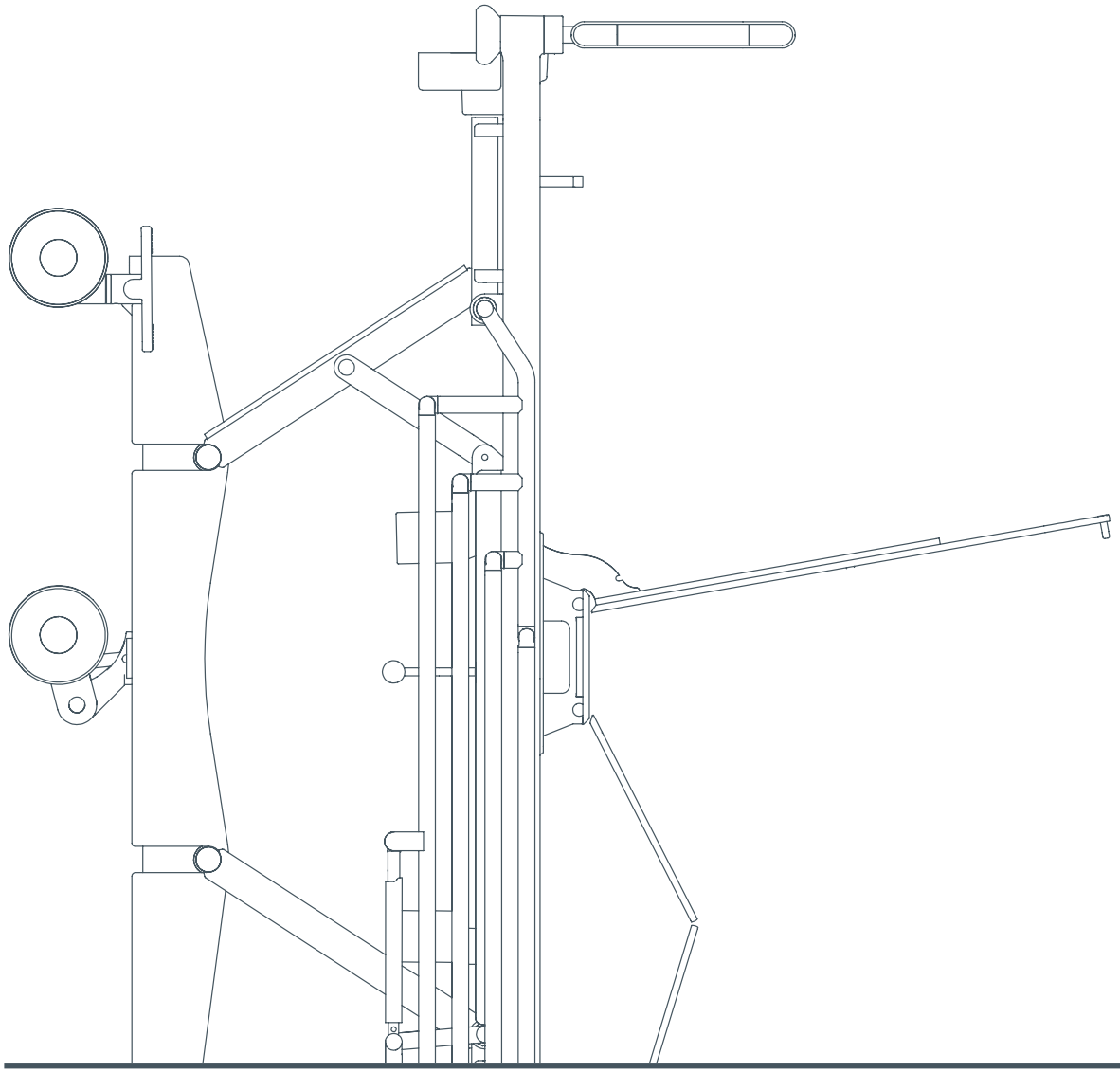

M9 TRAUMA

INSTRUCTIONS FOR USE

Instructions For Use Purpose

These instructions contain helpful information and important safety instructions for safe and proper operation and servicing of the M9 Trauma stretcher. Read it carefully and fully understand before operating or servicing the stretcher.

Standard Warranty

Thank you for purchasing your product from Howard Wright Limited.
Please refer to our website for our warranty terms:

- www.howardwrightcares.com
- www.howardwrightcares.co.uk

Howard Wright Limited's Policy

Howard Wright Limited has a policy of continuous improvement and reserves the right to change product specifications and information referred to in this document without notice.

This product shall be accepted and used in accordance with national requirements.

IMPORTANT: Any serious event should be reported by the user and/or patient to Howard Wright Limited, and when within the European Union, the Competent Authority of the member state.

NOTE: In these instructions, the term patient refers to one who receives medical attention, care, or treatment.

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CONTENTS

1. INTRODUCTION

1.1 HOWARD WRIGHT LIMITED

Congratulations on choosing a Howard Wright Limited product. Established in the 1950's, Howard Wright Limited has built a reputation based on quality product and design innovation. Today Howard Wright Limited equipment is found in healthcare institutions worldwide.

1.2 INTENDED USE

The M9 Stretchers are mainly used in assisting the diagnosis, monitoring, prevention, treatment and alleviation of disease, or compensation for an injury or disability.
The M9 Stretchers are designed to be used by trained health professionals and, to a limited extent, members of the public.

The M9 Stretchers are used generally within a hospital emergency department, day surgery clinic, X-Ray (M9 Trauma) or throughout the hospital as a means of treatment for patients, resting and observation of patients and transporting patients from one department or area to another.

The M9 Stretchers are intended to support adult patients aged 12 years and over with a minimum weight of 15kg. The M9 Stretchers may accommodate one patient up to a weight not exceeding 250kg (including mass of mattress and accessories).

1.3 TECHNICAL SUMMARY

1.3.1 VERSIONS

Two versions of the M9 Trauma stretcher are available:

- M9 Trauma (4-section patient platform)
- M9 Trauma (2-section patient platform)

This stretcher is supplied with electric operation only.

Various options and accessories are available for the M9 Trauma stretcher. Please contact Howard Wright Limited for more information.

1.3.2 CONSTRUCTION

Howard Wright Limited products are manufactured from high quality durable engineering materials including steel, aluminium and stainless steel with a durable epoxy/polyester hybrid powder coated finish. High quality durable engineering plastics including Nylon, ABS, TPR & Polypropylene are also used.

The M9 Trauma stretcher has a LINAK control box. This uses mains power at 220-240 V AC (50-60 Hz) to operate LINAK actuators at 24 V DC. An onboard sealed lead-acid battery provides power when mains power is not available (e.g. when moving the stretcher). Control buttons are located on a remote handset for adjustment of the backrest, deck height, deck tilt, legraise and an auto-contouring preset function.

1.4 APPLICATION ENVIRONMENT

The stretcher is only intended for use in these environments:

APPLICATION ENVIRONMENT 1:

Intensive/critical care provided in a hospital where 24 hour medical supervision and constant monitoring is required and provision of life support system/equipment used in medical procedures is essential to maintain/improve the vital functions of the patient.

APPLICATION ENVIRONMENT 2:

Acute care provided in a hospital or other medical facility where medical supervision and monitoring is required and medical equipment used in medical procedures may be provided to help maintain or improve the condition of the patient.

APPLICATION ENVIRONMENT 5

Outpatient (ambulatory) care, which is provided in a hospital or other medical facility, under medical supervision where ME EQUIPMENT, is provided for the need of persons with illness, injury or disability for treatment, diagnosis or monitoring

NOTE: This includes use in nursing homes, rehabilitation and geriatric facilities.

1.5 SAFE WORKING LOAD (SWL)

Maximum patient weight = SWL minus weight of accessories

1 x O2 cylinder	=	12 kg
1 x IV pole	=	1.2 kg
1 x PH pole	=	6.1 kg
1 x Mattress	=	12 kg
	≈	30 kg

MAXIMUM PATIENT WEIGHT = SWL - 30 kg

MAXIMUM PATIENT WEIGHT = 220 kg

Figure 1. Safe Working Load

NOTE: This is an indicative list. Other accessories can be used and the weight of these must be deducted.

2. PRECAUTIONS

2.1 CONVENTIONS

The following conventions are used in this publication:

WARNING: Gives instructions or information intended to ensure the safety of the patient, caregiver and other personnel.

CAUTION: Gives instructions or information intended to avoid damage to the stretcher or its accessories.

NOTE: Gives additional instructions or information intended to make the stretcher easier to use.

2.2 USER EDUCATION AND TRAINING

WARNING: If the patient suffers from disorientation, depression or similar then leave the mattress platform flat and lock out all electric functions.

OPERATOR: Must be trained in the use of the stretcher and fully understand the instructions for use.

PATIENT: Follow the hospital risk management policy. The patient must be capable and fully understand the handset functions before they can operate the electric functions by themselves.

2.3 GENERAL WARNINGS & CAUTIONS

WARNING: Read and understand these instructions for use before using the stretcher.

WARNING: Adhere to the hospitals risk management policy when placing a patient on the stretcher.

WARNING: Leave the stretcher in its lowest position when the patient is unattended.

WARNING: If the stretcher is found to have sustained any damage it must be removed from use immediately.

WARNING: Do not use the stretcher for cyclic or repetitive manipulations of the patient.

WARNING: Ensure there is no risk of crushing or entrapment to the patient, other personnel, stretcher components, or other objects when using the stretcher.

WARNING: Do not position the stretcher under any object.

WARNING: Residual current devices (RCD) are not supplied as standard with the stretcher. Consult with your Biomedical Engineer/advisor concerning your RCD requirements.

WARNING: The stretcher is intended to support one patient at a time only.

WARNING: Do not connect the power cord if the plug or cord insulation is damaged. The power cord must be replaced. However, the stretcher can still operate on battery.

WARNING: The safe working load of the stretcher is 250kg (this includes the mass of the patient mattress and any accessories).

WARNING: Do not allow people to sit on the backrest or legraise when it is in the raised position.

WARNING: Follow the cleaning and disinfection instructions.

WARNING: Only connect the stretcher to a mains supply with protective earth.

WARNING: Before using a mobile patient hoist, check underbed clearance.

2. PRECAUTIONS

WARNING: Do not use in an oxygen rich environment or any flammable gas environment.

WARNING: Do not modify any component or accessory without prior authorisation from Howard Wright Limited.

WARNING: Do not transport patients where the stretcher may become unstable.
For example, inclines over 10 degrees.

WARNING: When routing cables from other equipment onto the stretcher, take precaution to avoid the cables being squeezed between stretcher components.

WARNING: Always handle the power cord with care and keep it clear of any moving parts.

WARNING: Ensure the power cord and plug are always accessible.

WARNING: The supply plug is the only disconnection device.

CAUTION: Always stow the power cord and other equipment before transporting the stretcher.

CAUTION: The leg-raise panel must be physically supported when cleaning the underside.

3. ABBREVIATIONS, SYMBOLS & TERMINOLOGY

3.1 ABBREVIATIONS

ABS	Acrylonitrile Butadiene Styrene
AC	Alternating Current
ACH	Attendant Control handset
AS/NZS	Australian/New Zealand Standard
CE	European Conformity
CPR	Cardiopulmonary Resuscitation
DC	Direct Current
EEC	European Economic Community
EMC	Electromagnetic Compatibility
IEC	International Electrotechnical Commission
IP	Ingression Protection
ISM	Industrial, Scientific and Medical
IV	Intravenous
LH	Low Height
PAT	Portable Appliance Test
PE	Polyethylene
PH	Patient Help
POAG	Potential Equalisation Terminal
PP	Polypropylene
PREMA	Pressure RElieving MAttress
PU	Polyurethane
PVC	Polyvinyl Chloride
RCD	Residual Current Device
SN	Serial Number
SWL	Safe Working Load
TPR	Thermoplastic Rubber

3.2 STRETCHER ORIENTATION TERMINOLOGY

NOTE: The terms head end, foot end, left, and right used in these instructions are referenced from the perspective of a supine patient.

