

# User Manual

## SW Shuttle™



Rev. 7.0 #8025

SIZEWISE

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User Manual

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# Definition of Symbols


## Manual Definitions


Throughout this manual different type fonts and icons are used to aid user readability and understanding of the content. Below are some examples.

<p>Standard Text</p> <p><b>Bold Face Text</b></p> <p><b>NOTE</b></p>	<p>Used for regular information.</p> <p><b>Emphasizes a word or phrase.</b></p> <p><b>SETS APART SPECIAL INFORMATION OR IMPORTANT INSTRUCTION CLARIFICATION.</b></p>
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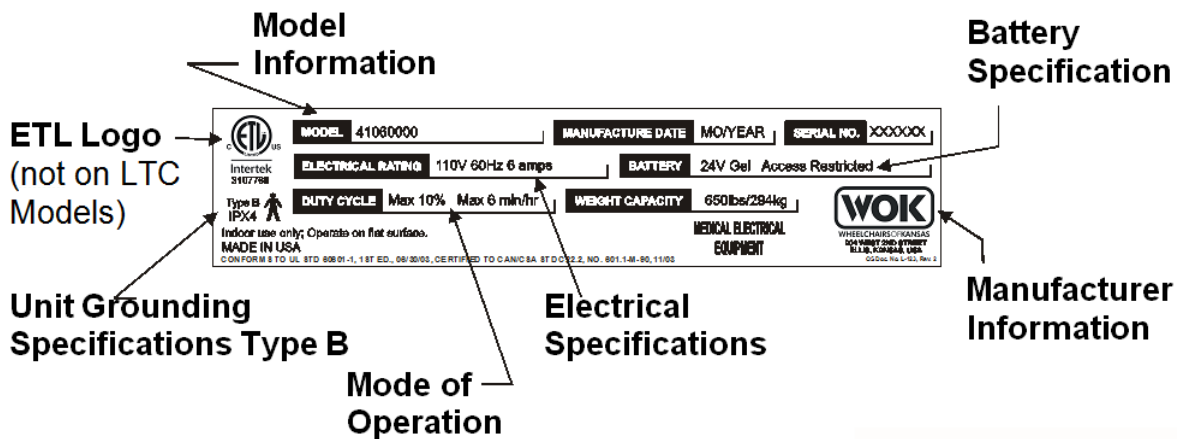
## Warnings and Cautions


- 

**Warnings/Cautions:** This symbol is intended to alert the 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:** This symbol is intended to alert the 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, care provider and/or patient.
- 

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



Type B  Symbol for Type B applied parts indicating protection provided against electric shock.



The pinch point is spacing between movable parts of the device which, in positions of normal use fail to maintain a clearance of  $\leq 8\text{mm}$  or  $\geq 25\text{mm}$ .



Protective Earth Terminal Grounding symbol. It is placed at the equipment earthing point and is mandatory for all grounded equipment.

The hazards and warnings are indicated on the shipping container by this label.



**WARNING:** The Shuttle 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 the SW Shuttle™. Before using this Shuttle, the user must know what to do to ensure safety.

Put the patient at ease. The care provider should communicate with the patient by telling them what they are planning to do.

Work with the patient's doctor, nurse or therapist to learn safe methods best suited to the care provider's abilities and those of the patient.

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 and keep back as upright and straight as possible.

## **Important Safety Instructions**

- The Shuttle is to be used in accordance with each facility's policies and procedures.

### **Specifications**

- Exceeding the weight capacity and/or working load listed in the specifications could result in patient or user injury as well as damage to equipment or other property.

### **Operating Instructions**

- Failure to heed the warnings pertaining to the operation of the Shuttle could result in patient and/or user injury as well as damage to equipment or other property.
- Never work under the Shuttle while it is in operation.
- If wheel locks (brakes) are not engaged, the casters may move/roll when the Shuttle is articulating into various positions. Stand clear of the Shuttle frame before operating.
- Keep fingers and arms away from rotating parts when mechanisms are moving.
- Operating this Shuttle with any part of the body in the frame can result in injury. Stand clear of the Shuttle frame before operating.
- The Shuttle is for indoor use only. Only operate the Shuttle on a flat surface.
- DO NOT use the Shuttle near an open flame or an extreme heat source.
- This Shuttle 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 Shuttle with any missing or abnormal parts.
- The Shuttle should be at the lowest position when unattended.
- The Shuttle is designed for a single occupant. Never allow two or more people on it.
- The patient should not operate the Shuttle.
- The Shuttle is not intended to transport a patient in a moving vehicle.
- DO NOT jump up and down on the Shuttle.
- Take special care when going up or down a ramp. Never park the Shuttle on a slope. Never leave an occupied Shuttle unattended.
- Only operate the Shuttle on handicap grade access ramps.
- Make sure all cords are properly positioned before operating the Shuttle. Failure to do so could result in electrical shock and serious injury.
- Never work on the Shuttle while it is plugged into an electrical outlet.
- DO NOT use the Shuttle if the power cord is cut, frayed or loosely connected to the Shuttle.
- The Shuttle is an electrically powered mechanism. Electrical hazard may occur if the Shuttle is plugged into inadequate power supply. Make sure the Shuttle is plugged into an 115V or 230V grounded outlet.
- Never let fingers or other body parts come between moving parts when operating the Shuttle. Doing so may cause a pinch or crush type injury.
- The wheel locks should be in the brake position before operating the Shuttle.
- Ensure all persons and objects are clear of the Shuttle when changing its positions.
- DO NOT use the footrest as a step when the user sits on or gets off the Shuttle.
- Be sure to secure the patient with the seatbelt/harness before operating the Shuttle.
- Electrical shock or malfunction may occur if hand control cord is pinched or frayed. Keep away from moving parts.
- For the patient's safety, be sure the armrests are in the up position.

- Never sit on head section or leg supports when in the stretcher position.
- DO NOT confuse head section and leg support areas of the Shuttle when transferring patient in stretcher position.

### **Proper Use of the Shuttle**

- Reaching or leaning affects the patient's center of balance. Follow the instructions for patients reaching or leaning from the Shuttle to avoid a fall or injury to the patient and/or care provider.
- Follow the instructions for transferring patients to avoid a fall or injury to the patient and/or care provider.

### **Features**

- Never try to move the Shuttle by its armrest. The armrest(s) may come loose or break. Move the Shuttle by the Stand Assist Poles (if equipped), Push Bar or by non-detachable parts on the main frame.
- Ensure the armrests are securely locked in place. An unsecured armrest may fall abruptly and an injury or accident may occur.
- DO NOT attempt to use the caster locks to stop the Shuttle while in motion. The locks are not designed to be braking devices.
- Adding objects to the Drainage bag hooks will increase the overall width of the Shuttle. Use caution when transporting through doorways or narrow spaces.
- When in stretcher mode only use the IV pole in the front of the Shuttle.
- When moving Shuttle from stretcher to chair or chair to stretcher extra caution and care should be used when an IV bag or pump is mounted to the pole.
- If the weight capacity of the IV pole is exceeded, it could result in patient and/or user injury as well as damage to equipment or other property.
- Improper mounting of an IV Pump may obstruct the Shuttle from proper manipulation and could result in patient and/or user injury as well as damage to equipment or other property.
- Never try to move the Shuttle by the leg supports. They may come loose or break.
- Never sit on leg supports when in the stretcher position.
- DO NOT confuse head section and leg support areas of the Shuttle when transferring patient in stretcher position.
- DO NOT use the footrest as a step when the user sits on or gets off the Shuttle.
- Failure to follow the provided battery specifications could result in patient and/or user injury as well as damage to equipment or other property.
- When the integrity of external protective conductor in the installation or its arrangement is in doubt, equipment must be operated from its internal electrical power source.
- The performance of the batteries may be affected when the batteries are used or stored in a temperature range of -5°C to 45°C (23°F to 113°F).
- DO NOT use the Shuttle if the power cord is cut, frayed or loosely connected to the Shuttle.
- Be sure to secure the patient with the seatbelt/harness before operating the Shuttle.
- The stand assist poles are not intended to support 1000 lbs.

