



# Instruction Manual

*M.C. Advantage*

MODEL: QD1000\_series



## WARNING!

To avoid injury, you must read this manual before using bed.



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*Use Care and Service Manual*  
*M.C. Advantage - Low Bed*

# IMPORTANT SAFETY PRECAUTIONS - Read all instructions before using Bed.



## Classifications and Icons

The International Electrotechnical Commission (IEC) requires use of icons to improve readability and increase understanding of the content. The text uses uppercase signal words "CAUTION", "WARNING" or "DANGER". Iconic symbols are used to permit easier comprehension.

## Icons and Symbols used on the *M.C. Advantage* Bed



WARNING! symbol is used to identify situations or actions that may cause severe injury or death to you or to other persons.



ALTERNATING CURRENT



TYPE B APPLIED PART

IP54

ENCLOSURE PROTECTION TYPE - Limited protection against dust and splashed water.

IPX4

ENCLOSURE PROTECTION TYPE - Protection against water sprayed from all directions.



UP



DOWN



HEAD DECK ELEVATION



KNEE DECK ELEVATION



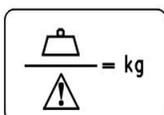
BED ELEVATION



FUNCTION LOCK



FUNCTION UNLOCKED



SAFE WORKING LOAD

(Note: include the weight of Resident, Head and Foot Panels, Mattress siderails and accessories.)

## IMPORTANT SAFETY PRECAUTIONS - continued



**WARNING!** For your safety, the information in this manual must be followed to minimize the risk of electric shock, fire, or to prevent property damage, personal injury, or loss of life.



**WARNING! POSSIBLE INJURY OR DEATH.** This bed is intended for use as an adjustable mattress deck surface. Use of this product in any way other than the intended use, could result in injury or death.



**WARNING!** Patients with diminished mental awareness should not be allowed access to the pendant, as they may become entangled in the cable. Failure to do so may result in injury or death.



**WARNING!** Make sure the bed is in the lowest position when the patient is left unattended. This can reduce the severity of any injuries resulting from patient falls.



**WARNING!** Except for when the bed is being moved, the brakes should always be set (locked). After applying the brakes test the motion of the bed to ensure that the brakes are properly engaged. Patients use the bed for support when getting in or out of bed, and could be injured if the bed unexpectedly moves.



**WARNING!** The Safe Working Load of this bed is 500 lbs (226 Kg) evenly distributed, which includes the weight of the patient, mattress and any accessories and visitor. Also jumping, falling or standing on the bed will concentrate the load and may result in property damage, personal injury or death.



**WARNING!** When lowering the bed, ensure that no person, limbs, bedding or any foreign objects are between the bed frame and the floor. Ensure that Over-bed tables and patient lifts are safely removed.



**WARNING!** Ensure that no arms, hands, legs or feet are under the mattress decks when lowering them.



**WARNING! POSSIBLE INJURY OR DEATH** Use only the proper size mattress that will minimize the gap between the side of the mattress and the side rails. The gap must be small enough to prevent the resident from getting his/her neck caught in this zone (read the FDA Entrapment Guidelines for further information).



**WARNING! POSSIBLE INJURY OR DEATH .** The Mattress Stops help control the Entrapment Zone gaps between the Mattress, Side rails, the Head and Foot Boards. Improper installation or absence of Mattress Stops could result in entrapment injury or death. Ensure the Mattress fills the entire width and length of the sleeping deck with the corners of the Mattress snugly fitted within the Mattress Stops.



**CAUTION!** Care must be made to ensure that the resident does not fall-on or slide-over the mattress side stops which may cause injury.

# IMPORTANT SAFETY PRECAUTIONS - continued

Safety Instructions

Assembly

Operating Instructions

Maintenance

Troubleshooting

Customer Support



**WARNING!** Possible fire hazard when used with Oxygen Administering Equipment of other than the Nasal, Mask or 1/2 bed length Tent type. Oxygen Tent should not extend below the mattress support level. Remove or lock-out hand control when using oxygen administering equipment.



**WARNING!** Plug the bed directly into a 110-120 VAC 60 Hz properly grounded Hospital Grade outlet. Avoid use of extension cords at all times.



**WARNING!** Improper connection of the equipment grounding conductor can result in the risk of electrocution. DO NOT modify the plug. The plug must be plugged into a 3-prong receptacle marked "*Hospital Grade*" or "*Hospital Only*". Check with a certified electrician.



**WARNING!** Listen for unusual sounds and watch out for uneven running. Stop the motor immediately if anything unusual is observed.



**WARNING!** The Electric Motors must remain dry. Care must be taken during cleaning and use to ensure that electrical components remain dry.



**WARNING!** Ensure that no damage is made to power cords by rolling the bed over them. Ensure cords are not frayed or damaged.



**WARNING!** Fluid spills on the bed electronics can result in a hazard. In the event of a spill, immediately:

- Unplug the bed from the power source and remove it from service.
- Remove the patient from the bed and clean the spill
- Remove the bed from service until the bed is tested and determined to be safe.

Failure to do so may result in personal injury or property damage.



**WARNING!** The siderails should always be in the up position when the patient is left unattended. Test the siderails to ensure that they are properly latched before leaving the patient.



**WARNING!** Only authorized / certified personnel should perform preventative maintenance. Maintenance by unauthorized personnel could result in property damage or injury.



**WARNING!** Follow Manufacturer instructions when installing accessories especially the Patient Helper Bar, this bar could fall and result in injury or death.



**WARNING!** Use of replacement parts or accessories from other manufacturer's will invalidate the warranty and could damage the bed.

# IMPORTANT SAFETY PRECAUTIONS - continued

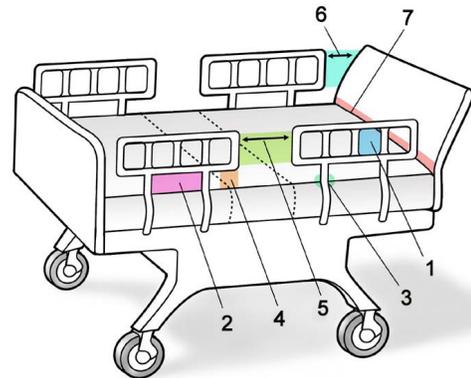


## DANGER - RISK OF ENTRAPMENT

The U.S. Food and Drug Administration (FDA) has recently warned against the potential danger of entrapment and published safety guidelines for hospital beds. The FDA has identified seven zones in the hospital bed system where there is a potential for patient entrapment. Entrapment may occur in flat or articulated bed positions, with the rails fully raised or in intermediate positions. The seven entrapment zones are identified in the drawing below.

### ENTRAPMENT ZONES:

- Zone 1: Within the Rail
- Zone 2: Between the Top of the Compressed Mattress and the Bottom of the Rail, Between the Rail Supports
- Zone 3: Between the Rail and the Mattress
- Zone 4: Between the Top of the Compressed Mattress and the bottom of the Rail, at the End of the Rail
- Zone 5: Between the Split Bed Rails
- Zone 6: Between the End of the Rail and the Side Edge of the Head or Foot Board
- Zone 7: Between the Head or Foot Board and the Mattress End



## COMPLIANCE - Entrapment Safety

The entrapment zones are a resultant of the dimensional interaction between the bed and components that are often assembled by the Healthcare Facility and not the Manufacturer.

The Healthcare Facility is responsible for compliance with the Entrapment Guidelines by

matching the right components and accessories to the right bed.

To learn more about the entrapment zones, assessment methods and guidelines for compliance with the entrapment regulation visit the FDA website.

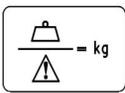
*MC Healthcare is a member of the FDA's Hospital Bed Safety Workgroup. All beds made by MC Healthcare meet the federal entrapment guidelines. MC Healthcare is available to work with customers to minimize the risk of patient entrapment.*

## DISCLAIMER

The *M.C. Advantage* low beds are intended to be used for resting and sleeping in a long term care environment. The beds are not to be used as a tool for diagnosis (determining cause of an illness), treatment (action(s) taken to change the course of an illness) or monitoring (reading and/or recording physiological parameters).

# PRODUCT FEATURES AND SPECIFICATIONS

The *M.C. Advantage* bed is designed for a safe working load of 500 pounds. Body weight should be evenly distributed over the surface of the bed. Do Not lay, sit or lean in such a way that the entire body weight is placed only on a raised head or foot section of the bed.

<i>M.C. Advantage</i> Bed	Specification
Height Floor to Mattress Support	7 7/8 – 30" Travel range.
Deck Angles 1. Head elevation 2. Knee elevation	0 - 70 degrees with horizontal. 0 - 20 degrees with horizontal.
Adult Bed Length 1. Overall length 2. Sleep surface	84 1/8" inches (excluding wall bumper). 80 inches.
Youth Bed Length 1. Overall length 2. Sleep surface	80 1/8" inches (excluding wall bumper). 76 inches.
Bed Width Overall width (with side rails)	40 1/2" inches.
Mattress Deck 1. Width 2. Length	35 inches. 76 or 80 inches.
Mattress Support Deck Construction	Welded steel angle frame and rod.
Mattress Stops	Steel Corner and Side Stops.
Bed End Panels	Permanent or removable mounting.
Electrical Safety Certification	Certified to UL 60601 - 1 Certified to CAN/CSA-C22.2 No. 60601 - 2 - 38 : 03 Conforms to IEC 60601 - 2 - 38 : 1999
Classification	Class I, Type B.
Voltage/Hertz/Phase	120/60/1.
Maximum Input Current Rating	3.5 Amp (120V).
Cord Type / Length	2.5 Meters minimum , 3 prong.
Electric Motors	Four (4) DC self lubricating Linear Actuators.
Operation	10% Maximum Duty Cycle (2 minutes on/18 minutes off)
Emergency Power back-up battery Pack.	24 V DC Wall Mounted Battery with Charger.
Protection against splashing water	IPX4.
Mass of bed	160 lbs without any accessories.
Safe Working Load 	226 Kg = 500 Lbs (includes the Patient, Head/foot Panels, Mattress Side Rails and accessories).
Mobility	At any height (7 7/8 - 30").
Swivel Casters	Heavy duty 3" – total locking casters.

NOTE: Specifications are subject to change without notification.

# PRODUCT FEATURES AND SPECIFICATIONS- continued

<p>Environment conditions</p> <p>OPERATING      Temperature                     Relative Humidity                     Atmospheric Pressure</p> <p>STORAGE        Temperature                     Relative Humidity                     Atmospheric Pressure</p>	<p>5 °C to 40 °C 20 % to 90 % @ 30 °C - not condensing 700 to 1060 hPa -10 °C to +50 °C 20 % to 90 % @ 30 °C - not condensing 700 to 1060 hPa</p>
<p>Motor Function Controls</p> <p>1. Hi/Low Elevation 2. Head Deck 3. Knee Deck</p>	<p>Six (6) function pendant. Up and Down keys. Up and Down keys. Up and Down keys.</p>
<p>Foot End (Staff) Controller</p> <p>1. Hi/Low Elevation 2. Head Deck 3. Knee Deck</p>	<p>Optional - Factory or Field Installed. Individual Lock and Un-lock control over all functions. FEC remembers setting before power outage or removal of foot-board.</p>
<p>3/4 Length Collapsible Side Rail Model # RAD501</p>	<p>Optional - Factory or Field Installed. Fits 76" and 80" Sleeping Surface Decks. Latching mechanism capable of one hand operation.</p>
<p>Head End Assist Rail Model # RAD301</p>	<p>Optional.</p>
<p>Three Position Assist Rail Model # RM930</p>	<p>Optional.</p>
<p>Two Position Assist Rail # RAD401</p>	<p>Optional.</p>
<p>Head End Wall Stand-Off Bumpers.</p>	<p>Optional - Impact absorption bumpers.</p>
<p>I.V. Ports</p>	<p>Optional.</p>
<p>Trapeze- patient helper bracket and a patient helper bar.</p>	<p>Optional.</p>
<p>Bed Extender</p>	<p>Optional. 6" Foot or Head End.</p>
<p>Vascular Foot Deck Ratchets</p>	<p>Manual elevation to help aid for cases of edema.</p>
<p>Mattresses</p>	<p>Proper sized mattresses with special foam edges to prevent patients from being trapped between the mattress and rail. Contact your M.C. Healthcare Products Representative for mattress sizing recommendations.</p>

Safety Instructions
Assembly
Operating Instructions
Maintenance
Troubleshooting
Customer Support

 = **226 Kg = 500 lbs.**

# ASSEMBLY INSTRUCTIONS

Safety Instructions

Assembly

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## Introduction

Your *M.C. Advantage* Bed is equipped with four motors to operate each of three functions:

- ① **Bed up/down** Adjusts the height of the bed from 7-7/8" to 30".
- ② **Head up/down** Adjusts the angle of the head deck from 0° to 70°.
- ③ **Knee up/down** Adjusts the angle of the knee deck from 0° to 20°.

This instruction manual covers options and accessories which may not be included on your bed. Before operating your *M.C. Advantage* Bed, be sure that you have completely read and understood the instructions and warnings contained in this manual and included with the accessories.

## Unpacking / Installation

Your *M.C. Advantage* bed is shipped in a vertical position with the Head-End on the ground. If it has not been lowered flat, then two people are required to lower it gently to the ground.

## Unpacking Instructions (PLEASE RECYCLE)

Cut the "shipping ties" securing the deck to the frame and the baseboard wire bumper to the bed. There are also ties securing wiring in place, care must be taken so that only the "shipping ties" are removed. The "shipping ties" can be identified by the fact that they have not been trimmed.

Remove one package attached to the frame containing the Mattress Stops and the Board Mounting Brackets. Make sure that all parts are included prior to disposing of the packaging material and immediately report any missing parts to MC Healthcare Customer Service.

## Power Supply Cord

To keep the power supply cord off the floor when moving or storing the bed, you need to secure the cord using the Velcro® Strap as shown.



**WARNING! POSSIBLE INJURY OR DEATH** improper routing of the power cord could result in injury or death. Ensure that you do not remove any Cable ties that are intended to keep the power cord away from moving parts.

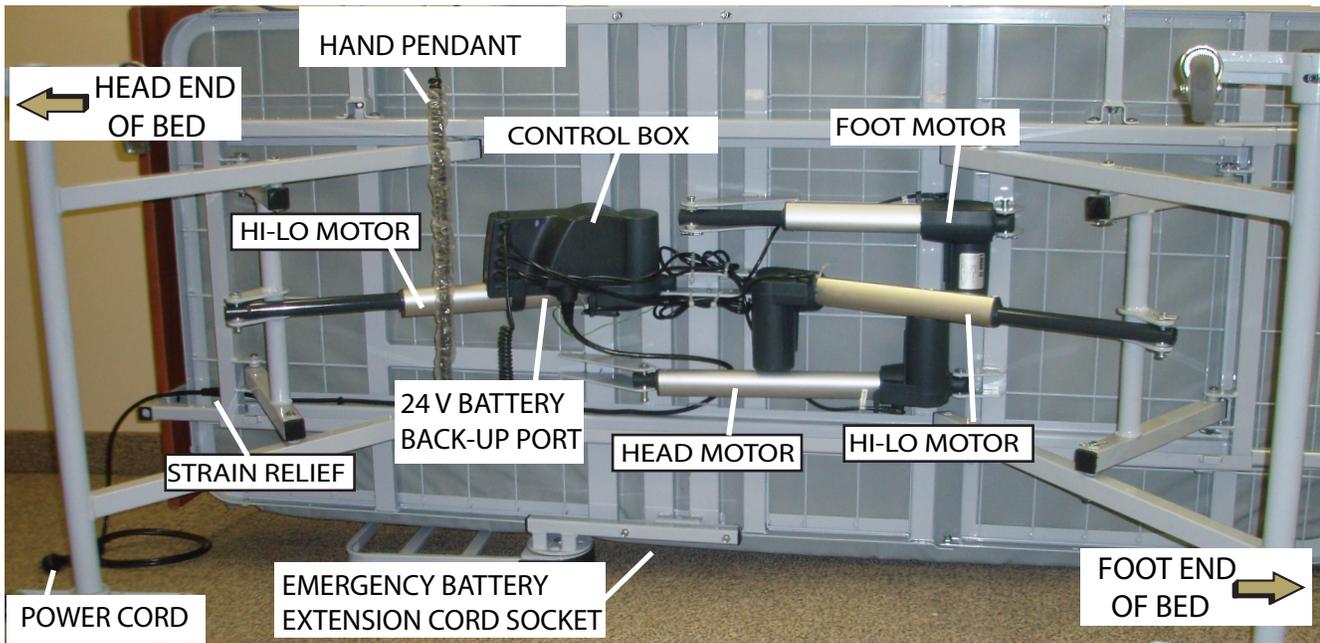
## Head and Foot Boards

These boards can be installed on the bed by simply sliding the board into the corresponding tubes in the bed frame.

# ASSEMBLY INSTRUCTIONS - continued

## Bed Installation

Plug the Power Cord running from the patient left hand side of the frame into a three prong 110 V wall receptacle as shown.



## Siderails - optional

*M.C. Advantage* beds come, in some cases, with optional siderails already installed. Test the siderails for function and safety when installing the bed.

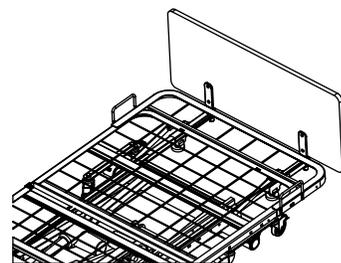
## Mattress

The *M.C. Advantage* bed has been designed to minimize the risk of patient entrapment while maintaining as much patient comfort and protection as possible. The siderails work together with the mattress to minimize the gaps that the patient may be exposed to during normal use. All of the mattresses supplied by M.C. Healthcare Products work together with the siderails to meet the FDA regulations and guidelines at the time of purchase. If other mattresses are used, it is up to the end user to determine whether their mattress is suitable for minimizing entrapment risks.

Contact your local M.C. Healthcare Products Representative for mattress sizing recommendations.

