Alliance™

User Manual

Doc. #: IFU0000062 Rev. Date: 5/06/2024 Rev.:7.0

Sizewise®
Designed to heal

Table of Contents

Definition of Symbols

Warnings/Cautions: Intended to alert user to the presence of important operating, maintenance or servicing instructions. Disregarding a warning could result in patient and/or user injury as well as damage to equipment.

Electrical Shock Hazard Warning: Intended to alert user to the presence of electrical shock hazards. It is important to follow all instructions and special procedures to avoid electrical shock to the operator, caregiver and/or patient.

Pinch Point Hazard Warning: Intended to alert user to the presence of a potential pinch-point, crushing hazard. It is important to follow all instructions and special procedures to avoid patient and/or user, injury as well as damage to equipment.

The third conductor in the Power Supply Cord is only a functional earth.

- **DO NOT** obstruct certain areas during movement, as this may cause crushing and/or trapping.

Ensure proper clearance between footboard and patient

Incompatible mattresses can create hazards. Read instructions for use" Only use siderails designed for the Sizewise Alliance bed

When routing cables from other equipment in the MEDICAL BED, precautions taken to avoid squeezing those between parts of the MEDICAL BED

Warning against crushing.

- **DO NOT** obstruct certain areas during movement, as this may cause crushing.

Important Safety Instructions

WARNING: Read the User Manual before operating the bed.
The bed is to be used in accordance with each facility's policies and procedures.

For user and patient safety, read and follow all warnings and instructions that apply to use of Alliance™ and Rest Secure System™ (RSS). Before using this bed, the user must know what to do to ensure safety.

Put the patient at ease. The caregiver should ensure the patient understands procedures.

Work with the patient's doctor, nurse or therapist to learn safe methods best suited to the caregiver and patients abilities.

Always use good posture and proper body mechanics. When possible use assistive safe patient handling devices if necessary to manually lift or support the patient bend knees slightly, keep back as upright and straight as possible.

DO NOT strike the control unit. **DO NOT** handle it if broken and **DO NOT** open the control unit. The maximum duration of a continuous maneuver should not exceed two minutes.

If the power fails, the control will automatically Enter locking mode.

ANY use of electrical equipment represents an electrical hazard. Staff should be trained and have information made available to them on the inherent hazards of electrical equipment.

- Exceeding the safe working load listed in the specifications could result in patient or user injury, as well as damage to equipment or other property.
- Any change to the specifications can result in malfunction or damage to the Alliance™ and RSS.
- Failure to follow setup instructions could result in patient or user injury, as well as damage to equipment or other property.
- To avoid electrical shock when plugging this bed into the wall outlet, only use grounded hospital-grade outlets.
- Follow EMC guidelines and safety precautions when the bed is connected to powered source.

Symbols and Labels

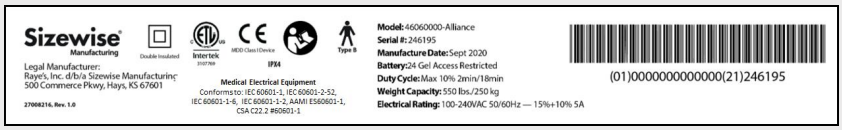
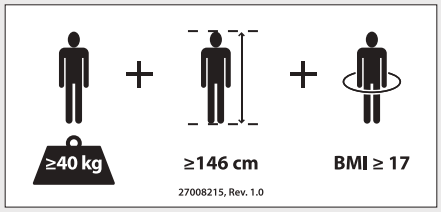
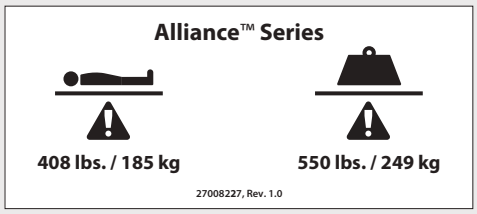
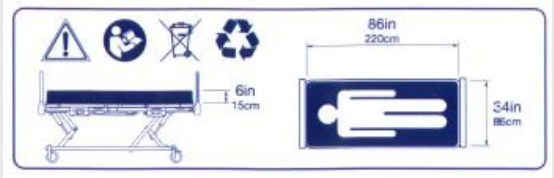
Symbols, definitions, and fonts are used throughout this manual to aid user readability and understanding of content.

Standard Text	Used for regular information.
Bold Text	Emphasizes a word or phrase.
NOTE	Sets apart special information or important instruction clarification.
Safe Working Load	The equipment's maximum external mechanical load permitted in normal use. The sum of the patient's weight, other equipment/accessories, and load supported by that equipment/ accessories may not exceed the Safe Working Load.
Maximum Patient Weight	The greatest permissible patient weight in normal use. The maximum patient weight may be lower than the Safe Working Load if additional equipment/accessories are used.

Symbol	Definition
C ETL LISTED US Intertek 3101425	**Certification:** Indicates device has been independently tested and meets the published safety standard(s).
CE MDD Class I Device	**Conformity:** Indicates conformity with health, safety, and environmental protection standards for products sold within the European Economic Area.
	**Electrical Shock Hazard Warning:** Symbol alerts user to the presence of electrical shock hazards. It is important to follow all instructions and special procedures to avoid electrical shock to the operator, caregiver, and/or patient.
	**Warning/Caution:** Symbol alerts user to the presence of important operating, maintenance, or servicing instructions. Disregarding a warning could result in patient and/or user injury, as well as damage to equipment.
	**Read Instructions Carefully:** Indicates the need for user to consult instructions before use.

Symbols and Labels

Symbol	Definition
 Type B	**Device Type:** Indicates a Type B device properly protected from electrical shock.

Label	Definition
	**Manufacturer's Label with UDI:** Indicates numerous product details, including safety standard conformance, manufacture date, and electrical rating. Located on bed frame.
	**Patient Size for Adults:** Physical description of an adult.
	**Safe Working Load:** Graphic symbol for maximum patient weight and safe working load.
	**Mattress Information:** Graphic symbol for manufacturer recommended mattress dimensions.
	**Extension Weight Limit:** Graphic symbol for maximum weight limit on extension.

Symbols and Labels

Label	Definition
	**CPR:** Graphic symbol for CPR Position.
	**Hip Positioning:** Graphic symbol for position of patient hips.
	**Danger: Pinch Point:** Marking to signify pinch point danger area.
	**Lock Casters:** Marking to direct locking brake casters before operation.
	**Minimal Clearance Area:** Marking to caution areas required to be free from obstructions.
	**Shipping Label:** Marking to provide caution and hazards in contents of packaging.

Important Safety Instructions

- If the side rails are not secured in the proper place, entrapment to the patient may occur. Bed rail entrapment is a serious health risk that can result in serious injury or even death. We recommends the caregiver be mindful of the FDA guidelines relevant to bed rail entrapment, as serious injury can result. These guidelines can be found on the FDA website. It is the caregiver's ultimate decision whether or not to use bed rails with the patient.
- Radio wave sources such as radio stations, TV stations, amateur radio (HAM) transmitters, two-way radios and cellular phones can affect this bed. Following the warnings listed for electromagnetic interference should reduce the chance of the bed's unintended movement that could result in serious injury.
- To lessen the possibility of electric shock when plugging the RSS into the wall outlet, use ONLY grounded or hospital-grade outlets.
- **DO NOT** use Alliance™ or RSS if the power cord is cut, frayed or loosely connected to the bed.
- To ensure reliable functionality, the battery reserve should only be used as a temporary power source until AC power is restored. When the battery reaches 15% charge, the unit should be plugged into a properly grounded hospital-grade outlet.
- Once the bed is positioned correctly, lock casters. Failure to do this could result in patient and/or user injury as well as damage to equipment or other property.
- Electrical shock or malfunction may occur if the hand control cord is pinched or frayed. Keep the cord away from moving parts.
- Failure to heed warnings pertaining to the operation of the bed could result in patient and/ or user injury as well as damage to equipment or other property.
- Never work under the bed while it is operational.
- Keep fingers, arms and feet away from moving parts when mechanisms are operating.
- Operating this bed with any part of the body in the frame can result in injury. Stand clear of the bed frame before operating.
- Stand clear of the bed during operation due to minimum floor clearance on all sides of the bed.
- The bed is for indoor use only. Only operate the bed on a flat surface.
- **DO NOT** use the bed near an open flame or an extreme heat source.
- This bed is not intended for use in high moisture areas (e.g. showers, pool therapy) or extreme temperature environments.
- Use only parts, accessories, and adapters authorized by the manufacturer.
- **DO NOT** use the bed with any unintentionally missing or abnormal parts.

- Make sure all cords are properly positioned before operating the bed. Failure to do so could result in electrical shock and serious injury.
- Never work on a bed while it is plugged into an electrical outlet.
- Electrical hazard may occur if the bed is plugged into inadequate power supply. Make sure the bed is plugged into a hospital-grade grounded outlet.
- Never let fingers or other body parts come between moving parts when operating the bed. Doing so may cause a pinch- or crush-type injury
- Follow the instructions for assisting patients in and out of the bed to avoid a fall or injury to the patient and/or caregiver.
- Reaching or leaning affects the patient's center of balance. Follow the instructions for patients reaching or leaning from the bed to avoid a fall or injury to the patient and/or caregiver.
- Never try to move the bed by the side rail. The side rails may come loose or break.
- Exceeding the weight capacity of the side rails could result in patient and/or user injury as well as damage to equipment or other property.
- Follow the instructions for transferring patients to avoid a fall or injury, to the patient and/or caregiver.
- While the patient is in the bed, it is recommended to lock the casters to reduce risk of injury to the patient and/or caregiver.
- To avoid and reduce risk of tripping injury to the patient and/or caregiver, align the casters with the bed.
- Failure to follow the provided battery specifications could result in patient and/or caregiver injury, as well as damage to equipment or other property.
- If the weight capacity of the IV pole is exceeded, it could result in patient and/or caregiver injury, as well as damage to equipment or other property.
- Do not attempt to install, perform maintenance, or use this product without first reading and understanding these instructions and accompanying documents such as, the User Manual, Technical Manual, and Work Instructions. If you do not understand these instructions, or documents referenced, contact Sizewise at 1-800-814-9389.
- Do not attempt to install, repair, or remove the trapeze, single pole patient assist, or any other overhead components/devices while bed is occupied.
- Before positioning patient on bed, verify all components are secure after adjustments, repairs, or servicing of the trapeze, single pole patient assist, or any other overhead components/devices.
- Use only parts, accessories and adapters authorized by Sizewise.

- If the weight capacity of the trapeze is exceeded, it could result in patient and/or user injury as well as damage to equipment or other property.
- Pay close attention to pinch points on the bed to avoid injury to the patient and/or caregiver.
- Medical equipment should not be used, stacked ,or located on or around equipment that may create electromagnetic interferences.
- Using other manufacturer's cables and accessories may affect EMC performance. Unauthorized use of these items will void warranty and could result in patient and/or caregiver injury, as well as damage to equipment or other property.
- The use of cables or accessories other than those for which the bed was designed or tested can significantly degrade emissions and immunity performance.
- It is very important to read the information regarding the possible effects of electromagnetic interference on Alliance™ and RSS.
- The bed is to be used in accordance with each facility's policies and procedures.
- Possible fire hazard when used with oxygen administering equipment other than the nasal mask or 1/2 bed length type tent. Oxygen tent should not extend below the mattress support level. Lock hand control at foot of bed when using oxygen-administering equipment.
- During transport, use caution so the bed does not tip or overbalance. Failure to do so could result in patient and/or caregiver injury, as well as damage to equipment or other property.
- The bed needs to be stored and transported in a temperature range of 5°C to 40°C (41°F to 104°F).
- **DO NOT** expose the bed to humidity greater than 95%.
- Before cleaning the bed, be sure to unplug the power cord from the AC power source. Failure to do so could result in electrical shock and could result in patient and/or user injury as well as damage to equipment or other property. Allow to dry completely before plugging the bed into a properly grounded hospital-grade outlet.
- The bed requires regular maintenance to uphold performance and avoid premature wear, damage and injury.
- Never dispose of batteries in a fire, because they may explode.
- Many of the screws and bolts used in the bed are special high-strength fasteners. Contact an authorized Sizewise technician to assist in finding the correct fasteners. If improper fasteners are used, they could result in patient and/or user injury as well as damage to equipment or other property.
- Only use Sizewise Alliance specific parts for replacement or repairs. The use of improper replacement parts could result in patient and/or user injury as well as damage to equipment or other property.
- Only authorized personnel should engage in the troubleshooting process. Troubleshooting and repair by unauthorized persons could result in personal injury or equipment damage.

Device Information

Description of Alliance™ is designed for use in hospitals, clinics and other related uses. It is designed to give a useful life of 10 to 15 years depending on usage.

Features include a steel structure with a polycarbonate-covered surface.

The bed base is divided into two articulated surfaces that are activated electronically (backrest and legs), a manually articulated surface, (feet) and a fixed module. The mattress platform is made up of four modules of high-resistance, detachable and HPL (High-Pressure Laminate).

There are four holders in thermoplastic material to hold the IV pole, support handle, etc., as well as drain bag and nasogastric bag supports on both sides of the bed.

It has four 6" (150 mm) casters, one of which is anti-static and directional. The multifunction lever(s) or pedal(s), located at each corner that include the following actions: activating the directional wheel, unlocking the wheels, and total locking of the wheels.

Equipment provided provides a highly stable, raising and lowering arm system.

When activated, the synchronized movement of the backrest module and legs improves the distribution of pressure and contributes to reducing pressure injuries. It has an automatic retraction of 5.9” (15 cm).

Electrical Trendelenburg and Reverse Trendelenburg positioning system degree/angle specifications can be located in the Table of Contents under the Specifications section.

There are different controls to control the movements of the bed, such as the patient hand control, the patient controls (found on the inside of the left and right head side rails) permitting control by the patient, and the nurse controls (found on the outside of the left and right head side rails) permitting control by the nurse/caregiver. The footboard controls allow the nurse/ caregiver the ability to lock out functions. Additional options include IV pole holder, single pole patient assist, X-ray cassette, 37-pin connector cable for nurse call option.

Purpose of the Device

The positioning nature of this bed provides the caregivers the convenience when attending to the patients. It is intended for a broad patient population as determined appropriate by the caregiver or institution. It is intended for patient populations weighing at least 70 lb (32 kg) and is capable of supporting patients up to 550 lb (250 kg).

Product is only intended for use with patient groups described in manual.

General Bed Components

NOTE: Not shown: Power Interface Box, Foot Junction Box, 6 Volt, Lead Acid Battery and Nurse Call Interface.

RSS Description

The purpose of the RSS is to alert the caregiver that a patient is attempting to exit the bed or is at an immediate risk of falling in settings where continuous surveillance of a patient is not possible. This is achieved by precisely monitoring a change in patient position. When the patient attempts to get out of bed an alarm will sound and the nurse call signal will activate.

The RSS also has an integrated scale that utilizes a transducer-based system to accurately record the weight of the patient while in the bed. It also has the capability to record the weight automatically every day for 30 days at user-defined intervals.

Another feature is the protocol timer, which can be set for 1, 2, or 4 hours, to alert the caregiver that the patient needs attention to or checked on. It has the capability to alert the caregiver by an audible tone or activate the nurse call signal.