### **Options**

- Be sure O2 bottle and its fittings will not interfere with the Shuttle operation.
- Check O2 lines to be sure they are not pinched or kinked.

- Possible fire hazard when the Shuttle is used with oxygen administering equipment.
- Be sure to secure the patient with the seatbelt/harness before operating the Shuttle.
- Avoid feet in the path of the Shuttle when using the power drive.
- Unplug the Shuttle from the outlet prior to operating.
- DO NOT attempt to use the caster locks to stop the Shuttle while in motion. The locks are not designed to be braking devices.
- Set speed control to a minimum position before engaging power drive. Failure to do so could result in patient and/or user injury as well as damage to equipment or other property.
- Make sure the Shuttle power drive is in forward position (FWD) before engaging. Failure to do so could result in patient and/or user injury as well as damage to equipment or other property.
- Under no circumstance should the FWD-REV switch be operated when the Shuttle is in motion. The Shuttle must be completely stationary before the FWD-REV switch is operated.
- When using the power drive set the speed that is suitable for the user's experience with the power drive. Failure to do so could result in patient and/or user injury as well as damage to equipment or other property.
- When articulating the Shuttle into stretcher position, the basket only has a 15" clearance from the bottom of the basket to the top of the frame.

#### **Safety Tips**

- If the ground is not properly connected to the electrical leakage test point a false reading may occur.
- 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 user injury as well as damage to equipment or other property.
- The use of cables or accessories other than those for which the Shuttle was designed or tested can significantly degrade emissions and immunity performance.
- Radio wave sources such as radio stations, TV stations, amateur radio (HAM) transmitters, two-way radios and cellular phones can affect this Shuttle. Following the warnings listed for electromagnetic interference should reduce the chance of the Shuttle's unintended movement that could result in serious injury.
- It is very important to read the information regarding the possible effects of electromagnetic interference on the Shuttle.
- The Shuttle 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.
- Electric shock may occur when plugging the Shuttle into the wall outlet. Use ONLY grounded or hospital grade outlets.
- DO NOT use the Shuttle if the power cord is cut, frayed or loosely connected to the Shuttle.



- Pay close attention to pinch points on the Shuttle to avoid injury to the patient and/or care provider.
- During transport, use caution so the Shuttle 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.
- The Shuttle needs to be stored, transported and operated in a temperature range of -5°C to 45°C (23°F to 113°F).
- DO NOT expose the Shuttle to humidity greater than 95%.

### **Cleaning Instructions**

- Before cleaning the Shuttle, 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.

### **Maintenance**

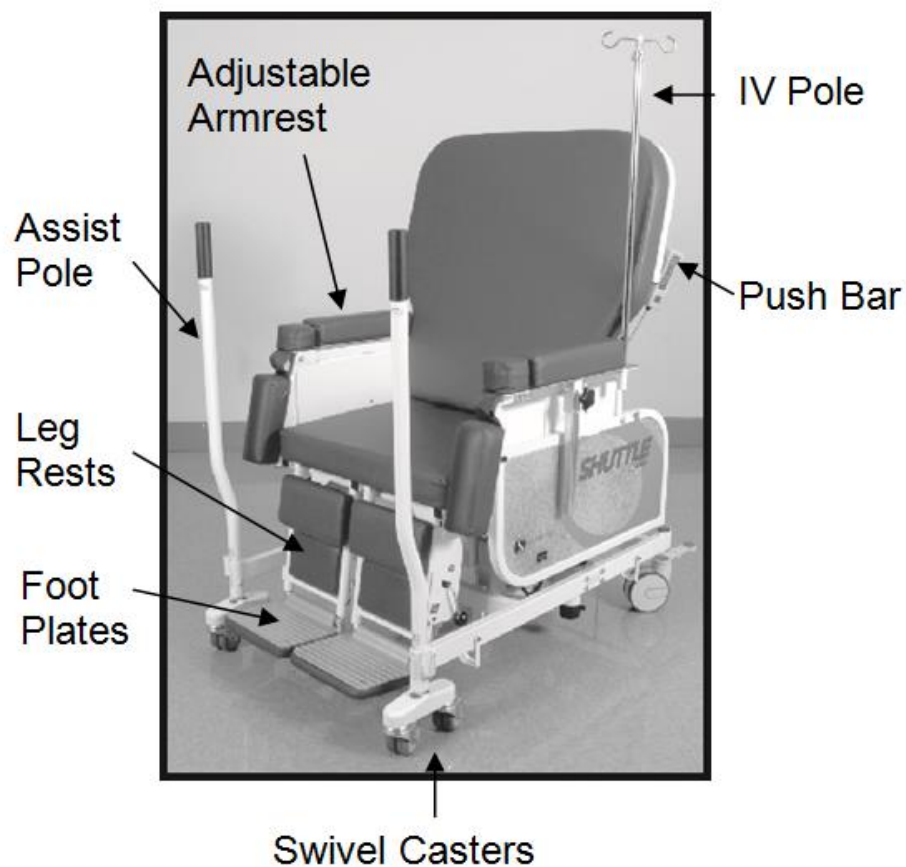
- The Shuttle requires regular maintenance to uphold performance and avoid premature wear, damage and injury.
- Never dispose of batteries in a fire because they may explode.
- Many of the screws and bolts used in the Shuttle are special high-strength fasteners. Contact an authorized Sizewise technician to assist if 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.
- The Shuttle needs to be stored, transported and operated in a temperature range of -5°C to 45°C (23°F to 113°F).
- DO NOT expose the Shuttle to humidity greater than 95%.

### **Troubleshooting**

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

## Device Information

The SW Shuttle series of chairs are electric position chairs that can be adjusted to various positions by means of motorized positioning control system and is intended to be used for medical purposes by providing a means to alter postural position. The device is also used to provide a means of transferring a patient to and from devices, chairs, treatment facilities, wheelchairs or transport vehicles and is propelled by the care provider either manually or with the optional motorized power drive. With select models, the device can also be adjusted in height. The SW Shuttle series of chairs are intended to be used by all patient populations with a safe working load up to 650 pounds for the A Series and 1000 pounds for the B Series.



## Specifications

Quality Assurance Standards .....	UL 60601-1 ISO 13485:2003 EN/IEC 60601-1-2 CAN/CSA C22.2 No. 601.1-M9
Degree of Protection Against Electric Shock .....	Type B
Degree of Protection Against Ingress of Water .....	IPX4
Electrical Rating.....	115VAC 60Hz, 7.6 amps (US model) 230VAC 50/60Hz, 7.6 amps (non-US models)
Duty Cycle .....	5 Min ON / 10 Min OFF Cycle (US model) 4 Min ON / 10 Min OFF Cycle (non-US models)
Battery Power.....	2-12A 12V Gel
Overall Width:	
A Series .....	34" / 86.5 cm
B Series .....	39.5" / 100.5 cm
Width between Armrests:	
A Series .....	25.5" / 65 cm
B Series .....	31" / 78.5 cm
Stretcher- Height (adjustable) .....	29.5" - 37.5" / 75 cm - 95 cm
Trendelenburg/Reverse Trendelenburg .....	15°
Overall Length .....	76" / 193 cm
Length .....	72" / 183 cm
(Between Push Bar & Foot Plates)	
Chair- Height (adjustable).....	23.5" - 31.5" / 59.5 cm - 80 cm
Seat Depth.....	18" / 45.5 cm
Seat Assist Tilt .....	15°
Basket.....	9.5"W x 11.5"L x 7"D / 24 cm W x 29 cm L x 18 cm D
Basket Clearance in Stretcher Position .....	15" / 38 cm
(Available only on the B Series Shuttle)	
Cushion Thickness:	
A Series .....	3" / 7.5 cm
B Series .....	3" / 7.5 cm
Shuttle Weight .....	320 lbs. / 145 kg
IV Pole Weight (optional).....	3 lbs. / 1 kg

Shuttle Weight Capacity:

A Series .....650 lbs. / 294 kg

B Series .....1,000 lbs. /453 kg

IV Pole Weight Capacity .....50 lbs. / 22 kg

*(Exceeding these limits will void the warranty)*



**WARNING:** Exceeding the weight capacity and/or working load listed in the specifications could result in patient or user injury as well as damage to equipment or other property.

