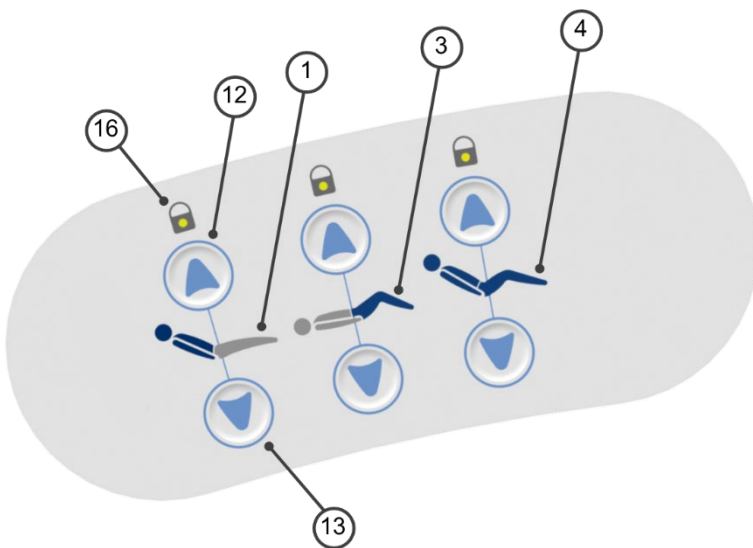
3.4 Nurse Side Control Panel Head End

Single button press, to go for all functions. Lock out to hi-low, back rest, knee break, auto contour and tilt positions. Emergency assist functions include chair position, Trendelenburg and bed levelling (CPR). Angle gauge is a ball bearing gravity movement type. Visual symbols include Power connected and battery indicator lights. Example is of the left hand side controller.



3.5 Patient Side Control Panel Head End

Single button press, to go for all functions. Limited functions for patient safety are back rest, knee break and auto contour only. Visual symbols for function locked out.



- 1) Backrest
- 2) Hi-Low Bed Height
- 3) Knee Break
- 4) Auto Contour
- 5) Trendelenburg Tilt
- 7) Chair Positioning
- 8) CPR Emergency Positioning
- 9) Emergency Head Down Tilt
- 10) Lock Out Function
- 11) Battery Charging
- 12) Function UP
- 13) Function DOWN
- 14) Power Plugged In
- 15) Backrest Angle Indicator
- 16) Locked Out Indicator

4. ELECTRONIC FUNCTIONS DESCRIBED

Prioma bed adjustments are powered by four electronic actuators which are either controlled by handset, or by the inset buttons on both sides of the head end side rail panels. They can also be controlled by an attendant control panel (ACP) at the foot of the bed, or by a hook over control unit (ACOM) which enable the beds functions to be disabled when required.

NOTE: The following categories cover the range of electronic control devices and functions that are available on the Prioma bed range. The devices that are relevant depends on the model supplied. Some devices can be added if not fitted at time of purchase. Your Arjo specialist can assist you with after sales support on Prioma accessories and options.

NOTE: Adjustment occurs only while a button is pressed. Adjustment will stop when the button is released, or the movement selection reaches the end of its range of adjustment.



(1) Backrest Adjustment

WARNING

Care should be taken whilst operating the backrest function to ensure hands and fingers are away from potential squeeze hazards.

NOTE: This control function is available to all control devices fitted to the bed.

To move the backrest up or down, press and hold the appropriate button or buttons on the control device. The backrest can be adjusted through a range of between 0° and 70°

The retracting backrest provides additional comfort for the patient by allowing the mattress to expand. When operating the backrest buttons the backrest slides progressively towards the head end of the bed. This action enlarges the seat section of the bed and helps prevent compression of the abdomen reducing shearing and risk of tissue damage.

The backrest adjustment actuator includes an inbuilt manual quick release CPR function as well as a disengaging spline drive that only uses force in the push direction.



(2) Mattress Platform Height Adjustment

WARNING

It is recommended that the bed be positioned at its lowest height when unattended by caregivers to minimise the risk of patient injury from falls when getting in and out of the bed.

4. ELECTRONIC FUNCTIONS DESCRIBED - Continued

NOTE: This control function is not available on the Patient Handset and Inset Patient Control Panel. It is available on all other control devices fitted to the bed.

To move the mattress platform up or down, press and hold the appropriate button or buttons on the control device. The beds platform height can be adjusted through a range (**depending on castor choice**) of 370mm low height to a high height of 835mm.

The mattress frame height adjustment uses two actuators working in conjunction and separate to each other creating the vertical lift and enabling the bed to tilt in opposite directions.



(3) Knee Positioning Adjustment

NOTE: This control function is available on all control devices fitted to the bed.

To move the knee positioning section up and down, press and hold the appropriate button or buttons on the control device. The thigh section is adjustable through a range of 0° to 35°, which provides adjustable support to the patient's legs.



(4) Auto Contour Positioning

NOTE: This control function is not available on the Attendant Control Panel (ACP). It is available on all other control devices fitted to the bed.

To move the auto contour positioning press and hold the appropriate button or buttons on the control device. Auto Contour Positioning provides synchronised movement of the backrest and knee positioning in one operation. The position helps provide a more natural resting environment for the patient.

NOTE: Auto Contour includes a function to level out the backrest and knee positioning in retraction to maintain mattress comfort and positioning. On pressing the retraction button there is a 10 second delay before the knee positioning starts to lower. It is set this way due to the knee positioning retraction being a much quicker movement than the backrest. The 10 second delay is set for all contour positions regardless of backrest angle. When the button is released the 10 second delay restarts.



(5) Tilt Positioning – Trendelenburg / Reverse Trendelenburg

CAUTION

Trendelenburg function should only be used under professional supervision.

4. ELECTRONIC FUNCTIONS DESCRIBED – Continued

NOTE: This control function is not available on the Patient Handset and Inset Patient Control Panel. It is available on all other control devices fitted to the bed.

To move the tilt positioning press and hold the appropriate button or buttons on the control device. The tilt button allows the bed to be positioned in a foot or head down tilt position. Tilt positioning achievable is between 0° and 14° for both head and foot down tilting.

- In use the mattress platform may initially rise before tilting. The bed will automatically adjust to ensure that there is adequate clearance between the mattress platform and the mechanical structure of the bed before tilting.
- When reversing the tilt angle of the bed with the tilt button or buttons remaining depressed, the mattress platform will pause at horizontal for two seconds before continuing with the tilting movement.



