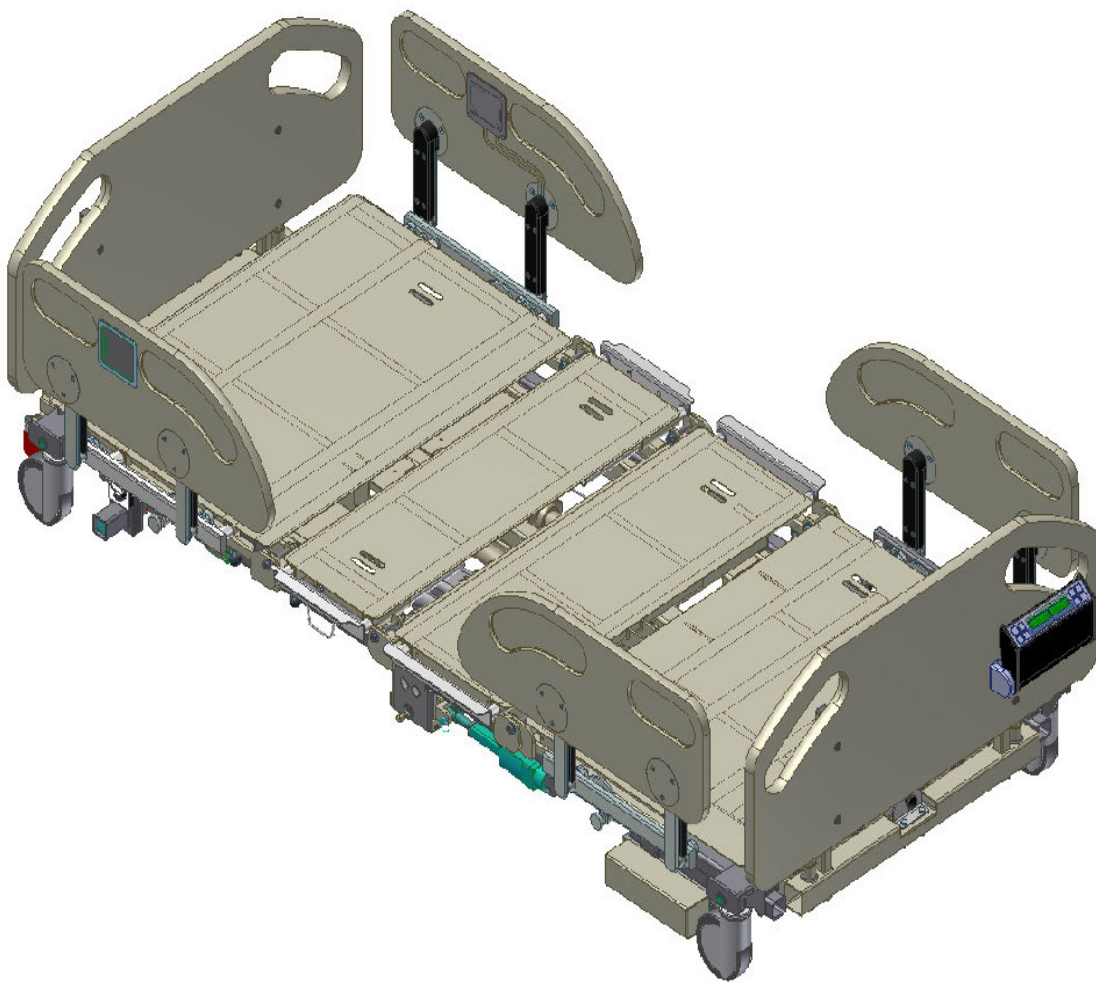

USER MANUAL

Sentinel II Bariatric Expandable Low Bed

Model 3875



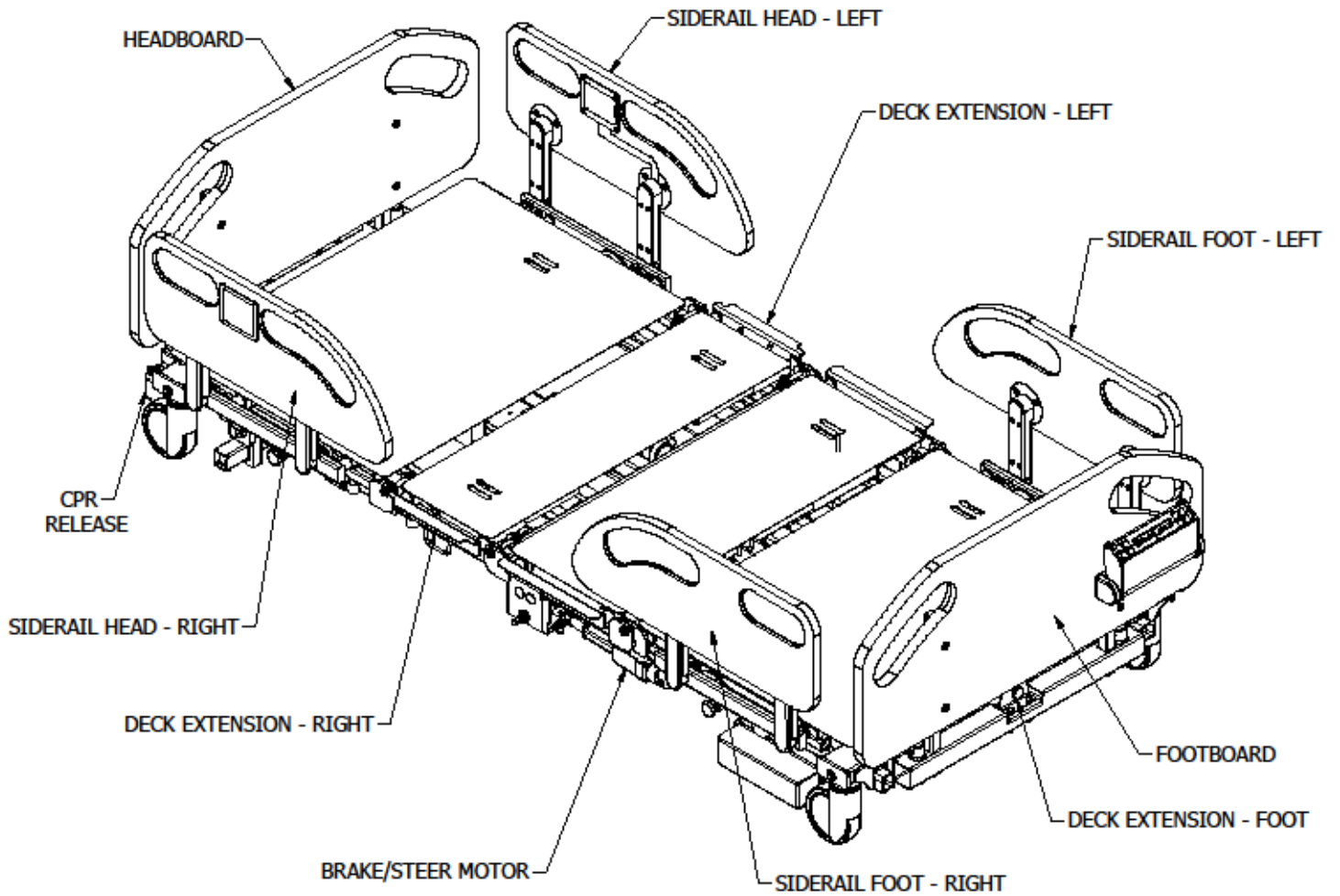
Gendron Inc.
520 W. Mulberry Street –Suite 100
Bryan, Ohio 43506
www.gendroninc.com

GENDRON ™

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Parts Locator
















Safety Notes



Failure to observe these safety precautions may result in personal injury or mechanical failure. Read all instructions carefully before using the bed.

-  Watch for pinch points. Keep clear of any mechanism in motion.
-  When a patient is left unattended or while transporting a patient it is recommended that the siderails are raised.
-  When raising the siderails make sure it is completely raised and locked. Gently pull on the siderail to verify that it is latched in position.
-  Ensure that all deck extensions are adjusted to the same width. Equipment damage may occur during deck articulation.
-  Gently push/pull on the extensions to verify that they are locked in position.
-  Always set the brakes when the bed is occupied unless transporting the patient.
-  Before transporting the bed, make sure the power cord is properly stowed. Failure to do so result in equipment damage.
-  The brakes are not designed to stop a bed in motion. Do not operate central brake/steer function when moving the bed.
-  Do not move the bed using the siderails. Use the provided push handles or head/foot boards.
-  The bed exit alarm is not intended to be a substitute for good nursing practices. This system must be used in conjunction with a sound risk assessment and protocol.
-  Keep all objects out from under the bed. Certain parts under the bed raise and lower when it is in motion. Make sure there is nothing under the bed to interfere with proper bed operations.
-  Make sure the handset cord is properly positioned before operating the bed. Do not allow the cord to get caught in the moving parts of the bed.
-  Disconnect the two electrical cables below the footboard before attempting to remove the footboard.

