

## ProCeed Hospital Bed

### Operations/Maintenance Manual

REF	8500-000-000
REF	8500-000-100
REF	8500-000-200
REF	8500-000-300
REF	8500-000-400
REF	8500-000-500
REF	8500-000-600
REF	8500-000-700
REF	8500-000-800



























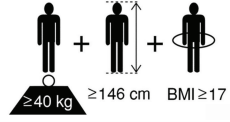


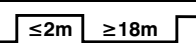









# Global symbol glossary

See the Global Symbol Glossary at [ifu.stryker.com](http://ifu.stryker.com) for symbol definitions.

## Symbols

	Refer to instruction manual/booklet
	Consult instructions for use
	General warning
	Caution
	Warning; crushing of hands
	Warning; crushing of feet
	China RoHS without declarable substances
	Catalogue number
	Serial number
	European medical device
	CE mark
	UK Conformity Assessment mark
	Importer
	Authorized representative in the European Community
	Authorized representative in Switzerland
	Unique device identifier

	Quantity
	Manufacturer (YYYY-MM-DD indicates the date of manufacture)
	Date of manufacture
	Safe working load
	Mass of equipment
	Maximum patient weight
	Adult patient
	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
IPX6	Protection from powerful jets of water
	Type B applied part
	To indicate that separate collection for batteries is required per the European Union's Batteries and Waste Batteries Regulation (EU) 2023/1542. This symbol may be accompanied by the abbreviated designation of the battery material(s) used.
	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.

 <b>Pb</b>	<p>To indicate that separate collection for batteries is required per the European Union's Batteries and Waste Batteries Regulation (EU) 2023/1542. This symbol may be accompanied by the abbreviated designation of the battery material(s) used.</p> <p>Pb = battery contains more than 0.004 % by weight of lead</p>
	<p>Recycling symbol</p>



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# 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.

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### **WARNING**

- Always use Stryker approved support surfaces that have been tested for compatibility with the product frame to avoid the risk of patient entrapment.
- Always allow the product to reach room temperature before you begin setup or test functional operations to prevent permanent product damage.
- Do not use the product if use would cause injury to the operator or patient.
- Do not load the product above the safe working load of 260 kg.
- Do not operate the product until all operators are clear of the mechanisms.
- Always connect the product to a supply mains with protective earth to avoid the risk of electric shock.
- 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 the appropriate maintenance personnel.
- Do not store items under 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 spill liquid onto the battery or submerge the battery in liquid.
- Always unplug the battery cable from the battery before you store the product for a long period of time.
- Always lock the siderails in the highest height 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 check 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.
- Do not use the siderails as a push or pull device. Always use the headboard and footboard when you move the product.
- Do not use the lifting pole 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 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 the product is in motion.
- Always unplug the power cord from the wall outlet before you transport the product.
- Always release the brakes before you transport the product. Do not transport the product with the brakes applied.

- Always confirm that all persons and equipment are away from the area below and around the backrest before you activate the CPR release handle. The CPR release handle is for emergency use only.
- Always position the headboard as intended when you replace the headboard to avoid entrapment.
- Always position the footboard as intended when you replace the footboard to avoid entrapment.
- Always make sure that all persons and equipment are away from the area below and around the leg rest before you lower the lower leg section.
- Always make sure that the product is in the lowest height position when the patient is unattended.
- Always set the siderail position for appropriate patient safety.
- Always lock product motion controls when the patient is unattended.
- Always route the cables, wires, and tubing from other equipment so that parts of the product do not pinch them.
- Do not place your fingers in pinch points.
- Do not sit on or lean against the siderails.
- Do not load the Foley bag hook above the safe working load of 2 kg.
- Do not store the nurse control panel within the patient's reach.
- Do not sit on the bed extender. This may cause the product to tip.
- Always lock the bed extender before you place weight on the bed extender.
- Always retract the linen tray option before you put the product in motion.
- Always retract the linen tray option when not in use.
- Do not load the linen tray above the safe working load of 15 kg.
- Do not use accessories to support patient limbs or other body parts.
- Always make sure that accessories are locked into position.
- Do not load the IV pole above the safe working load of 2 kg per hook.
- Do not allow accessories to interfere with mechanical or electric mechanisms of the product.
- Do not load the lifting pole above the safe working load of 75 kg.
- Do not attach the oxygen bottle holder under the backrest.
- Always turn the oxygen bottle holder in toward the product before you transport a patient.
- Do not strike the oxygen bottle holder while you transport a patient.
- Do not load the oxygen bottle holder above the safe working load of 7.5 kg.
- Do not load the Foley bag basket above the safe working load of 4 kg.
- Do not clean, service, or perform maintenance while the product is in use.
- Always power off and unplug the power cord before cleaning, servicing, or performing maintenance.
- Always power off the product and unplug the power cord from the wall outlet when large spills occur near the circuit boards, cables, and motors. Remove the patient from the product, clean up the fluid, and have service personnel inspect the product. Fluids can cause unpredictable operation and decreased functionality of any electrical product. Do not return the product to service until it is completely dry and has been thoroughly tested for safe operation.
- Do not spray cleaners directly onto the battery, control boxes, actuators, cables, or other electric equipment.
- Do not use abrasive powder, steel wool, or similar materials that may damage the product surface.
- Do not use **Virex® TB** for product disinfecting.
- Do not use acid-based chemicals or flammable chemicals, such as gasoline, diesel, or acetone for cleaning purposes.
- Do not directly spray or saturate the siderail control panel, patient control pendant, or nurse control pendant with cleaners.
- The cleaners and disinfectants must not be highly alkaline or acidic (pH value 6-8).
- Do not use sharp objects to clean the siderail control panel.
- Do not use **Virex® TB** for product cleaning.
- Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 in.) to any part of **ProCeed**, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.
- Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.

- Use of accessories, transducers, and cables other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment 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.
  - To minimize the risk of any electromagnetic interference, the product design follows the standard IEC 60601-1-2. To avoid problems, use the product in accordance with the EMC/EMI requirements in the EMC section of this operations manual.
  - Always use the input voltage and frequency as rated on the product.
  - Do not place objects into any gaps of the product.
  - 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.
  - Do not use the product without the support surface.
  - Always plug the product into a hospital grade protective earthed outlet 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 Stryker approved batteries when you replace the batteries. Use of unauthorized batteries may lead to unpredictable system performance.
  - Do not open the battery.
  - Do not expose the battery to excessive heat.
  - Do not place or store heavy objects on the product.
  - Always make sure that the IV pole is at a low height during transport.
  - Always hang the nurse control pendant onto a foot end siderail or store in the linen tray option before you remove the footboard.
  - Do not raise the lower leg section while the bed extender is in use. The product may not support the lower legs of a taller patient.
  - Always place the patient control pendant safely on the support surface while the pendant is in use.
  - Always hang the patient control pendant onto the siderail when the pendant is not in use.
  - Do not squeeze or pinch the pendant cable in the product frame.
  - Always place the nurse control pendant onto the footboard.
  - Do not remove the footboard after you extend the bed extender.
  - Always remove the lifting pole before you transport the product.
  - Direct skin contact with visibly soiled, permeable material may increase the risk of infection.
  - Do not steam clean, pressure wash, ultrasonically clean, or immerse any part of the product in water. Exposure to water may damage the internal electric parts. These methods of cleaning are not recommended and may void this product's warranty.
  - Always make sure that you wipe each product with clean water and thoroughly dry each product after cleaning. Some cleaning products are corrosive in nature and may cause damage to the product if you use them improperly. If you do not properly rinse and dry the product, you may leave a corrosive residue on the surface of the product that could cause premature corrosion of critical components. Failure to follow these cleaning instructions may void your warranty.
-



## Pinch points



Figure 1 – ProCeed pinch points, movable and stationary headboards

# 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.

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## 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 8500 **ProCeed** bed is a powered, adjustable hospital bed that is used in combination with a patient support surface.

The bed contains siderails which can be locked in the up position, a headboard, and a footboard. For a bed with the moveable headboard option, the headboard moves in accord with the bed articulation. For the stationary headboard option, the headboard is completely immobile. The headboard stays in the same position regardless of bed articulation. The bed has Fowler, Gatch, and lift articulation capabilities, which aid in the adjustment of surface contour, angle, and bed height. The bed height range is adjustable between 34 cm to 76.5 cm. The Fowler raises from 0 to 65 degrees, and the bed includes 12 degree Trendelenburg/reverse Trendelenburg positions. The bed is further equipped with manual brakes and a backup battery.

## Intended use

The Stryker **ProCeed** hospital bed is intended to provide a patient support surface for medical purposes and to provide a method of transporting patients. It is intended to be used within a healthcare facility and to be operated by healthcare professionals.

The product is intended to be used with human adult patients receiving treatment in a healthcare environment, including hospitals, surgery centers, long term acute care centers, and rehabilitation centers.

## Indications for use

The Stryker **ProCeed** hospital bed is indicated to support and position adult patients with typical anatomy (physical size greater than 146 cm, mass greater than 40 kg or a body mass index of greater than 17) for treatment, examination, and recovery.

## Intended users

Operators for the bed include healthcare professionals (such as nurses, nurse aides, and medical doctors).

Other users may operate the product in specific intended circumstances, such as service or maintenance personnel (when maintenance is required) or patients and laypersons (when using intended touch points such as positioning controls on the siderail).

## Clinical benefits

Patient treatment, patient positioning, and diagnostic

## Contraindications

None known.

## Expected service life

**ProCeed** has a 10 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 support surfaces that have been tested for compatibility with the product frame to avoid the risk of patient entrapment.