Specifications

Alliance™ Specifications

Quality Assurance Standard ……...IEC 60601-2-52:2009 Ed. 1+C1: A1
.....IEC 60601-1-6:2010 Ed.3 +A1
…….. IEC 60601-1:2005 Ed.3+A1]
……CSA C22.2#60601-1:2014 Ed.3]
……... AAMI ES60601-1:2005 +A1

Degree of Protection Against Electric Shock.....Type B
Degree of Protection Against Ingress of Water.....IPX4
Electrical Rating.....100 - 240 VAC, 50/60 Hz, 5A
Electrical Rating..…….....Class II

Intended for use in Application Environments 1, 2, 3, and 5 per IEC 60601-2-52

Widths:	Sleep Surface/Mattress ……...…...34”/86.4 cm	
	Overall Width (lowered rails)……..…….....37.6”/95.5 cm (±.20”/5 mm)	
	Overall Width (raised rails).....38.1”/97 cm (±.20”/5 mm)	
Lengths:	Sleep Surface/Mattress…….……..…..…..……. 80-88”/203.2-218.4 cm	
	Retracted .....86.6"/220 cm (±.39”/10 mm)	
	Extended .....90.6”/230 cm (±.39”/10 mm)	
Heights:	Sleep Surface/Mattress…….....…….6-8” / 15.3-25.4 cm	

Mattress Support Platform Minimum…….....17.0”/43.18 cm (±.50”/1.27 cm)
Mattress Support Platform Maximum …….…….....31.5”/80.01 cm (±.50”/12.7 cm)
Trendelenburg.....12º (± 2º tolerance)
Reverse Trendelenburg.....-12º (± 2º tolerance)
Head Section.....60º (± 5º tolerance)
Knee Section.....45º (± 2º tolerance)
Foot Section.....20º (± 2º tolerance)
Under Bed Clearance.....6.8”/17.3 cm
Safe Working Load..... 550 lbs./250 kg
Maximum Patient Weight..... 408 lbs./185 kg
Bed Weight ..... 385 lbs./175 kg
Single Pole Patient Assist Weight ..... 13 lbs./1 kg
Single Pole Assist Weight Capacity .....165 lbs./75 kg
Atmospheric Pressure..... 70.0 kPa to 106.0 kPa
Maximum Altitude..... 6560ft (2000m)

WARNING: Exceeding the safe working load listed in the specifications could result in patient or user injury, as well as damage to equipment or other property. Safe Working Load includes the patient, mattress and accessories.

RSS Specifications

Control Box

Housing
Material .....ABS, UL94-V0 rated
Width.....5.79”/14.7 cm
Length .....3.16”/8 cm
Height …….....2.08”/5.3 cm

Connectors
DC Power Input.....5.5mmx2.1mm coaxial
Load Cell.....4xRJ12 shielded
Nurse Call .....Two relay outlets (dual priority)
USB Debug/FW Update……..…USB Port

Nurse Call
Open..... 0 Ohms
Alarm .....0.3 Ohms
Output .....0.206 VRMS Max

Indicators
Load Cell Status……..4 x bi-color LEDS (green and red)
Power……...Green LED
Status/CPU Activity……....Green Heartbeat LED
Charge/Done……2 LEDS (1 for charge, 1 for done)

External Power
AC Adapter .....12V, DC, UL-Recognized supply
Current 1A

Battery Power
Type .....6V SLA
Capacity.....3.5AH
Recharge Time.....12–15 hours
Operating Time.....8 hours approximately

Operating Current
Normal.....120 mA
Charging.....150 mA
Alarming.....250 mA

Weighing Function
Resolution.....1 lb./0.45 kg. Normal, 0.1 lb./0.05 kg. Internal
Sampling Frequency.....10 Hz
Averaging.....16 samples/1.6 seconds

WARNING: Any change to the specifications can result in malfunction or damage to the RSS.

Footboard Control with Integrated RSS System

This Control is located inside the footboard.

Operating Current

Normal.....54-160 mA
Alarming.....150 mA

Audio

Record Memory.....4 Mb
Voice Record Alarm Time.....15 seconds
Sound Level.....90 dB @ 12 inches
Tones.....5 user selectable tones

Display

Type.....LCD Graphic, blue LED backlighting
Size.....64 mmx17.9 mm
Resolution.....32 Pixels

Functions

Bed Exit Alarms..... High, Medium, Low, Off
Protocol Alarm..... Off, 1, 2, 4 Hours
Sound Volumes.....Off, Low, Medium, High
Scale.....0-1000 lbs./0-453.5 kg
Scale Accuracy.....± 5 lbs./2.25 kg

Unpacking and Setup Instructions

The principal components of the Alliance™

Unpacking/Parts Breakdown **Unpacking Instructions**: Remove the products from the packing material and examine for shipping damage. If damage is detected in shipping, contact the freight company and file a damage complaint immediately.

DO NOT CONNECT THE BED BATTERY BACKUP OR PLUG THE POWER CORD INTO AN AC POWER SOURCE! Remove packaging from the foot board and use the 1/8" screw driver to secure the connector. After the connector is securely in place attach the cover by inserting the four plastic rivets at the top and bottom corners. Now you are ready to insert the foot board into the designated holes.

Next, plug bed in the Linak battery backup. Now remove the top cover from rest secure system tray, plug in the connector then replace top cover. After these steps are completed you are ready to plug the bed into the wall. **Failure to follow these instructions in the correct order could lead to property damage and/or injury to the operator.**

DO NOT HOT PLUG (This is when you plug the bed into a properly grounded hospital-grade outlet before you connect the bed battery backup and the RSS battery backup.)
CAUTION: Keep out of direct sunlight.
DO NOT expose to temperatures below 5°C (41°F) or above 40°C (104°F).
DO NOT expose to moisture or areas of humidity greater than 95%.

Environmental Conditions:

Beware of Electromagnetic Interference from Radio Wave Sources such as: hand-held portable transceivers with the antenna mounted directly to the transmitting unit including: citizen band (CB) radios; walkie-talkies; security, fire and police transceivers; cell phones; and other personal communication devices.

NOTE: Some cell phones and similar devices transmit signals while they are ON, even when not being used.

Warning or Safety Instructions relating to setup:

WARNING: (100-240 V unit) Make sure the power cord is plugged into a properly grounded hospital-grade outlet.

WARNING: Failure to follow the Setup instructions could result in patient or user injury, as well as damage to equipment or other property.

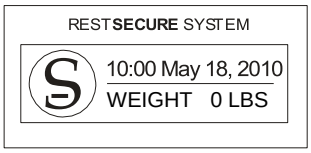
RSS Setup

Basic Setup

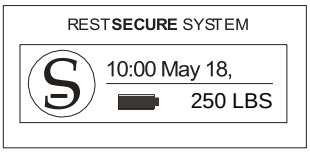
DO NOT use the RSS if the power cord is cut, frayed or loosely connected to the bed.

The Nurse Call Interface cable at the head of the bed should be securely plugged into the Nurse Call Interface on the wall to function properly. Press the Enter button in order to activate the nurse call located at the foot of the bed.

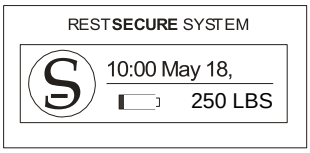
The first photo shows the unit operating on AC power. The second photo shows the unit operating on battery reserve power with full charge. The third photo shows the battery reserve with 15% charge.



AC Power



Battery 100% Charge



Low Battery Warning

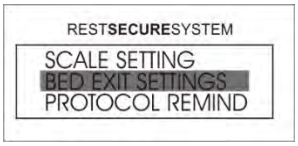
The display will go in to standby after 60 seconds of inactivity. If this occurs, press any button **except back** to resume.

CAUTION: To ensure reliable functionality, the battery reserve should only be used as a temporary power source until AC power is restored. When the battery Low Battery Warning screen is shown, the bed should be plugged into a properly grounded hospital-grade outlet immediately. 24 hours is required to fully charge/recharge the unit.

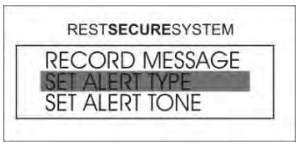
Bed Exit Alarm: Alert Type

The nurse call is always active no matter what selection is made. When selecting nurse call only, the audio alert will be disabled at the bedside. An alarm will sound if a voice message has not been recorded and the unit is set to Voice Recording.

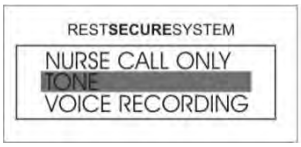
1. Access the Menu by pressing the Up or Down arrow until BED EXIT SETTINGS is highlighted and press Enter.

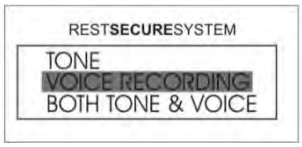


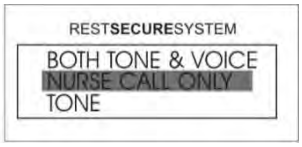
2. Select SET ALERT TYPE and then Enter=



3. Choose one of the four alert types and press Enter. The selection will take the user to the home screen.

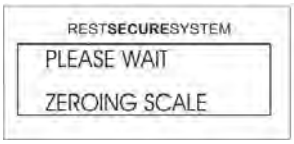


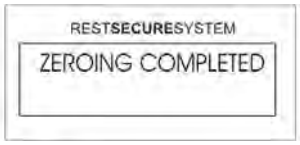


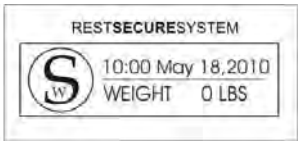


Scale System: Zeroing the Scale

With the patient out of the bed, allow weight to stabilize for 10 seconds, then press and hold the ZERO button for 3 seconds. This process sets the tare weight (base weight) and will return to the home screen when complete.







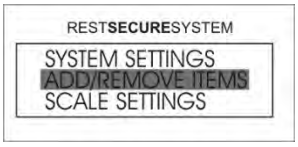
With the tare weight set, the patient may now be placed in the bed and begin recording weight.

NOTE: Make sure all equipment and linens are on the bed before zeroing the scale. If an air support mattress is being used with the patient, be sure to fully inflate the mattress prior to zeroing the scale. Adding or removing items during the zeroing process will cause inaccurate patient weight. It is highly recommended that the scale be zeroed before each new patient.

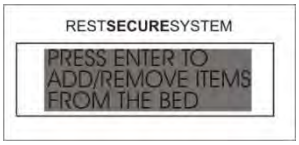
Scale System: Adding/Removing Items

The feature will allow items such as blankets or pillows to be added and removed from the bed without affecting the current weight reading of a patient.

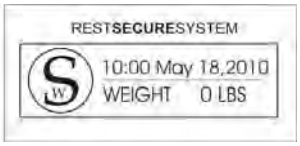
1. Access the Menu by pressing the Up or Down arrow until ADD/REMOVE ITEMS is highlighted and press Enter.



2. Press Enter to add/remove items from the bed.



3. Change the items on the bed, do not touch bed for 5 seconds to allow the weight to stabilize, then press Enter when complete. The user will now return to the home screen.

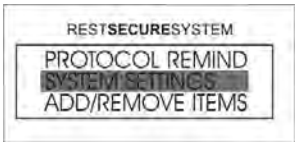


NOTE: If steps 2 and 3 are not completed within 30 minutes, the unit will automatically exit the Add/Remove Items screen and return to Standby.

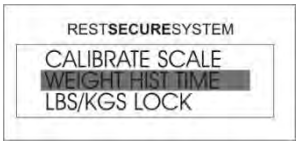
Scale System: Weight History Time Setting

The RSS is designed to record the weight of the patient by date and time. The unit will automatically record the weight for 30 days at a default time of 00:00 hours (midnight).

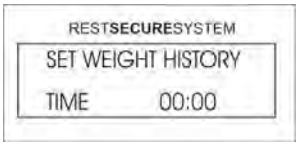
1. Access the Menu by pressing the Up or Down arrow until SYSTEM SETTINGS is highlighted and press Enter.



2. Select WEIGHT HISTORY TIME and press Enter.



3. Using the arrows, select the time desired for the unit to record a weight and press Enter. The user will return to the home screen.

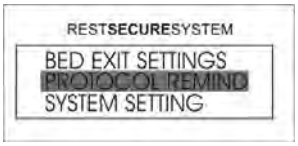


NOTE: Time must be set in 24-hour clock in 1/2 hour intervals. Example: 13:00 = 1:00 pm

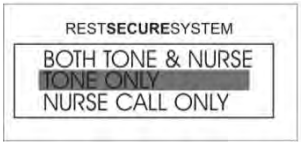
Protocol: Set Alert Reminder

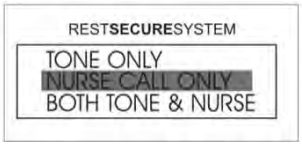
The protocol reminder is a timer that can be set for 1, 2, or 4 hours as a reminder that the patient needs to be attended to or checked on. There are three alert settings for the protocol alarm.

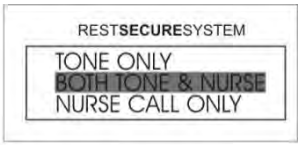
1. Access the Menu by pressing the Up or Down arrow until PROTOCOL REMIND is highlighted and press Enter.



2. Choose from one of the three alert types and press Enter. The selection will be returned to the home screen.





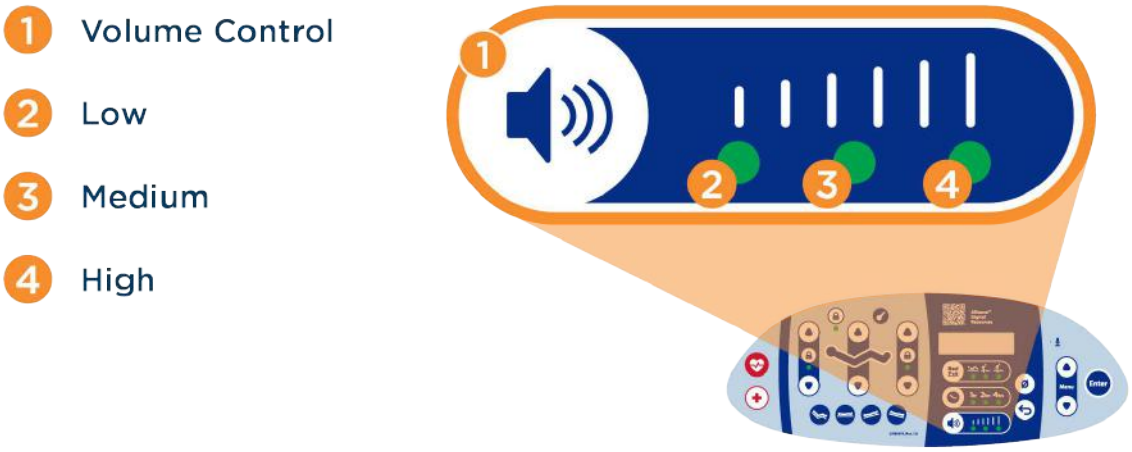


NOTE: The protocol audible tone is specific and is unchangeable to ensure differentiation between a bed exit alarm and a protocol alarm. The protocol alarm will have short frequent beeps.

Protocol Timer: Sound Level Setting

There are 3 sound levels for the bed exit alarm/protocol reminder.

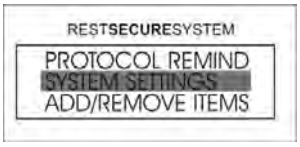
Press the sound level button once for low volume, twice for medium volume, and a third time for high volume. By pressing the sound level button for a fourth time, the sound level will be reset to low volume.



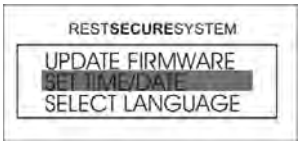
NOTE: When the bed exit alarm and protocol timer are disabled, the sound level indicator lights will be OFF. This indicates that the sound level has been disabled.