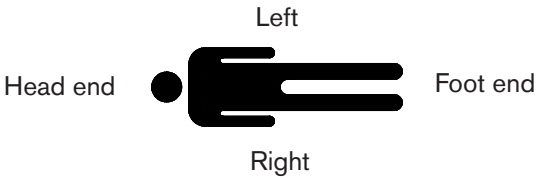


Figure 2. Stretcher orientation terminology

3.3 SERIAL NUMBER LABEL SYMBOLS

The serial number label is located at the foot end left side of the deck frame.

NOTE: The colour red is used for emergency controls and warning symbols. The brake pedal is red and indicates the brake position.

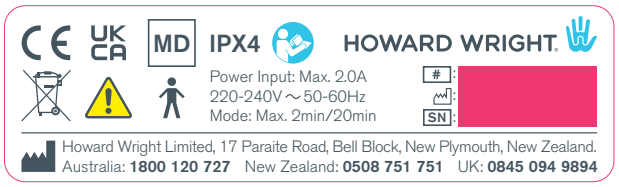
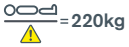


Figure 3. Stretcher serial number label - M9 Trauma Stretchers

	Warning.
IPX4	Ingression protection (IP) rating as per BS EN 60529:1992, specification of degrees of protection provided by enclosures. ▪The number (4) refers to the degree of “water ingression protection”
	Indicates compliance with the applicable European requirements.
	Type B applied part.
MD	Indicates the product is a Medical Device.
	WEEE, Waste Electrical and Electronic Equipment.
	Read and understand the instructions for use (IFU) before using the stretcher.
Power Input:	Input current (maximum), supply voltage range, supply frequency range.
~	Alternating current.
Mode:	The stretcher is intended for intermittent operation. The ratio of the operating time to the sum of the operating time and ensuing time should not exceed that specified.
#	Reference code (model number).
	Date of manufacture.
SN	Serial number.
	Manufacturer.
EC REP	European Authorised Representative.

3.4 OTHER SYMBOLS & TERMINOLOGY

	Maximum patient weight, kg.
	Maximum safe working load (SWL), kg.
	Warning: potential squeezing/shearing point.
	Equipotentiality (potential equalisation).
	Do not sit.

4. PART IDENTIFICATION

4.1 PART IDENTIFICATION - M9 TRAUMA STRETCHER

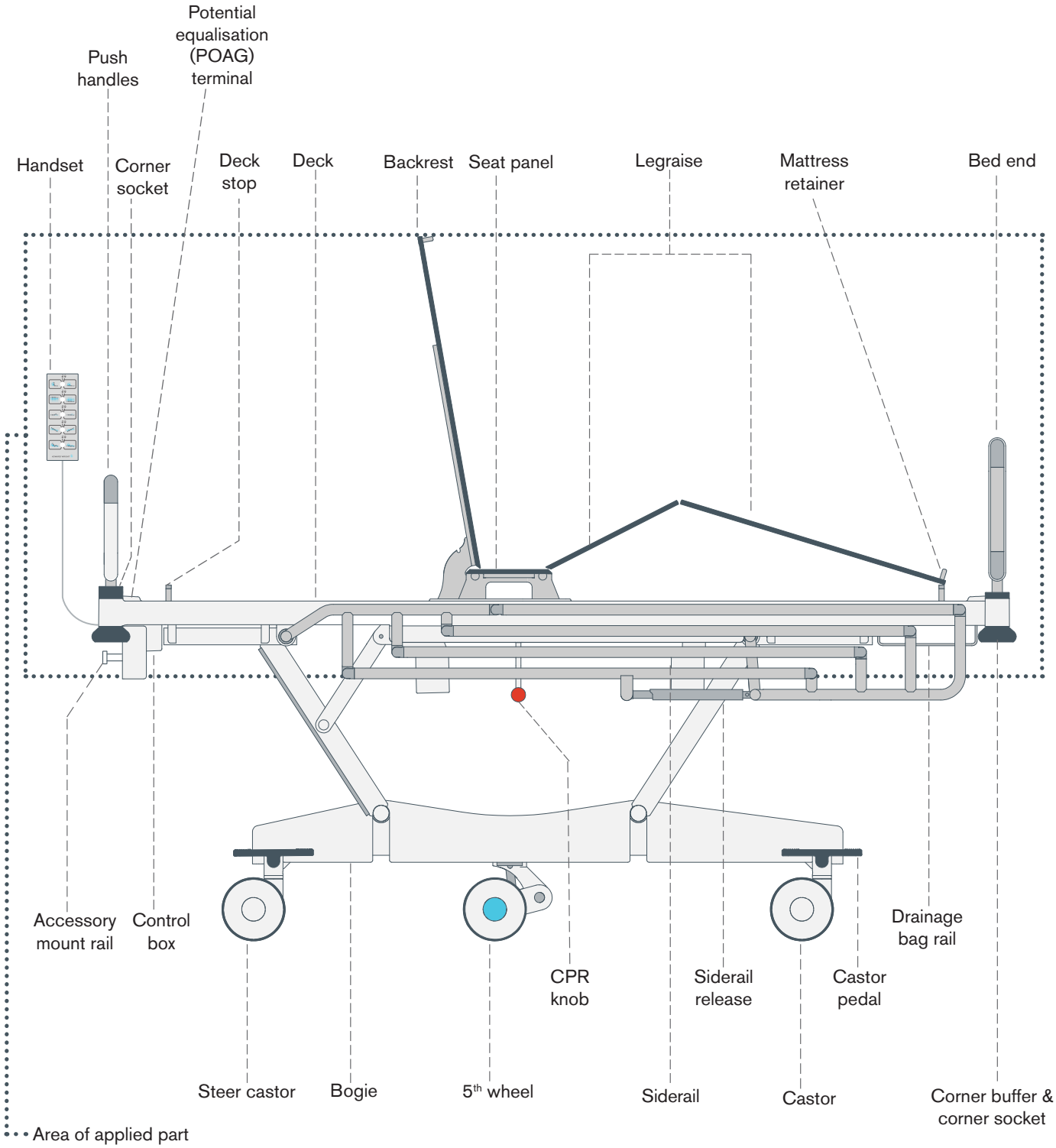


Figure 4. Part Identification - M9 Trauma stretcher

5. UNPACKING & COMMISSIONING

To unpack and commission the stretcher:

WARNING: Acceptance testing to national regulations needs to be undertaken after the product is delivered to the healthcare facility i.e. after transit. This is the responsibility of the purchaser.

WARNING: Use an isolating transformer or an earth leakage device between the power cord and the mains supply.

WARNING: Ensure that the power and handset cords are properly stowed and clear during any adjustment of stretcher components to prevent cord and handset damage.

WARNING: Do not attempt to lift the stretcher by the deck once the transport ties have been removed.

CAUTION: Ensure that all transport ties have been cut and removed before using the stretcher.

CAUTION: Connect the stretcher to the mains power supply to maximise battery life. Fully discharging the battery will reduce its life.

If the stretcher is not used for a long period of time it is recommended that the batteries charged for a minimum of six hours once every three months.

1. Remove any external packaging.
2. Cut and remove all transport ties.
3. Read and understand the stretcher instructions for use manual.
4. Install the bed end.
5. Manoeuvre the stretcher into position and connect the power cord to the mains supply (220-240 V AC, 50-60 Hz).
6. Check that the stretcher is operating correctly (see section 11.5 User Maintenance Checklist).

NOTE: To manoeuvre the stretcher, release the brakes by setting the castor pedal into the neutral or steer position.

6. OPERATION

6.1 ELECTRIC CONTROLS

WARNING: Ensure there is no risk of crushing or entrapment to the patient, other personnel, stretcher components, or other objects when using the stretcher. Do not position the stretcher under any object.

WARNING: If the patient suffers from disorientation, depression or similar then leave the mattress platform flat and lock out all electric functions.

WARNING: Lock out tilt and hi/lo functions and any other function you do not wish the patient to have access to when the patient has access to the handset.

CAUTION: Do not operate the stretcher controls for more than 2 minutes over a 20 minute period (i.e. do not exceed the mode/duty cycle).

Handsets are untended to be used by trained health professionals and patients who have been instructed on safe and proper use.

The M9 Trauma stretcher has two variations of the mattress support platform.

M9 Trauma (4-section deck)	M9 Trauma (2-section deck)
Stretcher adjustments are powered by four electric actuators. The actuators power the following functions:	Stretcher adjustments are powered by three electric actuators. The actuators power the following functions:
1. Backrest 2. Deck height 3. Legraise 4. Deck tilt 5. Auto-contour function	1. Backrest 2. Deck height 3. Deck tilt

The actuators are controlled by buttons on the handset. Each function has a lock out feature (see 6.2.6 Lock Out Function).

6.1.1 HANDSET LOCATION

The handset is permanently attached to the head end of the deck through a flexible coiled cable. It can be hand held or positioned at either side of the stretcher for easy access by the patient or caregiver. The handset can be stored on a siderail or top rail.

6.1.2 BUTTON OPERATION

Adjustment occurs only when a button is pressed. Adjustment will stop when the button is released or when the moving section reaches the end of its adjustment.

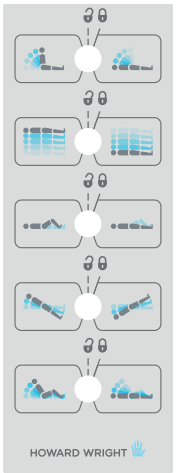


Figure 5. Five Function Handset (4-section deck)

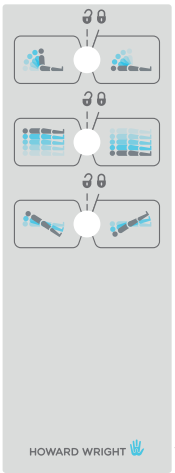
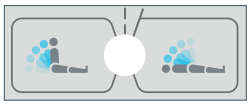


Figure 6. Three Function Handset (2-section deck)

6.2 STRETCHER ADJUSTMENTS

6.2.1 BACKREST

CAUTION: Do not sit on a raised backrest.



To adjust the backrest up and down, press and hold the appropriate backrest adjustment button on the handset. The backrest can be adjusted from 0° to 80°.

NOTE: If the kneebreak is fully raised the backrest will adjust to 70°, not 80°. To raise the backrest to 80° lower the kneebreak first.

6.2.2 DECK HEIGHT

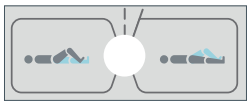
WARNING: Leave the stretcher in its lowest position when the patient is unattended.

To adjust the deck up and down, press and hold the appropriate height adjustment button on the handset. The deck height can be adjusted from 430mm to 880mm.

6.2.3 LEGRAISE (OPTION)

WARNING: Ensure legraise is fully lowered when not in use.

CAUTION: Do not sit on a raised legraise.



To adjust the legraise up and down, press and hold the appropriate legraise button.
The legraise can be adjusted from 0° to 27°.

NOTE: Legraise adjustment is not available on the 2-section deck option.

NOTE: If the backrest is fully raised the legraise will adjust to 10° not 27°. To raise the kneebreak to 27° lower the backrest first.

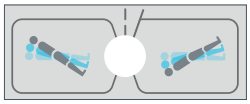
NOTE: Raise the legraise for comfort and to prevent the patient from sliding down the stretcher.

6. OPERATION

6.2.4 DECK TILT

WARNING: Do not leave patients unattended while using the Trendelenburg function.

WARNING: Check the lock-out function is not activated if the deck doesn't tilt when the tilt button is pressed.



To tilt the deck, press and hold the appropriate deck tilt button on the handset.
The deck can be adjusted to 16° Trendelenburg (head down) and 13.5° reverse Trendelenburg (foot down).

- When transitioning into Trendelenburg or reverse Trendelenburg, the deck will pause for 2 seconds in the horizontal (flat) position before continuing.

