

EPIC II®
Critical Care Bed
Model 2031

stryker®

Operations Manual











For parts or technical assistance call:
USA: 1-800-327-0770











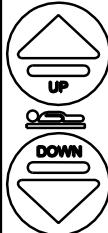


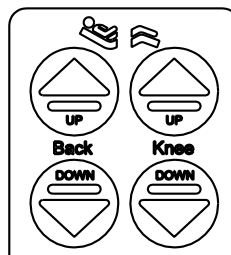


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Product Labels

Label Part Number	Label
2031-231-128	    <p>REF Critical Care Bed-Model 2031</p> <p>SN Serial No.  Date of Mfg.</p> <p>230V~, 50/60 Hz, 7.0A Max Load = 227 Kg. Rated Duty Cycle: 3 min. On / 30 min. Off</p> <p> 87VL MEDICAL ELECTRICAL EQUIPMENT UL 60601-1</p> <p>This product is in conformity with performance standards for diagnostic x-ray systems and their major components under 21 CFR Part 1020. Patents Applied for.</p> <p> Stryker Medical - Portage, MI 49002-5826, USA Made in U.S.A.</p>
0988-002-708	<div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>CAUTION</p> <p>NO USER SERVICEABLE PART INSIDE. TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER.</p>  <p>REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.</p> </div>
1550-090-001	<div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>CAUTION</p> <p>ADEQUATE GROUNDING RELIABILITY CAN ONLY BE ACHIEVED WHEN THE EQUIPMENT IS CONNECTED TO AN EQUIVALENT RECEPTACLE MARKED "HOSPITAL GRADE"</p> </div>
2011-001-104	<div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>DANGER EXPLOSION HAZARD. DO NOT USE IN THE PRESENCE OF FLAMMABLE ANESTHETICS.</p> <p>DANGER RISQUE D'EXPLOSION NE PAS EMPLOYER EN PRESENCE D'ANESTHESIQUES INFLAMMABLES.</p> <p>EXPLOSIONSGEFAHR! NICHT IN DER NAEHE VON FEUERGERAEHRLICHEN ANASTHESIEMITTENLN VERWENDEN.</p> </div>

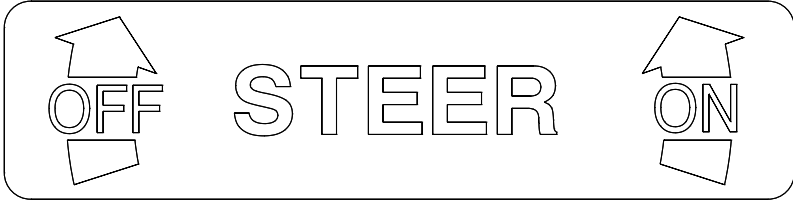
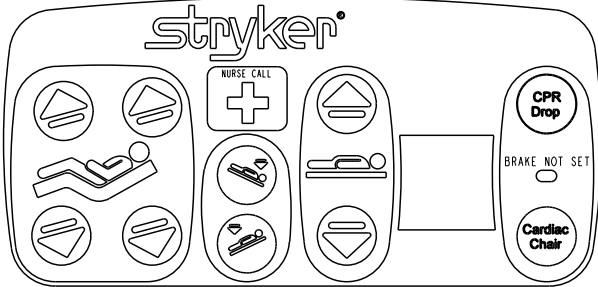
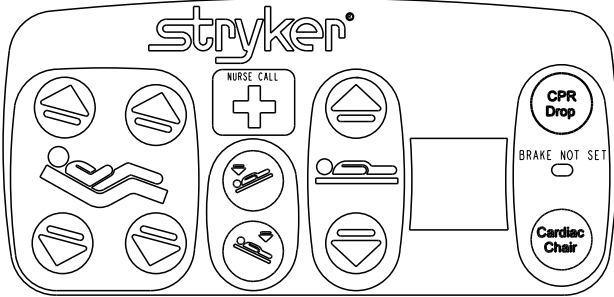
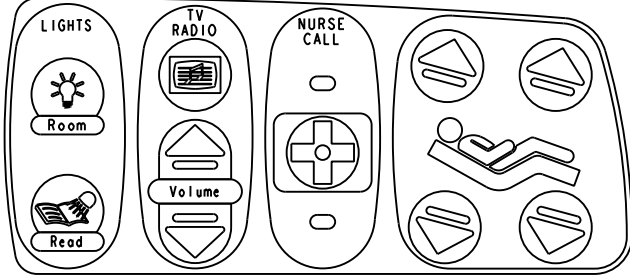
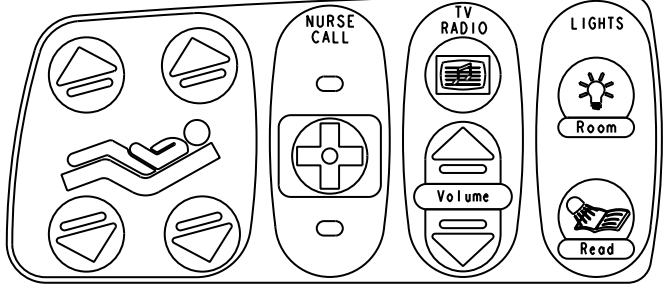
Product Labels

Label Part Number	Label
2030-000-151	<div style="border: 1px solid black; padding: 5px;"> <div style="display: flex; justify-content: space-between;"> <div style="width: 20%;"> <p>SIDERAIL CONTROL LIGHTS</p>   </div> <div style="width: 20%;"> <p>BED MOTION LOCK</p>   </div> <div style="width: 20%;"> <p>SIDERAIL CONTROL LOCKOUTS</p>     </div> <div style="width: 20%;"> <p>BED MOTION</p>    </div> </div> <div style="margin-top: 10px; text-align: center;"> <input type="radio"/> POWER <input type="radio"/> BED MOTION LOCKED <input type="radio"/> BRAKE NOT SET </div> </div>
2035-000-153	<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: auto;">  </div>
2035-000-155	<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: auto;"> <p>PATIENT POSITIONING CONTROLS</p> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; border-radius: 50%; padding: 5px; text-align: center;">CPR Drop</div> <div style="border: 1px solid black; border-radius: 50%; padding: 5px; text-align: center;">Cardiac Chair</div> </div> </div>
2040-090-100	<div style="border: 1px solid black; border-radius: 15px; padding: 10px; width: fit-content; margin: auto;">   500 LB • 227 KG </div>
3000-200-601	<div style="border: 1px solid black; border-radius: 20px; padding: 20px; width: fit-content; margin: auto;"> <h1 style="margin: 0;">BRAKE</h1> <p style="font-size: 24px; margin: 0;">PRESS TO SET OR RELEASE</p> </div>

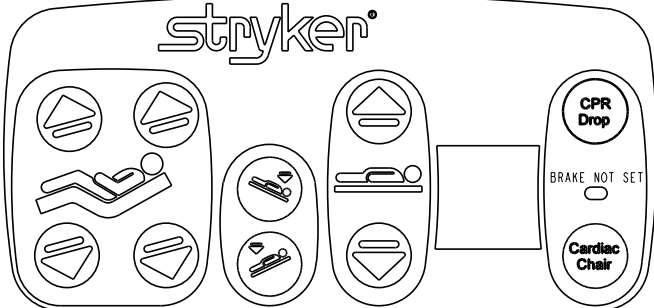
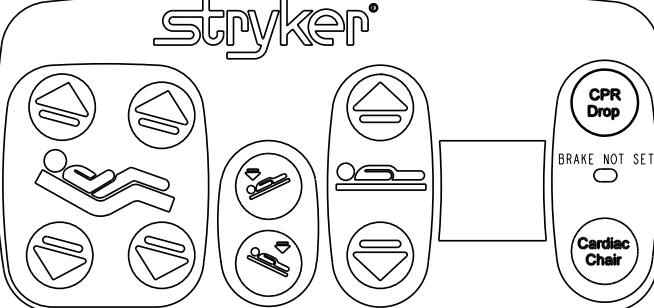
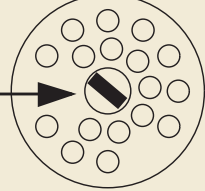
Product Labels

Label Part Number	Label
3000-300-641	<div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>CAUTION</p> <p>BED MUST BE PLUGGED INTO GROUNDED OUTLET PRIOR TO INITIAL INSTALLATION OF FOOTBOARD.</p> <p>PULL HERE TO REMOVE</p> </div>
3000-400-556	<div style="border: 1px solid black; padding: 10px;"> <p>WARNING- POWERED BED MECHANISMS CAN CAUSE SERIOUS INJURY. OPERATE BED ONLY WITH PERSONS CLEAR OF MECHANISMS.</p> <p>CAUTION- UNPLUG BED DURING SERVICE OR CLEANING. REFER TO SERVICE AND OPERATIONS MANUALS FOR ADDITIONAL PRECAUTIONS.</p> </div>
3000-500-025	<div style="border: 1px solid black; border-radius: 15px; padding: 5px; background-color: #f0f0f0;"> <p>FOR HOSPITAL STAFF USE ONLY</p> </div>
3000-500-029	<div style="border: 1px solid black; padding: 10px;"> <p>CAUTION- POSSIBLE FIRE HAZARD WHEN USED WITH OXYGEN ADMINISTERING EQUIPMENT OF OTHER THAN THE NASAL OR MASK TYPE. LOCK CONTROL AT FOOT OF BED WHEN USING OXYGEN ADMINISTERING EQUIPMENT.</p> </div>
3000-526-003	<div style="border: 1px solid black; border-radius: 15px; padding: 10px;"> <p>PULL OUT FOR CPR</p> </div>
3001-300-603	<div style="border: 1px solid black; border-radius: 15px; padding: 10px;"> <p>CPR RELEASE</p> <p>SQUEEZE HERE</p>  </div>
3003-503-901	<div style="border: 1px solid black; border-radius: 15px; padding: 10px;">  <p>PUSH</p> <p>TO RELEASE</p> <p>SIDERAIL</p> </div>