**Model/Options Comparison Chart**

<b>Positions</b>	<b>A Series Advanced</b>	<b>B Series Advanced</b>	<b>B Series</b>
Stretcher (Table)	X	X	X
Chair	X	X	X
Trendelenburg & Reverse Trendelenburg	X	X	
Height Adjustable	X	X	
Seat Assist	X	X	

# **Unpacking and Set-Up Instructions**

## **Shuttle Assembly**

Shuttle is assembled complete when shipped.

Inspect for any signs of freight damage. If obvious damage is detected, contact the freight company and file a damage complaint. It may be necessary to take pictures of the damage. After visual inspection make sure all of the proper components have been received.

Items enclosed in the box:

- Shuttle
- Hand Control Hooks (2)

Tools required for assembly:

- Phillips Screwdriver

DO NOT discard any packing material until all components are accounted for and are in good condition.

# Operating Instructions



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

Never work under the Shuttle while it is in operation.

If wheel locks (brakes) are not engaged, the casters may move/roll when the Shuttle is articulating into various positions. Stand clear of the Shuttle frame before operating.

Keep fingers and arms away from rotating parts when mechanisms are moving.

Operating this Shuttle with any part of the body in the frame can result in injury. Stand clear of the Shuttle frame before operating.

The Shuttle is for indoor use only. Only operate the Shuttle on a flat surface.

DO NOT use the Shuttle near an open flame or an extreme heat source.

This Shuttle 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 Shuttle with any missing or abnormal parts.

The Shuttle should be at the lowest position when unattended.

The Shuttle is designed for a single occupant. Never allow two or more people on it.

The patient should not operate the Shuttle.

The Shuttle is NOT intended to transport a patient in a moving vehicle.

DO NOT jump up and down on the Shuttle.

Take special care when going up or down a ramp. Never park the Shuttle on a slope. Never leave an occupied Shuttle unattended.

Only operate the Shuttle on handicap grade access ramps.



**WARNING:** Make sure all cords are properly positioned before operating the Shuttle. Failure to do so could result in electrical shock and serious injury.

Never work on the Shuttle while it is plugged into an electrical outlet.

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

The Shuttle is an electrically powered mechanism. Electrical hazard may occur if the Shuttle is plugged into inadequate power supply. Make sure the Shuttle is plugged into an 115V or 230V grounded outlet.



**HAZARD:** Never let fingers or other body parts come between moving parts when operating the Shuttle. Doing so may cause a pinch or crush type injury.

### Chair Position



**WARNING:** The wheel locks should be in the brake position before operating the Shuttle.

Ensure all persons and objects are clear of the Shuttle when changing its positions.

DO NOT use the footrest as a step when the user sits on or gets off the Shuttle.



Using the controller press the chair button.



B Series Model



A Series Advanced Model  
B Series Advanced Model

### Height Adjustment (if equipped):



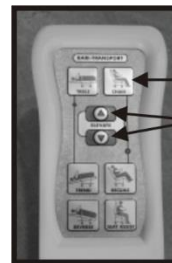
**WARNING:** Be sure to secure the patient with the seatbelt/harness before operating the Shuttle.

Ensure all persons and objects are clear of the Shuttle when changing its positions.

DO NOT use the footrest as a step when the user sits on or gets off the Shuttle.



To adjust the height of the chair, the Shuttle must be in chair position first. Press the up or down arrows on the elevate key to adjust the height on the chair.



Chair  
Elevate  
Up or Down

A Series Advanced Model  
B Series Advanced Model

### Recline Position:



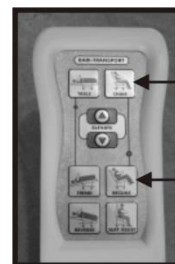
**WARNING:** The wheel locks should be in the brake position before operating the Shuttle.

Be sure to secure the patient with the seatbelt/harness before operating the Shuttle.

Ensure all persons and objects are clear of the Shuttle when changing its positions.

DO NOT use the footrest as a step when the user sits on or gets off the Shuttle.

To adjust the chair into recline position; the Shuttle must be in chair position. Using the controller press recline button.



Chair  
Recline



**Seat Assist (if equipped):**



**WARNING:** The wheel locks should be in the brake position before operating the Shuttle.

Ensure all persons and objects are clear of the Shuttle when changing its positions.

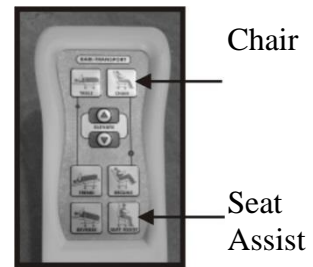
DO NOT use the footrest as a step when the user sits on or gets off the Shuttle.



Stand Assist Poles

If equipped with stand assist poles, place in the indicated position at the front of the Shuttle. The stand assist poles are stored on each side of the Shuttle between the front and rear casters.

To adjust the chair into seat assist position, the Shuttle must be in chair position. Using the controller press the seat assist button.



**Hand Control**

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

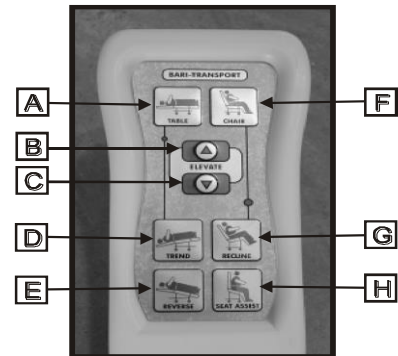
Make sure the Shuttle is correctly positioned and connected to a grounded 110V AC outlet.



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

The buttons and switch perform the following operations:

- A. Stretcher (Table) Position
- B. Elevate Up
- C. Position Down
- D. Trendelenburg (feet higher than head)
- E. Reverse Trendelenburg (head higher than feet)
- F. Chair Position
- G. Recline Position
- H. Seat Assist Position



A Series Advanced Model  
B Series Advanced Model



B Series Model

## Stretcher (Table) Position



**WARNING:** The wheel locks should be in the brake position before operating the Shuttle.

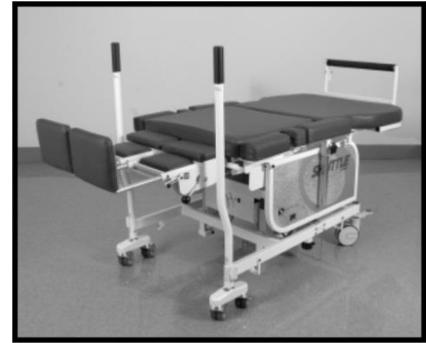
For the patient's safety, be sure the armrests are in the up position.

Be sure to secure the patient with the seatbelt/harness before operating the Shuttle.

Never sit on head section or leg supports when in the stretcher position.

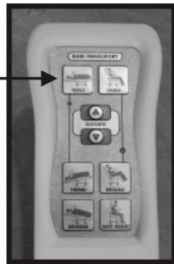
DO NOT confuse head section and leg support areas of the Shuttle when transferring patient in stretcher position.

Ensure all persons and objects are clear of the Shuttle when changing its positions.



Using the controller press the stretcher (table) button.

Stretcher  
(Table)



A Series Advanced Model  
B Series Advanced Model

Stretcher



B Series Model

## **Height Adjustment (if equipped):**



**WARNING:** The wheel locks should be in the brake position before operating the Shuttle.

For the patient's safety, be sure the armrests are in the up position.

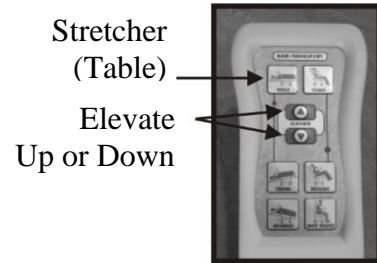
Be sure to secure the patient with the seatbelt/harness before operating the Shuttle.