	Safe working load  <b>Note</b> - Safe working load indicates the sum of the patient, support surface, and accessory weight	260 kg
	Maximum patient weight	215 kg
Product weight		160 kg
Overall product size	Length	2200 mm
	Length (with bed extender - option)	2510 mm
	Width	990 mm
Product height (without support surface)	Low	340 mm
	High (patient controls)	488 mm
	High (operator controls)	765 mm
	Examination position	730 mm
Under product clearance		155 mm
Caster size		Ø150 mm
Product angle indicator		0° - 15°
Backrest angle indicator		0° - 90°
Backrest angle		0° - 65°

Gatch angle		0° - 30°
Trendelenburg/reverse Trendelenburg		-12° to 12°
Trendelenburg/reverse Trendelenburg position		-12° to 12° ± 3°
Electrical requirements		
Battery	BA1616 / 1.2 Ah / 24 VDC	
Control box	100-240 VAC, 50/60 Hz, Pin: 340 VA	
Electrical classification	Class 1 when product is plugged into mains power Internally powered when the product is unplugged	
Duty cycle	2 mins of actuation and 18 mins idle	
Application environments	1, 2, 3, and 5 per IEC 60601-2-52	
Maximum acoustic sound pressure	44.9 dBA	
Attenuation equivalent (Aluminum equivalence)	Not applicable	Maximum value allowed is 1.7 mm Al

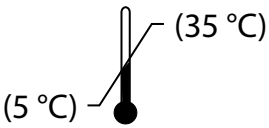
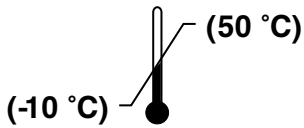
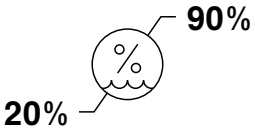
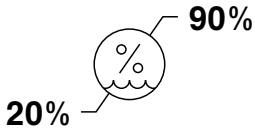
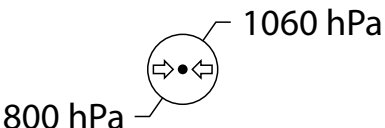
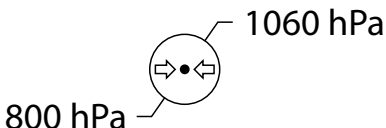
**Class I Equipment:** Equipment that protects against electrical shock and does not solely rely on basic insulation, but which includes an additional safety precaution that is provided for the connection of the equipment to the protective earth conductor in the fixed wiring of the installation that accessible metal parts cannot become live in the event of a failure of basic insulation.

<b>Compatible support surfaces</b>	
8002-0-100	200 cm x 87 cm x 14 cm
8002-0-101	200 cm x 87 cm x 14 cm
8002-0-102	200 cm x 87 cm x 14 cm
8002-0-103	200 cm x 87 cm x 14 cm
8002-0-104	200 cm x 87 cm x 14 cm
8002-0-105	200 cm x 87 cm x 14 cm
2872-000-018	200 cm x 90.2 cm x 24.1 cm

<b>Compatible bed extender support surfaces</b>	
8002-0-106	33 cm x 71 cm x 14 cm
8002-0-107	33 cm x 71 cm x 14 cm
8002-0-108	33 cm x 71 cm x 20 cm
8002-0-109	33 cm x 71 cm x 20 cm

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
Temperature	 (5 °C) to (35 °C)	 (-10 °C) to (50 °C)
Relative humidity	 20% to 90%	 20% to 90%
Atmospheric pressure	 800 hPa to 1060 hPa	 800 hPa to 1060 hPa

Standards applied	
IEC 60601-1:2005 + A1:2012 + A2:2020	Medical electrical equipment - Part 1: General requirements for basic safety and essential performance
IEC 60601-1-2:2014 + A1:2020	Medical electrical equipment - Part 1-2: General requirements for basic safety and essential performance - Collateral standard: Electromagnetic compatibility - Requirements and tests
IEC 60601-2-52:2009 + A1:2015	Medical electrical equipment - Part 2-52: Particular requirements for the basic safety and essential performance of medical beds
IEC 60601-2-54:2009 + AMD1:2015 + AMD2:2018 IEC 60601-2-54:2022 *Only applicable when the product is equipped with the radiolucent backrest option	Medical electrical equipment - Part 2-54: Particular requirements for the basic safety and essential performance of X-ray equipment for radiography and radioscopy

## CAUTION

- To minimize the risk of any electromagnetic interference, the product design follows the standard IEC 60601-1-2. To avoid problems, use the product in accordance with the EMC/EMI requirements in the EMC section of this operations manual.
- Always use the input voltage and frequency as rated on the product.

## European battery specifications

In accordance with the European Community Batteries and Waste Batteries regulation, required battery information is included below.

Description	Number	Quantity	Voltage	Capacity
Battery, BA16	HM-17-403	1	24 VDC	1.2 Ah

## European REACH - ProCeed

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
Actuator	Safety Nut	HM-17-303, HM-17-305	Lead
Actuator	Bush	HM-17-303	Lead
Actuator	Diodes on PCBA	HM-17-303, HM-17-305	Lead monoxide, diboron trioxide
Actuator	Diodes on PCBA	HM-17-323	Lead monoxide (lead oxide), diboron trioxide
Actuator	Resistor on PCBA	HM-17-323	Lead, lead monoxide (lead oxide)
Actuator	Resistors on PCBA	HM-17-303, HM-17-305	Lead, lead monoxide
Battery, BA16	Diodes on PCBA	HM-17-403	Lead, lead monoxide, diboron trioxide
Battery, BA16	Piezo Transducer	HM-17-403	Lead titanium zirconium oxide
Battery, BA16	Resistors on PCBA	HM-17-403	Lead, lead monoxide
Battery, BA16	Capacitor on PCBA	HM-17-403	Diboron trioxide
Brake alarm switch	Resistor on PCBA	HM-17-503	Lead, lead monoxide
Brake alarm switch	Diodes on PCBA	HM-17-503	Lead monoxide, diboron trioxide
Control box, CO65	Mofset on PCBA	HM-17-328	Lead
Control box, CO65	Bridgerectifier on PCBA	HM-17-328	Lead
Control box, CO65	Diodes on PCBA	HM-17-328	Lead, lead monoxide, diboron trioxide
Control box, CO65	Resistor on PCBA	HM-17-328	Lead, lead monoxide, diboron trioxide
Control box, CO65	Rectifier	HM-17-328	Lead
Control box, CO65	Capacitor on PCBA	HM-17-328	Diboron trioxide
Control box, CO65	Piezo Transducer	HM-17-328	Lead titanium zirconium oxide
Nurse pendant	Resistors on PCBA	HM-17-814	Lead, lead monoxide
Nurse pendant	Diodes on PCBA	HM-17-814	Lead monoxide, diboron trioxide
Nurse pendant	Capacitor on PCBA	HM-17-814	Diboron trioxide
Patient pendant	Resistors on PCBA	HM-17-813	Lead, lead monoxide
Patient pendant	Diodes on PCBA	HM-17-813	Lead monoxide, diboron trioxide
Power cord	Cable	HM-17-052	tris(2-methoxyethoxy) vinylsilane
Power cord	Power cord	HM-17-054	tris(2-methoxyethoxy) vinylsilane

Description		Number	Substance of very high concern (SVHC) chemical name
Siderail control unit	Resistor on PCBA	HM-17-804, HM-17-806, HM-17-816, HM-17-817	Lead, lead monoxide
Siderail control unit	Diodes on PCBA	HM-17-804, HM-17-807, HM-17-816, HM-17-817	Lead monoxide, diboron trioxide
Siderail control unit	Resistors on PCBA	HM-17-805	Lead, lead monoxide (lead oxide), diboron trioxide
Siderail control unit	Capacitor	HM-17-805	Diboron trioxide
Siderail control unit	Diodes on PCBA	HM-17-805	Lead monoxide (lead oxide), diboron trioxide
Siderail control unit	Diode on PCBA	HM-17-806	Lead monoxide, diboron trioxide
Siderail control unit	Resistors on PCBA	HM-17-807	Lead, lead monoxide
Siderail control unit	Capacitor on PCBA	HM-17-807, HM-17-816, HM-17-817	Diboron trioxide
Supervisor spiral cable	Cable	HM-17-317	Lead
Under bed light UBL2	Resistors on PCBA	HM-17-297	Lead, lead monoxide (lead oxide)
Under bed light UBL2	Transistor	HM-17-297	Lead
Under bed light UBL2	Diodes on PCBA	HM-17-297	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol, lead, lead monoxide (lead oxide), diboron trioxide

## Product illustration

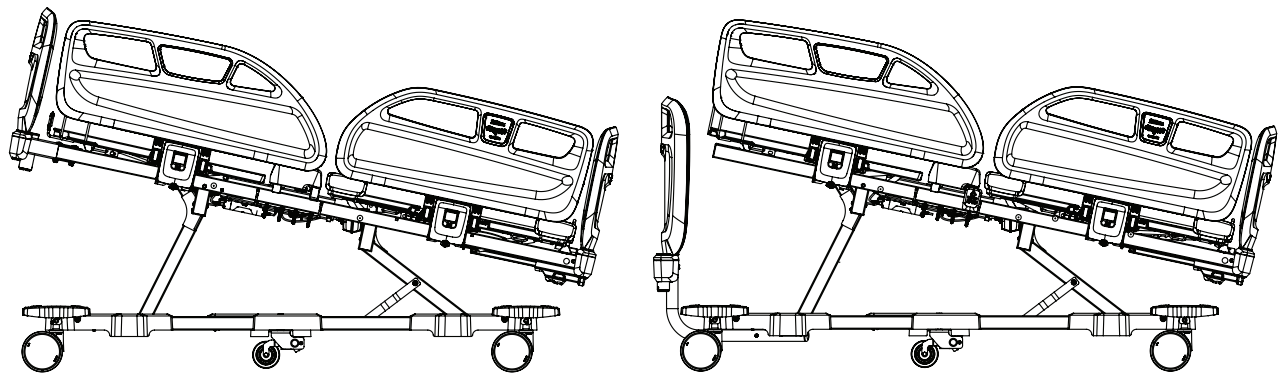


Figure 2 – Headboard models, movable (left) and stationary (right)

