MV3 Bariatric Bed

Operations Manual

REF 5900000001

2797

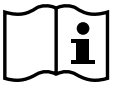
EN

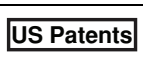
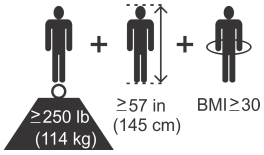
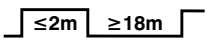
5900-009-005 Rev AD.0 2024-11

Global symbol glossary

See the Global Symbol Glossary at ifu.stryker.com for symbol definitions.

Symbols

	Refer to instruction manual/booklet
	Consult instructions for use
	General warning
	Caution
	Warning; electricity
	Fuse rating
	Do not drill
	Hydraulic oil pressure
	Pinch/crush hazard
	Non-ionizing radiation
REF	Catalogue number
SN	Serial number
MD	European medical device
CE 2797	CE mark

UK CA 0086	UK Conformity Assessment mark
	Importer
	Unique device identifier
	Authorized representative in the European Community
	For US Patents see www.stryker.com/patents
	Manufacturer
	Date of manufacture
	Safe working load
	Mass of equipment with safe working load
	Maximum patient weight
	NAWI Class IIII
	Adult patient biometrics
~	Alternating current
⎓	Direct current
	Duty cycle of product
	Unit provides terminal for connection of a potential equalization conductor. The potential equalization conductor provides direct connection between the unit and potential equalization busbar of the electrical installation.
	Protective earth ground
IPX4	Protection from liquid splash

	Type B applied part
	Medical Equipment Classified by Underwriters Laboratories Inc. With Respect to Electric Shock, Fire, and Mechanical Hazards Only in Accordance with ANSI/AAMI ES60601-1:2005/(R)2012 and A1:2012 C1:2009/(R)2012 and A2:2010/(R)2012, CAN/CSA-C22.2 No. 60601-1:14, IEC 60601-2-52:2009/A1:2015, CAN/CSA-C22.2 No. 60601-2-52:11 with Amendment 1:2017.
	In accordance with European Directive 2012/19/EU on Waste Electrical and Electronic Equipment (WEEE) as amended, this symbol indicates that the product should be collected separately for recycling. Do not dispose of as unsorted municipal waste. Contact local distributor for disposal information. Ensure infected equipment is decontaminated prior to recycling.

Table of Contents

Warning/Caution/Note Definition

The words **WARNING**, **CAUTION**, and **NOTE** carry special meanings and should be carefully reviewed.

WARNING

Alerts the reader about a situation which, if not avoided, could result in death or serious injury. It may also describe potential serious adverse reactions and safety hazards.

CAUTION

Alerts the reader of a potentially hazardous situation which, if not avoided, may result in minor or moderate injury to the user or patient or damage to the product or other property. This includes special care necessary for the safe and effective use of the device and the care necessary to avoid damage to a device that may occur as a result of use or misuse.

Note - Provides special information to make maintenance easier or important instructions clearer.

Summary of safety precautions

Always read and strictly follow the warnings and cautions listed on this page. Service only by qualified personnel.

WARNING

- Always use this product for bariatric use only per the details on the product labeling and specifications from this manual.
- Do not use this product for behavioral, pediatric, or home healthcare use.
- Do not use this product in an oxygen rich environment.
- Always use Stryker approved mattresses that have been tested for compatibility with the product frame to avoid the risk of patient entrapment.
- Always plug the product into a grounded, hospital grade wall outlet. You can only achieve grounding reliability when you use a hospital grade wall outlet. This product is equipped with a hospital-grade plug for protection against electric shock hazard.
- Always use a Stryker supplied interface cable. Use of any other cable may cause the product to not function as intended, which may result in patient or user injury.
- Always connect this product to a supply mains with protective earth to avoid the risk of electric shock.
- Always make sure the product is connected to an appropriate power source if the loss of power would result in unacceptable risk.
- Always store the power cord to avoid the risk of entanglement, damage to the power cord, or potential shock hazards. If the power cord is damaged, remove the product from service and contact maintenance personnel.
- Always allow enough clearance between the head end of the product and the adjacent wall, so you can unplug the power cord from the wall outlet during an emergency.
- Always store the power cord before you transport the product.
- Always disconnect the power cord from the wall outlet if you detect overheating of the battery, cables, or cords. Do not use the product until it has been inspected, serviced, and confirmed to work as intended by maintenance personnel.
- Always replace the battery after it surpasses its expected service life.
- Do not open the battery.
- Do not expose the battery to excessive heat.
- Do not spill liquid onto the battery or submerge the battery in liquid.
- Always use two people when you transport the product.
- Always lock the siderails in the full up position with the sleep surface horizontal when you transport a patient.
- Always keep limbs, hands, fingers, and other body parts clear of mechanisms and gaps.
- Always make sure that there are no obstacles near the product. Injury to the patient, operator, bystanders or damage to the frame or surrounding equipment could occur if you collide with an obstacle.
- Do not attempt to transport the product laterally. This may cause the product to tip.
- Always apply the brakes when a patient is getting into or out of the product to avoid instability.
- Always apply the brakes when the patient is unattended.

- Do not apply the brakes to slow or stop the product while it is in motion.
- Always unplug the power cord before you transport the product.
- Always release the brakes before you transport the product. Do not transport the product with the brakes applied.
- Do not transport the product laterally after you apply the steer lock pedal. The product cannot swivel when you transport with steer lock.
- Do not attempt to release steer lock while the product is in motion.
- Always align the headboard with the deck indicator facing away from the patient and match the litter deck width when you replace the headboard to avoid the risk of entrapment.
- Do not use the headboard for CPR support.
- Always set the siderail position for appropriate patient safety.
- Always lock the operator control panel and patient control panel when the patient is unattended.
- Always make sure that cables, wires, and tubing from other equipment are routed so that they are not pinched by parts of the product.
- Only use hospital grade electric equipment consuming 6A (120 VAC)/3A (230 VAC)/3A(220-240 VAC) or less with the hospital grade GFCI auxiliary outlet. The use of standard electric equipment may bring the current leakage to a level unacceptable for hospital equipment.
- Do not use the 120/230/220-240 VAC hospital grade GFCI auxiliary outlet for life sustaining equipment.
- Always lower the product to its lowest height when the patient is unattended to reduce the risk of injury due to patient falls.
- Always lock the control panel when you leave the patient unattended.
- Always lock the patient control panel when the patient's condition requires extra safety measures.
- Do not use the scale system reading as a reference for medical treatment.
- The scale system assists only in the monitoring of the patient’s weight variation.
- Do not use the scale system on an unlevel floor greater than 2.86°.
- Do not use the product clock to replace patient monitoring protocol, the product clock is for reference only.
- Do not use bed exit to replace patient monitoring protocol, it is intended only to aid in the detection of a patient exiting the product.
- Do not use bed exit with patients who weigh less than 250 lb (113 kg).
- Always use two people to attach or remove the patient helper.
- Do not load the patient helper above the safe working load of 275 lb (124.7 kg).
- Portable RF communications equipment, including peripherals such as antenna cables and external antennas, should be no closer than 12 inches (30 cm) to any part of MV3, including cables specified by the manufacturer.
- Avoid stacking or placing equipment adjacent with other equipment to prevent improper operation of the products. If such use is necessary, carefully observe stacked or adjacent equipment to make sure that they are operating properly.
- The use of accessories, transducers, and cables, other than those specified or provided by the manufacturer, could result in increased electromagnetic emissions or decreased electromagnetic immunity and result in improper operation.

CAUTION

- Improper usage of the product can cause injury to the patient or operator. Operate the product only as described in this manual.
- Do not modify the product or any components of the product. Modifying the product can cause unpredictable operation resulting in injury to patient or operator. Modifying the product also voids its warranty.
- Do not clean, disinfect, service, or perform maintenance while the product is in use.
- Always plug the product into a wall outlet (regulated AC-power source) when not in use to maintain a sufficient battery charge and to maximize product performance while operating on battery power.
- Always replace batteries that have corrosion at the terminals, display cracking, have expanded or bulging sides, or no longer can maintain a full charge.
- Always use authorized batteries when you replace the batteries. Use of unauthorized batteries may lead to unpredictable system performance.
- Do not pinch the power cord in the bed frame.
- Do not use the siderails as a push or pull device. Always move the product using the integrated handles in the headboard and footboard.
- Always remove the patient helper before you transport the product.

- Do not use the patient helper as a push or pull device.
- Do not use the oxygen bottle holder as a push or pull device.
- Do not use the IV pole as a push or pull device.
- Always make sure that the IV pole is at a low height during transport.
- Always make sure that all persons and equipment are away from the area below and around the Fowler before you activate the CPR release. The CPR release is for emergency use only.
- Always expand or retract the litter width before you place a patient on the product.
- Always expand or retract the litter width when the product is in the full flat horizontal position.
- Always expand the litter deck to the desired width before you expand the headboard.
- Always retract the headboard to the desired width before you retract the litter deck.
- Do not expand or retract the headboard while a patient is on the product.
- Always make sure that the product is clear of obstacles before you use motion functions.
- Always raise the siderails when the litter is in its full down position. This prevents the scale system from weighing a patient inaccurately.
- Do not load the IV pole above the safe working load of 40 lb (18 kg).
- Do not load an individual IV pole hook above the safe working load of 20 lb (9 kg).
- Always secure the lifting pole in the mounting bracket before you adjust the patient helper.
- Always remove the patient helper before transporting the product.
- Always make sure that the patient helper mounting bracket is secure before use.
- Do not load the oxygen bottle holder above the safe working load of 45 lb (20.4 kg).
- Always unplug the power cord from the wall outlet when large spills occur near the circuit boards, cables, and motors. Remove the occupant from the product, clean up the fluid, and inspect the product. Fluids can cause unpredictable operation and decreased functionality of any electrical product. Do not return the product to service until dry and tested for safe operation.
- Always wipe down with clean water (or 70% isopropyl alcohol, if using **Virex®** TB) and dry each product after disinfecting. Some disinfectants are corrosive in nature and may cause damage to the product. If you do not rinse and dry the product, you may leave a corrosive residue on the surface of the product. This corrosive residue could cause premature degradation of critical components. Failure to follow these disinfecting instructions may void your warranty.

Introduction

This manual assists you with the operation or maintenance of your Stryker product. Read this manual before operating or maintaining this product. Set methods and procedures to educate and train your staff on the safe operation or maintenance of this product.

CAUTION

- Improper usage of the product can cause injury to the patient or operator. Operate the product only as described in this manual.
- Do not modify the product or any components of the product. Modifying the product can cause unpredictable operation resulting in injury to patient or operator. Modifying the product also voids its warranty.

Note

- This manual is a permanent part of the product and should remain with the product even if the product is sold.
- Stryker continually seeks advancements in product design and quality. This manual contains the most current product information available at the time of printing. There may be minor discrepancies between your product and this manual. If you have any questions, contact Stryker Customer Service or Technical Support at 1-800-327-0770.

Product description

The Stryker model 5900 MV3 bariatric hospital bed is an AC-powered adjustable hospital bed designed to be utilized with a patient support surface matching the deck size of the bed frame. MV3 consists of a Fowler and knee Gatch to aid in the adjustment of the surface contour of the bed, moveable and latchable siderails, and electronic controls located in the footboard and siderails. The iBed Awareness system allows users to set various bed parameters to monitor bed positioning and provides visual alerts when those parameters set by the healthcare professional (HCP) are altered.

Indications for use

WARNING

- Always use this product for bariatric use only per the details on the product labeling and specifications from this manual.
- Do not use this product for behavioral, pediatric, or home healthcare use.
- Do not use this product in an oxygen rich environment.

The MV3 bariatric bed is intended to provide a patient support surface for medical purposes and to provide a method of transporting patients within a healthcare facility. It is intended to be used with bariatric, adult, non-behavioral health patients with a BMI of 30 kg/m² or greater and weighing 250 lb (113.4 kg) or more.

Clinical benefits

Patient treatment, patient positioning, and diagnostic

Contraindications

None known.

Expected service life

The 5900 MV3 bariatric bed has an eight year expected service life under normal use conditions and with appropriate periodic maintenance.

The backup batteries have a one year expected service life under normal use conditions.

Disposal/recycle

Always follow the current local recommendations and/or regulations governing environmental protection and the risks associated with recycling or disposing of the equipment at the end of its useful life.

Specifications

WARNING - Always use Stryker approved mattresses that have been tested for compatibility with the product frame to avoid the risk of patient entrapment.