(6) Bed Levelling Function

NOTE: This control function is only available on the Attendant Control Panel if fitted to the bed.

Pressing “**BED LEVEL & UP**” will raise the deck until it is horizontal while simultaneously lowering the backrest and knee break back to a flat deck position.

Pressing “**BED LEVEL & DOWN**” will lower the deck until it is horizontal while simultaneously lowering the backrest and knee break back to a flat deck position.



(7) Chair Positioning Function

NOTE: IF FITTED - The Chair positioning function is available on the Attendant Control Panel (ACP), Attendant Control OpenBus Mini Panel (ACOM) and the Inset Nurse Side Control Panels at the head end of the bed if fitted to the bed.

Nurse Control Panel

Press and hold the “**CHAIR POSITION BUTTON**” until the desired position is reached. To return the bed to a flat position use the individual movement buttons (knee positioning, backrest etc) as required.

ACOM & ACP Units

Pressing “**CHAIR POSITION & UP**” will raise the head and lower the foot of the bed while simultaneously raising the backrest and knee break to create a seated position.

Pressing “**CHAIR POSITION & DOWN**” will lower the head and raise the foot of the bed while simultaneously lowering the backrest and knee break back to a flat deck position.

4. ELECTRONIC FUNCTIONS DESCRIBED – Continued



(8) Cardiopulmonary Resuscitation (CPR)

NOTE: IF FITTED - Cardiopulmonary Resuscitation Functions (CPR) are available on the Attendant Control Panel (ACP), Attendant Control OpenBus Mini Panel (ACOM) and the Inset Nurse Side Control Panels at the head end of the bed.

Note: For electronically activated emergency patient positioning functions, it is **NOT** necessary to press the 'up/down' buttons as the operation is programmed to operate directly from the associated button.

CAUTION

When electronic emergency patient positioning functions are activated, care should be taken over the potential of the beds moving parts to either trap or crush the patient, caregivers and or other equipment.

Pressing the SINGLE BUTTON PRESS button, the bed will automatically level all positioning functions back to a flat deck position whilst lowering the bed to a safe working height.



(9) Emergency Trendelenburg (head down tilt) Function

NOTE: IF FITTED Emergency Trendelenburg Positioning Function is available on the Attendant Control Panel (ACP), Attendant Control OpenBus Mini Panel (ACOM) and the Inset Nurse Side Control Panels at the head end of the bed.

Note: For the Emergency Patient Positioning Functions It is **NOT** necessary to press the 'up/down' buttons as the operation is programmed to operate directly from the associated button.

Pressing the “**TRENDELENBURG**” button will lower the head and raise the foot of the bed to the maximum tilt of 14°, while simultaneously lowering the back rest and knee break back to a flat deck position – **NO** pause if passing through horizontal.



(10) Lock Out Functions

NOTE: IF FITTED the lock out function is available on the Attendant Control Panel (ACP), Attendant Control OpenBus Mini Panel (ACOM) and the Inset Nurse Side Control Panels at the head end of the bed.

This facility allows users to selectively disable some of the electrical features of the bed. In normal operation the key functions of the bed should be in an (unlocked) state of use. This is indicated on the control panels by LED lights above the function buttons.

4. ELECTRONIC FUNCTIONS DESCRIBED - Continued

To lock and unlock each function hold the “key” or “lock” button and at the same time press the function button that is required to be locked or unlocked. An LED light will illuminate when the function is in the locked position.



(11) Battery Charge Indicator - Battery Backup

NOTE: IF FITTED the battery charge indicator is available on the Attendant Control Panel (ACP), Attendant Control OpenBus Mini Panel (ACOM) and the Inset Nurse Side Control Panels at the head end of the bed.

LED light illuminates when the battery is in charge mode.

IF FITTED with a battery backup system, it allows the electrically operated functions to be used for short periods when the bed is disconnected from mains power. The bed switches between mains and battery power automatically.

The battery is lead-acid and should be charged regularly and not be allowed to discharge fully. Fully discharging the battery will cause a reduction in battery life.

To charge the battery, connect the power cord to the mains supply. This should be done as often as possible to maximise battery life. If the bed is not used for a long period of time, it is recommended that the batteries are charged in accordance with the section on Transportation and Storage within this manual.

INDICATION of Battery Usage Expectancy Operating on Battery Only

All Figures are based on the Prioma bed carrying the Maximum Patient Weight (185Kg) positioned in compliance to IEC 60601-2-52. Battery usage depends on many variables such as battery age and charge capability. Cycles provided should be taken as a guide.

Each example was individually tested using a new and fully charged battery.

Testing was carried out under controlled conditions in compliance to the control box duty cycle limits (Intermittent 10%, Max 2 min / 18 min)

Hi-Low Operation Only (Lowest Height to Highest Height)	10 Cycles
Auto Contour Operation Only (Flat to Fully Profiled and Back to Flat)	50 Cycles
Backrest Only (Flat to Fully Profiled and Back to Flat)	60 Cycles
Knee Break Only (Flat to Fully Profiled and Back to Flat)	120 Cycles

WARNING

Do not expose the battery to open flame or immerse in liquid.

NOTE: The beds batteries should be charged for 24 hours prior to first use.

NOTE: Keep the bed plugged to mains power for optimum performance.

NOTE: Bed adjustment will be slower when the power cord is unplugged, and the bed is powered from its batteries only.

4. ELECTRONIC FUNCTIONS DESCRIBED - Continued

(12 & 13) Function “Up” & “Down” Buttons

NOTE: These control functions are available to all control devices fitted.



(14) Mains Power Indicator

NOTE: IF FITTED the mains power indicator is available on the Attendant Control OpenBus Mini Panel (ACOM) and the Inset Nurse Side Control Panels at the head end of the bed.

NOTE: Power cord storage is located at the head end of the bed. The cable should be stowed when the bed is unplugged or in transport by wrapping around the “cord minder” hooks.

(15) Backrest Angle Indicator

NOTE: IF FITTED the backrest angle indicator is on the Inset Nurse Side Control Panels at the head end of the bed.

NOTE: The backrest angle indicator is not a powered unit.