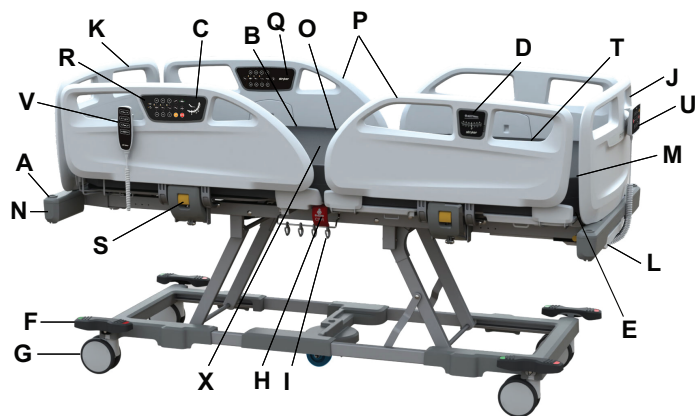


Figure 3 – ProCeed bed series, movable headboard option



Figure 4 – ProCeed bed series, stationary headboard option

A	Accessory sleeve
B	Backrest
C	Backrest angle measure
D	Bed angle indicator
E	Bed extender option
F	Brake/steer pedal
G	Casters (dual-wheel casters)
H	CPR release
I	Foley hook
J	Footboard
K	Movable headboard option
L	Linen tray option

M	Lower leg section
N	Bumper
O	Seat section
P	Siderail
Q	Siderail control panel, inside siderail option
R	Siderail control panel, outside siderail option
S	Siderail latch
T	Upper leg section
U	Nurse control pendant option
V	Patient control pendant option
W	Stationary headboard option
X	Support surface



## Applied parts



Figure 5 – Type B applied parts

## Contact information

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

Stryker Medical International  
Kayseri Serbest Bölge Şubesi  
2. Cad. No:17 38070  
Kayseri, Turkey  
Email: [infosmi@stryker.com](mailto:infosmi@stryker.com)  
Phone: + 90 (352) 321 43 00 (pbx)  
Fax: + 90 (352) 321 43 03  
Web: [www.stryker.com](http://www.stryker.com)

**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 your Stryker Customer Service. Include the serial number in all written communication.

## Serial number location

The Stryker serial number and specification label (A) is located below the patient siderail near the foot end of the product (Figure 6).

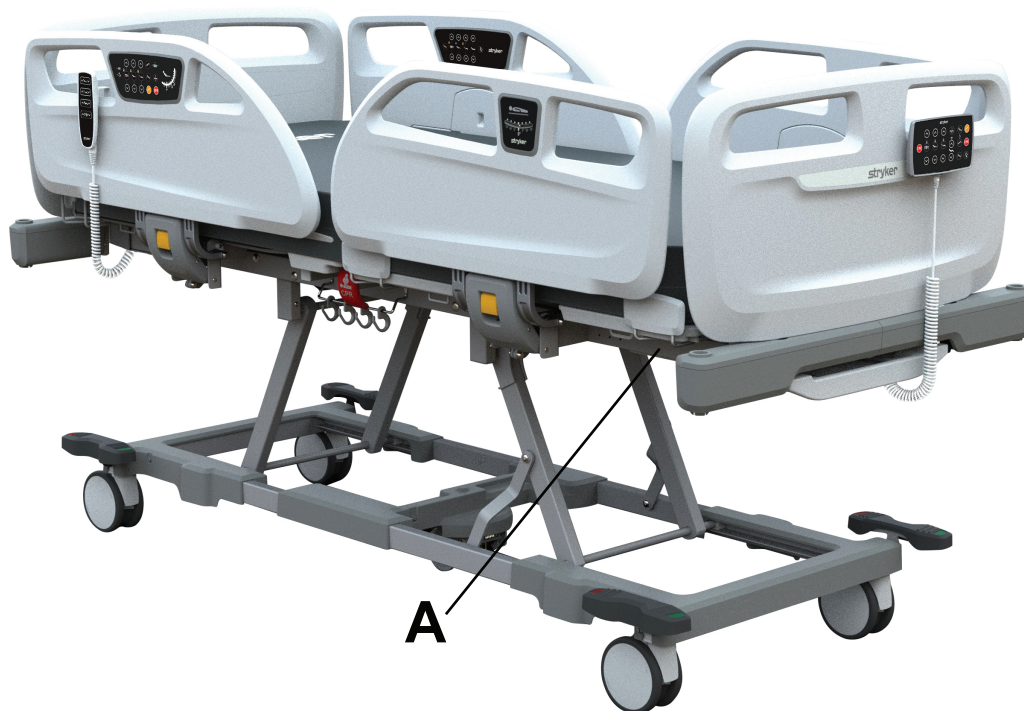


Figure 6 – Stryker serial number and specification label location

# Setup

---

## WARNING

- Always allow the product to reach room temperature before you begin setup or test functional operations to prevent permanent product damage.
  - Do not use the product if use would cause injury to the operator or patient.
  - Do not load the product above the safe working load of 260 kg.
  - Do not operate the product until all operators are clear of the mechanisms.
  - Always connect the product to a supply mains with protective earth to avoid the risk of electric shock.
  - 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 the appropriate maintenance personnel.
  - Do not store items under the product.
  - Always use Stryker approved support surfaces that have been tested for compatibility with the product frame to avoid the risk of patient entrapment.
- 

## CAUTION

- Do not place objects into any gaps of the product.
  - 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.
  - Do not use the product without the support surface.
- 

To set up and test the functionality of the product:

1. Inspect the product for shipping damage.
2. Verify that the product and all components and accessories have arrived.
3. Press down the brake pedal and verify that the brake, steer, and neutral positions work.
4. Raise and lower the siderails to verify that they move, stow, and lock in the highest height position. See *Raising or lowering the siderails* (page 24).
5. Plug the battery cable into the control box. See *Plugging or unplugging the battery cable* (page 16).
6. Plug the power cord into a wall outlet.
7. Press each button on the siderail control panel, nurse control pendant, and patient control pendant option to verify that each function works.
8. Make sure that the battery is fully charged (Q). See *Operator control panel, outside siderail* (page 25).
9. Verify that the cardiopulmonary resuscitation (CPR) release handle works. See *Activating the CPR release handle* (page 21).
10. Verify that accessory options are installed and work.
11. Set up the support surface. See the support surface operations manual for setup instructions.

# Operation

## Plugging or unplugging the battery cable

To plug the battery cable into the battery:

1. Remove the lower leg rest cover (A) (Figure 7).
2. Locate the battery (Figure 8).
3. Connect the battery cable to the battery.
4. Press the battery cable lock to lock the battery cable into the battery (A).

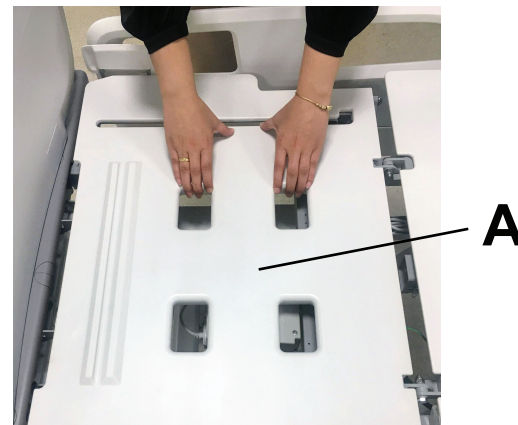


Figure 7 – Removing the lower leg rest cover

To unplug the battery cable from the battery:

1. Remove the lower leg rest cover (A) (Figure 7).
2. Locate the battery (Figure 8).
3. Using a small flat screwdriver, push in on the battery cable lock. Pull out on the battery cable (Figure 9).
4. Disconnect the battery from the battery cable.
5. Using tape, secure the battery cable lock to the litter frame (Figure 10).

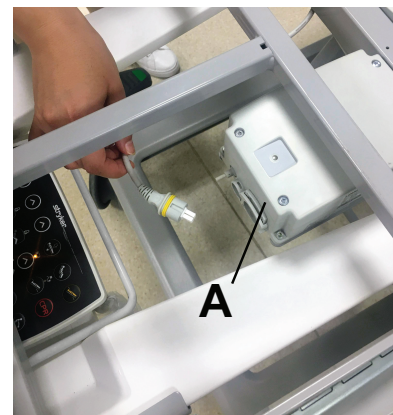


Figure 8 – Locking or unlocking the battery cable

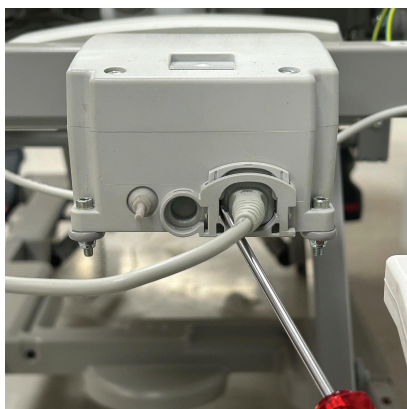


Figure 9 – Pushing in on the power cord lock

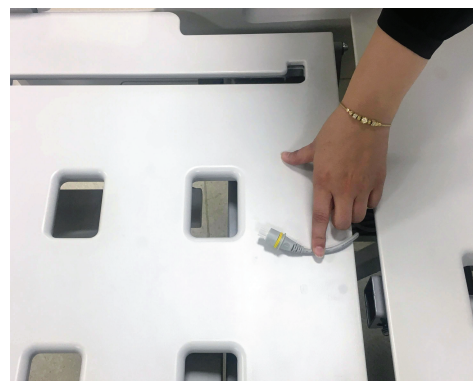


Figure 10 – Unplugging the battery cable from the battery

## Plugging or unplugging the product

---

### WARNING

- Always connect the product to a supply mains with protective earth to avoid the risk of electric shock.
  - 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 the appropriate maintenance personnel.
- 

**CAUTION** - 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.

---

**Note** - Make sure that the product is plugged in when not in transport.

The product is equipped with a bed power cord.