## Bed Extender - optional

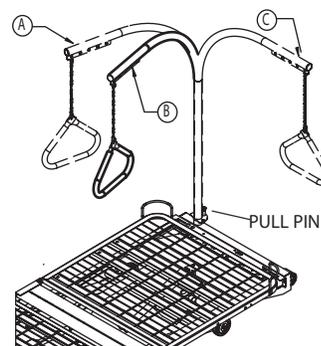
The bed extender is designed to be attached at the head or foot end of the bed. The extender attaches directly to the head or foot deck. If a headboard is to be used with the extender, then a set of headboard extender brackets are required to offset the headboard, and allow clearance for the extender. The mattress pad extends the actual sleep surface.



**WARNING! POSSIBLE INJURY OR DEATH** Use only the proper size mattress and extension pads in order to minimize the Entrapment Zone gaps. The gaps must be small enough to prevent the patient from getting his/her neck caught in this location (you must read and follow the FDA Entrapment Guidelines ).

## Patient Helper - optional

The optional patient helper consists of a bracket mounted to the frame, and an arm with an adjustable handle. The arm can be located in three positions by use of a locking spring pin. There is a side position for assistance entering and exiting the bed (A), an in-bed position for assistance with repositioning (B), and a storage position (C). The chain is attached using a "quick link" that allows the height and position of the handle to be easily adjusted. You must follow the instructions provided with the Helper.



**WARNING!** Ensure that the spring loaded Pull Pin is properly engaged to prevent the Patient Helper Pole from rotating. Failure to do so could result in serious injury.

## Mattress Stops Installation

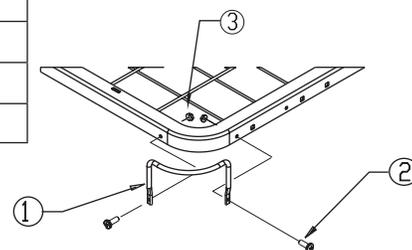
Tools Required: 5/16 and 3/8" wrenches.

Parts Included:

Item #	Qty	Part Number	Description
1	4	QS3484	CORNER MATTRESS STOP
2	8	QP2501	MACHINE SCREW #10-32 X 5/8" HEX HEAD ZP
3	8	QP2502	NUT 10-32 HEX NYLOCK ZP

### Procedure:

- 1- Raise the bed to make the installation easier.
- 2- Place one Mattress Stop (1) in one corner overlapping the pre-punched holes; as illustrated.
- 3- Place one Screw (2) through one of the holes and thread a Nut (3) onto the screw behind the deck frame. Tighten Nut finger tight . Repeat for the other hole.
- 4- Tighten the screws with a 5/16" Wrench while using a 3/8" Wrench to prevent the nut from spinning.
- 5- Repeat for the other 3 corners of the bed.
- 6- Tighten all screws.



# ASSEMBLY INSTRUCTIONS - continued

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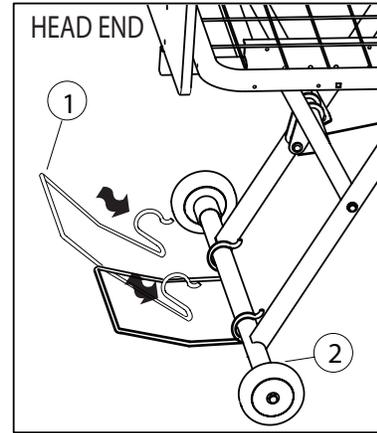
Customer Support

## Installation of Baseboard Bumper

*Tools Required: Rubber Mallet*

### Procedure:

Install Baseboard Bumper (1) by pressing the two end hooks over the wheel base (2) on the head end of bed as illustrated.



## Head and Foot Board Mounting Bracket Installation

*Tools Required: two 5/32" Hex-Allen-Keys.*

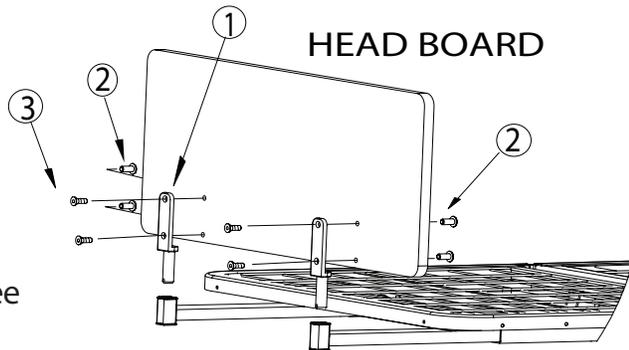
Parts (included):

Item #	Qty	Part #	Description
1	4	QP-2432	Board Mounting Bracket
2	8	QP-2431	NUT JCN 1/4-20- 17mm Long
3	8	QP-2433	Screw 1/4-20 x 5/8 Flat Head Hex Drive Zn

### Procedure:

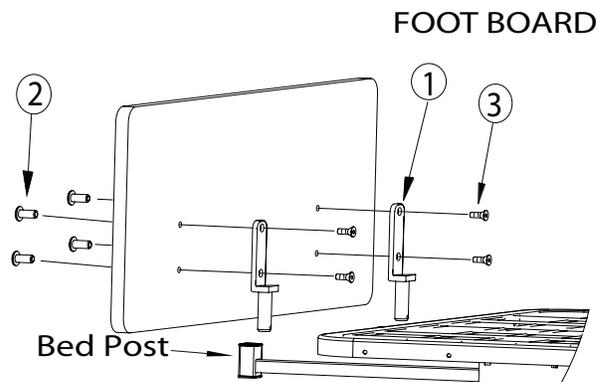
#### HEAD BOARD

Install two Board Mounting Brackets (1) with four Screws (3) and four Nuts (2) as illustrated. Do not tighten until after inserting the mounting brackets in the bed frame posts- (see next page).



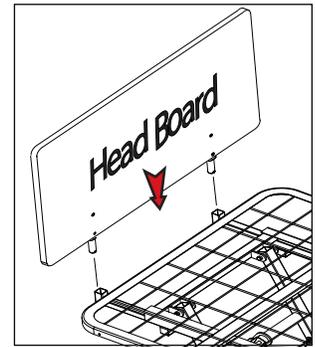
#### FOOT BOARD

Install two Board Mounting Brackets (1) with four Screws (3) and four Nuts (2) as illustrated. Do not tighten until after inserting the mounting brackets in the bed frame posts - (see next page).



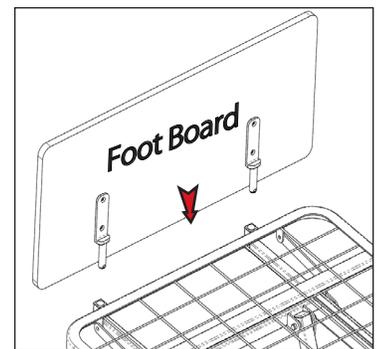
## Head and Foot Board Installation

- 1 Insert the Head and Foot Boards as illustrated with the proper Mounting Bracket orientation.
- 2 After the Boards are in place, tighten the eight Screws and JCN Nuts that were left untightened from the previous step.

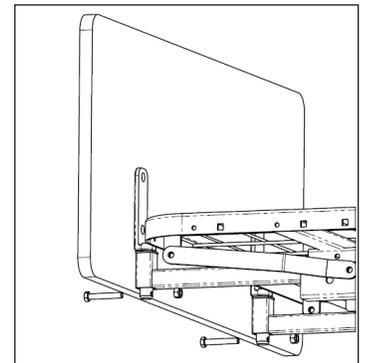


### ENTRAPMENT SAFETY:

These Boards and Mounting Brackets were designed such that even if they were installed incorrectly or facing the wrong direction they will not affect the Entrapment gaps nor create any pinch points.



- 3 Attach a #10 Screw and Nut through the hole in the bottom of each Foot Board Mounting Brackets to prevent the Foot Board from being removed accidentally.



**WARNING!** Entrapment Safety: Use only the proper size boards and mattress to minimize the Entrapment Zone gaps. The gaps must be small enough to prevent the patient from getting his/her neck caught in this location (you must read the FDA Entrapment Guidelines ).

The entrapment zones are a resultant of the dimensional interaction between the bed and components that are often assembled by the Healthcare Facility and not the Manufacturer.

The Healthcare Facility is responsible for compliance with the Entrapment Guidelines by matching the right components and accessories to the right bed.

# OPERATING INSTRUCTIONS

## Siderails - ALL SIDERAILS ARE OPTIONAL.

### ¾ Length Siderails

Lifting the siderail up completely will latch it into the upright position. To lower the rail, you must pull the large knob which is located at the foot end of the siderail before lowering. The ¾ rail swings towards the head of the bed.

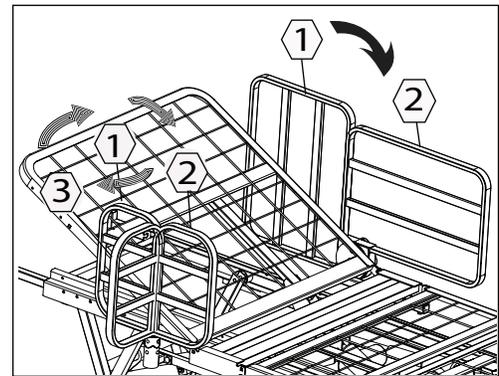


**WARNING!** To prevent fingers from getting caught between the rails:

1. Pull the large knob to lower the side rail to its first position.
2. Keeping fingers clear from between the rails, pull the small knob to take the rail to its lowest position. Failure to do so could result in injury.

### Three Position Pivoting Assist Rail

The optional Pivot Assist will latch in three upright positions. To rotate the Pivot Assist you must press the release button located at the base of the rail - you must follow the instructions included with the rail.



### Two Position Rotating Assist Rail

The optional Rotating Assist will latch in two positions. To rotate the Assist Rail you must pull the release knob located at the base of the rail - you must follow the instructions included with the rail.

**WARNING!** Test the Assist Rail to ensure that it is properly latched before leaving the patient.

**WARNING!** The siderail pads must be removed prior to operating siderails. Failure to do so could result in injury.

**WARNING!** The siderails should always be in the up position when the patient is left unattended. Test the siderails to ensure that they are properly latched before leaving the patient.

**WARNING!** Always evaluate patients for and guard against patient risk of side rail entrapment in accordance with medical protocols. Failure to do so could result in injury and/or death.

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## Total Lock Casters

To engage the total lock casters, simply press down on the locking tab with your toe on all four casters. This will prevent any movement of the caster (rolling or swiveling). The rubber wheel gives good traction on most floor surfaces.

To release the casters and allow mobility of the bed, press down on the release lever to unlock each caster.

LOCKED CASTER

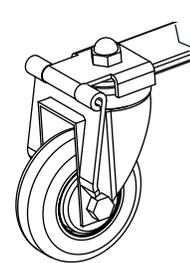


UNLOCKED CASTER

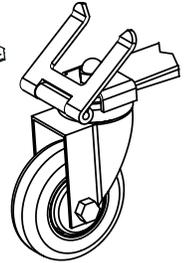


## Directional Lock Hinge

Patients tend to use the bed for support when getting in or out of bed. Patients could be injured if the bed moves sideways, to guard against this risk you must engage the "Directional Lock Hinges". Simply flip the U-shaped tab down with your toe over both casters. This will prevent any lateral movement (swiveling) of the caster. To release the casters and allow full mobility of the bed, gently flip the U-shaped tab over the square leg tube for each caster.



LOCKED

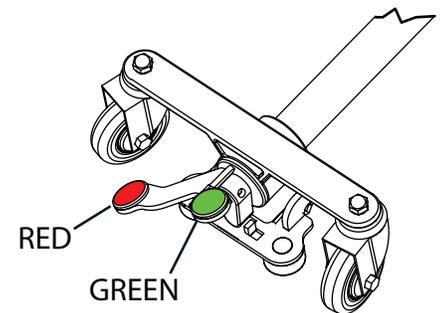


UNLOCKED

## Total Floor Lock

The Total Floor Lock is engaged by simply stepping with the ball of your foot on the Red end of the Pedal located on the Foot and/or Head ends of bed - as illustrated. This will immobilize the Foot and/or Head ends of the bed.

To make the bed mobile again, unlock the Total Floor Lock by stepping on the green end of the Pedal.



LOCKED POSITION



**WARNING!** When the bed is not being moved, the casters should always be locked. After applying the brakes test the motion of the bed to ensure that the brakes are properly engaged. Patients tend to use the bed for support when getting in or out of bed, and could be injured if the bed unexpectedly moves sideways.

## Transporting Bed

The *M.C. Advantage* bed is designed for mobility at any height. Use the Foot Board to move the bed. Never use Side Rails, Assist Rails or other accessories to move the bed. To prevent any damage or injury, it is recommended that two Personnel be present when moving a bed.

Before moving the bed you should check all around the perimeter of the bed to ensure that no accessories will fall or get damaged and that:

- 1 The Power Cord is unplugged and the cord is safely stored off the floor .
- 2 All the head and foot brakes are released.
- 3 All accessories used on the bed are secured or removed.



**WARNING!** Do not roll the bed over high thresholds with the patient in the bed.



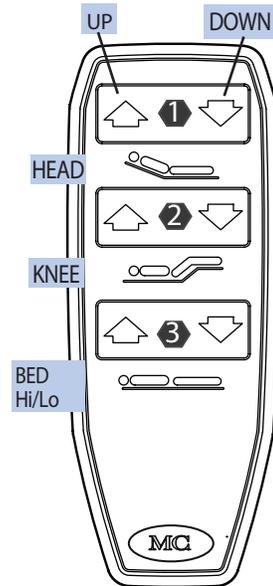
## Bed Controls

The *M.C. Advantage* Bed is electrically operated using Hand Pendant Controls as follows:

### 1 Head Deck Operation

To gently raise the patient's Head, press and hold the top Head UP button on the pendant.

To gently lower the patients Head, press and hold the top Head DOWN button on the pendant.



### 2 Knee Deck Operation

To gently raise the patient's Knees and Feet, press and hold the Foot UP button on the pendant.

To gently lower the patient's Knees and Feet, press and hold the Foot DOWN button on the pendant.

### 3 Bed Deck Hi/Lo Elevation

To gently raise the Bed, press and hold the bottom Bed UP button on the pendant.

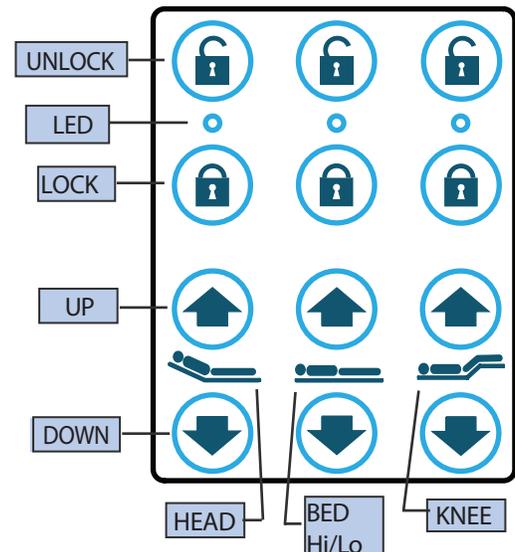
To gently lower the Bed, press and hold the bottom Bed DOWN button on the pendant.

## Foot End (Staff) Controller

The FEC (Staff) Controller mounts flush on the Foot-Board and allows the caregiver to operate the bed or to lockout the bed functions so that they cannot be operated with the hand pendant. The FEC remembers the last setting before the foot-board is removed or before an electrical power outage.

#### NOTES:

- The LED light turns ON to indicate a LOCKED function.
- The LED Light flickers when a bed function is being operated.



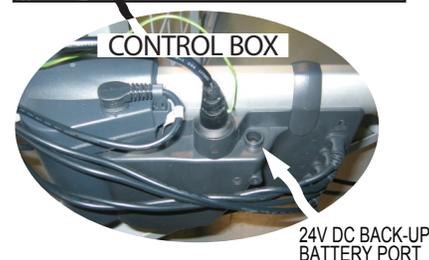
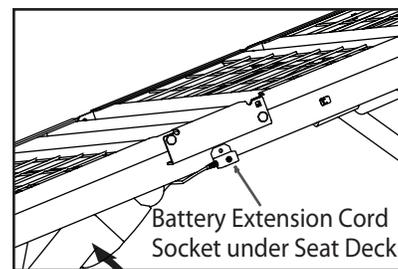
**IMPORTANT!** to deactivate bed movement availability to the patient and to ensure that the patient does not accidentally activate the bed movement simply:

- Unplug the Hand Pendant from the socket located on the side of the bed. OR
- Move the Hand Pendant and place it away from the reach of the patient behind the head or foot boards or on adjacent bed side furniture.

## Back-up Battery

The Back-up Battery Model # Q6598L is for use when there is a power outage, or the bed needs to be operated where there is no power source nearby. A fully charged battery may operate up to 30 beds on one charge.

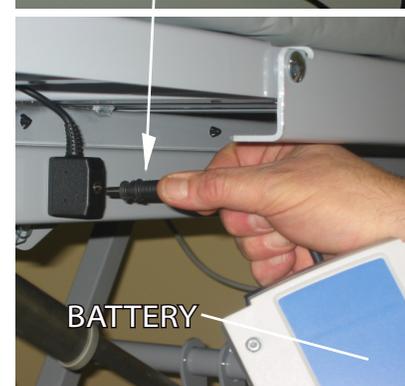
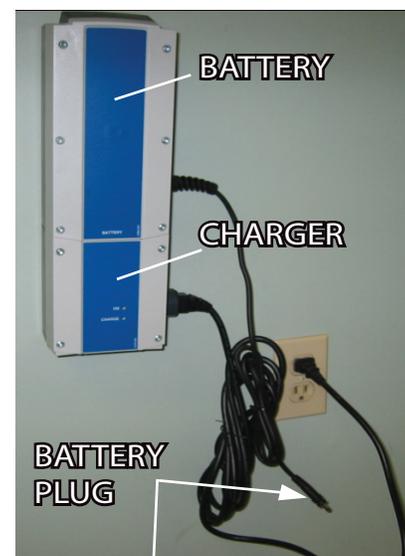
An optional Back-up Battery Extension Cord is available that allows easy access to the battery port on the Controller. The Extension Cord Socket is mounted under the seat deck on the side of the bed.