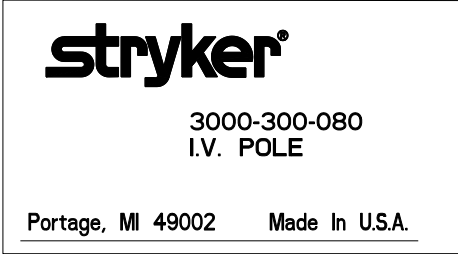
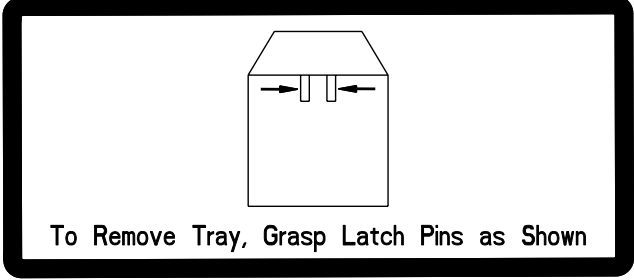


Product Labels

Label Part Number	Label
5000-090-013	 <p>OFF STEER ON</p>
2030-000-301	 <p>stryker®</p> <p>CPR Drop</p> <p>BRAKE NOT SET</p> <p>Cardiac Chair</p>
2030-000-401	 <p>stryker®</p> <p>CPR Drop</p> <p>BRAKE NOT SET</p> <p>Cardiac Chair</p>
2035-000-102	 <p>LIGHTS</p> <p>Room</p> <p>TV RADIO</p> <p>NURSE CALL</p> <p>Volume</p> <p>Read</p>
2035-000-202	 <p>NURSE CALL</p> <p>TV RADIO</p> <p>LIGHTS</p> <p>Room</p> <p>Volume</p> <p>Read</p>

Product Labels

Label Part Number	Label
2030-000-300	
2030-000-400	
5000-090-028	<p>NOTE: TO PREVENT A LOW BATTERY CONDITION: WHEN BED IS NOT PLUGGED IN, POSITION THE CORD OUT SWITCH TO THE OFF POSITION.</p> 
2035-112-110	<div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>stryker[®] Medical</p> <p>2035-112-010 Two Stage Permanent I.V. Pole</p> <hr/> <p>Portage, MI 49002 Made In U.S.A.</p> <hr/> <p>CAUTION: Not Intended For Use As A Pushing Device</p> <hr/> <p>2035-112-110 REV.B</p> </div>
2035-113-111	<div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>stryker[®] Medical</p> <p>2035-113-011 Two Stage Permanent I.V. Pole</p> <hr/> <p>Portage, MI 49002 Made In U.S.A.</p> <hr/> <p>CAUTION: Not Intended For Use As A Pushing Device</p> </div>

Product Labels

Label Part Number	Label
3000-300-089	 <p>stryker[®] 3000-300-080 I.V. POLE Portage, MI 49002 Made In U.S.A.</p>
1010-023-019	 <p>To Remove Tray, Grasp Latch Pins as Shown</p>
2035-140-025	 <p>stryker[®] 2035-140 Fowler X-Ray Cassette Holder Portage, MI 49002 Made in U.S.A.</p>
2025-150-002	 <p>stryker[®] 2025-150 02 Bottle Holder Portage, MI 49002 Made in the U.S.A.</p>

Product Labels


Label Part Number	Label
1010-050-019	<div style="border: 2px solid black; padding: 10px; width: fit-content; margin: auto;"> <p>NOT INTENDED FOR USE AS A PUSH/PULL DEVICE</p> </div>
1010-050-057	<div style="border: 2px solid black; padding: 10px; width: fit-content; margin: auto;"> <p>Maximum Weight 40 lbs.</p> </div>
2025-120-005	<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: auto;"> <p>EQUIPMENT MUST BE STRAPPED TO TRAY</p> </div>
2025-120-006	<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: auto;"> <p>stryker[®] Medical 2025-120-006 Defibrillator Tray <small>Portage, MI 49002 Made In U.S.A.</small></p> </div>
2030-140-002	<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: auto;"> <p>Warning: Do not use as a Push/Pull device. Maximum Load 45 lbs. Note: Items added and subtracted from the hanger after arming the BED EXIT or SCALE system will affect the sensitivity and accuracy of these systems.</p> </div>

Introduction

Intended Use

This manual is designed to assist you with the operation of the Model 2031 Epic II® Critical Care Bed. Read it thoroughly before using the equipment.

Specifications

	Safe Working Load	500 lbs	227 kg
	Note: Safe Working Load indicates the sum of the patient, mattress, and accessory weight.		
Bed Weight		594 lbs	269 kg
Overall Length/Width	Length	91"	231 cm
	Width	42.5"	108 cm
Minimum Bed Height		18"	46 cm
Maximum Bed Height (Standard)		30" to 31"	76.2 cm to 78.7 cm.
Maximum Bed Height (Enhanced)		32" to 33"	81.2 cm to 83.8 cm.
Fluoroscopy Access	Epic II®	17"	43.1 cm
Knee Gatch Angle		0° to 30°	
Back Angle		0° to 90°	
Trendelenburg/Reverse Trendelenburg		-12° to +12° ±2°	
Electrical Requirements		230 VAC, 50/60 Hz, 7.0 A	
Battery Voltage		(1) 9V (Alkaline Battery) - Nurse Call Option	
Noise Level		< 65 dB	
Duty Cycle		3 minutes ON / 30 minutes OFF (Continuous with Intermittent Loading)	
Mattress Specifications			
Thickness		6"	15.2 cm
Width		>= 35"	>= 88.9 cm
Length		>= 84"	>= 213.4
ILD		80 lbs	36.3 kg

The above stated mattress specifications assist in ensuring the product conforms to HBSW and IEC specifications.

Stryker reserves the right to change specifications without notice.

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

Introduction

Environmental Conditions

Environmental Conditions	Operation	Storage and Transportation
Ambient Temperature	<p>10 °C (50 °F) to 40 °C (104 °F)</p>	<p>-30 °C (-22 °F) to 60 °C (140 °F)</p>
Relative Humidity (Non-Condensing)	<p>30% to 75%</p>	<p>10% to 95%</p>
Atmospheric Pressure	<p>700 hPa to 1060 hPa</p>	<p>500 hPa to 1060 hPa</p>

Stryker reserves the right to change specifications without notice.

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

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 equipment 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

This provides special information to make maintenance easier or important instructions clearer.

Symbols



Warning/Caution, consult accompanying documentation



Alternating Current



Type B Equipment: equipment providing a particular degree of protection against electric shock, particularly regarding allowable leakage current and reliability of the protective earth connection.

Class 1 Equipment: equipment in which protection against electric shock does not rely on BASIC INSULATION only, but which includes an additional safety precaution in that means are provided for the connection of the EQUIPMENT to the protective earth conductor in the fixed wiring of the installation in such a way that ACCESSIBLE METAL PARTS cannot become live in the event of a failure of the BASIC INSULATION.

Mode of Operation: Continuous

IPX4 Protection from liquid splash



Dangerous Voltage Symbol



Protective Earth Terminal



Potential Equalization Symbol



Medical Equipment Classified by Underwriters Laboratories Inc. with Respect to Electric Shock, Fire, Mechanical and Other Specified Hazards Only in Accordance with UL 60601-1, First Edition (2003) and CAN/CSA C22.2 No. 601.1-M90 with updates 1 and 2 and IEC 60601-1 (1988) with Amendment 1 (1991) and Amendment 2 (1995), and IEC 60601-2-38 First Edition (1996) with Amendment 1 (1999).



Safe Working Load Symbol



In accordance with European Directive 2002/96/EC on Waste Electrical and Electronic Equipment, this symbol indicates that the product must not be disposed of as unsorted municipal waste, but should be collected separately. Refer to your local distributor for return and/or collection systems available in your country.

Safety Tips and Guidelines

Safety Tips and Guidelines

Before operating the Epic II® Critical Care Beds, it is important to read and understand all information in this manual. Carefully read and strictly follow the safety tips and guidelines listed in this manual.

To ensure safe operation of the bed, methods and procedures must be established for educating and training hospital staff on the intrinsic risks associated with the usage of electric beds.