	Safe working load **Note:** Safe working load indicates the sum of the occupant, accessories, and mattress weight.		1102 lb	500 kg
	Maximum patient weight		1027 lb	465.8 kg
	Mass of equipment with safe working load		2004 lb	909 kg
Product weight			902 lb	409.1 kg
Scale system capacity maximum			1102 lb	500 kg
Scale system accuracy (non-NAWI)			± 3% of the total patient weight for patients weighing 225 (102 kg) to 1102 lb (500 kg)	
	Scale system accuracy (NAWI) MAX = 500 kg, MIN = 102 kg, e = 2 kg, Tare = -80 kg		± 4.4 lb (2 kg) for patients weighing 225 lb (102 kg) to 882 lb (400 kg)	
			± 6.6 lb (3 kg) for patients weighing 886 lb (402 kg) to 1102 lb (500 kg)	
Overall length and width		Siderails stowed	92 in. x 38.3 in.	233.7 cm x 97.2 cm
			92 in. x 42 in.	233.7 cm x 106.7 cm
			92 in. x 48 in.	233.7 cm x 121.9 cm
		Siderails at low, intermediate, and high position	92 in. x 40.5 in.	233.7 cm x 102.9 cm
			92 in. x 46.5 in.	233.7 cm x 118.1 cm
			92 in. x 52.5 in.	233.7 cm x 133.4 cm
Patient sleep surface		36 in. (91.4 cm) deck position	80 in. x 34.5 in.	203.2 cm x 87.6 cm
		42 in. (106.7 cm) deck position	80 in. x 40.5 in.	203.2 cm x 102.9 cm
		48 in. (121.9 cm) deck position	80 in. x 46.5 in.	203.2 cm x 118.1 cm
Bed height to top of seat litter			12 in. to 28 in.	30.5 cm to 71.1 cm
Knee Gatch position			0° to 20° ± 2°	
Fowler position			0° to 60° ± 2°	
Foot position			0° to 13° ± 2°	
Trendelenburg and reverse Trendelenburg			+12° to -12°	

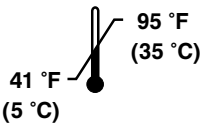
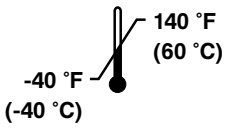
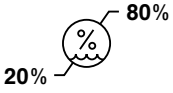
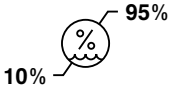
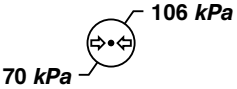
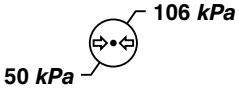
Electrical requirements **Note** - Class I Electrical Equipment: Protection against electrical shock relies on connection to protective earth of an appropriately rated hospital grade outlet.	120 VAC, 60 Hz, 8A	230 VAC, 50 Hz, 4A 220-240 VAC, 50-60 Hz, 4A
Hospital grade GFCI auxiliary outlet	120 VAC, 60 Hz, 6A	230 VAC, 50 Hz, 3A 230 VAC, 50 Hz, 4A
Battery voltage **Note** - Always replace with Stryker approved batteries.	12 VDC (x2) (Stryker part number: 5900280025)	
Duty cycle	2 minutes ON, 18 minutes OFF	
Application environments	1, 2, 3, and 5 per IEC 60601-2-52	
Maximum acoustic sound pressure	< 60 dBA	

Compatible mattress										
Bariatric non-powered support surface (288505550001)	Length		Width		Thickness		Bolster width, patient right and patient left		Bolster thickness, patient right and patient left	
	79.5 in.	201.9 cm	45 in.	114.3 cm	7 in.	17.8 cm	6 in.	15.2 cm	7 in.	17.8 cm

Note - Minimum mattress firmness: ILD at 50% - minimum of 108 lbf

Stryker reserves the right to change specifications without notice.

Specifications listed are approximate and may vary slightly from product to product or by power supply fluctuations.

Environmental conditions	**Operation**	**Storage and transportation**
Ambient temperature		
Relative humidity (non-condensing)		
Atmospheric pressure		

European REACH - MV3

In accordance with the European REACH regulation and other environmental regulatory requirements, the components that contain declarable substances are listed.

Description	Number	Substance of very high concern (SVHC) chemical name
PCBA, IOM deck position monitor, head	590040004101	Lead
PCBA, IOM deck position monitor, seat	590040004102	Lead
PCBA, IOM deck position monitor, foot	590040004103	Lead

Product illustration

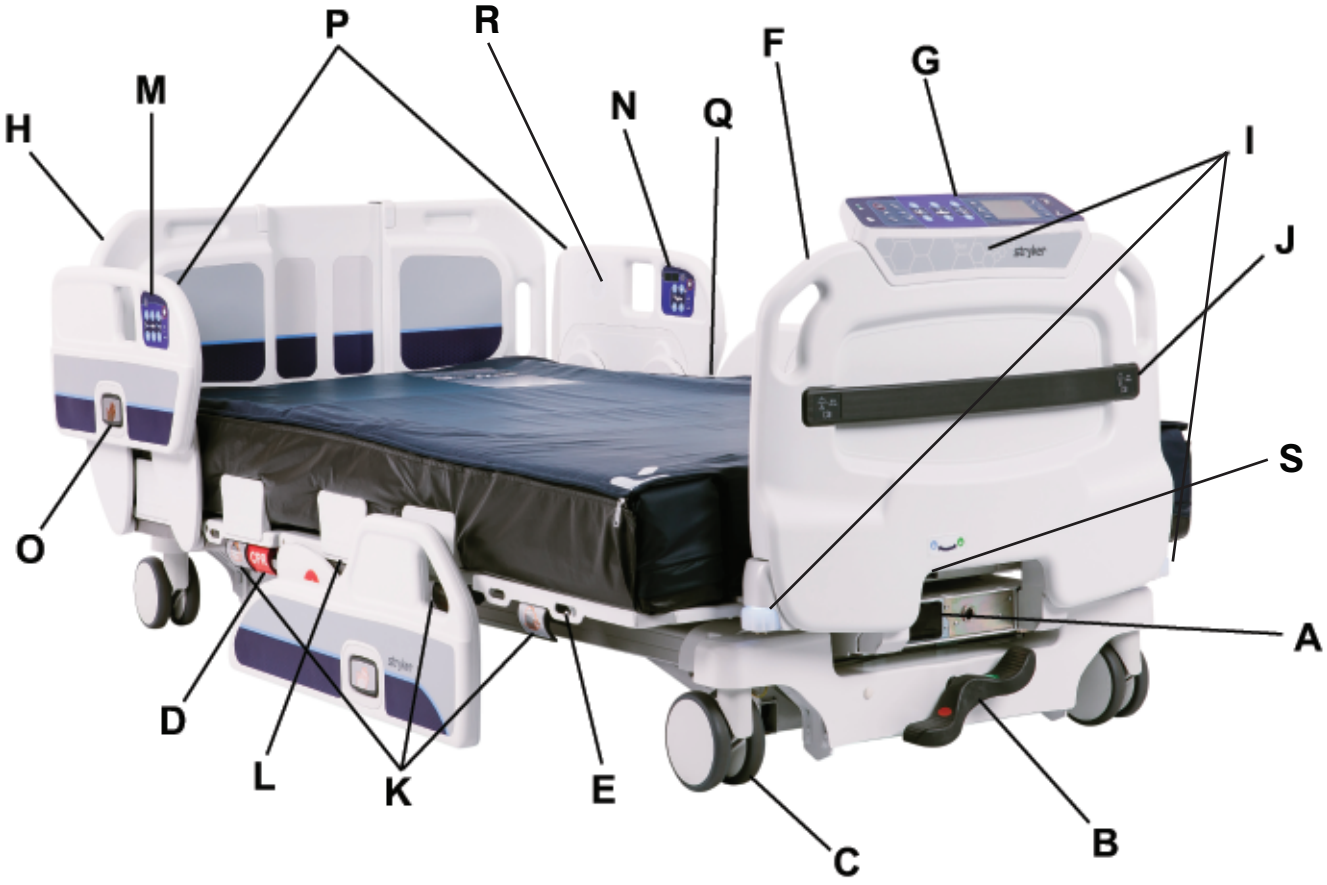


Figure 1 – Model 5900 MV3 bariatric bed

A	Hospital grade GFCI auxiliary outlet	K	Mattress deck expansion handle
B	Brake/steer pedal	L	Mattress retainer
C	Caster	M	Operator control panel
D	CPR release handle	N	Patient control panel
E	Foley bag hooks	O	Siderail release button
F	Footboard	P	Siderails
G	Footboard control panel	Q	Support surface
H	Headboard	R	Nurse call speaker

I	iBed Awareness lights	S	Footboard lock switch
J	Integrated pump rack		

Applied parts

Figure 2 – Type B applied parts

Contact information

Contact Stryker Customer Service or Technical Support at: 1-800-327-0770.

Stryker Medical
3800 E. Centre Avenue
Portage, MI 49002
USA

Note - The user and/or the patient should report any serious product-related incident to both the manufacturer and the Competent authority of the European Member State where the user and/or patient is established.

To view your operations or maintenance manual online, see https://techweb.stryker.com/.

Have the serial number (A) of your Stryker product available when calling Stryker Customer Service or Technical Support. Include the serial number in all written communication.

Serial number location

You can find the serial number (A) below the headboard at the head of the bed (Figure 3).

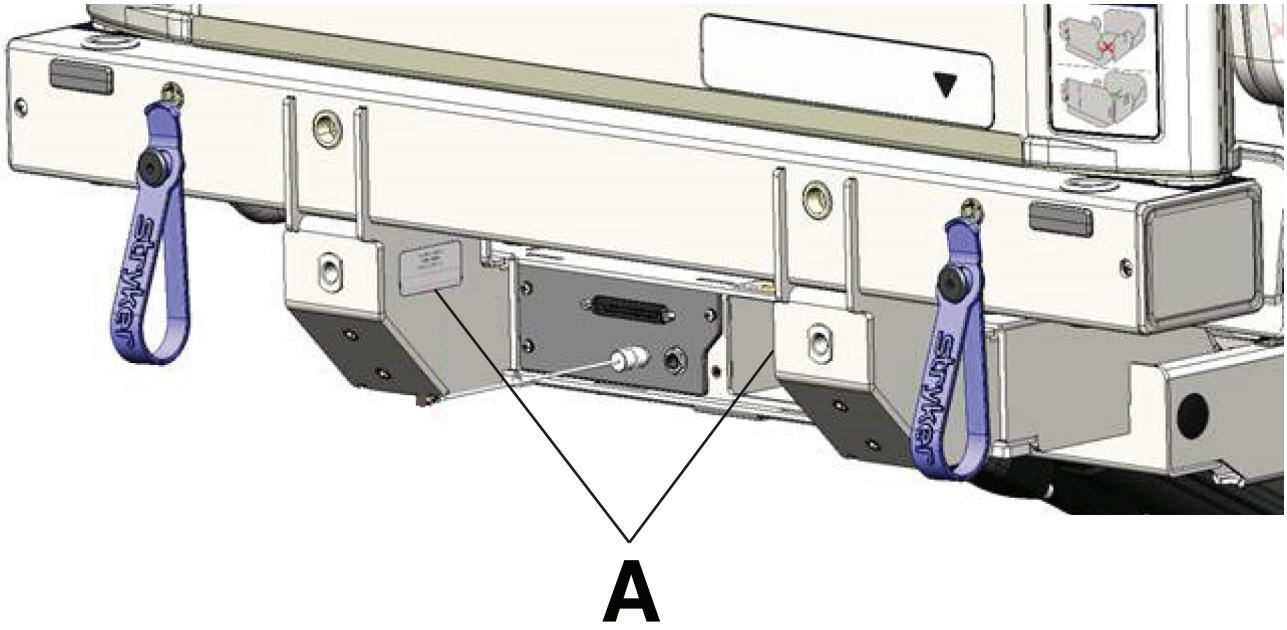


Figure 3 – Serial number location-operator view

Setup

WARNING - Always plug the product into a grounded, hospital grade wall outlet. You can only achieve grounding reliability when you use a hospital grade wall outlet. This product is equipped with a hospital-grade plug for protection against electric shock hazard.

CAUTION - Do not clean, disinfect, service, or perform maintenance while the product is in use.

Note - Allow the product to reach room temperature before you conduct any setup or test functional operations.

Before you place the product into service, make sure these components are working properly:

1. Plug the product into a grounded, hospital grade wall outlet and make sure that the power LED at the foot end of the product comes on (*Plugging or unplugging the product* (page 13)).
2. Make sure that the deck extensions expand, retract, and lock in the 36”, 42”, and 48” positions (*Expanding or retracting the litter* (page 17)).
3. Make sure that the siderails raise, lower, lock in the up position, lock in the intermediate position when lowered and store (*Raising the siderails* (page 20)).
4. Make sure that all four casters lock when you apply the brake(*Applying or releasing the brakes* (page 15)).

   Note - Make sure that the **Brake** LED located on the footboard control panel (*Footboard control panel - home display* (page 30)) illuminates when the brakes are applied and blinks when the brakes are released.
5. Raise the Fowler (head of bed) up to approximately 60°. Pull the CPR release handle and make sure that the back will drop with minimal effort (*Activating the CPR release* (page 16)).
6. Perform each function on the footboard control panel to make sure that each function works.
7. Perform each function on each control panel on the head end siderails to make sure that each function works.
8. Activate the motion stop system. Press **Bed height down** (J, *Footboard control panel - bed controls* (page 26)) to lower the litter. As the litter lowers, push up on the motion interrupt pan under the litter and make sure that downward motion stops. Release the pan and allow downward motion to continue

   Note - The product’s upward motion or other functions are not disrupted by the motion stop system.
9. Set clock to local date and time (*Setting the clock* (page 35)).
10. Check or set zone of operation to area gravity zone (for NAWI scale only). Service only by qualified personnel.

Attaching the bariatric non-powered support surface option

To attach the bariatric non-powered support surface option onto MV3, see the Bariatric Non-Powered Support Surface Operations Manual (2885-009-001).

Note - Always zero/tare the scale after adding a support surface or mattress to the bed frame, see *Zeroing/taring the scale* (page 31).

Setting up nurse call communication

WARNING - Always use a Stryker supplied interface cable. Use of any other cable may cause the product to not function as intended, which may result in patient or user injury.

Note

- The nurse call button on this product has not been evaluated for the requirements of Clause 17 (Normal Operation) of UL 1069. The user is responsible to determine the operability of the nurse call button with all systems connected to the product.
- The nurse call interface connects to nurse call systems designed to comply with appropriate standards (i.e. IEC 60601-1, IEC 60950, UL 1069) and rated for a maximum of 42.4Vpk, 60Vdc.