## Back-up Battery Usage

Plug the Charger into a 110 V socket and insert the Battery in the Charger.- keep the battery charger plugged in when not in use to maintain a full charge.

- \* To use the Back-Up Battery, remove the battery from the charger, and take it to the bed(s).
- \* If there is a Battery Extension Cord on the side of the bed, plug the battery plug into the Socket, and operate the bed normally.
- \* If there is no Extension Cord, connect the battery plug into the Back-up Battery Port on the side of the Controller box, and use the bed normally.
- \* When complete, return the Back-up Battery to it's original location, and insert it back in the charger.



**IMPORTANT!** Depending on the location of the beds within the Healthcare Facility, it is recommended that at least one Battery-Pack is needed for 1-5 beds with an additional Battery-Pack for each additional 5 beds. Depending on the layout of the Healthcare Facility more or less Battery-Packs might be needed. The Healthcare Facility is responsible for matching the number of Batteries to the number of beds in compliance with Medical Protocols, Agency and Regulatory guidelines.

# MAINTENANCE

## Cleaning

The *M.C. Advantage* bed can be cleaned with warm water and a mild detergent or diluted disinfectant. Use a damp cloth or a sponge to clean all exposed surfaces of the bed. Take care not to use excessive water around the control panels and the control box.

**WARNING!** The *M.C. Advantage* bed was not designed to be cleaned using a high pressure wash tunnel. Never spray directly on to the actuator with a high pressure cleaner.

## Preventative Maintenance

There are a number of maintenance items that should be reviewed every 6 months to ensure proper functioning of the bed.

**LUBRICATION** – All pivot and rotating joints should be lightly oiled with a penetrating lubricant containing an extreme pressure additive (e.g. Castle Iron Man). A lithium based grease is not a suitable alternative for this application. No lubrication is required on the motor itself, but the clevis pins may be lubricated if required. Remove any excess oil/grease after application with a cloth.

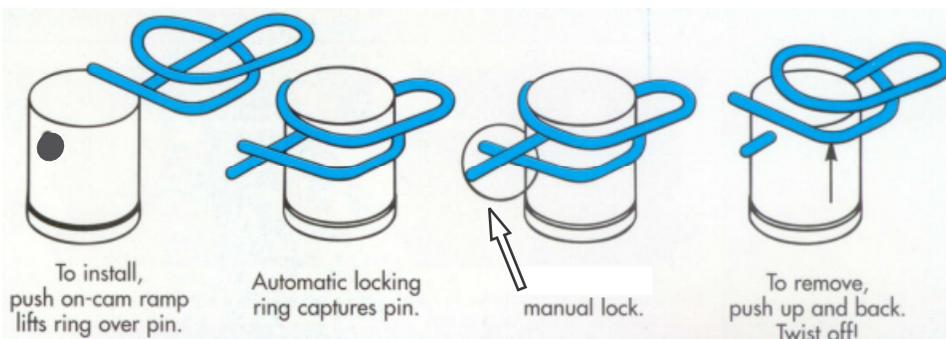
**MOTOR OPERATION**– The motors should run smoothly and quietly throughout their range.

Normal operation over full range - The bed should move evenly through its full range of motion from low to high position and from flat to contoured with no jerking or twisting.

**GRINDING, POPPING, OTHER NOISES** – The bed should be fairly silent. Some motor/gear noise is normal and some settling noises are expected, but nothing loud and no squeaking. Look for abnormal wear, lubricate any joints exhibiting noise.

**BENT PARTS** – Check for abnormally bent parts.

**RETAINING RINGS** – All clevis pins must have retaining rings present. Replace any missing rings. If a cotter ring has been removed for motor servicing. All "Rue" type pins should be manually locked as illustrated below.



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FASTENERS – Ensure that all fasteners are tightened and seated completely. Do not over-tighten the fasteners at the pivot points of the Decks.

CABLING – Inspect the cabling on the bed to ensure that it is all still in place with no drooping or loose wires, and that it is not interfering with any moving parts. Check for any cut, nicked or crushed wiring. Reattach any loose wires, and repair or replace any damaged wires.

POWER CORD – Inspect the power cord for nicks or crushed insulation. Replace if damaged with original manufacturer parts only.

CASTER LOCKING – Check to ensure that the casters swivel and roll freely when unlocked, and do not swivel or roll when the lock is engaged. Tighten, repair or replace if damaged, loose or not working properly.

SIDERAILS – Check the action of the siderails. The rails should move freely through their range, latch fully when raised, and not be excessively “wobbly” when raised.

HEAD & FOOTBOARD PANELS – Inspect the wood panels for nicks, scratches and missing edging. Seal any damage that penetrates through to the wood to prevent possible water damage.

PAINT FINISH – Check the bed for any loose, missing, peeled, scraped off or flaked paint. Touch up as required.

OVERALL APPEARANCE – Inspect the bed generally. Visually inspect welds on the bed and accessories and look at any bent or cracked components. Document any concern and remove the bed from service immediately until the affected parts are replaced or the corrective action is taken.



## TROUBLESHOOTING TIPS

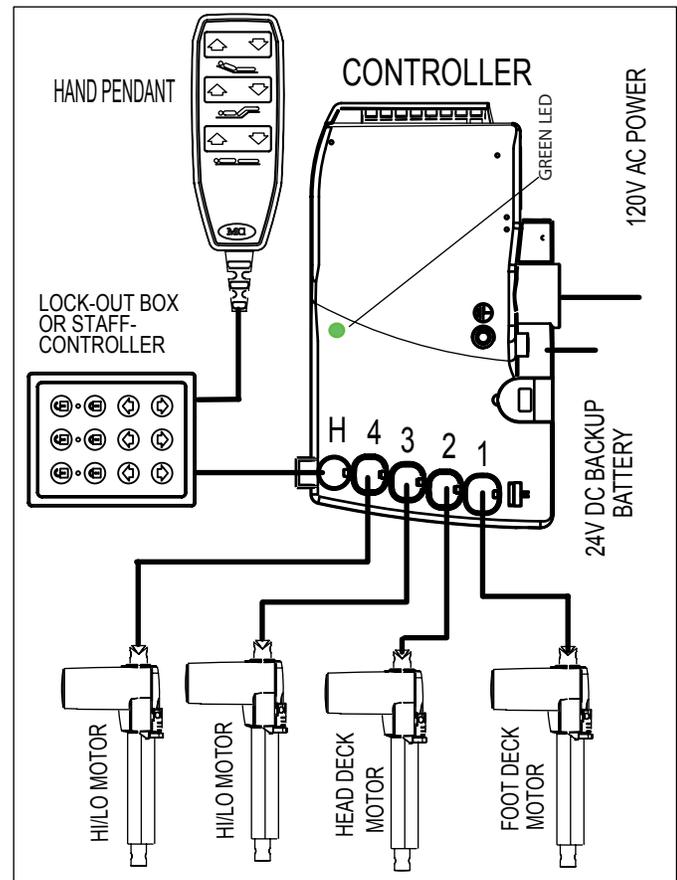
Before you call for Service (Always record the Serial Number of the bed)

If you are having a problem with your *M.C. Advantage* bed, please go through this troubleshooting section to see if your problem can be resolved easily. If you are still having problems, then please call our Parts and Service Department for assistance at 1-800-268-8671. Do not ship any parts back to M.C. Healthcare Products without an RMA (Return Material Authorization) number, they will not be accepted, and no credit will be given.

### PROBLEM: ONE MOTOR FUNCTION NOT WORKING

When some, but not all functions work on a bed, it typically indicates that there is a problem with the hand pendant or one of the motors, but not the Controller.

- 1 If a nurse lock-out box or Foot End (Staff) Controller is present, ensure that it is unlocked. If it is not, then turn the function switch to the unlock position, and the function should now work. If this is not the case, continue with the next step.
- 2 Ensure that all of the connectors are firmly seated, and then check to see if this corrects the problem.
- 3 Try using a different handset, either from another bed, or a spare. If this resolves the problem then a replacement handset is needed.
- 4 If the problem persists, try switching the motor ports. Select a motor that is working, and plug it into the port that is not working. If the function works (it may work in reverse) then the problem is with the motor.
- 5 Plug the motor that was not working into a working port and try it. If the motor works in this port, then the problem is with the controller.



#### PORTS

- |                             |                              |
|-----------------------------|------------------------------|
| 1 – Foot Motor (Yellow)     | 2 – Head Motor (Blue)        |
| 3 – First Hi/Lo Motor (Red) | 4 – Second Hi/Lo Motor (Red) |
| H – Hand Pendant (Green)    |                              |

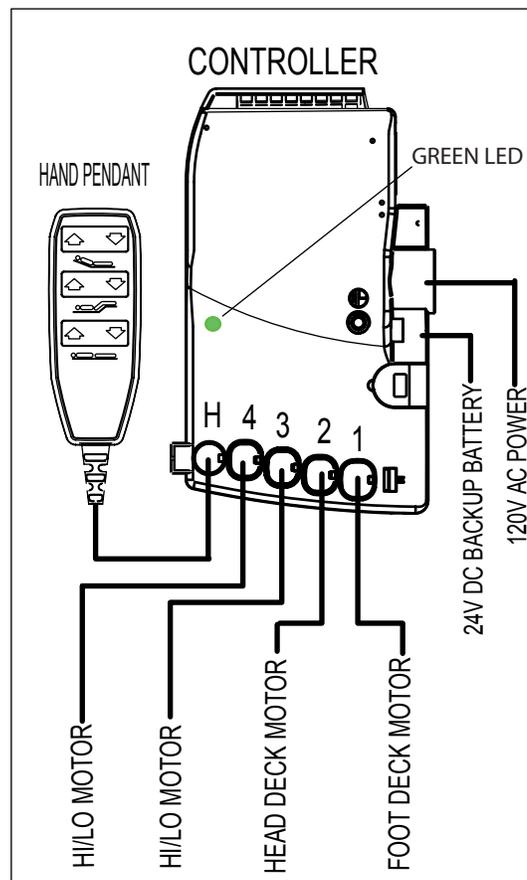
## TROUBLESHOOTING TIPS

Before you call for Service (Always record the Serial Number of the bed)

### PROBLEM: NO MOTOR SOUND OR MOVEMENT OF PISTON ROD

When no bed functions work, it typically indicates a problem with the Control Box or the power cord, and not the components plugged into it.

- 1 Check that the bed is plugged into a working electrical outlet.
- 2 Check the cord and the plug for damage. Look for breaks, pinches or creases in the cord.
- 3 On the Controller unit there is a green LED light, this indicates power to the control unit. Check to ensure this light is glowing when the bed is plugged in. Re-check all ports for connection, and wall socket.
- 4 If the hand pendant is plugged into a nurse lockout box, ensure that all functions are unlocked. If they are all unlocked and the bed still does not function, then unplug the hand pendant from the nurse lockout, and plug it directly into the controller (port # H). If the bed works, then the problem is with the nurse lockout box.
- 5 Check that the hand pendant is plugged completely into the port on the controller.  
If the problem still persists, then try a working hand pendant from another bed, or a spare hand pendant. If the bed works, then the problem is with the hand pendant. If the bed still does not work, then the problem is a faulty controller.



Performing these steps accurately will assist in pinpointing the problem, and M.C. Healthcare Products will be able to expedite the correct replacement part to you.

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### How to make a warranty claim:

Do not disassemble any electrical component parts.

- 1 Troubleshoot the electrical system (motors, controller and hand pendant) to determine the correct part that is not functioning. Contact M.C. Healthcare Products - Parts and Service department if required.
- 2 Obtain purchasing authority from your facility with a purchase order reference number.
- 3 Have the serial number from the bed to which the claim pertains.
- 4 Communicate with M.C. Healthcare - Warranty claims processor.
- 5 Describe the reason or cause of failure.
- 6 Order the parts required to return the bed to proper operation.
- 7 Obtain an RMA number for authorization to return parts.
- 8 Receive and install replacement parts, ensure that the bed is functioning as intended.
- 9 Return the claimed defective parts, with RMA tags attached to each part, and the RMA number clearly marked on the packaging. Only parts with RMA tags may be returned. For health and safety of our employees we will only accept cleaned parts.

### Billing Process

- 1 M.C. Healthcare Products will receive orders for warranty claimed products..
- 2 M.C. will assign an RMA number for parts that are to be returned to support the warranty claim.
- 3 M.C. will ship orders, via ground delivery. If overnight air delivery is requested, this additional charge will be billed to the customer, (no overnight freight credit will be issued for validated warranty claims.). Included with the parts will be RMA tags for each part to be returned.
- 4 M.C. will invoice for the parts, under the purchasing authorization communicated.
- 5 Upon receipt of the returned parts, with the RMA tags attached, M.C. Healthcare quality inspectors will review each part to determine if the part was a product failure, or if some other action caused the part to fail.
- 6 When the warranty is validated, a credit invoice will be issued to cancel the charges for the parts and the ground shipping of the warranted item(s). (A freight credit will be issued during the first year of the warranty, but not during the second year, when it will be due and payable within 30 days.)
- 7 If the failure of the part is attributed to an action that caused the part to fail, then there will be no credit, the warranty claim is denied, and the invoice issued is due and payable.



## 1. *M.C. Advantage* BED MAIN COMPONENTS

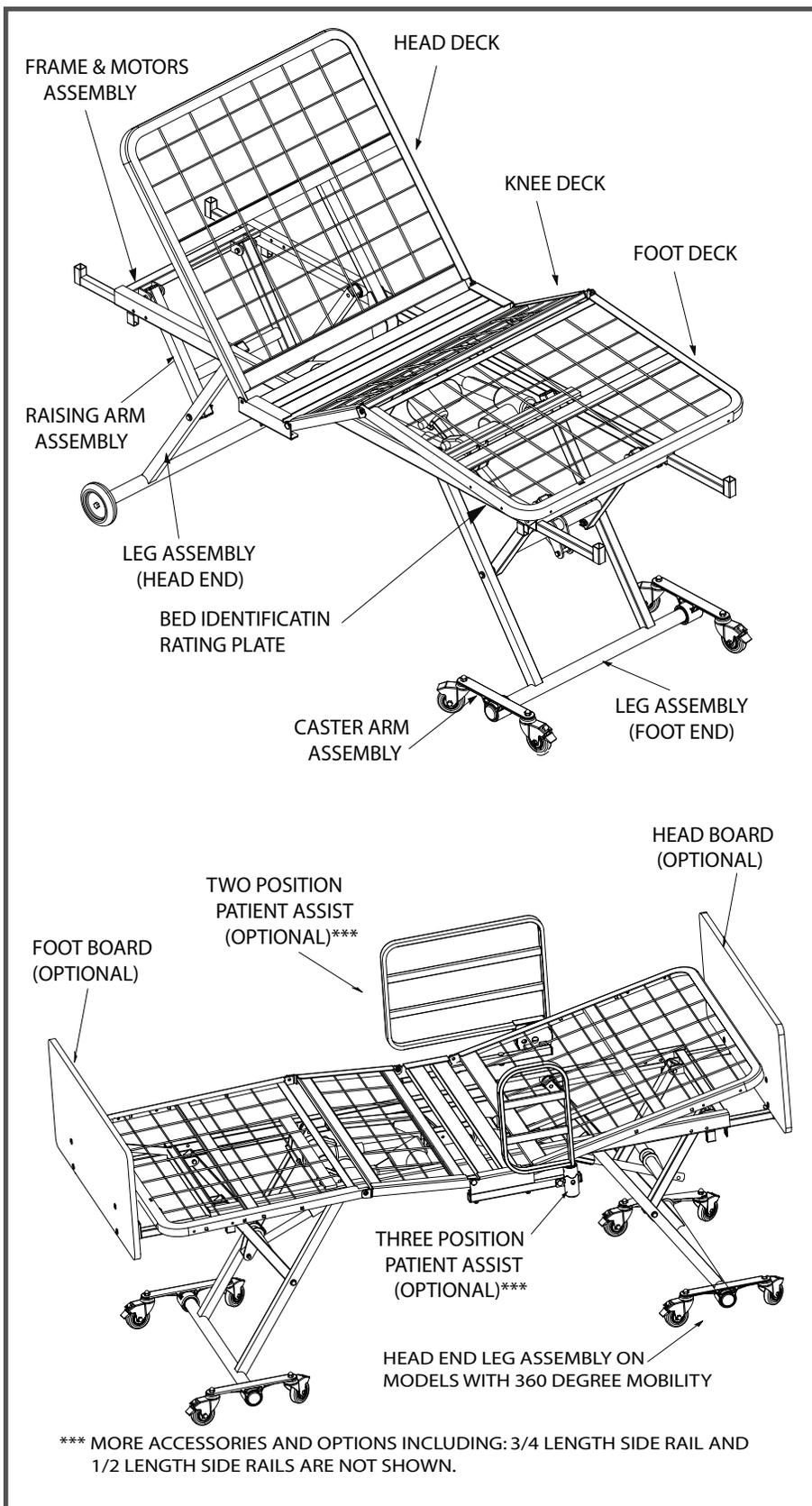
This manual provides the information required for normal operation, care, maintenance, as well as Exploded Parts Diagrams and Parts Listing for all Components and Parts used on the *M.C. Advantage* Beds from M.C. Healthcare.

The Replacement Parts are grouped into the sub-assemblies shown in the diagrams on this page.