WARNING

- When the bed is unplugged, secure the power cord around the head end of the bed to prevent possible fraying of the power cord due to crushing of the cable between moveable parts, which could result in the risk of electrical shock.
- The Epic II® Critical Care Bed is equipped with a hospital grade plug for protection against shock hazard. It must be plugged directly into a properly grounded three-prong receptacle. Grounding reliability can be achieved only when a hospital grade receptacle is used.
- Serious injury can result if caution is not used when operating the bed. Operate bed only when all persons are clear of the electrical and mechanical systems.
- To help reduce the number and severity of falls by patients, always leave the bed in the lowest position when the patient is unattended.
- Always apply the caster brakes when a patient is getting on or off the bed. Always keep the caster brakes applied when a patient is on the bed (except during transport). Serious injury could result if the bed moves while a patient is getting in or out of bed. After the brake pedal is applied, push on the bed to ensure the brakes are locked. When moving the bed, toggle the steer pedal to put the bed in the steer mode. This locks the swivel motion of the right foot end caster and makes the bed easier to move.
- When raising the siderails, listen for the “click” that indicates the siderail has locked in the up position. Pull firmly on the siderail to ensure it is locked into position. Siderails are not intended to be a patient restraint device. It is the responsibility of attending medical personnel to determine the degree of restraint and the siderail positioning necessary to ensure a patient will remain safely in bed.
- Ensure the brakes are completely released prior to attempting to move the bed. Attempting to move the bed with the brakes actuated could result in injury to the user and/or patient.
- Assistance is required to lower the Back if the angle of the Back is greater than 80° when the CPR emergency release is activated. Attempting to lower the Back in this position without assistance may result in injury to the operator.
- Always unplug bed during service or cleaning. When working under the bed, always place blocks under the litter frame to prevent injury in case the Bed Down switch is accidentally activated.
- Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. **Wash hands after handling.**
- The Epic II® Critical Care Bed is not intended for pediatric use or for patients under 50 pounds.
- Explosion Hazard - do not use bed in the presence of flammable anesthetics.
- To avoid entanglement, possibly resulting in frayed power cords and risk of electrical shock, wrap the bed power cord around the head board of the bed during transport.
- Service only by qualified personnel. Refer to the maintenance manual. Verify the power cord is unplugged before servicing.
- When using any mattress and/or mattress overlay that increases the overall height greater than 6" extra caution and or operator supervision is required to help reduce the likelihood of a patient fall occurring.
- Trendelenburg is not easily achievable when mains voltage has been interrupted.
- When a Patient's condition (such as disorientation due to medication or clinical condition) could lead to patient entrapment, the mattress support platform should be left in the flat position while the patient is unattended (except when required otherwise by medical staff for special or particular circumstances).

Safety Tips and Guidelines

WARNING (CONTINUED)

To avoid possible injury and to assure proper operation when using model number 2750, 2920, 2950 or 2981 mattress:

- Confirm proper scale system operation following mattress installation. For best results, secure the therapy mattress power cord to prevent damage to the cord or interference with the bed frame and the scale system.
- Do not zero bed scales or weigh patient with Percussion, Vibration, Rotation or Turn Assist active. Patient motion and position resulting from the dynamic therapy mattress may adversely affect scale system performance.
- Do not initialize (“arm”) bed exit with Percussion, Vibration, Rotation or Turn Assist active. The patient motion and position resulting from the dynamic therapy mattress may adversely affect bed exit system performance.
- When using an XPRT (2950), Position PRO (2920), Impression (2981) or Symmetric Aire (2750) mattress, extra caution and/or operator supervision is required to help reduce the likelihood of a patient fall occurring.

CAUTION

- The lockout buttons on the foot board lock the Fowler, Gatch and Bed Up/Down functions and prevent motion of the bed. It is the responsibility of attending medical personnel to determine whether these functions should be locked and to use the buttons accordingly.
- Because individual beds may have different options, foot boards should not be moved from one bed to another. Mixing foot boards could result in unpredictable bed operation.
- If large fluid spills occur in the area of the circuit boards or motors, immediately unplug the bed power cord from the wall socket. Remove the patient from the bed and clean up the fluid. Have maintenance completely check the bed. Fluids can short out controls and may cause the bed to operate erratically or make some functions completely inoperable. Component failure caused by fluids could even cause the bed to operate unpredictably and could cause injury to the patient. DO NOT put the bed back into service until it is completely dry and has been thoroughly tested for safe operation.
- Preventative maintenance should be performed at a minimum of annually to ensure all features are functioning as designed. Close attention should be given to safety features including, but not limited to:
 - Safety side latching mechanisms Caster braking systems
 - Leakage current 300 microamps max. No controls or cabling entangled in bed mechanisms
 - Frayed electrical cords and components All controls return to off or neutral position when released
- The siderails are not intended to be used as a pushing device. Damage to the siderails could occur.
- The use of a mattress overlay may reduce the effectiveness of the siderail.
- When attaching equipment to the bed, ensure it will not impede normal bed operation or patient injury could occur. For example: hooks on hanging equipment must not actuate control buttons, equipment must not hide the nurse call button, etc.
 - The weight of the IV bags should not exceed 40 pounds.
 - Do not add or remove weight when the bed exit system is armed.
 - The cleanliness and integrity of both ground chains must be maintained to minimize static build up and discharge.
 - IV Poles should not be used as a bed push/pull device.
- The safe working load of the defibrillator tray is 40 lbs.
- The safe working load of the oxygen bottle holder is 45 lbs.
- The safe working load of the pump rack holder is 45 lbs.

Setup Procedures

Setup Procedures

It is important that the Epic II® Critical Care Bed is working properly before it is put into service. The following list will help ensure that each part of the bed is checked.

- Plug the bed into a properly grounded, hospital grade wall receptacle.

WARNING

The Epic II® Critical Care Bed is equipped with a hospital grade plug for protection against shock hazard. It must be plugged directly into a properly grounded three-prong receptacle. Grounding reliability can be achieved only when a hospital grade receptacle is used.

- Depress the pedal at either side of the bed fully to set the four wheel brakes and ensure all four casters lock. Depress the pedal again to release the brakes.
- Toggle the steer pedal to put the bed in the steer mode and ensure the locking caster engages.
- Ensure the siderails raise and lower smoothly and lock in the up and intermediate positions.
- Run through each function on the foot board control panel and ensure that each is working properly (refer to the Function Lockout System Usage section).
- Ensure all functions are working properly on the siderail controls.
- Raise the Back up to approximately 60°. Squeeze the CPR release handle and ensure the Back and Knee will drop with minimal effort.
- If the bed is equipped with the Nurse Call option, verify it is functioning properly prior to patient use.

Base Operation Guide

Brake Pedal Operation

WARNING

Always apply the caster brakes when a patient is getting on or off the bed. Push on the bed to ensure the brakes are securely locked. Always engage the brakes unless the bed is being moved. Injury could result if the bed moves while a patient is getting on or off the bed.

Ensure the brakes are completely released prior to attempting to move the bed. Attempting to move the bed with the brakes actuated could result in injury to the user and/or patient.

To activate the brakes, push down once on one of the pedals located at the midpoint of the bed on both sides (identified by the label at right). The pedal will remain in the lowered position, indicating the brakes are engaged. To disengage the brakes, push down once and the pedal will return to the upper position.

NOTE

There are LED lights on the outside of the head end siderails that will blink when the brakes are not engaged only if the bed is plugged into a wall socket. The brakes will still operate properly when the bed is not plugged in.



Steer Pedal Operation

The purpose of the steer caster is to help guide the bed along a straight line and to help with pivoting at corners when the bed is moved.

To activate the steer caster, move the pedal located at the head end of the bed to your left as shown on the label.

NOTE

For proper "tracking" of the steer caster, push the bed approximately 10 feet to allow the wheels to face the direction of travel before engaging the steer pedal. If this is not done, proper "tracking" will not occur and the bed will be difficult to steer.



WARNING

To avoid entanglement, possibly resulting in frayed power cords and risk of electrical shock, wrap the bed power cord around the head board of the bed during transport.

Litter Operation Guide

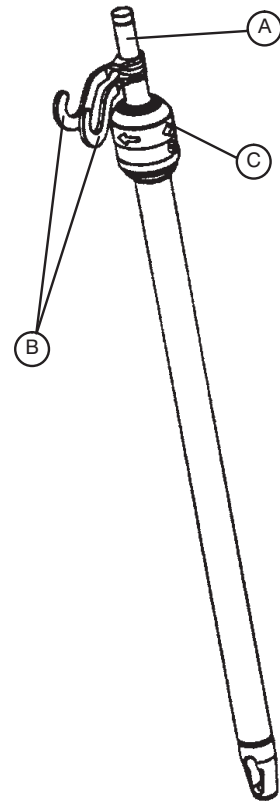
Operating I.V. Poles

To use the 2-Stage Permanently Attached I.V. pole:

Note

The 2-stage permanently attached I.V. pole is an option and may have been installed at either the head, foot or both ends. The choice was made at the time the unit was purchased.

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



Caution

The weight of the I.V. bags should not exceed 40 pounds.

CPR Emergency Release Usage

If the Back and/or Knee is raised and quick access to the patient is needed, squeeze one of the two red emergency release handles, located under the litter top at the head section on either side of the bed, and the Back and Knee will lower to a flat position. The handle can be released at any time to stop the Back from lowering.