- MV3 is equipped with inputs that accept either a DB-37 or 1/4” jack nurse call cable.

To setup nurse call communication:

1. Plug the interface cable into the 37-pin connector or 1/4” jack in the litter frame at the head end of the product (A) (Figure 4) and into the applicable connection (patient station, head wall, or docker station).

   Note
   - Only connect the 37-pin connector or 1/4” jack to the head wall output configuration or product Communications Tester (sold separately).
   - Make sure that you insert the 1/4” jack dummy plug (C) into the 1/4” jack when not in use.
2. Use a #2 Phillips screwdriver and two screws (#10-32) to secure the strain relief (B) that holds the interface cable to the litter frame for strain relief (Figure 4).
3. Press the **Nurse call** button (H, *Operator control panel (outside siderail)* (page 24)) to verify the connection between the product’s nurse call signal and the hospital’s nurse call system.

To activate nurse call, see *Activating nurse call communication* (page 24).

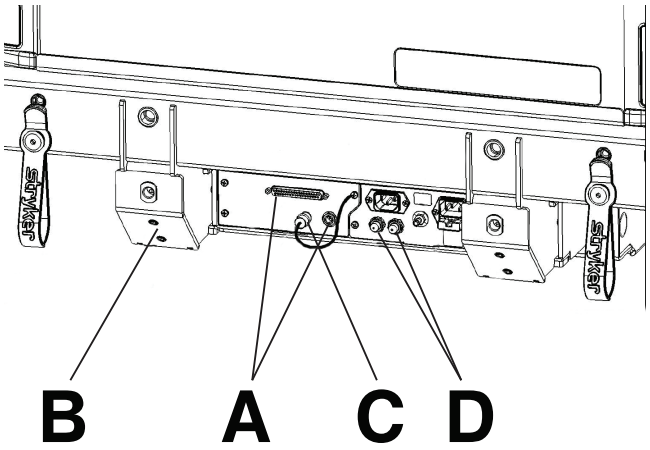


Figure 4 – 37-pin connector and 1/4” jack

Operation

Plugging or unplugging the product

WARNING

- Always connect this product to a supply mains with protective earth to avoid the risk of electric shock.
- Always make sure the product is connected to an appropriate power source if the loss of power would result in unacceptable risk.
- Always store the power cord to avoid the risk of entanglement, damage to the power cord, or potential shock hazards. If the power cord is damaged, remove the product from service and contact maintenance personnel.
- Always allow enough clearance between the head end of the product and the adjacent wall, so you can unplug the power cord from the wall outlet during an emergency.
- Always store the power cord before you transport the product.

To plug in the product, plug the power cord into a hospital grade protective earthed outlet.

To unplug the product, grasp the mold near the outlet and pull in a direction parallel to the floor (not at an angle).

Note - The **Power** LED (K) on the footboard control panel (*Footboard control panel - menu controls* (page 29)) illuminates when the product is plugged in.

Charging the battery

WARNING

- Always disconnect the power cord from the wall outlet if you detect overheating of the battery, cables, or cords. Do not use the product until it has been inspected, serviced, and confirmed to work as intended by maintenance personnel.
- Always replace the battery after it surpasses its expected service life.
- Do not open the battery.
- Do not expose the battery to excessive heat.
- Do not spill liquid onto the battery or submerge the battery in liquid.

CAUTION

- Always plug the product into a wall outlet (regulated AC-power source) when not in use to maintain a sufficient battery charge and to maximize product performance while operating on battery power.
- Always replace batteries that have corrosion at the terminals, display cracking, have expanded or bulging sides, or no longer can maintain a full charge.
- Always use authorized batteries when you replace the batteries. Use of unauthorized batteries may lead to unpredictable system performance.

MV3 is equipped with a battery backup system that charges when the product is plugged into a wall outlet. The battery backup system allows the operator to use the product when the product is unplugged, during a power failure, or while transporting a patient. Battery backup functionality activates when you unplug the product.

Always check battery backup function according to the preventive maintenance checklist (see *Preventive maintenance* (page 43)). Always replace the battery if it does not perform as intended during preventive maintenance.

To charge the battery, connect the product to a wall outlet. The battery has a full charge within 10 to 12 hours.

Note

- The **Power** LED (K) and **Battery** LED (J) on the footboard control panel (*Footboard control panel - menu controls* (page 29)) illuminate when the product is plugged in and the battery is charging.
- The **Battery** LED flashes when the product is on battery power.
- While on battery power, the **Battery** LED will flash slowly when full and flash fast when low.

Storing the power cord

WARNING

- Always store the power cord before you transport the product.
- Always store the power cord to avoid the risk of entanglement, damage to the power cord, or potential shock hazards. If the power cord is damaged, remove the product from service and contact maintenance personnel.

CAUTION - Do not pinch the power cord in the bed frame.

To store the power cord and auxiliary cord, wrap the cords and secure them with the cord wrap (A) underneath the head end of the product (Figure 5).

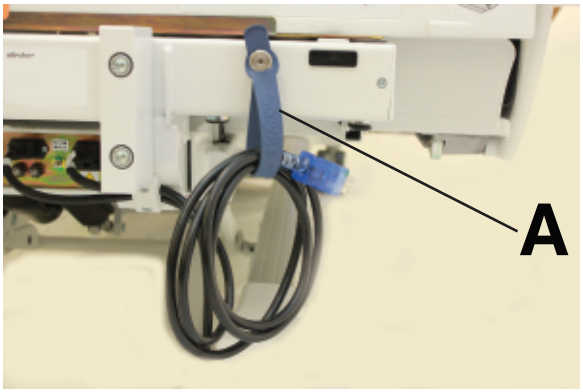


Figure 5 – Storing the power cord

Transporting the product

WARNING

- Always use two people when you transport the product.
- Always store the power cord before you transport the product.
- Always lock the siderails in the full up position with the sleep surface horizontal when you transport a patient.
- Always keep limbs, hands, fingers, and other body parts clear of mechanisms and gaps.
- Always make sure that there are no obstacles near the product. Injury to the patient, operator, bystanders or damage to the frame or surrounding equipment could occur if you collide with an obstacle.
- Do not attempt to transport the product laterally. This may cause the product to tip.

CAUTION

- Do not use the siderails as a push or pull device. Always move the product using the integrated handles in the headboard and footboard.
- Always remove the patient helper before you transport the product.
- Do not use the patient helper as a push or pull device.
- Do not use the oxygen bottle holder as a push or pull device.
- Do not use the IV pole as a push or pull device.
- Always make sure that the IV pole is at a low height during transport.

To transport the product:

1. Lock the siderail control panel functions (see *Footboard control panel - lockouts* (page 27)).
2. Unplug the power cord from the wall outlet.
3. See *Storing the power cord* (page 14).
4. Lower the IV pole (*Raising or lowering the IV pole (option)* (page 37)).
5. Turn the oxygen bottle holder in toward the product.

6. Raise and lock the siderails in the full up position (see *Raising the siderails* (page 20)).
7. Release the brakes (see *Applying or releasing the brakes* (page 15)).
8. Push the product from the headboard or footboard.

Applying or releasing the brakes

WARNING

- Always apply the brakes when a patient is getting into or out of the product to avoid instability.
- Always apply the brakes when the patient is unattended.
- Do not apply the brakes to slow or stop the product while it is in motion.

You can find the brake pedals at both the head and foot ends of the product.

To apply the brakes, depress the red side of the pedal (Figure 6). The brake pedal locks all four casters. This holds the product in place.

To release the brakes, depress the green side of the pedal until the pedal is in the neutral position (Figure 7). This releases all four casters and allows you to move the product.

Note - The **Brake** LED (L) on the footboard control panel (*Footboard control panel - menu controls* (page 29)) illuminates when you apply the brakes and flashes when you release the brakes.

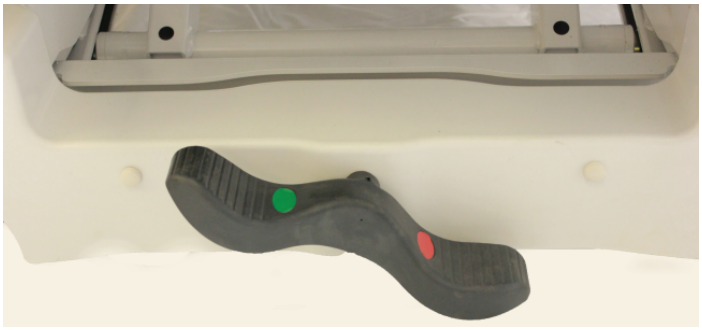


Figure 6 – Applying the brakes

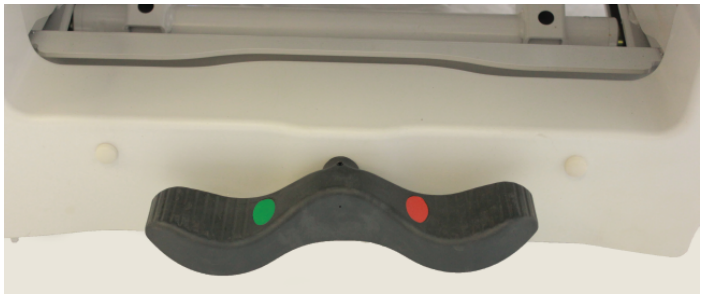


Figure 7 – Releasing the brakes/neutral position

Applying or releasing steer lock

WARNING

- Always lock the siderails in the full up position with the sleep surface horizontal when you transport a patient.
- Always unplug the power cord before you transport the product.
- Always release the brakes before you transport the product. Do not transport the product with the brakes applied.
- Do not transport the product laterally after you apply the steer lock pedal. The product cannot swivel when you transport with steer lock.
- Do not attempt to release steer lock while the product is in motion.

Steer lock guides the product along a straight line during transport and pivots the product around corners. The steer lock pedal locks the casters on the foot end. You can find the steer lock pedal at both the head end and foot end of the product.

To transport with steer lock:

1. Align the casters to face the direction of transport.
2. To apply the steer caster, depress the green side of the pedal (Figure 8).

To release steer lock, depress the red side of the pedal until the pedal is in the neutral position (Figure 9).

Note - To move the product in any direction, including laterally, release the steer lock pedal.

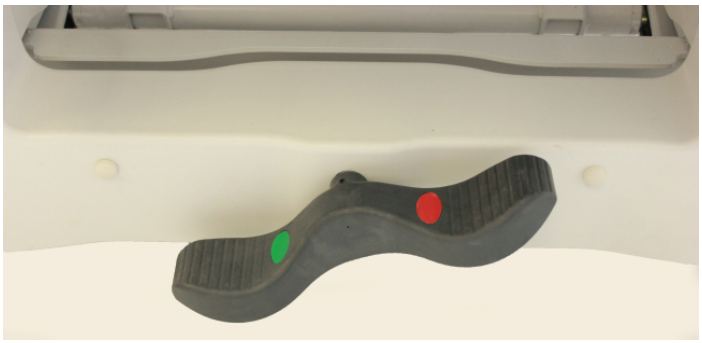


Figure 8 – Applying steer lock

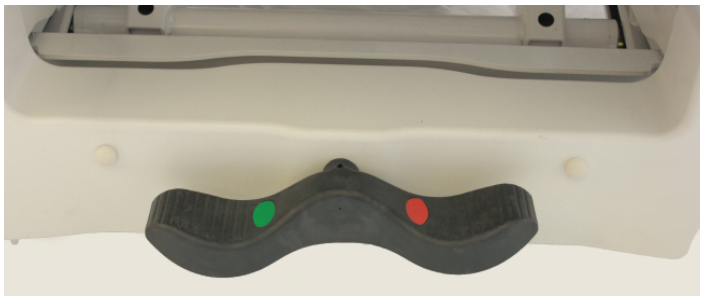


Figure 9 – Releasing steer lock/neutral position

Activating the CPR release

CAUTION - Always make sure that all persons and equipment are away from the area below and around the Fowler before you activate the CPR release. The CPR release is for emergency use only.

When you raise the Fowler and need quick access to the patient, you can position the product Fowler angle to 0° by activating the CPR release.

You can find the two CPR release levers at the head end section on both the left and right sides of the Fowler (A) (Figure 10).

To activate the CPR release:

1. Pull the lever (A) on either side of the Fowler (Figure 10).

   Note - Release the CPR lever at any time to stop product Fowler, knee Gatch, and foot section motion.

2. Guide the Fowler to the flat position.

   Note

   - The knee Gatch and foot section will lower when you pull the CPR lever.
   - You can also activate the CPR release if you press the **CPR** button on the footboard control panel (*Footboard control panel - bed controls* (page 26)).