The backrest angle indicator is a ball bearing gravity based indication of the backrest angle. When the back rest is in its flat position the angle indicator also provides an approximate tilt degree indication also.

(16) Under Bed Lighting (not indicated on any control devices)

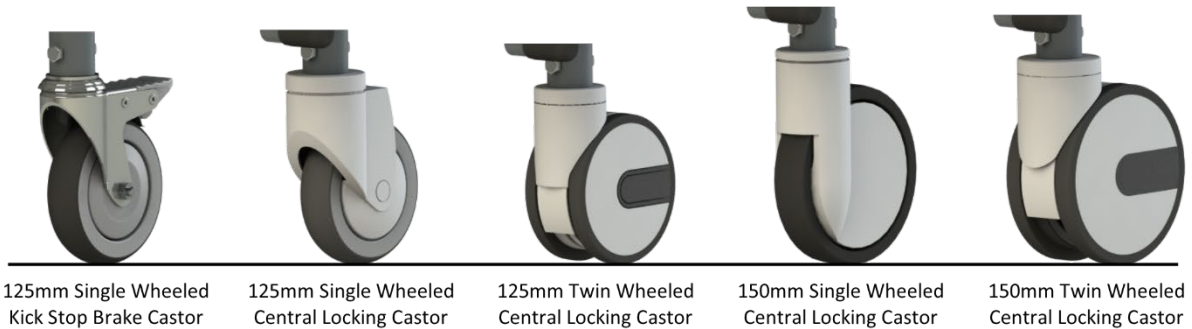
NOTE: IF FITTED the LED under bed light will be permanently on when connected to mains power.

The under bed lighting feature provides a soft LED illumination of the floor beneath the bed carriage. This safety feature provides floor illumination for patients at night when getting in and out of bed. In the event the bed is operating on battery power (e.g. during transport) the lights will power down after approximately 2-3 minutes of no button use.

5. GENERAL BED OPERATION

5.1 Castor Systems

NOTE: The Prioma bed has a range of castor options available. The following section covers the two main types of locking and steering mechanisms that are used.



Kick Stop / Pedal Brake Castors

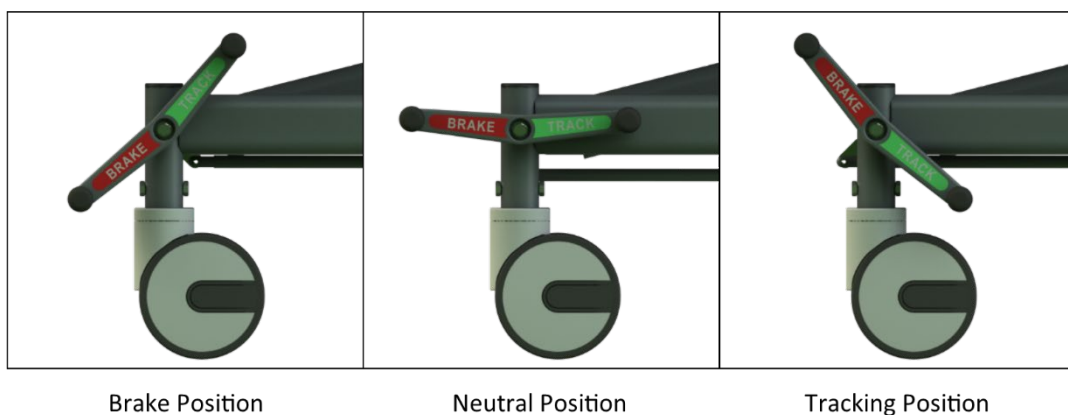
Four 125mm diameter single wheeled foot operated click on and off brake pedal operation.

Central Locking Castors – Brake & Steer

The central locking castor system is operated by the use of foot pedals found at the foot end of the bed. There is also the option of the foot pedals being fitted at the head end of the bed.

- With the pedals in the **Red - Down Brake** position the brakes are applied to all four castors of the bed simultaneously and the bed is immobilised.
- With the pedals in the **Horizontal Free** position the brakes are released, and the bed can be moved in any direction.
- With the pedals in the **Green - Down Steer/Track** position, a single steering castor at the head end of the bed is engaged to provide better control when pushing the bed in a straight line.
- When moving the bed, push from the foot end holding the panels top push rail.

Central Lock Pedal Positions



5. GENERAL BED OPERATION - Continued

CAUTION

- Disconnect the bed power cord before moving the bed.
- Do not remove the power cord from the source by pulling on the cord.
- Do not use the beds side rails to manoeuvre the bed.
- Do not pull on the power cord, or handset cord to manoeuvre the bed.
- Always apply the brakes when the bed is in a stationary position.

5.2 Bed Extension - IF FITTED

The integral bed extension is located at the foot of the bed and is extendable by 28.5cm from its normal closed position.

To Extend: Apply the central locking brakes. Pull up on the Release Handle and applying a central force pull out from the mattress platform. The Bed Extension automatically locks when fully extended and the latch lever is released.

To Close: Reverse the above operation.

5.3 Linen Rack - IF FITTED

The Linen Rack is used to rest clean linen on whilst bed sheets are being changed. The Linen Rack is located at the foot end of the bed and extends by 30cm.

To extend: Using two hands on the soft coated handle simply pull the friction held stripper rail towards you until it stops in its fully extended position.

Reverse to Close



CAUTION

- The Linen Rack load should not exceed 10Kg
- Do not leave the Linen Rack in the extended position when not in use.

5. GENERAL BED OPERATION - Continued

5.4 Calf and Thigh Panel Adjustment

The calf panel angle can be manually adjusted whenever the thigh section of the mattress platform is raised. The thigh section is adjustable through a range from 0° (flat position) to 35° fully elevated. This can be achieved by using the bed's electronic control device.

The calf panel is adjustable through a range of 0° fully raised or down to 25° fully lowered.

To Raise:

From one side of the bed and using the mattress retainer handle, pull the calf panel up slowly to a position slightly past the desired position. The calf panel struts will produce a clicking sound as the spring loaded locking mechanisms travel past the range of available lock positions. Once the desired position has been reached gently allow the calf panel to lower. The lock mechanisms will automatically find the first available position.

To Lower:

Again, using the mattress retainer handle pull the calf panel upwards to release the spring lock mechanism. This will now allow the panel to be gently lowered to the desired level.