WARNING

Assistance is required to lower the Back if the angle of the Back is greater than 80° when the CPR emergency release is activated. Attempting to lower the Back in this position without assistance may result in injury to the operator

CPR Board Usage

The CPR board is stored on the bed's head board. To remove it, pull it away from the head board and lift it out of the storage position. The head board can also be removed and used as an emergency CPR board.

Foley Bag Hooks Usage

The standard Foley bag hooks are found at two locations on both sides of the bed, under the frame rail below the seat section and at the extreme foot end of the bed. The patient weight reading on the bed scale system will not be affected when the Foley bag hooks are used.

Siderail Operation Guide

Positioning Siderails

NOTE

The head end siderails can be locked at two positions (intermediate & full). The foot end siderails lock in the full up position only.

- The siderails can slide to the side of the bed when not in use. To remove the rail from the tucked position, grasp the top of the rail and pull outward.
- To engage the head end siderail, grasp the rail and swing it upward to full height. When the siderail is being raised, it does not lock in the intermediate position. To lower the siderail, push in the yellow release handle and rotate the siderail until it locks in the intermediate position. To lower the siderail fully, push in the yellow release handle again and rotate the siderail until it is completely lowered.

NOTE

To activate the siderail bypass mechanism, the rail must be fully lowered. If the rail is not completely lowered, the siderail will lock in the intermediate position when it is raised. There is no intermediate level and thus no bypass function on the foot end siderails.

- To engage the foot end siderail, the same procedure is required as for the head end siderail, however, the siderail swings toward the foot end of the bed.

WARNING

When raising the siderails, listen for the “click” that indicates the siderail has locked in the up position. Pull firmly on the siderail to ensure it is locked into position. Siderails are not intended to be a patient restraint device. It is the responsibility of attending medical personnel to determine the degree of restraint and the siderail positioning necessary to ensure a patient will remain safely in bed.

CAUTION

- The siderails are not intended to be used as a pushing device. Damage to the siderails could occur.
- The use of a mattress overlay may reduce the effectiveness of the siderail.

Siderail Control Panel Lights

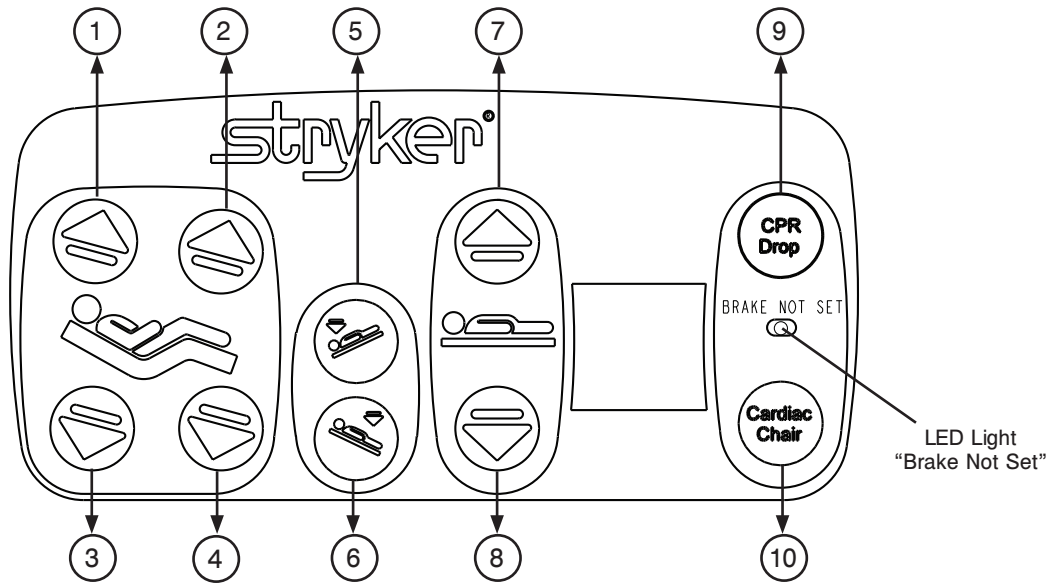
- The head end siderails are equipped with lights to illuminate the siderail control buttons and the nurse call switch. The lights are activated at the foot board control panel.
- There are three settings for the intensity of the siderail control lights: low, medium and high. When all the siderail lights are off, push the siderail control light button on the foot board once to turn on both the control lights and the nurse call indicator light. Push the button again to change the siderail control lights from low to medium setting, and again to change to the high setting. (The intensity of the nurse call indicator light does not change.)
- When all the siderail lights are on, pushing the button once will turn off only the siderail control lights and pushing it again will turn off the nurse call indicator light (see control panel guide [page 23](#)).

CAUTION

The nurse call indicator light on the siderails helps ensure the patient understands where the button is for contacting the nurse station. Turning this light off will compromise this ability, especially in a darkened room.

Siderail Operation Guide

Outside Standard Siderail



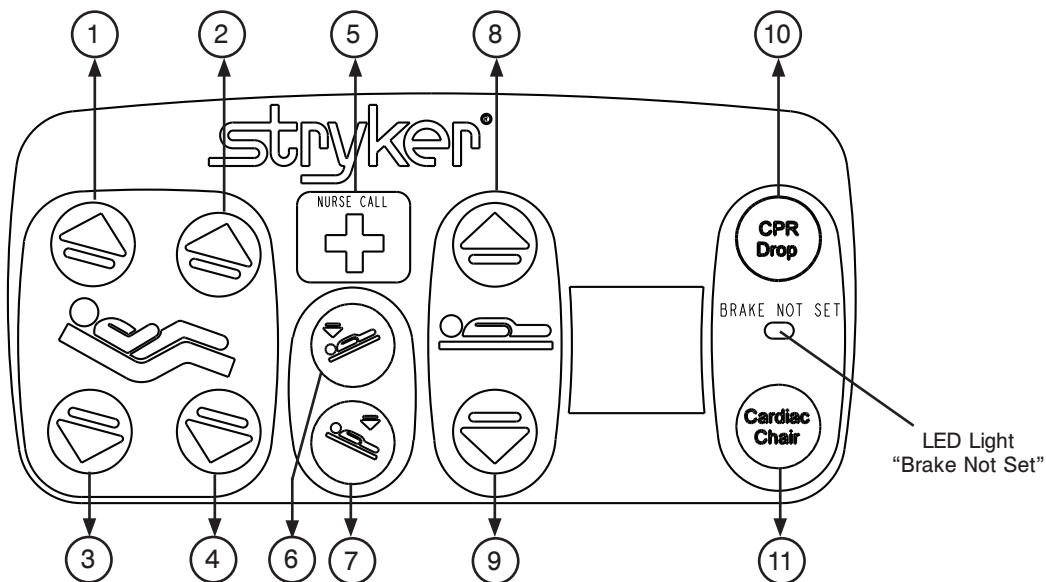
1. Press to raise back section.
2. Press to raise knee section.
3. Press to lower back section.
4. Press to lower knee section.
5. Press to lower the head end of the bed (Trendelenburg).
6. Press to lower the foot end of the bed (Reverse Trendelenburg).
7. Press to raise the litter. If your bed is equipped with the enhanced height option, continue to hold the button an additional 5 seconds after the first stop. The litter will raise an additional 2 inches.
8. Press to lower the litter.
9. Press to activate emergency CPR positioning.
10. Press to activate Cardiac Chair positioning.

CAUTION

When attaching equipment to the bed, ensure it will not impede normal bed operation or patient injury could occur. For example: hooks on hanging equipment must not actuate control buttons, equipment must not hide the nurse call button, etc.

Siderail Operation Guide

Outside Siderail with Optional Nurse Call



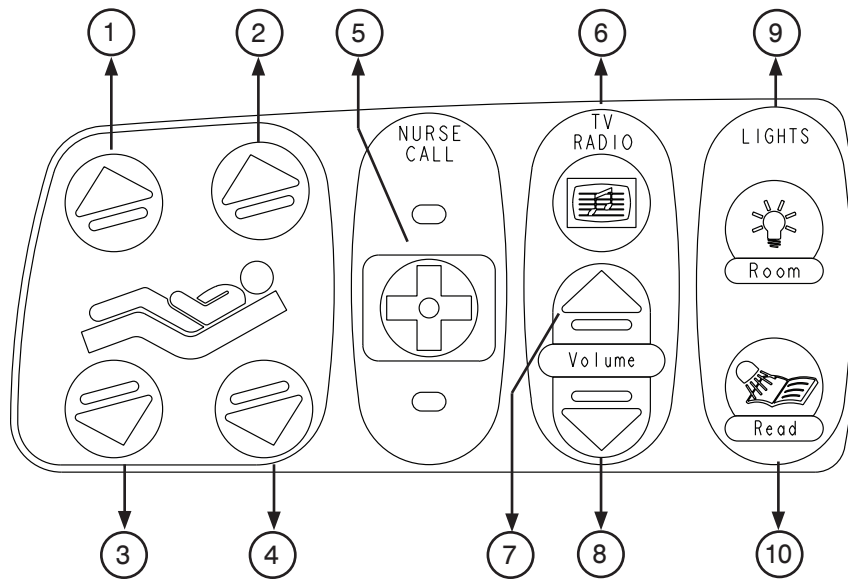
1. Press to raise back section.
2. Press to raise knee section.
3. Press to lower back section.
4. Press to lower knee section.
5. Press to activate the nurse call.
6. Press to lower the head end of the bed (Trendelenburg).
7. Press to lower the foot end of the bed (Reverse Trendelenburg).
8. Press to raise the litter. If your bed is equipped with the enhanced height option, continue to hold the button an additional 5 seconds after the first stop. The litter will raise an additional 2 inches.
9. Press to lower the litter.
10. Press to activate emergency CPR positioning.
11. Press to activate Cardiac Chair positioning.