Setting the Time/Date

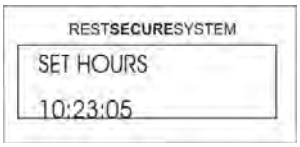
1. Access the Menu by pressing the Up or Down arrow until SYSTEM SETTINGS is highlighted and press Enter.



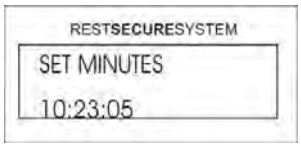
2. Select SET TIME/DATE and press Enter.



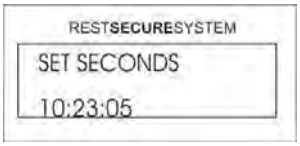
3. Using the Up or Down arrow, set the hours and press Enter. The time must be set in 24-hour clock.(13:00 = 1:00 pm)



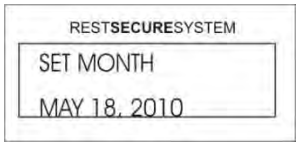
4. Using the Up or Down arrow, set the minutes and press Enter.



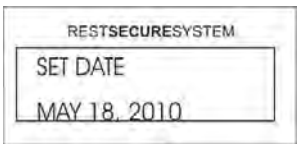
5. Using the Up or Down arrow, set the seconds and press Enter. This is an optional setting and may be bypassed by pressing Enter.



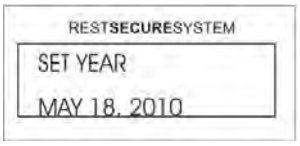
6. Using the Up or Down arrow, set the month and press Enter.

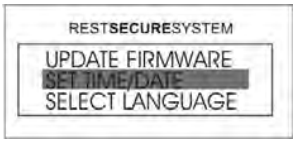


7. Using the Up or Down arrow, set the date and press Enter.



8. Using the Up or Down arrow, set the year and press Enter. After pressing Enter the user will return to SetTime/Date menu. To get back to the home screen, press and hold the Back button for 3 seconds.



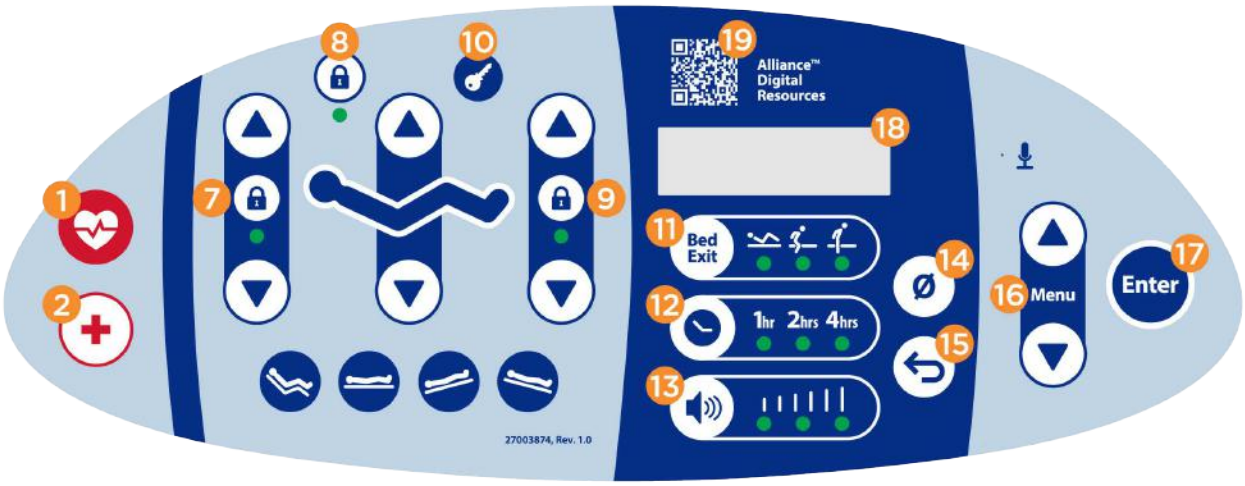


Operating Instructions

Alliance™ Operating Instructions

Footboard Controls

The footboard controls are located at the foot end of the bed. The controls have individual lockout functions as well as a master lockout switch. Locking out the specific function or all functions will disable the function on both hand and foot controls. If a button is pushed while the function is locked out, a light will show for notification that an unauthorized operation has been selected. To lock out a specific feature press the button and then press the button associated with that feature, repeating this process will then unlock the feature. The functions of the RSS system are fully integrated in the foot controls.



1. CPR
2. Nurse Call
3. Cardiac Chair
4. Bed Flat
5. Trend
6. Reverse Trend
7. Head Up/Down Lock
8. Bed Up/Down Lock
9. Foot Up/Down Lock
10. Lock/Unlock
11. Bed Exit
12. Protocol Timer
13. Volume Control
14. Zero
15. Back
16. Menu Up/Down
17. Enter
18. LCD display
19. QR Code for Digital Resource Webpage

NOTE: The above control includes Glow-In-The-Dark features; in case of power outages, operation is not impaired.

Hand Control

These instructions are for the general functions of the bed; any special or unique functions will be referenced within different sections of this manual.

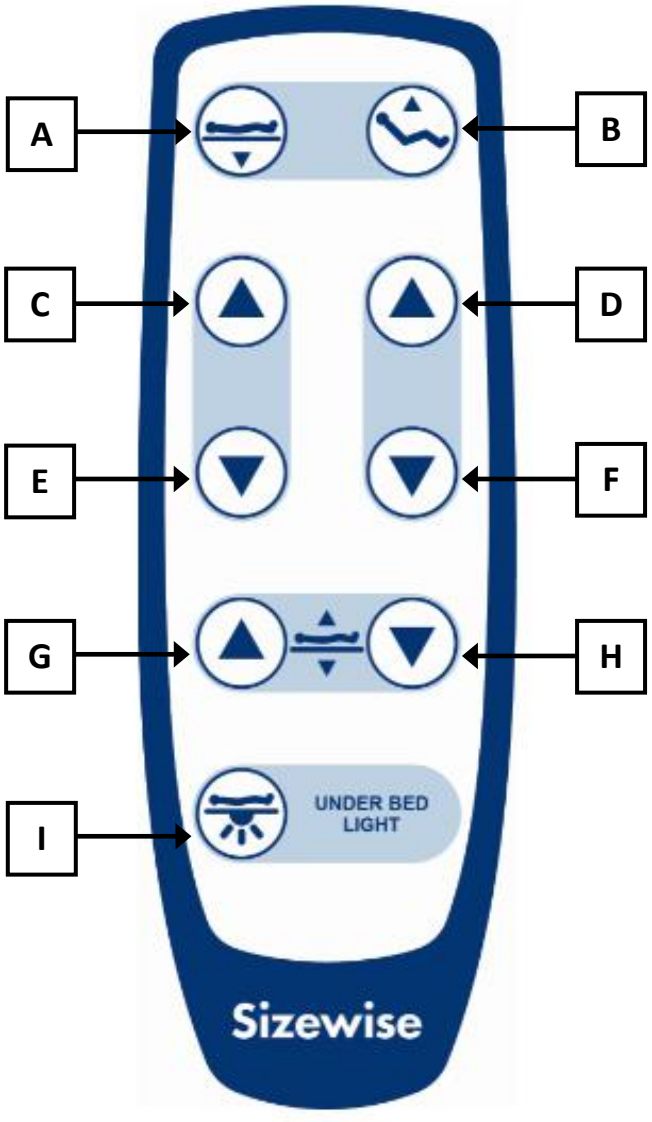
Make sure that the bed is correctly positioned and connected to a properly grounded hospital-grade outlet.

WARNING: Once the bed is positioned correctly, lock casters. Failure to do this could result in patient and/or caregiver injury, as well as damage to equipment or other property.

WARNING: Electrical shock or malfunction may occur if the hand control cord is pinched or frayed. Keep the cord away from moving parts.

The buttons perform the following operations:

Item	Description
A	Flat position (press and hold)
B	Cardiac chair (press and hold)
C	Raises the head section
D	Raises the knees
E	Lowers the head section
F	Lowers the knees
G	Raises the bed
H	Lowers the bed
I	Under bed light (blue in color)



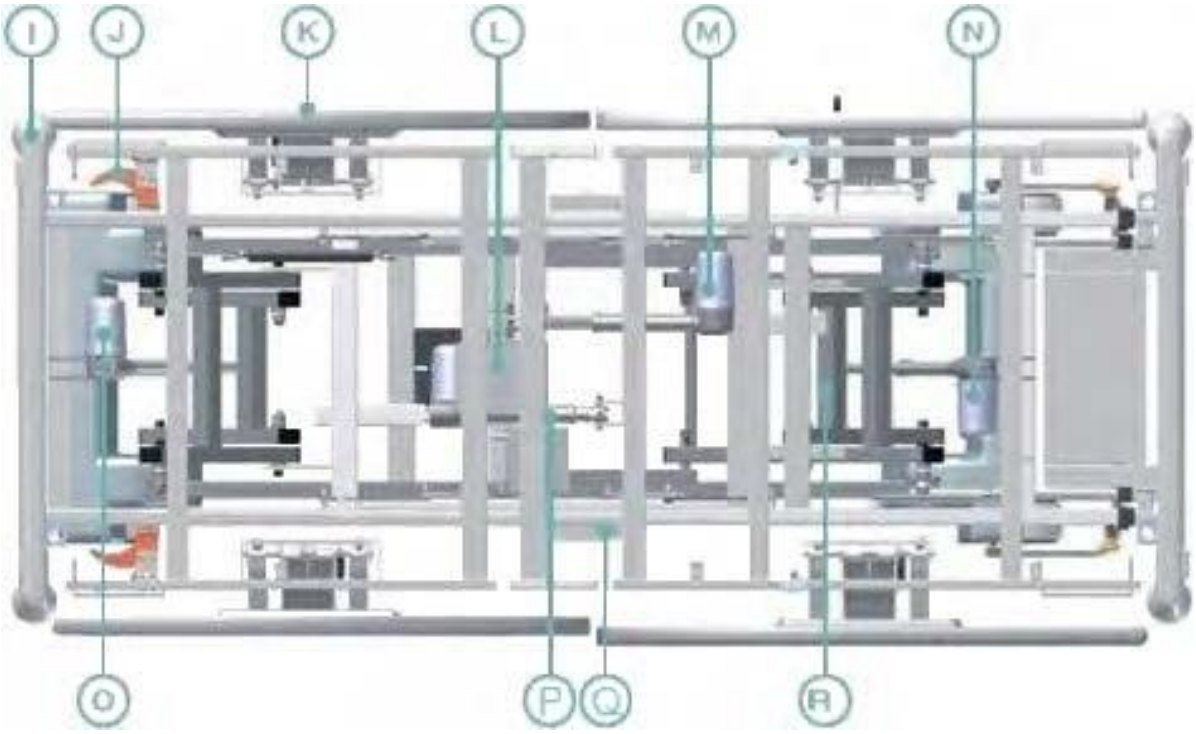
Operation of Bed

The operation of the bed is divided into two subsystems: Electrical and Mechanical.

Item	Description	Item	Description
A	Removable Headboard	E	Locking Mechanism
B	Rail with Membranes	F	Removable Footboard
C	Mattress Platform Modules	G	Multifunction Pedal
D	Extendable Lever		

WARNING: Failure to heed the warnings pertaining to the operation of the bed could result in patient and/or caregiver injury, as well as damage to equipment or other property.

Never perform any work/activity under the bed while it is in operation.

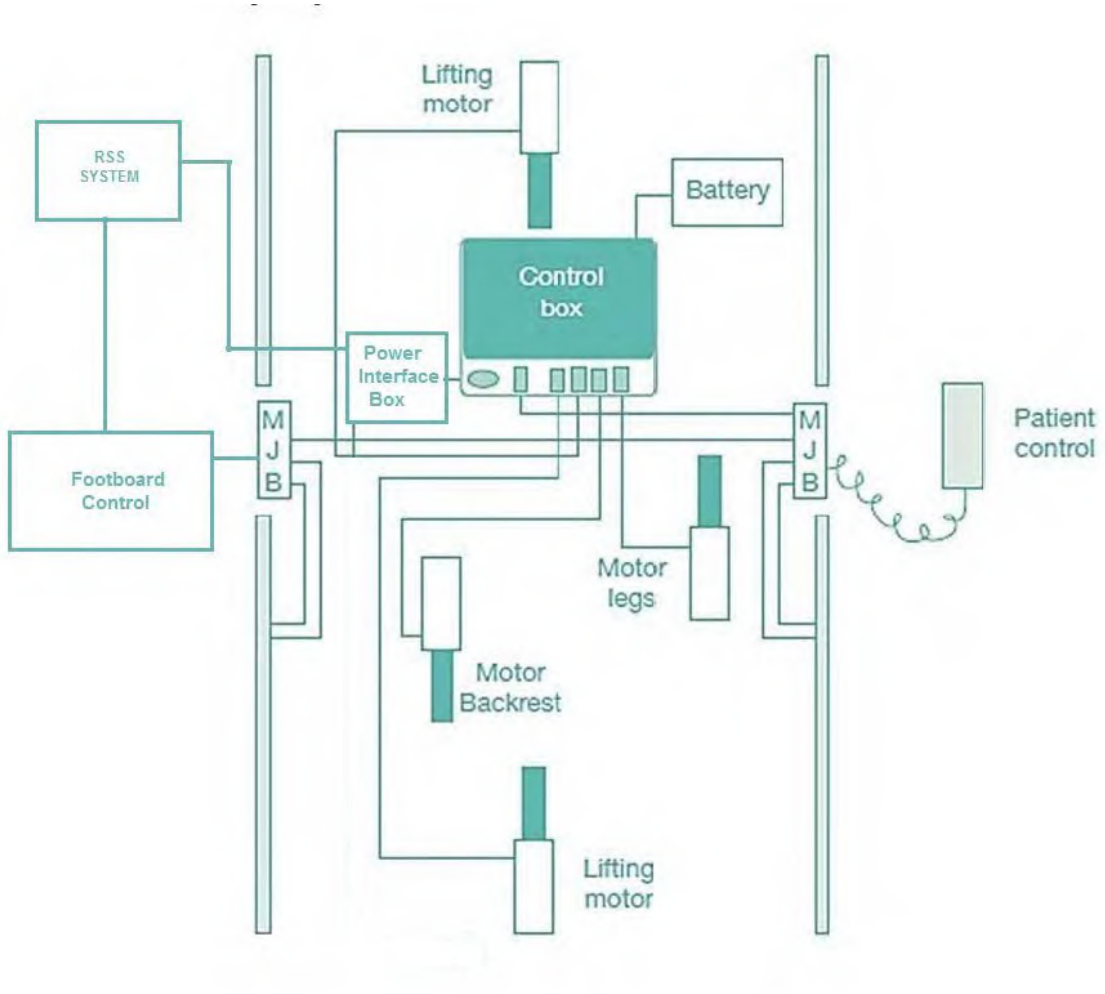


Item	Description
I	Removable headboard
J	CPR Lever
K	Rail with membrane
L	Control Box
M	Linear Actuator Backrest
N	Linear Actuator Lifting
O	Linear Actuator Lifting
P	Linear Actuator Legs
Q	Battery
R	Under Bed Light (blue in color)

Wiring Diagram

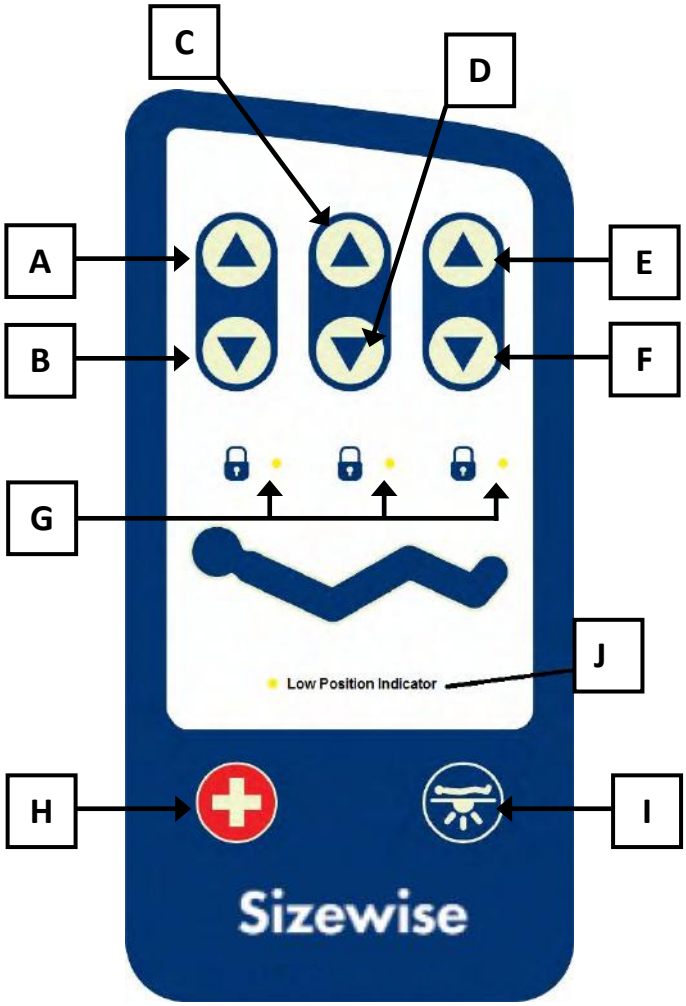
- System Control Box
- Battery.
- Two connection boxes with light (depending on variants).
- Four linear actuators (one for backrest, one for legs, and two for lifting).
- Two rails with membrane controls.
- Patient control.
- Nurse control.