6.2.5 AUTO-CONTOUR (OPTION)

Press and hold the "Auto contour" button to adjust the backrest and legraise simultaneously into the chair position.
Press the "Deck flat" button to flatten the deck.

NOTE: Auto-contour option is only available on the 4-section deck option.

6.2.6 LOCK OUT FUNCTION

A lock out is provided for each function. A lock out key is provided and used to lock/unlock each function.

Rotate the key clockwise to lock out individual functions and anti-clockwise to unlock each function.

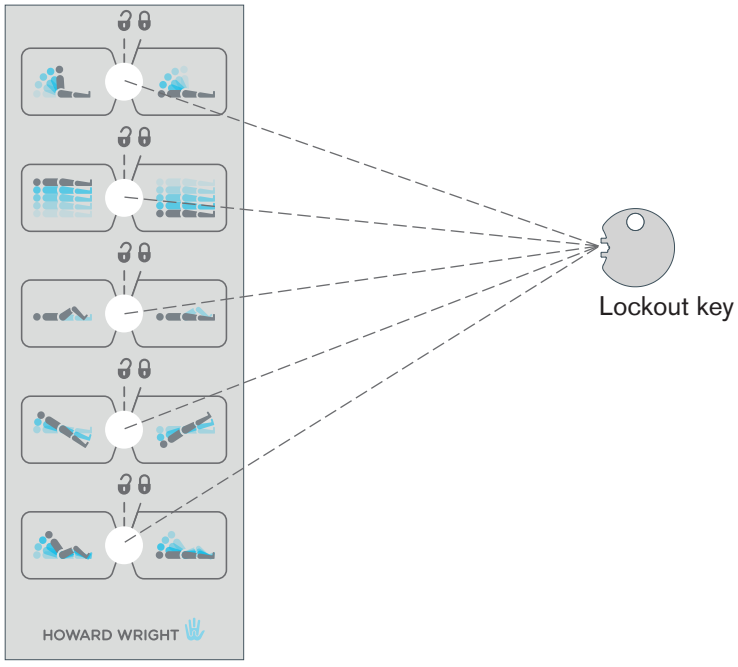


Figure 7. Lock out key

6.3 ATTENDANT CONTROL HANDSET (OPTION)

WARNING: The Attendant Control Handset is to be used by trained health professionals only. It is not to be used by the patient.

The Attendant Control Handset (ACH) is permanently attached to the foot end of the deck through a flexible coiled cable.

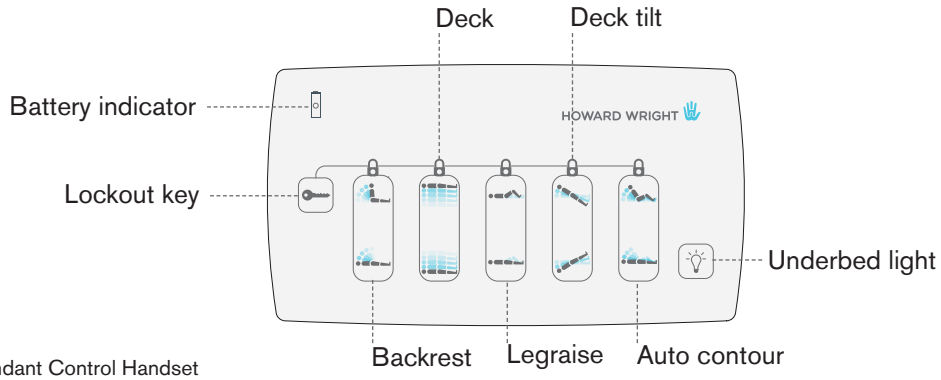


Figure 8. Attendant Control Handset

6.3.1 STRETCHER ADJUSTMENTS

To adjust the stretcher position press and hold one of the appropriate function buttons (Backrest, Deck, Legraise, Tilt, Auto Contour or Deck flat).

Adjustment will stop when the button is released or the moving stretcher section reaches the end of its range of adjustment.

6.3.2 LOCK OUT

All functions displaying a padlock can be individually locked out. An orange LED light inside the padlock will indicate which function is locked.

To lock the function, hold down the 'lockout key' button and then press the appropriate function button.
To unlock the function, hold down the 'lockout key' button and press the appropriate function button.

NOTE: If the Attendant Control Handset is not fitted, the lockout function will be available on the handset

6.3.3 BATTERY INDICATOR

The LED light on the battery symbol indicates when the stretcher is connected to the mains power supply and the battery is charging.

When the battery is low an audible beep will be heard when the handset / ACH buttons are pressed.

NOTE: Plug the stretcher into the mains supply to recharge the battery immediately when an audible beep is heard when the handset / ACH buttons are pressed.

NOTE: The stretcher should be plugged into the mains supply whenever possible to maintain performance and battery life.

NOTE: Allowing the battery to fully discharge will greatly reduce the batteries life.

6.3.4 UNDERBED LIGHT

The underbed light is located beneath the deck. The light can be turned on and off by pressing the underbed light button on the ACH.

6. OPERATION

6.4 BACKREST EMERGENCY RELEASE

WARNING: Keep clear of the backrest when the backrest emergency release is activated.

WARNING: The speed of backrest descent will vary depending on the weight of the patient.

WARNING: Release the CPR lever to stop backrest descent in a hazardous situation.

CAUTION: If CPR lever is released before backrest is fully lowered, then inspection of actuator is required to check for potential damage.

CAUTION: Only use the backrest emergency release in emergencies.

Figure 9. CPR label

A red CPR lever is accessible on both sides of the stretcher to lower the backrest quickly in the case of emergencies (CPR).

To lower the backrest in an emergency:

1. Move and hold the red CPR lever towards the head end.
2. The backrest will lower to the flat position.
3. Release the CPR lever.

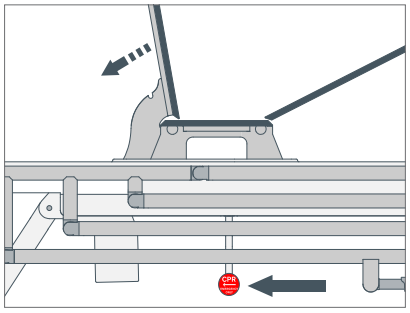


Figure 10. CPR knob

CAUTION: Backrest may not fully raise once the CPR lever has been used. If this occurs fully lower the backrest using the handset to reset the actuator position.

6.5 BATTERY

WARNING: Do not expose the battery to open flames or immerse in liquid.

The battery allows the stretcher to be adjusted when the power cord is not connected to the mains supply.

Connect the power cord to the mains supply to charge the battery. If the stretcher is not used for a long period of time, charge the battery for a minimum of six hours once every three months.

NOTE: Charge batteries 24 hours prior to first use.

NOTE: Keep the stretcher plugged in for optimum performance and higher running speed.

NOTE: The battery is a sealed lead-acid type and should be charged regularly to maximise battery life. Do not discharge fully as this will reduce its life.

6.6 POTENTIAL EQUALISATION (POAG)

The potential equalisation terminal (POAG) is located at the head end, left side of the deck. The POAG ensures the patient and any medical device is at the same potential, i.e. voltage and current.

Intravascular or intracardiac procedures have a risk of stray electricity coming into contact with the patient's heart. With such procedures, the stretcher must be protectively earthed from the POAG terminal to the equipotential node within the building structure. This does not rely on the functional earth connection of the mains plug.

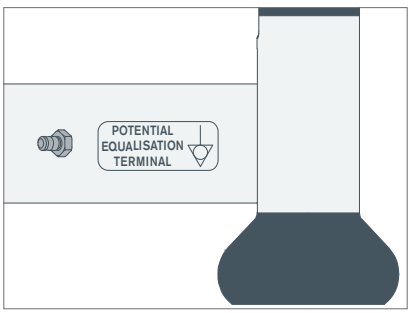


Figure 11. Potential equalisation terminal

6.7 CASTORS WITH STEER CASTOR

WARNING: Ensure the siderails are up during patient transportation.

WARNING: The castor pedal must be in the brake position when the patient is either:
1. Unattended.
2. Getting on or off the stretcher.

WARNING: Disconnect the power cord before manoeuvring the stretcher.

Castor pedals are located at both ends of the bogie and are colour coded red and green for easy identification.

The castor pedals are foot-operated and can occupy three positions:

1. Brake position

- Push the red pedal down.
- All four castors are locked.

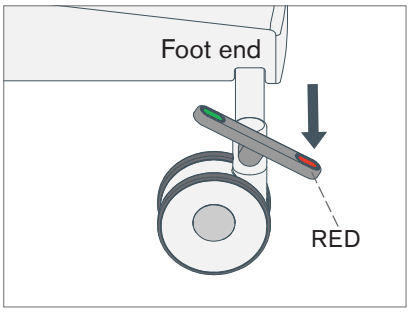


Figure 12. Castor pedal in brake position

2. Neutral position

- Adjust pedals to horizontal position.
- All four castors are free to swivel and roll. The stretcher can be manoeuvred in any direction.

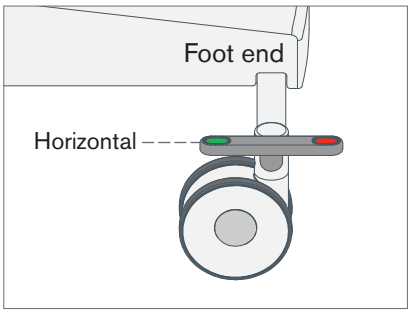


Figure 13. Castor pedal in neutral position

3. Steer position

CAUTION: Ensure the steer castor trails the direction of stretcher movement.

NOTE: The steer castor is located at the head end.

NOTE: The stretcher is best manoeuvred from the foot end.

1. Adjust the pedal to the neutral position.
2. Push the stretcher a short distance in the intended direction of travel.
3. Push the green pedal down.
4. Continue to push the stretcher. An audible ‘click’ will be heard when the steer castor locks into position.

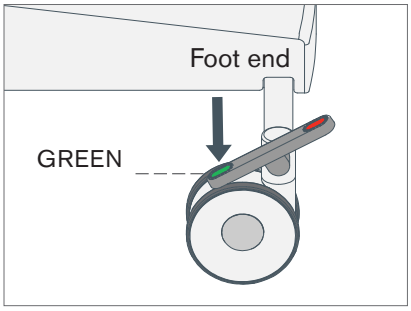


Figure 14. Castor pedal in steer position

6. OPERATION

6.8 CASTORS WITH 5TH WHEEL (OPTION)

The 5th wheel is free to swivel in the neutral position and locks in line with intended direction of travel in the steer position. This allows the stretcher to be easily steered by one person.

1. Brake position

- Push the red pedal down.
- All four castors are locked.

2. Neutral position

- Adjust the pedals to horizontal.
- All four castors and 5th wheel are free to swivel and roll.

3. Steer position

- Push the green pedal down.
- Push the stretcher in the intended direction of travel and the 5th wheel will lock into position for steering.

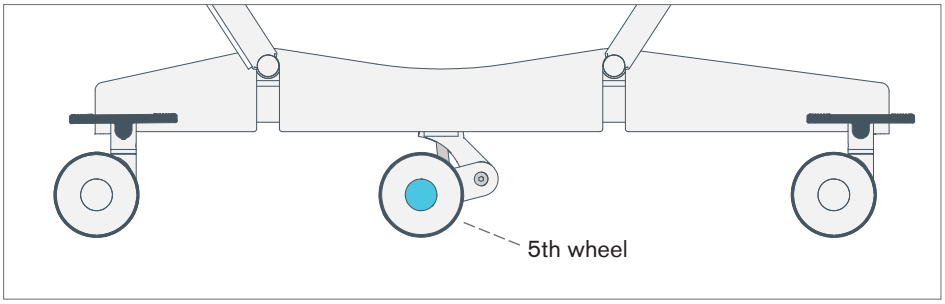


Figure 15. 5th wheel

6.9 BED ENDS

The stretcher is fitted with integrated fold down push handles at the head end. A bed end is an available option for the foot end.