CAUTION

When attaching equipment to the bed, ensure it will not impede normal bed operation. For example: hooks on hanging equipment must not actuate control buttons, equipment must not hide the nurse call button, etc.

Siderail Operation Guide

Inside Siderail with Optional Nurse Call and Communications



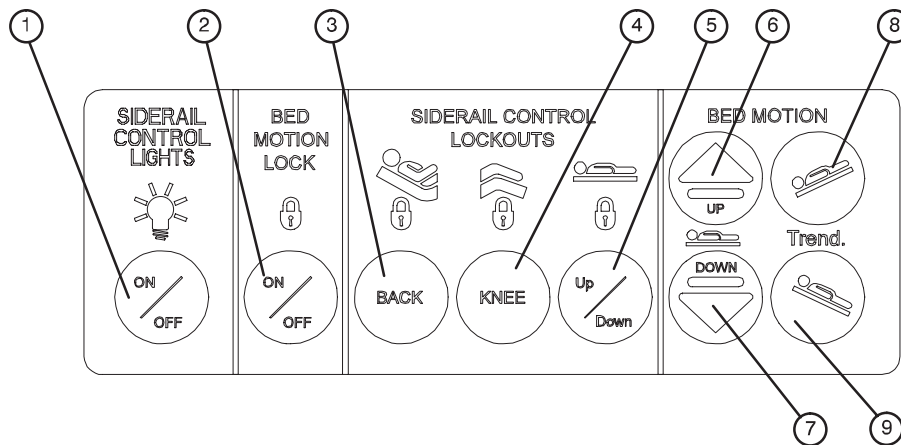
1. Press to raise knee section.
2. Press to raise back section.
3. Press to lower knee section.
4. Press to lower back section.
5. Press to activate the nurse call.
6. Press to turn the TV/Radio on. Press again to turn off the TV/Radio.
7. Press to increase the TV or radio volume.
8. Press to decrease the TV or radio volume.
9. Press to turn on the room lights. Press again to turn off.
10. Press to turn on the reading light. Press again to turn off.

CAUTION

When attaching equipment to the bed, ensure it will not impede normal bed operation. For example: hooks on hanging equipment must not actuate control buttons, equipment must not hide the nurse call button, etc.

Foot Board Operation Guide

Foot Board Control Panel Guide



1. Press repeatedly for low, medium and high settings for the siderail control lights. Continue to press this switch to turn off the siderail control lights and the nurse call indicator light ([see page 21](#)).
2. Press to lock out all bed motion controls on the siderails. Press again to unlock.
3. Press to lock out Back motion control on the siderails. Press again to unlock.
4. Press to lock out Knee motion control on the siderails. Press again to unlock.
5. Press to lock out bed up/down motion controls on the siderails. Press again to unlock.
6. Press to raise the bed height. If your bed is equipped with the enhanced height option, continue to hold the button an additional 5 seconds after the first stop. The litter will raise an additional 2 inches.
7. Press to lower bed.
8. Press to lower head end of bed (Trendelenburg).
9. Press to lower foot end of bed (Reverse Trendelenburg).

CAUTION

When attaching equipment to the bed, ensure it will not impede normal bed operation or patient injury could occur. For example: hooks on hanging equipment must not actuate control buttons, equipment must not hide the nurse call button, etc.

Because individual beds may have different options, foot boards should not be moved from one bed to another. Mixing foot boards could result in unpredictable bed operation.

Foot Board Operation Guide

Foot Board Control Panel Guide (Continued)

LED Display Panel Guide



The LED Display Panel is located at the foot end of the bed, below the Control Panel.

- **"POWER"** - will light when the bed is plugged into the wall receptacle or the battery power switch is on. Will blink if the 9V Nurse Call battery needs to be replaced.
- **"BED MOTION LOCKED"** - will light when the Bed Motion Lock has been activated.

Function Lockout System Usage

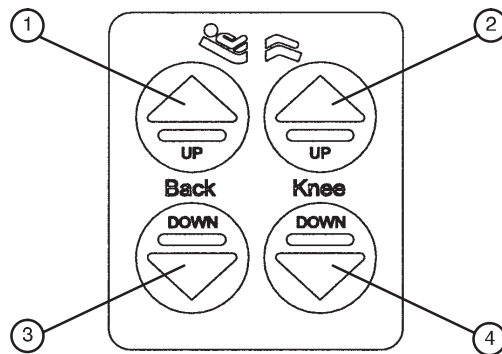
1. To lock out all bed motion switches on the bed, press the "ON/OFF" switch in the "Siderail Control Lockouts" module. The "padlock" symbol on the control panel will be lighted when that function is locked out.
2. To lock out the bed movement functions on the siderails and prevent the patient from changing the positioning of the bed, press the "BACK" or "KNEE" switch in the "Siderail Control Lockouts" module. The "padlock" symbol on the control panel will be lighted when that function is locked out.
3. To lock out the bed up/down motion on the siderails, press the Up/Down switch in the "Siderail Control Lockouts" module. The "padlock" symbol on the control panel will be lighted when that function is locked out.

CAUTION

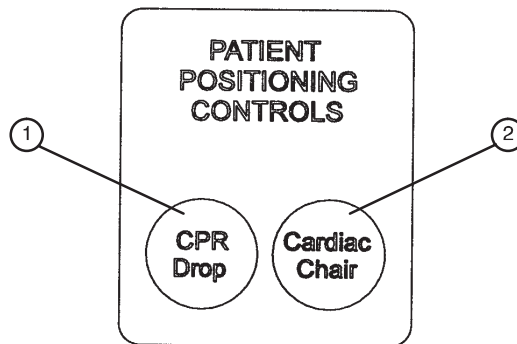
The lockout buttons on the foot board lock the Fowler, Gatch and Bed Up/Down functions and prevent motion of the bed. It is the responsibility of attending medical personnel to determine whether these functions should be locked and to use the buttons accordingly.

Foot Board Operation Guide

Foot Board Control Panel Guide (Continued)



1. Press to raise back section.
2. Press to raise knee section.
3. Press to lower back section.
4. Press to lower knee section.



1. Press to activate the emergency CPR drop function. The bed will level from Trendelenburg/reverse Trendelenburg, the Fowler will lower to flat, the Knee will lower to flat and the litter will lower to full down.
2. Press to activate the Cardiac Chair function. The Knee will raise, the Fowler will raise or lower to approximately 52° and the bed will tilt to approximately -12° reverse Trendelenburg (foot end down) or -14° if the bed has the enhanced height option. Release the button to stop bed movement: hold the button until movement stops to complete the function.

Notes

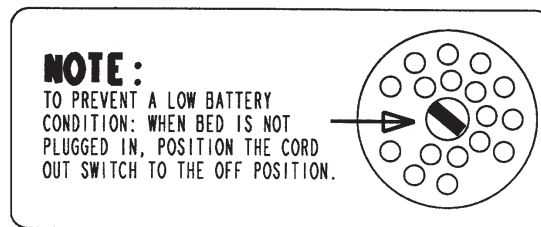
Preventative Maintenance

WARNING

Service only by qualified personnel. Refer to the maintenance manual. Verify the power cord is unplugged before servicing.

Nurse Call Battery

- To prevent a low battery condition when the bed is not plugged in, position the cord out switch at the head end of the bed to the off position. The switch is identified by the label shown below. If the switch is not positioned as shown below and the bed power cord and pendant cord are unplugged, the life of the back-up battery will be significantly reduced.
- If the power light (located on the foot board) is flashing, the Nurse Call battery needs to be replaced. The battery is located on the patient's left side at the head end of the bed. No tools are required to replace the battery. Unplug the bed power cord from the wall socket and replace the battery. Properly dispose of the old battery in accordance with local regulations.



Main Bed Power Circuit Breaker

In the event of a loss of bed functions, unplug the bed power cord from the wall socket and reset the circuit breaker(s) located under the bed on the patient's left side. Plug the bed into a properly grounded wall receptacle and follow the setup procedures listed on [page 16](#).

Preventative Maintenance

Beds require an effective maintenance program, we recommend checking these items annually. Use this sheet for your records. Keep on file.