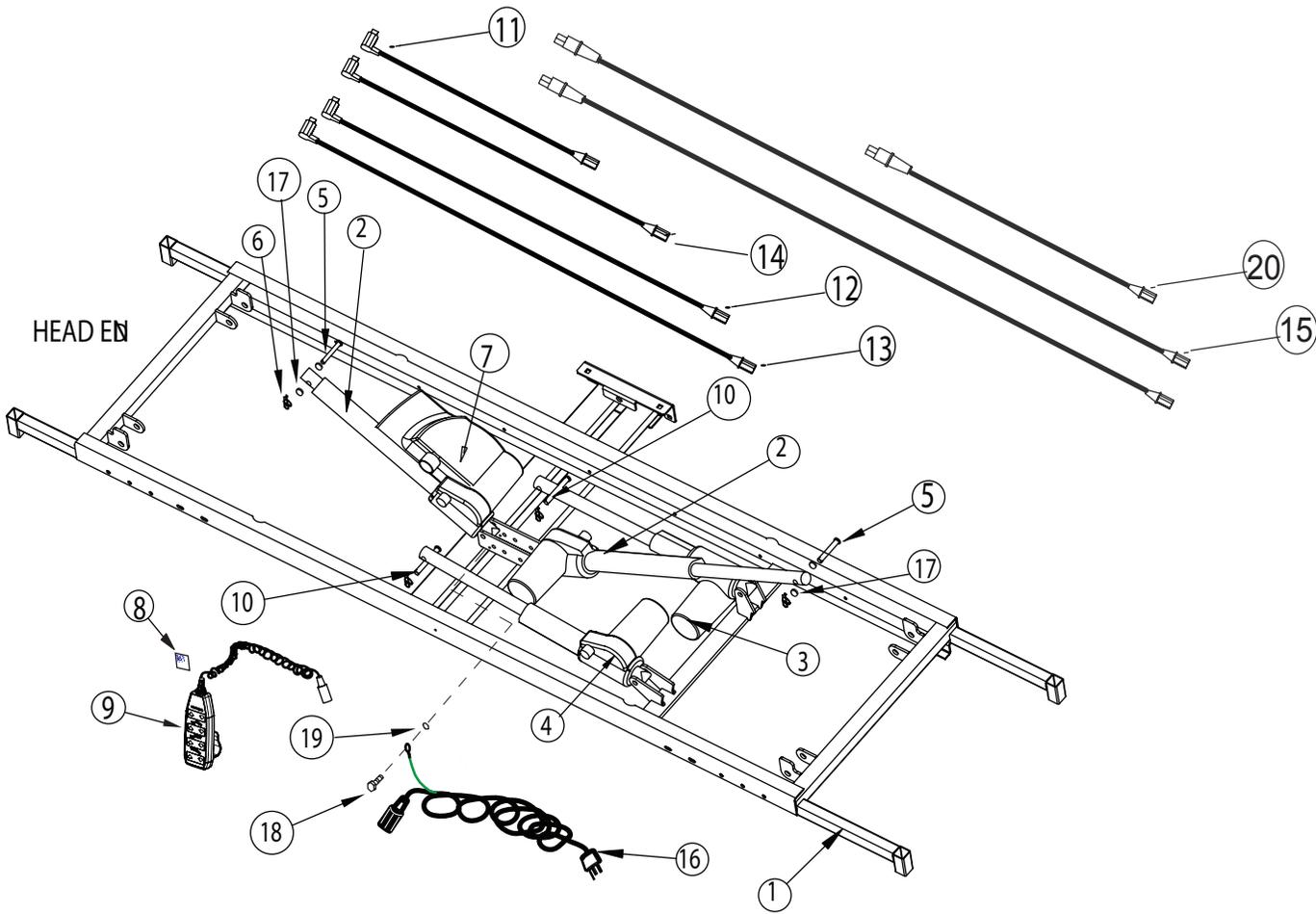
NOTES: The Exploded Parts Diagrams and corresponding Parts Listings are inclusive of optional components and accessories that are sold separately but not illustrated on this page (e.g. 3/4 side rail, Bed Extender etc.).

### Serial Number of Bed:

When ordering parts or contacting our Customer Support Team, please include the Model and Serial Number of the bed. The bed identification label is located on the occupant right hand side of the frame under the foot section of the mattress deck.



## 2. FRAME AND MOTOR ASSEMBLY (SAD004)



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	QS-3764	MAIN FRAME ASM
2	2	QP-2398	BED HI-LO MOTOR
3	1	QP-2413	FOOT MOTOR
4	1	QP-2403	HEAD MOTOR
5	2	QP-2531	CLEVIS PIN 3/8 X 2-1/8
6	4	QP-1748	COTTER RING RUE 1/2 INCH
7	1	QP-2397	CONTROL BOX
8	1	QP-1040	PENDANT LABEL
9	1	QP-2508	6 BUTTON HANDSET BLACK
10	2	QP-2286	CLEVIS PIN 3/8 X 2-1/4
11	1	QP-2414	CABLE HILOW HEAD(RED)
12	1	QP-2415	CABLE HILOW FOOT(RED)
13	1	QP-2439	CABLE HEAD(BLUE)
14	1	QP-2440	CABLE FOOT(YELLOW)
15	2	QP-2524	EXTENSION CABLE FEC 70"
16	1	QP-2399	MAINS CABLE
17	4	QP-1970	WASHER NYLON 5/8x3/8x1/8
18	1	QP-1309	SCREW TAP B HEX WASH #8-32 X 1/2 ST-655
19	1	QP-1532	STAR LOCKWASHER EXT. TOOTH 3/16" I.D
20	1	QP-2449	CABLE EXTENSION

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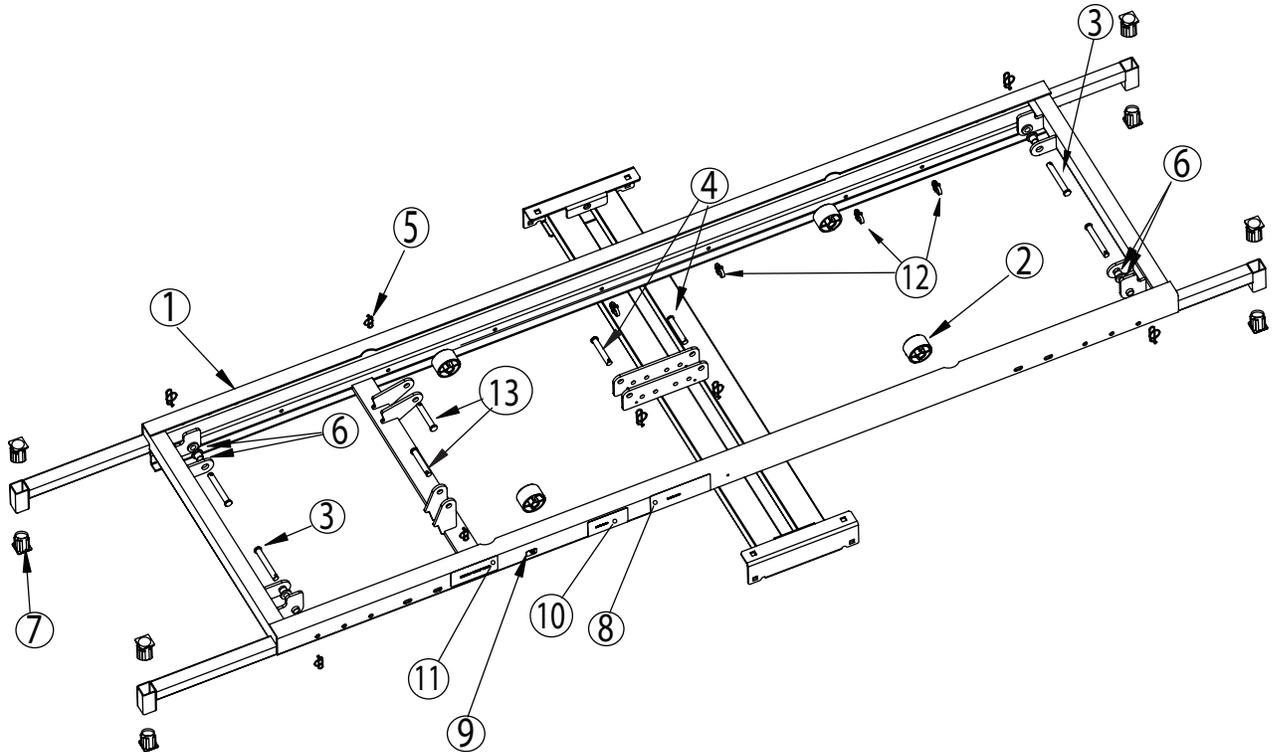
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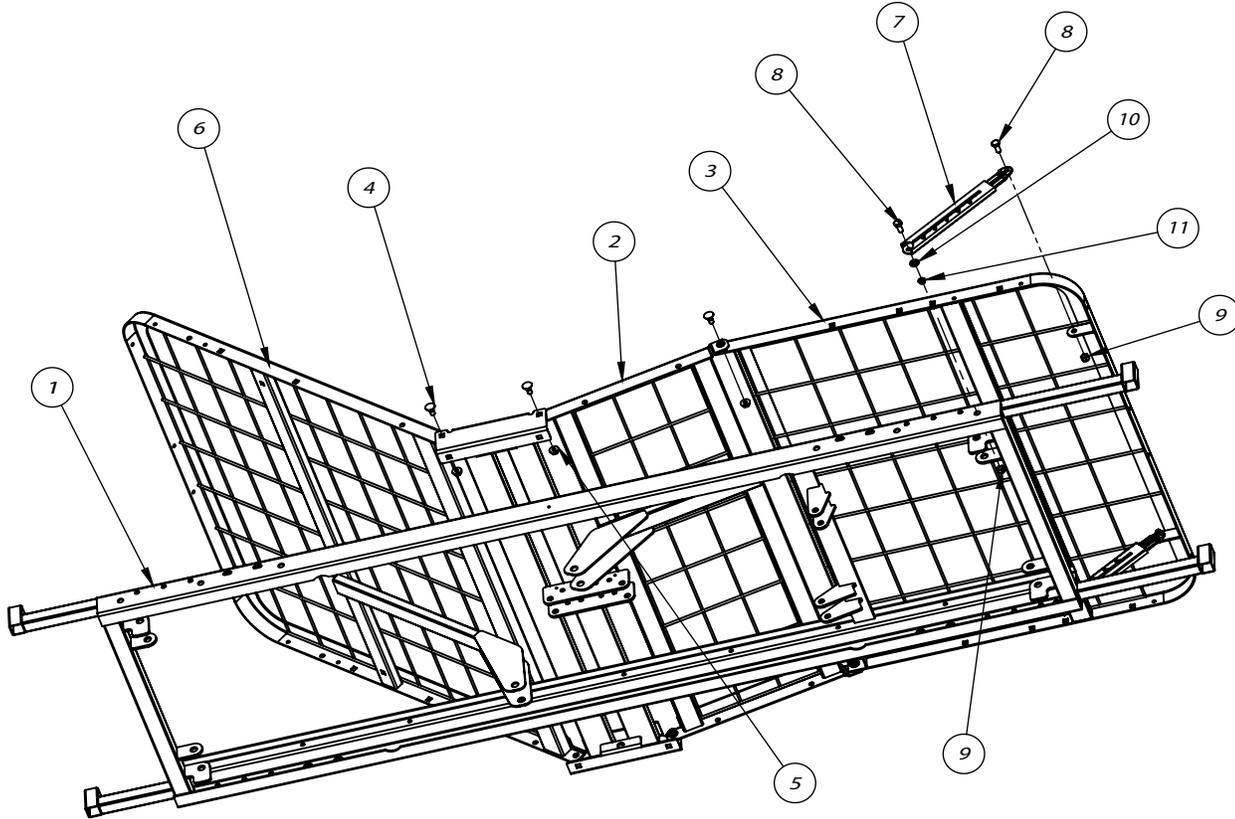
Customer Support

3. FRAME ASSEMBLY



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	QS-3764	MAIN FRAME ASM
2	4	QP-2376	ROLLER RAISING LEG
3	4	QP-2392	CLEVIS PIN 3/8 X 2-3/4
4	2	QP-2531	CLEVIS PIN 3/8 X 2-1/8
5	8	QP-1748	COTTER RING RUE 1/2 INCH
6	8	QP-1305	SHOULDER WASHER NYLON .39 X .75 X .5
7	8	QP-2007	BUSHING NYLON 3/4
8	1	QP-1039	LABEL FIRE HAZARD
9	1	QP-1299	LABEL MADE IN CANADA 3/4 X 1/2
10	1	QP-1316	LABEL GROUND RELIABILITY
11	1	QP-1315	LABEL SERIAL NUMBER
12	8	QP-1171	WIRE CLIP CLOSED TOP DEK CT 6 BLACK NYLO
13	2	QP-2286	CLEVIS PIN 3/8 X 2-1/4

## 4. FRAME AND MATTRESS DECK ASSEMBLY



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	QS-3764	MAIN FRAME ASM
2	1	QS-3768	KNEE GRID DECK
3	1	QS-4020	FOOT DECK ADV RATCHET
4	6	QP-2602	CARRIAGE BOLT GRADE 5
5	6	1897	LOCKNUT FLANGE
6	1	QS-3767	HEAD DECK GRID GREY
7	2	QP-1798	BALE RATCHET EXTENSION
8	4	1850	5/16-18UNCx3/4 HEX HEAD BOLT
9	4	1854	LOCKNUT NYLON INSERT 5/16-18
10	2	QP-1970	WASHER NYLON (.625"X.380"X.125")
11	2	QP-2601	SHOULDER BUSHING BRONZE 5/16

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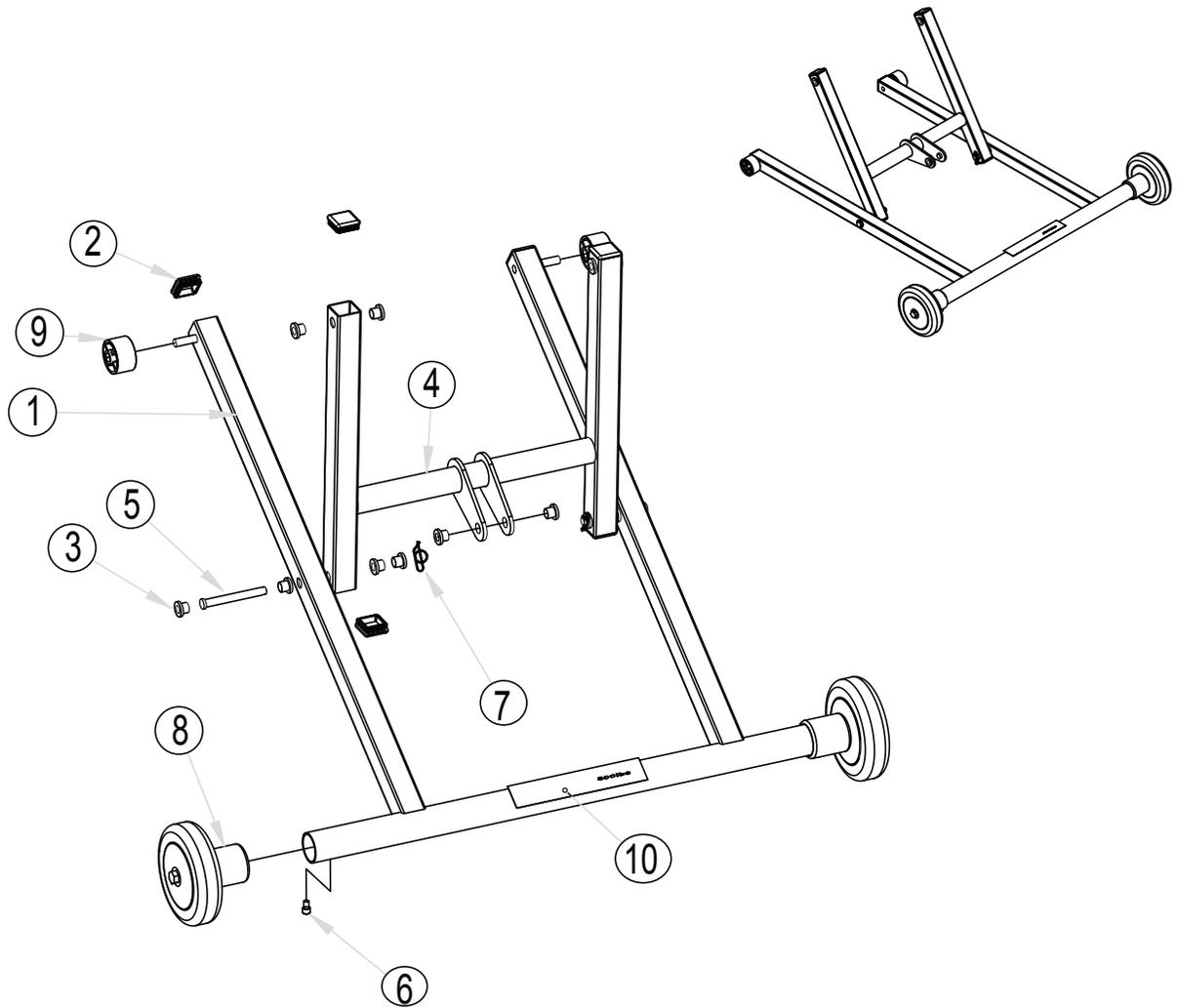
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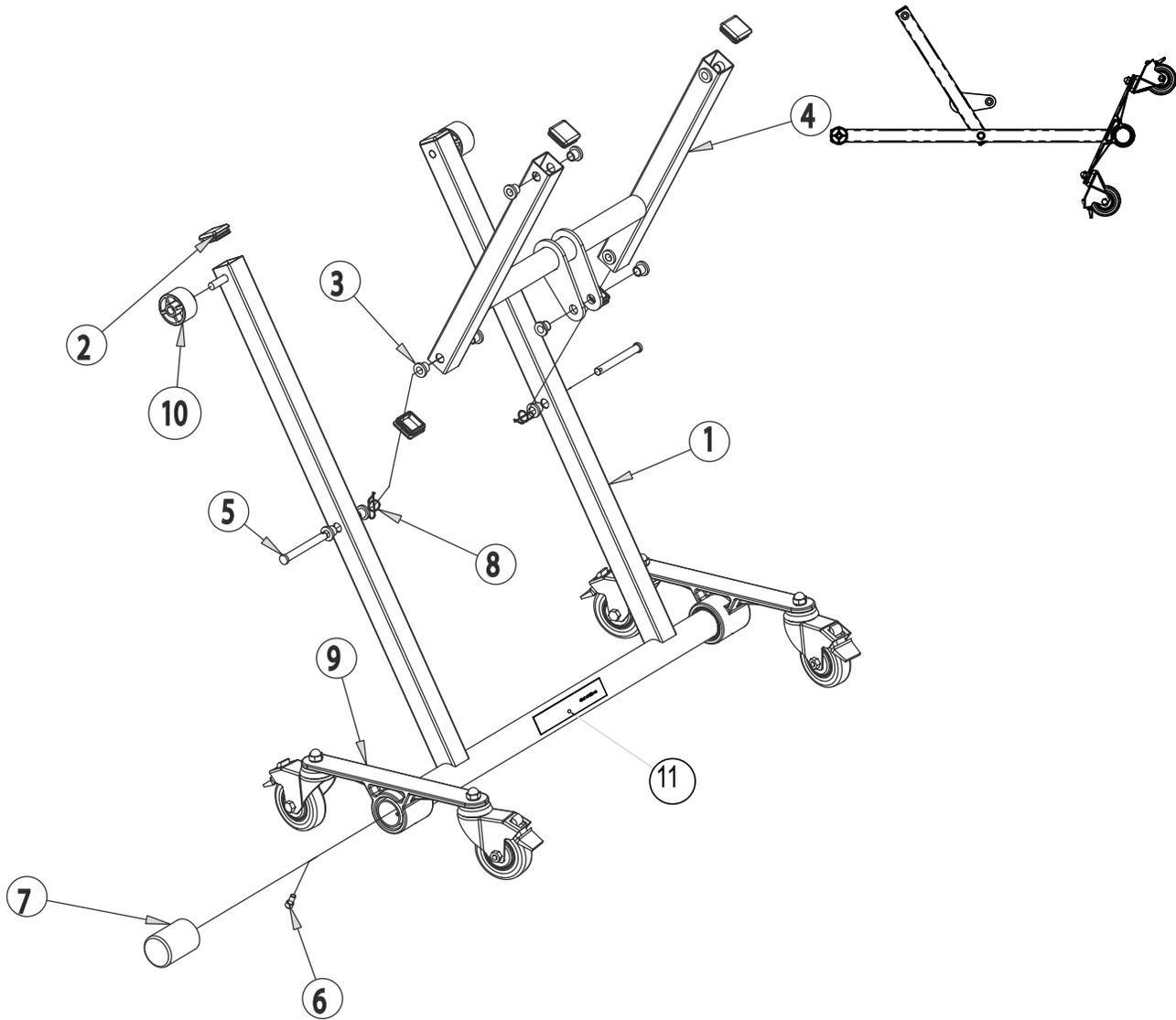
Customer Support