Push handles

To fold down:
1. Hold the handles and lift upwards.
2. Fold in and down into recess on the deck.

To raise:
1. Reverse the above actions.

Bed end (Option)

To install:
1. Hold the bed end with both hands.
2. Lower the legs into the sockets on the deck.

To remove:
1. Reverse the above actions.

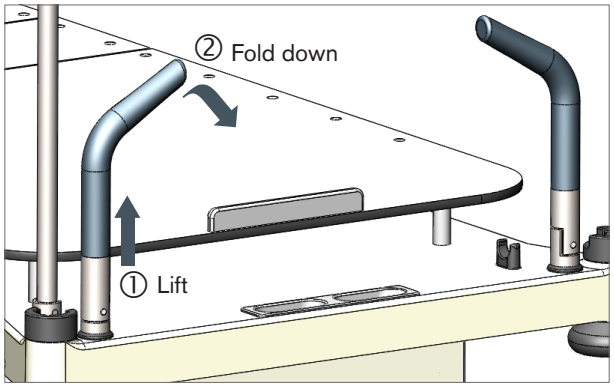


Figure 16. Push handle in raised position.

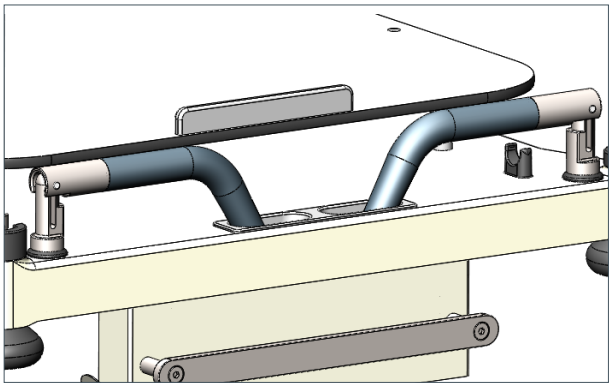


Figure 17. Push handle in folded down position.

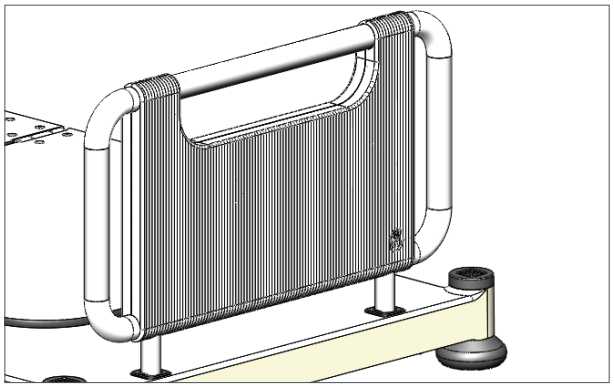


Figure 18. Bed end

6. OPERATION

6.10 SIDERAILS

WARNING: Conduct a risk assessment to identify any risk to the patient from use of the siderails. If there is a risk then the siderails should be strapped down to prevent them from being used.

WARNING: For safe use of siderails, consult your patient safety advisor.

WARNING: Siderails are used to prevent patient falls. They are not intended to be used as patient restraints.

WARNING: Ensure the siderails are up during patient transportation.

WARNING: Check to ensure there is no risk of crushing or entrapment to the patient, other personnel, or other objects when lowering the siderails.

WARNING: Use only Howard Wright Limited siderails with the stretcher.

WARNING: Do not use aftermarket siderails. This will create a patient entrapment hazard.

The M9 stretcher siderails fold down and have gas strut assisted raising.

The siderails occupy two positions: full height (raised) or collapsed height (lowered).

NOTE: See section “12. SPECIFICATIONS” for siderail dimensions.

To raise:

1. Lift the top rail to its full height position.
2. Ensure that the gas strut has locked the siderail in the raised position. This can be seen visually and heard audibly as the release lever drops into position.

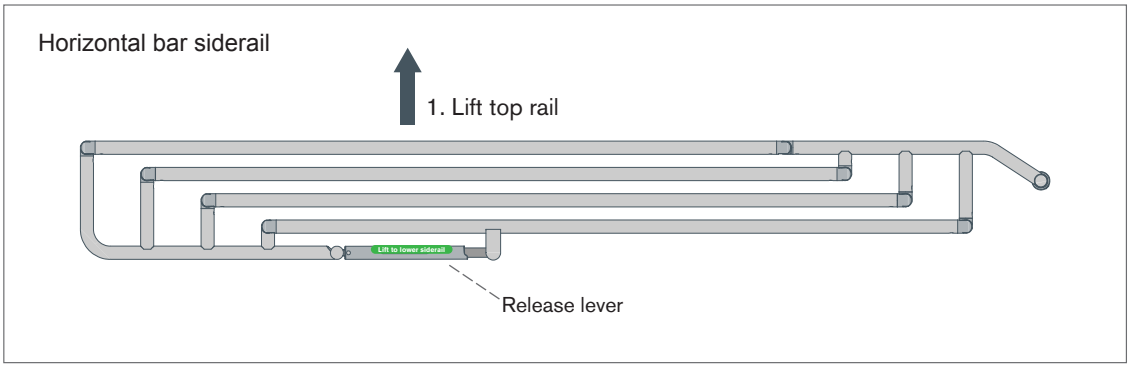


Figure 19. To raise the siderail from the collapsed position

To lower:

1. Use one hand to lift the release lever (where it says “LIFT TO LOWER SIDERAIL”) latch.

2. Use the other hand to push the top rail of the siderail towards the foot end and down into the collapsed position.

Figure 20. Lift to lower siderail label

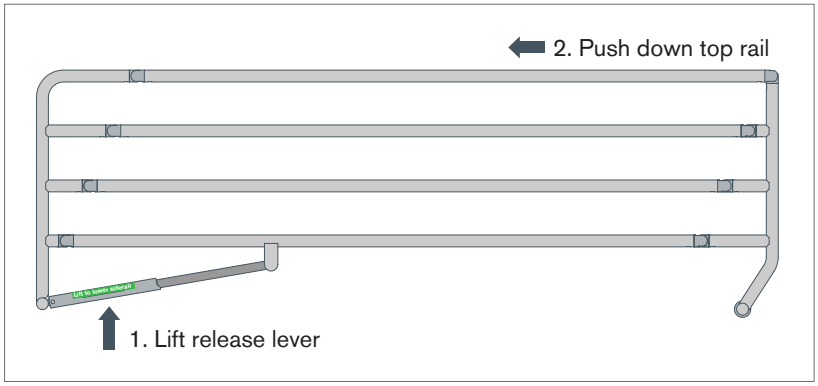


Figure 21. Siderail in full height

6.11 UNIVERSAL ACCESSORY MOUNT RAIL

WARNING: The safe working load of the Universal Accessory Mount Rail is 25kg.

WARNING: Maximum eccentric load application to the Universal Accessory Mount Rail is 100mm.

WARNING: Ensure accessories are fitted securely to the Universal Accessory Mount Rail as per manufacturers instructions.

The Universal Accessory Mount Rail provides a secure rail system for standard accessories to be fitted.

The Universal Accessory Mount Rail is located at the head end of the stretcher.

NOTE: Maximum torque to be applied to the Universal Accessory Mount Rail is 24 Nm

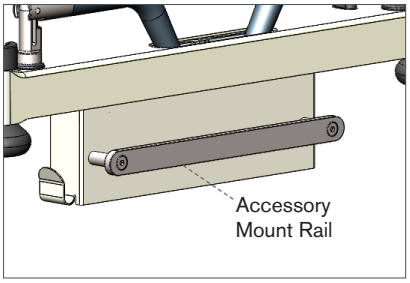


Figure 22. Universal Accessory Mount Rail

6. OPERATION

6.12 DRAINAGE BAG RAIL

Drainage bag rails are located at the foot end on each side of the deck.

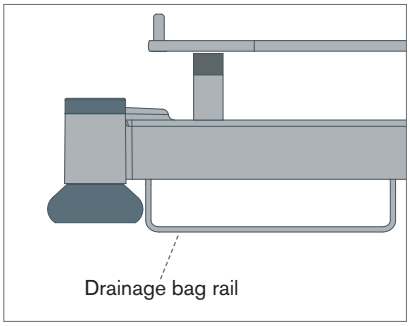


Figure 23. Drainage bag rail

6.13 CORNER SOCKETS

Corner sockets are located at each corner of the deck where various Howard Wright Limited accessories can be plugged in.

6.14 X-RAY CASSETTE GAP

The X-Ray cassette gap is located underneath the mattress support platform (full length).

NOTE: X-Ray cassettes can be placed and moved to any position underneath the mattress platform.

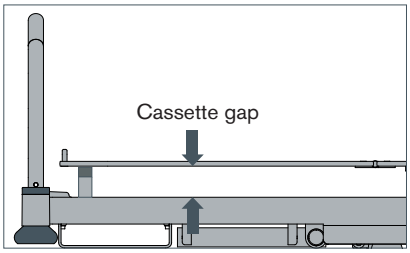


Figure 24. Cassette gap

6.15 POWER CORD STORAGE

WARNING: Route the power cord on the outside area of the stretcher at all times to avoid cord damage.

WARNING: Always store the power cord when transporting the stretcher or when not in use.

NOTE: Stretcher adjustment will be slower when the power cord is unplugged.

A power cord storage holder is fitted as standard. To store the power cord, wrap the cord around the holder. Any remainder can be hung on the power cord storage hook.

If a Universal Mount rail is fitted, coil the power cord and hang it on the power cord storage hook.

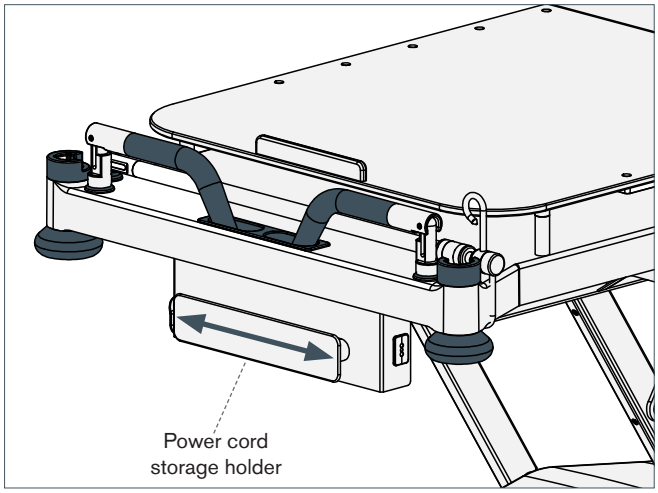


Figure 25. Power cord storage

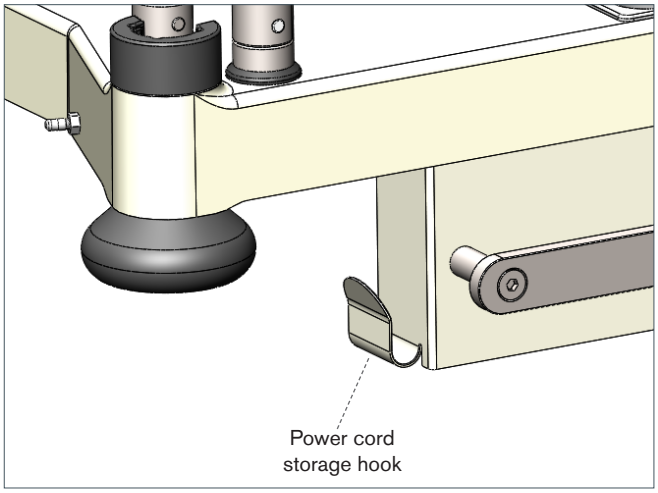


Figure 26. Power cord storage with a Universal Accessory Mount Rail

7.1 SIDERAIL COVERS

WARNING: Only use M944-03 siderail covers for M9 Trauma Stretchers (Horizontal siderails).