CAUTION

Ensure correct lifting methods are used when adjusting the calf positioning panel.

5. GENERAL BED OPERATION - Continued

5.5 Head & Foot Panels

The head and foot panels are easily removable from the bed allowing quick access to the patient. There are no clamps or screws that are required to be adjusted before removal.

Installation & Removal

The panel includes a decorative infill to one side. There is no specific way in which the panels are to be fitted as they are both interchangeable and therefore cannot be placed incorrectly. Generally, the infill face of the panel is fitted to face towards the foot of the bed providing a more pleasing aesthetic appearance.

To Install:

Using two hands align the panels bottom tubes with the beds corner sockets as shown in the below diagrams. Lower the panel gently until it seats at the bottom of the beds plastic corner sockets.

To Remove:

Reverse the above procedure.



Panel Aligned Ready for Installation



Panel Installed

CAUTION

Always install and remove the head and foot panels in line with the facilities Manual Handling Procedures and Policies.

5. GENERAL BED OPERATION - Continued

5.6 Manual Cardiopulmonary Resuscitation (CPR) Function

A clearly marked emergency CPR release handle is available on both sides of the bed. The manual release function returns the beds backrest to a level position in the event of an emergency resuscitation being required.

Emergency Lowering: To lower the backrest in an emergency, pull up on the red CPR release handle (1). The handles are positioned at the side and towards the head of the bed. The lowering movement is assisted by a gas damper, but **CAUTION** is required as the backrest may lower quickly under patient weight.

In addition to the CPR lever and **IF FITTED** there are also emergency positioning functions (CPR) on the Attendant Control Panel (ACP), Attendant Control OpenBus Mini panel (ACOM) and inset Nurse Control Panel at the head end rails of the bed. These buttons will drive the bed deck into a low flat horizontal position automatically, regardless of the beds configuration before starting the movement.



WARNING

The backrest can fall quickly - keep hands clear to avoid trapping.

5. GENERAL BED OPERATION - Continued

5.7 Prioma Bed Range Side Rail Configurations

3/4 Length Fold Down
Steel Tubular Rails



3/4 Length Drop Down
HDPE Split Panels
(no inset controls
on panels)



3/4 Length Drop Down
HDPE Split Panels with
Integrated Controls
Patient & Nurse



Full Length Drop Down
HDPE Split Panels (no
inset controls on panels)



Full Length Drop Down
HDPE Split Panels with
Integrated Controls
Patient & Nurse. Tilt
Angle Gauge in Foot
Panel



5. GENERAL BED OPERATION - Continued

5.8 3/4 Length Fold Down Tubular Rail Operation

IF FITTED the rails are either fully raised or folded down closed. When the side rail is raised to its full height position it will automatically lock in the positioning hole on the rails clamp plate. The release/lock knob feature can be both visually and audibly confirmed.

WARNING

Do not operate side rails when there is potential of entrapment or crushing to the patient, caregivers, visitors and/or other equipment.

Side Rail Operation

To raise the side: Lift the top rail until the locating pin/knob (2) automatically clicks into its locked position at maximum height.

To lower the side: Hold the top rail near the foot end of the bed (1) and gently pull out the magenta coloured operating knob (2) lowering the side towards the foot of the bed whilst controlling the descent speed. As the side begins to be lowered the operating knob can be released.



WARNING

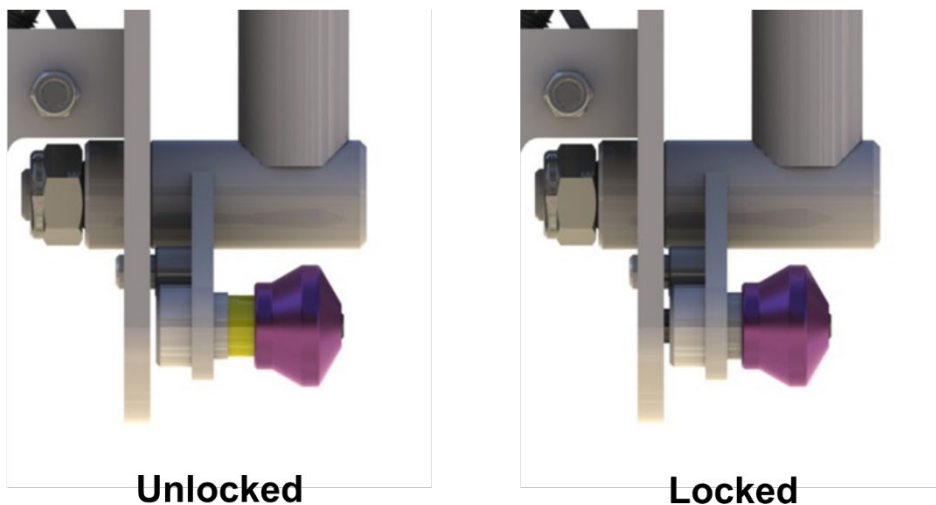
- Care should be taken whilst operating the side rails to ensure hands and fingers are kept away from potential squeeze hazards.
- Side rails should only be used after clinical assessment and within organisational policy and guidelines.

5. GENERAL BED OPERATION - Continued

3/4 Length Fold Down Tubular Rail Safety Lock Indicator

The side rail locating pin has a yellow coating that allows for visual inspection of the locking device. When the side rail is in the raised position, viewing the release knob from the side there should be no yellow shaft visible. If there is yellow shaft visible the safety side is **NOT** securely locked in the upright position and needs to be adjusted.

The yellow coating should **NOT** be visible from above when the safety side is correctly locked in position.



Side rail release and lock knob shown in unlocked and locked positions

WARNING

- After adjustment of the side rail visually check the locking pin location. There should be no yellow shaft on the locking pin visible if locked correctly.
- **DO NOT** use other manufacturer's side rails on the Prioma bed.

5. GENERAL BED OPERATION - Continued

5.9 Drop Down Split Side Rails

IF FITTED the drop-down split side rails have two positions, either fully raised or fully down. When the side rail is raised to its full height position it will automatically lock to its fully raised position. The lock position is clearly audible.

The drop-down side rails are fixed (bolted) in to place and if with inset control panels are hard wired to the beds control system and so are not removable. It is highly recommended that only trained technicians carry out maintenance on the Prioma drop down split sides.