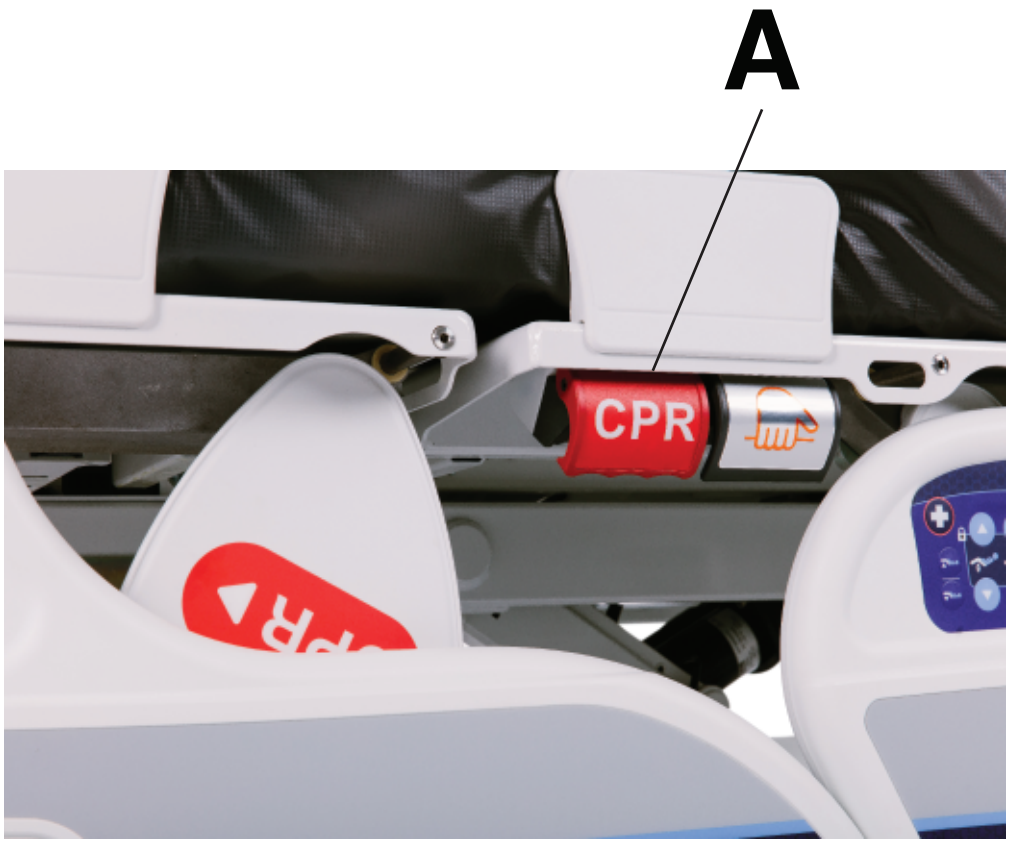


Figure 10 – Activating the CPR release

Expanding or retracting the litter

CAUTION

- Always expand or retract the litter width before you place a patient on the product.
- Always expand or retract the litter width when the product is in the full flat horizontal position.
- Always expand the litter deck to the desired width before you expand the headboard.
- Always retract the headboard to the desired width before you retract the litter deck.

Note

- Make sure that you expand or retract the litter width before you place a support surface on the product.
- Make sure that each section is aligned to the same width and locked after you expand or retract the litter.

MV3 has three litter deck widths to meet various patient needs. You can adjust the litter deck to 36”, 42”, and 48” wide.

To expand the litter:

1. Locate the deck levers (A) on the Fowler, knee Gatch, and foot sections of the litter deck (Figure 11).

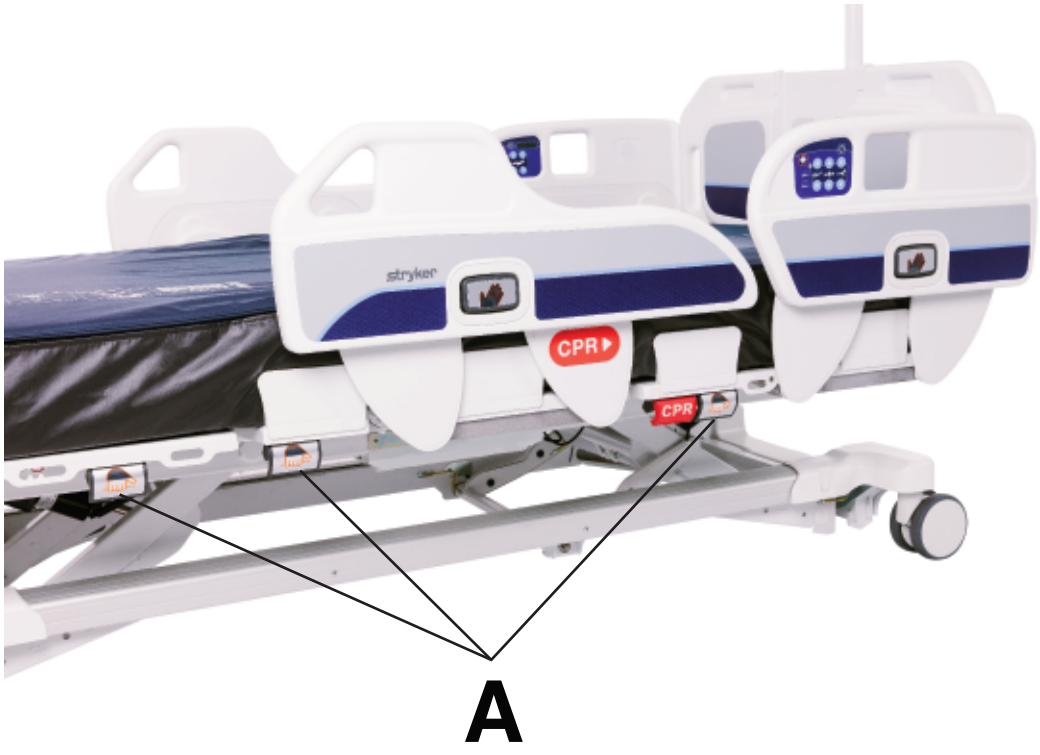


Figure 11 – Deck lever locations

2. Pull and release the deck lever and pull outward to extend the litter deck to the desired width (42” or 48”) until you hear the section lock into place.
3. Expand the headboard to the desired width to match the litter deck width, see *Removing or replacing the headboard* (page 19).
4. Adjust the mattress width (see the appropriate mattress operations manual).
5. Confirm headboard width adjustment at the footboard control panel.

To retract the litter:

1. Retract the headboard to the desired width to match the litter deck width, see *Removing or replacing the headboard* (page 19).
2. Adjust the mattress width (see the appropriate mattress operations manual).
3. Locate the deck levers (A) on the Fowler, knee Gatch, and foot sections of the litter deck (Figure 11).
4. Pull and release the deck lever and push inward to retract the litter deck to the desired width (36” or 42”) until you hear the section lock into place.
5. Confirm headboard width adjustment at the footboard control panel.

Removing or replacing the headboard

WARNING

- Always align the headboard with the deck indicator facing away from the patient and match the litter deck width when you replace the headboard to avoid the risk of entrapment.
- Do not use the headboard for CPR support.

CAUTION - Do not expand or retract the headboard while a patient is on the product.

You can remove the headboard for patient accessibility and cleaning.

To remove the headboard:

Grasp the handles and lift the headboard straight up and off the product (Figure 12).

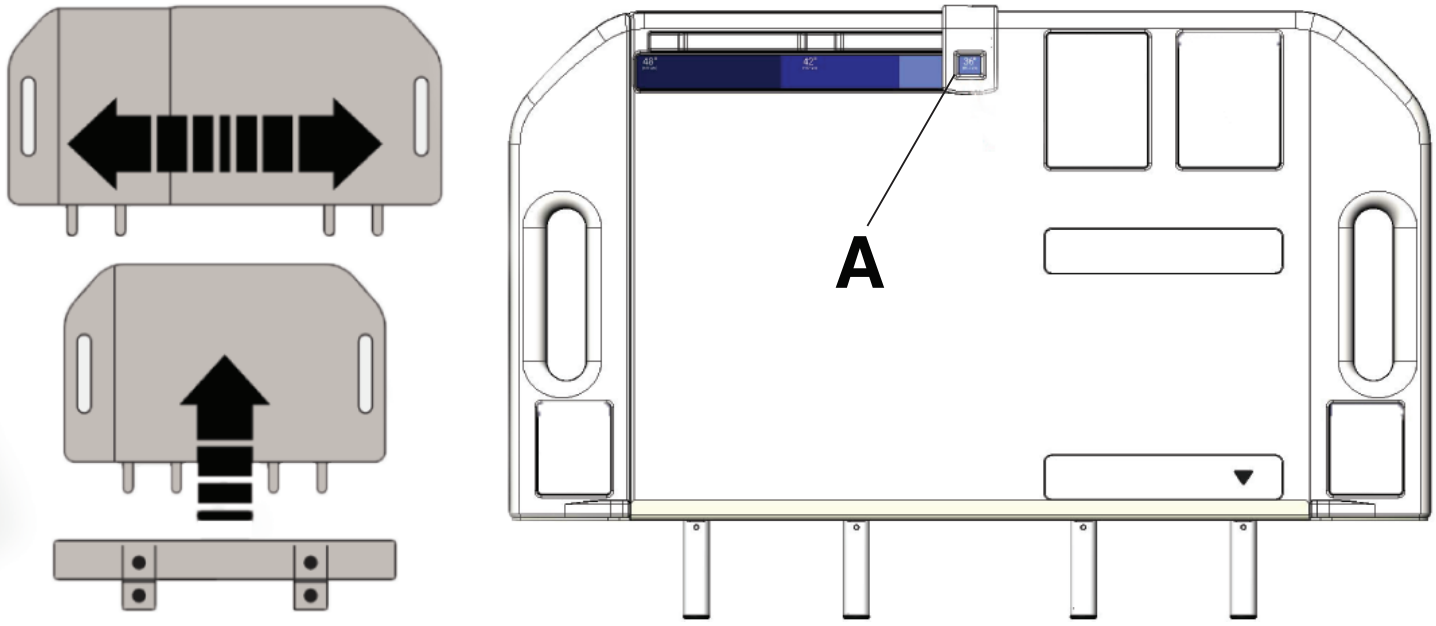


Figure 12 – Headboard orientation

To expand or retract the headboard:

Grasp the handles of the headboard and pull apart or push together until the headboard is at the desired width of 36”, 42”, or 48” (A, Figure 12).

To replace the headboard:

1. Align the headboard pegs with the sockets at the head end of the product by using the width labels as a guide (Figure 13).
2. Lower the headboard until it seats into the sockets.

Figure 13 – Replacing the headboard

Removing or replacing the footboard

You can remove the footboard for patient accessibility and cleaning.

To remove the footboard:

1. Locate the lock switch (A) at the bottom of the footboard and turn the switch toward the blue symbol to unlock (Figure 14).
2. Grasp the handles and lift the footboard straight up and off the product.

To replace the footboard:

1. Align the footboard pegs with the sockets at the foot end of the product.
2. Lower the footboard until it seats into the sockets.
3. Turn the lock switch (A) toward the green symbol to lock the footboard (Figure 14).

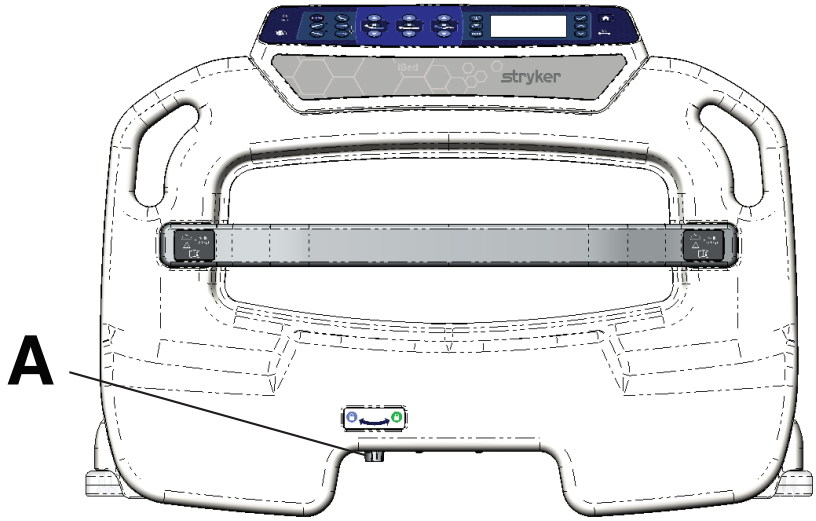


Figure 14 – Footboard lock

Raising the siderails

WARNING

- Always set the siderail position for appropriate patient safety.
- Always lock the operator control panel and patient control panel when the patient is unattended.
- Always make sure that cables, wires, and tubing from other equipment are routed so that they are not pinched by parts of the product.

Note - Do not use siderails as a patient restraint device.

When you raise the siderails, listen for a click to indicate that the siderail has locked into position. Pull on the siderail to make sure that it is locked.

- To raise the siderail to the highest position, grasp and rotate the siderail upward from either the lowest position or intermediate position (Figure 15).

Figure 15 – Siderail highest position

- To raise the siderail to the intermediate position, grasp and rotate the siderail upward from the lowest position until you hear the siderail click (Figure 16).

Figure 16 – Siderail intermediate position

Lowering the siderails

WARNING

- Always set the siderail position for appropriate patient safety.
- Always lock the operator control panel and patient control panel when the patient is unattended.

- Always make sure that cables, wires, and tubing from other equipment are routed so that they are not pinched by parts of the product.

Note - Do not use siderails as a patient restraint device.

To lower the siderail to the intermediate position, press the release button and rotate the siderail forward until it stops at the intermediate position (Figure 16).

To lower the siderail to its lowest position, press and hold the release button and rotate the siderail to the lowest position (Figure 17).

Figure 17 – Siderail lowest position

Note

- You can stow the siderail under the litter when the siderail is at the lowest position.
- You cannot place the product in the lowest position with the siderails stowed.

Securing patient restraint straps

There are ten patient restraint strap tie-in locations on the litter assembly to secure patient restraint straps. Two are located on the Fowler section, four are located on the knee Gatch section, and four are located on the foot section (Figure 18).

Note - The two slots located on the Fowler surface and the two slots located on the foot surface are mattress tie-in locations only.