1. To plug in the product, plug the power cord into a hospital grade protective earthed outlet.
2. Verify that the green AC power LED lights on the siderail and nurse pendant illuminate.
3. To unplug the product, grasp the mold near the wall outlet and pull in a direction parallel to the floor (not at an angle).

## 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 spill liquid onto the battery or submerge the battery in liquid.
- 

### CAUTION

- Always plug the product into a hospital grade protective earthed outlet 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 Stryker approved batteries when you replace the batteries. Use of unauthorized batteries may lead to unpredictable system performance.
  - Do not open the battery.
  - Do not expose the battery to excessive heat.
- 

The product is equipped with a battery backup system that charges when you plug the product 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 during transport. The battery backup system activates when you unplug the product.

Always check the battery backup function. Replace the battery if it does not perform as intended during preventive maintenance.

When the battery level is low and you attempt to move the product, the battery status indicator lights on the siderails flash amber and make a beep sound.

To charge the battery, connect the product to a hospital grade protective earthed outlet.

The battery has a full charge within twelve hours (Q). See *Operator control panel, outside siderail* (page 25).

## Storing the battery long term

---

**WARNING** - Always unplug the battery cable from the battery before you store the product for a long period of time.

---

**CAUTION** - Do not place or store heavy objects on the product.

---

Store the battery per the environmental conditions listed in the specifications section. See *Specifications* (page 7).

To store the battery:

1. See *Plugging or unplugging the product* (page 17).
2. See *Plugging or unplugging the battery cable* (page 16).

## Transporting the product

---

### WARNING

- Always lock the siderails in the highest height 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 check 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.
  - Do not use the siderails as a push or pull device. Always use the headboard and footboard when you move the product.
  - Do not use the lifting pole 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.
- 

**CAUTION** - 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.
2. Unplug the power cord from the wall outlet.
3. Lower the IV pole.
4. Turn the oxygen bottle holder in toward the product.
5. Raise and lock the siderails in the highest height position. See *Raising or lowering the siderails* (page 24).
6. Release the brakes. See *Applying or releasing the brakes* (page 19).
7. Push the product from the headboard or footboard.
8. Plug the power cord into a hospital grade protective earthed wall outlet after transport.
9. Lock the brakes.

## 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 the product is in motion.

Brake/steer pedals are at all four corners of the product.

To apply or release the brakes:

To apply the brakes, press down on the red side of the pedal (Figure 11). The brake pedal locks all four casters to hold the product in place.

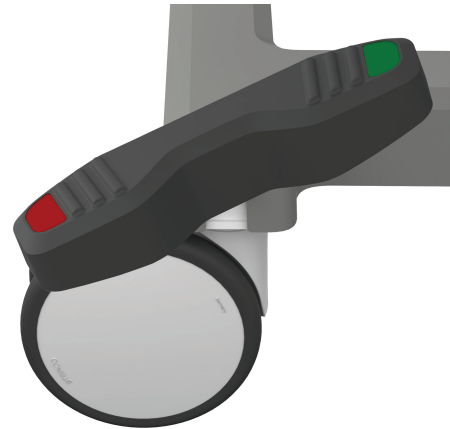


Figure 11 – Applying the brakes

To release the brakes, press down on the green side of the pedal until the pedal is in the neutral position (Figure 12). This releases all four casters and allows you to move the product.

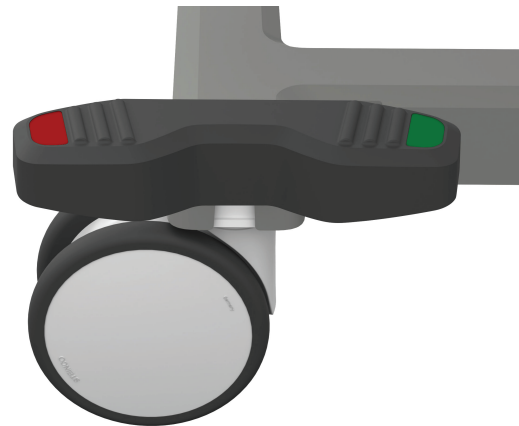


Figure 12 – Releasing the brakes/neutral position

**Note** - The **Brake** indicator (P) on the operator control panel illuminates when you release the brakes. See *Operator control panel, outside siderail* (page 25).

## Applying or releasing Steer-Lock

### WARNING

- Always lock the siderails in the highest height position with the sleep surface horizontal when you transport a patient.
- Always unplug the power cord from the wall outlet before you transport the product.
- Always release the brakes before you transport the product. Do not transport the product with the brakes applied.

**Steer-Lock** pedals are at both the head end and foot end of the product. The **Steer-Lock** guides the product along a straight line when you transport and pivot the product around corners. The **Steer-Lock** pedal locks the casters on the foot end.

To transport with **Steer-Lock**:

To apply the steer caster, press down on the green side of the pedal (Figure 13).



Figure 13 – Applying Steer-Lock

To release **Steer-Lock**, press down on the red side of the pedal until the pedal is in the neutral position (Figure 14).

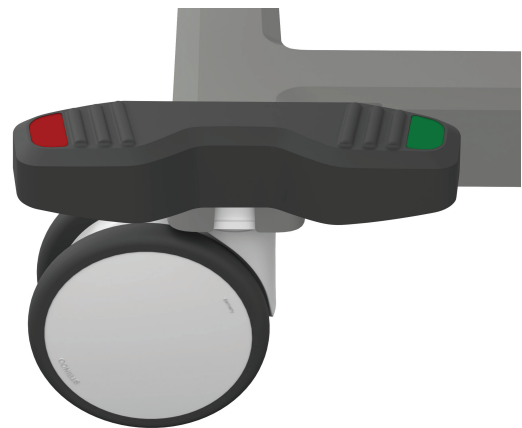


Figure 14 – Releasing Steer-Lock/neutral position

**Note** - To move in any direction, release the **Steer-Lock** pedal.



## Applying or releasing the fifth wheel option

The brake/steer pedals are located on each caster.

To apply the fifth wheel, press down on the green side of the brake/steer pedal (Figure 15). This activates the fifth wheel and allows you to move the product forward and backward in a straight path.



Figure 15 – Applying the fifth wheel

To release the fifth wheel, press down on the red side of the brake/steer pedal until the pedal is in the neutral position (Figure 16). This deactivates the fifth wheel and allows you to move the product forward, backward, and from side to side.

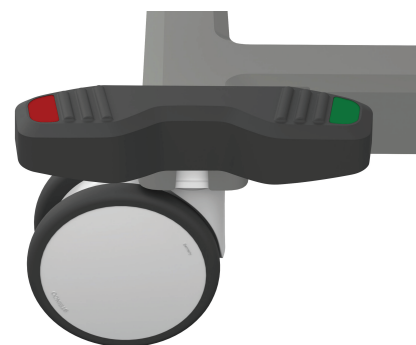


Figure 16 – Releasing the fifth wheel

## Activating the CPR release handle

---

**WARNING** - Always confirm that all persons and equipment are away from the area below and around the backrest before you activate the CPR release handle. The CPR release handle is for emergency use only.

---

When you raise the backrest and need quick access to the patient, pull the CPR release handle to position the product to 0 degrees.

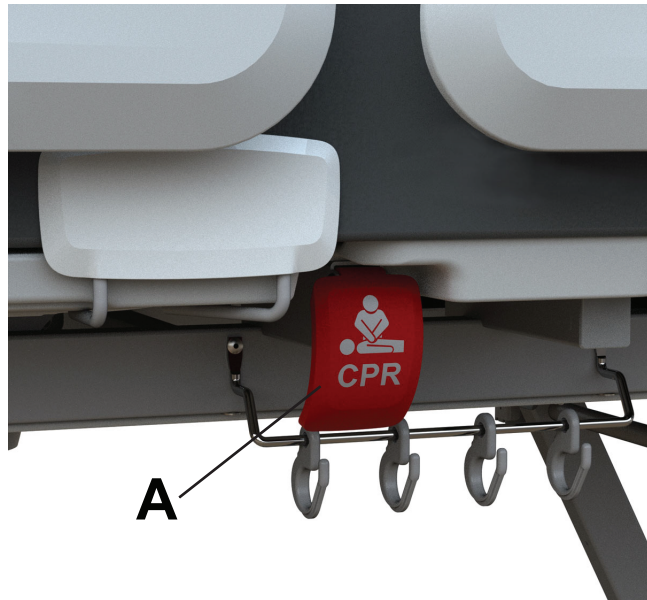
**Note** - The backrest may not raise after you activate manual CPR. To regain backrest up motion, press the backrest down button one time to reset and restore normal functions.

The two CPR release handles (A) are on the left and right side of the litter Gatch section (Figure 17).