The electrical wiring diagram is as follows:



Controls

PATIENT AND NURSE HEAD SIDE RAIL CONTROL



Item	Description	Item	Description
A	Raise Backrest	F	Lower Legs
B	Lower Backrest	G	Lock Indicator
C	Raise Mattress Platform	H	Nurse Call
D	Lower Mattress Platform	I	Under Bed Light (blue in color)
E	Raise Legs	J	Low Position Indicator

NOTE: The patient and nurse control is located on the left and right head side rails.

Operation of Controls

Raise or Lower Backrest

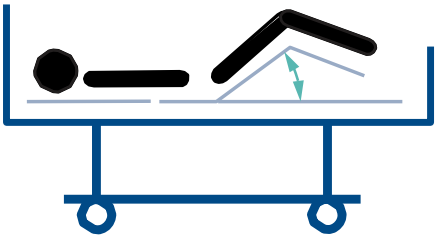
By way of the Raise or Lower Backrest buttons, the backrest module can be tilted into the desired position. Refer to the Table of Contents – Specifications section for the maximum and minimum tilt information.

To activate the movement, hold down the Raise or Lower Backrest button to move the backrest into the maximum or minimum tilt respectively.

Do not sit on articulated mattress platforms when they have been raised, nor activate the movements if there are people sitting on these modules.

There is a risk of trapping or crushing as the moving parts of the bed's mattress platform are lowered. Ensure that there are no obstacles in the way as it is being lowered.

Raise or Lower Legs



By way of the Raise or Lower Legs buttons, the legs module can be raised or lowered to the desired position. Refer to the Table of Contents – Specifications section for the maximum and minimum tilt information.

To activate the movement, hold down the Raise or Lower Legs button to move the bed into the maximum or minimum tilt respectively.

Do not sit on articulated mattress platforms when they have been raised, nor activate the movements if there are people sitting on these modules.

There is a risk of trapping or crushing by other parts of the bed or accessories when the moving parts of the mattress platform are lowered. Ensure that there are no obstacles in the way as it is being lowered.

Raise or Lower Backrest and Legs Simultaneously

By way of the Raise or Lower Backrest and Legs Simultaneously buttons, both modules can be tilted into the desired position at the same time. Refer to the Table of Contents – Specifications section for the maximum and minimum tilt information.

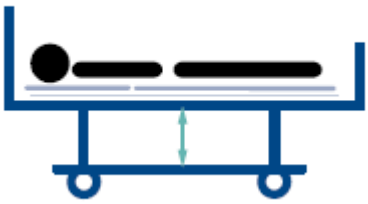
To activate the movement, hold down the Raise or Lower Backrest and Legs buttons simultaneously to move the bed into the maximum or minimum tilt respectively.

Do not sit on articulated mattress platforms when they have been raised, nor activate the movements if there are people sitting on these modules.

There is a risk of trapping or crushing by other parts of the bed or accessories when the moving parts of the mattress platform are lowered. Ensure that there are no obstacles in the way as it is being lowered.

Raise or Lower Mattress Platform

By way of the Raise or Lower Bed buttons, the bed can be raised or lowered to the desired height. The maximum height is ergonomically favorable to the caregiver and the minimum height to the patient. Refer to the Table of Contents – Specifications section for the minimum and maximum height information.



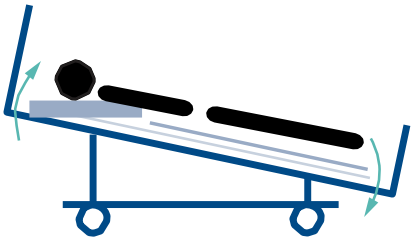
To activate the movement, hold down the Raise or Lower Bed button to raise or lower the bed to the maximum or minimum tilt respectively.

Do not attempt to raise or lower the bed by any other means than those designed by the manufacturer. If this warning is not heeded, there may be a malfunction in the lifting mechanism and physical injuries.

There is a risk of crushing if the bed is lowered with the rails down or if the rails are lowered with the bed in the lowest position.

There is a risk of crushing between the bed and the undercarriage as the bed is lowered, if the foot is placed on the undercarriage.

Trendelenburg/Reverse Trendelenburg



By way of the Trendelenburg and Reverse Trendelenburg function, the bed can be tilted by a maximum of 12° in the Trend movement and 12° in the Reverse Trend movement.

Reverse Trendelenburg
Activation: Press the Reverse Trend button to tilt the headboard with respect to the footboard up to a maximum tilt of 12°. The rest of the mattress platform will remain in its current position.

Trendelenburg
Activation: Press the Trend button to tilt the footboard with respect to the headboard up to a maximum tilt of 12°. The rest of the mattress platform will remain in its current position.

The Trendelenburg and Reverse Trendelenburg movements should always be carried out under medical supervision.

Do not attempt to raise or lower the bed with other means other than those designed by the manufacturer. If this warning is not heeded, there may be a malfunction in the lifting mechanism and physical injuries.

There is a risk of trapping or crushing by other parts of the bed or accessories when the moving parts of the mattress platform are lowered. Ensure that there are no obstacles in the way as it is being lowered.

There is a risk of crushing if the bed is lowered with the rails down or if the rails are lowered with the bed in the lowest position.

Cardiac Chair Position

By way of the Cardiac Chair button, the backrest module tilts 70° and the legs module tilts 40°; the bed tilts in the Reverse Trend position. The movements needed to achieve this position follows a strict order and interval to improve ergonomics and safety for the patient.

There is a risk of trapping or crushing by other parts of the bed or accessories when the moving parts of the mattress platform are lowered. Ensure that there are no obstacles in the way as it is being lowered.

Under Bed Light Button

By way of the Under-Bed Light button, a light is switched on under the mattress platform, allowing patients to walk around at night without the need to switch on the main light and without disturbing others.

To activate the light, press the button once. Press it a second time to switch it off.

Nurse Call Button

By way of the Nurse Call button, patients or family members can call the nurse if they need something. To activate, press the button once.

Do not attempt to raise or lower the bed by any other means than those designed by the manufacturer. If this warning is not heeded, there may be a malfunction in the lifting mechanism and physical injuries.

There is a risk of trapping or crushing as the moving parts of the bed's mattress platform are lowered. Ensure that there are no obstacles in the way as it is being lowered.

CPR Position

By way of the CPR button, the backrest is placed in the horizontal position for possible emergency cardiopulmonary resuscitation.

There is a risk of trapping or crushing by other parts of the bed or accessories when the moving parts of the mattress platform are lowered. Ensure that there are no obstacles in the way as it is being lowered.

Locking Functions

Lock indicator movements

If the indicator is lit, this indicates that the corresponding movement is locked.

<u>Bed Exit Alarm: Use Alarm</u>

The bed exit alarm function on the RSS alerts the caregiver that a patient is attempting to exit the bed or is in an immediate risk at falling. This is especially important in settings where continuous surveillance of the patient is not feasible.

WARNING: The bed is to be used in accordance with each facility's policies and procedures.

There are 3 bed exit alarm sensitivity settings:

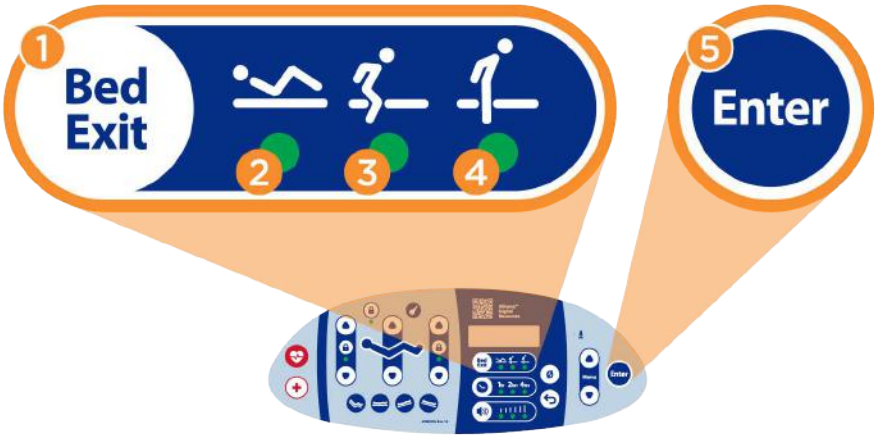
High Sensitivity: Detects patient movement; typically this setting would be used by the caregiver when needing to be notified of any movement, generally for patients at very high risk for falls.

Medium Sensitivity: Detects a patient attempting to exit the bed; typically this setting would be used by the caregiver in situations when the patient is at a moderate to high risk for falls.

Low Sensitivity: Detects when a patient has exited the bed; typically be used by the caregiver in situations where the patient responds to verbal or audible commands and is at a lower risk, for falls. If the patient is on an air support surface a lower sensitivity setting may be more appropriate as well.

NOTE: High and medium sensitivity settings may detect other movement, such as air therapy mattresses.

1 Bed Exit
2 High Sensitivity
3 Medium Sensitivity
4 High Sensitivity
5 Enter



To set the bed exit alarm:
In order to set the bed exit alarm, the patient must be in the bed prior to selecting the desired sensitivity level. To set the alarm, press the Bed Exit button until the desired sensitivity is selected. When there are no indicator lights on, the alarm is disabled. When a bed exit alarm has been activated, simply press the Enter button to reset the alarm and the monitoring process will be restored. Press and hold the Bed Exit button for 3 seconds to disable the bed exit alarm.

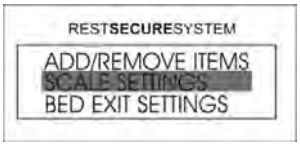
NOTE: The bed exit indicator light will blink for 10 seconds before the alarm will activate. Upon activation, the indicator will stay on. The bed exit alarm can only be activated with a minimum of 35 lbs. (16 kg) on the bed.

Scale System: Use Scale and Access Weight History

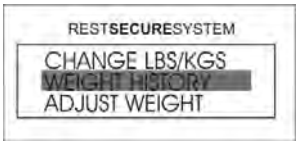
The RSS's integrated scale helps reduce the risk of caregiver or patient injury by allowing caregivers to accurately record the patient weight without having to transport or move the patient each time the weight is needed. The scale system is set to weigh and record the patient weight automatically at midnight every day up to 30 days. This bed offers caregivers convenience in attending to the patient.

Before a patient is placed into the bed, the scale should be zeroed out. Refer to the Table of Contents - RSS Setup Scale System: Zeroing the Scale.

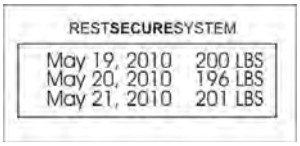
1. Access the Menu by pressing the Up or Down arrow until SCALE SETTINGS is selected and press Enter.



2. Select WEIGHT HISTORY and press Enter.



3. Using the arrows, the user can toggle through the last 30 days of history. Press the Back button twice to return to the home screen.



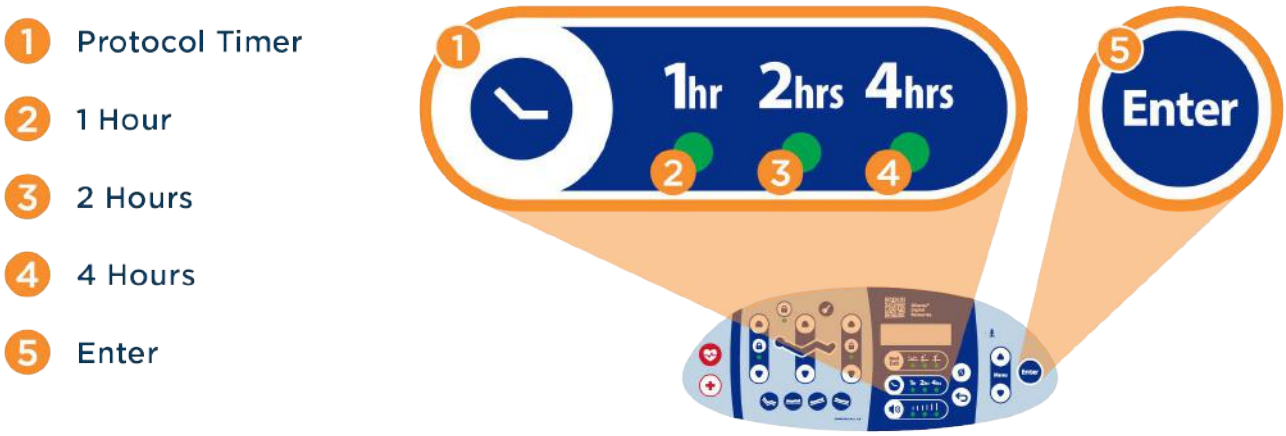
NOTE: The unit will only store the last 30 days of weight history. When the memory is full, it will begin replacing the older weight history readings first.

Protocol Timer: Using the Timer

The RSS protocol timer can be utilized to alert the caregiver that the patient needs to be attended to or checked on at intervals of 1, 2 or 4 hours. The protocol timer, has the capability to alerts the caregiver with an audible tone on the unit and, if connected to the Nurse Call Interface, can activate the nurse call signal.

WARNING: The bed is to be used in accordance with each facility's policies and procedures.

Press the Protocol Timer button once to set the timer to 1 hour, press twice for 2 hours, press three times for 4 hours. By pressing the Protocol Timer button a fourth time, time will be disabled and no indicator lights will be lit. When a protocol alarm has been activated, simply press the Enter button to reset the alarm and repeat the timing process.