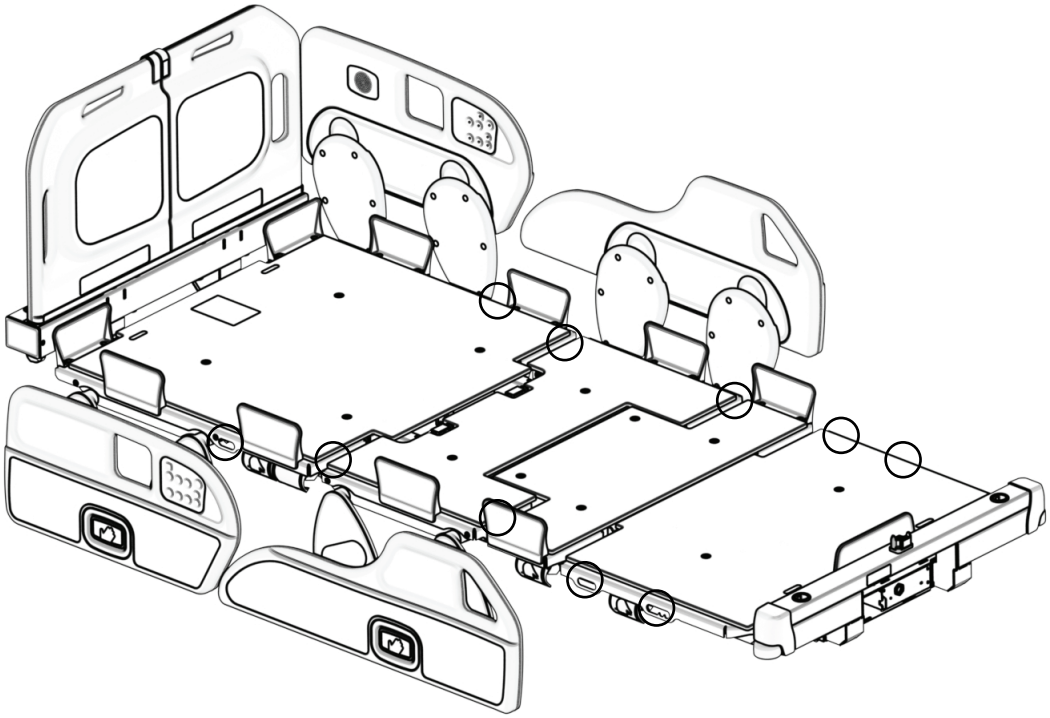


Figure 18 – Restraint strap tie-in locations

Securing a Foley bag to the Foley bag hook

Note

- The safe working load of the Foley bag hook is 8.8 lb (4 kg).
- Make sure that the Foley bag does not touch the ground while the product is in low height.

To secure a Foley bag to the Foley bag hook, place the hook of the Foley bag on the Foley bag hook.

There are two Foley bag hooks under the foot section (A), one on either side of the product (Figure 19). If you weigh the patient with the scale system, the Foley bag weight is included with the patient weight.

Figure 19 – Foley bag hook

Activating nurse call communication

Nurse call allows the patient or healthcare professional to send a signal to the nurse station for assistance.

To activate nurse call, press the **Nurse call** button (H, see *Operator control panel (outside siderail)* (page 24)) (A, *Patient control panel (inside siderail)* (page 25)).

Note - Nurse call requires a connection between MV3 and an applicable input (patient station, head wall, or docker station). See *Setting up nurse call communication* (page 11).

Connecting peripheral equipment to the hospital grade GFCI auxiliary outlet

WARNING

- Only use hospital grade electric equipment consuming 6A (120 VAC)/3A (230 VAC)/3A(220-240 VAC) or less with the hospital grade GFCI auxiliary outlet. The use of standard electric equipment may bring the current leakage to a level unacceptable for hospital equipment.
- Do not use the 120/230/220-240 VAC hospital grade GFCI auxiliary outlet for life sustaining equipment.

The hospital grade GFCI auxiliary outlet is a built-in outlet for peripheral equipment. You can find the outlet at the foot end of the product (*Product illustration* (page 8)).

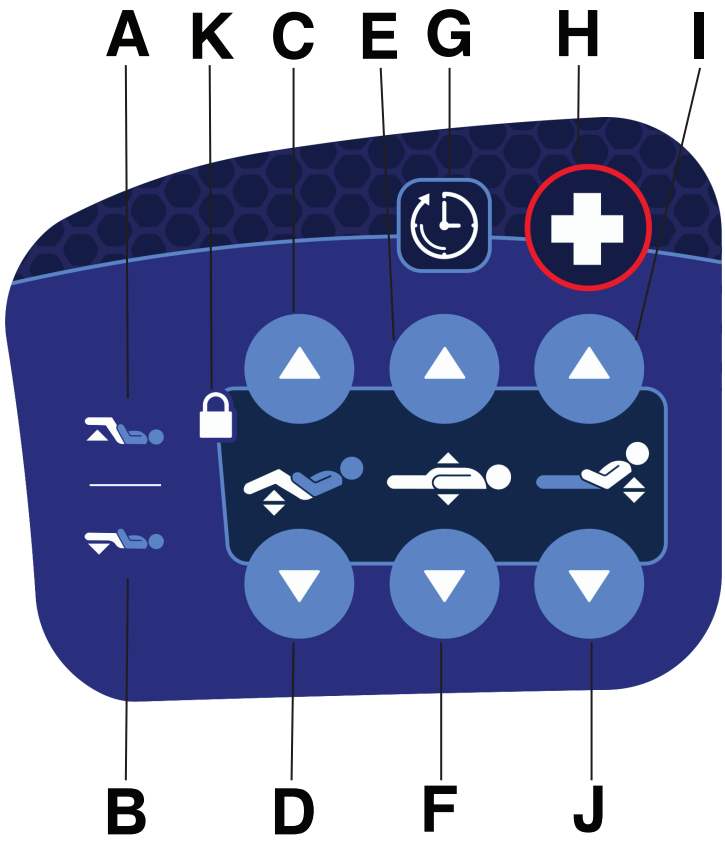
Note - The hospital grade GFCI auxiliary outlet is protected by resettable circuit breakers located at the head end of the product (D, Figure 4).

Operator control panel (outside siderail)

WARNING

- Always lower the product to its lowest height when the patient is unattended to reduce the risk of injury due to patient falls.
- Always make sure that cables, wires, and tubing from other equipment are routed so that they are not pinched by parts of the product.

CAUTION - Always make sure that the product is clear of obstacles before you use motion functions.



A	Foot up	Raises the foot section
B	Foot down	Lowers the foot section
C	Knee Gatch up	Raises the knee Gatch
D	Knee Gatch down	Lowers the knee Gatch
E	Bed height up	Raises the litter
F	Bed height down	Lowers the litter
G	Timer	Starts the 60 second timer (see J, *Patient control panel (inside siderail)* (page 25))
H	Nurse call	Activates nurse call
I	Fowler up	Raises the Fowler
J	Fowler down	Lowers the Fowler
K	Lock LED	Illuminates when a movement function has been locked

Patient control panel (inside siderail)

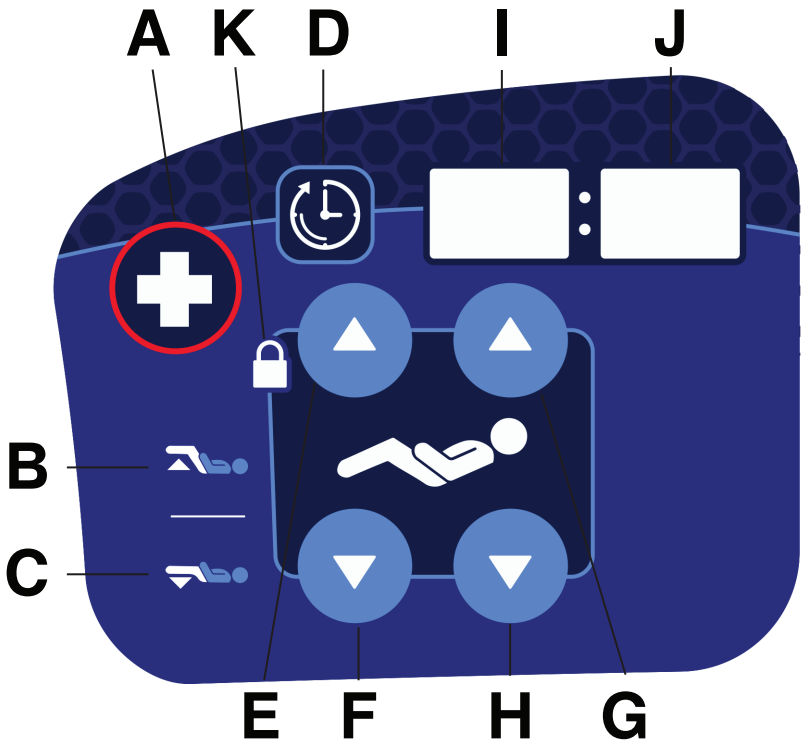
WARNING

- Always lower the product to its lowest height when the patient is unattended to reduce the risk of injury due to patient falls.

- Always make sure that cables, wires, and tubing from other equipment are routed so that they are not pinched by parts of the product.

CAUTION - Always make sure that the product is clear of obstacles before you use motion functions.

Healthcare professionals must instruct patients how to operate the patient control panel.



A	Nurse call	Activates nurse call
B	Foot up	Raises the foot section
C	Foot down	Lowers the foot section
D	Timer	Starts the 60 second timer (J, *Patient control panel (inside siderail)* (page 25))
E	Knee Gatch up	Raises the knee Gatch
F	Knee Gatch down	Lowers the knee Gatch
G	Fowler up	Raises the Fowler
H	Fowler down	Lowers the Fowler
I/J	Fowler angle display (I, patient right/J, patient left)	Displays the Fowler angle
J/I	Timer display (J, patient right/I, patient left)	Displays the timer value
K	Lock LED	Illuminates when a movement function has been locked

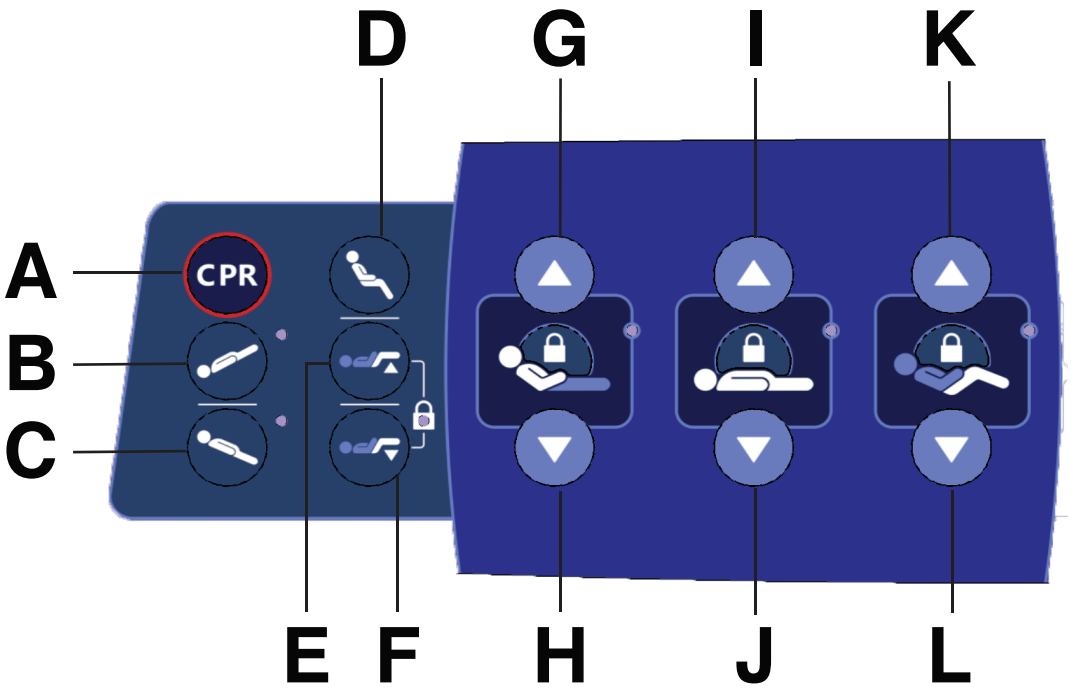
Footboard control panel - bed controls

WARNING

- Always lower the product to its lowest height when the patient is unattended to reduce the risk of injury due to patient falls.

- Always make sure that cables, wires, and tubing from other equipment are routed so that they are not pinched by parts of the product.

CAUTION - Always make sure that the product is clear of obstacles before you use motion functions.



A	CPR	Places the product into the CPR position
B	Trendelenburg	Places the product into the Trendelenburg position (head down with foot up)
C	Reverse Trendelenburg	Places the product into the reverse Trendelenburg position (head up with foot down)
D	Cardiac chair position	Places the product into the cardiac chair position
E	Foot section up	Raises the foot section
F	Foot section down	Lowers the foot section
G	Fowler up	Raises the Fowler
H	Fowler down	Lowers the Fowler
I	Bed height up	Raises the litter
J	Bed height down	Lowers the litter
K	Knee Gatch up	Raises the knee Gatch
L	Knee Gatch down	Lowers the knee Gatch

Footboard control panel - lockouts

WARNING

- Always lock the control panel when you leave the patient unattended.
- Always lock the patient control panel when the patient's condition requires extra safety measures.