Checklist

- _____ All fasteners secure.
- _____ Engage brake pedal and push on the frame to ensure all casters lock securely.
- _____ Inspect the brake assembly (Brake Cam, Brake Plate Body, Brake Ratchet Spring and Brake Bar) for degradation or signs of wear at the foot end and head end of the bed. Ensure brake assembly components are functioning properly.
- _____ Locking steer caster engages and disengages properly - optional equipment.
- _____ Siderails move, latch and stow properly.
- _____ All functions on siderails working properly (including LED's).
- _____ Manual CPR release working properly.
- _____ Optional foot prop intact and working properly.
- _____ I.V. pole working properly.
- _____ Foley bag hooks intact.
- _____ Chart rack intact and working properly.
- _____ CPR board not cracked or damaged and stores properly.
- _____ No cracks or splits in head and foot boards.
- _____ All functions on footboard working properly (including LED's).
- _____ No rips or cracks in mattress cover.
- _____ Power cord and plug not frayed or damaged.
- _____ No cables worn or pinched.
- _____ All electrical connections tight.
- _____ All grounds secure to the frame.
- _____ Ground impedance not more than 100 milliohms.
- _____ Current leakage not more than 300 microamps.
- _____ Apply grease to the bed grease points including the fowler clutch and brake cam.
- _____ Ensure ground chains are clean, intact, and have at least two links touching the floor.
- _____ Optional accessories intact and working properly.
- _____ Fowler functioning properly.
- _____ Motion interrupt switches working properly.
- _____ Check all motion functionality.
- _____ Check nurse call functionality.
- _____ Check Nurse Call battery - optional equipment.
- _____ Check labels, as specified in the Operations and manuals to ensure legibility, proper adherence and integrity.

Bed Serial Number:		

Completed by: _____ Date: _____

Cleaning

Hand wash all surfaces of the bed with warm water and mild detergent. DRY THOROUGHLY. Do not steam clean or hose off the Epic II Bed. Do not immerse any part of the bed. Some of the internal parts of the bed are electric and may be damaged by exposure to water.

Suggested cleaners for bed surfaces:

Quaternary Cleaners (active ingredient – ammonium chloride) (excluding Virex® TB)

Phenolic Cleaners (active ingredient – o-phenylphenol)

Chlorinated Bleach Solution (5.25% – less than 1 part bleach to 100 parts water)

Avoid over saturation and ensure the product does not stay wet longer than the chemical manufacturer's guidelines for proper disinfecting.

 **CAUTION**

SOME CLEANING PRODUCTS ARE CORROSIVE IN NATURE AND MAY CAUSE DAMAGE TO THE PRODUCT IF USED IMPROPERLY. If the products described above are used to clean Stryker patient care equipment, measures must be taken to insure the beds are wiped with a damp cloth soaked in clean water and thoroughly dried following cleaning. Failure to properly rinse and dry the beds will leave a corrosive residue on the surface of the bed, possibly causing premature corrosion of critical components. Failure to follow the above directions when using these types of cleaners may void this product's warranty.

For mattress cleaning instructions, please see the tag on the mattress, or contact the mattress manufacturer.

Clean Velcro® AFTER EACH USE. Saturate Velcro® with disinfectant and allow disinfectant to evaporate. (Appropriate disinfectant for nylon Velcro® should be determined by the hospital.)

Virex® TB is not an approved cleaning agent for this product. Do not use for bed cleaning.

Warranty

Limited Warranty

Stryker Medical Division, a division of Stryker Corporation, warrants to the original purchaser the 2031 Epic II® Critical Care Bed to be free from defects in material and workmanship for a period of One (1) years after date of delivery. Stryker's obligation under this warranty is expressly limited to supplying replacement parts and labor for, or replacing, at its option, any product which is, in the sole discretion of Stryker, found to be defective. If requested by Stryker, products or parts for which a warranty claim is made shall be returned prepaid to the factory. Any improper use or any alteration or repair by others in such manner as in Stryker's judgment affects the product materially and adversely shall void this warranty. Any repair of Stryker products using parts not provided or authorized by Stryker shall void this warranty. No employee or representative of Stryker is authorized to change this warranty in any way.

Stryker Medical Bed products are designed for a 15 year expected service life under normal use, conditions, and with appropriate periodic maintenance as described in the maintenance manual for each device. Stryker warrants to the original purchaser that the welds on its Bed products will be free from structural defects for the expected 15 year life of the Bed product as long as the original purchaser owns the product.

This statement constitutes Stryker's entire warranty with respect to the aforesaid equipment. **Stryker makes no other warranty or representation, either expressed or implied, except as set forth herein. There is no warranty of merchantability and there are no warranties of fitness for any particular purpose. In no event shall Stryker be liable here under for incidental or consequential damages arising from or in any manner related to sales or use of any such equipment.**

To Obtain Parts and Service

Stryker products are supported by a nationwide network of dedicated Stryker Field Service Representatives. These representatives are factory trained, available locally, and carry a substantial spare parts inventory to minimize repair time. Simply call your local representative, or call Stryker Customer Service USA at 1-800-327-0770, Canada 1-888-233-6888.

Return Authorization

Merchandise cannot be returned without approval from the Stryker Customer Service Department. An authorization number will be provided which must be printed on the returned merchandise. Stryker reserves the right to charge shipping and restocking fees on returned items. **Special, modified, or discontinued, items not subject to return.**

Damaged Merchandise

ICC Regulations require that claims for damaged merchandise must be made with the carrier within fifteen (15) days of receipt of merchandise. **Do not accept damaged shipments unless such damage is noted on the delivery receipt at the time of receipt.** Upon prompt notification, Stryker will file a freight claim with the appropriate carrier for damages incurred. Claim will be limited in amount to the actual replacement cost. In the event that this information is not received by Stryker within the fifteen (15) day period following the delivery of the merchandise, or the damage was not noted on the delivery receipt at the time of receipt, the customer will be responsible for payment of the original invoice in full. Claims for any short shipment must be made within thirty (30) days of invoice.

International Warranty Clause

This warranty reflects U.S. domestic policy. Warranty outside the U.S. may vary by country. Please contact your local Stryker Medical representative for additional information.

EMC Information

EPIC II CRITICAL CARE BED

Guidance and Manufacturer's Declaration - Electromagnetic Immunity			
The Epic II Critical Care Bed is suitable for use in the electromagnetic environment specified below. The customer or the user of the Epic II Critical Care Bed should assure that it is used in such an environment.			
Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment Guidance
Electrostatic Discharge (ESD) IEC 61000-4-2	+6 kV contact +8 kV air	+6 kV contact +8 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 IEC61000-4-4	+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	+8 kV differential mode +2 kV common mode	+8 kV differential mode +2 kV common mode	Main power quality is that of a typical commercial and/or hospital environment.
Voltage dips, voltage variations and short interruptions on power supply input lines IEC 61000-4-11	<5%Ut (95% dip in Ut) for 0,5 cycle 40%Ut (60% dip in Ut) for 5 cycles 70%Ut (30% dip in Ut) for 25 cycles. <5% Ut (>95% dip in Ut) for 5 sec.	<5%Ut (95% dip in Ut) for 0,5 cycle 40%Ut (60% dip in Ut) for 5 cycles 70%Ut (30% dip in Ut) for 25 cycles. <5% Ut (>95% dip in Ut) for 5 sec.	Main power quality should be that of a typical commercial and/or hospital environment. If the user of the Epic II Critical Care 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	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial and/or hospital environment.
Note: U_T is the a.c. mains voltage prior to applications of the test level.			


EMC Information

EPIC II CRITICAL CARE BED (CONTINUED)

Recommended separation distances between portable and mobile RF communications equipment and the Epic II Critical Care Bed.			
The Epic II Critical Care Bed is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the Epic II Critical Care Bed can help prevent electromagnetic interferences by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the Epic II Critical Care Bed as recommended below, according to the maximum output power of the communications equipment.			
Rated maximum output power of transmitter W	Separation distance according to frequency of transmitter		
	m		
	150 kHz to 80 MHz $d=1,2 \sqrt{P}$	80 MHz to 800 MHz $d=1,2 \sqrt{P}$	800 MHz to 2,5 GHz $d=2,3 \sqrt{P}$
0,01	0,12	0,12	0,23
0,1	0,38	0,38	0,73
1	1,2	1,2	2,3
10	3,8	3,8	7,3
100	12	12	23
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 1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.			
Note 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			

EMC Information

EPIC II CRITICAL CARE BED (CONTINUED)

The Epic II Critical Care Bed is suited for use in the electromagnetic environment specified below. The customer or the user of the Epic II Critical Care Bed should assure that it is used in such an environment.			
Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment - Guidance
<p style="text-align: center;">Conducted RF IEC 61000-4-6</p> <p style="text-align: center;">Radiated RF IEC 61000-4-3</p>	<p style="text-align: center;">3 Vrms 150 kHz to 80 MHz</p> <p style="text-align: center;">3 V/m 80 MHz to 2,5 GHz</p>	<p style="text-align: center;">3 Vrms</p> <p style="text-align: center;">3 V/m</p>	<p>Portable and mobile RF communications equipment should be used no closer to any part of the Epic II Critical Care Bed, including cables, than the recommended separation distance calculated from the equation appropriate for the frequency of the transmitter.</p> <p style="text-align: center;">Recommended Separation Distance</p> <p style="text-align: center;">$d=1,2 \sqrt{P}$</p> <p style="text-align: center;">$d=1,2 \sqrt{P}$ 80 MHz to 800 MHz</p> <p style="text-align: center;">$d=2,3 \sqrt{P}$ 800 MHz to 2,5 GHz</p> <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 metres (m).</p> <p>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</p> <p>Interference may occur in the vicinity of equipment marked with the following symbol:</p> <div style="text-align: center;">  </div>
<p>Note 1 At 80 MHz and 800 MHz, the higher frequency range applies.</p> <p>Note 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.</p>			
<p>^aField 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 Epic II Critical Care Bed is used exceeds the applicable RF compliance level above, the Epic II Critical Care Bed should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the Epic II Critical Care Bed.</p> <p>^bOver the frequency range 150 kHz to 80 MHz, field strengths are less than 3 V/m.</p>			