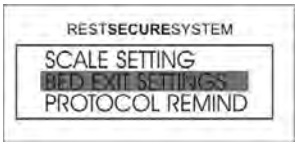
NOTE: On alarm, the unit must first be reset by pressing Enter before the protocol timer can be changed.

The sound level on the protocol timer can be changed; see the Table of Contents -RSS Protocol Timer: Sound Level Setting.

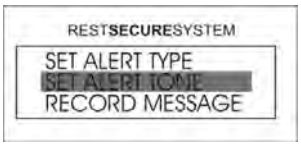
Bed Exit Alarm: Set Alert Tones

There are 5 different audible tones for the bed exit alarm. The user will hear each of the different tones as they scroll through the 5 selections.

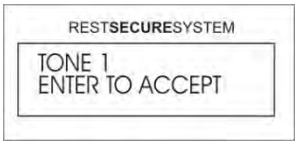
1. Access the Menu by pressing the Up or Down arrow until Bed Exit Settings is highlighted and press Enter.



2. Select SET ALERT TONE and press Enter.



3. Using the arrows, select one of the 5 tones and press Enter. The selection has now been completed. The user will return to the home screen.

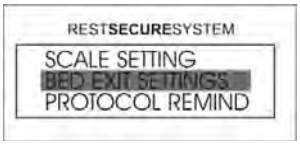


Bed Exit Alarm: Record Message

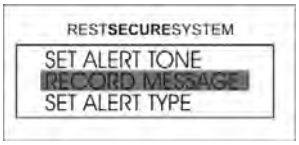
The Bed Exit Menu will allow you to change the alert type and alert tone, and also let you record a message to the patient so they are not startled by alarm tones of the bed exit alarm. This unit is also equipped with a Nurse Call Interface, which will activate the nurse call whether the unit is set to alert tone or voice message.

NOTE: The unit must be connected to the interface in order for the nurse call to activate.

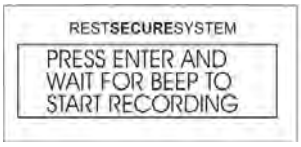
1. Access the Menu by pressing the Up or Down arrow until Bed Exit Settings is highlighted and press Enter.



2. Select RECORD MESSAGE and press Enter.



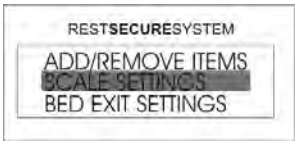
3. Press and hold the Enter button until the user hears a series of beeps. With the Enter button still pressed, the user may begin to record up to a 15 second message by speaking directly into the microphone. When the recording is finished, release the Enter button and follow the on-screen prompts.



Scale System: Adjust Weight

This feature is designed to manually adjust the weight if items were added to the bed without using the Add/Remove option. The caregiver will need to know the patient's weight before using this option.

1. Access the menu by pressing the Up or Down arrows until SCALE SETTINGS is highlighted and press Enter.



2. Select ADJUST WEIGHT and press Enter.

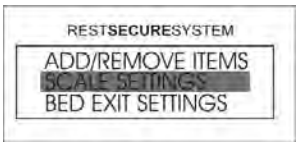
3. Adjust the weight added or removed from the bed in 0.5 lb. increments using the up or down arrow and press Enter. The user will now return to the home screen.

NOTE: The adjusted weight will return to 0.0 lb. when zeroing the scale. Refer to the Table of Contents - RSS Setup Scale System: Zeroing the Scale.

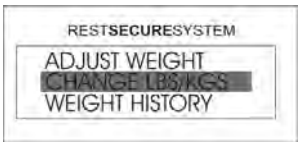
Scale System: Change LBS./KGS. Setting

This feature will allow the user to display the patient's weight in either pounds (lbs.) or kilograms (kgs.) The default for patient weight display is pounds lbs. This unit has a Lbs./Kgs. Lockout feature to prevent an accidental change of units. Refer to the Table of Contents - Operating Instructions Scale System: Locking/Unlocking the Unit in LBS/KGS).

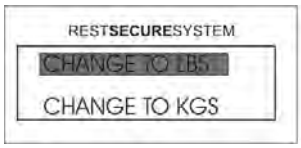
1. Access the menu by pressing the Up or Down arrows until SCALE SETTINGS is highlighted and press Enter.

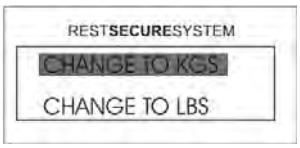


2. Select CHANGE LBS./KGS. and then press Enter.

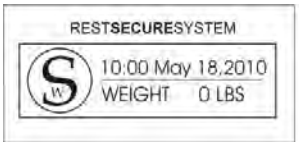


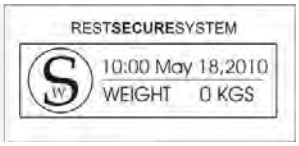
3. Select CHANGE TO KGS or CHANGE TO LBS and press Enter.





4. The unit will return to the home screen showing the weight in Kgs. or Lbs.

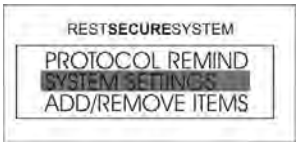




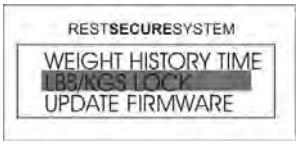
Scale System: Locking/Unlocking the Unit in Lbs./Kgs.

As part of a safety feature, this unit has the ability to lock the unit of measure in lbs. or kgs. This will prevent accidently changing the units in the Scale Settings menu.

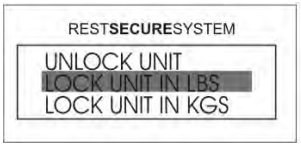
1. Access the Menu by pressing the Up or Down arrow until SYSTEM SETTINGS is highlighted and press Enter.

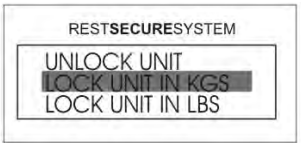


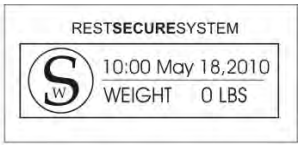
2. Select LBS/KGS LOCK and press Enter.



3. Select the preferred unit of measure to lock and press Enter. The user will return to the home screen.







NOTE: Follow the directions in the section Operating Instructions Scale System: Change LBS/KGS in the Table of Contents.

Proper Use of the Bed

WARNING: Follow the instructions for assisting patients in and out of the bed to avoid a fall or injury to the patient and/or caregiver.

To get in the bed, follow these steps for proper positioning height:

1. Lower the side rails as desired.
2. Have the patient stand next to the bed where he/she is planning to sit with the back of the patient's legs or buttocks next to the bed.
3. Using the hand control, raise or lower the entire bed, positioning the bed so the top of the mattress is even with the lower buttocks of the patient.
4. Have the patient sit on surface and recline comfortably.

To get out of the bed, follow these steps for proper positioning height:

1. Using the hand control raise or lower the entire bed.
2. Firmly plant feet on the ground.
3. Have patient slowly rise to standing position.

It is not recommended to use the head or foot section functions to assist the patient in and out of the bed, as damage to the bed may occur.

Reaching or Leaning

WARNING: Reaching or leaning affects the patient's center of balance. Follow the instructions for patients reaching or leaning from the bed to avoid a fall or injury to the patient and/or caregiver.

Have the patient avoid reaching or leaning over the side of the bed. Have the patient ask for help or use a device to extend his/her reach.

Never allow the patient to reach with both hands. In doing so, the patient may not be able to catch him or herself to prevent a fall.

If the patient must reach or lean from the bed, the patient should steady him or herself by firmly grasping a side rail with one hand.

Side Rails

RAISING THE RAIL
To raise the rail, pull the rail upwards to its highest position until it locks in place.

When the rail is raised, make sure it is totally locked, as damage may be caused if it is lowered accidentally.

LOWERING THE RAIL
To lower the rail, pull the handle under the rail outwards. The rail will lower gradually.

There is a risk of crushing if the bed is lowered with the rails down or if the rails are lowered with the bed in the lowest position.

WARNING: It is recommended to have the side rails upright at all times while the patient is in the bed. However, the ultimate decision lies with the medical personnel who are on-site and can fully evaluate all factors.

WARNING: If the side rails are not secured in the proper place, entrapment to the patient may occur. Bed rail entrapment is a serious health risk that can result in patient entrapment or even death.

WARNING: Never try to move the bed by the side rail. The side rail as is may come loose or break. The side rails are not designed to bear the patients full weight.

WARNING: Exceeding the weight capacity of the side rails could result in patient and/or caregiver injury as well as damage to equipment or other property.

The side rails were tested to 60601-2-52 (28.4.102 and 28.4.103). These rails also have been tested and comply with patient entrapment rules and regulations (23.101).

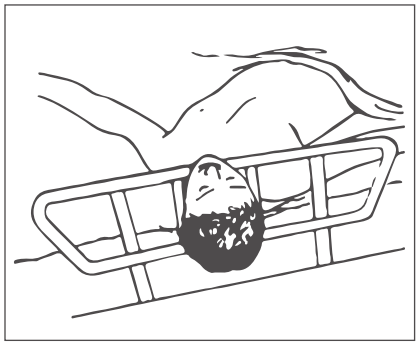
Seven Zones of Bed Rail Entrapment

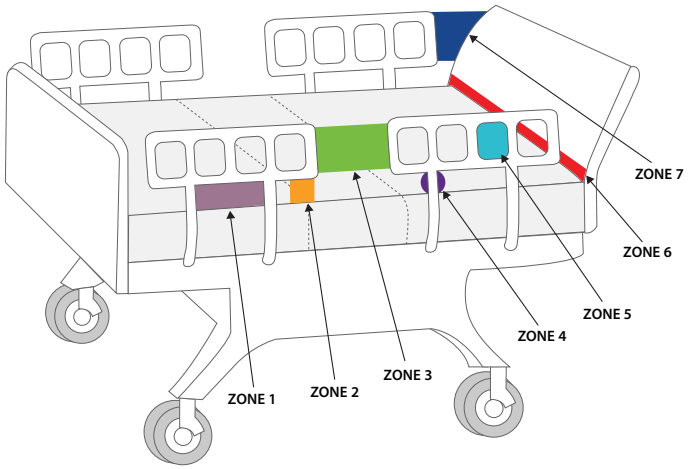
If the patient would have any clinical conditions that could result in risk of falling or improperly lying in bed, the bed should be left at its lowest setting and in flat position when not attended. Sizewise recommends the use of bed rails if they are available. There are seven zones of bed rail entrapment.

WARNING: Bed rail entrapment can result in serious injury or even death. Sizewise recommends the caregiver be mindful of the FDA guidelines relevant to bed rail entrapment. When using an Air Therapy system the caregiver is responsible for ensuring the mattress properly fits the bed frame. It is also the caregiver's ultimate decision whether or not to use bed rails with the patient.

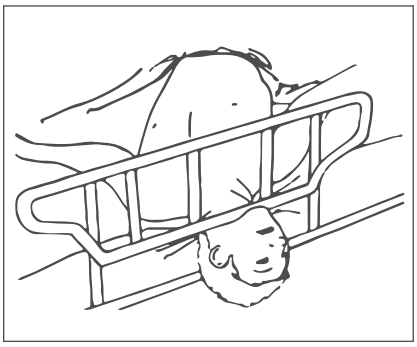
Seven Zones of Bed Rail Entrapment

WARNING: Bed rail entrapment can result in serious injury or even death. Sizewise recommends caregivers be mindful of the FDA guidelines relevant to bed rail entrapment. These guidelines can be found on the FDA website as referenced below. When using a replacement support surface, the caregiver is responsible for ensuring the mattress properly fits the bed frame. It is also the caregiver's decision whether or not to use bed rails with the patient.

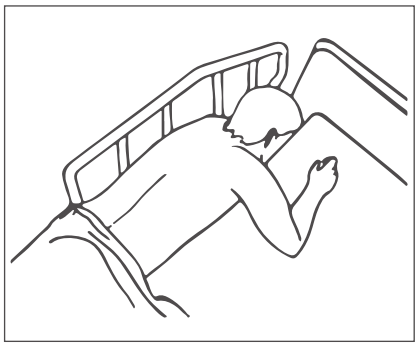




Zone 1:
Within the Rail

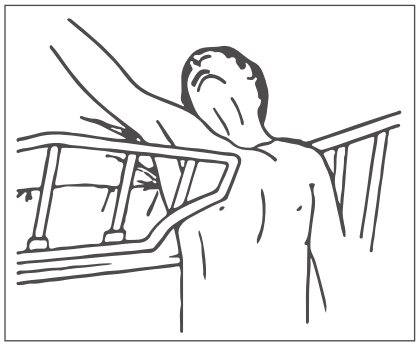


Zone 2:
Under the Rail, Between the Rail Supports, or Next to a Single Rail Support

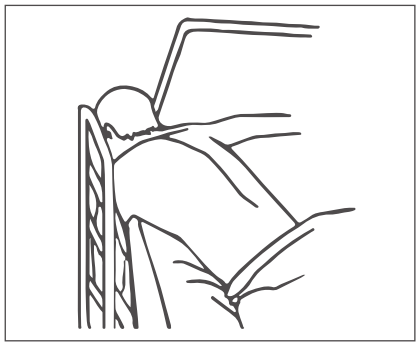


Zone 3:
Between the Rail and the Mattress

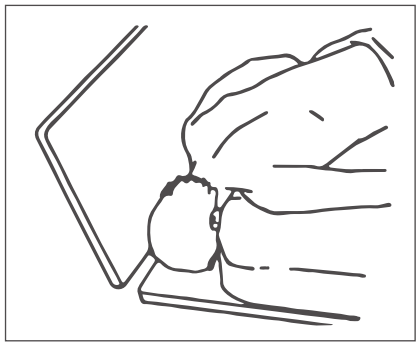
Zone 4:
Under the Rail, at the Ends of the Rail



Zone 5:
Between Split Bed Rails



Zone 6:
Between the End of the Rail and the Side Edge of the Head or Footboard

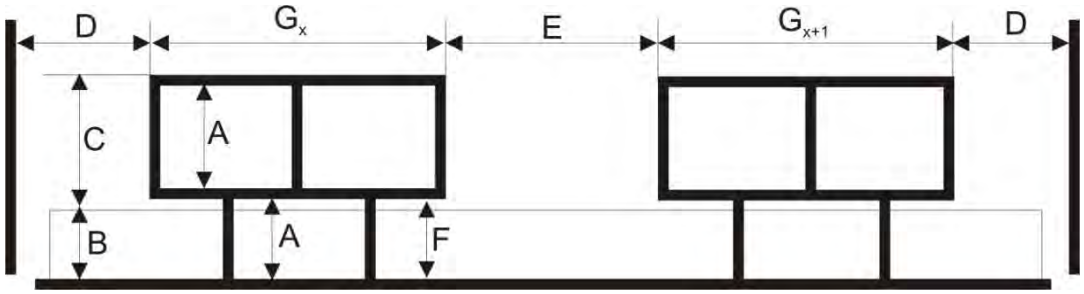


Zone 7:
Between the Head or Footboard and the Mattress End

Reference: Hospital Bed System Dimensional and Assessment Guidance to Reduce Entrapment. (2006, Mar. 10). U.S. Health and Human Services Food and Drug Administration Center for Devices and Radiological Health. Retrieved from https://www.fda.gov/downloads/medicaldevices/deviceregulationandguidance/guidancedocuments/ucm072729.pdf

Seven Zones of Bed Rail Entrapment

This bed complies with IEC 60601-2-52 standard for bed rail entrapment. Below are the specifications of that standard.