To activate the CPR release handle:

1. Pull the CPR release handle (A) (Figure 17).

**Note** - Release the CPR release handle at any time to stop product backrest motion.



**Figure 17 – Activating the CPR release handle**

2. Guide the backrest to the flat position.

## Removing or replacing the headboard

---

**WARNING** - Always position the headboard as intended when you replace the headboard to avoid entrapment.

---

You can remove the headboard to access the patient or to clean the product.

To remove the headboard, grasp the handles and lift the headboard straight up and off the product (Figure 19).

To replace the headboard:

1. Align the headboard pegs with the sockets at the head end of the product (Figure 18).
2. Lower the headboard until the headboard aligns into the sockets (Figure 19).



Figure 18 – Headboard position

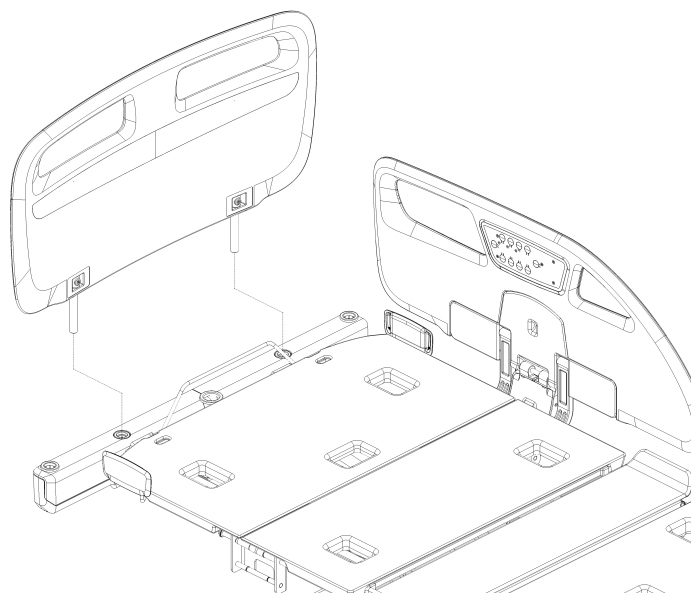


Figure 19 – Removing the headboard

## Removing or replacing the footboard

---

**WARNING** - Always position the footboard as intended when you replace the footboard to avoid entrapment.

---

---

**CAUTION** - Always hang the nurse control pendant onto a foot end siderail or store in the linen tray option before you remove the footboard.

---

You can remove the footboard to access the patient or to clean the product.

To remove the footboard, grasp the handles and lift the footboard straight up and off the product (Figure 21).

To replace the footboard:

1. Align the footboard pegs with the sockets at the foot end of the product (Figure 20).
2. Lower the footboard until the footboard aligns into the sockets (Figure 21).

**Note** - Do not leave any objects trapped under the footboard.



Figure 20 – Footboard position

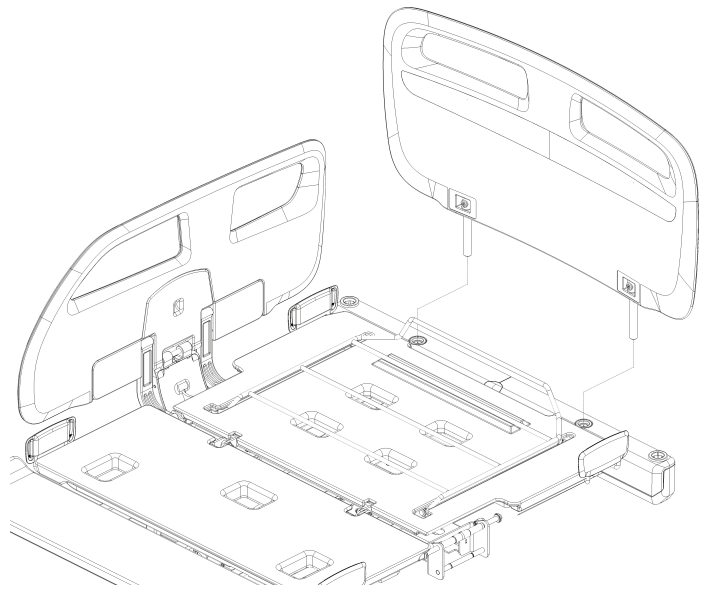


Figure 21 – Removing the footboard

## Raising or lowering the lower leg section

### WARNING

- Always make sure that all persons and equipment are away from the area below and around the leg rest before you lower the lower leg section.
- Always make sure that the product is in the lowest height position when the patient is unattended.

**CAUTION** - Do not raise the lower leg section while the bed extender is in use. The product may not support the lower legs of a taller patient.

You can raise or lower the lower leg section manually.

To raise the lower leg section:

1. Grasp the lower leg section with both hands.
2. Raise the lower leg section to the desired height.
3. Release the lower leg section to lock the section into place.

To lower the lower leg section:

1. Grasp the lower leg section with both hands.
2. Raise the lower leg section to the full upright position to unlock the lower leg section.
3. Guide the lower leg section back down onto the litter.

## Raising or lowering the siderails

### WARNING

- Always set the siderail position for appropriate patient safety.
- Always lock product motion controls when the patient is unattended.
- Always route the cables, wires, and tubing from other equipment so that parts of the product do not pinch them.

- Do not place your fingers in pinch points.
  - Do not sit on or lean against the siderails.
- 

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

To raise the siderails, pull up and push in. Listen for a click to indicate that the siderail locks into position. Pull on the siderail to make sure the siderail locks.

To lower the siderails, lift the yellow release latch (A) and lower the siderail to the lowest height position.

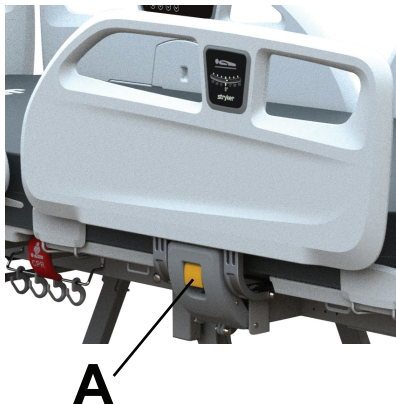


Figure 22 – Raising or lowering the siderails

## Securing a Foley bag to the Foley bag hook

---

**WARNING** - Do not load the Foley bag hook above the safe working load of 2 kg.

---

There are two Foley bag hooks under the foot section, one on either side of the product.

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

**Note** - Do not allow the Foley bag to touch the ground while the product is in low height.

## Operator control panel, outside siderail

---

### WARNING

- Always lock product motion controls when the patient is unattended.
-



		Flashes amber when the product is not connected to a wall outlet and the battery is low or when the product is connected and the battery is disconnected or has an error
R	AC power indicator	Illuminates solid green when you connect the product to a wall outlet
		Flashes amber when the product is not connected to a wall outlet
S	Bed height lock	Locks bed height movement
T	Gatch lock indicator	Illuminates amber when the Gatch section is locked
U	Backrest lock indicator	Illuminates amber when the backrest section is locked
V	Bed height lock indicator	Illuminates amber when the bed height function is locked

## Patient control panel, inside siderail

### WARNING

- Always lock product motion controls when the patient is unattended.

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

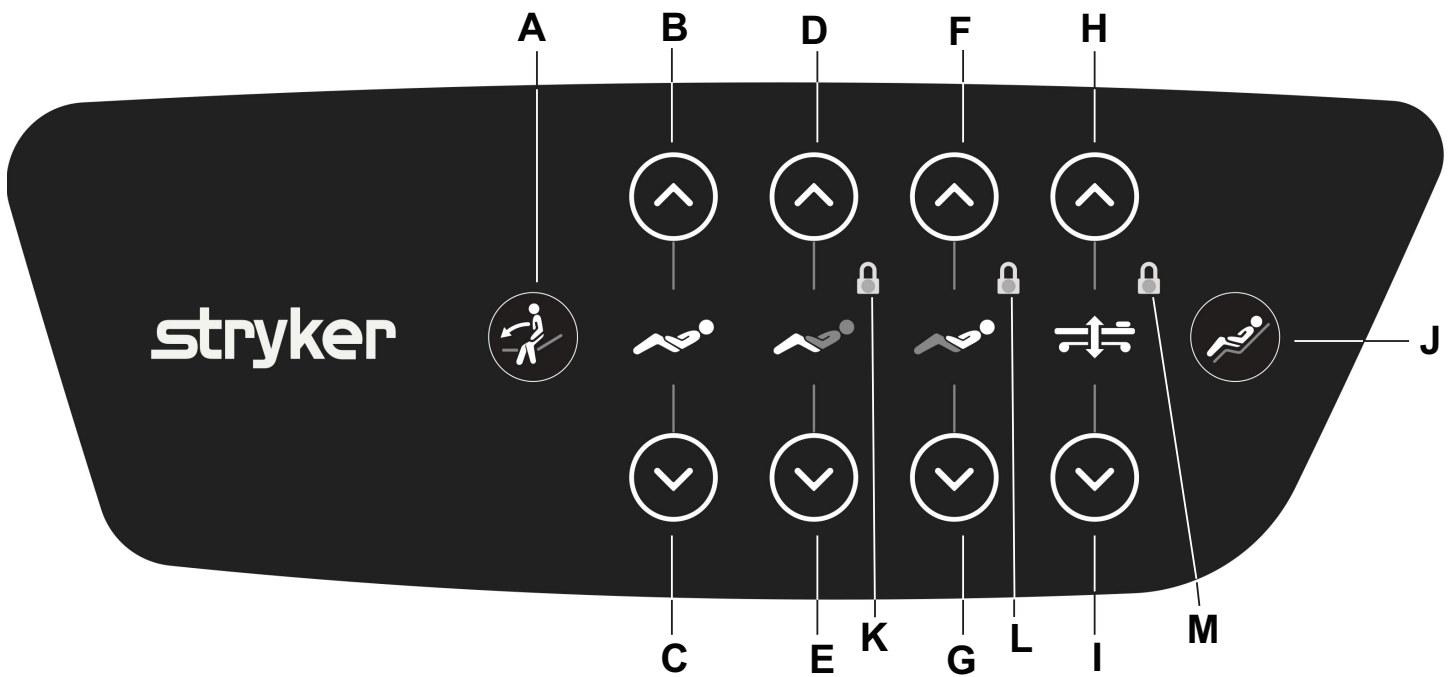


Figure 24 – Inside siderail

A	Patient stand assist	Places the product into a position for patient ingress or egress
B	Auto-contour up	Raises the backrest and Gatch
C	Auto-contour down	Lowers the backrest and Gatch
D	Gatch up	Raises the Gatch
E	Gatch down	Lowers the Gatch
F	Backrest up	Raises the backrest