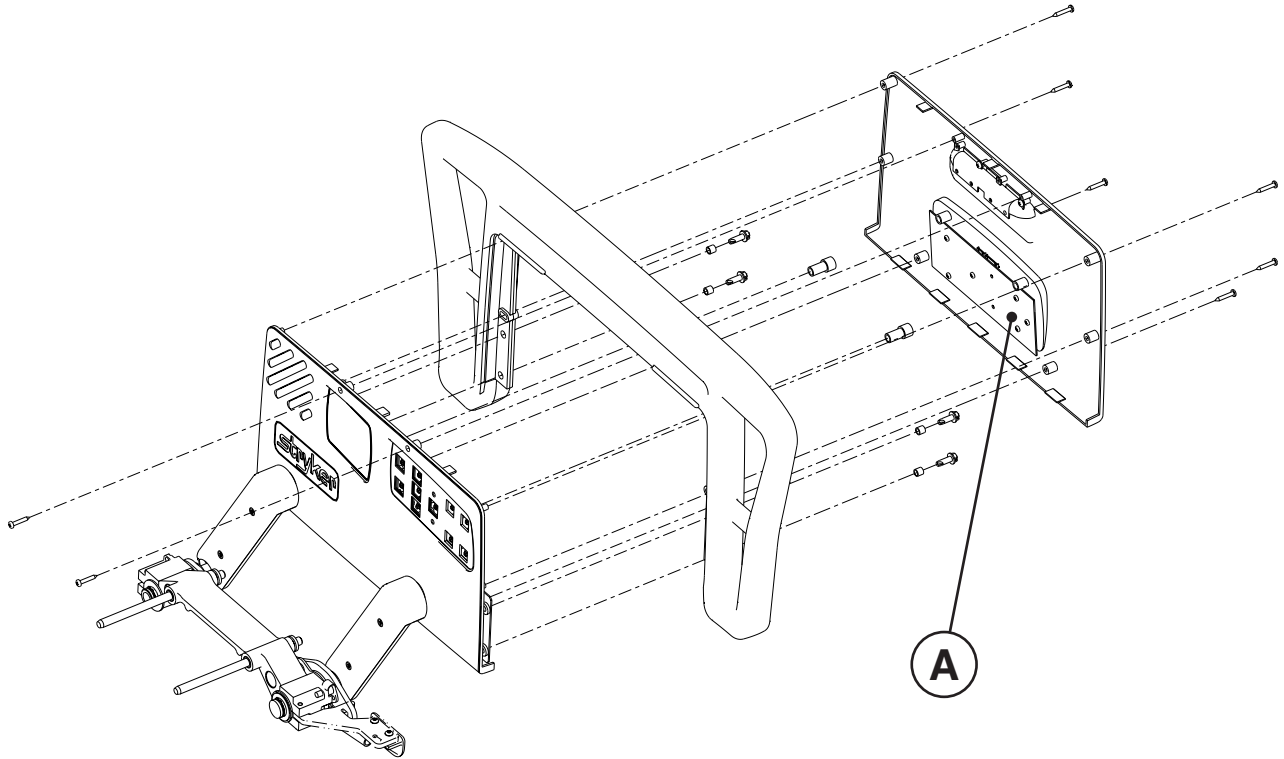
EMC Information

EPIC II CRITICAL CARE BED (CONTINUED)

Guidance and Manufacturer's declaration - Electromagnetic Emissions		
The Epic II Critical Care Bed is intended for use in an electromagnetic environment specified below. The customer or the user of the Epic II Critical Care Bed should assure that it is used in such an environment.		
Emissions Test	Compliance	Electromagnetic Environment
RF Emissions CISPR 11	Group 1	The Epic II Critical Care Bed uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF Emissions CISPR 11	Class A	The Epic II Critical Care Bed is suitable for use in all establishments other than domestic and those directly connected to the public low voltage power supply network that supplies buildings used for domestic purposes.
Harmonic Emissions IEC 61000-3-2	Class A	
Voltage Fluctuations Flicker Emissions IEC 61000-3-3	Complies	