-
-  Before cleaning any portion of the bed, disconnect power cord from wall outlet.
 -  Before using any cleaning product, test it on the underside of the bed. Never use any volatile or flammable fluid that could cause discoloration or deterioration.
 -  Do not operate this device if the power cord or any of the cords between the associated parts are cut, frayed or loosely connected.
 -  Do not use a bed with any missing or damaged parts.
 -  Do not service this device without first unplugging the power cord and battery. Bed sections can move even with power cord unplugged because of backup battery.
 -  If service is required it is recommended that you contact Gendron customer service at 1-800-537-2521 or your local authorized Gendron dealer.
 -  Weight capacity: Never exceed the rated capacity of your bed (combined weight of user and items on bed.) Exceeding weight limit may cause bed to fail.
 -  Power requirements: Electrical hazard may occur if device is plugged into inadequate power supply. A power source of 120 V AC 60 hertz with a capacity of at least 4 amperes must be available to operate the bed.
 -  Proper grounding is achieved only when bed is connected to "Hospital Grade Receptacle."
 -  Battery Backup: The systems battery automatically charges when the power cord is plugged into an electric outlet. The battery maintains a charge to allow the bed to be operated in case of power failure.
 -  Unplug battery to prevent discharge during storage. Failure to do so will reduce battery life.
 -  Always allow head section to fully lower when using CPR release. Failure to do so may damage actuator.
 -  Disconnect AC power before unplugging any cables on the control module. Failure to do so may result in control module damage.



Initialization: The bed must be initialized before first use and after power is interrupted/disconnected for Level All function to work properly. To initialize, press the bed up button until the bed is raised to its full up position. If the bed is already in the full up position lower the bed slightly, then lift. Once the bed is lifted to its full up position the bed is initialized.

Features

- 7-Function articulation
 - 1) Raise and lower head section
 - 2) Raise and lower knee section
 - 3) Raise and lower bed
 - 4) Trendelenburg
 - 5) Reverse Trendelenburg
 - 6) Cardio chair
 - 7) Bed flat

- Power functions are powered by 24-volt DC electric actuators.

- Electrical Power: 120 volt AC power transformer converts system to 24-volt DC.

- Power plug: Three-prong hospital grade plug.

- Battery backup: Battery backup allows full use of bed when AC power supply is not available for a limited time.

- Pendant control: Pendant control allows the patient access to operation of bed electrical controls. The functions on this handset can be selectively locked out by the caregiver control.

- Construction: Constructed entirely of steel, solid frame, powder coat paint.

- Bed deck: Adjustable to widths 38", and 48". Length adjustable from 80" to 84" to 88" long.

- Siderails: 3-position swing down type.

- Casters: Heavy duty 5 inch casters with central locking and braking system.

- Head section angle indicator for accurate patient positioning.

- CPR release: To rapidly lower the head section pull and hold the CPR release handle.

- Under bed light: Illuminates the area under the bed frame for patient safety in low light conditions.

- Bed exit alarm: Programmable for variable sensitivity, alerts caregiver through the facilities nurse call system or audible alarm in the bed.

- Rotating scale display: Scale display rotates down to protect patient privacy while not in use.

-
- Caregiver control panel: Allows caregiver access to bed controls and lockouts for patient siderail control.
 - Caregiver head end side panel: Allows caregiver access to bed controls from the head end siderails to control bed actuation, brake actuation, and lockouts for patient siderail controls.
 - Patient head end siderail control panel: Allows patient access to bed controls related to raising/lowering backrest and knee section unless locked out by caregiver controls.
 - Accessory sockets: One IV socket on each corner of bed.
 - IV Pole (optional – not included): Removable telescopic IV pole.
 - O2 holder (optional – not included): Oxygen tank holder can be installed into one of the (4) IV sockets.

Function & Basic Operation



Initialization: The bed must be initialized before first use and after power is interrupted/disconnected for Level All function to work properly. To initialize, press the bed up button until the bed is raised to its full up position. If the bed is already in the full up position lower the bed slightly, then lift. Once the bed is lifted to its full up position the bed is initialized.

Patient Pendant

Pendant control allows easy operation of bed controls. Press and hold button to operate each function.

- 1) Raise and lower head section
- 2) Raise and lower knee section
- 3) Nurse call

1) Head Up ↑ and Down ↓

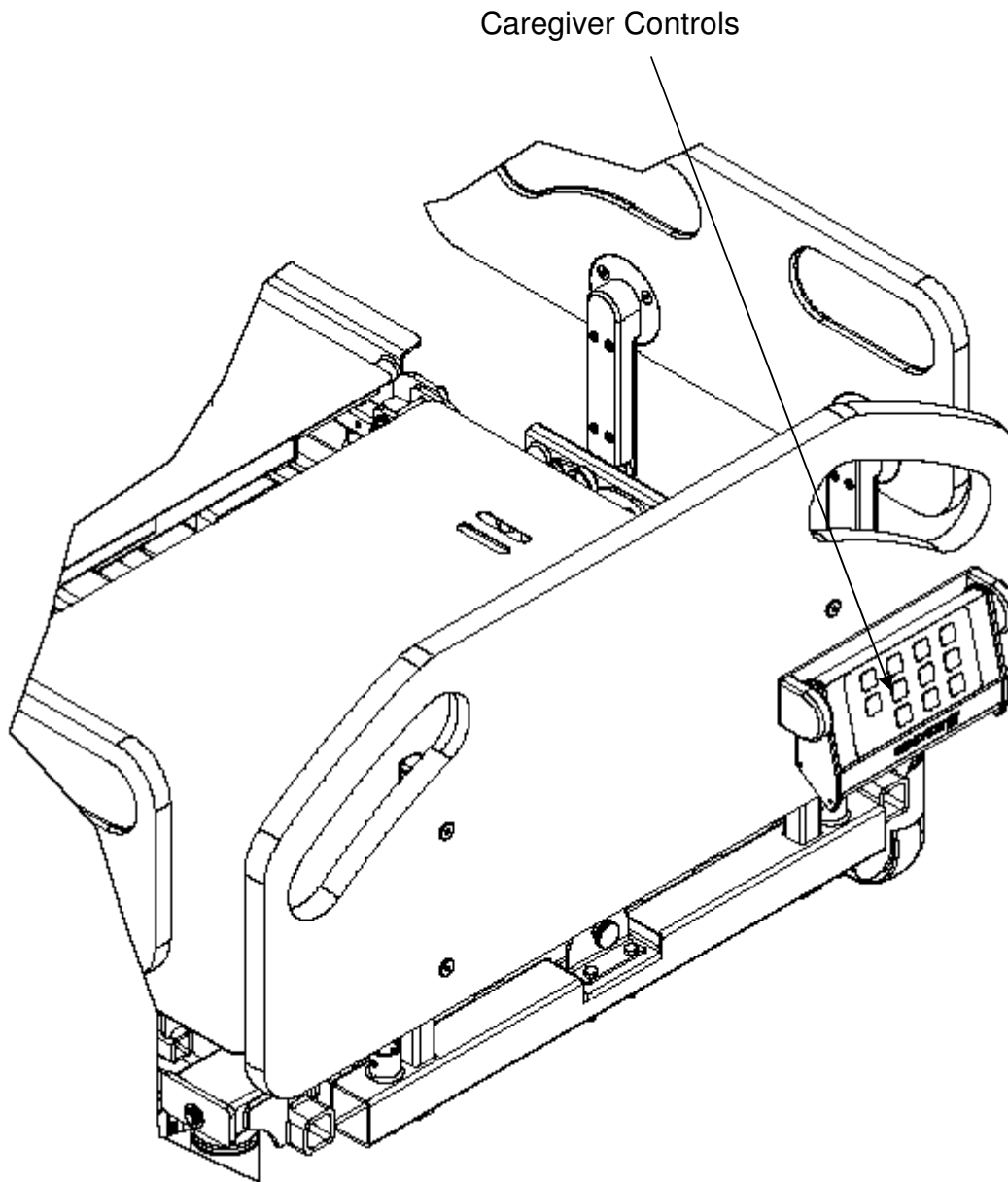
2) Knee Up ↑ and Down ↓

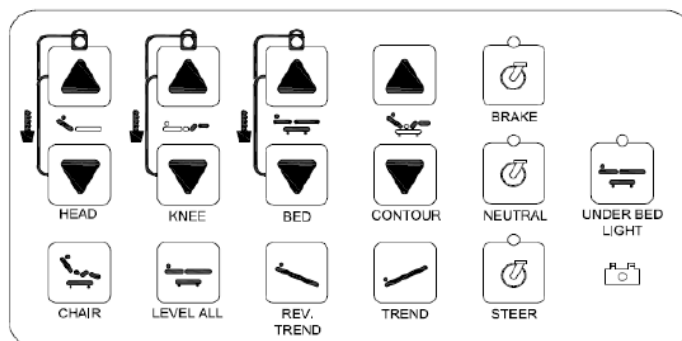
3) Nurse Call



Caregiver Controls

Caregiver controls are located at the foot end of the bed, on the side opposite of the rotating scale display.