WARNING

Do not operate side rails when there is potential of entrapment or crushing to the patient, caregivers, visitors and/or other equipment.

Side Rail Operation

To raise the side: Lift the top of the rail until the spring-loaded lock mechanism automatically clicks into its locked position at maximum height.

To lower the side: Hold the top of the rail near the middle (1) and gently pull forward the rail release handle (2). As the rail begins to lower the handle can be released and the rail can be gently lowered to its down position. The rails are mechanically dampened for safety and ease of use.



WARNING

- Care should be taken whilst operating the side rails to ensure hands and fingers are kept away from potential squeeze hazards.
- Side rails should only be used after clinical assessment and within organisational policy and guidelines.

6. PRIOMA BED SPECIFICATIONS

Dimensions

Overall Length	219.5 cm
Overall Length Base Extension Extended (28.5cm)	248.0 cm
Bed Extension Length	28.5 cm
Linen Rack (Bed Stripper) Extension	30.0 cm
Mattress Surface Length - Between Panel Faces	203.0 cm
Mattress Surface Length - Extended	231.5 cm
Overall Width	101.0 cm
Deck Height Range - Tente Single 125mm Castors	38.0cm to 83.5cm (+/- 5mm)
Trendelenburg Tilt	0 to 14°
Reverse Trendelenburg	0 to 14°
Backrest Angle Adjustment	0 to 70°
Knee Break Angle Adjustment	0 to 35°
Calf Positioning Angle Adjustment	0 down to 25°

Mattress Size Dimensions

Recommended Mattress Size	W=87 cm L=198 cm
Mattress Thickness Minimum	12.5 cm
Mattress Thickness Maximum	17.0 cm

Product Weight (approximate)

Without Side Rails Fitted	119 Kg
With Side Rails Fitted	146 Kg
Safe Working Load SWL Safety Factor = 2 x SWL	250 Kg
Maximum Patient Weight	185 Kg

Electrical Data

Power Ratings	100 - 240V ~ 50/60Hz Max 3.9A
Duty Rating	Intermittent 10%, Max 2 min / 18 min
Electric Shock Protection	Class 1 Type B ⚡
Liquid Ingress Protection	IPX4
Internally Powered Equipment (Battery Backup Only)	2 x 12V Series Connected Batteries Sealed, Rechargeable Lead/Acid Gel 1.2 amp hrs.

Standards

The Prioma acute care bed has been built to comply with International Standard IEC 60601-1 and IEC 60601-2-52 (Edition 3.1 2012-08)

7. CLEANING

WARNING

- Before cleaning always disconnect the bed from the mains power source.

NOTE: It is strongly recommended that protective clothing be used when carrying out any cleaning processes on the Prioma bed.

NOTE: The following procedure also applies to the beds accessories but does not include mattresses.

- Wipe the beds surfaces with a soft cloth moistened with hot water and mild detergent (or the hospital's recommended cleaning solution). It is recommended that the cloth be a white material to prevent bleeding of die colours to the bed. Take extra care in areas that can harbour dirt or dust.
- Rinse with clean water and a dry clean cloth.
- To remove potentially infectious materials such as body fluids, or when the bed has been used by someone with a known infection. Clean with NaDCC (e.g. Presept, Actichlor) at 10,000 ppm of available chlorine. Rinse and dry.
- Allow the cleaned parts to dry before replacing the mattress.

CAUTION

Do not use abrasive Hypo-carbonate or Phenolic compounds or pads.

8. MAINTENANCE

The following preventative maintenance procedures should be carried out every 12 months.

NOTE: Other than general maintenance activities all other service or repair work must be performed by qualified and trained persons who are approved by Arjo.

WARNING

The bed must be disconnected from the mains power supply before starting any maintenance activity.

GENERAL

1	<u>IF FITTED</u> with a bed lock out device set all functions to locked.
2	Examine the bed for obvious signs of damage. All aspects of the equipment should operate as intended. Check that all nuts, bolts and other fasteners are tight and are not missing.
3	Examine flexible cables and conduits for cuts, cracks, abrasions or other deterioration.
4	Check that the power supply plug is not damaged. If either the power cable or plug is damaged, then both the cable and plug must be replaced as a complete assembly by an approved service agent.

BRAKE LOCKING SYSTEM

1	Apply the brakes and push the bed forwards. If any of the four braking castors rotate the brake is not fully effective.
2	(Central Locking) Check the two steering lock castors for correct operation. If either the brakes or the steering locks are not working correctly contact an approved service agent.

8. MAINTENANCE - Continued

BATTERIES	
1	A beeping sound heard during normal bed operation means that the battery is at low charge. Reconnect the bed to the mains power supply for a minimum of 24 hours. If the problem reoccurs use step 2 below for verification.
2	<p>Check the batteries condition every six months using the following procedure:</p> <ol style="list-style-type: none">1. Make sure that the bed has been connected to the mains power supply for an uninterrupted 24 hour period.2. Disconnect the bed from the mains power supply.3. Apply a load of approximately 80Kg to the mattress platform.4. Raise and lower the mattress platform from minimum low height to maximum high height three times.5. If the bed does not operate correctly in step 4, perform steps 1 to 4 again. If the bed continues to operate incorrectly the batteries may need replacing. In this situation consult an approved service agent.
SIDE RAILS	
1	<ul style="list-style-type: none">• Inspect the side rails for general wear and tear on fittings and pivot joints every six months.• Check for rust, structural integrity of welds and paint finish every twelve months.
2	<p>Raise the side rail to the upright position until the locking mechanism clicks into place. Refer to the operating procedures in this manual for further instruction.</p> <p>Ensure that the rail cannot be pulled out of the locked position without unreasonable force being applied.</p>