Never sit on head section or leg supports when in the stretcher position.

DO NOT confuse head section and leg support areas of the Shuttle when transferring patient in stretcher position.

Ensure all persons and objects are clear of the Shuttle when changing its positions.

To adjust the height for the stretcher, the Shuttle must be in stretcher position. Using the controller press the up or down arrows on the elevate key to adjust the height on the stretcher.



**Trendelenburg/Reverse Trendelenburg (if equipped):**



**WARNING:** The wheel locks should be in the brake position before operating the Shuttle.

For the patient’s safety, be sure the armrests are in the up position.

Be sure to secure the patient with the seatbelt/harness before operating the Shuttle.

Never sit on head section or leg supports when in the stretcher position.

DO NOT confuse head section and leg support areas of the Shuttle when transferring patient in stretcher position.

Ensure all persons and objects are clear of the Shuttle when changing its positions.



Stretcher (Table)



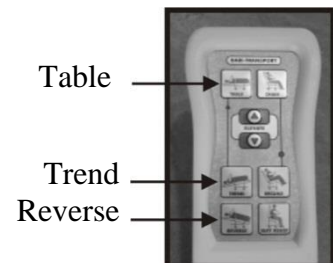
Trendelenburg



Reverse Trendelenburg

Before articulating the Shuttle into Trendelenburg/Reverse Trendelenburg, flip the foot plates and push bar up for added patient safety.

To articulate the Shuttle into Trendelenburg or Reverse Trendelenburg, the Shuttle must first be in stretcher position. Using the controller press the Trend or Reverse Trend button to articulate into the desired position.



# Proper Use of the Shuttle

## Reaching or Leaning



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

Have the patient avoid reaching or leaning over the side of the Shuttle. 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 himself or herself to prevent a fall.

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

## Transfers



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

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

The care provider 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 Shuttle without assistance until it is confirmed that the patient can do so safely.

Position the Shuttle at an elevation comfortable to the patient and/or care provider.

Place the wheel locks in brake position.

Lower the armrest in stretcher position.

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

# Features

## Accessory Bars

Accessory bars are located on each side of the device under the armrests.

## Armrests

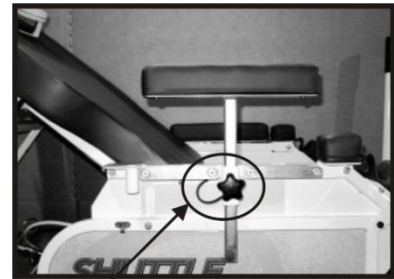
The armrests are detachable. They are not designed to bear the full weight of the patient.



**WARNING:** Never try to move the Shuttle by its armrest. The armrest(s) may come loose or break. Move the device by the Stand Assist Poles (if equipped), Push Bar or by non-detachable parts on the main frame.

Ensure the armrests are securely locked in place. An unsecured armrest may fall abruptly and an injury or accident may occur.

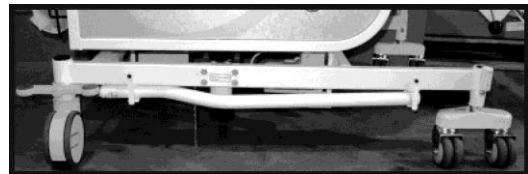
For height adjustment, twist knob to loosen armrest and move to desired height, then retighten.



Knob

## Casters and Wheel Locks

The Shuttle is equipped with a central Lock/Steer mechanism. The wheel locks have three positions: steer, neutral and brake. The levers for operation are located at the rear of the Shuttle. The pictures show the A Series brake pedals.



### **Steer**

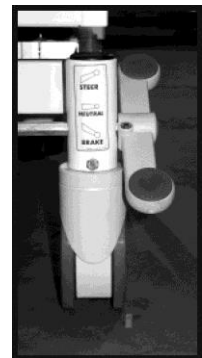
Either pedal will engage the rear casters in steer position. Position the wheel lock lever in the up position.

### **Neutral**

This position is used to move the Shuttle freely. Position the wheel lock lever in the middle position. This allows all six casters/wheels to maneuver freely.

### **Brake**

This position is used to lock the two rear casters/wheels (no movement allowed). Position the wheel lock lever in the down position.



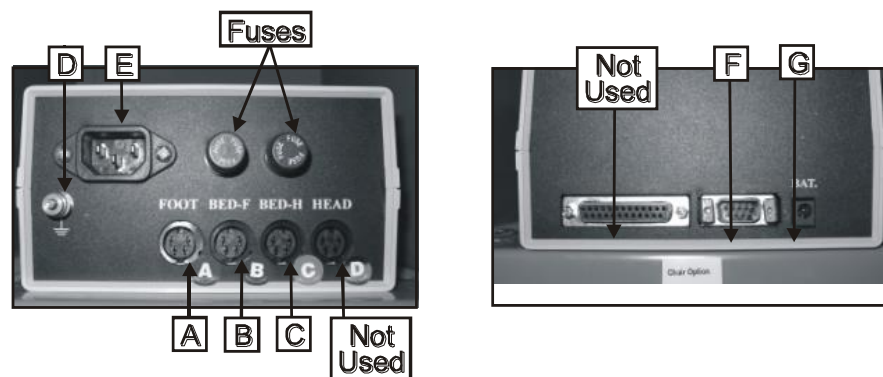
**CAUTION:** DO NOT attempt to use the caster locks to stop the Shuttle while in motion. The locks are not designed to be braking devices.

## Connection of Electrical Components

Should it become necessary to remove any of the cables from the control box, the diagram below will assist in finding the appropriate cables.

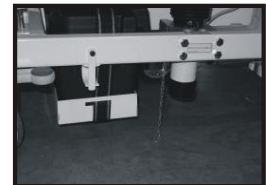
The diagram also indicates the fuse placement. Use 4 amp time delay fuses if they need to be replaced.

- A. Up/Down Front Actuators
- B. Up/Down Rear Actuator
- C. Stretcher/Chair Actuator
- D. Ground
- E. Main Power
- F. Hand Control
- G. Battery Backup



## Electrostatic Discharge Chain

The drag chain is to dissipate the potential for static charge buildup.



## Drainage Bag Hooks

Drainage bag hooks are located on the side panel on each side of the Shuttle.



**WARNING:** Adding objects to the drainage bag hooks will increase the overall width of the Shuttle. Use caution when transporting through doorways or narrow spaces.



## IV Pole

There is a storage space to store the IV pole and multiple positions the pole can be placed. When attaching an IV bag or pump to the IV pole, ensure the bag or pump is always positioning facing outward.

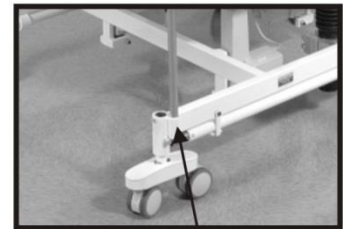
The weight capacity of the IV pole is rated at 50 lbs. /22 kg.



IV Pole Storage



IV Pole Holder



IV Pole Holder



**CAUTION:** When in stretcher mode only use the IV pole in the front of the Shuttle.

When moving Shuttle from stretcher to chair or chair to stretcher extra caution and care should be used when an IV bag or pump is mounted to the pole.



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

Improper mounting of an IV Pump may obstruct the Shuttle from proper manipulation and could result in patient and/or user injury as well as damage to equipment or other property.



## Leg Supports

The leg supports are not designed to bear the full weight of the patient.