Recycling Passport

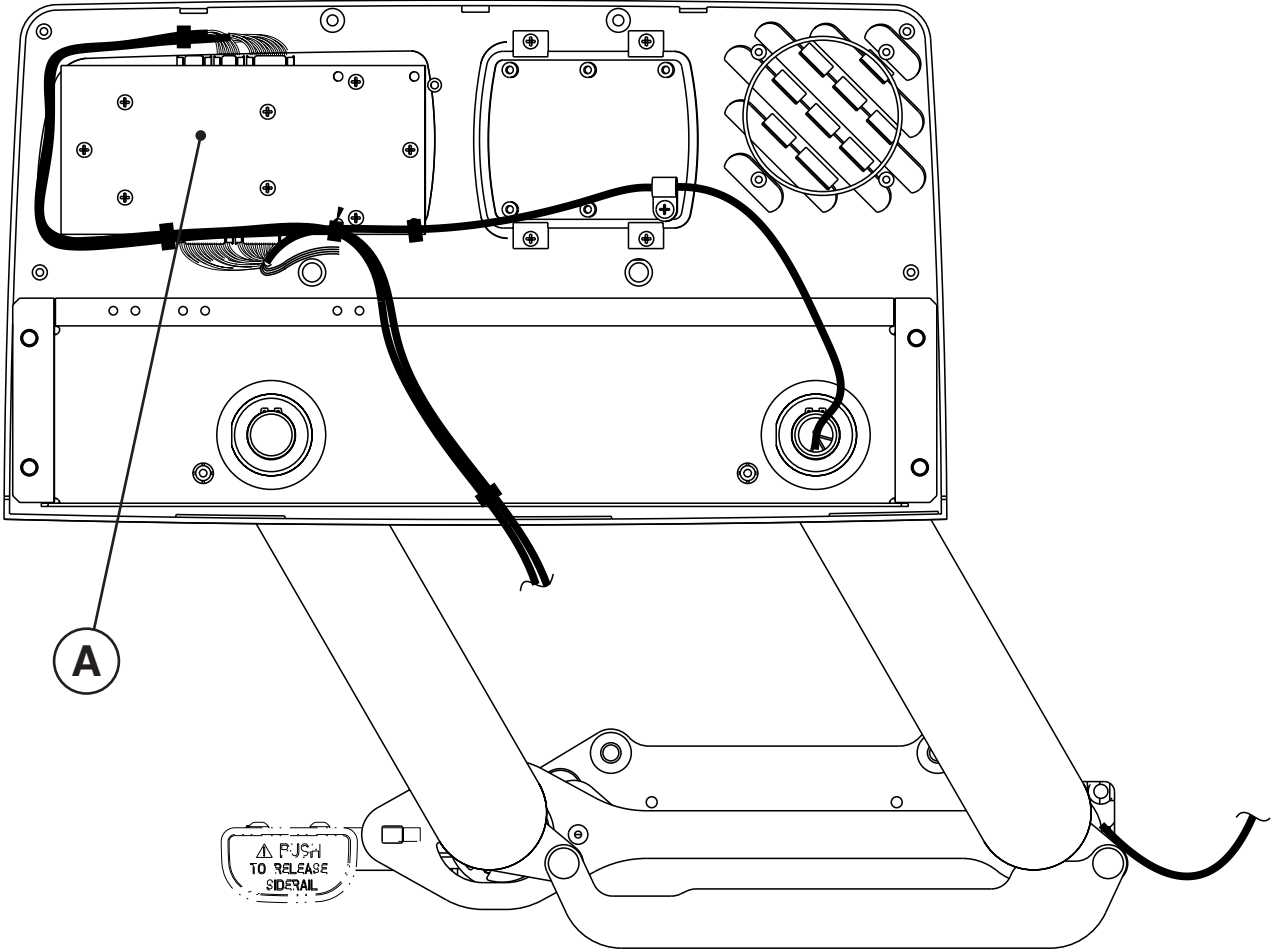
2031-400-105 / 2031-400-205



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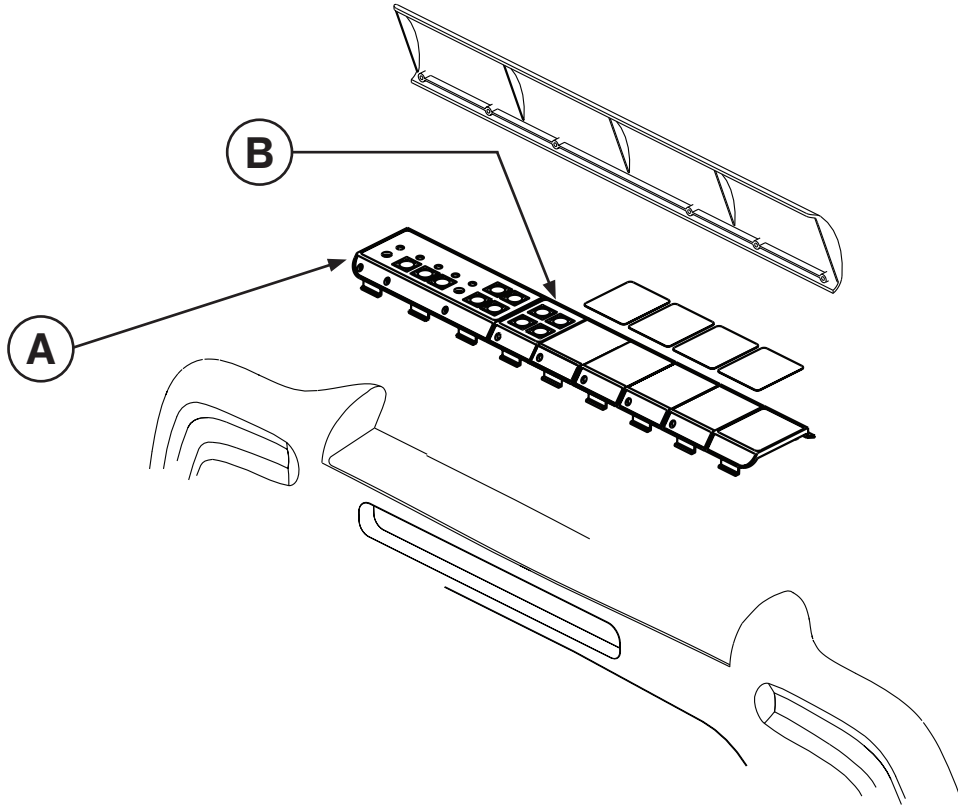
2031-400-105 & 2031-400-205



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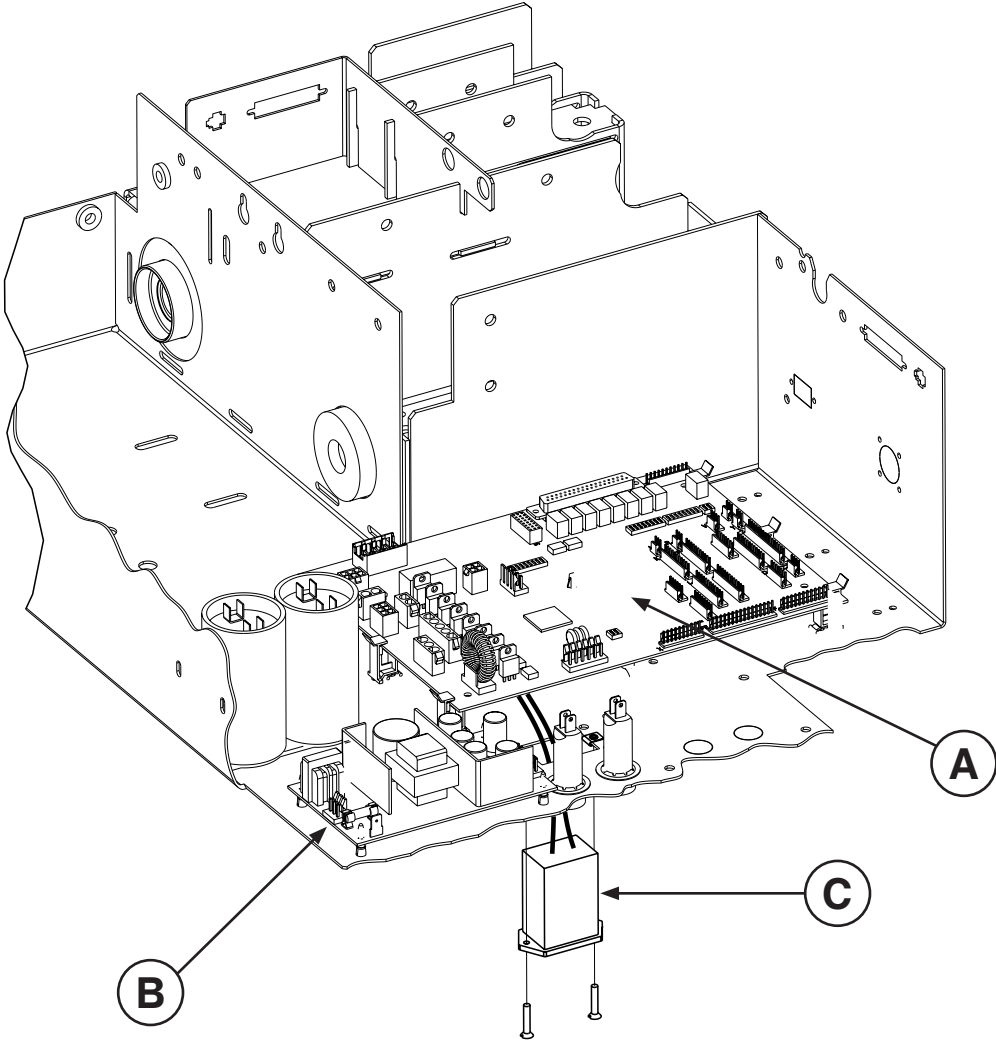
2032-135-010



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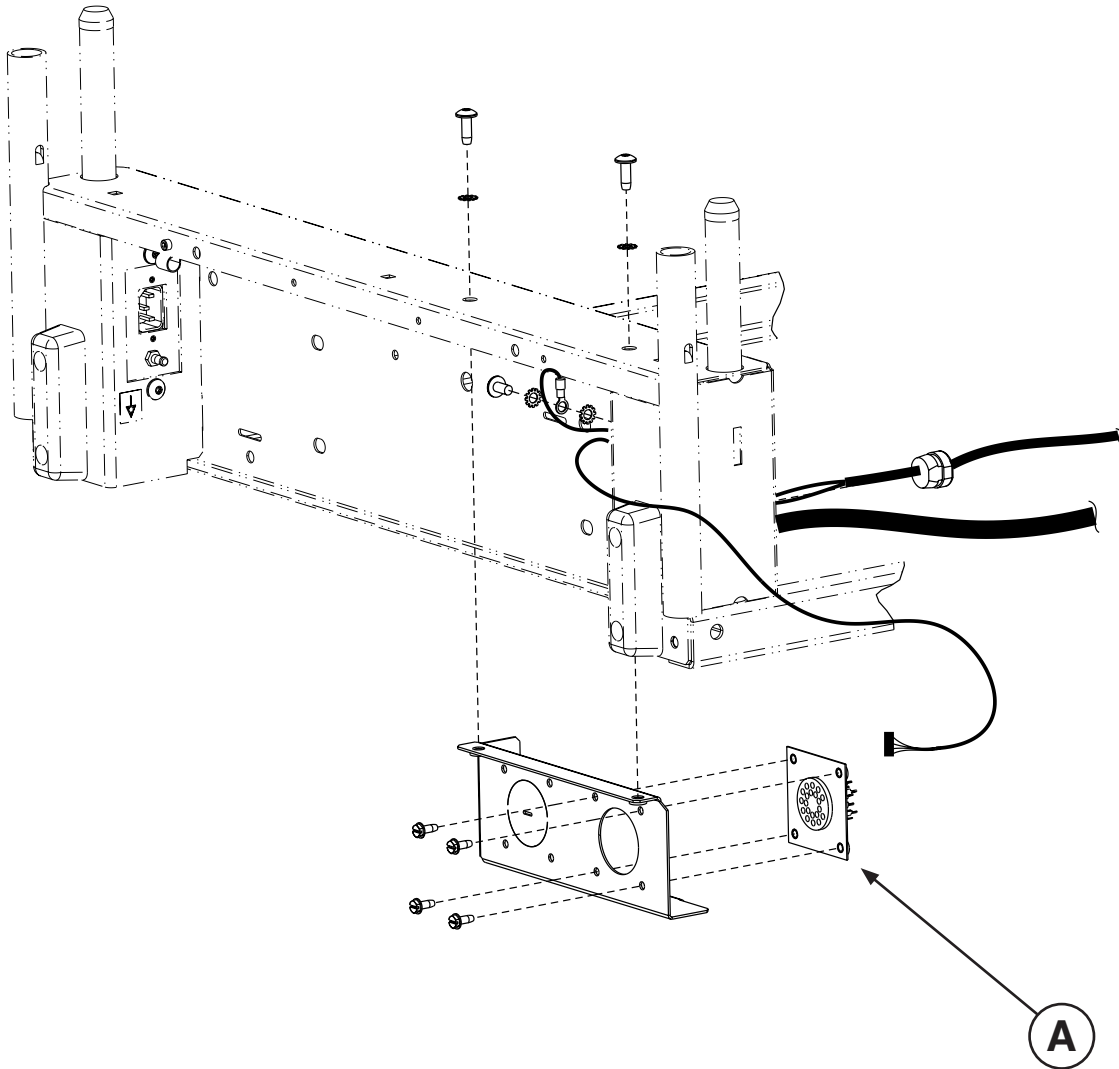
2031-030-201 / 2031-030-205



A	3002-407-950	1
B	0059-157-000	1
C	3000-303-871	1

Recycling Passport

2031-030-204



A	3001-314-920	1
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