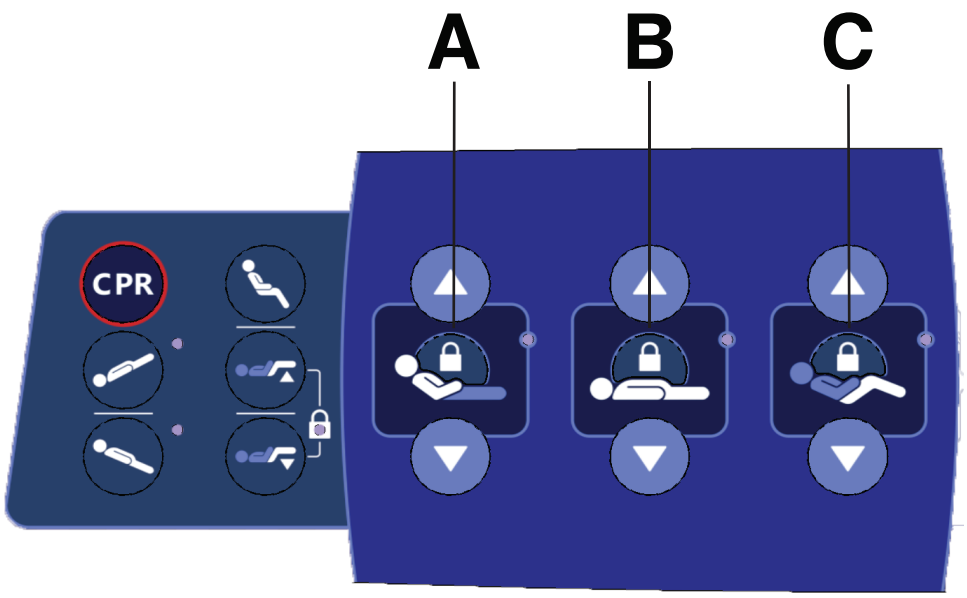
Lockouts can lock out motion control input from the operator control panel and patient control panel.

Note

- The corresponding lock LED illuminates when you lock a motion control.
- Bed exit, scale, and nurse call features are still available.

For **master lockout**, press all three lock buttons (A, B, C) at the same time to lock all button functions on the operator control panel, patient control panel, and footboard control panel. Repeat the process to unlock.

Note - When you enable **master lockout**, the lockout LEDs will flash and the screen will display **Master Lockout Feature Activated**.

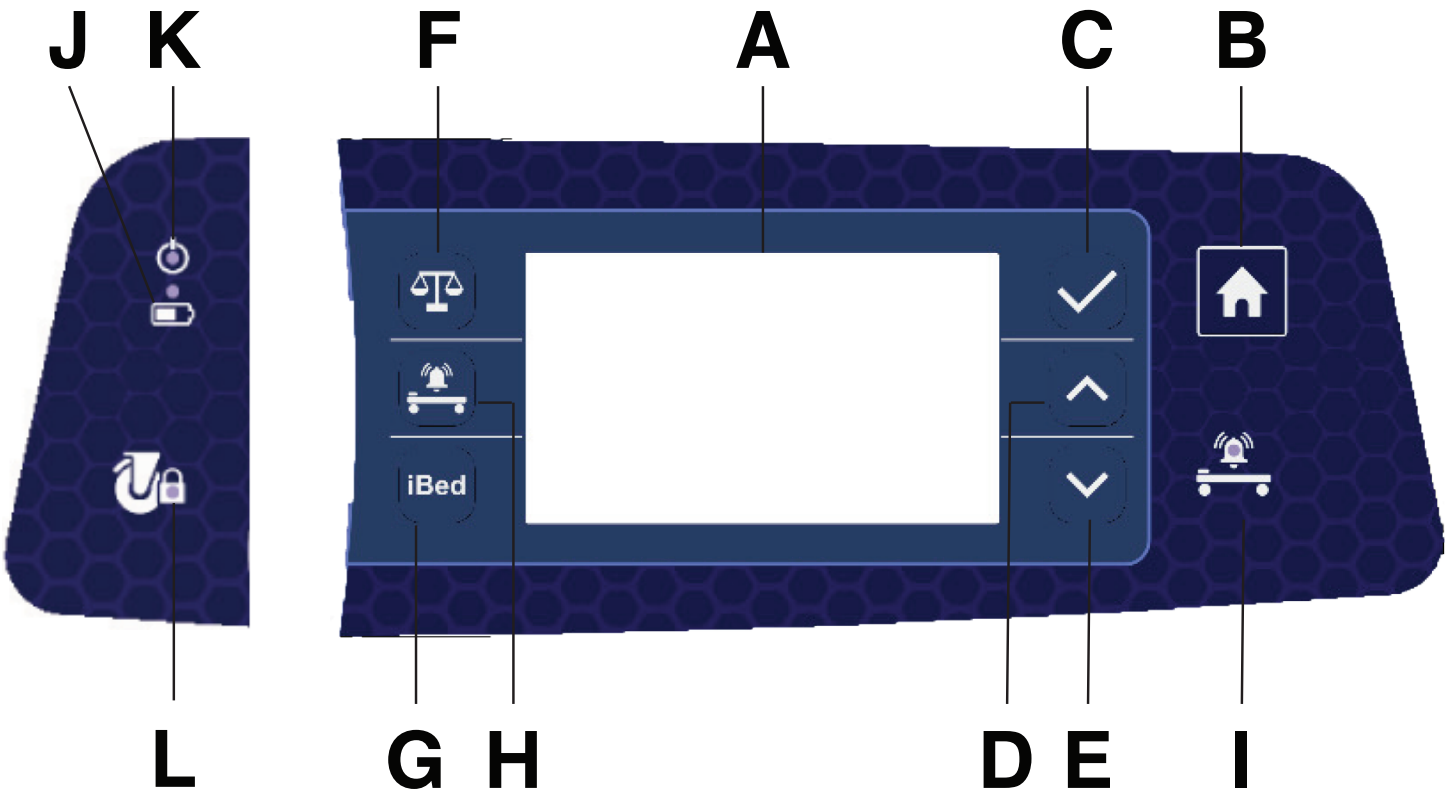


A	Fowler lock	Locks or unlocks the Fowler siderail controls
B	Bed height lock	Locks or unlocks the litter siderail controls
C	Knee Gatch/foot lock	Locks or unlocks the knee Gatch and foot siderail controls

Note

- The CPR button overrides all lockouts.
- If the product is in a specific position when you enable a lock, the product will be locked in that position.
- Lock parameters are saved when you unplug the product or during a power failure.
- Do not lock the control panel functions from the footboard if you must access the control panel functions when you remove the footboard.

Footboard control panel - menu controls

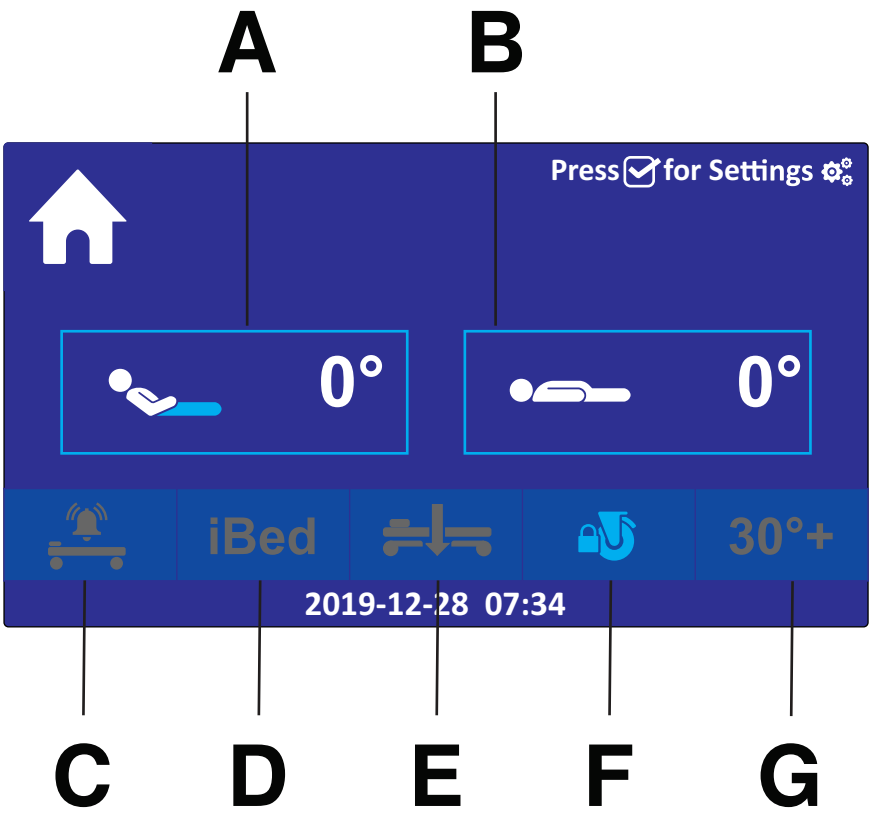


A	Screen	Displays menu functions **Note** - The screen is not a touchscreen display.
B	Home	Exits from menu function to home display (see *Footboard control panel - home display* (page 30))
C	Enter	Selects menu function or saves operation/displays settings functions from home display (see *Footboard control panel - settings* (page 34))
D	Up arrow	Scrolls up through menu functions
E	Down arrow	Scrolls down through menu functions
F	Scale	Displays scale functions (see *Footboard control panel - scale* (page 31))
G	iBed	Displays iBed functions (see *Footboard control panel - iBed* (page 34))
H	Bed exit	Displays bed exit functions (see *Footboard control panel - Bed exit* (page 33))
I	Bed exit LED	Illuminates when bed exit is active and flashes when alarming or paused
J	Battery LED	Illuminates when you plug the product into an outlet and flashes when product is on battery power
K	Power LED	Illuminates when you plug the product into an outlet
L	Brake LED	Illuminates when you apply the brakes and flashes when you release the brakes

Footboard control panel - home display

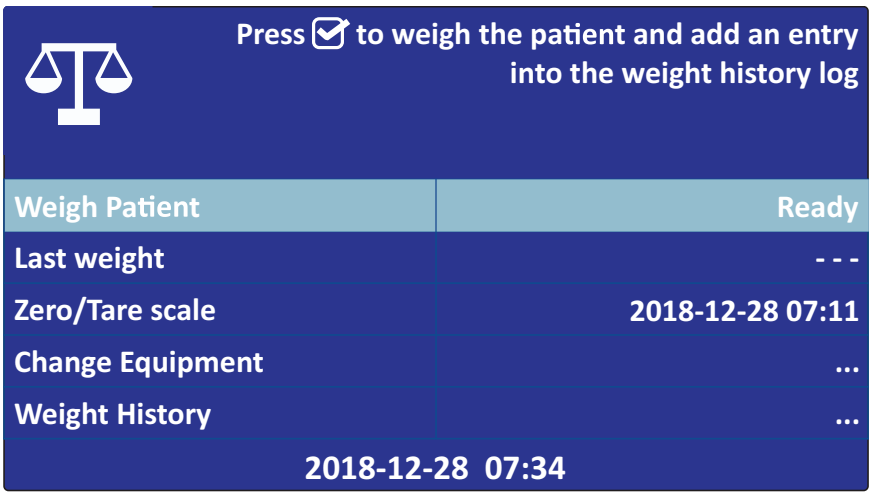
The home display is the default screen of the footboard control panel.

Note - If there is an error in one of the product functions, an error code will appear. Call for service, see *Contact information* (page 9).



A	Fowler angle	Displays the current Fowler angle of the product
B	Trendelenburg angle	Displays the current Trendelenburg angle of the product
C	Bed exit	Illuminates blue when bed exit is active
		Illuminates red when bed exit is alarming
D	iBed	Illuminates blue when iBed is active
		Illuminates red when iBed is alarming
E	Low height	Illuminates blue when the product is at low height
		Illuminates red when iBed is active and product is not at low height
F	Brake	Illuminates blue when the brake is set
		Illuminates red when the brake is not set
G	Fowler 30°+	Illuminates blue when Fowler 30°+ is set
		Illuminates red when iBed is active and product is not at Fowler 30°+

Footboard control panel - scale



Weigh Patient	Select to weigh the patient (see *Weighing a patient* (page 32))
Last weight	Displays the previous weight
Zero/Tare scale	Select to zero/tare the scale/displays the last zero/tare date (see *Zeroing/taring the scale* (page 31))
Change Equipment	Select to add or remove equipment (see *Adding or removing equipment* (page 32))
Weight History	Displays the weight history log (see *Viewing the weight history* (page 32))

Zeroing/taring the scale

Before you place a patient on the bed, make sure that you zero/tare the scale.

Note - Always zero/tare the scale after adding a support surface, mattress, or linens to the bed frame.

To zero/tare the scale:

1. Press the scale button (F) on the footboard control panel (see *Footboard control panel - menu controls* (page 29)).
2. On the scale display, use the up arrow button (D) and down arrow button (E) to highlight the **Zero/Tare scale** option (see *Footboard control panel - menu controls* (page 29)).
3. Press the enter button (C) to zero/tare the scale (see *Footboard control panel - menu controls* (page 29)).

   Note - Do not touch the product when you zero/tare the scale.

The **Zero/Tare scale** option will display the date and time of the most recent scale zero/tare.

Weighing a patient

WARNING

- Do not use the scale system reading as a reference for medical treatment.
- The scale system assists only in the monitoring of the patient's weight variation.
- Do not use the scale system on an unlevel floor greater than 2.86°.

CAUTION - Always raise the siderails when the litter is in its full down position. This prevents the scale system from weighing a patient inaccurately.

Before you place a patient on the product, make sure that you zero/tare the scale (see *Zeroing/taring the scale* (page 31)).

Note - Always zero/tare the scale after you add a support surface, mattress, or linens to the product.

To weigh a patient:

1. Press the scale button (F) on the footboard control panel (see *Footboard control panel - menu controls* (page 29)).
2. On the scale display, use the up arrow button (D) and down arrow button (E) to highlight the **Weigh Patient** option (see *Footboard control panel - menu controls* (page 29)).
3. When the **Weigh Patient** option says **Ready**, press the enter button (C) (see *Footboard control panel - menu controls* (page 29)).