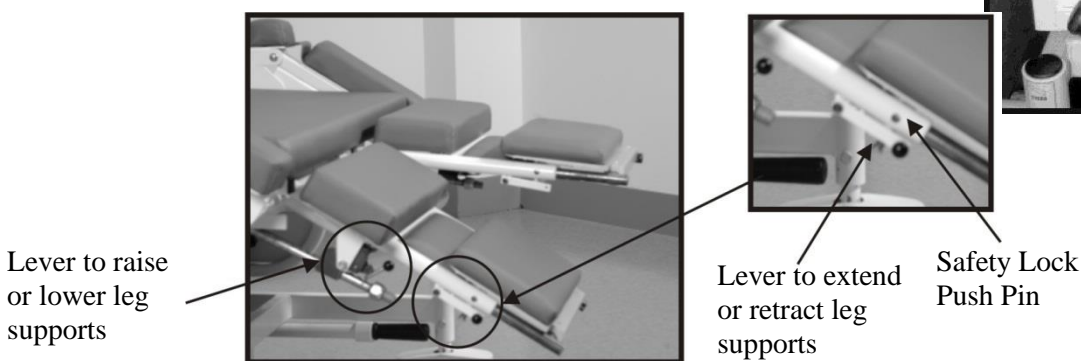


**WARNING:** Never try to move the device by the leg supports. They may come loose or break.

Never sit on leg supports when in the stretcher position.

DO NOT confuse head section and leg support areas of the Shuttle when transferring patient in stretcher position.

DO NOT use the footrest as a step when the user sits on or gets off the Shuttle.



To raise or lower, pull lever to elevate and push lever to release.

To extend or retract, push to release lever and adjust to the desired position.

To remove, extend leg support fully. Press the safety locking pin on the outside of the leg support above the extension release lever.

## Power System and Recharging

The Shuttle needs to be charged on a regular basis. The Shuttle is also designed to operate from 115V to 220V AC power source such as a standard wall outlet. The batteries are sealed and service free. Do not exceed 6 hours of charge time.

### **AC Power**

During initial setup of the Shuttle, it is recommended to charge batteries for a minimum 2-3 hours prior to use.

To connect the Shuttle to a wall outlet, use the retractable power cord provided on the left hand side of the Shuttle. When the unit is connected, switch the unit power switch on the fuse box located at the back of the Shuttle. A green light will indicate the Shuttle is energized. If the Shuttle is connected to AC power source and the green light does not turn on, check the two in line fuses. If needed, replace fuses as marked. Batteries are being charged while Shuttle is plugged into wall outlet. DO NOT leave the Shuttle unattended when charging for more than six hours.



This Shuttle is equipped with two 5 amp 12V sealed lead-acid (gel) batteries (total 24V). 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		12V
Rated Capacity (20 Hour Rate)		12.00Ah
Dimensions	Length	5.94 in (105.9 mm)
	Width	3.88 in (98.6 mm)
	Height	3.76 in (95.5 mm)
	Total Height	4.00 in (101.6 mm)
Approximate Weight		8.38 lbs. (3.8 kg)

Battery Characteristics:

Capacity* 25°C (77°F)		20 Hour Rate (0.25A) 10 Hour Rate (0.47A) 5 Hour Rate (0.85) 1 Hour Rate (3.00A)	12.00Ah 11.16Ah 10.20Ah 7.20Ah
Internal Resistance (milliohms)		Fully Charged Battery 25°C (77°F)	Approx. 14
Temperature Dependency of Capacity (20 Hour Rate)		40°C (104°F) 25°C (77°F) 0°C (32°F) -15°C (5°F)	102% 100% 85% 65%
Self-Discharge 25°C (77°F)		Residual Capacity After Standing 3 Months Residual Capacity After Standing 6 Months Residual Capacity After Standing 12 Months	91% 82% 64%
Charge Method (Constant Voltage)	Cycle Use (Repeating Use)	Initial Current	4.2A or smaller
		Control Voltage	14.5-14.9V
	Float Use	Control Voltage	13.6-13.8V

\*The above characteristics data are average values obtained within three charge/discharges cycles, not the minimum value.

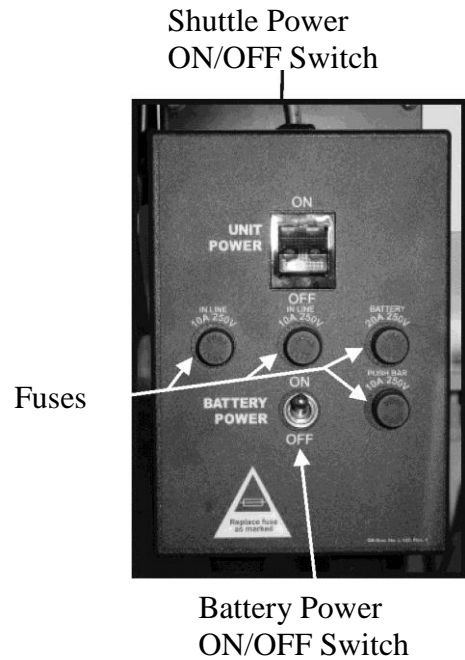
The specifications and characteristics of the battery are from the manufacturer's guidelines sheet. If the battery needs to be changed, follow the manufacturer's specifications listed in this section as well as the information listed in the Specifications section on pages 10.



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

## Battery Power

To use the battery power, flip the battery power switch to on. (Unit Power switch must also be turned on). This switch is located at the back of the Shuttle on the fuse box. The battery power switch is to be turned OFF for transporting the shuttle or times when all functions need to be turned OFF. The battery has an indicator charge light is mounted on the left side of the base. As the Shuttle runs, the amber LED lights diminish, from right to left as the battery charge drops. The Shuttle will run approximately 45 full cycles before needing to be recharged. When the batteries hit their lowest charge (critically low) to operate the Shuttle the battery indicator will show a red light. Once the red light shows this Shuttle will run only for approximately 4 to 6 full cycles. If battery switch is ON and there is no power, check the battery fuse on the fuse box located on the back of the Shuttle.



It is normal for batteries to gradually wear down and require longer charging times. See the Maintenance section on pages 44 for additional care instructions of battery.



To charge this Shuttle simply plug it in to an AC power source. The battery indicator will not show gradual increases of charge during a recharge. Not until the Shuttle is fully charged does the battery indicator reset and show a full charge. The Shuttle takes 3 to 4 hours to charge from a critical discharge to a full charge.



**CAUTION:** When the integrity of external protective conductor in the installation or its arrangement is in doubt, equipment must be operated from its internal electrical power source.

The performance of the batteries may be affected when the batteries are used or stored in a temperature range of -5°C to 45°C (23°F to 113°F).

## Push Bar



**WARNING:** DO NOT confuse head section and leg support areas of the Shuttle when transferring patient in stretcher position.

The Shuttle can be maneuvered by the push bar when in chair or stretcher position.

To flip the push bar into desired position, push the button to release latch and flip bar until locked in place.



## Retractable Power Cord

A retractable power cord is located at the rear of the device.



**WARNING:** DO NOT use the Shuttle if the power cord is cut, frayed or loosely connected to the Shuttle.



## Seat Belt/Harness System

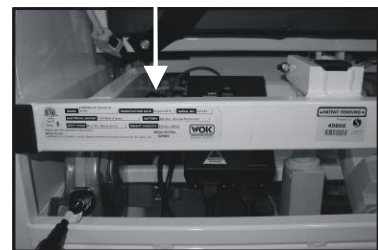


**WARNING:** Be sure to secure the patient with the seatbelt/harness before operating the Shuttle.

## Serial Number Location

The Shuttle has a manufacturer serial number, and a Sizewise Rentals LLC serial number. The serial numbers are located at the rear of the Shuttle.

Serial Number



## Stand Assist Poles



**WARNING:** Be certain the stand assist poles are correctly installed and they are locked securely in place before using.



To store the stand assist poles, place the holes in the space indicated below the main frame between the casters.

To use the stand assist poles, place the holes in the space indicated at the front of the chair. To lock into place, twist pole until pin comes through hole or a click sound is made. To remove, press the push pin at the bottom of the pole and lift out.



# Options

## Oxygen Tank Holder



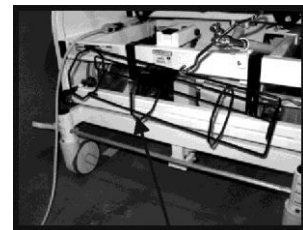
**CAUTION:** Be sure O2 bottle and its fittings will not interfere with the Shuttle operation.