G	Backrest down	Lowers the backrest
H	Bed height up <b>Note</b> - The limited high height is only on the patient controls.	Raises the litter
I	Bed height down	Lowers the litter
J	Chair position	Moves the product into a chair position
K	Gatch lock indicator	Illuminates amber when the Gatch section is locked
L	Backrest lock indicator	Illuminates amber when the backrest section is locked
M	Bed height lock indicator	Illuminates amber when the bed height function is locked

## Patient control pendant option

---

**WARNING** - Always lock product motion controls when the patient is unattended.

---

### CAUTION

- Always place the patient control pendant safely on the support surface while the pendant is in use.
  - Always hang the patient control pendant onto the siderail when the pendant is not in use.
  - Do not squeeze or pinch the pendant cable in the product frame.
- 

Healthcare professionals must instruct patients how to operate the pendant.



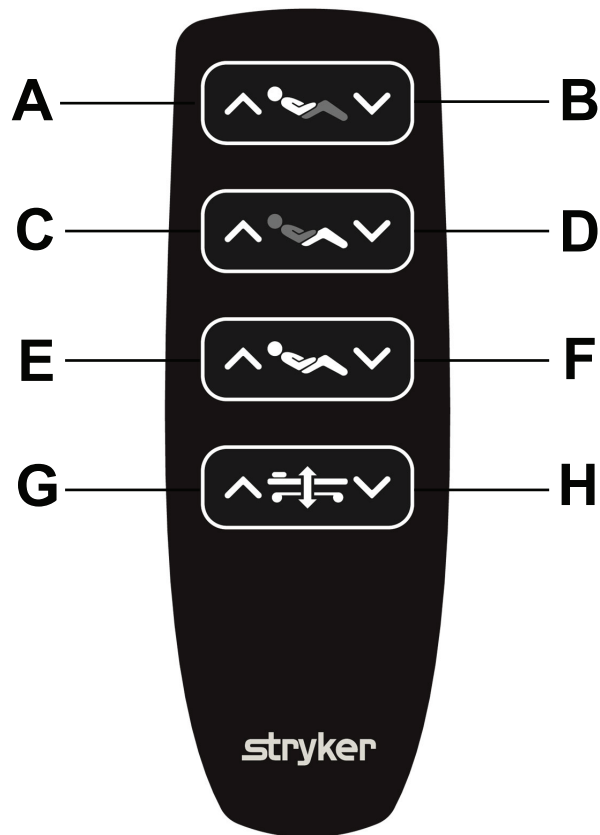


Figure 25 – Patient control pendant

	Name	Function
A	Backrest up	Raises the backrest
B	Backrest down	Lowers the backrest
C	Upper leg up	Raises the upper leg section
D	Upper leg down	Lowers the upper leg section
E	Auto-contour up	Raises the backrest and the upper leg section at the same time
F	Auto-contour down	Lowers the backrest and the upper leg section at the same time
G	Bed height up <b>Note</b> - The limited high height is only on the patient controls.	Raises the litter
H	Bed height down	Lowers the litter

## Nurse control pendant

### WARNING

- Always lock product motion controls when the patient is unattended.
- Do not store the nurse control panel within the patient's reach.

## CAUTION

- Always place the nurse control pendant onto the footboard.
- Always hang the nurse control pendant onto a foot end siderail or store in the linen tray option before you remove the footboard.
- Do not squeeze or pinch the pendant cable in the product frame.

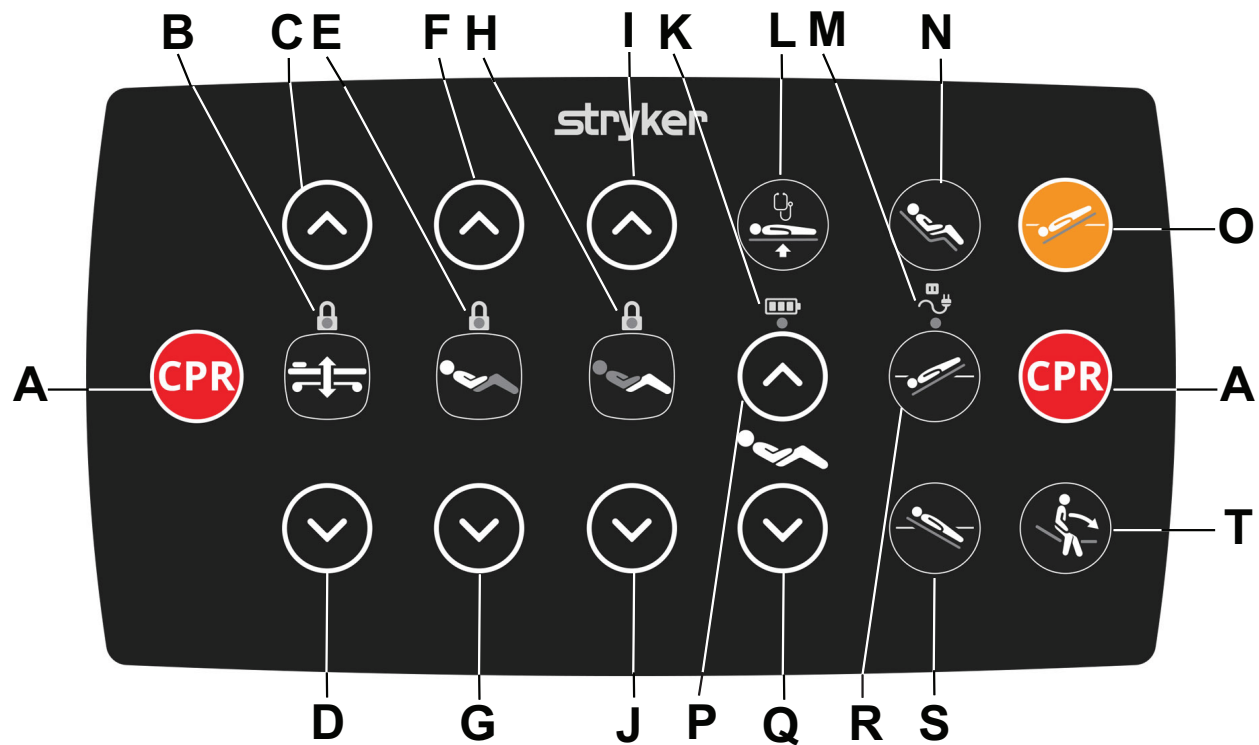


Figure 26 – Nurse control pendant

	Name	Function
A	Emergency CPR	Overrides the control panel lockout to achieve the flat position at low height. Also available if the control panels are turned off.
B	Bed height lock indicator/Litter lockout LED	Enables or disables locks for bed height motion. Illuminates amber when you lock the litter.
C	Bed height up	Raises the litter
D	Bed height down	Lowers the litter
E	Backrest up lock indicator/Backrest lockout LED	Enables or disables locks for the backrest. Illuminates amber when you lock the backrest.
F	Backrest up	Raises the backrest
G	Backrest down	Lowers the backrest
H	Upper leg lock indicator/Upper leg lockout LED	Enables or disables locks for the upper leg section. Illuminates amber when you lock the upper leg section.
I	Upper leg up	Raises the upper leg section
J	Upper leg down	Lowers the upper leg section

	Name	Function
K	Battery status indicator	Illuminates amber when you connect the product to a wall outlet and the batteries are recharging. The battery has a full charge within 10 to 12 hours. When the battery is charged, the LED no longer illuminates.
		Flashes amber when the product is not connected to a wall outlet and battery is low or when the product is connected and battery is disconnected or has an error
L	Examination position	Flattens the litter and raises the litter to the examination position height
M	AC power indicator	Flashes amber when the product is not connected to a wall outlet
N	Chair position	Place the product into the chair position
O	One-button vascular position	Overrides the control panel lockout to achieve 12° Trendelenburg
P	Auto-contour up	Raises the backrest and the upper leg section at the same time
Q	Auto-contour down	Lowers the backrest and the upper leg section at the same time
R	Trendelenburg	Places the product into the Trendelenburg position (head down with foot up)
S	Reverse Trendelenburg	Places the product into the reverse Trendelenburg position (head up with foot down)
T	Patient stand assist	Lowers the litter, lowers the upper leg section, and raises the backrest so the patient can enter and exit the product

## Extending or retracting the bed extender

### WARNING

- Do not sit on the bed extender. This may cause the product to tip.
- Always lock the bed extender before you place weight on the bed extender.

### CAUTION

- Do not remove the footboard after you extend the bed extender.
- Do not raise the lower leg section while the bed extender is in use. The product may not support the lower legs of a taller patient.