5. LEG ASSEMBLY (HEAD END # SAD020)



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	QS-3888	LEG HI-LO RAISING FOOT END ASM
2	6	QP-2391	End Cap 1 1/4" SQR 14-20 Ga
3	14	QP-1305	SHOULDER WASHER NYLON .39 X .75 X .5
4	1	QS-3766	HI-LO RAISING ARM ASM
5	2	QP-2396	CLEVIS PIN 3/8 X 3.25
6	2	QP-2438	SCREW SOCKET HEAD ZINC
7	2	QP-1748	COTTER RING RUE 1/2 INCH
8	2	SAD011	WHEEL ASM
9	2	QP-2376	ROLLER RAISING LEG
10	1	QP-2504	LABEL SAFE WORKING LOAD

## 6. LEG ASSEMBLY WITH 4 LOCK CASTERS (# SAD021)



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	QS-3888	LEG HI-LO RAISING FOOT END ASM
2	6	QP-2391	End Cap 1 1/4" SQR 14-20 Ga
3	14	qp-1305	SHOULDER WASHER NYLON .39 X .75 X .5
4	1	QS-3766	HI-LO RAISING ARM ASM
5	2	QP-2396	CLEVIS PIN 3/8 X 3.25
6	2	QP-2438	SCREW SOCKET HEAD ZINC
7	2	QP-2378	END CAP CASTER ARM
8	2	QP-1748	COTTER RING RUE 1/2 INCH
9	2	SAD010	CASTER ARM ASM
10	2	QP-2376	ROLLER RAISING LEG
11	1	QP-2504	SAFE WORKING LOAD

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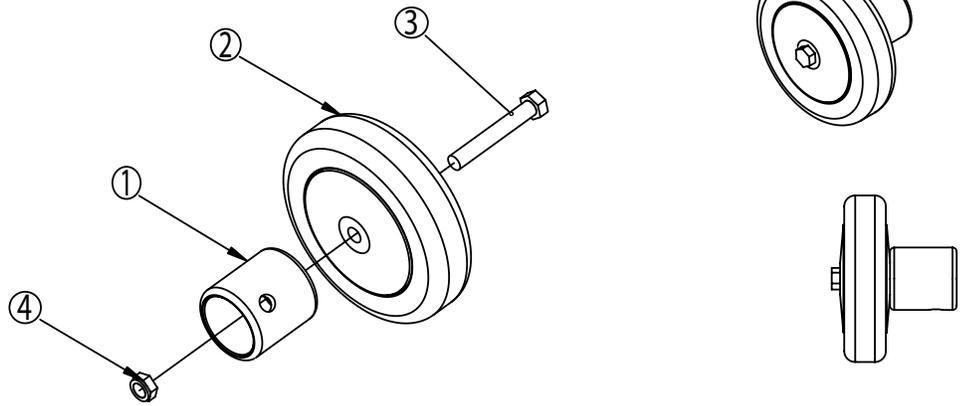
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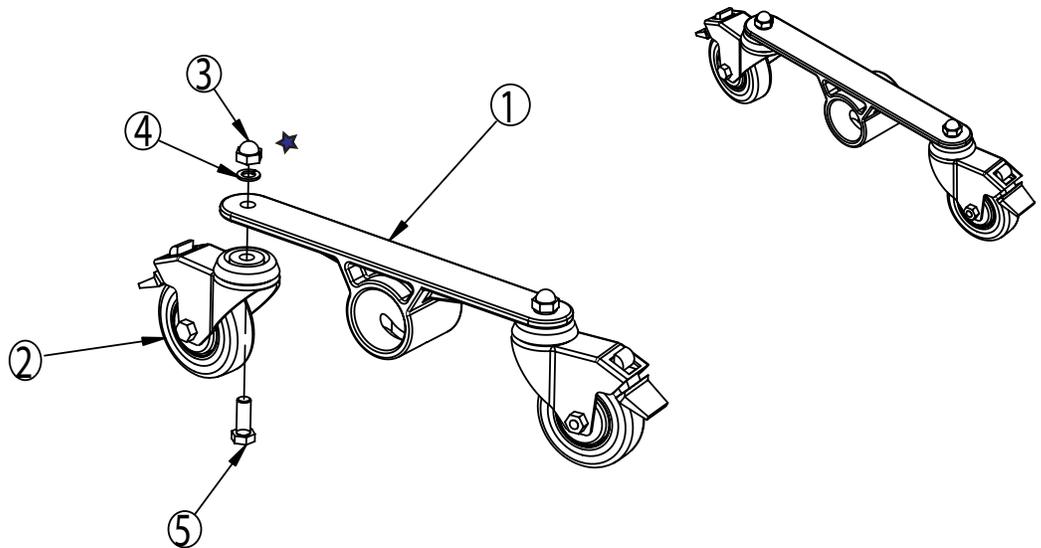
Customer Support

7. WHEEL ASSEMBLY (HEAD END # SAD011)



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	QP-2499	WHEEL MOUNT
2	1	QP-2383	5" WHEEL TPR 4123
3	1	1885	BOLT GR2 ZN HEX 3/8-16 X 2-1/4
4	1	1826	LOCKNUT 3/8-16 JAM NYL INS ZINC

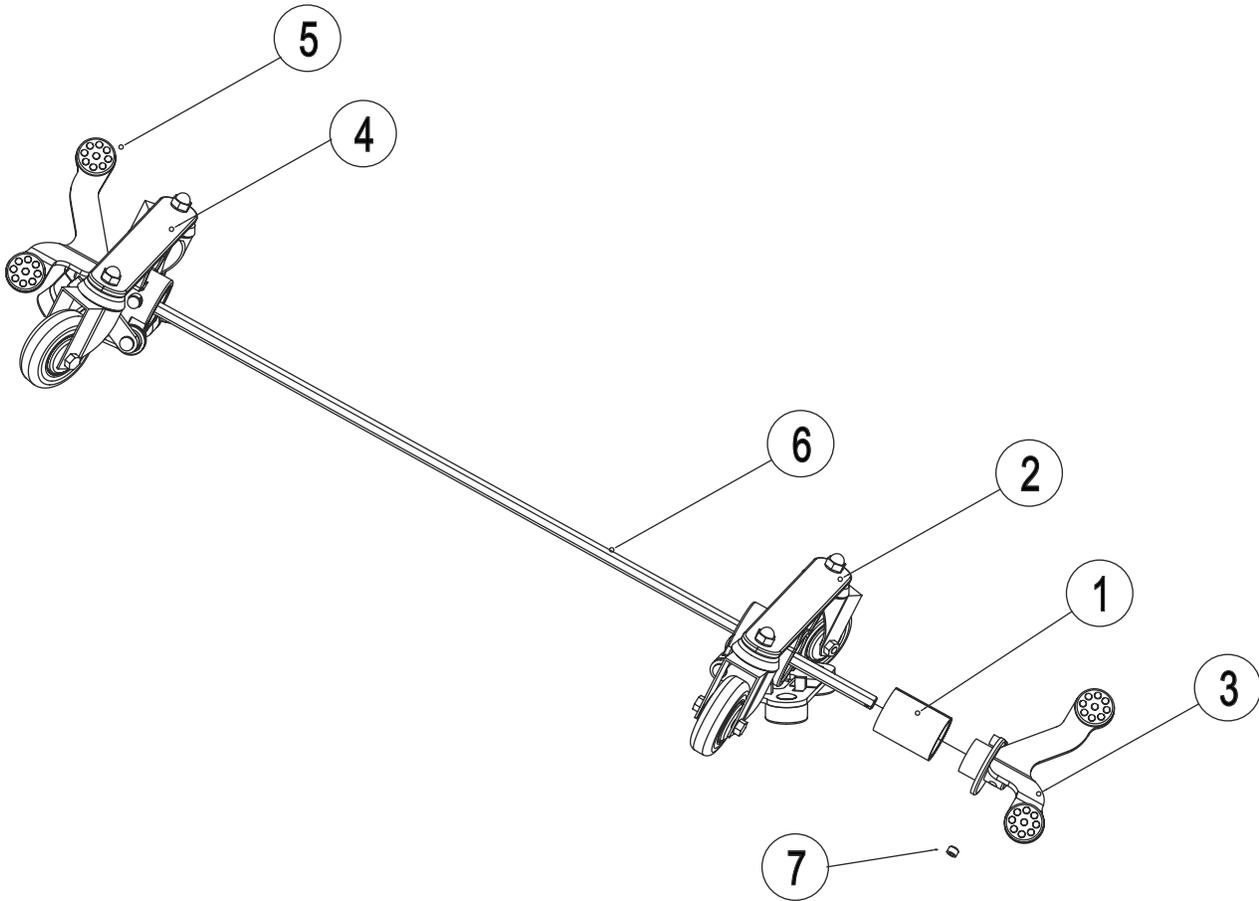
8. CASTER ARM ASSEMBLY (# SAD010)



★ **IMPORTANT:**  
TORQUE SPECIFICATION FOR 3/8-16 BOLT (5) : 20 lb-ft

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	QP-2364	CASTER SUPPORT ARM
2	2	QP-2410	3" CASTER SWIVEL WITH TOTAL LOCK
3	2	QP-1973	NUT 3-8/16 ACORN CAP STEEL ZN
4	2	1879	LOCKWASHER SPRING 3/8 ZINC PLATED
5	2	1806	H.H.CAPSCR.3/8-16X1

## 9. TOTAL FLOOR LOCK (#Q6615)



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	2	QP-2632	SPLIT BUSHING CASTER ARM
2	1	SAD014	CASTER ARM WITH LOCK LH
3	1	SAD015	CASTER ARM WITH LOCK RH
4	1	SAD016	PEDAL FLOOR LOCK LH
5	1	SAD017	PEDAL FLOOR LOCK RH
6	1	QP-2627	TIE ROD
7	2	QP-2686	3/8 -16 X1/4 SOCKET SET SCREW

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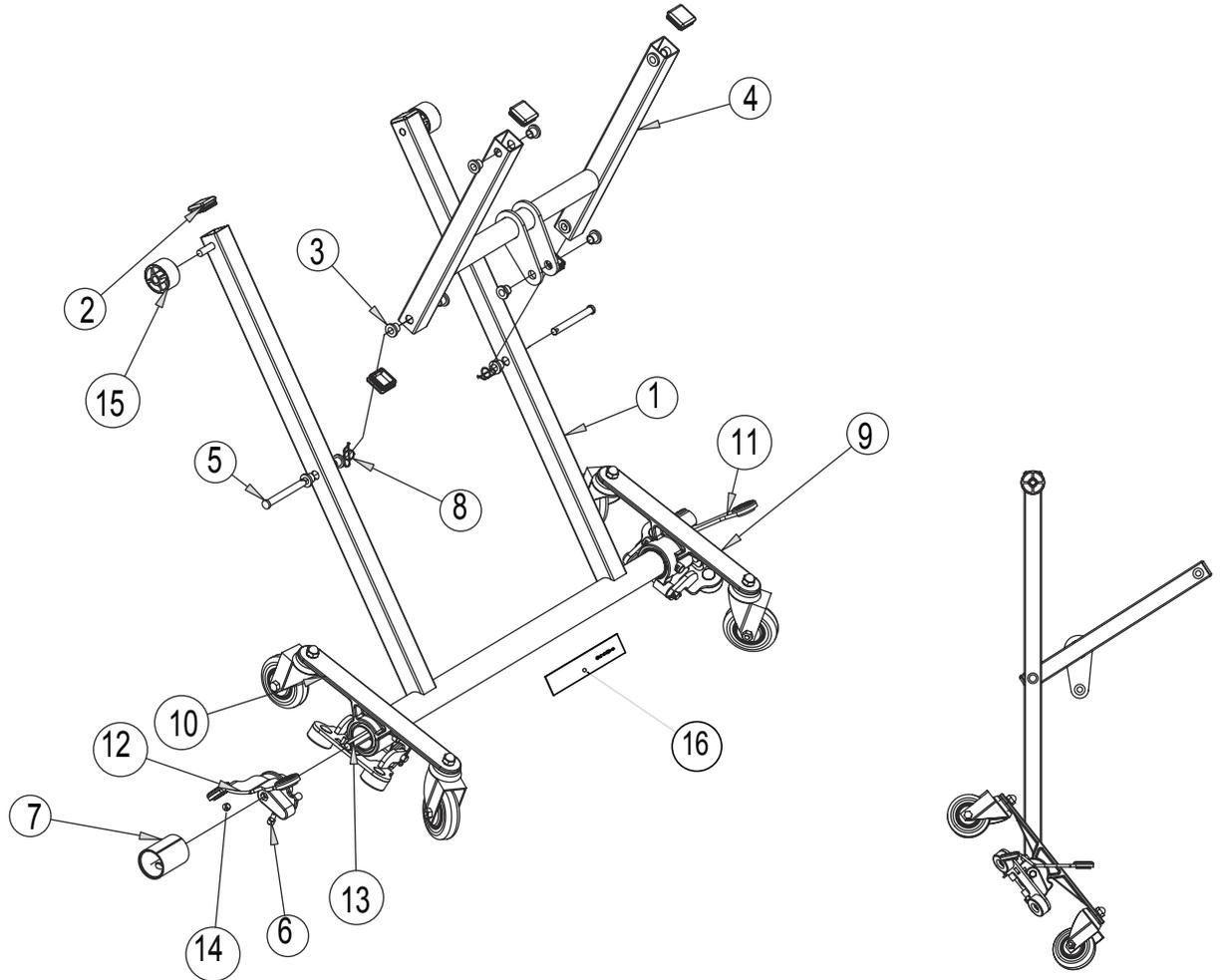
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10. LEG ASSEMBLY TOTAL FLOOR LOCK (FOOT END # SAD022)



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	QS-3888	LEG HI-LO RAISING FOOT END ASM
2	6	QP-2391	End Cap 1 1/4" SQR 14-20 Ga
3	14	QP-1305	SHOULDER WASHER NYLON .39 X .75 X .5
4	1	QS-3766	HI-LO RAISING ARM ASM
5	2	QP-2396	CLEVIS PIN 3/8 X 3.25
6	2	QP-2438	SCREW SOCKET HEAD ZINC
7	2	QP-2632	SPLIT BUSHING CASTER ARM
8	2	QP-1748	COTTER RING RUE 1/2 INCH
9	1	SAD014	CASTER ARM WITH LOCK LH
10	1	SAD015	CASTER ARM WITH LOCK RH
11	1	SAD016	PEDAL FLOOR LOCK LH
12	1	SAD017	PEDAL FLOOR LOCK RH
13	1	QP-2627	TIE ROD
14	2	QP-2686	3/8 -16 X1/4 SOCKET SET SCREW
15	2	QP-2376	ROLLER RAISING LEG
16	1	QP-2504	SAFE WORKING LOAD