- Inner: Bi-elastic foam
- Cover: Polyurethane coated stretch knit fabric

To fit:

1. Pull cover over the raised siderails. Ensure the long strap and clips are on the inside of the siderail.
2. Fasten the two buckle clips together from under the bottom siderail tube. Pull straps to tighten.

NOTE: Only use siderail covers with the siderails in the raised position.

NOTE: Please see Siderail Covers Instructions for use (M799-69) for further information.

7.2 MATTRESSES

The mattress best suited to the M9 Trauma stretcher is the PREMA Stretcher Mattress.

The recommended mattress size for the M9 Trauma stretcher is 2000mm long x 700mm wide x 100mm thick.

The maximum mattress thickness is 130mm.

NOTE: The mattress cover can be removed and machine washed (95°C max). For cleaning and disinfecting information please visit www.howardwrightcares.com

NOTE: Please see PREMA Stretcher Mattress Instructions for use (M799-72) for further information.

7.3 ORTHOPAEDIC FRAME

WARNING: The safe working load of the frame is 100kg and 30kg (weights).

WARNING: It is recommended two people assemble the frame.

WARNING: Apply brakes and lower the stretcher to the minimum height before starting frame assembly.

WARNING: Ensure all clamps are tight before applying any load to the frame.

WARNING: Do not use a monitor tray with the orthopaedic frame.

WARNING: Use knots suitable for the application e.g. surgeon's loop.

The frame plugs into the four corner accessory sockets on the deck.

NOTE: Please see Orthopaedic Frame Instructions for use (M799-67) for assembly instructions and further information.

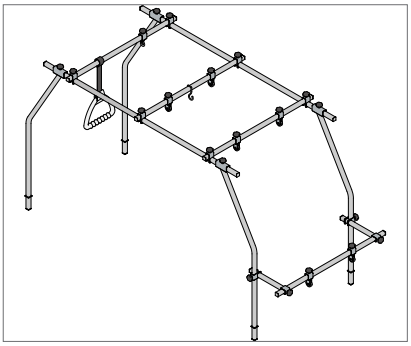


Figure 27. Orthopaedic frame

7. ACCESSORIES

7.4 IV POLE

WARNING: The safe working load of the IV pole is 15kg.

WARNING: Check surroundings before adjusting deck height or deck tilt to avoid IV pole collision.

WARNING: Support the upper shaft before loosening the locking collar.

WARNING: When securing equipment to the IV pole, ensure that the backrest clears the equipment when it is raised and lowered.

WARNING: Be mindful of what is above when manoeuvring the stretcher with IV pole raised and extended.

CAUTION: Do not over tighten equipment clamps.

CAUTION: Do not attach equipment to the upper shaft.

The IV pole is fitted with hooks for supporting infusion bags and bottles. Other medical equipment can be attached directly to the lower shaft.

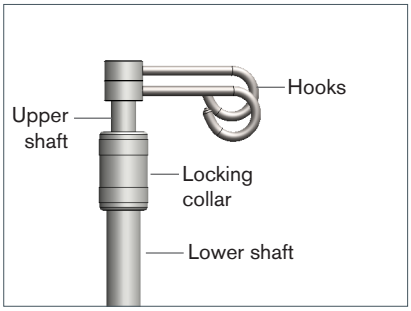


Figure 28. IV pole

Option 1: Fold down IV Pole (factory fitted option)

To fold down:
1. Hold the lower shaft of the IV pole and lift upwards.
2. Fold down towards the deck and clip into the saddle to hold down.

To raise:
1. Reverse the above actions.

NOTE: Please see IV Pole Instructions for use (M999-47) for further information.

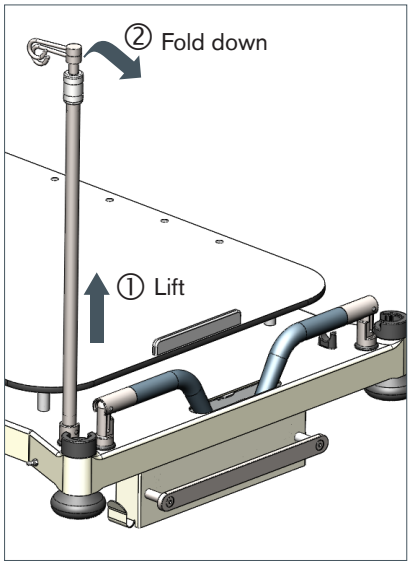


Figure 29. Fold down IV pole - fitted

Option 2: IV Pole

To fit:
1. Insert the IV pole into an accessory socket

NOTE: Please see IV Pole Instructions for use (M799-62) for further information.

To adjust the IV pole height:
The adjustment is the same for both options.

1. Grip the upper shaft with one hand.
2. Loosen the locking collar by turning it anti-clockwise with the other hand.
3. Whilst holding the locking collar, slide the upper shaft to the desired height.
4. Tighten the collar by turning it clockwise.

7.5 PH Pole

WARNING: The safe working load for the PH pole is 100kg.

WARNING: Ensure the strap is locked when the blue adjustment button is released.

WARNING: Ensure the PH pole is positioned over the stretcher and fully inserted into the accessory socket.

The PH pole is for patient self assistance in the stretcher and is supplied with an ergonomic plastic handle and adjustable strap.

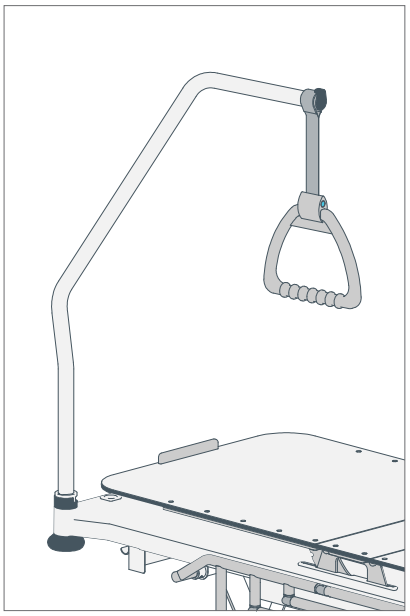


Figure 30. PH pole

The PH pole is for patient self assistance in the stretcher and is supplied with an ergonomic plastic handle and adjustable strap.

To fit:

Insert the pole into one of the accessory sockets at the head end of the deck.

To adjust the PH handle:

Press the blue button on the PH handle to adjust the strap length. Release the button to set the selected strap length.

NOTE: The 100kg PH pole is always positioned above the mattress platform.

NOTE: Please see PH Pole Instructions for use (M799-63) for further information.

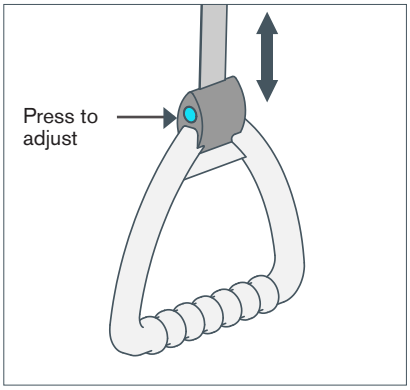


Figure 31. PH handle

7.7 OXYGEN CYLINDER CARRIER

WARNING: The safe working load of the oxygen cylinder carrier is 10kg for the A size and Inhalo cylinder carriers, 15kg for the D size cylinder carrier and 20kg for the HX/F size and E size cylinder carrier.

WARNING: Take care whilst handling the O2 cylinder holder with a cylinder loaded. Do not tip the holder as this may allow the cylinder to slide out.

WARNING: Assisted loading and unloading is recommended for HX/F and E size oxygen cylinders.

WARNING: Always ensure adequate clearance for cylinders and regulators during the decks full range of motion. Large regulators or regulators that sit outside the bounds of the carrier could become damaged when deck is lowered if clearance isn't checked.

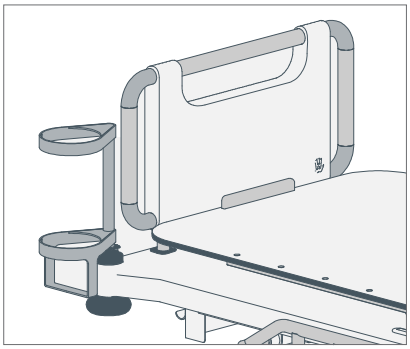


Figure 32. Oxygen cylinder carrier

Three sizes of oxygen cylinder carriers are available for either a NZ "A" size (Australian "C" size), D size or an Inhalo cylinder. Each can be installed into any of the four accessory sockets.

To fit the carrier and the oxygen cylinder:

1. Insert the oxygen cylinder carrier into one of the accessory sockets.
2. Insert the cylinder into the carrier.

NOTE: Please see Oxygen Cylinder Carrier Instructions for use (M799-59) for further information.

NOTE: The HX/F and E size oxygen cylinder are a factory fitted option located on the bogie.

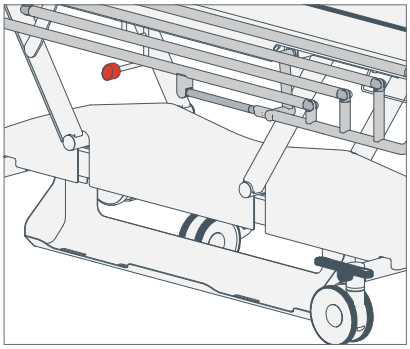


Figure 33. HX/F or E size Oxygen Cylinder Carrier

7. ACCESSORIES

7.8 URINE BOTTLE CARRIER

WARNING: The safe working load of the urine bottle carrier is 2kg.

To fit

- Place the hook over the top rail of the siderail.

NOTE: Please see Urine Bottle Carrier Instructions for use (M799-61) for further information.

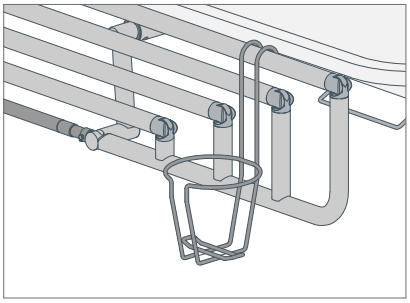


Figure 34.Urine bottle carrier

7.9 MONITOR TRAY

WARNING: The safe working load of the monitor tray is 25kg.

WARNING: Ensure all equipment is secured in place using the included strap before manoeuvring the stretcher.

WARNING: Keep hands and fingers clear of the table top pivots when folding the monitor tray.

WARNING: Do not use the monitor tray together with the orthopaedic frame (M748-01).

CAUTION: Ensure patients feet are clear of the monitor tray.

The monitor tray is for supporting monitors or instruments at the foot end of the stretcher only.

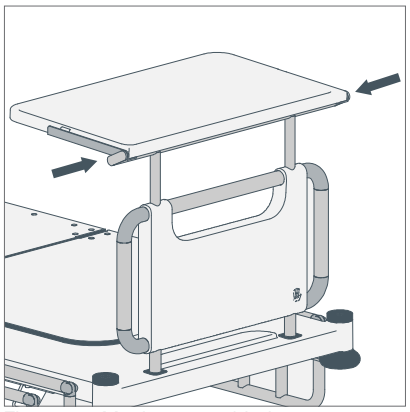


Figure 35. Monitor tray folded up

Fold up:

- Stand at the foot end facing the stretcher.
- Lift the monitor tray up and fold over towards the head end.

Fold down:

- Stand at the foot end facing the stretcher.
- Lift the tray up and fold backwards towards the foot end.

NOTE: Please see Monitor Tray Instructions for use (M799-57) for further information.

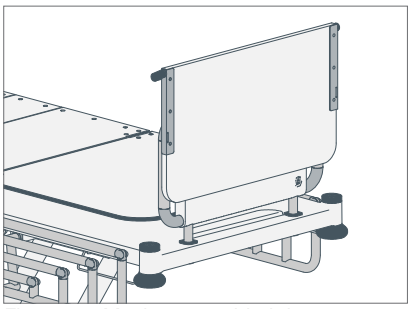


Figure 36. Monitor tray folded down

7.10 PLUG IN EXTENSION

The plug in extension (M921-03) can be fitted at the foot end of the stretcher. The extension is for supporting the feet of taller patients.