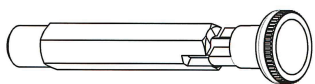
The bed extender allows you to extend the length of the product by 31 cm.

To extend the bed extender:

1. Pull and turn each yellow knob 90 degrees to unlock the bed extender (Figure 27).
2. Pull the footboard handles to extend the bed extender (Figure 28).
3. Turn the yellow handles 90 degrees to lock knobs on both sides.

**Note** - Push and pull on the footboard to confirm that the bed extender is locked.

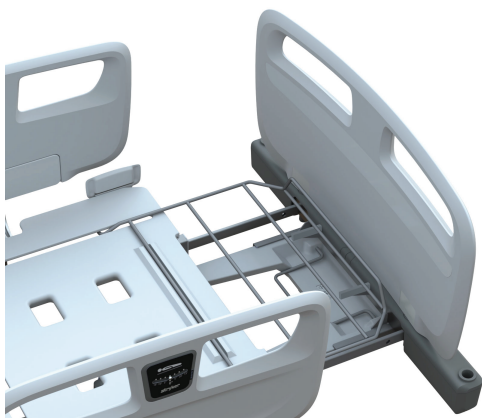
4. Pull out the bed handling platform (Figure 29).
5. Place the bed extender support surface onto the bed handling platform.



**Figure 27 – Unlocking the bed extender**



**Figure 28 – Extending the bed extender**



**Figure 29 – Extending the bed handling platform**



**Figure 30 – Retracting the bed handling platform**

To retract the bed extender:

1. Remove the bed extender support surface.
2. Push in the bed handling platform (Figure 30).
3. Pull and turn each yellow knob 90 degrees to unlock the bed extender.
4. Push the footboard handles to retract the bed extender.
5. Turn the yellow handles 90 degrees to lock knobs on both sides.

**Note** - Push and pull on the footboard to confirm that the bed extender is locked.

## Attaching the bed extender support surface

For support surface specifications, see the 8002 series support surface manual. See *Specifications* (page 7) for the recommended bed extender support surfaces.

To attach the bed extender support surface:

1. See *Extending or retracting the bed extender* (page 31).
2. Place the bed extender support surface between the support surface and the footboard.
3. Press down on the bed extender support surface to secure the support surface.

## Extending or retracting the linen tray option

The linen tray option is a built-in storage unit that can store a patient's clothes, laundry, or the nurse control pendant. You can find the linen tray at the foot end of the product.

---

### WARNING

- Always retract the linen tray option before you put the product in motion.
  - Always retract the linen tray option when not in use.
  - Do not load the linen tray above the safe working load of 15 kg.
- 

To extend the linen tray, grasp the plastic linen tray and pull the linen tray out toward you.

To retract the linen tray, grasp the plastic linen tray and push the linen tray into the frame.



Figure 31 – Storing the nurse control pendant

## Inserting or removing a cassette from the X-ray cassette holder option

X-ray guide dimensions: 390 mm  $\pm$  30 mm x 590 mm  $\pm$  30 mm x max 16.5 mm

To insert an X-ray cassette:

1. See *Removing or replacing the headboard* (page 22).
2. Slide the X-ray cassette into the X-ray cassette holder or slide the X-ray cassette between the patient and the support surface.

### Note

- When you take radiological images of the patient on this product, the internal components of the support surface may cause artifacts or distort images. See your support surface operations manual for positioning instructions.
  - When you take radiological images with the non-radiolucent backrest, slide the X-ray cassette between the patient and the support surface.
3. Adjust the patient to the desired position.

To remove an X-ray cassette:

1. Slide the X-ray cassette out of the X-ray cassette holder or slide out from under the patient.
2. See *Removing or replacing the headboard* (page 22).

## Accessories and parts

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

Name	Number	Safe working load
IV pole, curved	MM069	2 kg per hook
IV pole, straight	MM070	2 kg per hook
Foley bag basket	MM029	4 kg
Lifting pole	MM067	75 kg
Upright oxygen bottle holder (120 mm diameter, 900 mm length)	MM064	7.5 kg
Upright oxygen bottle holder (120 mm diameter, 640 mm length)	MM065	7.5 kg
Upright oxygen bottle holder (140 mm diameter, 640 mm length)	MM066	7.5 kg

## Attaching the IV pole option

### WARNING

- Do not use accessories to support patient limbs or other body parts.
- Always make sure that accessories are locked into position.
- Do not use the IV pole as a push or pull device.
- Do not load the IV pole above the safe working load of 2 kg per hook.
- Do not allow accessories to interfere with mechanical or electric mechanisms of the product.

**CAUTION** - Always make sure that the IV pole is at a low height during transport.

You can insert the IV pole into any of the four accessory sleeves on the corners of the product.

The IV pole has a telescopic pole that extends to provide a second height position using stepless height adjustment (Figure 32).



Figure 32 – IV pole motion

To position the IV pole, insert the IV pole into one of the four accessory sleeves (Figure 33).



Figure 33 – IV pole models

## Attaching or removing the lifting pole

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### WARNING

- Do not use accessories to support patient limbs or other body parts.
  - Always make sure that accessories are locked into position.
  - Do not use the lifting pole as a push or pull device.
  - Do not load the lifting pole above the safe working load of 75 kg.
  - Do not allow accessories to interfere with mechanical or electric mechanisms of the product.
- 

**CAUTION** - Always remove the lifting pole before you transport the product.

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You can insert the lifting pole into either of the two accessory sleeves on the head end of the product.

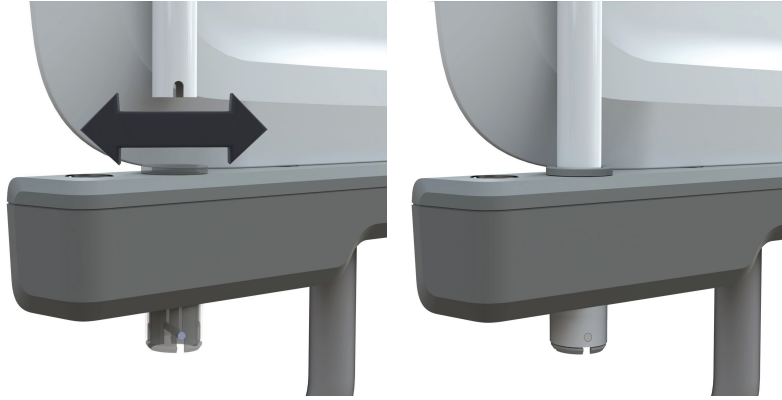
### Note

- Do not use the lifting pole when the product is in the reverse angle positions.
- Do not use the lifting pole when the headboard is not attached to the product.

The lifting pole assists the patient with changing position in bed.

To attach the lifting pole:

1. Center align and insert the lifting pole into one of the two accessory sleeves (Figure 34).



**Figure 34 – Attaching or removing the lifting pole**

2. Rotate and lock the lifting pole into the accessory sleeve.





Figure 35 – Lifting pole, movable headboard (left) and stationary headboard (right)

## Attaching the lifting pole handle

To attach the lifting pole handle, place the black grip of the lifting pole between the two stoppers on the lifting pole (Figure 36).



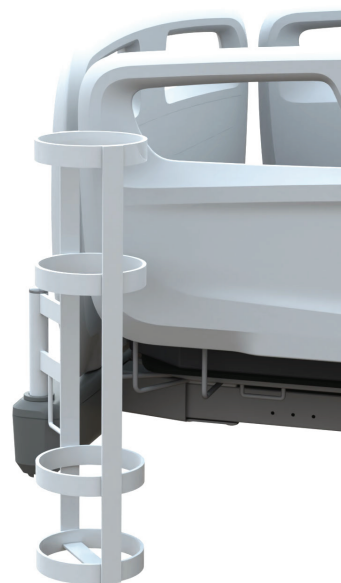
Figure 36 – Attaching the lifting pole handle

## Attaching the oxygen bottle holder

### WARNING

- Do not use accessories to support patient limbs or other body parts.
- Do not attach the oxygen bottle holder under the backrest.
- Always make sure that accessories are locked into position.
- Do not use the oxygen bottle holder as a push or pull device.
- Always turn the oxygen bottle holder in toward the product before you transport a patient.
- Do not strike the oxygen bottle holder while you transport a patient.
- Do not allow accessories to interfere with mechanical or electric mechanisms of the product.
- Do not load the oxygen bottle holder above the safe working load of 7.5 kg.

Insert the oxygen bottle holder support bar into the accessory sleeve that is located on either side of the product at the head end and foot end (Figure 37).



**Figure 37 – Attaching the oxygen bottle holder**

## Attaching the Foley bag basket

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### WARNING

- Do not use accessories to support patient limbs or other body parts.
  - Do not load the Foley bag hook above the safe working load of 2 kg.
  - Do not load the Foley bag basket above the safe working load of 4 kg.
  - Do not allow accessories to interfere with mechanical or electric mechanisms of the product.
- 

To attach the Foley bag basket, hook the basket onto the Foley hooks (Figure 38).



**Figure 38 – Attaching the Foley bag basket**

# Cleaning

## Preparing the product for cleaning

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**CAUTION** - Direct skin contact with visibly soiled, permeable material may increase the risk of infection.

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Cleaning and disinfecting are two separate processes. Clean before you disinfect to make sure that the cleaning agent is effective.

To prepare the product for cleaning:

1. Raise the litter to the highest height position.
2. Lock the siderail control panel and patient control pendant functions. See *Operator control panel, outside siderail* (page 25) to lock the patient functions.
3. Unplug the power cord from the wall outlet.
4. See *Applying or releasing the brakes* (page 19) to apply the brakes.
5. Remove the support surface.