Lockout control

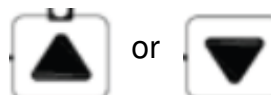
To lock/unlock a function from being used press and hold the up/down arrow button of the function to be locked/unlocked.

A yellow LED is lit above the buttons of locked functions.



Head/Knee/Bed/Tilt (trendelenburg/ reverse trendelenburg)

Press and hold the button of the function desired +



or

Cardio chair position

Press and hold the



button.

When the cardio chair button is pushed the head and knee will raise simultaneously to their highest position, then the foot end of the bed will lower (reverse tilt).

Level All

Press and hold the



button.

When the level all button is pushed the head and knee sections will lower and then the bed will level at the current height.



Initialization: The bed must be initialized before first use and after power is interrupted/disconnected for Level All function to work properly. To initialize, press the bed up button until the bed is raised to its full up position. If the bed is already in the full up position lower the bed slightly, then lift. Once the bed is lifted to its full up position the bed is initialized.

Under bed light

Push the



button to turn the light on or off.

A yellow LED is lit above the button when the light is on.

Nurse call

Press the nurse call

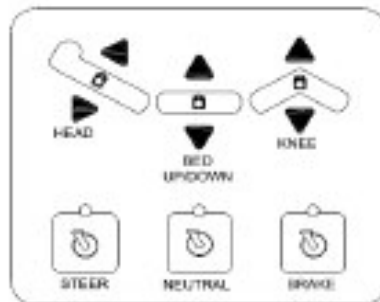


button

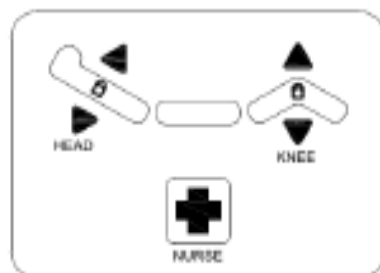
Nurse call must be reset through the room's headwall system.

Siderail keypad controls

Caregiver control keypad - head right siderail facing caregiver



Patient control keypad - head left siderail facing patient



Central Brake/Steer Function

The Brake/Steer/Neutral push buttons are located on each head end siderail on the caregiver side and on the footboard control.

Neutral Position

When positioning the bed in a small area set the Brake/Steer position in the neutral position to release the steer function and brakes.

To activate neutral function press down on "Neutral" button on the caregiver head end siderail control panel or the footboard control panel. A green LED is illuminated.

Steer Position

When transporting the bed use the steer function to keep the bed tracking in a straight line and to assist in turning corners.

To activate steer function press down on "Steer" button on the caregiver head end siderail control panel or the footboard control panel. A yellow LED is illuminated.

Brake Position

To activate steer function press down on "Brake" button on the caregiver head end siderail control panel or the footboard control panel. A red LED is illuminated.



Caution: Always set the brakes when the bed is occupied unless transporting the patient.



Caution: The brakes are not designed to stop a bed that is in motion. Do not operate central brake/steer function when moving the bed. Failure to do so could result in equipment damage or injury.



BRAKE



NEUTRAL




STEER

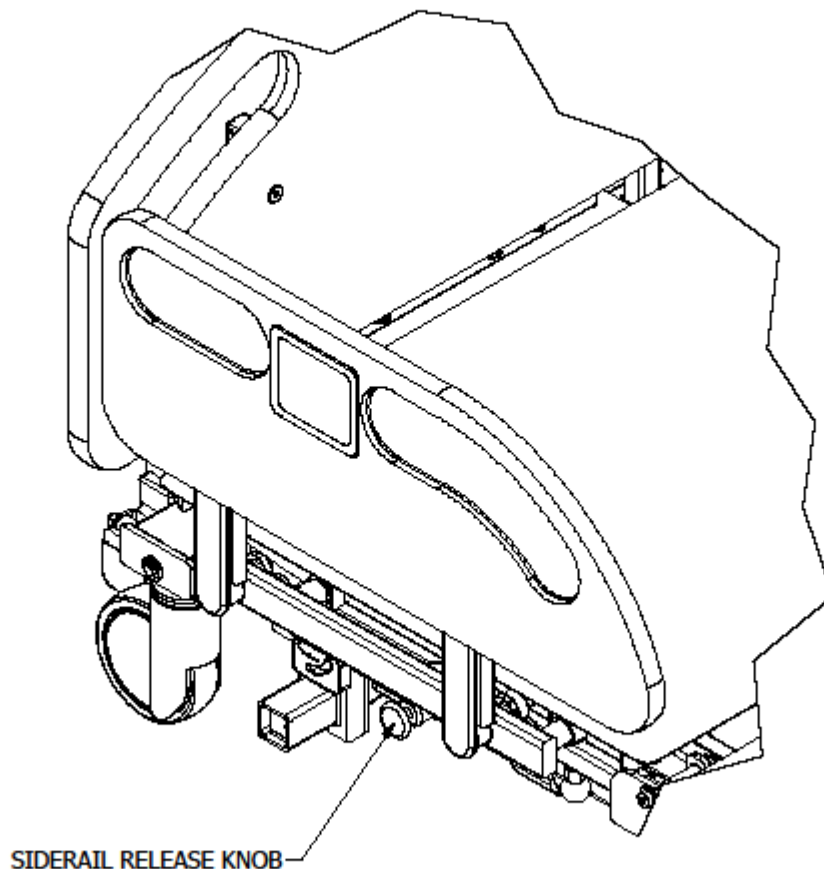
Siderail Operation

Siderails are located on each side of the bed. Siderails have a 3-position swing down operation.

To raise siderail, grasp top section of rail and lift. Allow release pin to snap into the locked position.

 Caution: Make sure siderails are securely locked into position to prevent injury. Gently pull on the siderail to verify that it is latched in position.

To lower side rail, push the siderail release knob and lower side rail.



CPR Release

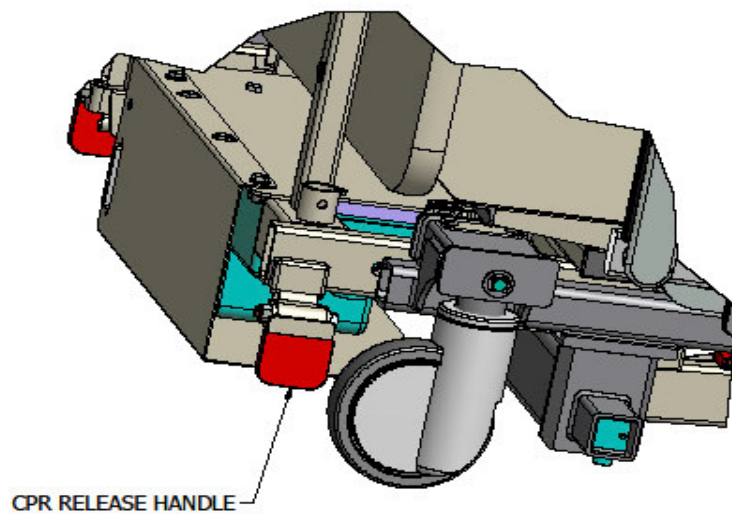
For emergency lowering of head section pull and hold the CPR release handle. The CPR release handle is located at the head end of the bed on both the left and right side.



Caution: Always allow head section to fully lower when using CPR release. Failure to do so may damage the actuator.