Check O2 lines to be sure they are not pinched or kinked.



**WARNING:** Possible fire hazard when the Shuttle is used with oxygen administering equipment.

The oxygen tank holder is located at the rear of the Shuttle. The holder is 4 1/2" in diameter and 17 1/2" in length. It is not recommended that the oxygen tank (including the valve) exceed the overall width of the Shuttle. The holder will accommodate the following O2 bottles. The length will vary depending on valve size.



Oxygen  
Tank Holder

Cylinder	Diameter	Length
ML6	4.38"	7.68"
M7	4.38"	9.18"
M9	4.38"	16.51"
D (M-D)	4.38"	16.51"

## Power Drive

The Shuttle power drive is an assistive device for the movement of the Shuttle that will ease the transport of patients. The power drive is battery powered to provide complete flexibility in transport without the constraint of a power cord. The drive wheel is retractable to allow more traditional, manual movement when desired. It is set-up so that only the attendant is able to access the controls. It has no intention of, nor has the ability for, the patient to use any mobility controls.



**WARNING:** Be sure to secure the patient with the seatbelt/harness before operating the Shuttle.

Avoid feet in the path of the Shuttle when using the power drive.

The power drive is operated by two 12V batteries that are 18 AH sealed gelled electrolyte. The charger included in the design of the power drive is a charging system to recharge the batteries when necessary, at the same time the Shuttle will be charged as well. To charge batteries plug 115V or 230V cord into any 115V or 230V outlet. It is recommended to a maximum charge time of 6 hours, although full charge may be complete in 2-4 hours. See the Maintenance Section on pages 44 for additional information on batteries.

The purpose of the Shuttle power drive is to assist the clinical staff in the ergonomic and safe transport of bariatric patients. Through the Shuttle power drive equipped chair, patient transport can safely and effectively be accomplished without strain or injury to the operator as opposed to pushing or pulling a non-motorized chair.



**CAUTION:** Unplug the Shuttle from the outlet prior to operating.

**Speed Control Dial**

This dial is used to set the speed of the power drive. The dial does not make the power drive move.

**Forward/Reverse Switch**

This switch will select which direction the motor will drive the device.

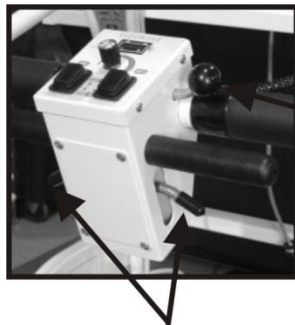


**Battery Charge Gauge**

The power drive controller also includes a gauge indicating the state of charge of the batteries. This can indicate when the batteries are in need of recharging. This gauge also can assist with troubleshooting of the power drive see, battery flash codes.

**ON/OFF Switch**

The ON/OFF switch is the main power Switch and controls whether the Shuttle power drive is in transport mode or manual mode. In manual mode the Shuttle drive is inactive and draws no power from the batteries. Once the switch is in the ON position the drive wheel will be lowered and the power drive is in the transport mode. If the switch is in the OFF position the drive wheel is retracted.



This knob is used to adjust the angle of the controls when the Shuttle is in chair position or the stretcher position. There are only two angle positions the controls can adjust to.

**Acceleration Control Throttle**

To activate movement, pull up on one side of the drive lever. The speed will vary with the amount of pressure applied to the lever. This is a spring loaded lever, once it is released the speed will decrease to zero speed and a brake will activate.

## Power Drive Operating Instructions

Prior to operating the power drive, read this section and heed any caution statements or warnings.



**CAUTION:** DO NOT attempt to use the caster locks to stop the Shuttle while in motion. The locks are not designed to be braking devices.

1. The Shuttle brake pedal must be in the NEUTRAL position or the Shuttle will not steer properly.
2. Turn ON power with the ON/OFF switch on the power drive controls. When power is activated the drive wheel will drop to the floor.

**NOTE:** The Shuttle will not operate while the charger cord is plugged in or with the brakes set.



**WARNING:** Set speed control to a minimum position before engaging power drive. Failure to do so could result in patient and/or user injury as well as damage to equipment or other property.

Make sure the Shuttle power drive is in forward position (FWD) before engaging. Failure to do so could result in patient and/or user injury as well as damage to equipment or other property.

3. Determine direction desired by using FWD-REV switch on the power drive.



**CAUTION:** Under no circumstance should the FWD-REV switch be operated when the Shuttle is in motion. The Shuttle must be completely stationary before the FWD-REV switch is operated.

4. Set the speed using the speed control dial



**WARNING:** When using the power drive set the speed that is suitable for the user's experience with the power drive. Failure to do so could result in patient and/or user injury as well as damage to equipment or other property.

**NOTE:** Turning the dial clockwise will give more speed and power to the throttle. Use slowest setting for tight quarter maneuvers.

5. Slowly squeeze one side of the Acceleration Control Throttle and the Shuttle will begin to move. The more you squeeze the throttle the faster it will go. To stop, release lever.



**NOTE:** If the attendant is squeezing the throttle when turning ON the system the device will go to a default (Flash) mode. If this happens, turn the system OFF (ON/OFF switch on the controls) and restart the power drive.

To steer the Shuttle, turn handle opposite direction the care provider desires to go. If in forward position, reverse would be to turn the handle in the same direction the care provider is going.

Avoid sudden sharp turns when operating at any speed over slow without training, or **Loss of Control** can occur.

The Shuttle power drive is designed primarily for flat surface use. Ramps, hills, etc. should be avoided if at all possible. If not avoidable, use extreme care! The Shuttle power drive is NOT intended to stop or hold the patient on a declining or inclining surface.

When maneuvering the Shuttle down a declining surface, the care provider should position the Shuttle so the patient is facing away from the decline, with the push bar preceding the patient (in reverse direction). Failure to observe this can result in **Loss of Control**. **NEVER** attempt to drive system down a declining surface with the patient facing forward (push bar in back).

The Shuttle is NOT recommended in situations where the slope is greater than 5 degrees.

In case of power failure of any kind, the drive wheel will stay in contact with the floor for a period of time. To release the pressure push the emergency release button on the electrical enclosure underneath the patient's right leg rest.

Emergency Release



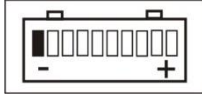
To adjust the controller into a different position, simply move the push bar into the desired position. Then pull out on the knob, located on the side of the controller and move the controller into the desired position.



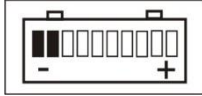


## Power Drive Battery Flash Codes

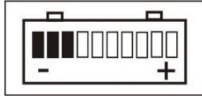
The battery flash codes indicate the following:



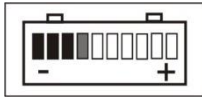
The battery needs charging or there is a bad connection to the battery. If the connections are good try charging the battery.



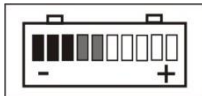
There is a bad connection to the motor. Check all connections between the motor and the controller.



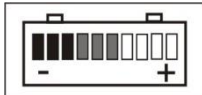
The motor has a short circuit to a battery connection. Contact your service agent.



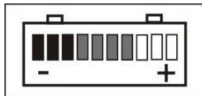
The freewheel switch is activated or the manual brake disengagement mechanism is operated. Check the position of the switch or lever.



Not used.



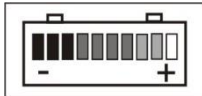
The S-Drive is being inhibited from driving. Inhibit 2 is active. This may be because the battery charger is connected.



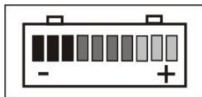
A throttle fault is indicated. Make sure that the throttle is in the rest position before powering up.



A controller fault is indicated. Make sure that all connections are secure.



The parking brakes have a bad connection. Check the parking brake and motor connections. Make sure the controller connections are secure.