To fit:

1. Hold the extension with both hands.
2. Lower the legs into the sockets on the deck.
2. Place the bolster mattress on the extension.

To remove:

1. Remove the bolster mattress.
2. Remove the extension from the sockets.

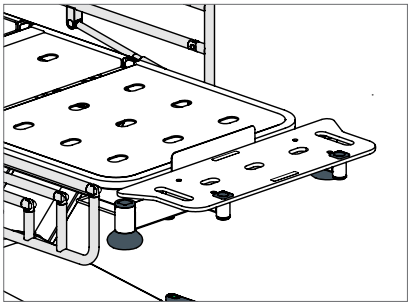


Figure 37. Plug in Stretcher extension

7.11 CHART HOLDER

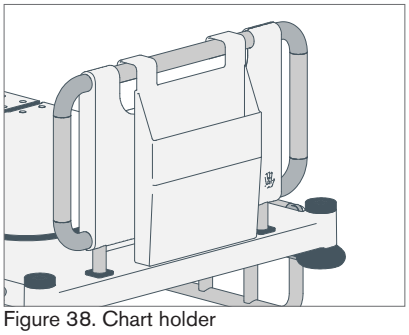


Figure 38. Chart holder

WARNING: The safe working load of the chart holder is 2kg.

The chart holder will fit over the bed ends.

NOTE: Please see Chart Holder Instructions for use (M799-71) for further information.

7.12 STORAGE BASKET

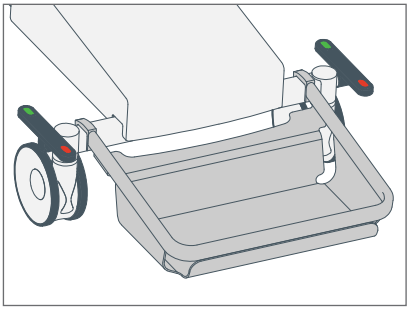


Figure 39. Storage basket

WARNING: The safe working load of the storage basket is 10kg.

WARNING: The basket should only be used at the foot end.

The storage basket is for storing the patient's personal belongings.

To fit the basket:
Hang the hooks of the basket over the foot end of the bogie.

NOTE: Please see Storage Basket Instructions for use (M999-55) for further information.

7.13 ARMBOARD

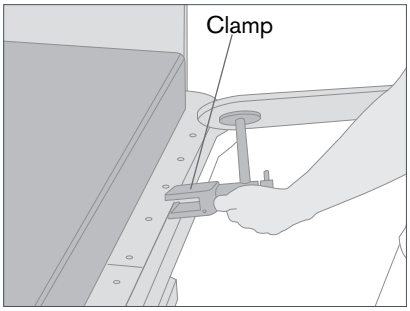


Figure 40. Armboard

WARNING: The safe working load of the Armboard is 5kg.

CAUTION: The maximum temperature of any object to be placed on the board top is 60°C.

The armboard attaches to the backrest of the stretcher and can be adjusted to the required angle and height.

To fit:

1. Place the clamp of the armboard onto the side of the backrest. Position near the patients arm.

2. Ensure the clamp is hard up against the edge of the backrest panel

3. Adjust the height so the top board is flush with the top of the mattress.

4. Adjust the angle of the board to a comfortable position for the patients arm.

5. Tighten the handle to secure the armboard in place.

6. If the backrest is at an angle then adjust the armboard to suit.

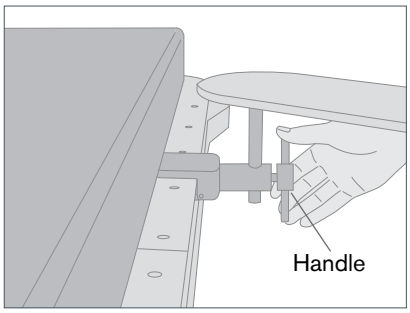


Figure 41. Armboard fitted

NOTE: Use only with M9 Trauma and M7 Trauma stretcher.

NOTE: Please see Armboard Instructions for Use (M799-65) for further information.

7. ACCESSORIES

7.14 RESIDUAL CURRENT DEVICE (IF FITTED)

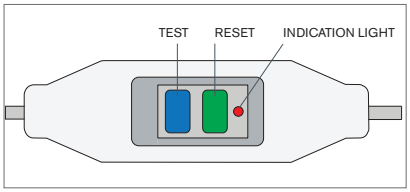


Figure 42. Residual Current Device (RCD)

WARNING: If pressing the TEST button and the indicator light does not change from red to black, do not use the stretcher and consult either a Biomedical engineer or an approved electrician.

A Residual Current Device (RCD) is used to increase the electrical safety of an electrical appliance.

The RCD should be tested each time the stretcher is plugged in to the mains supply.

Testing the RCD:

1. Connect the power cord to the mains supply and press the RESET button. The indicator light should illuminate red.

2. Press the TEST button - indicator light should change from red to black.

3. Press the RESET button to resume operation.

NOTE: Please see Residual Current Device Instructions for use (M799-81) for further information.

7.15 FOWLER X-RAY CASSETTE HOLDER

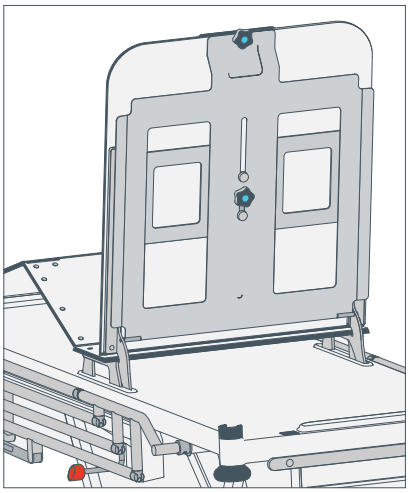


Figure 43. Fowler X-Ray Cassette Holder

WARNING: The safe working load of the X-ray cassette holder is 5kg.

WARNING: Ensure the Fowler X-ray cassette holder is securely fitted before use.

The Fowler X-ray cassette holder attaches to the back of the backrest panel where an X-ray cassette can be held. This enables patient X-rays to be taken when the backrest is raised.

To attach the Fowler X-ray cassette holder:

1. Raise the backrest.
2. Locate the stainless steel pins into the slots on the backrest bracket.
3. Rotate the cassette holder up and secure in place with the top knob.

NOTE: The cassette holder should be parallel to the backrest panel.

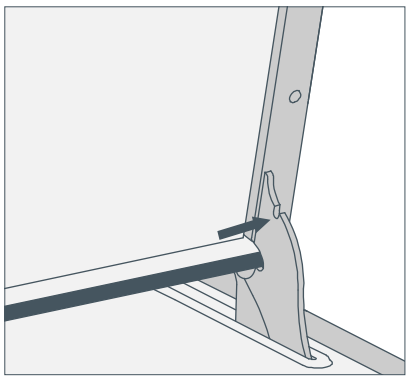


Figure 44. Slot for Fowler X-Ray cassette holder.

To operate the Fowler X-ray cassette holder:

1. Ensure the holder is firmly secured before inserting the X-ray cassette.
2. Slide the X-ray cassette into the central tray.
3. Use the central knob to adjust tray height. Tighten the knob to secure the tray position.

NOTE: The cassette holder can be left attached to the stretcher.

NOTE: Please see X-ray cassette holder Instructions for use (M999-44) for further information.

7. ACCESSORIES

7.17 C-SPINE X-RAY CASSETTE HOLDER

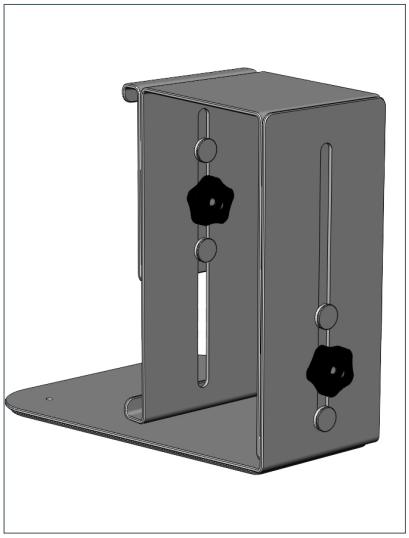


Figure 45. C-Spine X-Ray Cassette Holder

WARNING: The safe working load of the C-Spine X-ray cassette holder is 5kg.

WARNING: Ensure the C-Spine X-ray cassette holder is fitted securely before use.

WARNING: Take care when loosening the rear knob of the cassette holder. May experience spring back from release of mattress tension.

The C-Spine X-ray cassette holder is used to secure an X-ray cassette alongside the patient at a range of angles, positions and depths. The cassette holder can be adjusted to suit a range of mattress heights and to fit various X-ray cassette sizes.

To attach the C-Spine X-ray cassette holder:

1. Slide the foot of the cassette holder between the deck and the mattress.

To operate the C-Spine X-ray cassette holder:

1. Adjust the height of the cassette holder to suit the mattress. Tighten the rear knob to secure the correct height position.

2. Insert the cassette into the front tray. Adjust the slider to hold the cassette. Tighten the middle knob to secure.

3. To sit the cassette below the mattress - loosen rear knob, press top flat face (marked with HWL logo) to required depth and tighten knob to secure in place.

NOTE: The cassette can be pushed down into the mattress but don't overload the cassette holder particularly if the mattress is firm.

NOTE: Please see C-Spine X-ray cassette holder Instructions for use (M999-45) for further information.

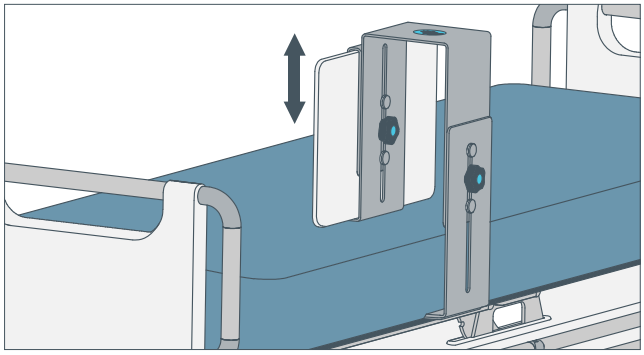


Figure 46. C-Spine X-Ray Cassette Holder with stretcher

8.1 CLEANING AND DISINFECTION INSTRUCTIONS (ALL SURFACES)

WARNING: Unplug the power cord from the mains supply and ensure castor brakes are applied before cleaning and disinfecting.

CAUTION: The leg-raise panel must be physically supported when cleaning the underside.

CAUTION - General

- Use only approved cleaning and disinfecting products.
- Do not use abrasive cleaning and disinfecting products.
- Do not use a water temperature of more than 50°C.
- Do not use a washing tunnel, high-pressure spray or hose.
- Do not immerse the product in water.
- Do not clean or degrease the steel shafts of the actuators.
- Keep sharp objects away from the mattress and mattress cover.
- Do not use oil based products.
- Do not unplug the handset or actuators from the control box for cleaning and disinfecting.

CAUTION - Chlorine based disinfection

- Chlorine-based disinfectants are corrosive and degrading in nature and may cause damage to your product. Therefore the product must be rinsed thoroughly with clean water and thoroughly dried. Failure to rinse and dry the product will leave a corrosive residue on the surface possibly causing corrosion.

CAUTION - Steam cleaning

- Steam cleaning can be performed if necessary but is not recommended for regular use.
- Do not steam clean castors, electric components or mattresses.
- Only use a lightweight steam cleaner and refer to manufacturer's instructions. Do not use a heavy duty industrial steam cleaner.

CAUTION - Hydrogen Peroxide Sterilisation

- Hydrogen Peroxide Sterilisation can be performed if necessary but is not recommended for regular use.
- Hydrogen peroxide sterilisation should be performed by carefully following the manufacturer's instructions.
- Not all hydrogen peroxide sterilisation devices are the same and it is essential that the user check with the manufacturer to ensure that the materials being sterilised are suitable.
- Corrosive damage to some steel components may result following repeated and prolonged hydrogen peroxide sterilisation.
- If any residue remains on the product following sterilisation it should be wiped dry.