Note:

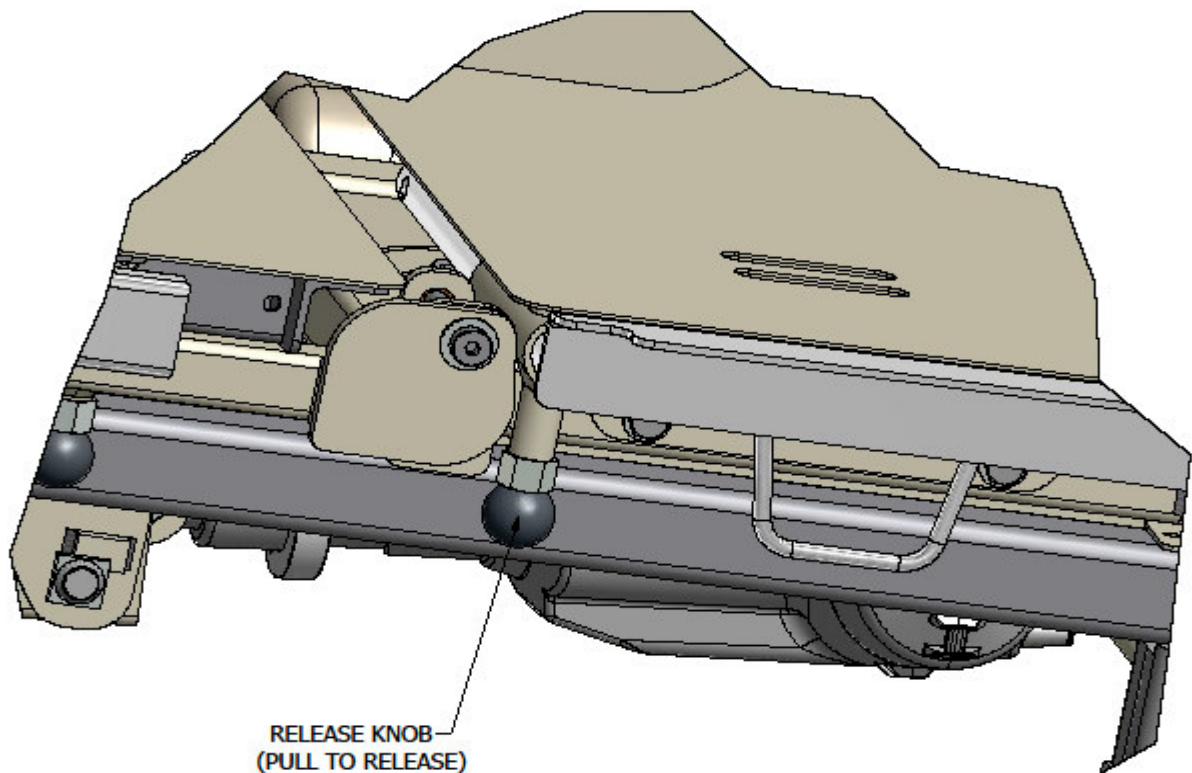
1. CPR release may not operate unless a patient is lying on the bed.
2. After activating CPR function it may be necessary to drive the actuator inward (head down) to reset the actuator before raising the head section.



Side Extension

Using the deck extensions the bed width can be changed from 38" to 48" . To adjust the side extensions pull the black knob that is at the end of each extension and move to the desired position.

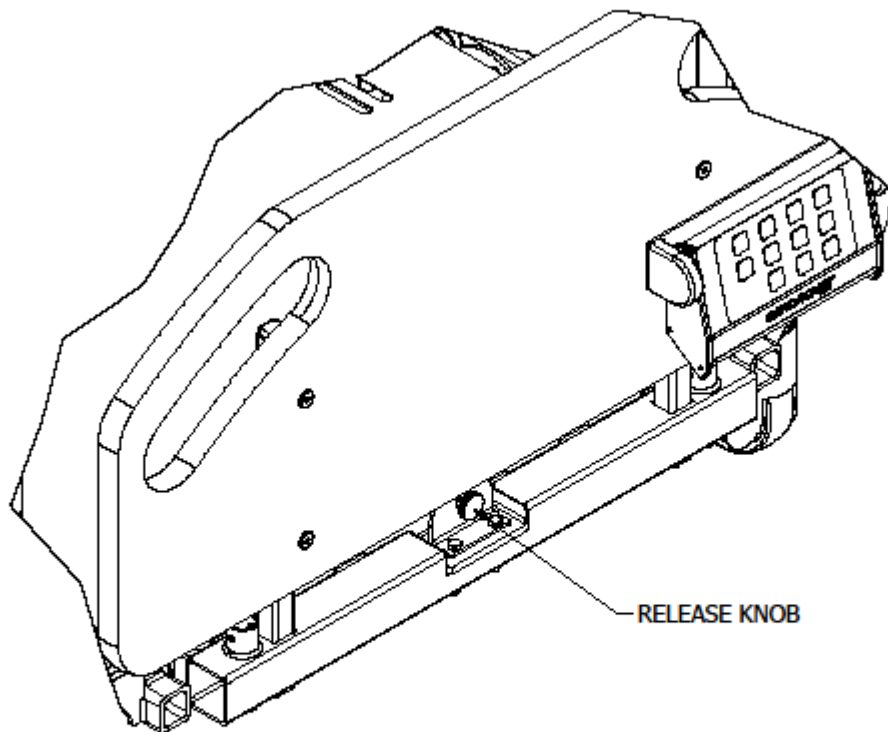
- ⚠ Caution: Gently push/pull on the extension to verify that it is locked in position.
- ⚠ Caution: Ensure that all side extensions are adjusted to the same width. Equipment damage may occur during deck articulation.
- ⚠ Caution: Ensure that deck extensions are adjusted to properly fit the mattress. Improperly adjusted extensions may create dangerous gaps between the mattress and siderails.



Foot Extension


Using the foot extension, the bed length can be adjusted from 80", 84 and to 88". To adjust the foot extension, pull the black knob that is at center of the extension (below the footboard) and move to the desired position.


- ⚠ Caution: Gently push/pull on the extension to verify that it is locked in position.
- ⚠ Caution: Ensure that the extension is adjusted to properly fit the mattress. An improperly adjusted extension may create a dangerous gap between the mattress and footboard.



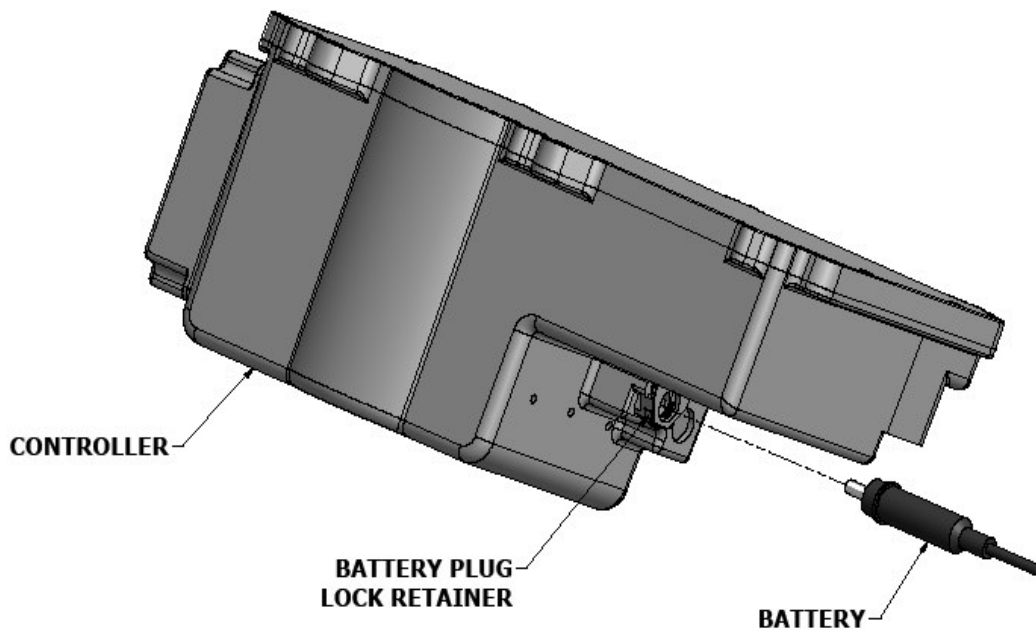
Battery Backup

Battery backup allows full use of bed functions when AC power is not available for a limited time.

 Caution: Disconnect battery to prevent discharge during storage. Failure to do so will reduce battery life.

 Caution: Recharging a fully discharged battery may take up to 24 hours.