8. MAINTENANCE - Continued

PATIENT/NURSE HANDSET CHECKS	
<p><u>Patient</u></p> <p>Between each patient, Arjo strongly advises that the Preventative Maintenance checks are conducted on the internal side rail patient control panel.</p> <p><u>Nurse</u></p> <p>Arjo strongly advises that the Nurse Handset is visually inspected for obvious damage before each use if practicable. When using a specific function staff should be aware of, and checking for, any of the symptoms listed in point 3 below.</p> <p><u>Preventative Maintenance Checks</u></p> <p>Arjo recommends that the full check and testing regime is conducted between each bed use, or worst case during annual preventative maintenance. This should take no more than one (1) minute to complete.</p>	
1	<p>Visual Inspection of Control Panel & Handset Casing</p> <p>1.1 Inspect the outer plastic casing for any obvious cracks or damage.</p> <p>1.2 Inspect for damage to the front cover (outer label) particularly over the buttons where the label may be torn or indented.</p> <p>If any damage is identified while conducting checks 1.1 and 1.2, immediately decommission the bed and report the damage to maintenance staff.</p>
2	<p>Visual inspection of the cable and Cable insulation</p> <p>2.1 Inspect the cable for any nicks or cuts in the insulation</p> <p>2.2 Inspect for any evidence that the cable may have been squashed/flattened.</p> <p>Squashed or flattened cables may indicate a possible break in the internal conductors or insulation causing conductors to short together, which could cause unwanted movement of the bed. Any handsets that are found with obvious damage to the cable insulation, immediately decommission the bed and report the damage to maintenance staff.</p>
3	<p>Tactile inspection of the buttons:</p> <p>All buttons should be operated, and response tested.</p> <p>Depress each button on the handset and control panels. Each button should have a positive click that is also felt. The function being pressed should also operate. If the button:</p> <ul style="list-style-type: none"> • does not have a click feel • does not immediately operate the function • feels soft offering no resistance • feels different to the rest of the buttons • travels further when depressed <p>Immediately report the damage to maintenance staff or quarantine the bed and contact an Arjo approved Technician.</p>

9. TROUBLE SHOOTING

Symptom	Possible Cause	Action
All actuators fail to work	Power disconnected. or batteries discharged	Ensure mains supply lead is connected
	Control box and handset plugs disconnected	Check the plugs are fully inserted in the control box and any lock out devices fitted to the bed. Check that plugs are fully inserted in the sockets on the deck frame. Check that the handset controls are not deactivated on the patient lockout facility.
	Blown fuse	Contact your local Arjo Service Department.
	Damaged handset cable	Replace handset
One actuator fails to work	Actuator plug disconnected	Check that actuator plug is fully inserted in control box. Check that the handset controls are not deactivated on the patient lockout facility if fitted.
Main lift actuators fail to work, and an audible beeping sound can be heard when handset is activated	Control box requires calibrating possibly due to bed being operated when batteries were fully discharged	Ensure mains power lead is connected and carry out calibration procedure.
Brakes or steering lock not effective	Wear or damage	Adjust or replace castor
Backrest CPR release not effective	Release mechanism not correctly adjusted	Check and re-adjust

10. TRANSPORTATION AND STORAGE

Handle with care.

The Prioma bed should be stored in a clean, dry well ventilated area.

Do not drop and avoid shock or violent impact when transporting.

The following limits apply during transport and or a storage period of up to 6 weeks duration:

Ambient temperature	-15°C	To	+60°C
Relative humidity	10%	To	75%
Air pressure	50 kPa	To	106 kPa

The following limits apply to normal operating conditions and or periods of storage longer than 6 weeks:

Ambient temperature	+10°C	To	+40°C
Relative humidity	30%	To	75%
Air pressure	70 kPa	To	106 kPa

When storing the bed, or when the bed is not in use for prolonged periods of time it is recommended that the beds battery system be maintained periodically using the following guidelines:

Storage Temperature	Charging Interval
20°C or less	Charge batteries for 24 hours every 9 months.
20 to 30°C	Charge batteries for 24 hours every 6 months.
30 to 40°C	Charge batteries for 24 hours every 3 months.

11. PRODUCT LIFETIME & END OF LIFE DISPOSAL

Product Lifetime

The lifetime of this equipment is typically (10) 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 provided in the instructions for use manual

End of Life Disposal

- Equipment that has electrical and electronic components should be disassembled and recycled per Waste of Electrical and Electronic Equipment (WEEE) or in accordance with local or national regulation.
- All batteries in the product must be recycled separately. Batteries are to be disposed in accordance with national or local regulations.
- Components that are primarily made up of different kinds of metal (containing more than 90% metal by weight) for example bed frame, should be recycled as metals.

Safe Disposal of Gas Dampers

Gas dampers contain air and oil at high pressure and must be vented in accordance with the following instructions before being discarded.

Under no circumstances should any attempt be made to open the device.



WARNING

DANGER OF EXPLOSION. DO NOT HEAT OR INCINERATE

High pressure gas. The sudden release of gas at high pressure could cause serious injury or death. Use suitable protective clothing, eye protection or a face shield. This procedure should be carried out in a well-ventilated room as the expelled gas may contain oil droplets.

- 1 Operate the valve at the end of the piston rod and allow the piston rod to fully extend.
- 2 Clamp the gas spring in a vice and drill a 3mm diameter hole, 15 to 20mm from the end of the gas spring housing (refer diagram below). Screen off the drilling point as metal chips and oil may be ejected due to the high internal pressure. Then drill a second hole at position 2 as shown. The holes should be drilled to a depth of approximately 10mm.

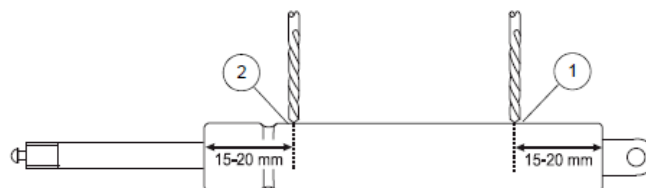


Figure 22: Disposal of Gas Spring

- 3 Pump the piston rod in and out several times while holding the drilled hole over a container to collect the expelled oil.
- 4 Dispose of the gas spring and oil through special waste or recycling points in accordance with local regulations. Do not dispose of gas springs or oil in household refuse.
- 5 If correct disposal in accordance with these instructions is not possible, the unit should be returned to the supplier.