## Cleaning

---

### WARNING

- Do not clean, service, or perform maintenance while the product is in use.
  - Always power off and unplug the power cord before cleaning, servicing, or performing maintenance.
  - Always power off the product and unplug the power cord from the wall outlet when large spills occur near the circuit boards, cables, and motors. Remove the patient from the product, clean up the fluid, and have service personnel inspect the product. Fluids can cause unpredictable operation and decreased functionality of any electrical product. Do not return the product to service until it is completely dry and has been thoroughly tested for safe operation.
  - Do not spray cleaners directly onto the battery, control boxes, actuators, cables, or other electric equipment.
  - Do not use abrasive powder, steel wool, or similar materials that may damage the product surface.
  - Do not use **Virex® TB** for product disinfecting.
  - Do not use acid-based chemicals or flammable chemicals, such as gasoline, diesel, or acetone for cleaning purposes.
  - Do not directly spray or saturate the siderail control panel, patient control pendant, or nurse control pendant with cleaners.
  - The cleaners and disinfectants must not be highly alkaline or acidic (pH value 6-8).
- 

### CAUTION

- Do not steam clean, pressure wash, ultrasonically clean, or immerse any part of the product in water. Exposure to water may damage the internal electric parts. These methods of cleaning are not recommended and may void this product's warranty.
  - Always make sure that you wipe each product with clean water and thoroughly dry each product after cleaning. Some cleaning products are corrosive in nature and may cause damage to the product if you use them improperly. If you do not properly rinse and dry the product, you may leave a corrosive residue on the surface of the product that could cause premature corrosion of critical components. Failure to follow these cleaning instructions may void your warranty.
- 

To clean product surfaces:

1. Using a clean, soft, damp cloth, wipe product surfaces with a mild soap and water solution to remove foreign material.
2. Wipe product surfaces with a clean, dry cloth to remove any excess liquid or cleaning agent.
3. Dry thoroughly.

## Cleaning the siderails

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### WARNING

- Do not directly spray or saturate the siderail control panel, patient control pendant, or nurse control pendant with cleaners.
  - Do not use sharp objects to clean the siderail control panel.
  - Do not use abrasive powder, steel wool, or similar materials that may damage the product surface.
  - Do not use **Virex® TB** for product cleaning.
  - Do not use acid-based chemicals or flammable chemicals, such as gasoline, diesel, or acetone for cleaning purposes.
- 

To clean the siderails:

1. Raise the siderail.
2. Latch the siderail.
3. Use a clean, soft, damp cloth to wipe down the siderail and the siderail control panel.
4. Allow the siderail control panel to dry thoroughly.

# Disinfecting

Suggested disinfectants:

- Quaternary cleaners without glycol ethers (active ingredient - ammonium chloride)
- Chlorinated bleach solution (5.25% - less than 1 part bleach to 100 parts water)
- 70% Isopropyl alcohol

Always follow the disinfectant's instructions for appropriate contact time and rinsing requirements.

Avoid oversaturation and make sure that the product does not stay wet longer than the chemical manufacturer's guidelines for proper disinfecting.

To disinfect the product:

1. Thoroughly clean and dry the product before you apply disinfectants.
2. Apply recommended disinfectant solution by spray or pre-soaked wipes

**Note** - Make sure that you follow the disinfectant's instructions for appropriate contact time and rinsing requirements.

3. To disinfect mechanisms, lift the backrest and leg rest up to the highest height.
4. Wipe product surfaces and mechanisms with a clean, dry cloth to remove any excess liquid or cleaning agent.
5. Allow the product to dry completely before returning to service.

# 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 fasteners are secure
- \_\_\_\_\_ Apply brake pedal and push on the product to confirm that all casters lock
- \_\_\_\_\_ Head end siderail brake indicators light up when brakes are applied
- \_\_\_\_\_ Steer caster locks and unlocks (only without fifth wheel)
- \_\_\_\_\_ Siderails move, latch, and stow
- \_\_\_\_\_ Backrest CPR release is operable on both sides
- \_\_\_\_\_ IV pole option is intact and operable
- \_\_\_\_\_ Foley bag hooks are intact
- \_\_\_\_\_ No cracks or splits in headboard, footboard, or siderail panels
- \_\_\_\_\_ No frame damage
- \_\_\_\_\_ No rips or cracks in support surface cover
- \_\_\_\_\_ All functions on head end siderails are operable
- \_\_\_\_\_ Night light is always on
- \_\_\_\_\_ Main power cords and plugs are not frayed or damaged
- \_\_\_\_\_ Cables are not worn or pinched
- \_\_\_\_\_ All electrical connections are tight
- \_\_\_\_\_ All grounds are secure to frame
- \_\_\_\_\_ Ground impedance check ( $\leq 0.2 \text{ Ohm}$ )
- \_\_\_\_\_ Leakage current: normal polarity, no ground, L2 active ( $\leq 300 \text{ } \mu\text{A}$  (microamps))
- \_\_\_\_\_ Leakage current: normal polarity, no ground, no L2 ( $\leq 600 \text{ } \mu\text{A}$  (microamps))
- \_\_\_\_\_ Leakage current: reverse polarity, no ground, L2 active ( $\leq 300 \text{ } \mu\text{A}$  (microamps))
- \_\_\_\_\_ Leakage current: reverse polarity, no ground, no L2 ( $\leq 600 \text{ } \mu\text{A}$  (microamps))
- \_\_\_\_\_ Backrest angle accuracy is  $0^\circ - 65^\circ$
- \_\_\_\_\_ Siderail controls for signs of degradation
- \_\_\_\_\_ Backrest dampener for oil leaks
- \_\_\_\_\_ All motions function
- \_\_\_\_\_ Foot end and head end litter bumper are intact and not damaged
- \_\_\_\_\_ Check battery functionality

Product serial number:
Completed by:
Date:

# EMC information

## WARNING

- Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 in.) to any part of **ProCeed**, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.
- Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.
- Use of accessories, transducers, and cables other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.

The **ProCeed** bed series was evaluated using the following cables:

Cable	Length (m)
AC mains input cable	2.5
Pendant	5.3

### Guidance and manufacturer's declaration - electromagnetic emissions

The **ProCeed** bed series is intended for use in the electromagnetic environment specified below. The customer or the user of the **ProCeed** bed series should assure that it is used in such an environment.

Emissions test	Compliance	Electromagnetic environment
RF Emissions CISPR 11	Group 1	<b>Note</b> - 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 **ProCeed** bed series 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 **ProCeed** bed series 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
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.

Guidance and manufacturer's declaration - electromagnetic immunity			
Surge IEC 61000-4-5	$\pm 0.5$ kV, $\pm 1$ kV lines to lines $\pm 0.5$ kV, $\pm 1$ kV, $\pm 2$ kV lines to earth	$\pm 0.5$ kV, $\pm 1$ kV lines to lines $\pm 0.5$ kV, $\pm 1$ kV, $\pm 2$ 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	<p>0% <math>U_T</math> for 0.5 cycle at 0°, 45°, 90°, 135°, 180°, 225°, 270°, and 315°</p> <p>0% <math>U_T</math> for 1 cycle</p> <p>70% <math>U_T</math> (30% dip in <math>U_T</math>) for 25/30 cycles</p> <p>0% <math>U_T</math> for 250/300 cycles</p>	<p>0% <math>U_T</math> for 0.5 cycle at 0°, 45°, 90°, 135°, 180°, 225°, 270°, and 315°</p> <p>0% <math>U_T</math> for 1 cycle</p> <p>70% <math>U_T</math> (30% dip in <math>U_T</math>) for 25/30 cycles</p> <p>0% <math>U_T</math> for 250/300 cycles</p>	Main power quality should be that of a typical commercial or hospital environment. If the user of the <b>ProCeed</b> bed series 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.
<b>Note</b> - $U_T$ is the a.c. mains voltage before applications of the test level.			



<p>Conducted RF IEC 61000- 4-6</p> <p>Radiated RF IEC 61000-4-3</p>	<p>3 Vrms 6 Vrms in ISM bands 150 kHz to 80 MHz 3 V/m 80 MHz to 2.7 GHz</p>	<p>3 Vrms 6 Vrms in ISM bands 3 V/m</p>	<p>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 <b>ProCeed</b> bed series.” 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.</p> <p>Recommended separation distance  <math>D=(2)(\sqrt{P})</math>            where <math>P</math> is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and <math>d</math> is the recommended separation distance in meters (m).</p> <p>Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey<sup>a</sup>, should be less than the compliance level in each frequency range<sup>b</sup>.</p> <p>Interference may occur in the vicinity of equipment marked with the following symbol: </p>
<p><b>Note</b> - These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.</p>			
<p><b>Note</b> - 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.</p>			
<p><sup>a</sup>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 <b>ProCeed</b> bed series is used exceeds the applicable RF compliance level above, the <b>ProCeed</b> bed series should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the <b>ProCeed</b> bed series.</p> <p><sup>b</sup>Over the frequency range 150 kHz to 80 MHz, field strengths are less than 3 Vrms.</p>			

Recommended separation distances between portable and mobile RF communication equipment and the ProCeed bed series
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The **ProCeed** bed series is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the **ProCeed** bed series can help prevent electromagnetic interferences by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the **ProCeed** bed series, 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.

Test frequency	Modulation	Immunity test level (A/m)
134,2 kHz	Pulse modulation <sup>b)</sup> 2,1 kHz	65 <sup>c)</sup>
13,56 MHz	Pulse modulation <sup>b)</sup> 50 kHz	7,5 <sup>c)</sup>

<sup>b)</sup> The carrier shall be modulated using a 50% duty cycle square wave signal.

<sup>c)</sup> r.m.s., before modulation is applied.



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