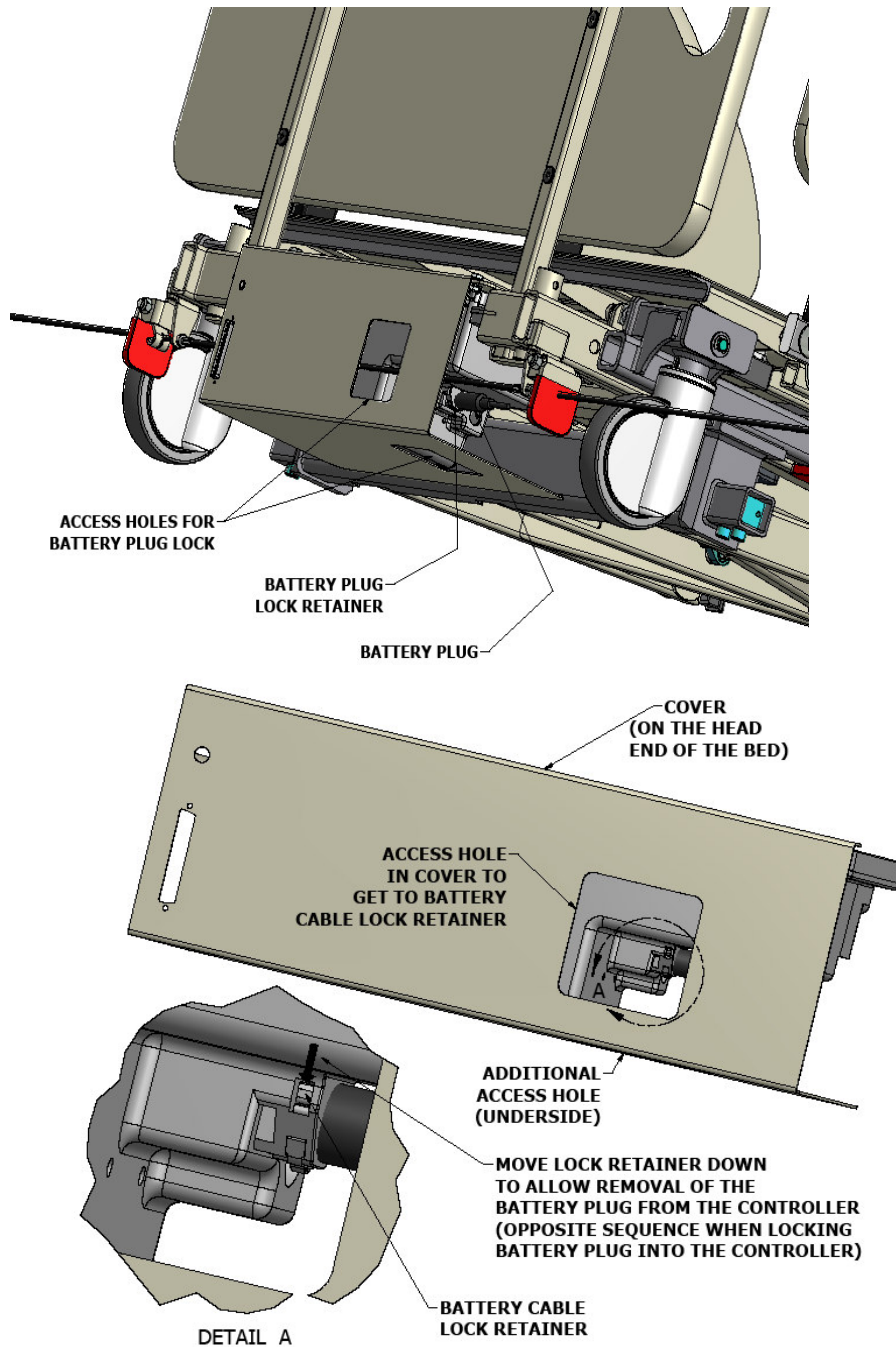
Battery cable is located at the head end of bed frame and plugs into the controller box located at the head end of the bed.



Battery Disconnect

The battery plug can be disconnected from the controller once the retainer lock is disengaged from the battery plug. To release this retainer lock it will be necessary to use a small blade screw driver and holes have been provided in the cover for this access.

When plugging the battery plug into the controller it will be necessary to push the retainer lock up to lock the battery plug into the controller.



Auxiliary Outlet Circuit Breaker

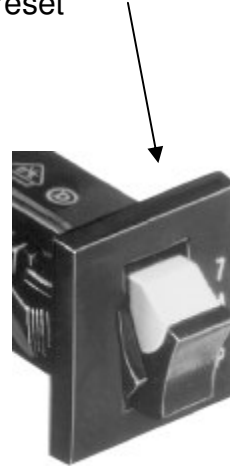
The auxiliary outlet is protected by a 7 amp resettable circuit breaker. The circuit breaker is located under the square cover on the left side of the controller housing. This cover is removable by using a #2 phillips screwdriver and removing (4) screws.

Push to reset the circuit breaker.

Circuit breaker does not need to be reset.



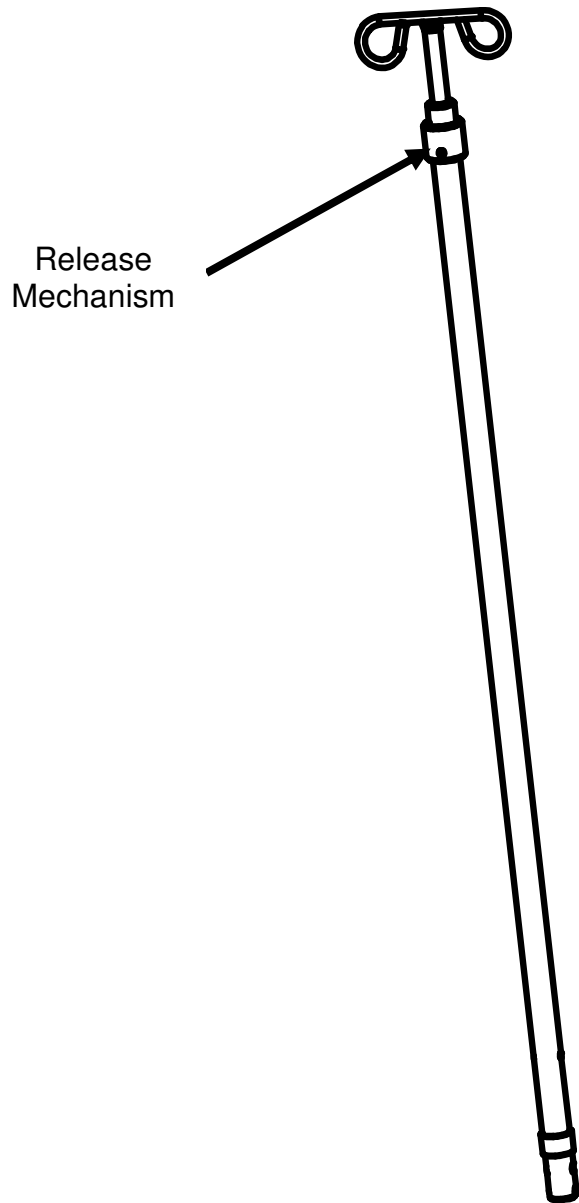
Circuit breaker needs to be reset



IV Pole (optional – not included)

IV pole may be used at any one of the (4) corners of the bed.

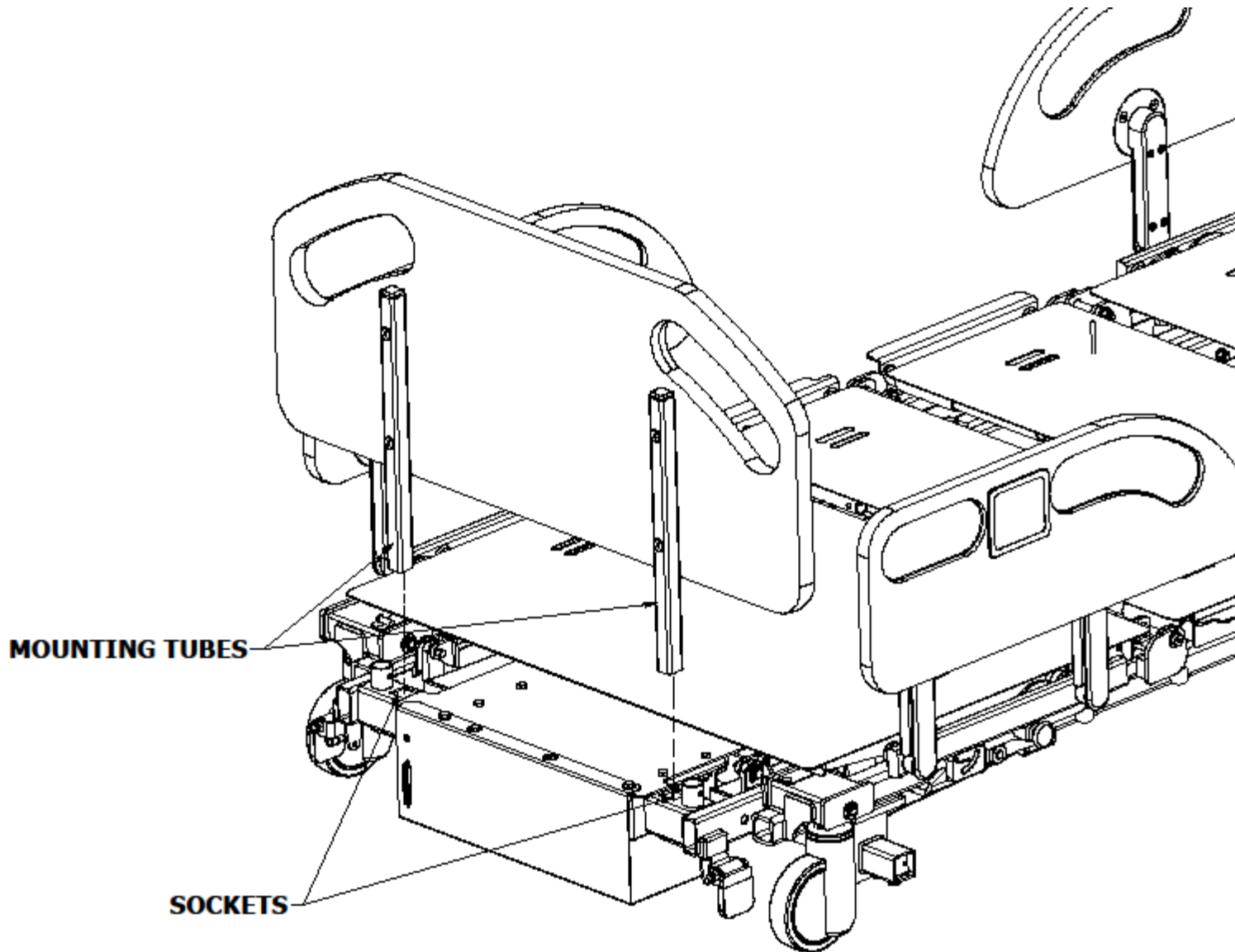
Rotate the yellow release mechanism to raise or lower IV pole.