An excessive voltage has been applied to the controller. This usually is caused by a poor battery connection. Check the battery connections.

## Storage Basket



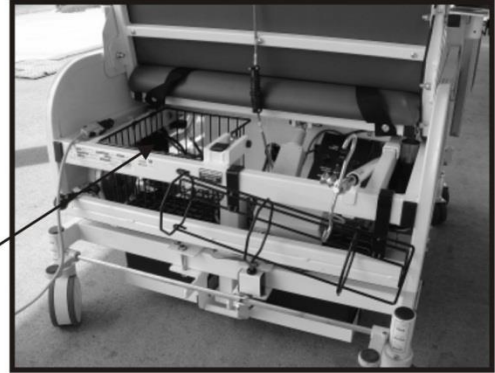
**CAUTION:** When articulating the Shuttle into stretcher position, the basket only has a 15” clearance from the bottom of the basket to the top of the frame.

There is a basket to store miscellaneous items at the rear of the device. The storage basket is available only on the SW Shuttle B Advanced.

Basket..... 9.5”W x 11.5”L x 7”D

Basket Clearance in Stretcher Position ..... 15”  
(Bottom of basket to top of frame)

Basket



# Safety Tips

## Electrical Leakage Test Point



**CAUTION:** If the ground is not properly connected to the electrical leakage test point a false reading may occur.

In the event the electrical leakage test is done, the proper location for this test is on the mounting bolt for the cord reel.



## Electromagnetic Compatibility (EMC)

The Shuttle has been tested for compliance with the EMC requirements. The guidelines in this section will help to ensure the medical equipment will meet the requirements of the standard.



**WARNING:** Medical equipment should not be used, stacked or located on or around equipment that may create electromagnetic interferences.

## **Emissions**

The Shuttle has been type tested and has passed the requirements of CISPR 11. Observe the following recommendations to minimize radio frequency emissions in this section and the Electromagnetic Interference section.

## **Immunity**

The Shuttle has been stringently tested for susceptibility to electromagnetic radiation over the frequency range 80 MHz to 2.5 GHz. The test was conducted on this Shuttle and passed the requirements of IEC 61000-4-3.

All pins of connectors have passed ESD testing.

## **List of Cables and Accessories**

Replacement parts, such as cables and accessories, must be purchased through Sizewise to ensure proper compliance requirements.



**WARNING:** 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 user injury as well as damage to equipment or other property.

The use of cables or accessories other than those for which the Shuttle was designed or tested can significantly degrade emissions and immunity performance.

Cables and Accessories	Specifications and Requirements
Hand Control	Length: 11.16 feet (3.4 meters) 105°C (221°F) 24 AWG Strand PVC Insulated Standards: UL AWM Style 2464, NEC Type CMG/cUL CEC Type CMG FT4, CSA AWM I A, EU CE
Power Cord	Hospital Grade Power Reel Length: 10 feet (3.04 meters) SJT 16/3C 60°C (140°F) End Types: YP-18L-2 and YC-12 UL and CSA certified 3 prong IEC C13 power cord receptacle. Built to the IEC 60320-C13 standard. Rated 10A 125V. This IEC C13 power cord receptacle is fully molded with a low profile ergonomic design and fully RoHS and REACH compliant.

### Electromagnetic Interference (EMI)

The Shuttle has been tested and is intended for safe use with other components compliant to IEC 601 standards for medical devices. The Shuttle can cause interference with non-601 regulated equipment and/or other non-601 regulated equipment can cause interference with the Shuttle. This section is in accordance with IEC 60601-1-2 section 5.2.2.



**WARNING:** Radio wave sources such as radio stations, TV stations, amateur radio (HAM) transmitters, two-way radios and cellular phones can affect this Shuttle. Following the warnings listed for electromagnetic interference should reduce the chance of the Shuttle's unintended movement that could result in serious injury.

DO NOT turn ON hand-held personal communication devices, such as citizens band (CB) radios and cellular phones while the Shuttle is turned ON.

Be aware of nearby transmitters, such as radio or TV stations, and try to avoid coming close to them.

If unintended movement occurs, turn the Shuttle OFF as soon as it is safe.

Adding accessories, components or modifying this Shuttle may make it more susceptible to interference from radio wave sources (there is no easy way to evaluate their effect on the overall immunity of the Shuttle).

Report all incidences of unintended movement to the Shuttle's manufacturer and note whether there is a radio wave source nearby.



**CAUTION:** It is very important to read the information regarding the possible effects of electromagnetic interference on the Shuttle.

**Electromagnetic Interference (EMI) from Radio Wave Sources**

The Shuttle has been tested and is intended for safe use with other components compliant to IEC 601 standards for medical devices. The Shuttle may be susceptible to electromagnetic interference (EMI), which is energy that is reflected or emitted from sources such as radio stations, TV stations, amateur radio (HAM) transmitters, two-way radios and cellular phones in the form of electrical and magnetic waves that travel through space. The interference (from radio wave sources) is not likely but in extreme circumstances can cause this Shuttle to move by itself or move in unintended directions. It can also permanently damage the Shuttle’s control system. The intensity of the interfering EMI energy can be measured in volts per meter (V/m). The Shuttle can resist EMI up to a certain intensity. This is called its “immunity level”.

**GUIDANCE AND MANUFACTURER’S DECLARATION**

**Company:** Wheelchairs of Kansas  
**Model:** 41060000, 31060000  
**Control Number:** 3107769

**Table 201 Guidance and Manufacturer’s Declaration – Emissions  
Equipment and Systems that are NOT Life-Supporting**

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

<b>Emissions Test</b>	<b>Compliance</b>	<b>Electromagnetic Environment Guidance</b>
RF Emissions CISPR 11	Group 2	The Shuttle must emit Electromagnetic energy in order to perform its intended function. Nearby electronic equipment may be affected.
RF Emissions CISPR 11	Class B	
Harmonics IEC 61000-3-2	Class A	
Flicker IEC 61000-3-3	Complies	

**Table 202 Guidance and Manufacturer’s Declaration – Immunity  
All Equipment and Systems**

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

<b>Immunity Test</b>	<b>IEC 60601 Test Level</b>	<b>Compliance Level</b>	<b>Electromagnetic Environment Guidance</b>
ESD IEC 61000-4-2	±6kV Contact ±8kV Air	A	Floors should be wood, concrete or ceramic tile. If floors are synthetic, the r/h should be at least 30%.
EFT IEC 61000-4-4	±2kV Mains ±1kV I/Os	A	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±1kV Differential ±2kV Common	A	Mains power quality should be that of a typical commercial or hospital environment.
Voltage Dips/Dropout IEC 61000-4-11	>95% Dip for 0.5 Cycle  60% Dip for 5 Cycles  30% Dip for 25 Cycles  >95% Dip for 5 seconds	A	Mains power quality should be that of a typical commercial or hospital environment. If the user of the Shuttle requires continued operation during power mains interruptions, it is recommended that the Shuttle be powered from an uninterruptable power supply or battery.
Power Frequency 50-60Hz Magnetic Field IEC 61000-4-8	3A/m	A	Power frequency magnetic fields should be that of a typical commercial or hospital environment.

**Table 204 Guidance and Manufacturer’s Declaration – Immunity  
Equipment and Systems that are NOT Life-Supporting**

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

Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment Guidance
<p>Conducted RF IEC 61000-4-6</p> <p>Radiated RF IEC 61000-4-3</p>	<p>3 Vrms 150 kHz to 80 MHz</p> <p>3 V/m 80 MHz to 2.5 GHz</p>	<p>(V1)Vrms = 3</p> <p>(E1)V/m = 3</p>	<p>Portable and mobile communications equipment should be separated from the Shuttle by no less than the distances calculated/listed below:</p> <p><math>D=(3.5/V1)(\text{Sqrt } P)</math></p> <p><math>D=(3.5/V1)(\text{Sqrt } P)</math> 80 to 800 MHz</p> <p><math>D=(7/V1)(\text{Sqrt } P)</math> 800 MHz to 2.5 GHz</p> <p>Where P is the max power in watts and D is the recommended separation distance in meters.</p> <p>Field strengths from fixed transmitters, as determined by an electromagnetic site survey, should be less than the compliance levels (V1 and E1).</p> <p>Interference may occur in the vicinity of equipment containing a transmitter.</p>

**Table 206 Recommended Separation Distances between portable and mobile RG Communications equipment and the Shuttle.**

**Equipment and Systems that are NOT Life-Supporting**

Recommended Separations Distances for the Shuttle: The Shuttle is intended for use in the electromagnetic environment in which radiated disturbances are controlled. The customer, or user, of the Shuttle can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF Communications Equipment and the Shuttle, as recommended below, according to the maximum output power of the communications equipment.