DESIGNATOR	DESCRIPTION	DIMENSION	
A	Smallest dimension between elements inside the perimeter of the SIDE RAIL in its raised/locked positions or perimeters created between the SIDE RAIL and fixed parts of the BED.	≤ 120 mm	
B	Thickness of NORMAL USE mattress.	Specified by the manufacturer	
C	Height of the top edge of the SIDE RAIL above the mattress (see B) without compression.	> 318 mm	
D	Distance between segmented SIDE RAIL with the MATTRESS SUPPORT PLATFORM in the flat position.	≤ 60 mm Or > 318 mm	
E	Smallest dimension of any accessible opening between the SIDE RAIL and the MATTRESS SUPPORT PLATFORM in the flat position.	≤ 60 mm Or > 318 mm	
F	Smallest dimension of any accessible opening between the SIDE RAIL and the MATTRESS SUPPORT PLATFORM in the flat position.	If D or E > 318 mm then F ≤ 60 mm	If D or E ≤ 60 mm then F ≤ 120 mm
G	Total length of the SIDE RAIL or sum of the length of segmented SIDE RAILS on one side of the BED.	∑ Gx > half the length of the MATTRESS SUPPORT PLATFORM	

CPR RELEASE SYSTEM

Operate the lever located below the backrest, in turn accompanying the module as it lowers. For the safety of the patient, the system includes a damper to prevent the backrest from abruptly falling back .

There is a risk of trapping or crushing as the moving parts of the bed's mattress platform are lowered. Ensure that there are no obstacles in the way as it is being lowered.

NOTE: The head deck will require calibration following the use of the CPR Release Lever. Calibration is accomplished by a press and hold of the lower head button for 3 seconds.

Transfers

WARNING: Follow the instructions for transferring patients to avoid a fall or injury to the patient and/or caregiver.

Transfers require good balance and agility and are very dangerous. The caregiver should learn how to position the body and support him or herself during a patient transfer.

The caregiver should work with the patient's doctor, nurse or therapist to learn safe transfer methods.

Provide help to the patient until he or she knows what can cause a slip or fall and how to avoid doing so. Never let the patient maneuver into or out of the bed without assistance until it is confirmed that the patient can do so safely.

Position the bed at an elevation comfortable to the patient and/or caregiver.

Bring the top deck to a flat position.

Lock brake and steer casters.

Lower the side rails.

Make sure the equipment the patient is being transferred to is stable and will not slide away from the patient and/or caregiver during the transfer.

Features

Casters

Lock and Steer

There is one lock and steer caster located on the right foot of the bed. When the green pedal is pressed down, the caster will lock, prohibiting swivel but allowing for bed maneuvering. This makes it the steering caster. Press down on the green pedal to engage the steer caster and lift up on the pedal to unlock.

Locking

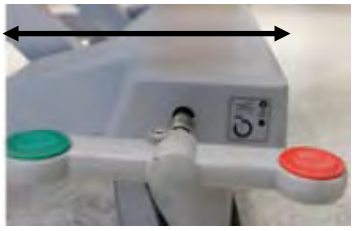
The other three casters are lock-only casters. When locked, the bed cannot be moved. Press down on the red pedal to lock and lift up on the pedal to unlock.

WARNING: While the patient is in the bed, it is recommended to lock the casters to reduce risk of injury to the patient and/or caregiver.

To avoid and reduce risk of a tripping injury to the patient and/or caregiver, align the casters with the bed.

Intermediate

When the pedal is in the intermediate position (horizontal position) all casters can move freely in any direction.



RSS Connections

Rest Secure System

1.) 29050030-Flintec Load Cell (Load cells 1-4)

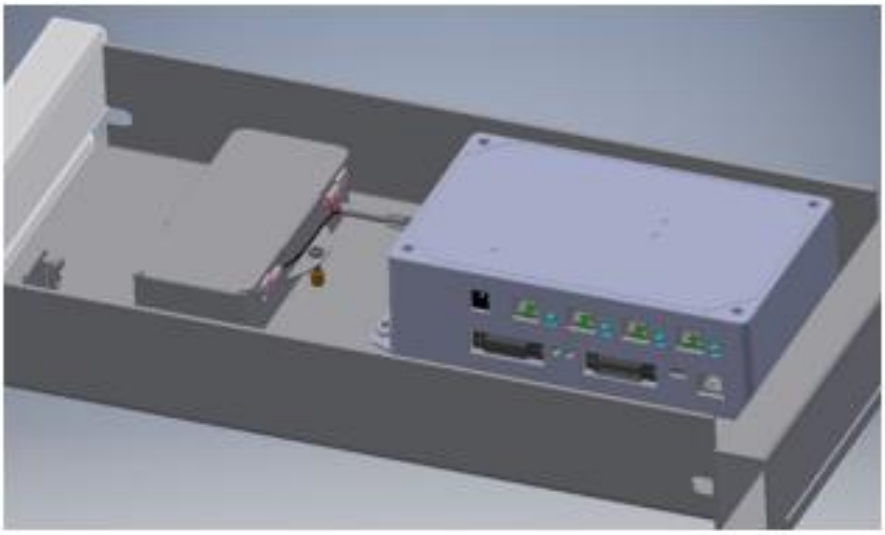
2.) 27003915-Harness, RSS to Power Interface Box (12V DC)

3.) 27003916-Power Interface Box, Nurse Call Junction

4.) 27003917-Nurse Call/Bed Exit Head (37pin)

5.) 27003918-Foot End Junction Box

6.) 46070050-RSS Box Assembly (Shown Below)



Emergency Battery Backup

In case of power failure the emergency battery backup will operate the bed. Use only in emergency situations, as battery backup is not designed for continuous use. The battery will recharge itself while the bed is plugged into a hospital-grade or grounded outlet. It takes 24 hours to fully charge/recharge the battery backup.

This bed is equipped with one 1.3 amp 24V sealed lead-acid (gel battery. New batteries, or batteries stored for a long time, may take more time to charge. Keep the battery near room temperature when charging.

Battery Specifications:

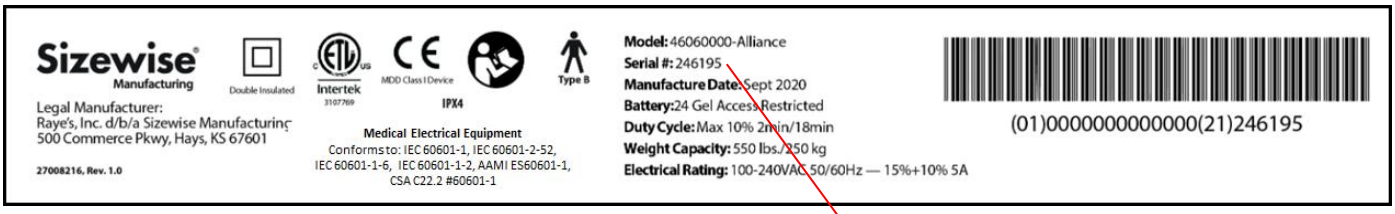
Nominal Voltage		24V
Rated Capacity		1.3Ah
Dimensions	Length	5.43 in (138 mm)
	Width	4.17 in (106 mm)
	Height	2.68 in (68 mm)
Approximate Weight		2.76 lbs. (1.25 kg)

The specifications of the battery are from the manufacturer's guidelines sheet. If the battery needs to be changed, follow the manufacturer's specifications and the information listed in this section.

WARNING: Failure to follow the provided battery specifications could result in patient and/or caregiver injury, as well as damage to equipment or other property.

Serial Number Location

The bed has a manufacturer number and a serial number. The serial numbers are located at the head of the bed.



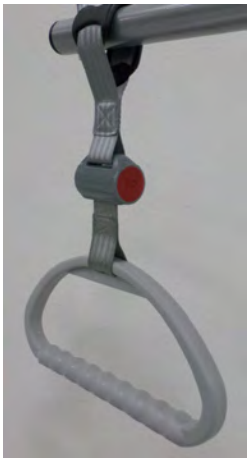
Manufacturer Serial Number

IV Pole

The IV pole can be placed in any of the four accessory attachment points on the bed. They are located at the four corners of the bed, two at the head and two at the foot. The weight capacity of the IV pole is rated at 50 lbs. (22 kg).

WARNING: If the weight capacity of the IV pole is exceeded, it could result in patient and/or caregiver injury, as well as damage to equipment or other property.

Trapeze Assembly



The support handle is installed on one of the accessory holders, comprising a steel arm with ergonomically designed handle and non-slip belt that adjusted by pressing a button.

NOTE: The third conductor in the Power Supply Cord is only a functional earth.

WARNING: If the weight capacity of the trapeze (150 lbs.) is exceeded, it could result in patient and/or caregiver injury as well as damage to equipment or other property.

HAZARD: Pay close attention to pinch points on the bed to avoid injury to the patient and/or caregiver.

WARNING: Do not attempt to install, perform maintenance, or use this product without first reading and understanding these instructions and accompanying documents such as, the User Manual, Technical Manual, and Work Instructions. If you do not understand these instructions, or documents referenced, contact Sizewise at 1-800-814-9389.

WARNING: Do not attempt to install, repair, or remove the trapeze, single pole patient assist, or any other overhead components/devices while bed is occupied.

WARNING: Before positioning patient on bed, verify all components are secure after adjustments, repairs, or servicing of the trapeze, single pole patient assist, or any other overhead components/devices.

WARNING: Use only parts, accessories and adapters authorized by Sizewise.

EMC Information

Alliance™ has been tested for compliance with EMC requirements. The guidelines in this section will help ensure the equipment meets the requirements of the standard.

CAUTION: This device conforms to all requirements specified by the standards for electromagnetic compatibility (EMC). Problems are not likely to be encountered by the user due to inadequate electromagnetic immunity. While the standards are based on expected environments of use, electromagnetic immunity is always relative. If unusual, intermittent device behavior is encountered and can be associated with cell phones, radio or TV transmitters, or electro-medical equipment, electromagnetic interference could be the cause. If such interference occurs, the interfering equipment should be moved away from this device.

WARNING: 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.

WARNING: 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.

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 the Alliance™ control unit, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.

Guidance and Manufacturer's Declaration – Emissions

Alliance™ is intended for use in the electromagnetic environment specified below. The customer or user of Alliance™ should ensure that it is used in such an environment.

Emissions Test	Compliance	Electromagnetic Environment Guidance
RF Emissions CISPR 11	Group 1	Alliance™ uses RF energy only for its internal functions. Therefore, its RF emissions are very low and not likely to cause any interference in nearby electronic equipment.
RF Emissions CISPR 11	Class A	***NOTE:*** The emissions characteristics of this equipment make it suitable for use in industrial areas and hospitals (CISPR 11 class A). If it is used in a residential environment (for which CISPR 11 class B is normally required) this equipment might not offer adequate protection to radio-frequency communication services. The user might need to take mitigation measures, such as relocating or re-orienting the equipment.
Harmonic Emissions IEC 61000-3-2	Class A	
Voltage Fluctuations and Flicker IEC 61000-3-3	Complies	

EMC Information

Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment Guidance
Electrostatic Discharge (ESD) IEC 61000-4-2	±8kV Contact ±2kV, ±4kV, ±8kV, and ±15kV, Air	±8kV Contact ±2kV, ±4kV, and ±8kV, Air	Floors should be wood, concrete, or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical Fast Transients and Bursts (EFT) IEC 61000-4-4	±2kV Mains	±2kV Mains	Mains power quality should be that of a typical commercial or hospital environment.
Surges IEC 61000-4-5	±1kV Differential ±2kV Common	±1kV Differential ±2kV Common	Mains power quality should be that of a typical commercial or hospital grade.
Voltage Dips and Short Interruptions IEC 61000-4-11	0% U_T: 0.5 cycle At 0˚, 45˚, 90˚, 135˚, 180˚, 225˚, 270˚, and 315˚ 0% U_T: 1 cycle At 0˚ and 180˚ 70% U_T: 25 cycles (50Hz) At 0˚ and 180˚ 0% U_T: 250 cycles (50Hz) At 0˚ and 180˚	0% U_T: 0.5 cycle At 0˚, 45˚, 90˚, 135˚, 180˚, 225˚, 270˚, and 315˚ 0% U_T: 1 cycle At 0˚ and 180˚ 70% U_T: 25 cycles (50Hz) At 0˚ and 180˚ 0% U_T: 250 cycles (50Hz) At 0˚ and 180˚	Mains power quality should be that of a typical commercial or hospital environment. If the user of **Alliance™** requires continued operation during power mains interruptions, it is recommended that the control unit be powered from an **uninterrupted** power supply or battery.
Power Frequency Magnetic Fields IEC 61000-4-8	30A/m (50/60Hz)	30A/m (50/60Hz)	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.

Note: U_T is the AC mains voltage prior to application of the test level.

EMC Information

Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment Guidance
Conducted RF IEC 61000-4-6	3V RMS 0.15MHz – 80MHz 6V RMS ISM and Amateur Radio bands between 0.15MHz – 80MHz 80% AM at 1KHz	3V RMS 0.15MHz – 80MHz 6V RMS ISM and Amateur Radio bands between 0.15MHz – 80MHz 80% AM at 1KHz	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. Interference may occur in the vicinity of equipment marked with this symbol.
Radiated RF IEC 61000-4-3	10V/m 80MHz – 2.7GHz 80% AM at 1KHz	10V/m 80MHz – 2.7GHz 80% AM at 1KHz	

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

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

Immunity to Proximity Fields from Radio Frequency Wireless Communications Equipment

In addition to the Radiated RF IEC 61000-4-3 as shown in the table above, **Alliance™** has been tested as specified in the table below.

Test Frequency (MHz)	Band (MHz)	Service	Modulation	Maximum Power (W)	Distance (m)	Immunity Test Level (V/m)
385	380-390	Tetra 400	Pulse Modulation 18Hz	1.8	0.3	27
450	430-470	GMRS 460, FRS 460	Pulse Modulation 18 Hz	2	0.3	28
710	704-787	LTE Band 13, 17	Pulse Modulation 217 Hz	0.2	0.3	9
745						
780						
810	800-960	GSM 800/900 TETRA 800, iDEN 820, CDMA 850, LTE Band 5	Pulse modulation 18 Hz	2	0.3	28
870						
930						
1720	1700-1990	GSM 1800; CDMA 1900; GSM 1900; DECT; LTE Band 1, 3, 4, 25; UMTS	Pulse Modulation 217 Hz	2	0.3	28
1845						
1970						
2450	2400-2570	Bluetooth WLAN, 802.11 b/g/n, RFID	Pulse Modulation 217 Hz	2	0.3	28
5240	5100-5800	WLAN 802.11 a/n	Pulse Modulation 217 Hz	0.2	0.3	9
5500						
5785						

General Safety

WARNING: The bed is to be used in accordance with each facility's policies and procedures.

CAUTION: Possible fire hazard when used with oxygen- administering equipment other than the nasal mask or 1/2 bed length type tent. Oxygen tent should not extend below the mattress support level. Lock hand control at foot of bed when using oxygen administering equipment.

WARNING: Electric shock may occur when plugging the bed into the wall outlet. Use ONLY grounded or hospital-grade outlets.

DO NOT use the bed if the power cord is cut, frayed, or loosely connected to the bed.

Pinch Point

Watch for pinch points on the bed, which are indicated by the pinch point label.

HAZARD: Pay close attention to pinch points on the bed to avoid injury to the patient and/or caregiver.

Pinch points have minimal clearances between two moving parts that fail to maintain a clearance of ≤ 8mm or ≥ 25mm.