Assembly Instructions

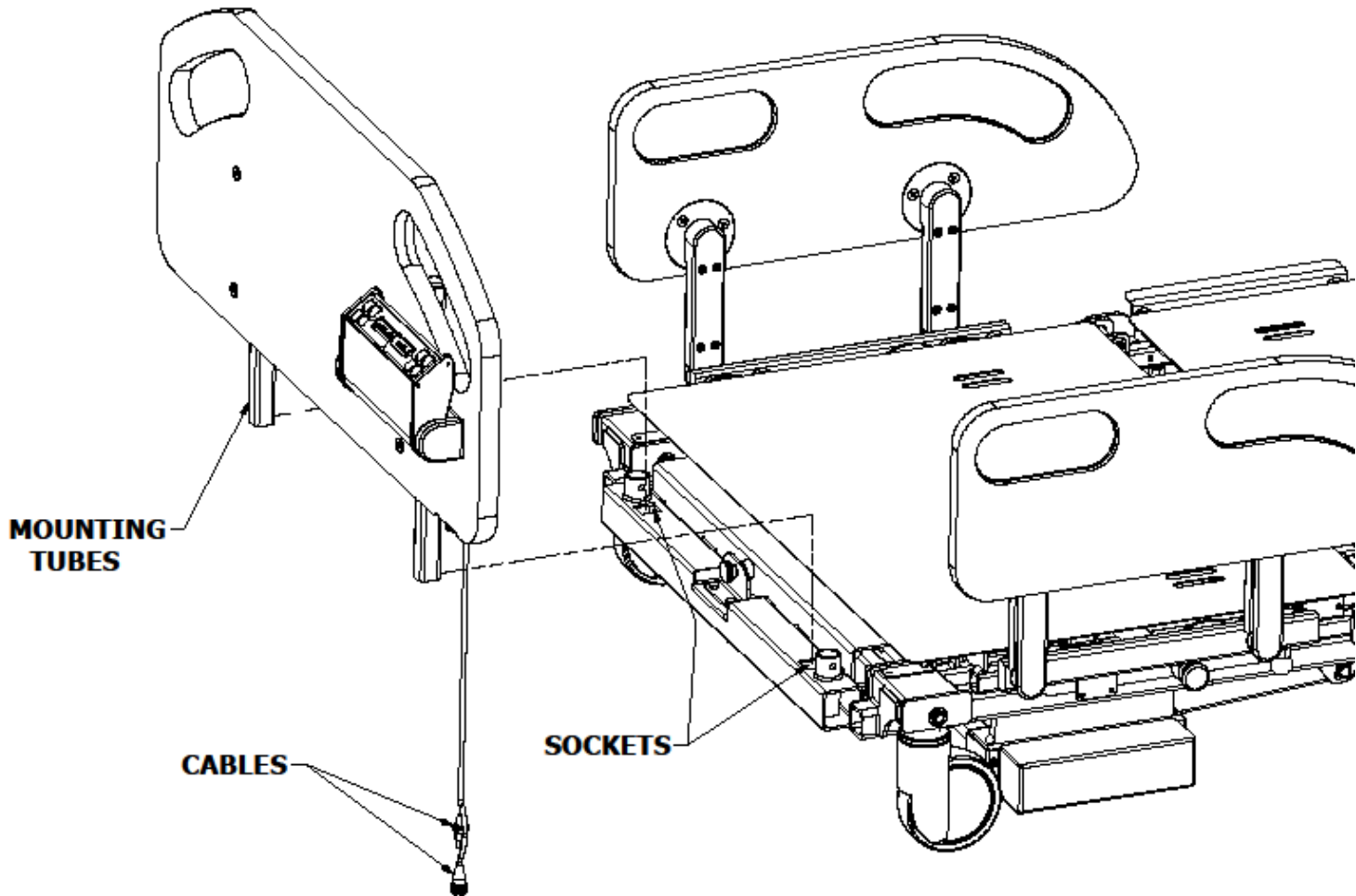
Headboard


1. Insert headboard mounting tubes into the square sockets at the head end of the bed as shown below.



Footboard

1. Insert footboard mounting tubes into the square sockets at the foot end of the bed.
2. Connect the two electrical cables.



 Caution: Disconnect the two electrical cables below the footboard before attempting to remove the footboard. Equipment damage may occur.

Bed Controls

Linear actuators control head/knee section as well as bed movement.

Control module controls all drive components.

Battery provides backup power in case of power failure.

Under bed light night light illuminates the area under the bed for patient safety.

Handset (shown on page 9) gives patient access to bed controls.

Caregiver keypad (footboard control panel) is used to control all bed functions. Lockouts can be used to prevent patient from articulating any bed function.



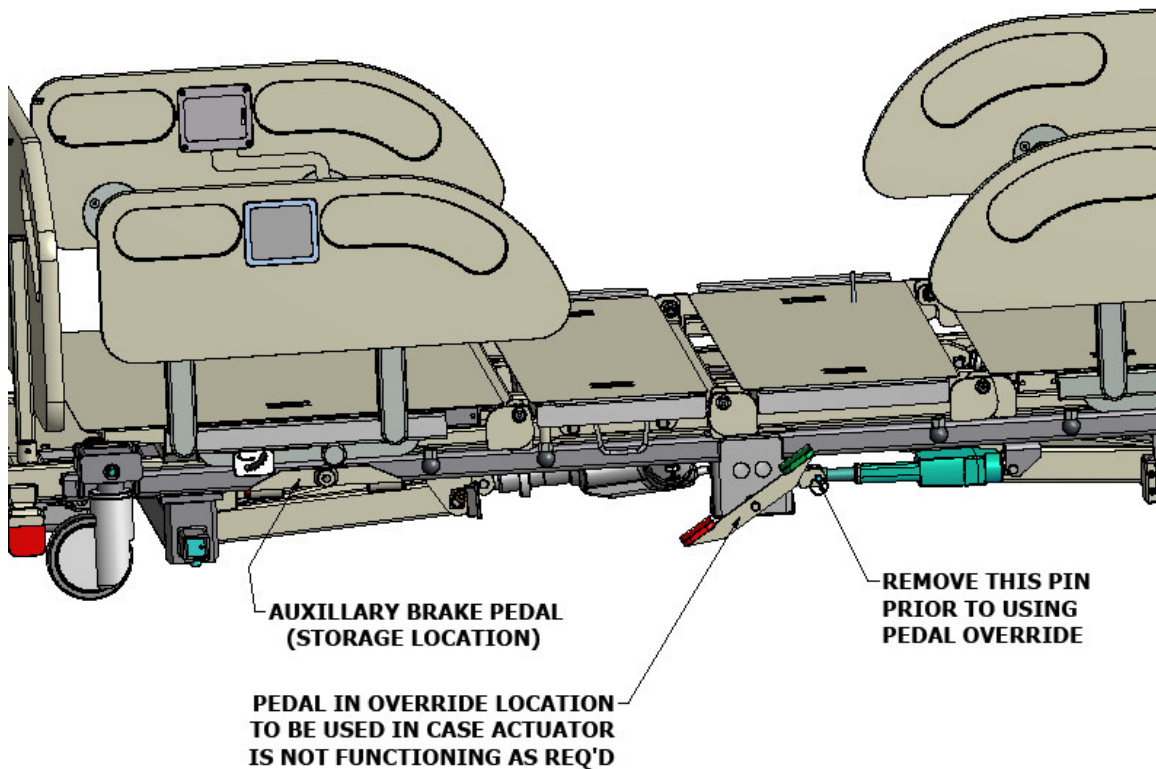
Caution: Disconnect AC power before unplugging any cables on the control module. Failure to do so may result in control module damage.