Failure to follow the above directions may void the product's warranty.

Cleaning

1. Unplug the power cord from the mains supply.
2. Depress the castor pedals into the brake position.
3. Wipe the product with a sponge or soft cloth wetted with warm water containing soap or mild detergent or use an approved cleaning product in accordance with the manufacturer's instructions.
4. Thoroughly rinse with fresh water using a soft cloth or sponge.
5. Thoroughly wipe the product with a soft cloth or dry sponge.

Disinfecting

1. Unplug the power cord from the mains supply.
2. Depress the castor pedals into the brake position.
3. Wash the surface with one of the approved disinfecting products or use a pH neutral, high level disinfectant cleaning product in accordance with the manufacturer's instructions.
4. Thoroughly rinse with fresh water using a soft cloth or sponge.
5. Thoroughly wipe the product with a soft cloth or dry sponge.

8. CLEANING

Chlorine based disinfection - General

1. Unplug the power cord from the mains supply.
2. Depress the castor pedals into the brake position.
3. Wipe the product with a sponge or soft cloth wetted with a solution of chlorine-based disinfectant diluted to 1000ppm.
4. Thoroughly rinse with fresh water using a soft cloth or sponge.
5. Thoroughly wipe the product with a soft cloth or dry sponge.

Chlorine based disinfection - Blood stain removal

1. Unplug the power cord from the mains supply.
2. Depress the castor pedals into the brake position.
3. Wipe the product with a sponge or soft cloth wetted with a solution of chlorine-based disinfectant diluted to 10,000ppm.
4. Thoroughly rinse with fresh water using a soft cloth or sponge.
5. Thoroughly wipe the product with a dry sponge or soft cloth.

Steam cleaning (with or without cleaning chemicals)

1. Unplug the power cord from the mains supply.
2. Depress the castor pedals into the brake position.
3. Steam cleaning should be performed by carefully following the manufacturer's instructions. If cleaning chemicals are used, the product should be thoroughly rinsed afterwards with fresh water.
4. Thoroughly wipe the product with a soft cloth or dry sponge.

Hydrogen Peroxide Sterilisation

1. Unplug the power cord from the mains supply.
2. Depress the castor pedals into the brake position.
3. Hydrogen peroxide sterilisation should be performed by carefully following the manufacturer's instructions.
4. Thoroughly wipe the product with a soft cloth or dry sponge.

Please refer to our website for a list of approved cleaning and disinfecting products.

8.2 MATTRESS FOAM

The mattress cover is waterproof, vapor permeable and features welded seams and a waterproof zip. If the mattress cover is punctured it should be replaced to avoid contamination of the mattress foam.

The mattress foam is not suitable for cleaning and if it becomes soiled or contaminated it must be replaced.

8.3 MATTRESS CLEANING PROCEDURE

1. Raise the stretcher to your working height.
2. Strip the stretcher of soiled linen and place in the linen skip.
3. Wash the top of the mattress with an approved cleaning product.
4. Dry the surface with a clean dry cloth or air dry.
5. Fold the mattress in half, folding over from the foot end towards the head end.
6. Wash the bottom half of the mattress.
7. Wipe over the deck surface.
8. Wipe dry both the deck surface and the mattress.
9. Fold the mattress flat on the stretcher.
10. Fold the mattress in half, folding over from the head end towards the foot end.
11. Wash the top half of the mattress.
12. Wipe over the deck surface.
13. Wipe dry both the deck surface and the mattress.
14. Make up the stretcher.
15. Return to normal height.

9. PACKING FOR TRANSPORT OR STORAGE

To pack the stretcher for transport or storage:

WARNING: Never lift from the deck.

WARNING: Never use a forklift.

CAUTION: If the stretcher is not used for a long period of time it is recommended that the batteries are charged for a minimum of six hours once every three months.

CAUTION: Transport and storage environment:

- Ambient temperature range: +5°C to +40°C.
- Relative humidity range: 30% to 75%.
- Atmospheric pressure range: 80 kPa to 106 kPa (Rated to operate at an altitude ≤ 2000m).

1. Activate the castor brakes.

2. Lower the deck fully.

3. Remove the bed end.

4. Lower the siderails.

5. For transport only, use packing string to secure:
   - The IV pole to its storage hooks.
   - The handset and power cord to the bogie.
   - The backrest to the deck.
   - The bogie to the deck (both the head end and the foot end).
   - The legraise to the deck.
   - The siderails (to hold in collapsed position).

6. Cover the stretcher to protect it from dust.

10. ELECTRIC CONTROL PROBLEM SOLVER

Use Table 1 below for assistance if the stretcher cannot be adjusted correctly using the electric controls. If further assistance is required, contact Howard Wright Limited or an authorised service dealer.

Table 1. Electric control problem solver

Problem	Possible cause	To Resolve
All stretcher control buttons do not work.	The battery charge is low and the power cord is not plugged into the mains supply.	Plug the power cord into the mains supply.
	Two or more buttons are being pressed simultaneously.	Press only one button.
	The duty cycle (mode) has been exceeded and the control system has overheated.	Wait for 10 minutes and try again.
	The lockout feature is engaged for all functions.	Use the supplied key to unlock function(s).
	The system software has encountered an error and needs to be reset.	Reset the control box: 1) Using the hand set Press and hold both the DECK UP and DECK DOWN buttons simultaneously. Stretcher will beep 10 times. When beeping stops control box is reset. FOR STRETCHERS BUILT BEFORE AUGUST 2015. 2)Then press the deck up button until the stretcher reaches its full height. FOR STRETCHERS BUILT AFTER AUGUST 2015. 2)Then initialise the control box by holding down the two top buttons (BACKREST UP and BACKREST DOWN) on the handset, until the stretcher stops moving and beeping.
One or more stretcher control functions do not work.	The lock out feature is engaged for one or more functions.	Use the supplied key to unlock the function(s).
The stretcher does not achieve the full range of movement.	Overloading (SWL = 250kg including patient and accessories).	Remove the excess load.
Adjustment is slow.	The battery charge is low and the power cord is not plugged into the mains supply.	Plug the power cord into the mains supply.
Adjustment stops unintentionally.	Overloading (SWL = 250kg including patient and accessories).	Remove the excess load.
	The selected function has reached its limit of adjustment.	
	The battery charge is low and the power cord is not plugged into the mains supply.	Plug the power cord into the mains supply.

11.1 AUTHORISED SERVICING

WARNING: No servicing or inspection shall be undertaken whilst a patient is occupying the stretcher.

WARNING: Servicing should only be carried out by an authorised service person.

WARNING: Do not modify the stretcher or its accessories without written agreement from Howard Wright Limited.

WARNING: The power supply cord and fuse must be replaced by service personnel only.

CAUTION: Do not tamper with any of the stretchers components.

All inspections, maintenance, servicing and repairs must be carried out either by Howard Wright Limited, an authorised service dealer, a Howard Wright Limited trained technician or by a competent person to national legislation and / or standards.

NOTE: Refer to the Technical Service Manual (M999-28) for detailed instructions on replacement of stretcher components.

11.2 ANNUAL INSPECTION

Inspection of the stretcher shall be performed annually in accordance with the maintenance checklist (section 11.5) and any legal portable appliance testing (PAT) requirements.

11.3 OBTAINING SPARE PARTS & SERVICE

WARNING: All replacement parts must be sourced through Howard Wright Limited.

Howard Wright Limited's products are supported by an extensive network of authorised service dealers. These service dealers are trained by Howard Wright Limited. For contact details of your nearest service dealer please contact Howard Wright Limited.

11.3.1 HWL CONTACT DETAILS

Howard Wright Limited is the manufacturer.

▪ Name:	Howard Wright Limited	Howard Wright Limited	Howard Wright Limited
▪ Address:	PO Box 3003, Fitzroy 17 Paraite Road, Bell Block New Plymouth 4341 New Zealand T. +64 (6) 755 0976 F. +64 (6) 755 0908 service@howardwright.com	PO Box 2786 Taren Point NSW 2229 Australia T. 1800 120 727 F. 1800 120 717 service@howardwright.com	United Kingdom T. 0845 094 9894 www.howardwright.com

11.3.2 STRETCHER INFORMATION

When making service or repair enquiries, please provide the following information:

- Stretcher model (#).
- Stretcher manufacture date ().
- Stretcher serial number (SN):

This information is recorded on the stretcher serial number label located on the left side at the foot end of the deck.

11. MAINTENANCE & SERVICING

11.4 BATTERY REPLACEMENT

CAUTION: The battery is of sealed lead-acid type and should be disposed of safely to prevent environmental damage.

The life of the battery will depend on the use that it has had. As a guide, it should be replaced every four years.

11.5 M9 TRAUMA USER MAINTENANCE CHECKLIST

WARNING: To protect yourself when inspecting or servicing keep body and limbs well clear of any moving mechanical componentry. Never place your body and limbs beneath any type of bed, stretcher or shower trolley deck when operating any of the functions.

WARNING: Unplug the stretcher from mains supply before inspecting the power supply cord and other cables.

Carry out the following maintenance checks annually:

a) Visual check

Visually inspect all components for mechanical damage including:

- Deformed or cracked components.
- Deformed or cracked welded connections.
- Deformed, cracked or loose bolted connections.
- Pivoting connections with loose fasteners that should be tight.
- Bent, cracked or damaged actuators (including body clevis, piston clevis, piston, piston sleeve and plastic housing).

b) Electric controls

- Check that all of the buttons on the handset work correctly.
- Check that the lock out feature is functional on all handset button functions.

c) Electrical system

- Unplug the stretcher from the mains supply. Check all electric cables for cracks, cuts or damage from crushing.
- Unplug the stretcher from the mains supply. Check that the potential equalisation terminal (POAG terminal) is functional by measuring the resistance between the earth pin on the 3 pin plug and the potential equalisation terminal. Check the resistance between the earth pin on the 3 pin plug and any other earth cable on the stretcher (green and yellow cable). Check that the backrest and legraise earth cables lead to a 3 pin plug earth. The resistance in all instances must be less than 0.20Ω.
- Unplug the stretcher from the mains supply. Press any control button to check that the battery will power the stretcher adjustments. It may be necessary to plug the power cord into the mains supply for up to one hour prior to this test to ensure the battery is charged.
- Adjust the backrest, legraise, deck height and deck tilt. Check that there are no abnormal noises during each functions full range of movement.

d) Backrest quick-release mechanism

- Adjust the backrest fully up. Move the CPR lever to the emergency position. Check that the backrest lowers when force is applied to it. Check that the CPR lever automatically returns to the normal position when it is released.

e) Bed end

- Check that the bed end can be removed and reinstalled. If jamming occurs clean the bed end sockets and bed end pegs and add a small amount of Vaseline (petroleum jelly) or food grade grease to the sockets.

f) Castors

- Set the castor pedal in the brake position. Check that all four castors cannot swivel or roll.
- Set the castor pedal in the neutral position. Check that all four castors are free to swivel and roll.
- Set the castor pedal in the neutral position. Check that there is no excessive play in the fifth wheel mechanism and the 5th wheel itself.
- Set the castor pedal in the steer position. Check that the 5th wheel (if fitted) locks in line with the length of the stretcher and cannot swivel. Check that the remaining castors can swivel.
- Set the castor pedal in the steer position. Check that the steering castor (if fitted) locks in line with the length of the stretcher and cannot swivel. Check that the remaining castors can swivel.