Safety Instructions

Assembly

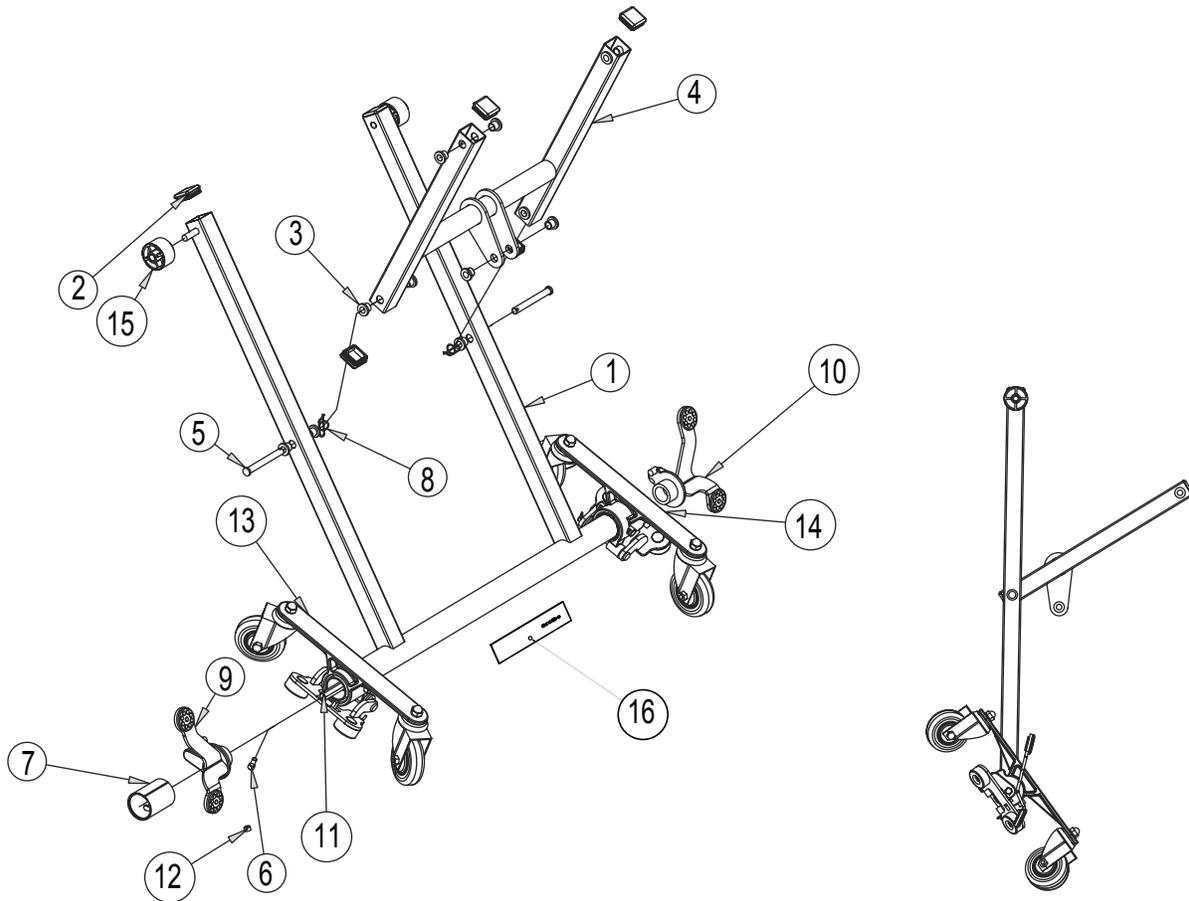
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## 11. LEG ASSEMBLY TOTAL FLOOR LOCK (HEAD END # SAD023)



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	QS-3888	LEG HI-LO RAISING FOOT END ASM
2	6	QP-2391	End Cap 1 1/4" SQR 14-20 Ga
3	14	QP-1305	SHOULDER WASHER NYLON .39 X .75 X .5
4	1	QS-3766	HI-LO RAISING ARM ASM
5	2	QP-2396	CLEVIS PIN 3/8 X 3.25
6	2	QP-2438	SCREW SOCKET HEAD ZINC
7	2	QP-2632	SPLIT BUSHING CASTER ARM
8	2	QP-1748	COTTER RING RUE 1/2 INCH
9	1	SAD016	PEDAL FLOOR LOCK LH
10	1	SAD017	PEDAL FLOOR LOCK RH
11	1	QP-2627	TIE ROD
12	2	QP-2686	3/8 -16 X1/4 SOCKET SET SCREW
13	1	SAD014	CASTER ARM WITH LOCK LH
14	1	SAD015	CASTER ARM WITH LOCK RH
15	2	QP-2376	ROLLER RAISING LEG
16	1	QP-2504	SAFE WORKING LOAD

Safety Instructions

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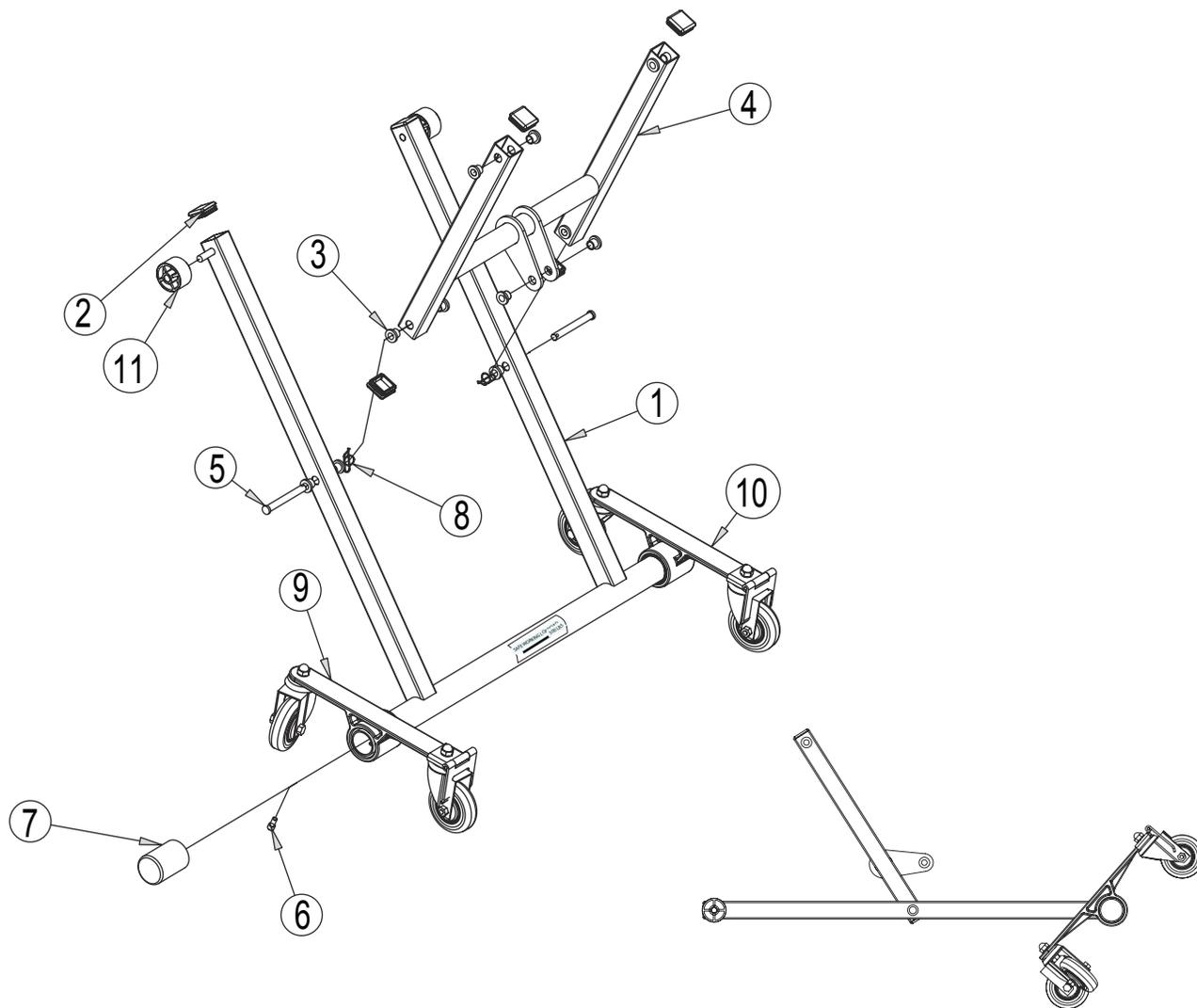
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12. LEG ASSEMBLY WITH DIRECTIONAL LOCK (HEAD END # SAD024)



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	QS-3888	LEG HI-LO RAISING FOOT END ASM
2	6	QP-2391	End Cap 1 1/4" SQR 14-20 Ga
3	14	QP-1305	SHOULDER WASHER NYLON .39 X .75 X .5
4	1	QS-3766	HI-LO RAISING ARM ASM
5	2	QP-2396	CLEVIS PIN 3/8 X 3.25
6	2	QP-2438	SCREW SOCKET HEAD ZINC
7	2	QP-2378	END CAP CASTER ARM
8	2	QP-1748	COTTER RING RUE 1/2 INCH
9	1	SAD025	CASTER ARM ASM WITH HINGE LH
10	1	SAD026	CASTER ARM ASM WITH HINGE RH
11	2	QP-2376	ROLLER RAISING LEG
12	1	QP-2505	LABEL SAFE WORKING LOAD

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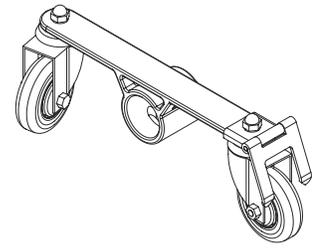
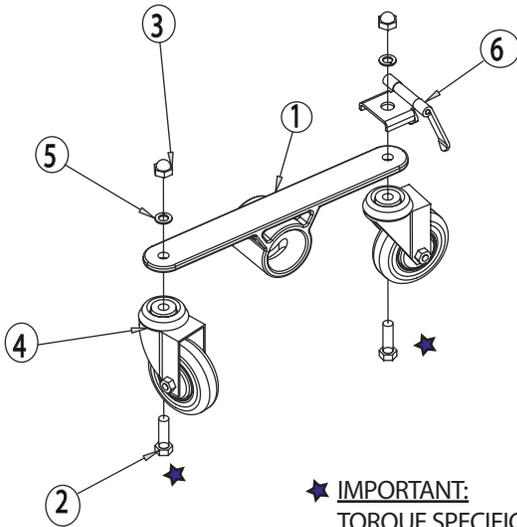
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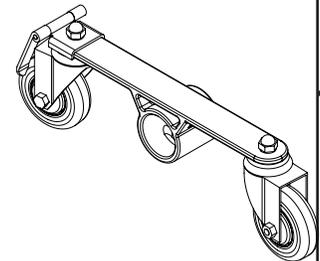
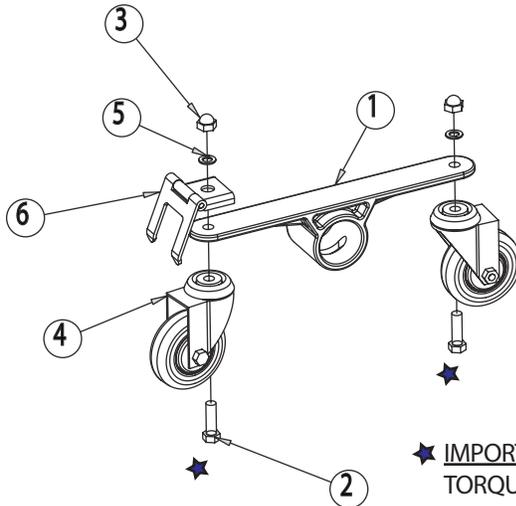
13. CASTER ARM ASSEMBLY WITH DIRECTIONAL LOCK LH (# SAD025)



★ **IMPORTANT:**  
TORQUE SPECIFICATION FOR 3/8-16 BOLT (5) : 20 lb-ft

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	QP-2364	CASTER SUPPORT ARM
2	2	QP-1890	BOLT GR2 ZN HEX 3/8-16 X 1-1/4
3	2	QP-1973	NUT 3-8/16 ACORN CAP STEEL ZN
4	2	QP-2404	3" CASTER SWIVEL
5	2	1879	LOCKWASHER SPRING 3/8 ZINC PLATED
6	1	QP-2637	ADVANTAGE MOBILITY CASTER HINGE

14. CASTER ARM ASSEMBLY WITH DIRECTIONAL LOCK LH (# SAD026)



★ **IMPORTANT:**  
TORQUE SPECIFICATION FOR 3/8-16 BOLT (5) : 20 lb-ft

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	QP-2364	CASTER SUPPORT ARM
2	2	QP-1890	BOLT GR2 ZN HEX 3/8-16 X 1-1/4
3	2	QP-1973	NUT 3-8/16 ACORN CAP STEEL ZN
4	2	QP-2404	3" CASTER SWIVEL
5	2	1879	LOCKWASHER SPRING 3/8 ZINC PLATED
6	1	QP-2637	ADVANTAGE MOBILITY CASTER HINGE

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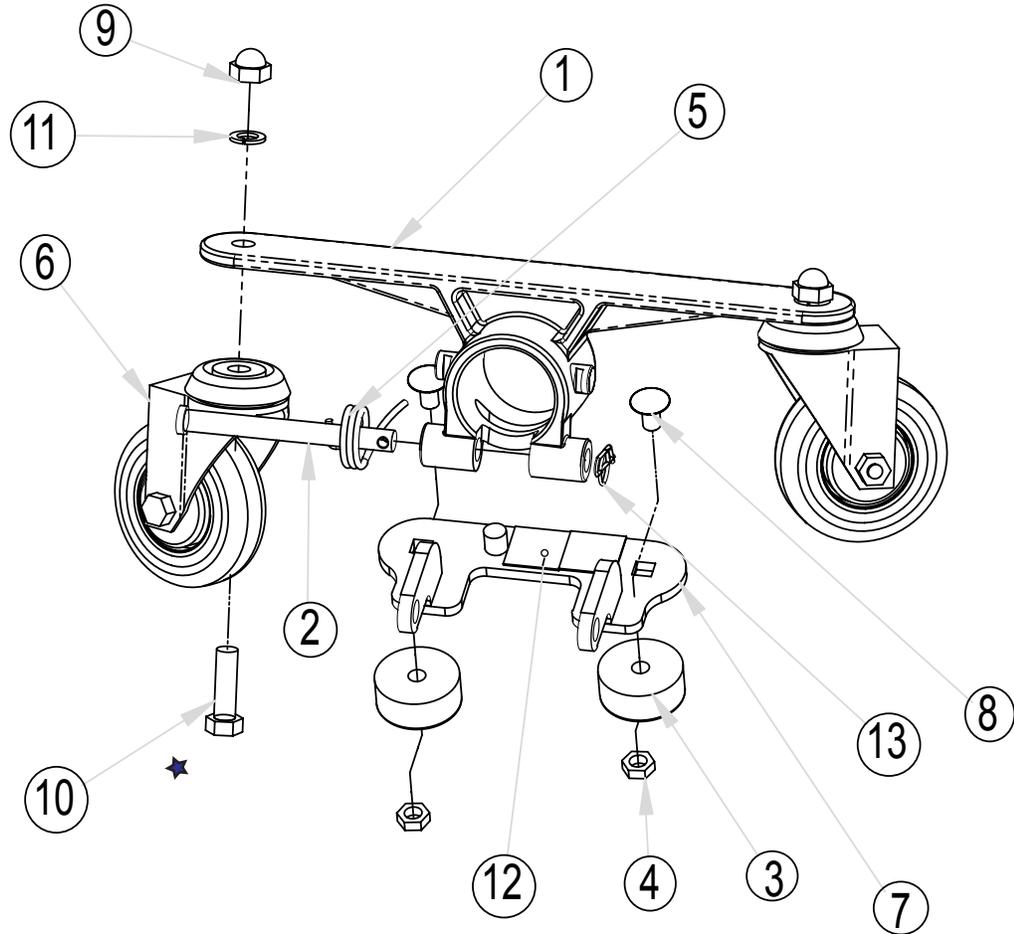
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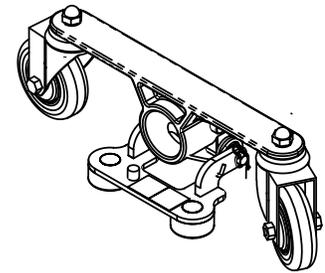
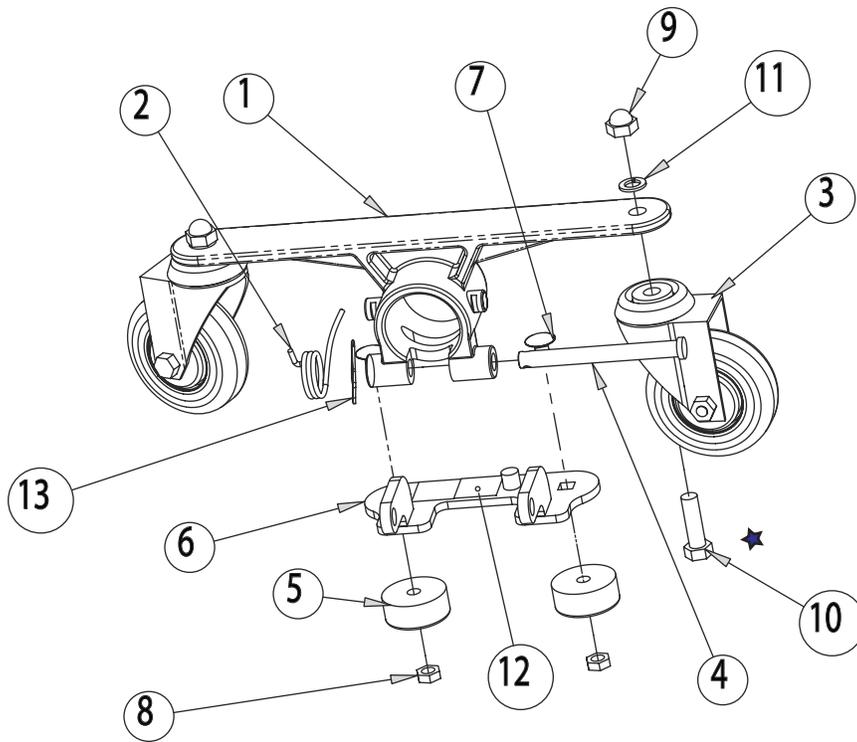
15. CASTER ARM WITH TOTAL FLOOR LOCK LH (# SAD014)