Transport

WARNING: Use caution during transport, so the bed does not tip or overbalance. Failure to do so could result in patient and/or user injury as well as damage to equipment or other property.

CAUTION: The bed needs to be transported and stored in a temperature range of 5°C to 40°C (41°F to 104°F).

DO NOT expose the bed to humidity greater than 95%.

It is not recommended to transport a patient when the bed is in the Trendelenburg or Reverse Trendelenburg positions.

Generally, as the load increases, the risk of instability goes up.

Lower the foot section and head section to increase stability.

Lower the bed deck height approximately 12–15” (30–38 cm) from the floor to increase stability.

Use and position of accessories may affect stability. **DO NOT** overextend IV poles or similar accessories and **DO NOT** overload accessories. If multiple accessories are in use, distribute them evenly from side to side or head to foot.

For inclines or thresholds, approach them moving forward or backwards, rather than sideways.

To help prevent overbalance or collision with hidden objects or people, **DO NOT** make sharp turns or turn the bed at high speeds.

The bed complies with the 60601 Threshold Test (21.6.102) and will go over a rectangular cross-section .787” (20 mm) high and 3.15” (80 mm) deep.

Cleaning Instructions

WARNING: Before cleaning the bed, be sure to disconnect it from the wall outlet (power source). Failure to do so could result in electrical shock and could result in patient and/or user injury, as well as damage to equipment or other property.

To minimize the negative impact of cleaning agents:

- Contact time must be monitored and kept to the required time identified on the manufacturer's instructions.
- All cleaning solutions must be diluted in accordance with manufacturer's instructions.

Recommended EPA Registered Disinfectants:

Wex-Cide 128 (Wexford Labs), EPA Reg. #34810-31

Equipment must be disinfected using an EPA-registered, hospital-grade disinfectant, according to the manufacturer's recommendations for use.

Recommended Stain Remover(s:
Stain Away (ABC Compounding

This stain remover is effective in removing most difficult stains and is intended to be used in its original concentration.

***Clostridium difficile* (C. diff Prevention:**
Clorox Germicidal Wipes (Clorox Professional Products Company, EPA Reg. #67619-12

These pre-moistened wipes meet the CDC's recommendations for *Clostridium difficile* (C.diff bacteria, after the manufacturer's recommended "wet contact time".

1. Perform hand hygiene using soap and warm water or hand sanitizer, and then put on disposable gloves and eye protection.
2. Use wipes to wipe the top and front of head/footboards, hand controls and cords, side rails and mattress top cover, making sure to wipe between the mattress and side rails.
3. Change wipes often, to ensure that surfaces remain wet with disinfectant for the manufacturer's required contact time. Used wipes are to be discarded in the trash.
4. Remove disposable gloves and discard in the trash; perform hand hygiene using soap and warm water or hand sanitizer, and then remove eye protection.

To reduce the discoloration of fabrics and degradation of the sleep surface lining, surfaces must be thoroughly rinsed with clean, fresh water to remove chemical residues immediately after the manufacturer's recommended "wet contact time" has been reached. The use of bleach-based solutions must be avoided whenever possible.

General Patient Room Cleaning/Disinfecting
Personal Protective Equipment (PPE) should always be used as directed by the Safety Data Sheet for the disinfectant.

Prepare the disinfectant according to the manufacturer's recommendations.

Prepare a separate bucket of warm, fresh water to be used for rinsing the equipment after cleaning/disinfecting procedures are completed as instructed.

Inspect sleep surface for attachment straps that may be securing the sleep surface to the bed top deck and disconnect attachment straps.

For any active therapy based sleep surface, disconnect hoses from the control unit to prevent damage to control unit or hose connections.

Remove sleep surface from the bed to gain full access to bed top deck and internal surfaces of headboards, footboards, and side rails.

Raise all bed functions to the highest position for easy access to all surfaces.

- Bed to highest position
- Head articulation to highest position
- Foot articulation to highest position

Disconnect the bed from all electrical power to avoid electrical shock.

All bed frame surfaces are to be wiped using a coarse cloth, dampened with the disinfectant solution and prepared as directed by the manufacturer's recommendations, to remove organic material and visible soil.

When cleaning components such as hand and/or foot controls and areas where there are electrical connections and components, avoid excessive moisture to prevent damage.

Allow all bed surfaces to remain wet with disinfectant solution for the manufacturer's recommended contact time.

Rinse all surfaces with a clean cloth dampened with fresh water to remove chemical and organic residue.

After cleaning, all surfaces are to be wiped with a clean, dry cloth to remove any moisture or residue.

NOTE: Additional cleaning may be completed, as desired, with a mild soap solution and/or household cleaning products. Avoid using harsh chemicals, such as acetone or paint thinner, as they will damage the finish of the paint.

Steam Cleaning
This product may be steam-cleaned to eliminate bacteria and/or bed bug infestations, if desired. When applying steam, avoid areas such as electrical connections and components including RSS, hand and/or footboard controls that may be damaged by being exposed to excessive moisture and/or heat.

Rinse all surfaces with a clean cloth dampened with fresh water to remove chemical and organic residue.

After cleaning, all surfaces are to be wiped with a clean, dry cloth to remove any moisture or residue.

Scale System Components
All surfaces of the RSS are to be wiped using a coarse cloth, dampened with the disinfectant solution and prepared as directed by the manufacturer's recommendations, to remove organic material and visible soil.

Avoid excessive moisture to prevent damage.

Allow the RSS to remain wet with disinfectant solution for the manufacturer's recommended contact time.

Rinse all surfaces of the RSS with a clean cloth dampened with fresh water to remove chemical and organic residue.

After cleaning, all surfaces are to be wiped with a clean, dry cloth to remove any moisture or residue.

Bed Electronics and Hand Controls
Electronic components (Electrical Control Module, electrical connections and hand controls) are to be wiped using a coarse cloth, dampened with the disinfectant solution and prepared as directed by the manufacturer's recommendations, to remove organic material and visible soil.

Avoid excessive moisture to prevent damage.

Allow the electrical components and hand control to remain wet with disinfectant solution for the manufacturer's recommended contact time.

Wipe all electrical components with a clean, dry cloth to remove any moisture or residue.

Sleep Surfaces (Including Mattress Bases and Top Covers)
NOTE: The use of bleach-based products/solutions will provide a higher concentration of the agent than is required to eliminate the bacteria and will increase the potential for damage to the fabric, and the built-in protective barrier of the sleep surface.

NOTE: To reduce the discoloration of the sleep surface lining, surfaces must be thoroughly rinsed with clean, fresh water to remove chemical residues immediately after the required "wet contact time" has been reached.

1. Personal Protective Equipment should be used as directed by the Safety Data Sheet for the disinfectant.
2. Prepare the disinfectant according to the manufacturer's recommendations.
3. Inspect sleep surface for attachment straps that may be securing the sleep surface to the bed top deck and disconnect attachment straps.
4. For any control unit-based sleep surface, turn OFF the control unit and disconnect from electrical power. Disconnect hoses from control unit to prevent damage to control unit or hose connections.
5. All surfaces of the mattress are to be wiped using a coarse cloth, dampened with the disinfectant and prepared as directed by the manufacturer's recommendations, to remove organic material and visible soil. When cleaning the mattress, special attention is to be given to sewn seams and folds in mattress fabrics.
6. Allow the mattress to remain wet with disinfectant solution for the manufacturer's recommended contact time.
7. Stains on the mattress may be treated using a mild stain remover according to the manufacturer's recommendations using a soft bristled brush.
8. Rinse all surfaces of the mattress with fresh water and clean cloth to remove chemical and organic residue.
9. After cleaning, all surfaces are to be wiped with a clean, dry cloth to remove any moisture or residue and allowed to air dry.

Control Unit and Hand Control (if equipped)
NOTE: Hand-clean only. **DO NOT** place in sterilization room or chamber.

1. Personal Protective Equipment (PPE) should be used as directed by the Safety Data Sheet for the disinfectant.
2. Prepare the disinfectant according to the manufacturer's recommendations.
3. Turn OFF the control unit and disconnect it from all electrical power to avoid electrical shock.
4. When cleaning the control unit, avoid excessive moisture especially in areas where there are electrical connections and components to prevent damage.
5. All surfaces of the control unit and the power cord are to be wiped using a coarse cloth, dampened with the disinfectant solution and prepared as directed by the manufacturer's recommendations, to remove organic material and visible soil.
6. Allow the control unit to remain wet with disinfectant solution for the manufacturer's recommended contact time.
7. Rinse all surfaces of the control unit with fresh water and use a clean cloth to remove chemical and organic residue.
8. After cleaning, all surfaces are to be dried with a clean, dry cloth.

Control unit air filters must be cleaned weekly. Replacement of the control unit air filter is recommended every 6 months.

1. Remove the air filter located on the back of the control unit.
2. Clean with prepared disinfectant solution and allow to air dry.
3. Reinstall the filter when dry.

Cleaning Blood and Other Excretions:

Blood and other excretions should be wiped up while wet, if possible. These substances are more difficult to remove once they have dried to surfaces. Dried blood and other excretions are to be removed using ample disinfectant solution in order to moisten the substance and make it easier to clean.

Accessories:

Patient Assist Bar - 27003802

4 Point IV Pole - 27000465

X-Ray Cassette Holder - 27003900

Maintenance

CAUTION: This bed requires regular maintenance to uphold performance and avoid premature wear, damage, and injury.

CAUTION: Only authorized maintenance staff from the healthcare facility are permitted to carry out preventive maintenance on the bed. Preventive maintenance carried out by non-authorized staff may lead to personal injury and/or material damage.

Check the items on this chart at the indicated intervals. If any of the items are loose, worn, bent or distorted, immediately have them checked and/or repaired by an authorized Sizewise Technician. Frequent maintenance and servicing will improve performance between each use and extend bed life. For long-term use, the following maintenance chart should be followed:

The following is an equipment safety checklist that can be used with the maintenance chart to maintain and service this product:

Alliance™	Three Months	Six Months
Side Rails		X
Fasteners	X	
Frame		X
Foam Mattress		X
Casters	X	
Hand Control	X	
Actuators	X	
Batteries	X	
Power Cords	X	
RSS		
Load Cells		X
Power Supply Interface Box	X	
Control Box		X
Nurse Call Connector		X
Footboard/Foot Control		X
6V Sealed Lead Acid Battery	X	

Batteries may take additional maintenance, such as visual inspection every three months. When inspecting batteries look for any corrosion, leaking or bulging. Batteries should be evaluated for replacement after 18 months or sooner depending, on the care and usage.

The battery may require recycling in accordance with local laws. Contact a local recycling center for proper battery disposal or local regulatory authorities for more information.

WARNING: Never dispose of batteries in a fire as they may explode.

All power cords are fastened in a manner to keep them free from moving or pinching parts. At any time parts are replaced, all cords should be secured into proper position to prevent damage.

If a problem is detected, make sure to repair or adjust the bed before using it. Contact an authorized Sizewise technician to help find and correct the problem.

Fasteners

WARNING: Many of the screws and bolts used in the bed are special high-strength fasteners. Contact an authorized Sizewise technician to assist in finding the correct fasteners. If improper fasteners are used, they could result in patient and/or user injury, as well as damage to equipment or other property.

Improper fasteners may fail. Use only screws and bolts provided by an authorized Sizewise representative.

If screws or bolts become loose, tighten them immediately.

If a problem is detected, make sure to repair or adjust the bed before using it.

CPR

Raise the backrest electronically to its maximum tilt.
Check that the cables that run to the emergency CPR release levers and the motor are in good condition.
Ensure that the damper is joined correctly to the bed and check its condition.
Activate levers individually to check the backrest lowers correctly and that the damper works correctly.
Carry out the first four steps using the other lever.

Wheels/Casters and Multifunction Pedal

There is one lock and steer caster located on the right foot of the bed. When the green pedal is pressed down the caster will lock prohibit swivel but allowing for bed maneuvering. Press down on the green pedal to engage the steer caster and lift up on the pedal to unlock. The other three casters are locking- only casters. When locked, the bed cannot be moved. Press down on the red pedal to lock and lift up on the pedal to unlock.
When the pedal is in the intermediate position (horizontal position), all casters can move freely in any direction.

Power Cable

Check that the cable is not frayed or cut.

Patient Control

Visually check that the control connector is in good condition.
Check that the cable is in good condition.
Check that the buttons are in good working order.
Select each movement made by the control for two seconds. It must perform the function chosen and the movement should be continuous.

Patient/Nurse Head Side Rail Control

Visually check that the control is in good condition.
Check that the membrane is correctly attached, not worn, and that the buttons work correctly. Check that the control connector is in good condition.
Select each movement made by the control for two seconds. It must perform the function chosen and the movement should be continuous.

Foot Control

Visually check that the control is in good condition.
Check that the membrane is correctly attached, not worn, and that the buttons work correctly. Check that the control connector is in good condition.
Select each movement made by the control for two seconds. It must perform the function chosen and the movement should be continuous.

Bed Lifting System

Examine all of the motors to ensure that all shafts and fittings are fitted correctly.
Run a full cycle of raising/lowering the bed.
Check that no friction or unusual noise can be heard, and that no evidence of overload can be heard during the movement.
Replace the motor in the event of malfunction.

Backrest Motor

Check that the motor is attached to the bed correctly.
Raise the backrest to its maximum tilt position and lower it to the minimum tilt position (flat).
Check that no strange noises or sound of friction can be heard and that no evidence of overload can be heard during the movement.

Battery

Recharge the battery if necessary. It is recommended that the bed is plugged in for 24 hours to totally charge/recharge the battery.
Disconnect the bed from the AC power source.
Test all the different functions of the bed. Check that they work correctly and that there are no signs of malfunction.

Storage and Disposal

The bed should be stored in a dry location so that the components **DO NOT** become contaminated with moisture. If the bed is stored for any period of time, make sure it is adjusted properly and that all components are in working order before using the bed.

For prolonged storage, the bed should be in the low position, covered, in an area without vibrations and in a temperature range of 5°C to 40°C (41°F to 104°F). **DO NOT** use the bed as a means of support (for working or amassing items) during the storage period. It is recommended that the battery be disconnected during storage periods. At the end of the prolonged storage period reconnect the battery. It is recommended that the bed is plugged in for 24 hours to totally recharge the battery before use the bed. Always allow the bed to reach the room temperature before use after a prolonged storage period.

CAUTION: The bed needs to be stored and transported in a temperature range of 5°C to 40°C (41°F to 104°F).

DO NOT expose the bed to humidity greater than 95%.

End-of life Sizewise products must be disposed of properly according to local laws and regulations. If your product contains a battery and/or electronic components, disposal of those components must be completed separate from standard waste disposal. Please contact Sizewise or your local authorities for disposal and recycling options.

Troubleshooting

CAUTION: Only authorized personnel should engage in the troubleshooting process. Troubleshooting by unauthorized persons could result in personal injury or equipment damage.

Alliance™ Troubleshooting

The bed will not operate with all functions unresponsive:

- Ensure the bed is plugged into a properly grounded hospital-grade outlet.
- Ensure all cables to the Electronic Control Module are properly connected and secure.
- Verify all switches on the foot control panel are set to the "Unlocked" position.
- Check the two (2) fuses within the Electronic Control Module and replace if necessary.

One function of the bed will not operate:

- Verify the switch on the foot control panel that corresponds to the non-operating function is set to the "Unlocked" position.
- Ensure all cables to the Electronic Control Module are properly connected and secure.

The bed will not operate off of battery power:

- If the bed will not operate off of battery power, plug the bed into a properly grounded hospital-grade outlet and let charge for 24 hours.
- Ensure all cables to the Electronic Control Module are properly connected and secure.