12. PRIOMA BED ACCESSORIES

12.1 Factory Fitted X-Ray Cassette Tray

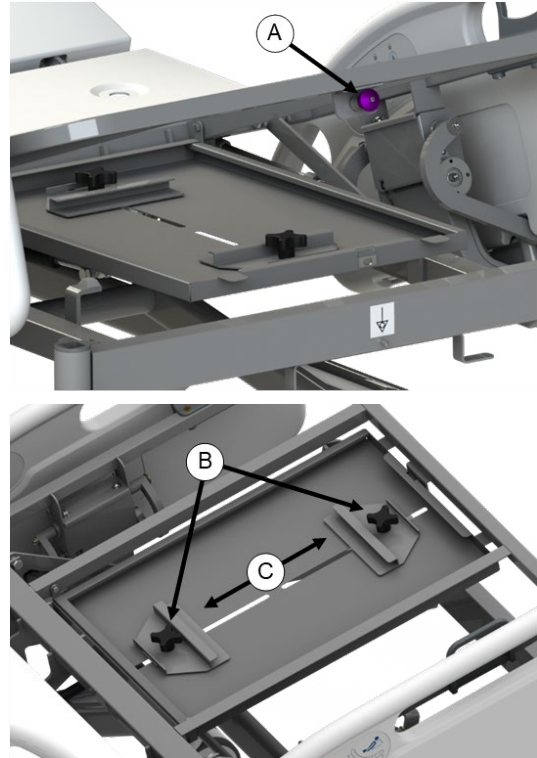
IF FITTED the drop-down X-Ray Cassette tray located under the backrest has two positions, either fully raised and locked, or fully down to give access for placement and removal of the cassette. When the cassette holder is raised to the closed position it will automatically lock into position.

X-Ray Cassette Tray Operation

To lower: First, remove the head panel to allow for easy access to the cassette tray. Second, raise the backrest to approximately 20° degrees using the backrest raise button on the side rail or handset (depending on variant). Third, pull out the release knob (A) towards you. The cassette tray is gas damped and will lower slowly and safely.

To raise and lock back in position: Lift the cassette holder until the release button makes an audible click sound indicating that it is locked into position.

To adjust cassette positioning and size: Unscrew (anti clockwise) the hand wheels (B). The positioning clamps (C) are then able to be moved to the desired position individually. Always retighten the hand wheels when desired position and size has been achieved.



12.2 Factory Fitted 5th Wheel

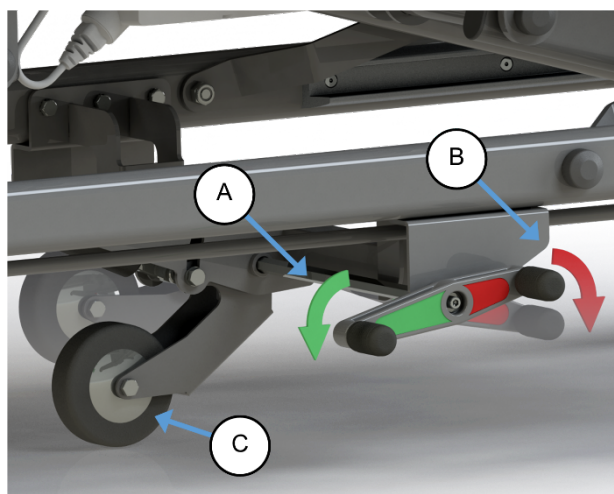
IF FITTED the retractable 5th wheel provides improved mobility and steering to the bed. Located centrally within the beds undercarriage the turning circle of the bed is greatly improved and assists with the straight-line control of the bed.

5th Wheel Engagement:

1. Step down on the foot end of the 5th wheel activation pedal (A). The 5th wheel (C) will lower until it has contact with the floor.
2. Check that the central locking brakes are unlocked, and the brake pedal is the neutral position.
3. The bed is ready for movement.

5th Wheel Disengagement:

1. Step down on the head end of the 5th wheel activation pedal (B).
2. Make sure the 5th wheel (C) is raised from the floor.



6. PRIOMA BED ACCESSORIES - Continued

12.3 Optional Accessories

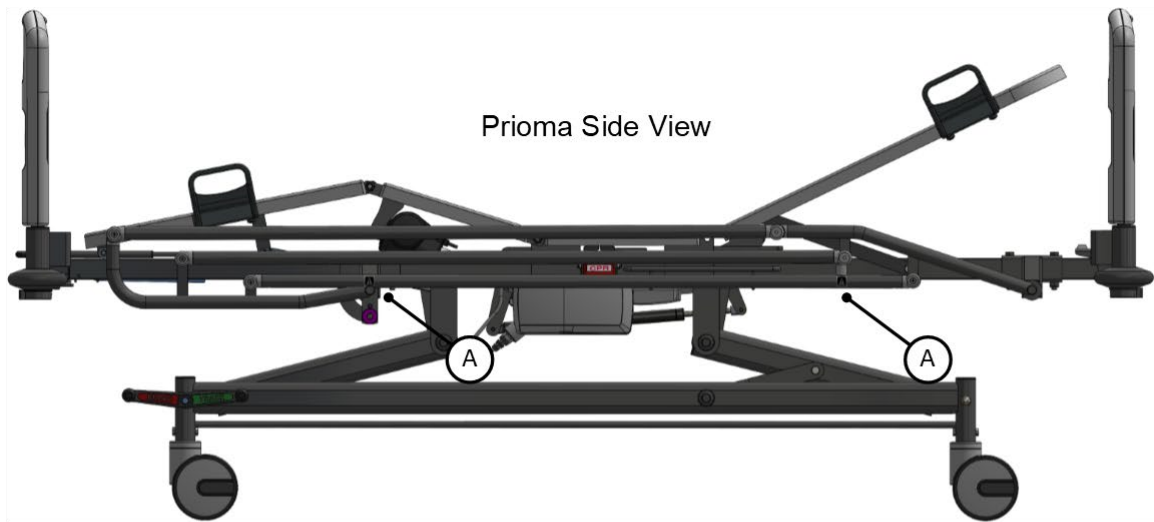
There are a range of accessories to suit the Prioma bed available from Arjo. It is important that only Arjo approved accessories are used on the Prioma bed.