★ **IMPORTANT:**  
TORQUE SPECIFICATION FOR 3/8-16 BOLT (5) : 20 lb-ft

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	QP-2612	CASTER SUPPORT ARM FOR LOCK
2	1	QP-2628	CLEVIS PIN FLOOR LOCK
3	2	np-1002	RUBBER BUMPER
4	2	QP-2099	NUT 5/16-18 JAM ZP
5	1	QP-2629	SPRING TORSION
6	2	QP-2404	3" CASTER SWIVEL
7	1	QP-2623	FLOOR BRAKE PAD LH
8	2	QP-2357	CARRIAGE BOLT ZINC 5/16-18 X 5/8
9	2	QP-1973	NUT 3-8/16 ACORN CAP STEEL ZN
10	2	QP-1890	BOLT GR2 ZN HEX 3/8-16 X 1-1/4
11	2	1879	LOCKWASHER SPRING 3/8 ZINC PLATED
12	2	QP-2156	TAPE UHMW 1" X 1" X .030
13	1	QP-1748	COTTER RING RUE 1/2"

## 16. CASTER ARM WITH TOTAL FLOOR LOCK RH (# SAD015)



★ **IMPORTANT:**  
TORQUE SPECIFICATION FOR 3/8-16 BOLT (5) : 20 lb-ft

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	QP-2612	CASTER SUPPORT ARM FOR LOCK
2	1	QP-2629	SPRING TORSION
3	2	QP-2404	3" CASTER SWIVEL
4	1	QP-2628	CLEVIS PIN FLOOR LOCK
5	2	np-1002	RUBBER BUMPER
6	1	QP-2624	FLOOR BRAKE PAD RH
7	2	QP-2357	CARRIAGE BOLT ZINC 5/16-18 X 5/8
8	2	QP-2099	NUT 5/16-18 JAM ZP
9	2	QP-1973	NUT 3-8/16 ACORN CAP STEEL ZN
10	2	QP-1890	BOLT GR2 ZN HEX 3/8-16 X 1-1/4
11	2	1879	LOCKWASHER SPRING 3/8 ZINC PLATED
12	2	QP-2156	TAPE UHMW 1" X 1" X .030
13	1	QP-1847	COTTER RING RUE 1/2"

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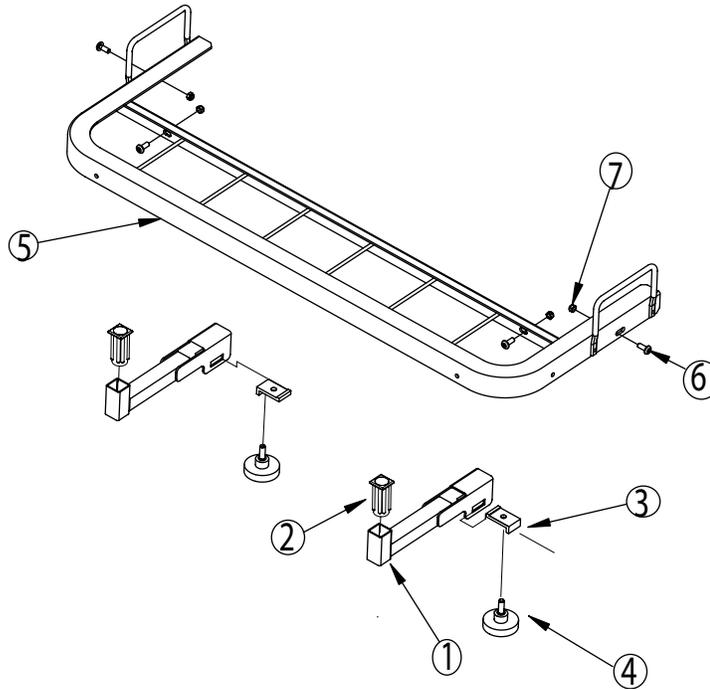
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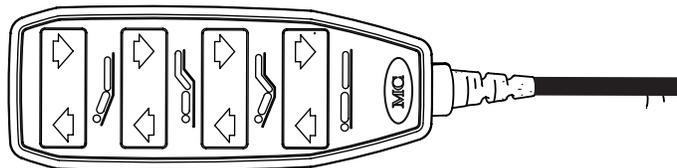
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17. BED EXTENDER HEAD OR FOOT END (#Q6586)



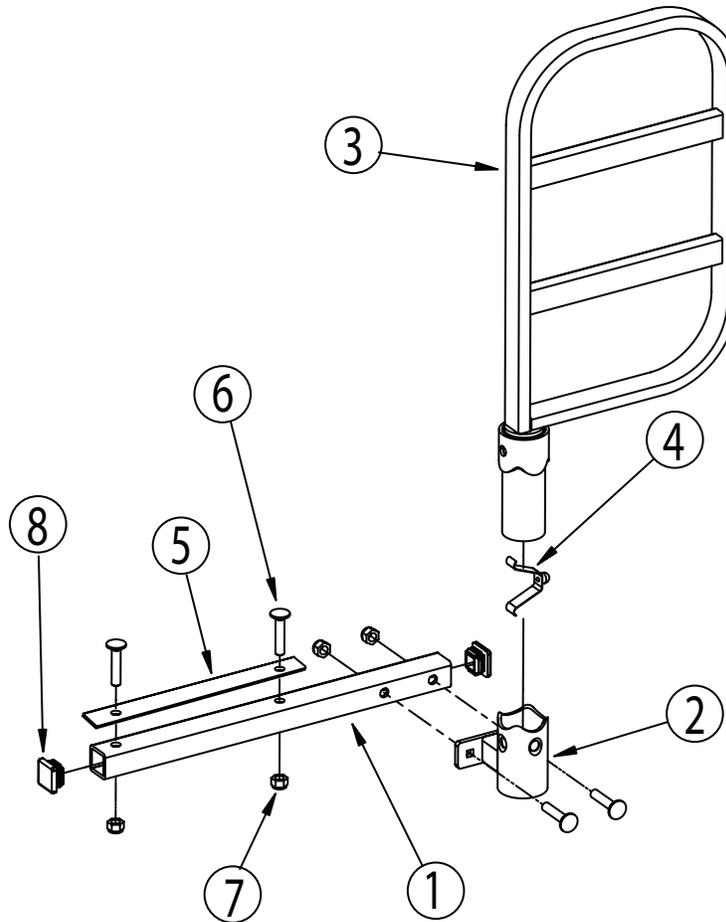
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	2	QS-3785	BOARD POST EXTENDER TUBE ASM
2	4	2007	BUSHING NYLON 3/4
3	2	QS-3786	LATCH FOR BOARD POST EXTENDERS
4	2	6013	HANDWHEEL #193 5/16 -18
5	1	QS-3784	DECK EXTENSION
6	4	QP-1097	MACHINE SCREW PAN PHIL DH 1/4-20 x 5/8
7	4	QP-1119	LOCKNUT NYLON INSERT 1/4-20

18. HAND PENDANT CONTROL



ITEM NO.	QTY.	PART #	DESCRIPTION
1	1	QP-2508	8 BUTTON 4-MOTOR DC HAND PENDANT
1	1	QP-2449	3 FOOT HAND SET EXTENSION CABLE

19. THREE POSITION ASSIST RAIL (RM930)



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	QS-3831	PIVOT ASSIST MOUNTING TUBE
2	1	QS-3798	PIVOT ASSIST MOUNTING ASSY
3	1	QS-3799	PIVOT ASSIST RAIL
4	1	QP-2323	SPRING LOCATE BUTTON
5	1	QS-3890	BACKPLATE SEAT DECK
6	4	QP-2395	CARRIAGE BOLT ZINC 5/16-18 X 1.5
7	4	QP-2561	LOCKNUT JAM NYLON INSERT 5/16-18
8	2	QP-2343	PLASTIC PLUG 1" SQ 11 GA

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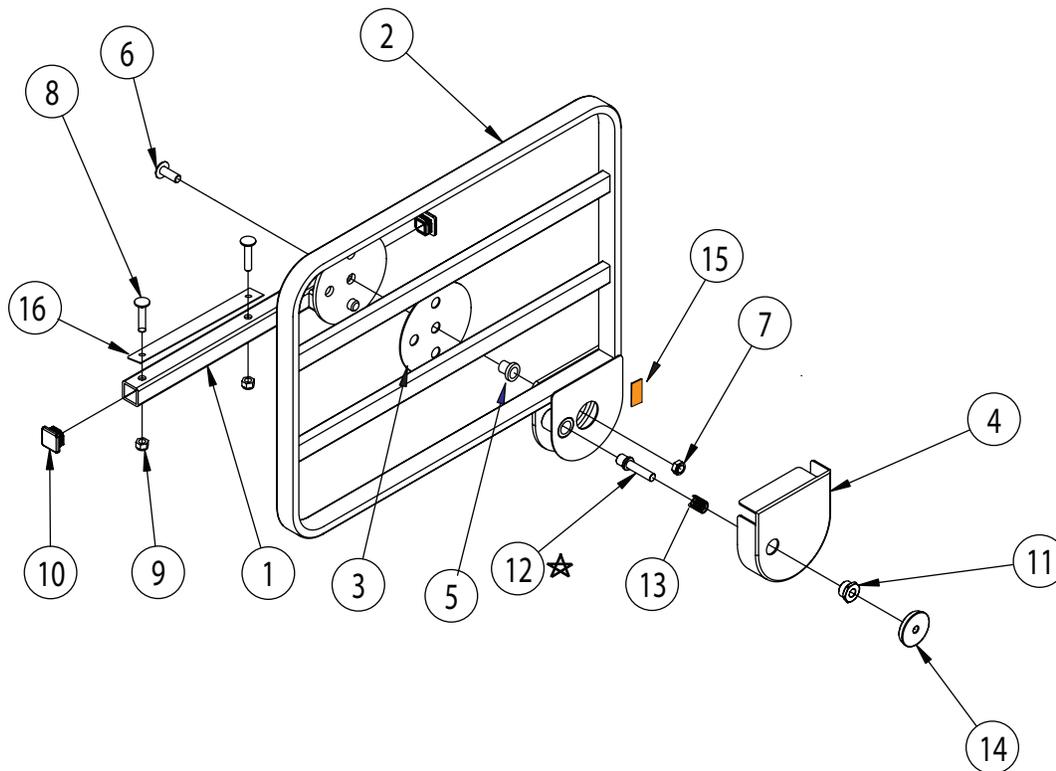
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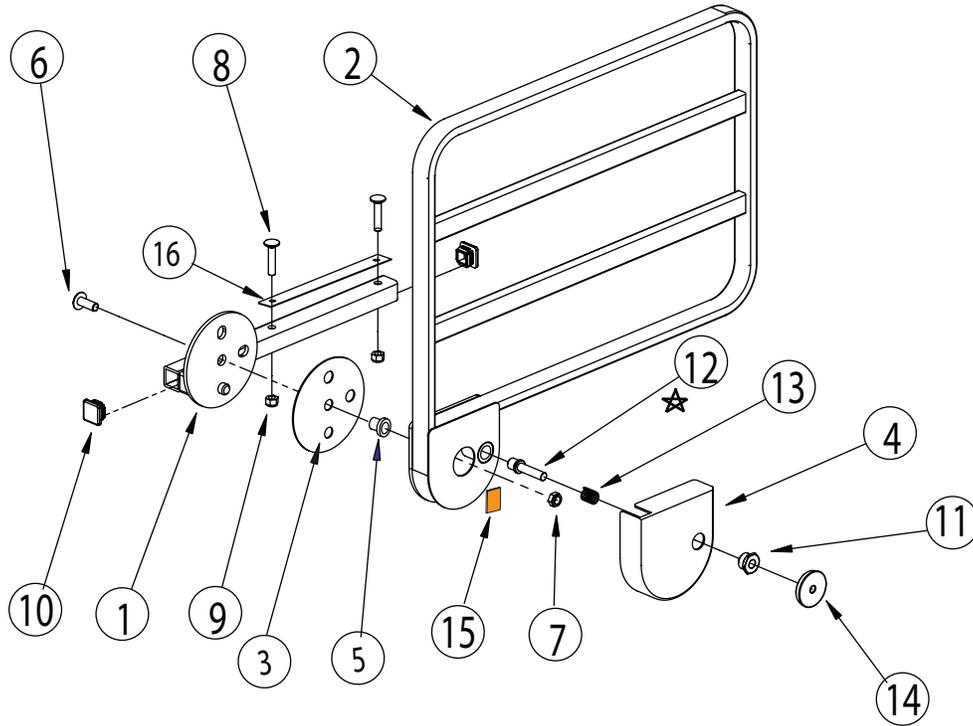
20. TWO POSITION ROTATING ASSIST RAIL (RAD401 LEFT)



★ Apply Loctite® # 242 Blue to threads.

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	QS-3779	SIDE RAIL MOUNTING ASSY - L.H.
2	1	QS-3781	ROTATING SIDE RAIL - L.H.
3	1	QP-2419	BEARING PLATE
4	1	QP-2420	COVER SIDE RAIL - L.H.
5	1	QP-2491	BRONZE SHOULDER BUSHING 3/8X1/2X1/2
6	1	QP-2560	SCREW 3/8-16 X 1" BUTTON HEAD CAP ZN
7	1	1826	LOCKNUT 3/8-16 JAM NYL INS ZINC
8	2	QP-2395	CARRIAGE BOLT ZINC 5/16-18 X 1.5
9	2	QP-2561	LOCKNUT JAM NYLON INSERT 5/16-18
10	2	QP-2343	PLASTIC PLUG 1" SQ 11 GA
11	1	QP-2422	NUT 3/4-10
12	1	QP-2428	PLUNGER
12	1	QP-2428	PLUNGER
13	1	QP-2558	SPRING .480 x .042 x .750
14	1	QS-3849	KNOB
15	1	7003	TAPE DOUBLE BACK 3/4" WIDE X 1/32 X 1" LONG
16	1	QS-3890	BACKPLATE SEAT DECK

21. TWO POSITION ROTATING ASSIST RAIL (RAD401 RIGHT)



★ Apply Loctite® # 242 Blue to threads.

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	QS-3780	SIDE RAIL MOUNTING ASSY - R.H.
2	1	QS-3782	ROTATING SIDE RAIL - R.H.
3	1	QP-2419	BEARING PLATE
4	1	QP-2421	COVER SIDE RAIL - R.H.
5	1	QP-2491	BRONZE SHOULDER BUSHING 3/8X1/2X1/2
6	1	QP-2560	SCREW 3/8-16 X 1" BUTTON HEAD CAP ZN
7	1	1826	LOCKNUT 3/8-16 JAM NYL INS ZINC
8	2	QP-2395	CARRIAGE BOLT ZINC 5/16-18 X 1.5
9	2	QP-2561	LOCKNUT JAM NYLON INSERT 5/16-18
10	2	QP-2343	PLASTIC PLUG 1" SQ 11 GA
11	1	QP-2422	NUT 3/4-10
12	1	QP-2428	PLUNGER
13	1	QP-2558	SPRING .480 x .042 x .750
14	1	QS-3849	KNOB
15	1	7003	TAPE DOUBLE BACK 3/4" WIDE X 1/32 X 1" LONG

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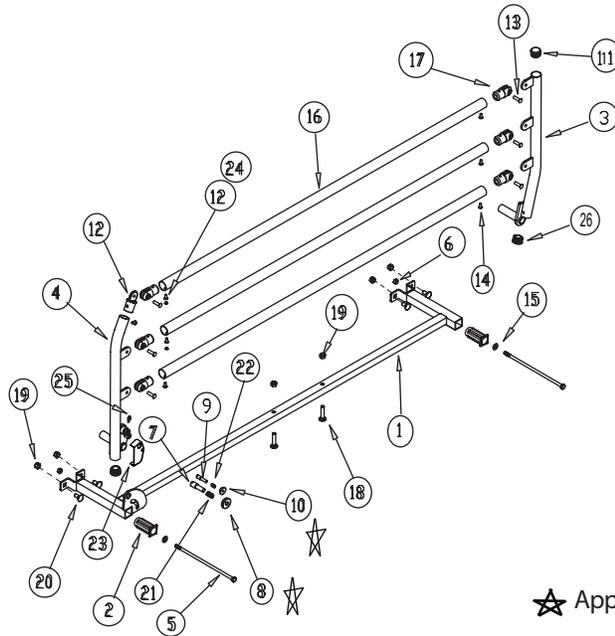
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# REPLACEMENT PARTS

## 22. 3/4 LENGTH COLLAPSIBLE SIDE RAIL (RAD 501 LEFT)



★ Apply Loctite® # 242 Blue to threads.