$D=(3.5/V1)(\text{Sqrt } P)$

$D=(3.5/E1)(\text{Sqrt } P)$

80 to 800 MHz

$D=(7/E1)(\text{Sqrt } P)$

800 MHz to 2.5 GHz

Compliance Level	Cond RF 3	Rad RF-800 MHz 3	Rad RF – 2.5 GHz
0.01	0.12	0.12	0.23
0.1	0.37	0.37	0.74
1	1.17	1.17	2.33
10	3.69	3.69	7.38
100	11.67	11.67	23.33

**General Safety**



**WARNING:** The Shuttle 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.



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

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



## Pinch Point

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



**HAZARD:** Pay close attention to pinch points on the Shuttle to avoid injury to the patient and/or care provider.

Pinch points have minimal clearances between two moving parts that fail to maintain a clearance of  $\leq 8\text{mm}$  or  $\geq 25\text{mm}$ .

Pinch points are present between the side panel and frame on both sides.



## Transport



**WARNING:** During transport, use caution so the Shuttle 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 Shuttle needs to be stored, transported and operated in a temperature range of  $-5^{\circ}\text{C}$  to  $45^{\circ}\text{C}$  ( $23^{\circ}\text{F}$  to  $113^{\circ}\text{F}$ ).

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

It is not recommended to transport a patient when the Shuttle is in Seat Assist position, Trendelenburg or Reverse Trendelenburg positions.

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

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 Shuttle at high speeds.

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

# Cleaning Instructions



**WARNING:** Before cleaning the Shuttle, 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 hand controls and cords, seat surfaces, armrests, leg and calf pads, making sure to wipe between the seat surfaces and side panels.
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, 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 should always be used as directed by the Material 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.

Place the Shuttle in the stretcher position. Raise the Shuttle to the highest position for easy access to all surfaces.

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

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

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

Allow all Shuttle 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 must not be steam cleaned.

## **Shuttle Electronics, Hand Controls and Power Drive**

Electronic components (Electrical Control Module, electrical connections and motor box covers and hand controls) are to be wiped using a coarse cloth, dampened with the disinfectant solution, 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.

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

**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.

# Maintenance



**CAUTION:** The Shuttle requires regular maintenance to uphold performance and avoid premature wear, damage and injury.

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 the Shuttle life. For long term use, the following maintenance chart should be followed:

	Three Months	Six Months
Armrests		X
Fasteners		X
Frame		X
Cushion		X
Casters	X	
Hand Control	X	
Actuators	X	
Batteries	X	
Power Cords	X	

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

- Plug the Shuttle into AC power.
- Turn battery and main power switch on.
- Charge batteries 4-6 hours prior to first use.
- Ensure brake/steer casters lock in place.
- Verify each function operates fully on the hand control.
- Make sure the Shuttle operates easily and freely and all parts work smoothly.
- Check for excess noise, vibration or a change in ease-of-use. These may be signs of a problem such as a need for lubrication, loose fasteners or damage to the Shuttle.
- Ensure armrests are installed and lock properly.
- Ensure elevated leg rests lock in desired positions.
- Verify footrests extend/retract to desired positions.
- Unplug the Shuttle from AC power.
- Verify each function operates on battery power.
- Ensure power drive operates correctly with joystick (if installed).
- Ensure the Shuttle is clean/disinfected and patient ready.

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 replaced 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 because 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 Shuttle 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 Shuttle are special high-strength fasteners. Contact an authorized Sizewise technician to assist if 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 Shuttle before using it.

### **Storage and Disposal**

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



**CAUTION:** The Shuttle needs to be stored, transported and operated in a temperature range of -5°C to 45°C (23°F to 113°F).

DO NOT expose the Shuttle 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 electronics 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.

The Shuttle will not operate.

- Verify the hand control and power cords are properly connected and secure.
- Verify all power switches are set to the ON position.
- Verify the Shuttle is plugged into AC power.

The Shuttle will not operate off of battery power.

- Verify all switches are set to the ON position.
- Verify the hand control and power cords are properly connected and secure.
- Plug the Shuttle into an AC power source and let charge for 2-4 hours, then try again.

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

# Warranty Information

## Sizewise Rentals™, LLC (Sizewise) Limited Warranty

Sizewise is dedicated to manufacturing and distributing equipment that provides solution-oriented approaches to exceed the clinical, comfort and safety needs of our customers. Sizewise is proud to offer to the original purchaser, the following warranties, effective February 20, 2012:

<b>Product</b>	<b>Capacity</b>	<b>Frame Warranty</b>	<b>Parts Warranty</b>	<b>Electronics</b>
SW Shuttle™	1000lbs/650 lb (453 kg/295.05 kg)	5 yr. on Frame	1 yr. on defective parts/workmanship; batteries excluded	1 yr.

### **How to obtain Parts and Service**

1. Contact Sizewise Parts and Service at 1-800-814-9389 to speak with a qualified specialist who can assist with troubleshooting, parts and repairs. The product model and serial identification numbers are required for service and parts. Parts can be expedited upon request for an additional fee. If on-site technical service is required, a qualified service representative will be dispatched.
2. If a product or part should be returned to Sizewise, a return authorization number (RA#) will be issued. The RA# will be valid for 21 days from the date it is issued.
3. If the problem is a result of defective material or workmanship, the product or part will be replaced or repaired at the discretion of Sizewise, at no charge to the customer.
4. For replacement or repair of a product or part not covered under this warranty, or if warranty is void, the standard rates will apply. Freight or delivery charges will be billed to the customer.
5. Sizewise products are identified by serial number. Removal of this number may void the warranty.

### **Limitations and Exclusions**

1. Products that have been subject to negligence, abuse, improper storage or handling, improper operation, unauthorized modifications or damages beyond normal wear and tear, as determined by Sizewise, are not covered by this warranty.
2. If weight capacity on any such product is exceeded, the warranty will be void. Any unauthorized repairs to product/part, as well as tampering with any components, will void the warranty.
3. Parts or materials that are subject to normal wear resulting from the use of these products that must be replaced or repaired are excluded and are not covered by this warranty.
4. **SUBJECT TO STATE SPECIFIC LAW, THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS OR IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND SHALL NOT EXTEND BEYOND THE DURATION OF THIS WARRANTY. SIZEWISE SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES.**
5. This warranty applies to the original purchaser only and is non-transferable.
6. Batteries are excluded from the one (1) year warranty.
7. Cleaning upholstery or fabrics with harsh chemicals, or bleach, outside the recommended cleaning guidelines may void the warranty.



## **Manufacturer Disclaimer**

### **General Information**

All specifications, equipment and prices are subject to change without notice. Sizewise reserves the right to make improvements from time to time. Photos and drawings are representative of the products and may vary slightly from actual production models. Some items photographed in this user's manual may include optional equipment. Contact or consult Sizewise to ensure proper equipment sizes, specifications and options.

### **Trademarks and Patents**

SW Shuttle <sup>TM</sup> is a trademark of Sizewise Rentals LLC.

Patent Pending for the SW Shuttle.

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## **User Assistance Information**

For questions or assistance with this product, contact Sizewise at:

Sizewise  
1600 Genessee  
Suite 950  
Kansas City, Missouri 64102  
Phone: 1-800-814-9389



SIZEWISE

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