g) Mechanical items

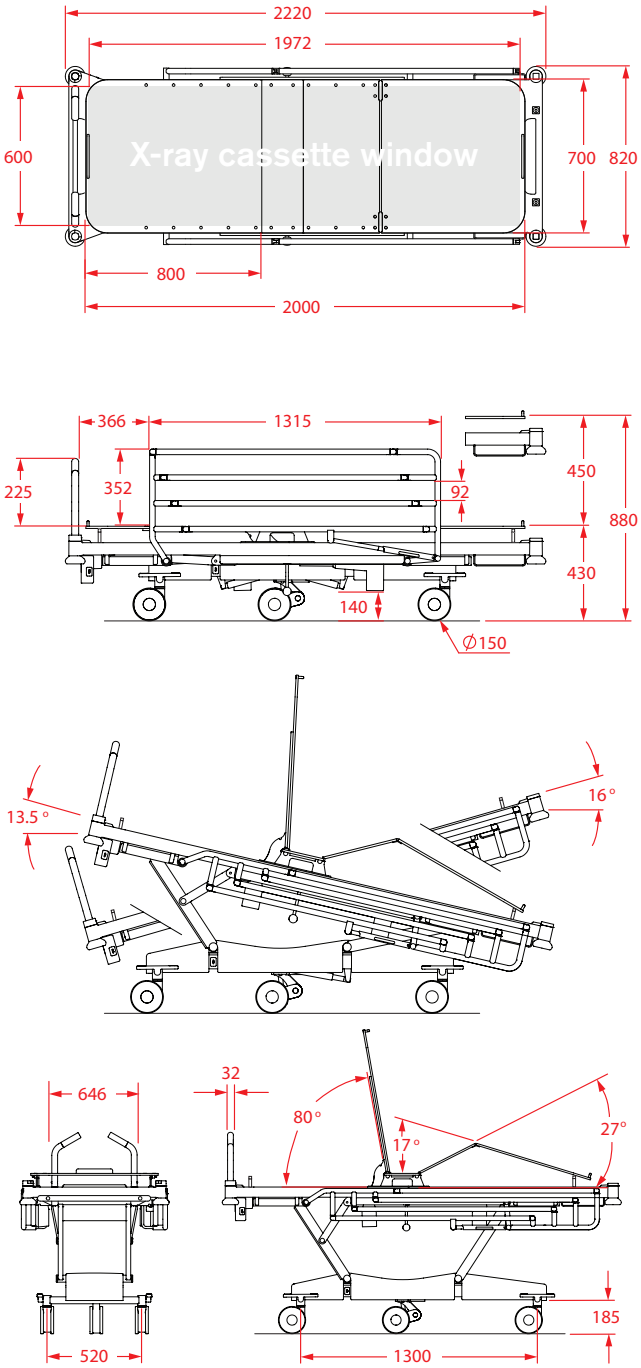
- Check that all bolts, screws, nuts and pivot-pins are securely fastened.
- Check both siderails. Raise siderail and check gas strut assists raising. Check siderail does not lower unassisted. Check that the siderail latch automatically latches with the siderail in the raised position – this can be seen visually and heard audibly. Lift the siderail latch and lower the siderail to see that it is in good working order.

h) Accessories

- Check the siderail covers for rips, cracks or other damage.
- Check the mattress (and bolster mattress) covers for rips, cracks or other damage.
- Check that the IV pole is straight and otherwise free of damage. Check that the locking collar securely locks the pole when tightened.
- Check that the PH pole is straight and otherwise free of damage.
- Check that the PH pole strap is free from cuts and abrasions.
- Check that the PH handle strap adjustment mechanism is operating correctly (applies to adjustable PH handle option).
- Check the blanket cradle for damage.
- Check the oxygen cylinder carrier for damage.
- Check the drainage bag hook rail for damage.
- Check the urine bottle carrier for damage.
- Check the monitor tray for damage. Check that the strap is free from cuts and abrasions and that the buckle is in working order.
- Check the over bed table for damage. Check that the height of the table can be adjusted.
- Check the orthopaedic frame for damage.
- Check the X-Ray cassette holder for damage.
- Check the C-Spine X-Ray cassette holder for damage.

12. SPECIFICATIONS

12.1 M9 TRAUMA STRETCHER



MODEL:	M9 Trauma
IP RATING:	IPX4
EEC CLASSIFICATION:	Class 1, Non-invasive
MAXIMUM SWL:	250kg (incl. patient & accessories)
STRETCHER MASS:	130kg (incl. siderails & bed ends)

EXTRA FEATURES:

- Durable powdercoated steel structure
- 4 large soft corner buffers
- LINAK electric system with 4 actuators. Approved to EN 60601-1
- Power input: 220-240 VAC, 50-60 Hz, 2.0 A maximum
- Power output: 24 VDC
- Backrest & legraise have safety spline
- Potential equalisation terminal
- Central locking braking with 2 brake pedals and 1 steer castor
- 4 accessory sockets
- CPR quick release backrest
- Under bed light (optional)
- Power cord storage
- IV pole storage

DIMENSIONS:

- Overall (incl. corner buffers): L: 2220mm, W: 820mm
- Mattress platform: L: 2000mm, W: 700mm
- Backrest: L: 800mm
- Push handle: W: 646mm, D: 32mm (32mm bed end)
  H: 225mm (above mattress platform)
- Siderail: L: 1315mm, H: 352mm (above mattress platform)
- Space between bars: 92mm, (25mm when down)
- Space between push handles and siderail: 366mm
- Corner buffer diameter: 90mm
- Wheel base: 1300mm, wheel track: 520mm
- Castor diameter: 150mm dual Linea Castors
- Maximum deck height: 880mm, Minimum deck height: 430mm
- Linear translation as bed raises and lowers: 0mm
- Trendelenburg: 16°, reverse Trendelenburg 13.5°
- Maximum backrest angle: 80°
- Maximum upper legraise angle: 27° (4-section deck)
- Maximum lower legraise angle: 17° (4-section deck)
  (All angular dimensions are with reference to horizontal)

UNDER BED CLEARANCES (FOR PATIENT LIFTERS)

- Elevator to floor: Deck low: 140mm
- Bogie to floor: 185mm

TESTING:

- Developed in accordance with the requirements of
  IEC60601-1:2005 & IEC60601-2-52:2009

Figure 47. M9 Trauma specifications

12.5 ELECTRIC ACTUATOR SYSTEM

- Manufacturer: LINAK
- Power supply voltage: 220-240 V AC
- Power supply frequency: 50-60 Hz
- Operating voltage: 24 V DC
- Maximum input current: 2.0 A
- Duty cycle: 10%, do not operate the stretcher for more than 2-minutes over a 20 minute period.

12.6 TRANSPORT & STORAGE ENVIRONMENT

- Ambient temperature range: +5°C to +40°C
- Relative humidity range: 30% to 75%
- Atmospheric pressure range: 80 kPa to 106 kPa (Rated to operate at an altitude ≤ 2000m).

12.7 OPERATING ENVIRONMENT

- Ambient temperature range: +5°C to +40°C
- Relative humidity range: 30% to 75%
- Atmospheric pressure range: 80 kPa to 106 kPa (Rated to operate at an altitude ≤ 2000m).

12.8 SOUND PRESSURE LEVEL

- Sound pressure level: 51.0 dBA (MAX)

12. SPECIFICATIONS

12.9 ACCESSORY SPECIFICATIONS

ACCESSORY	PART NO.	FINISH/SIZE	SWL (kg)
MATTRESSES			
▪ PREMA Stretcher Mattress	HCS100C	2000 x 700 x 100	N/A
▪ PREMA Stretcher Mattress 125	HCS105	2000 x 700 x 125	N/A
▪ Bolster M9 Stretcher (for extension)	HCS019	200 x 700 x 110	N/A
IV POLES:			
▪ Fold down IV pole (fitted), 2 hooks	M928-01	Stainless steel	15
▪ Socket IV pole, 2 hooks	M928-02	Stainless steel	15
▪ IV pole, 4 hooks (incl storage hooks)	M928-03	Stainless steel	15
▪ IV pole, 4 hooks	M928-07	Stainless steel	15
OTHER:			
▪ Accessory mount rail (Medirail)	M946-01		25
▪ Arm board	M746-02		5
▪ Bed ends	M908-02	ABS & Anodized aluminium	25
▪ Chart holder	M749-01		
▪ Inhalo O2 cylinder carrier	M725-03	Stainless steel	10
▪ Inhalo O2 cylinder carrier, 25mm pin mount	M725-04	Stainless steel	10
▪ Monitor tray	M924-01	ABS & Anodized aluminium	25
▪ Mobile oxygen cylinder carrier base	M725-07	Powder coated steel	26
▪ Oxygen cylinder carrier for NZ “A” size (Australian “C” size)	M725-01	Stainless steel	10
▪ Oxygen cylinder carrier for “D” size	M725-02	Stainless steel	15
▪ Oxygen cylinder carrier for “D” size with Parapac holder	M725-05	Stainless steel	15
▪ Oxygen cylinder carrier for “HX/F” size	M925-01	Stainless steel	20
▪ Oxygen cylinder carrier for E size	M925-01	Stainless steel	20
▪ Orthopaedic Frame	M748-01	Stainless steel	100/30
▪ PH pole complete (fixed handle)	M729-01	Powder coated steel	100
▪ PH pole complete (adjustable handle)	M729-02	Powder coated steel	100
▪ Residual Current Device (RCD)	Factory fitted		N/A
▪ Siderail cover, solid (single)	M944-03	Bi-elastic	N/A
▪ Storage basket	M923-01	Powder coated steel & stainless steel	10
▪ Stretcher extension (plug in)	M921-03	Compact laminate & powder coated steel	25
▪ Urine bottle carrier	M727-01	Stainless steel	2
▪ Fowler X-ray cassette holder	M926-01	Anodized aluminium	5
▪ C-spine X-ray cassette holder	M926-02	Anodized aluminium	5

13. ELECTROMAGNETIC COMPATIBILITY

WARNING: The stretcher generates, uses, and can radiate electromagnetic radiation that may interfere with other devices, or vice versa.

13.1 AVOIDING INTERFERENCE

If the stretcher causes interference that affects another device, one or more of the following actions may help:

- Connect a POAG (Potential Equalisation) lead to the stretcher's POAG stud and the wall POAG.
- Reorientate the stretcher or the device being affected by the interference.
- Increase the distance between the stretcher and the device.
- Connect the stretcher and the device to different mains power supply circuits.
- Disconnect the stretcher from the mains supply and do not use the electric controls.

If these measures are not successful, consult Howard Wright Limited for further assistance.

14. CONFORMITY

14.1 TESTING & COMPLIANCE

The M9 Trauma stretcher satisfies the requirements of directive 2017/745, 93/42/EEC and UK MDR 2002 for medical devices - Class 1 medical device products.

The M9 Trauma stretcher has been developed to comply with requirements of:

- **IEC60601-1:2005**
- **IEC60601-2-52:2009**

14.2 IP STANDARDS

- **BS EN 60529:1992.**

  Specification of degrees of protection provided by enclosures.

  IPX4 4 - Protected against water sprayed from all directions, limited ingress permitted.

14.3 RECYCLING AND DISPOSAL

Howard Wright Limited cares for the environment. Our manufacturing facility, based in an ecologically diverse area, means we are committed to a healthy environment. Please follow the recycling guidelines within your country.

All packaging, including cardboard and timber can be recycled.

This stretcher is manufactured from steel, aluminium, ABS and nylon plastics, all of which can be recycled.

All electronic equipment should be returned to an approved electrical waste recycling treatment plant.

Batteries are of a sealed lead acid type and must be returned to a specialist battery disposal company.

Please follow the WEEE (2012/19/EU) directive if within the European Community or environmental legislation in the country of use. Please visit the Environment section of the Howard Wright Limited web site for further information.

The stretcher complies with the RoHS2 (2011/65/EU) directive.

Please see the Howard Wright Limited website for WEEE and Waste Battery information.

See the M9 Trauma Technical Service Manual for details on disassembly of stretchers.

14.4 EXPECTED SERVICE LIFE

The expected service life of the M9 Trauma stretcher is 7 years from the date of manufacture.

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HOWARD WRIGHT™ CARES