Code	Description
SP001	Self Help Pole - (Includes Strap & Handle, Powder Coated Finish)
SP002	Self Help Pole - (Includes Strap & Handle, Stainless Steel Finish)
IV110	IV Pole – Stainless Steel Finish
CTK02	“C” Size Oxygen Bottle Holder - Clamps to Head or Foot End of Bed
XGATE	Bed Exit Gate (used with drop down 3/4 length <u>split side rails</u> only)
MA150C-EXT	Base Extension Mattress Bolster (86 cm x 28.5 cm x 15 cm)
P456-5TH	5th Wheel Mobility Adaption

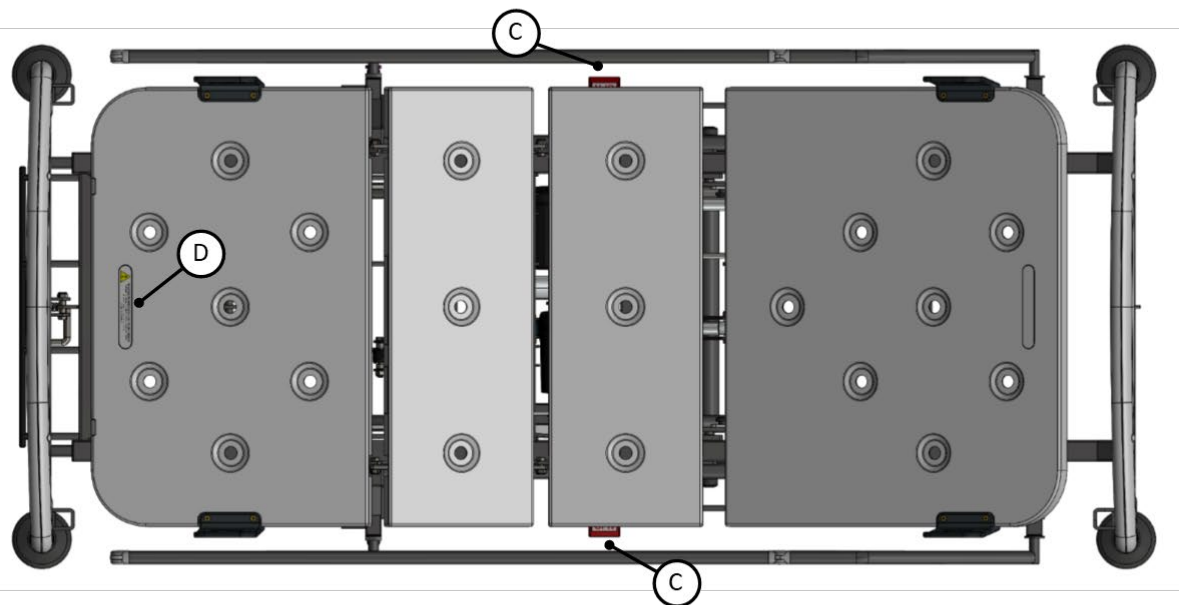
WARNING

Do not use accessories that have not been designed for use with the Prioma Bed

13. PRIOMA BED LABELS AND WARNINGS

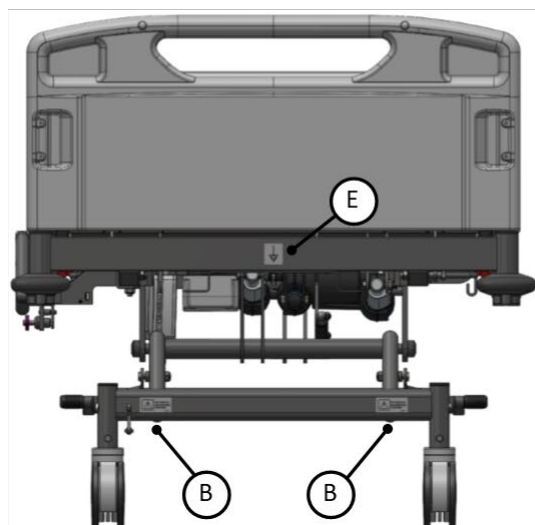


Prioma Top View






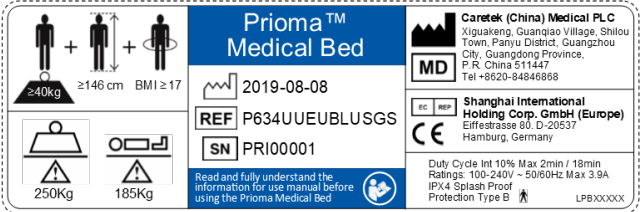



Prioma Head End View

Prioma Foot End View



13. PRIOMA BED LABELS AND WARNINGS - Continued

A	<p>Hazard Label Label identifies potential squeezing points on the bottom rail of bed side rails. The hazard is of a low risk nature and is shown for notification and risk management purposes.</p>	
B	<p>Hazard Identification Label Areas labelled are of a low risk nature. Labels are placed for notification and risk management purposes.</p>	
C	<p>Manual Cardiopulmonary Resuscitation (CPR) Function Label Placed on the Emergency CPR release handles and available on both sides of the bed.</p>	
D	<p>Recommended Mattress Size Label</p>	 <p>Incompatible Mattresses Can Create Hazards Mattress Thickness Minimum 12.5 cm - Maximum 17.0 cm Recommended Mattress Dimensions: L=198 cm x W=87 cm</p>
E	<p>Grounding Equipotential Bonding Pin Location Label</p>	
F	<p>Serial Number Label Body mass indicators Bed Safe Working Load Maximum Patient Weight Date of Manufacture Product Code Reference Serial Number Manufacturer European Representative Electrical Data</p>	
G	<p>Indicates the Product is a Medical Device – According to EU Medical Device Regulation 2017/745</p>	

14. WARRANTY AND SERVICE

Arjo's standard terms and conditions apply to all sales. A copy is available on request. These contain full details of warranty terms and do not limit the statutory rights of the consumer.

15. REGULATORY INFORMATION



Caretek (China) Medical PLC

Xiguakeng, Guanqiao Village, Shilou Town, Panyu District, Guangzhou City, Guangdong Province, P.R. China 511447

TEL: +8620-84846868



Shanghai International Holding Corp. GmbH (Europe)

Eiffestrasse 80. D-20537 Hamburg, Germany



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At Arjo, we are committed to improving the everyday lives of people affected by reduced mobility and age-related health challenges. With products and solutions that ensure ergonomic patient handling, personal hygiene, disinfection, diagnostics, and the effective prevention of pressure ulcers and venous thromboembolism, we help professionals across care environments to continually raise the standard of safe and dignified care. Everything we do, we do with people in mind.



Caretek (China) Medical PLC
Xiguakeng, Guanqiao Village, Shilou Town, Panyu District, Guangzhou City,
Guangdong Province, P.R. China 511447
TEL: +8620-84846868

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