   Note - Do not touch the product when you weigh the patient.

The **Weigh Patient** option will display the patient's weight for a moment before it is displayed on the next line, **Last weight**.

Note - If a previous weight was displayed on the **Last weight** line, it will now appear in **Weight History**.

Adding or removing equipment

To change equipment:

1. Press the scale button (F) on the footboard control panel (see *Footboard control panel - menu controls* (page 29)).
2. On the scale display, use the up arrow button (D) and down arrow button (E) to highlight the **Change Equipment** option (see *Footboard control panel - menu controls* (page 29)).
3. Press the enter button (C) and follow the prompts to add or remove equipment (see *Footboard control panel - menu controls* (page 29)).

Viewing the weight history

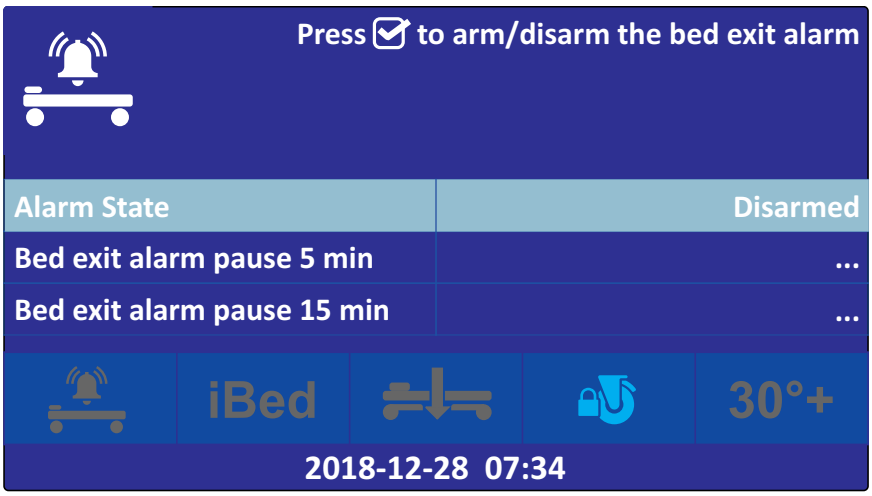
WARNING - Do not use the product clock to replace patient monitoring protocol, the product clock is for reference only.

To view the weight history log:

1. Press the scale button (F) on the footboard control panel (see *Footboard control panel - menu controls* (page 29)).
2. On the scale display, use the up arrow button (D) and down arrow button (E) to highlight the **Weight History** option (see *Footboard control panel - menu controls* (page 29)).
3. Press the enter button (C) to view the weight history (see *Footboard control panel - menu controls* (page 29)).

The weight history stores up to 10 scale readings.

Footboard control panel - Bed exit



Alarm State	Arms or disarms bed exit (see *Arming or disarming bed exit* (page 33))
Bed exit alarm pause 5 min	Suspends the bed exit alarm for five minutes (see *Pausing bed exit* (page 34))
Bed exit alarm pause 15 min	Suspends the bed exit alarm for fifteen minutes (see *Pausing bed exit* (page 34))

Arming or disarming bed exit

WARNING

- Do not use bed exit to replace patient monitoring protocol, it is intended only to aid in the detection of a patient exiting the product.
- Do not use bed exit with patients who weigh less than 250 lb (113 kg).

When armed, bed exit monitors the patient's position on the product.

To arm bed exit:

1. Set the scale to zero/tare if not already performed. See *Zeroing/taring the scale* (page 31).

   Note - If you do not set the scale to zero before you place a patient on the product, bed exit may not operate properly.
2. Position the patient on the product.
3. Press the bed exit button (H) on the footboard control panel (see *Footboard control panel - menu controls* (page 29)).
4. On the bed exit display, use the up arrow button (D) and down arrow button (E) to highlight the **Alarm State** option (see *Footboard control panel - menu controls* (page 29)).
5. Press the enter button (C) to arm bed exit (see *Footboard control panel - menu controls* (page 29)).

After arming bed exit, the bed exit LED (I) illuminates amber (*Footboard control panel - menu controls* (page 29)).

If the parameter conditions selected for bed exit are changed:

- Bed exit priority signal sent (see *Setting up nurse call communication* (page 11))
- Bed exit LED on the footboard flashes amber
- Sound alarm is triggered

To disarm bed exit, repeat steps 3-5.

Pausing bed exit

While armed, you may pause bed exit to allow the patient to exit the product for set periods of time.

To pause bed exit:

1. Press the bed exit button (H) on the footboard control panel (see *Footboard control panel - menu controls* (page 29)).
2. On the bed exit display, use the up (D) and down (E) arrow buttons to highlight either the **Bed exit alarm pause 5 min** or **Bed exit alarm pause 15 min** option (see *Footboard control panel - menu controls* (page 29)).
3. Press the enter button (C) to select the pause option (see *Footboard control panel - menu controls* (page 29)).

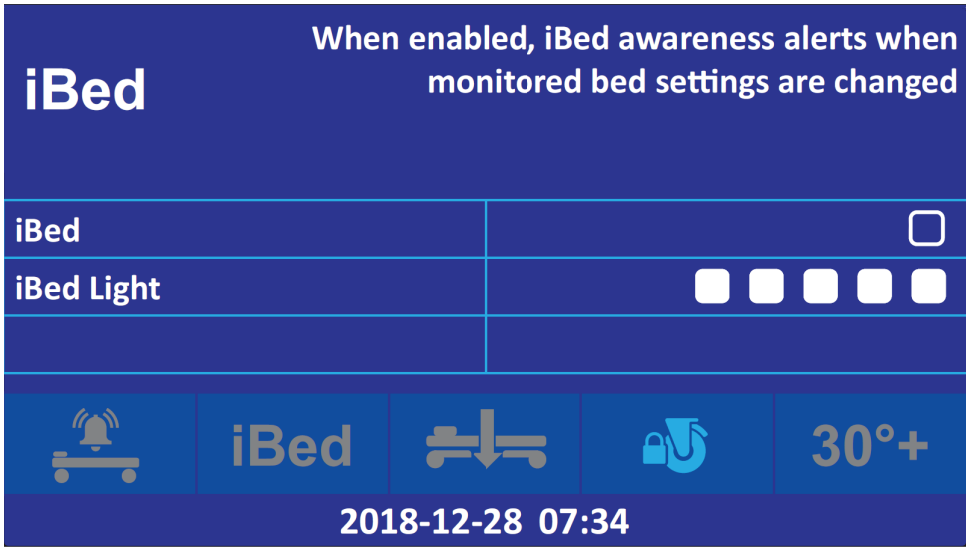
Bed exit will arm once the patient is repositioned on the product.

Note - Bed exit will alarm if the set time limit is exceeded.

Footboard control panel - iBed

When enabled, iBed Awareness alerts when the following monitored bed settings are changed:

- Siderail position
- Brake status
- Low height
- Fowler 30°+
- Bed exit

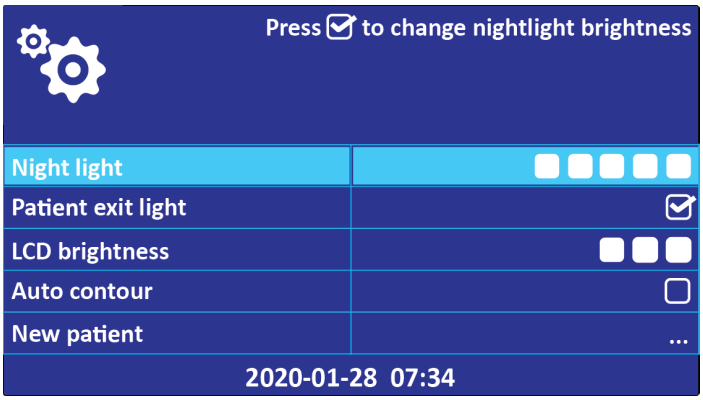


iBed	Enables or disables iBed
iBed Light	Changes the brightness of the iBed LED on the footboard and bumper lights

Footboard control panel - settings

The MV3 footboard control panel has a display for product functions and features.

Page one



Page two

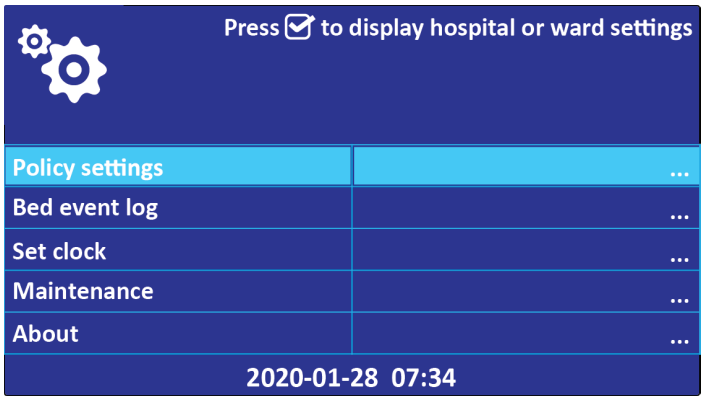


Figure 20 – Settings display

Settings function	
Night light	Press √ to change nightlight brightness
Patient exit light	When checked, patient exit light turns on when patient exits the bed and turns off when patient returns
LCD brightness	Select LCD brightness
Auto contour	When checked, the head up/down keys control both Fowler and knee Gatch sections at the same time
New patient	Press √ to clear previous patient history and set up bed for a new patient
Policy settings	Press √ to display hospital or ward settings
Bed event log	Press √ to view the bed event log
Set clock	Press √ to change the current time (*Setting the clock* (page 35))
Maintenance	Press √ to perform maintenance functions (see the maintenance manual for functions)
About	Press √ to display version information about the bed
Shutdown	Press √ to shut down the bed (when on battery power)

Setting the clock

To change the product clock:

1. Press **Enter** (C) on the *Footboard control panel - menu controls* (page 29).
2. Highlight **Set clock** and press **Enter**.
3. In the set clock menu, these are the options:
   - Year
   - Month
   - Day
   - Hour

- Minute

4. Use the up and down arrow buttons to highlight each option and press **Enter** to set.
5. Highlight **Press √ to set** and press **Enter** to set the product clock.

Accessories and parts

These accessories and parts may be available for use with your product. Confirm availability for your configuration or region.

Name	Number
Battery	5900280025
IV pole	5900200144
Oxygen bottle holder	5900200142
Patient helper	5900200145

Raising or lowering the IV pole (option)

CAUTION

- Do not load the IV pole above the safe working load of 40 lb (18 kg).
- Do not load an individual IV pole hook above the safe working load of 20 lb (9 kg).
- Do not use the IV pole as a push or pull device.

To position the IV pole:

1. Lift and pivot the IV pole from the storage position and push down until the IV pole locks into the receptacle.
2. To raise the height of the pole, pull up on the telescoping portion (A) of the pole until it locks into place at its fully raised position (Figure 21).
3. Rotate the IV hangers (B) to the desired position and hang the IV bags (Figure 21).
4. To lower the pole, turn the latch (C) clockwise until the telescoping portion (A) lowers into the bottom tube (Figure 21).
5. Lift up and pivot the pole down into the storage position.

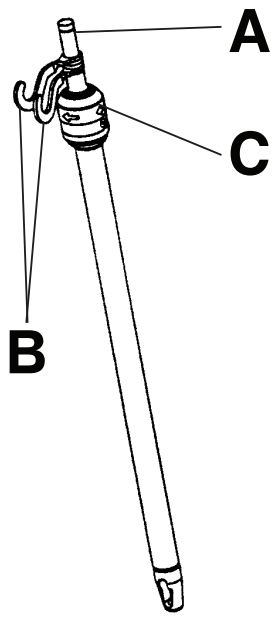


Figure 21 – Two-stage IV pole

Attaching or removing the patient helper (option)

WARNING - Always use two people to attach or remove the patient helper.

CAUTION

- Always secure the lifting pole in the mounting bracket before you adjust the patient helper.
- Always remove the patient helper before transporting the product.

You can attach the patient helper into the patient helper mounting bracket at the head end of the product.

To attach the patient helper:

1. Insert the lifting pole (A) into the mounting bracket (B) (Figure 22).
2. Rotate the lifting pole in the mounting bracket until the patient helper knob (C) locks in position (Figure 22).

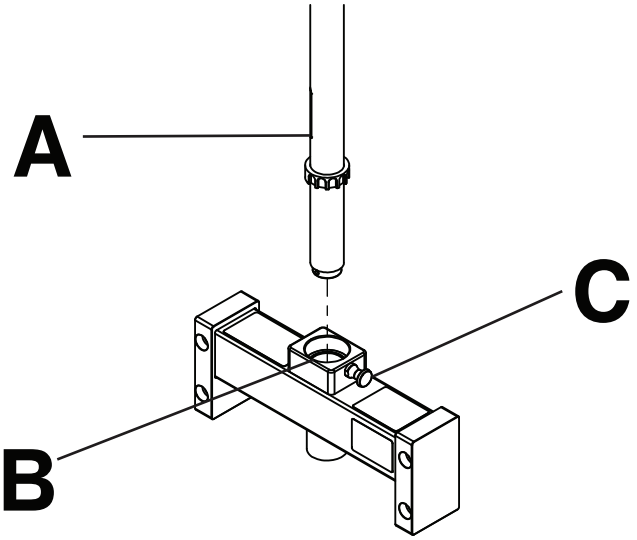


Figure 22 – Attaching or removing the patient helper

Reverse steps to remove the patient helper.

Adjusting the patient helper (option)

WARNING - Do not load the patient helper above the safe working load of 275 lb (124.7 kg).