NOTE: If the troubleshooting process does not solve the problem, please contact a Sizewise representative for service.

Problem	Solution
The bed has some functions locked. A locked function is indicated by a solid amber light on the patient/nurse head side rail and footboard controls.	Unlock the function(s) by following these steps: Using the foot control panel, press and hold the Key button and then press the button of the locked function.
LEDS are flashing and the bed does not work.	Check that all connections are secure and there are no pinched or damaged wires.
The bed remains locked and the previous procedure does not work.	Reset the system, follow these steps: Footboard or Hand Control: Press and hold Bed Up and Bed Down buttons simultaneously for 10 seconds until you hear a long beep and the lights on the side rails are no longer illuminated/flashing.

After resetting the system, the bed works BUT if any button is pressed the bed will lock again.	There might be a problem in the connection cables which this problem can cause a short circuit in the control box . Contact Technical Support.
The battery does not work.	Check the battery voltage. If less than 17 volts, replace it with a new one.

To avoid battery discharge, the battery will be unplugged when sent to the destination. Once the bed is plugged into the electric current and the checking of the controls is finished (Nursing control LEDS will stop working), you must connect the battery to the control box.

Batteries have a limited life depending on the use. Lower than 17 Volts is not possible to charge the batteries. Below this value, the battery is non-recoverable and it will need to be replaced. 20 Volts is a low value and it is not recommended to pass it.

The battery should stay in the bed when the bed is plugged into the properly grounded hospital grade outlet. If beds are stored, it is recommended to unplug the batteries.

If connectors are hard, do not remove the O-ring. You must apply a small quantity of water free grease or Vaseline when replacing them to facilitate connection.

NOTE: <u>NO HOT PLUGGING!</u> (This is when you plug the bed into a properly grounded hospital-grade outlet prior to making the bed and the RSS battery backup connections) Removing or adding any cables are not allowed when the bed is powered by an AC power source! If needed regardless, follow the procedure below:

1. Disconnect the power cord from the AC power source (including battery) and wait 5 sec.
2. Mount or dismount the required cables.

If this procedure is NOT followed it may result in a damaged OpenBus driver circuit. The risk of a damaged circuit increases, if the accessory has a high start current (in rush current).

RSS Troubleshooting

CAUTION: Only authorized personnel should engage in the troubleshooting process. Troubleshooting by unauthorized persons could result in personal injury or equipment damage.

Display on footboard shows Load Cell Error or red light flashing on the RSS under the bed:

- Check the RSS to make sure that all load cell cables are plugged in. Check for damaged load cell cables.

The unit will not power up:

- Make sure theRSS (located under bed) has power.

Weight history readings will not store:

- Make sure the clock time and weight history time is set correctly (24-hour clock format).

Scale showing incorrect weight:

- Make sure the zeroing process was done correctly (refer to the Table of Contents section Unpacking and Setup Instructions Scale System: Zeroing the Scale).
- Consult with your service technician to determine if calibration is needed.

Unit will not change from lbs. to kgs. in the scale settings menu:

- Unlock lbs./kgs. (refer to the Table of Contents section RSS : Locking/ Unlocking the Unit in lbs./kgs.).

Nurse call will not activate:

- Make sure the nurse call adapter from the bed to the wall interface is securely plugged in. Check the nurse call adapter cable from the Control Box to bed frame.

Alliance with RSS
Product No. 46060000/42070200
Limited Product Warranty

PLEASE READ THESE WARRANTY TERMS AND CONDITIONS CAREFULLY BEFORE USING YOUR SIZEWISE PRODUCT. BY USING THE PRODUCT, YOU ARE CONSENTING TO BE BOUND BY THE FOLLOWING WARRANTY TERMS AND CONDITIONS.

LIMITED WARRANTY.

Sizewise warrants the above referenced product to be free from material defects in materials and workmanship for the warranty periods set forth below when the product is used and serviced properly in accordance with the specifications set forth in the Alliance user manual in effect at the time of sale of the product, including without limitation the safety instructions and if applicable the safe working load and weight limitations set forth therein. If there is no period of time specified below, the warranty period shall be ninety (90) days. Unless agreed to otherwise in writing by Sizewise, the warranty periods commence on the invoice date of the original purchase. This warranty applies only against defects discovered within the warranty period and extends only to you, the Buyer. As used in this warranty Buyer means the original purchaser or original end user of the product designated at the time of purchase. Any reference to "you" is as the Buyer. Parts repaired or replaced under the terms of this warranty will be warranted for the remainder of the original warranty period only. Buyer is solely responsible for determining whether the products and services offered by Sizewise are appropriate for its intended use including use by Buyer's employees, invitees, contractors, representatives, third party beneficiaries, or any other person Buyer intends to use the product. Buyer acknowledges it has made the selection of the products based upon its own judgment and that the product is of a size, design, capacity, condition, quality, and durability selected by Buyer. Buyer expressly disclaims any reliance upon any statements or representations made by Sizewise or any other party on its behalf except as otherwise specifically provided for in this Limited Product Warranty. Buyer acknowledges and agrees that the remedy in this warranty for the repair and replacement of defective product or part(s) shall constitute the sole remedy in the event of a defective product or part(s). **THE WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS THAT VARY FROM STATE TO STATE**. Sizewise's obligations under this warranty are limited as set forth below.

WARRANTY PERIOD AND COVERAGE.

Model	Capacity	Frame	Welds	Electronics and Parts	Actuators
SW Alliance™	550 lbs. (250 kg)	5 yr.	5 yr.	2 yr.	2 yr.

CONDITIONS AND RESTRICTIONS.
This warranty is valid only in accordance with the conditions set forth below:

- The warranty applies to this Sizewise product only while:
  - it remains in the possession of the Buyer and proof of purchase is demonstrated,
  - it has not been subjected to accident, misuse, abuse, improper service, or modification,
  - claims are made within the warranty period.
- This warranty does not apply to any other products or devices sold separately regardless of whether used with this product. Such other products or devices, to the extent sold with a warranty, will be subject to the separate limited product warranty set forth in the user manual for such product or device.
- Sizewise's sole liability shall be discharged by replacing or repairing, at Sizewise's option, the product or its part or parts which are determined by Sizewise to be defective under normal and proper use during the warranty period.
- Buyer shall notify Sizewise or the authorized Sizewise dealer immediately but in no event more than seven (7) days after the date of discovery of any alleged defect by contacting Sizewise Parts and Service at 800-814-9389 Monday through Friday 8am–5pm local time.
- If the product or part should be returned to Sizewise, a return authorization number (RA#) must be obtained by

Buyer from Sizewise. The RA# will be valid for 21 days from the date it is issued.

- Buyer is responsible for any shipping, freight, handling, pickup, or delivery charges or fees including without limitation any expediting fees involved with the delivery of the defective product or parts to Sizewise's factory for repair or replacement.
- If on-site technical service is required, as determined by Sizewise, a service representative will be dispatched during Sizewise's standard service hours Monday through Friday 8am-5pm local time, provided the product is located within Sizewise's service territory.
- If Sizewise determines the problem with the product or part(s) is a result of defective material or workmanship, the product or part will be replaced or repaired at the discretion of Sizewise, and at no charge to the Buyer; however, this is subject to the limitations and exclusions of this Limited Product Warranty.
- At the election of Sizewise, replacement parts may be new or refurbished; Sizewise reserves the right to substitute materials if original materials are no longer available.
- If Sizewise determines the product or part that Buyer has requested warranty services on are not covered by the warranty for any reason including, without limitation, because it is outside of the warranty period, excluded from the warranty, or the warranty is void, Buyer shall pay for the repair or replacement services, including parts and labor performed by Sizewise at Sizewise's prevailing time and material rates plus freight and delivery.
- If Buyer declines the repair or replacement service upon notice from Sizewise that it is not covered under warranty, Buyer shall reimburse Sizewise for all costs from investigating and responding to Buyer's request.
- Any costs to Buyer as referred to herein shall be at Sizewise's prevailing time and material rates plus any freight and delivery charges incurred by Sizewise.
- Any assistance provided by Sizewise outside the terms of this warranty does not waive the limits of this warranty.
- Sizewise does not pay labor outside the United States.
- Any description of Sizewise's products is for identification purposes only and is not an express warranty.
- Loaned products, demo or sample products, and/or consumable products including without limitation batteries and sheets are furnished to Buyer on an "AS IS WITH ALL FAULTS" basis.

EXCLUSIONS AND LIMITATIONS.

This Limited Product Warranty shall not apply to the below listed events, occurrences, actions and/or items. Sizewise shall have no obligation to make repairs, replace, or correct products including any part or parts of the product as the result of Sizewise's determination of any of the following:

1. Software (PROM) or firmware version upgrades or updates or any other changes and/or any outages, interruptions, delays, attacks, malware, or any other technology or viruses on such software or firmware or Buyer's network, if applicable to this product.
2. Normal wear and tear of the product including, without limitation, normal discoloring, body impressions on mattresses or loss in some resiliency, if applicable to this product, and/or any cosmetic items, consumable items including, without limitation, mattresses, casters, sheets, handsets, and batteries as these items are not covered by this warranty.
3. Damage due to improper transport, storage, installation, maintenance, use, repair, or failure to follow Sizewise's instructions or procedures as detailed in the user manual.
4. Damage or malfunctions resulting from work performed by service providers not authorized by Sizewise.
5. Repairs performed on a Sizewise product or parts missing a serial number or with a serial tag that has been altered, tampered with, or defaced in any manner.
6. Service calls to correct installation of the product unless installed under contract by Sizewise or its partners. and with regard to installation, the terms of the service contract only shall apply to service installation corrections, not this warranty.
7. Shipping, freight, handling, pickup, and delivery charges or fees involved with delivery of the products and or part(s) to Sizewise's factory for repair or replacement and returning the replacement or repaired products and/or parts to Buyer.
8. Any labor costs incurred beyond the applicable labor warranty period.
9. Damage or product failure from causes external to the product or part(s) including, without limitation, power or

electric failure or surges, electrical wiring not in compliance with electrical codes, or Sizewise user manual specifications.

10. Damage caused by failure to provide reasonable and necessary maintenance as outlined in the user manual.

11. Damage caused by the use, misuse, negligence, loss, or abuse of the product or any parts by Buyer, including without limitation any third party beneficiaries, end user, caregivers, patients, or any others that Buyer intends to use the product, including, without limitation, (except Sizewise or an authorized Sizewise service provider):

a. exceeding any specified weight limitations in any product documentation such as the user manual and, including without limitation as applicable to the product, the Safe Working Load, Maximum Patient Weight, and/or Maximum Load as those terms are defined in the product documentation, user manual and by applicable regulations,

b. to the extent the product specifies a minimum load/weight criteria including without limitation a Minimum Patient Weight in order for it to function property, then any use not in compliance therewith.

c. cleaning upholstery or fabrics with harsh chemicals, or bleach, outside the recommended cleaning guidelines,

d. altering, tampering with, or modifying in any manner without the express written consent of Sizewise any part(s) or structural components or appurtenances of the products,

e. use of the product or part(s) in any manner for which it is not designed or in any manner inconsistent with the information set forth in the Sizewise user manual, including, without limitation use with other devices, accessories, cables or ancillary products including without limitation inappropriate replacement parts and/or repairs, for which it was not intended.

12. Exposure of the product or part(s) to accident, acts of God, or natural causes (such as natural disasters, fire, flood, wind, water or power failures, or any acts or threats of terrorism, both domestic and foreign) whether foreseen or unforeseen.

13. Operation of the product beyond its normal useful life.

14. Buyer's failure to show proof of purchase.

15. Products or items not manufactured by Sizewise. Rather, for products or items obtained by Sizewise from an original manufacturer or third party supplier, Sizewise may assign to the Buyer any warranty rights in such products or items that Sizewise may have from the original manufacturer or third party supplier, to the extent such assignment is allowed by the original manufacturer or third party supplier.

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Exclusive Remedies.

For any product described above that Sizewise determines to have failed to conform to this limited warranty, Sizewise will provide, at its option, one of the following: Sizewise

(1) repair;

(2) replacement; or
(3) refund of the purchase price.

Sizewise Limited Product Warranty service may be obtained by contacting Sizewise or the authorized dealer from whom Buyer purchased the item. Sizewise compensates only Sizewise -authorized service providers for warranty trips within their normal service area to repair commercial products at the customer's location.

THESE SHALL BE THE SOLE AND EXCLUSIVE REMEDIES OF THE BUYER FOR ANY BREACH OF WARRANTY.

EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

SIZEWISE AND/OR ITS SUPPLIERS SHALL HAVE NO OBLIGATION OR LIABILITY, WHETHER ARISING IN CONTRACT (INCLUDING WARRANTY), TORT, OR ANY OTHER LEGAL THEORY (INCLUDING ACTIVE, PASSIVE, OR IMPUTED NEGLIGENCE AND STRICT LIABILITY), OR OTHERWISE, FOR DAMAGE TO THE PRODUCT INCLUDING PART(S), PROPERTY DAMAGE, DEATH, PERSONAL INJURY, LOSS OF USE, GOODWILL, REVENUE OR PROFIT, COST OF CAPITAL, COST OF SUBSTITUTE PRODUCT, ADDITIONAL COSTS INCURRED BY BUYER (BY WAY OF CORRECTION OR OTHERWISE), OR ANY OTHER INCIDENTAL, SPECIAL, INDIRECT, COMPENSATORY, OR CONSEQUENTIAL DAMAGES, INCLUDING, WITHOUT LIMITATION, WHETHER RESULTING FROM NONDELIVERY, USE, MISUSE, OR INABILITY TO USE THE PRODUCT, SERVICES OR PART(S). THIS EXCLUSION APPLIES EVEN IF THE ABOVE WARRANTY FAILS OF ITS ESSENTIAL PURPOSES AND REGARDLESS OF WHETHER SUCH DAMAGES ARE SOUGHT FOR BREACH OF WARRANTY, BREACH OF CONTRACT, NEGLIGENCE, OR STRICT LIABILITY IN TORT OR UNDER ANY OTHER LEGAL THEORY. SIZEWISE **LIABILITY SHALL UNDER NO CIRCUMSTANCE EXCEED THE AMOUNT PAID BY BUYER FOR THE RELEVANT DEFECTIVE PRODUCT. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION AND EXCLUSION ON SUCH MAY NOT APPLY TO YOU.**

EXTENDED WARRANTY. If the product covered under the Limited Product Warranty set forth herein had from Sizewise an extended warranty option made available only at the time of the Buyer's original purchase from Sizewise, Buyers who then also purchased such extended warranty, and have proof of such purchase, may extend the warranty period stated above in the Limited Product Warranty on parts, electronics, frame, and labor relating to parts, electronics, and frame repairs, as applicable, for an additional one (1) or two (2) years, whichever extension is purchased by Buyer ("extended warranty period"). Other than the extension on the warranty period, all other terms of the limited product warranty including without limitation the conditions and restrictions, exclusions and limitations, disclaimer and release, and exclusion of consequential and incidental damages of the original limited product warranty apply during the extended warranty period. For the purpose of clarity, an extended warranty is not available where the original warranty period is less than one (1) year, and an extended warranty may only be purchased by Buyer at the time of the original purchase of the product from Sizewise.

To make a warranty claim, contact:
SIZEWISE
8601 MONROVIA STREET
LENEXA, KS 66215

800-814-9389 Monday through Friday 8am-5pm local time

Complete this portion and keep for your records.

Purchased From: Sizewise

Product/model: 46060000/42070200

Serial number:_____

8601 Monrovia Street
Lenexa, KS 66215

800-814-9389
sizewise.com

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