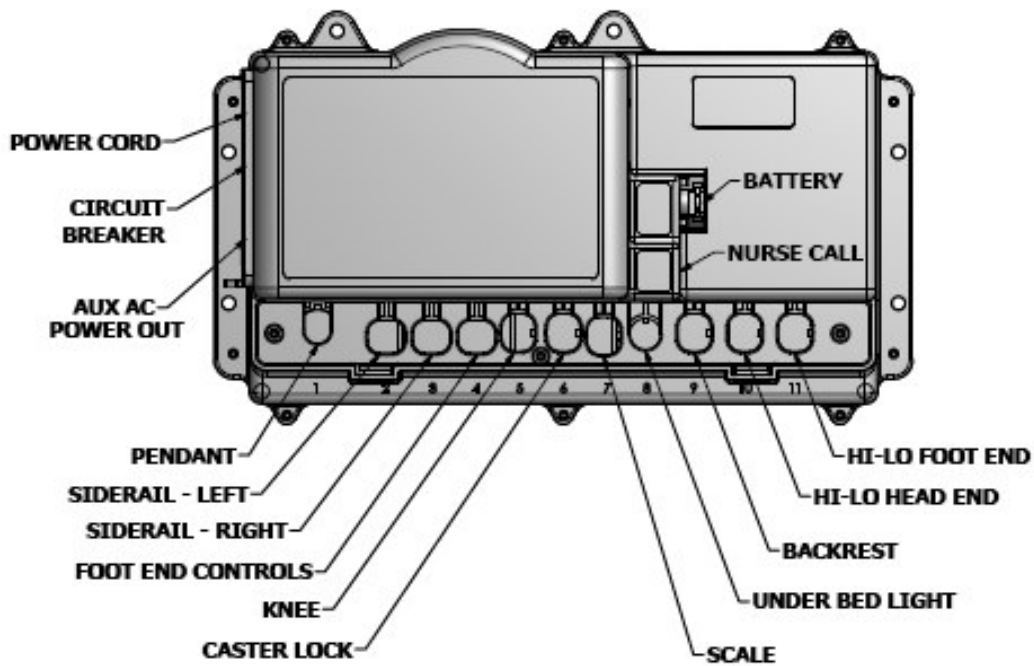
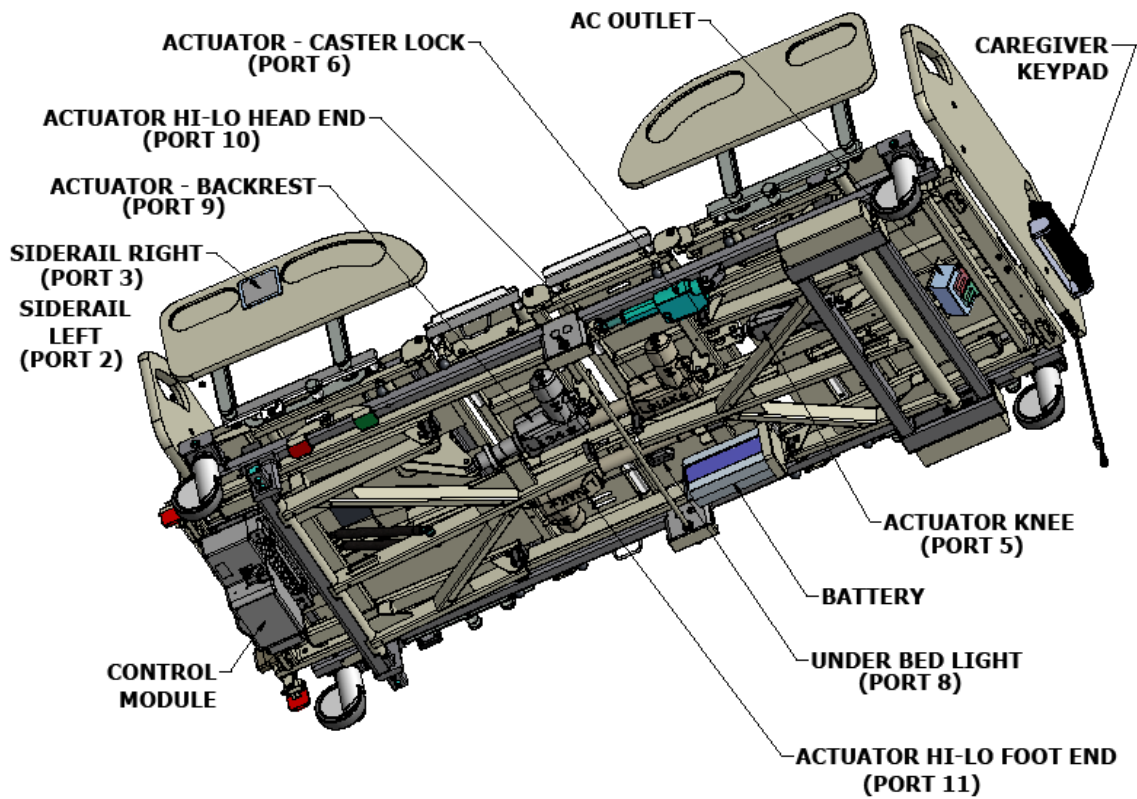
Caregiver keypad (head end siderail control panel) is used to control all bed functions. Lockouts can be used to prevent patient from articulating any bed function.

Patient keypad (head end siderail control panel) is used to control all bed functions related only to raise/lower backrest and knee sections unless locked out by caregiver controls. Lockouts can be used to prevent patient from articulating any bed function.

Brake Pedal Override on Caster Lock

A manual brake pedal is provided to allow an override of the caster lock actuator upon any failure of that device. Remove the brake pedal provided in the storage area below the head end right side of the bed on the lower frame and attach it to the center shaft of the caster lock mechanism. Remove the pin in the actuator and the brake pedal can now manually set the casters in their lock, steer and swivel positions.





CONTROL MODULE

Diagnosics & Repair

Problem	Cause	Solution
No Functions operate Power cord plugged In but no functions operate	No power to unit	Check power cord. Is it plugged into receptacle?
	Electrical power cord not properly plugged into control module	Check cord for breaks. Check for power to receptacle.
	Bad handset	Replace handset.
	Bad control module	Replace control module.
Multiple actuators operate "OK" one actuator will not operate	Bad control module	<u>ISOLATE THE PROBLEM</u> Interchange connections on control module so that problem actuator is plugged into an actuator connection on the control module that is working satisfactorily. If problem actuator now operates "OK" but actuator that was operating "OK" now has a problem, either the control module or handset is faulty. Replace as required.
	Bad handset	
	Bad actuator motor	
Actuator will not function properly or not at all	Defective wiring	Check wiring between control and actuator. Reverse wires.
	Defective actuator motor	Replace actuator
Battery will not charge	Defective wiring	Check wiring between controller and battery.
	Defective battery	Replace battery
Bed not grounded	Unit is not grounded between power cord and frame or between power cord and wall receptacle	Check ground (green wire) between frame and controller. Is power cord plugged into a grounded wall receptacle?
No power to auxiliary power outlet	Circuit breaker tripped	Reset circuit breaker
	Defective wiring	Check wiring between controller and auxiliary power outlet.
Level all function does not work	Bed not initialized	Initialize bed by raising bed to highest height

Scale

The scale can be used to monitor the patient's weight, change in weight and to alert the caregiver when the patient exits the bed. The scale display rotates down when not in use for patient privacy. The scale system is powered by the beds electrical system therefore no batteries are required.



Menu is used to edit system setup.



Zero Weight press and hold to change the displayed weight to zero. **Do not press when patient is in the bed.**



Zero Weight Change press and hold to change the displayed weight change to zero.



Weigh wakes the display. Also displays current weight/weight change data.



Freeze Lets items be added or removed from the bed and not have an effect on the shown patient weight. Also, if a known error exists, lets the caregiver manually correct the shown patient weight. Press and hold to freeze.