CAUTION

- Always secure the lifting pole in the mounting bracket before you adjust the patient helper.
- Do not use the patient helper as a push or pull device.
- Always make sure that the patient helper mounting bracket is secure before use.

The patient helper assists the patient with changing position in bed.

To adjust the patient helper:

1. Pull the patient helper knob (A) and rotate the lifting pole (B) until the desired position (Figure 23).
2. Release the patient helper knob (A) and rotate the lifting pole (B) until the knob locks in position (Figure 23).
3. Lift the trapeze hanger bracket (C) and move it forward or backward until the desired position (Figure 23).

   Note - Make sure that the trapeze hanger is secure in one of the keyed positions on the lifting pole.

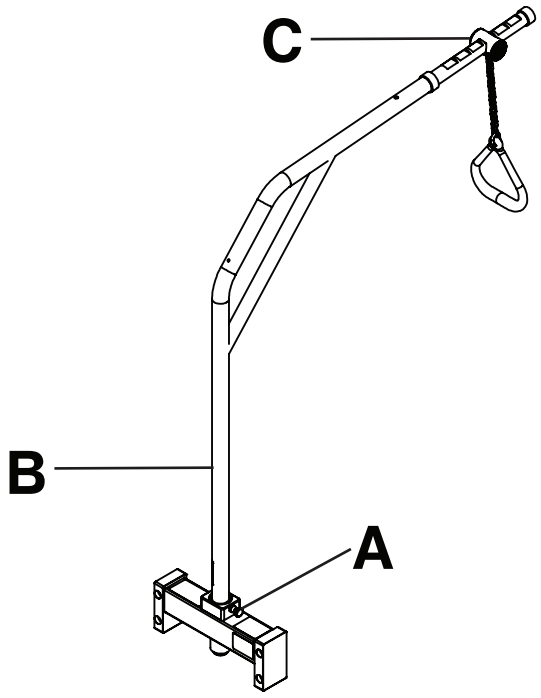


Figure 23 – Adjusting the patient helper

Attaching the oxygen bottle holder

CAUTION

- Do not load the oxygen bottle holder above the safe working load of 45 lb (20.4 kg).
- Do not use the oxygen bottle holder as a push or pull device.

To attach the oxygen bottle holder:

1. Insert the oxygen bottle holder support bar into the accessory socket that is located on either side of the product at the head end.

   Note - Position the oxygen bottle holder away from the head end siderail as it may interfere with lowering the siderail.

Cleaning

CAUTION

- Do not clean, disinfect, service, or perform maintenance while the product is in use.
- Always unplug the power cord from the wall outlet when large spills occur near the circuit boards, cables, and motors. Remove the occupant from the product, clean up the fluid, and inspect the product. Fluids can cause unpredictable operation and decreased functionality of any electrical product. Do not return the product to service until dry and tested for safe operation.

Recommended cleaning method:

1. Hand wash all exposed surfaces of the product with a mild detergent by spray or pre-soaked wipes.
2. Follow the cleaning solution manufacturer's instructions for appropriate contact time and rinse requirements.
3. Dry the product before you return it to service.

Note - Avoid oversaturation. Do not allow the product to remain wet.

Disinfecting

CAUTION

- Do not clean, disinfect, service, or perform maintenance while the product is in use.
- Always unplug the power cord from the wall outlet when large spills occur near the circuit boards, cables, and motors. Remove the occupant from the product, clean up the fluid, and inspect the product. Fluids can cause unpredictable operation and decreased functionality of any electrical product. Do not return the product to service until dry and tested for safe operation.
- Always wipe down with clean water (or 70% isopropyl alcohol, if using **Virex®** TB) and dry each product after disinfecting. Some disinfectants are corrosive in nature and may cause damage to the product. If you do not rinse and dry the product, you may leave a corrosive residue on the surface of the product. This corrosive residue could cause premature degradation of critical components. Failure to follow these disinfecting instructions may void your warranty.

Recommended disinfectants for this product's surfaces include the following:

- Quaternary (active ingredient - ammonium chloride) that contain ≤ 3% glycol ether
- Phenolic (active ingredient - o-phenylphenol)
- Chlorinated bleach solution (5.25% - less than 1 part bleach to 100 parts water)
- Alcohol (active ingredient - 70% isopropyl alcohol)

Recommended disinfection method:

1. Follow the disinfectant solution manufacturer's dilution recommendations.
2. Apply the recommended disinfectant solution by spray or pre-soaked wipes.
3. Hand wash all exposed surfaces of the product with the recommended disinfectant.
4. Dry the product before you return it to service.

Note

- Avoid oversaturation. Do not allow the product to remain wet.
- Follow the manufacturer's dilution recommendations for appropriate contact time and rinsing requirements. Follow the chemical manufacturer's guidelines for proper disinfecting.

Preventive maintenance

Remove the product from service before you perform the preventive maintenance inspection. Check all items listed during annual preventive maintenance for all Stryker Medical products. You may need to perform preventive maintenance checks more often based on your level of product usage. Service only by qualified personnel.

Note - Clean and disinfect the exterior of the support surface before inspection, if applicable.

Inspect the following items:

_____ All welds
_____ All fasteners are secure
_____ Casters lock with brake pedal applied
_____ Casters are secure and swivel
_____ Casters are free of wax and debris
_____ Footboard light LED and bumper LEDs flash when brakes are released
_____ Steer function works
_____ Siderails move, latch, and stow
_____ Deck expands, retracts, and locks in all positions
_____ CPR release operates
_____ IV pole is intact and operates (option)
_____ Foley bag hooks intact
_____ No cracks or splits in headboard, footboard or siderail panels
_____ No rips or cracks in mattress cover
_____ All functions on head end siderails operate (includes LEDs)
_____ All functions on footboard operate (includes LEDs)
_____ No cracks or damage to control overlays
_____ Calibrate scale system
_____ Night light operates
_____ Power cords and plug not frayed or damaged
_____ No damage to nurse call connections
_____ All ground strap cables are secure to the frame
_____ Ground impedance not more than 200 mΩ (milliohms)
_____ Current leakage not more than 300 µA (microamps)
_____ Check lift actuator clevis pins for grease, apply if needed
_____ Ground chains intact
_____ Trendelenburg/reverse Trendelenburg angle accuracy is minimum +12° to -12°
_____ Fowler angle accuracy is 0° - 60° ± 2°
_____ Fowler holds position at 30° with weight
_____ Siderail switches operate (iBed Awareness)
_____ Footboard light LED and bumper LEDs operate (iBed Awareness)
_____ Inspect footboard control labels for signs of degradation
_____ Inspect hi-lo actuators for oil leaks
_____ Inspect footboard connector housing for cracks or damage
_____ All motions function

_____ Nurse call functions

_____ Auxiliary outlets function (test ground fault interrupter)

_____ Replace battery assembly (5900280025) (one year expected service life)

_____ Set clock to local date and time

Product serial number:
Completed by:
Date:

EMC information

WARNING

- Portable RF communications equipment, including peripherals such as antenna cables and external antennas, should be no closer than 12 inches (30 cm) to any part of MV3, including cables specified by the manufacturer.
- Avoid stacking or placing equipment adjacent with other equipment to prevent improper operation of the products. If such use is necessary, carefully observe stacked or adjacent equipment to make sure that they are operating properly.
- The use of accessories, transducers, and cables, other than those specified or provided by the manufacturer, could result in increased electromagnetic emissions or decreased electromagnetic immunity and result in improper operation.

The 5900 MV3 Bariatric bed was evaluated using the following cables:

Cable	Length (m)
AC mains input cable	2.5
AC aux input cable	2.5
AC aux output cable	1.8
Nurse call (DB-37)	2.4
Nurse call (1/4 in.)	2.4

Guidance and manufacturer's declaration - electromagnetic emissions		
The 5900 MV3 Bariatric bed is intended for use in the electromagnetic environment specified below. The customer or the user of the 5900 MV3 Bariatric bed should assure that it is used in such an environment.		
Emissions test	**Compliance**	**Electromagnetic environment**
RF Emissions CISPR 11	Group 1	**Note** - The emissions characteristics of this equipment make it suitable for use in industrial areas and hospitals (CISPR 11 class A). If it is used in a residential environment (for which CISPR 11 class B is normally required) this equipment might not offer adequate protection to radio-frequency communication services. The user might need to take mitigation measures, such as relocating or re-orienting the equipment.
RF Emissions CISPR 11	Class A	
Harmonic Emissions IEC 61000-3-2	Class A	
Voltage Fluctuations Flicker Emissions IEC 61000-3-3	Complies	

Guidance and manufacturer's declaration - electromagnetic immunity			
The 5900 MV3 Bariatric bed is suitable for use in a professional healthcare facility environment and not in environments exceeding immunity test conditions that the product was evaluated to, such as near high frequency (HF) surgical equipment and inside of the radio frequency (RF) shielded room of magnetic resonance imaging (MRI) equipment. The customer or the user of the 5900 MV3 Bariatric bed should assure that it is used in such an environment and that the electromagnetic environment guidance listed below is followed.			
Immunity test	**IEC 60601 test level**	**Compliance level**	**Electromagnetic environment-guidance**

Guidance and manufacturer's declaration - electromagnetic immunity			
Electrostatic Discharge (ESD) IEC 61000-4-2	±8 kV contact ±15 kV air	±8 kV contact ±15 kV air	Floors should be wood, concrete, or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrostatic fast transient/ burst IEC 61000-4-4	±2 kV for power supply lines ±1 kV for input/ output lines	±2 kV for power supply lines ±1 kV for input/ output lines	Main power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±0.5 kV, ±1 kV lines to lines ±0.5 kV, ±1 kV, ±2 kV lines to earth	±0.5 kV, ±1 kV lines to lines ±0.5 kV, ±1 kV, ±2 kV lines to earth	Main power quality should be that of a typical commercial or hospital environment.
Voltage dips, voltage variations and short interruptions on power supply input lines IEC 61000-4-11	0%U_T for 0.5 cycle at 0°, 45°, 90°, 135°, 180°, 225°, 270°, and 315° 0%U_T for 1 cycle 70%U_T (30% dip in U_T) for 25/30 cycles 0% U_T for 250/300 cycles	0%U_T for 0.5 cycle at 0°, 45°, 90°, 135°, 180°, 225°, 270°, and 315° 0%U_T for 1 cycle 70%U_T (30% dip in U_T) for 25/30 cycles 0% U_T for 250/300 cycles	Main power quality should be that of a typical commercial or hospital environment. If the user of the 5900 MV3 Bariatric bed requires continued operation during power main interruptions, it is recommended that the device be powered from an uninterrupted power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	30 A/m	30 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
Note - U_T is the a.c. mains voltage before applications of the test level.			

<table>
<tr><td>Conducted RF
IEC 61000-4-6

Radiated RF
IEC 61000-4-3</td><td>3 Vrms
150 kHz to 80 MHz

3 V/m
80 MHz to 2.7 GHz</td><td>3 Vrms

3 V/m</td><td>Portable and mobile RF communications equipment should follow the guidance in the table titled “Recommended separation distances between portable and mobile RF communication equipment and the 5900 MV3 Bariatric bed.” If the mobile service is not listed in the table, the recommended separation distance should be calculated from the equation appropriate for the frequency of the transmitter.

Recommended separation distance

D=(2) (√P)

where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m).

Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey[a], should be less than the compliance level in each frequency range[b].

Interference may occur in the vicinity of equipment marked with the following symbol:
  </td></tr>
<tr><td rowspan="2">Proximity magnetic fields
IEC 61000-4-39</td><td>65 A/m
134.2 kHz</td><td>65 A/m</td><td rowspan="2">RFID readers and similar generators of magnetic fields should not be operated closer than 50 mm from the electronics or cables of MV3.</td></tr>
<tr><td>7.5 A/m
13.56 MHz</td><td>7.5 A/m</td></tr>
<tr><td colspan="4">Note - These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

Note - The ISM (Industrial, Scientific, and Medical) bands between 0.15 MHz and 80 MHz are 6.765 MHz to 6.795 MHz; 13.553 MHz to 13.567 MHz; 26.957 MHz to 27.283 MHz; and 40.66 MHz to 40.70 MHz.</td></tr>
</table>

[a]Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast, and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the 5900 MV3 Bariatric bed is used exceeds the applicable RF compliance level above, the 5900 MV3 Bariatric bed should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the 5900 MV3 Bariatric bed.

[b]Over the frequency range 150 kHz to 80 MHz, field strengths are less than 3 Vrms.

Recommended separation distances between portable and mobile RF communication equipment and the 5900 MV3 Bariatric bed

The 5900 MV3 Bariatric bed is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the 5900 MV3 Bariatric bed can help prevent electromagnetic interferences by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the 5900 MV3 Bariatric bed, including cables, as recommended below, according to the maximum output power of the communications equipment.

Band (MHz)	Service	Maximum power (W)	Minimum separation distance (m)
380-390	TETRA 400	1.8	0.3
430-470	GMRS 460; FRS 460	2.0	0.3
704-787	LTE Band 13, 17	0.2	0.3
800-960	GSM 800/900; TETRA 800; iDEN 820; CDMA 850; LTE Band 5	2.0	0.3
1,700-1,990	GSM 1800; CDMA 1900; GSM 1900; DECT; LTE Band 1, 3, 4, 25; UMTS	2.0	0.3
2,400-2,570	Bluetooth; WLAN; 802.11 b/g/n; RFID 2450; LTE Band 7	2.0	0.3
5,100-5,800	WLAN 802.11 a/n	0.2	0.3

For transmitters rated at a maximum output power not listed above, the recommended separation distance *d* in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where *P* is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

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

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