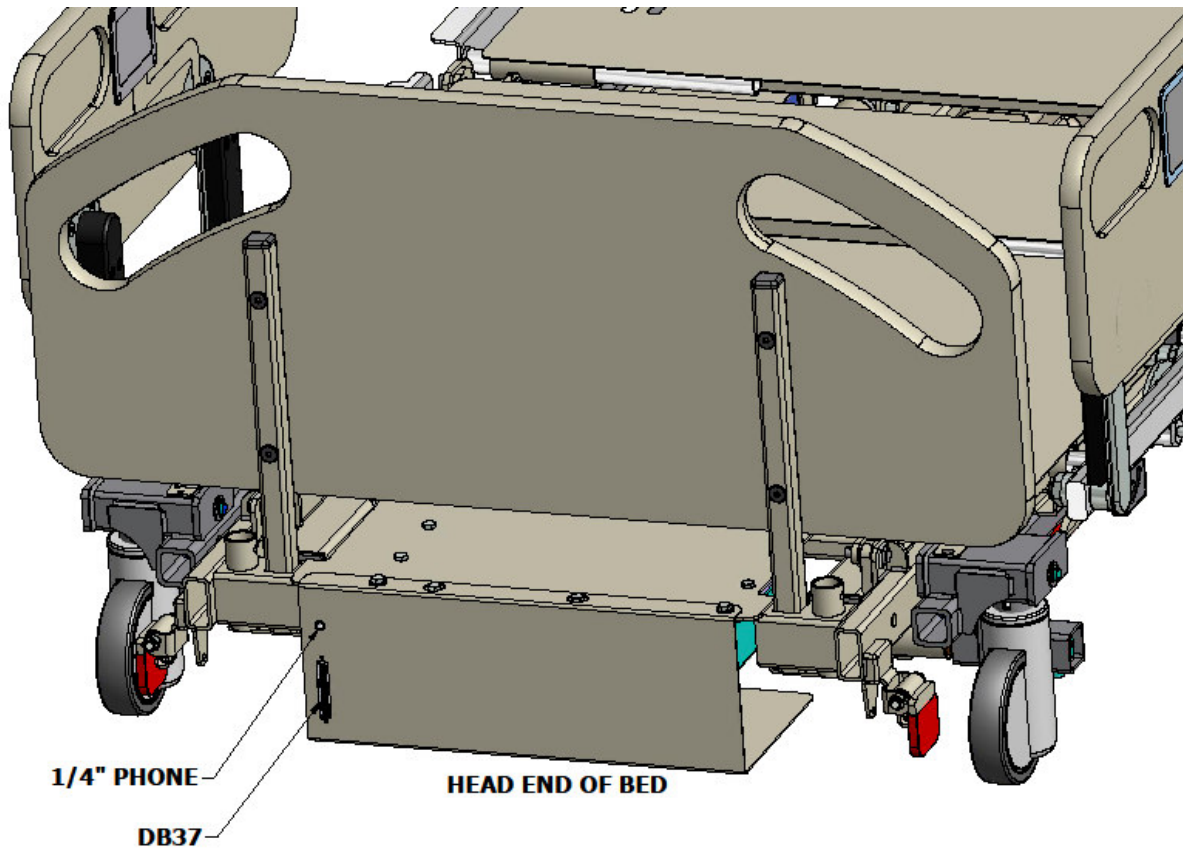


Up/Down arrows. Use up arrow to change menu selection. Use down arrow to toggle value. When in Freeze mode, arrows can be used to make manual adjustments to the weight value.



Bed Exit Alarm press to enable or disable alarm. Use the menu button to program the alarm parameters.

The facility nurse call can be activated by the bed exit alarm if desired by using either the DB37 or 1/4" phono jack located at the head end of the bed. Nurse call extension cables are optional and not included.



To edit scale system setup:



Press **Menu**



Use **Up** arrow to change menu selection



Use **Down** arrow to toggle value



Press **Freeze** to save changes or



Weigh to exit without saving changes

The parameters listed below can be changed through the **Menu**

Bed Exit Alarm on 0-45% of patient weight in 5% increments. 5-15% high sensitivity, 20-30% medium sensitivity, 35-45% low sensitivity.

Bed Exit Alarm on time 30-300 seconds in 30 second increments. Alarm will sound for the amount of time desired between 30-300 seconds.

Units Kg or Lb

Backlight intensity 0-10 in 1 unit increments

To correct shown patient weight

If the shown patient weight is known to be wrong press and hold the **Freeze** button, then use the **Up** and **Down** buttons to correct the shown weight. When adjustments are complete press the **Freeze** button to exit.

Inspection, Cleaning & Maintenance

Perform the following checks before using the bed:

- Do a careful walk around inspection of the bed. Look underneath the bed to make sure there is nothing stored there. This area must be kept clear to avoid any interference with bed parts, which move during operation.

- Lock the casters.

- Plug the power cord into a 120 volt grounded socket with a capacity of at least 4 amperes. Using the handset, cycle the bed through all of its operations. Make sure that everyone including you is clear of the bed during these operations. See that:
 - All power bed operations work smoothly and stop in any desired position.
 - Bed height, angle of leg lift and backrest can be adjusted properly.
 - Trendelenburg operates smoothly and can be stopped in any desired position.
 - Lockouts on caregiver control panel function properly.

- Position the siderails, be sure they rotate and lock properly.



- Test CPR release function. CPR release may not operate unless a patient is lying on the bed.

- Inspect patient helper frame and strap. If strap is worn replace immediately.

- When you are satisfied that the bed is operating properly, instruct all personnel who may be involved in the bed operation.

If problems are found, contact Gendron customer service at 800-537-2521 or your authorized Gendron dealer.

Cleaning

-  Warning: Before cleaning any portion of the bed, disconnect power cord from the wall outlet.
-  Caution: Before using any cleaning product, test it on the underside of the bed. Never use any volatile or flammable fluid (thinner, gasoline, etc.) that could cause discoloration or deterioration.

Use mild soap and water or a nonabrasive hospital-grade detergent disinfectant to clean the bed. Wet a cloth with the cleaning product and wring dry. Then gently wipe off the bed. Use caution when cleaning around electrical connections to prevent shock to the person or damage to the electrical components.

Yearly Inspection and Maintenance

Once per Year:

1. Check all of the bolts to be sure that none worked loose.
2. Check that all pins are in their locked position and are securely fastened.
3. Check all welds for cracks.
4. Check all electrical connections for tightness.
5. Lubricate all pivot points with FDA approved grease or dry Teflon lubricant.
6. Check all electrical wires for any frays, kinks, or deterioration.
7. Check lock and steer castors for proper operation.
8. Check that CPR function operates properly.

Any discrepancies noted during inspection must be corrected before using the bed.

Specifications

Product name: Sentinel II Bariatric Expandable Low Bed

Model: 3875

Dimensions

Patient Weight capacity: 850 pounds

Overall width (with side extensions in): 41"

Overall length (with foot extension in): 91.8"

Overall height (bed in lowest position): 25.9"

Bed deck: adjusts from 38-48" x 80, 84, to 88"

Bed deck height: adjusts from 9.88-28.6"

Head section angle: 0-50°

Knee angle: 0-20°

Trendelenburg angle: 0-14°

Reverse trendelenburg angle: 0-14°

Siderail length: 27"

Siderail height above bed deck: 13.5"

Caster size: 5"

Floor clearance: 2.5"

Bed Weight: 600 pounds

Note: All dimensions are approximate

This bed is designed to meet FDA recommendations to reduce entrapment risk detailed in "Hospital Bed System Dimensional and Assessment Guidance to Reduce Entrapment" issued March 10, 2006 when used with Gendron mattress part number .14890-F.

Warranty

Defective parts will be repaired or replaced by the company or its appointed agent. The warranty does not cover damage caused by misuse or negligence, nor does it cover defects or damages by use of unauthorized parts or services by an unauthorized person.

Gendron, Inc. warrants the bed frame to be free from defects in materials and workmanship for a period of (5) years from date of purchase. Wear items including, but not limited to: casters, actuators, control module, handset, battery, battery charger, power cord, cables, release cables, bearings, pins, release knob, trapeze handle assembly and mattress are warranted to be free of defects in material and workmanship for a period of one (1) year. If within such warranty period any such products shall be proven to be defective, such product shall be repaired or replaced, at the company's option. This warranty does not include any labor or shipping charges incurred in replacement part installation or repair of any such product. The company's sole obligation and your exclusive remedy under this warranty shall be limited to such repair and/or replacement.

This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

For warranty service please contact Gendron, Inc. Return authorization is required. Do not return products without our prior consent.

Freight Damage: The carrier who delivers merchandise to your door is responsible for loss and damages. Acceptance of the shipment by you is acknowledgment that all articles delivered were in good condition and properly packed. Therefore, all claims for loss or damage must be filed immediately with the freight carrier. Then notify us. We will mark our records accordingly. After settling claim, damaged merchandise will be picked up by the freight carrier and returned. Should you need assistance with the claim, call customer service 800-537-2521.

Return Goods: Call customer service at 800-537-2521

Do not return merchandise without prior authorization. All correspondence relating to this warranty must indicate model and serial number and be addressed to:

Gendron, Inc.
520 W. Mulberry St. – Suite 100
Bryan, Ohio 43506

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