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	QS-3808	SIDE RAIL MOUNTING ASSY LH
2	2	QP-2474	BUSHING NYLON 3/4
3	1	QS-3812	LOCK ARM ASSY LH
4	1	QS-3814	PIVOT ARM ASSY LH
5	2	QP-2468	BOLT 1/4-20 X 8"
6	2	1852	1/4-20 UNC LOCKNUT-ZINC PLATED
7	1	QP-2466	PLUNGER
8	1	QP-2467	KNOB
9	1	QP-2479	PLUNGER
10	1	QP-2480	KNOB
11	2	QP-2039	1" DIAMETER ROUND END CAP
12	1	QP-2473	PIVOT TAB CASTING
13	6	QP-2464	1/4" RIVET
14	7	1909	RIVET STEEL 3/16 X 1/8 SD62BS
15	2	QP-2098	WASHER FLAT SAE ZINC
16	3	QS-3796	SIDE RAIL TUBE
17	6	QP-2461	SWIVEL JOINT
18	2	QP-2050	CARRIAGE BOLT ZINC 5/16-18 X 1.25
19	6	QP-2561	JAM LOCKNUT NYLON INSERT 5/16-18
20	4	QP1863	CARRIAGE BOLT ZINC 5/16-18 X 3/4 GRADE 5
21	1	QP-2558	SPRING 0.480 OD X 0.042
22	1	QP-2492	SPRING 0.328 OD X 0.031 WIRE X 1/2" LG
23	1	QP-2494	COVER SIDERAIL LH
24	2	QP-2518	CAP RIVET MPA-61
25	1	QP-2569	RETAINING RING EXT 5/8 ID
26	1	QP-2577	TUBE CLOSURE 1" OD
-	1	QP-2503	LABEL
-	1	QP-2530	LABEL
-	1	QP-1050	LABEL <b>800-779-2660   941-342-7725</b>

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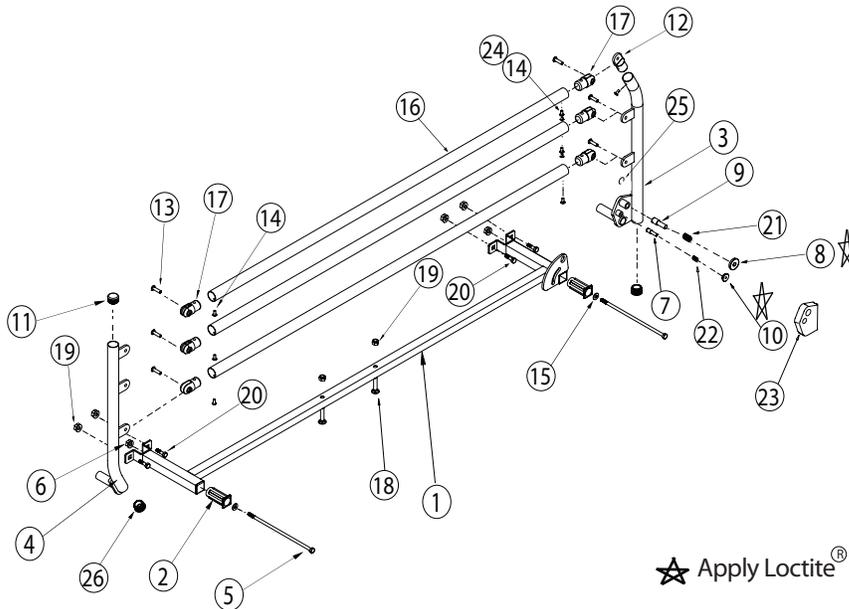
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## 23. 3/4 LENGTH COLLAPSIBLE SIDE RAIL (RAD 501 RIGHT)

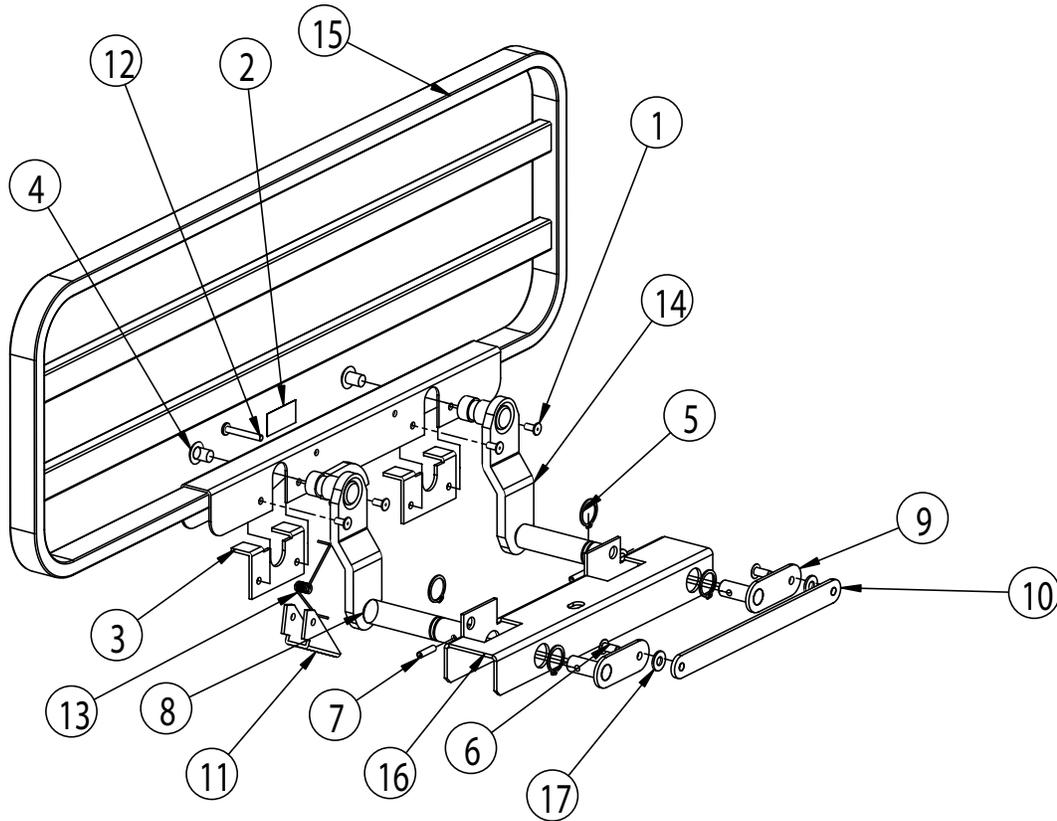


★ Apply Loctite® # 242 Blue to threads.

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	QS-3809	SIDE RAIL MOUNTING ASSY RH
2	2	QP-2474	BUSHING NYLON 3/4
3	1	QS-3813	LOCK ARM ASSY RH
4	1	QS-3815	PIVOT ARM ASSY RH
5	2	QP-2468	BOLT 1/4-20 X 8"
6	2	1852	1/4-20 UNC LOCKNUT-ZINC PLATED
7	1	QP-2466	PLUNGER
8	1	QP-2467	KNOB
9	1	QP-2479	PLUNGER
10	1	QP-2480	KNOB
11	2	QP-2039	1" DIAMETER ROUND END CAP
12	1	QP-2473	PIVOT TAB CASTING
13	6	QP-2464	1/4" RIVET
14	7	1909	RIVET STEEL 3/16 X 1/8 SD62BS
15	2	QP-2098	WASHER FLAT SAE ZINC
16	3	QS-3796	SIDE RAIL TUBE
17	6	QP-2461	SWIVEL JOINT
18	2	QP-2050	CARRIAGE BOLT ZINC 5/16-18 X 1.25
19	6	QP-2561	JAM LOCKNUT NYLON INSERT 5/16-18
20	4	QP1863	CARRIAGE BOLT ZINC 5/16-18 X 3/4 GRADE 5
21	1	QP-2558	SPRING .480 OD X 0.042 WIRE X 0.75" LG
22	1	QP-2492	SPRING 0.328 OD X 0.031 WIRE X 1/2" LG
23	1	QP-2495	COVER SIDERAIL RH
24	2	QP-2518	CAP RIVET MPA-61
25	1	QP-2569	RETAINING RING EXT 5/8 ID
26	1	QP-2577	TUBE CLOSURE 1" OD
-	1	QP-2503	LABEL
-	1	QP-2530	LABEL
-	1	QP-1050	LABEL

# REPLACEMENT PARTS

## 24. 1/2 LENGTH SIDE RAIL (RAD 301 LEFT)



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	4	1909	RIVET STEEL 3/16 X 1/8 SD62BS
2	1	QP-1050	LABEL-RELEASE LEVER
3	2	QS-3412	SIDE RAIL CLOSURE PLATE
4	2	1802	3/8-16 UNCx1/2 MACHINE SCREW-ZINCPLATED
5	4	qp-1232	RETAINING RING
6	2	QP-2026	RIVET SHALLOW TUBULAR 1/4 DIA X 1/2
7	2	4056	SPLIT ROLL PIN 3/16 X 3/4
8	1	QS-3833	1/2 SR RAISING ARM ASM LH
9	2	QS-3832	PARALLEL LINK ASM
10	1	QS-3843	LONG PARALLEL LINK
11	1	r035	RELEASE LEVER
12	1	1984	3/16x1-5/16 SHALLOW TUBE RIVET
13	1	6201	LEVER SPRING
14	1	QS-3835	1/2 SR RAISING ARM ASM
15	1	QS-3535	1/2 EXT SIDE RAIL BOW LH 28" RECT
16	1	QS-3841	1/2 SIDERAIL MOUNTING BRACKET LH
17	2	QM-2967	1/2 SIDERAIL MOUNTING BRACKET LH

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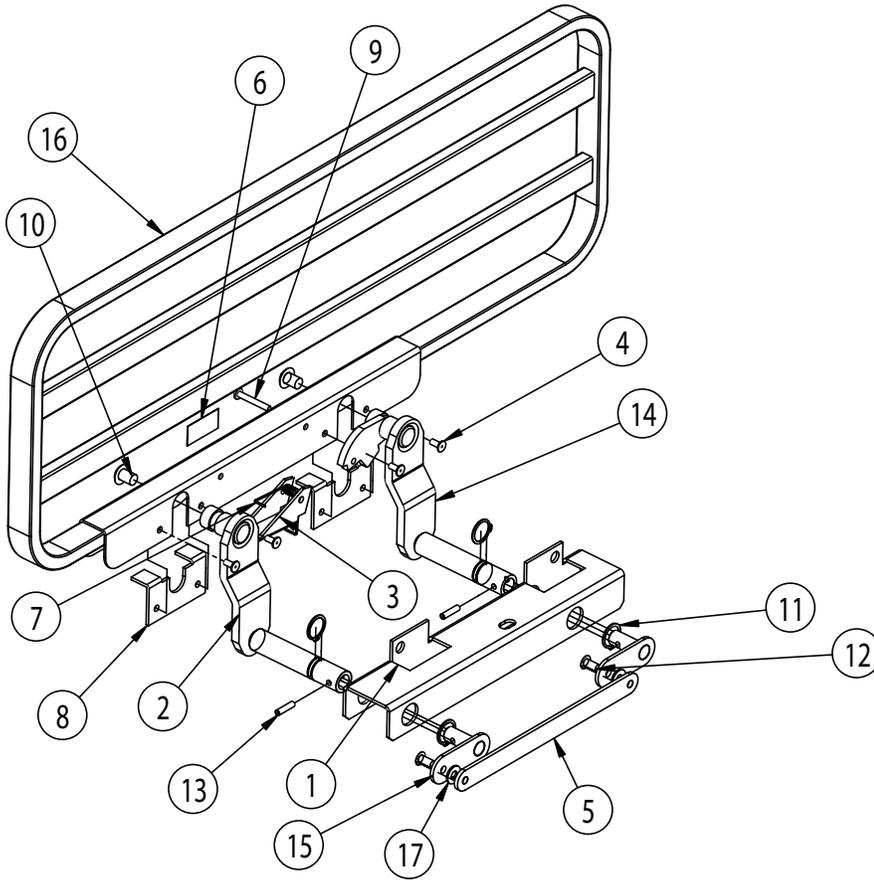
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## 25. 1/2 LENGTH SIDE RAIL (RAD 301 RIGHT)



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	QS-3842	1/2 SIDERAIL MOUNTING BRACKET RH
2	1	QS-3835	1/2 SR RAISING ARM ASM
3	1	r035	RELEASE LEVER
4	4	1909	RIVET STEEL 3/16 X 1/8 SD62BS
5	1	QS-3843	LONG PARALLEL LINK
6	1	QP-1050	LABEL-RELEASE LEVER
7	1	6201	LEVER SPRING
8	2	QS-3412	SIDE RAIL CLOSURE PLATE
9	1	1984	3/16x1-5/16 SHALLOW TUBE RIVET
10	2	1802	3/8-16 UNCx1/2 MACHINE SCREW-ZINCPLATED
11	4	qp-1232	RETAINING RING
12	2	QP-2026	RIVET SHALLOW TUBULAR 1/4 DIA X 1/2
13	2	4056	SPLIT ROLL PIN 3/16 X 3/4
14	1	QS-3834	1/2 SR RAISING ARM ASM RH
15	2	QS-3832	PARALLEL LINK ASM
16	1	QS-3534	1/2 EXT SIDE RAIL BOW RH 28" RECT
17	2	4024	WASHER FLAT SAE ZINC 1/4

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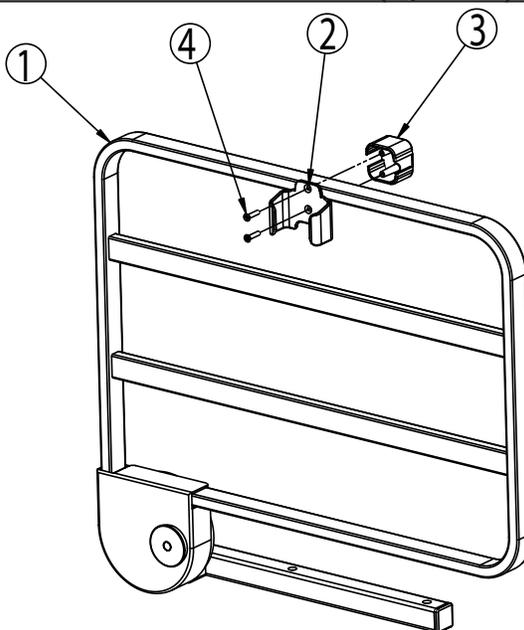
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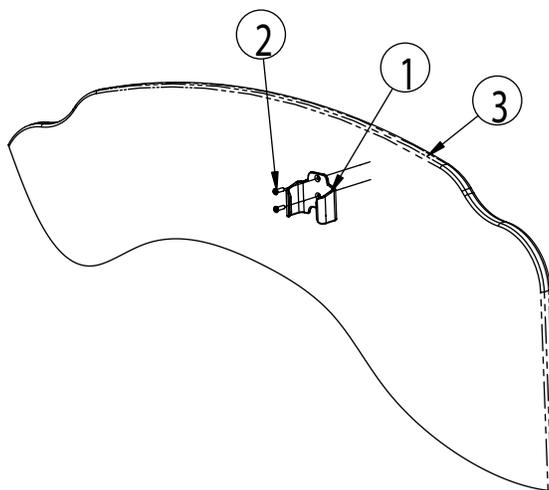
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## 26. PENDANT HOLDER ASSIST RAIL MOUNT (Q6584)



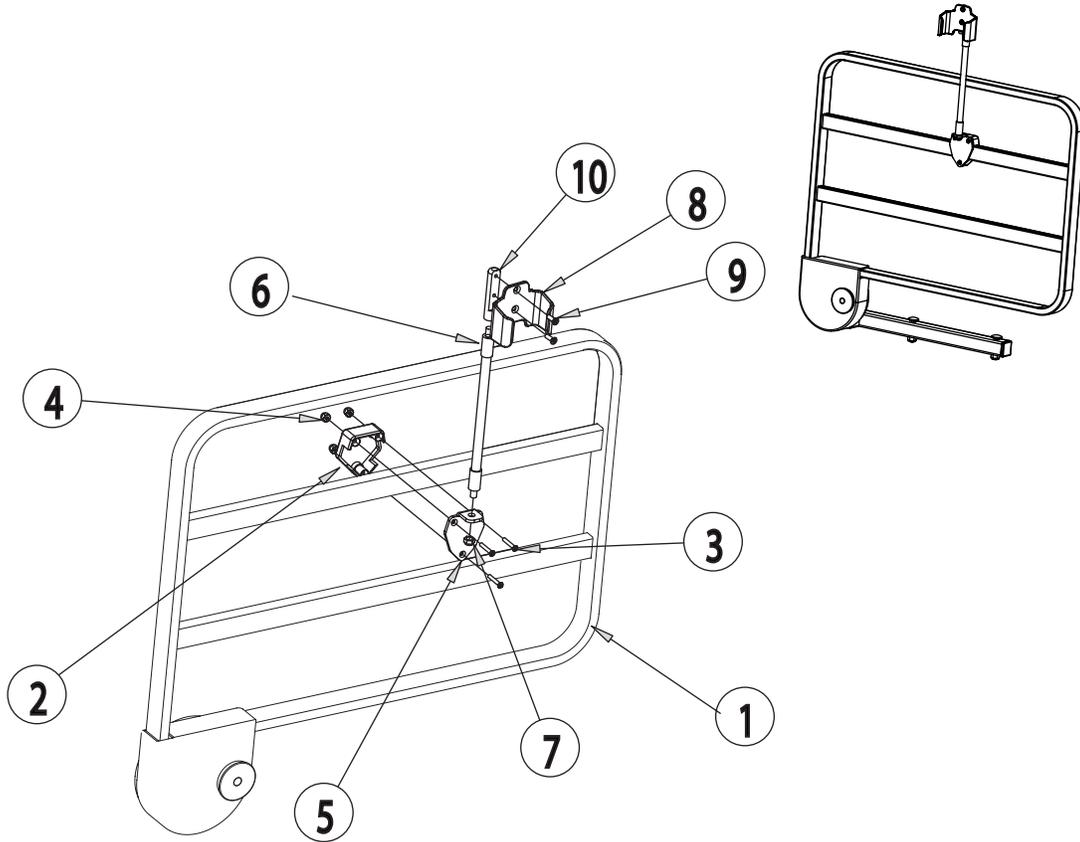
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	RAD401R	TWO-POSITION ASSIST RAIL - RH
2	1	QP-2556	HB4X PENDANT HOLDER
3	1	QP-2557	PENDANT HOLDER BLOCK
4	2	QP-2565	SCREW TAPPING #8 X 3/4 COUNTERSUNK PHILLIPS ZN

## 27. PENDANT HOLDER HEAD OR FOOT BOARD MOUNT (Q6589)



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	QP-2452	PENDANT HOLDER
2	2	QP-1312	SCREW WOOD FLAT HEAD # 6 X 5/8
3	-	-	HEAD OR FOOT BOARD

## 28. GOOSENECK PENDANT HOLDER - ASSIST RAIL MOUNT (#Q6591)



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	0	--	ASSIST RAIL
2	1	QP-1300	SIDE RAIL MOUNTING BLOCK
3	3	QP-1302	MACHINE SCREW #6-32 X 7/8
4	3	QP-2304	NUT ACORN 6-32 ZP
5	1	QS-3846	GOOSENECK MOUNT-METAL PAINTED
6	1	QP-2526	GOOSENECK GREY VINYL 3/8 X 7 INCH
7	1	QP-1119	LOCKNUT NYLON INSERT 1/4-20
8	1	QP-2556	HB4X PENDANT HOLDER
9	2	QP-2566	MACHINE SCREW #8-32 X 1/2 COUNTERSUNK PHILLIPS ZN
10	1	QS-3866	GOOSENECKK HOLDER NUTSTRIP

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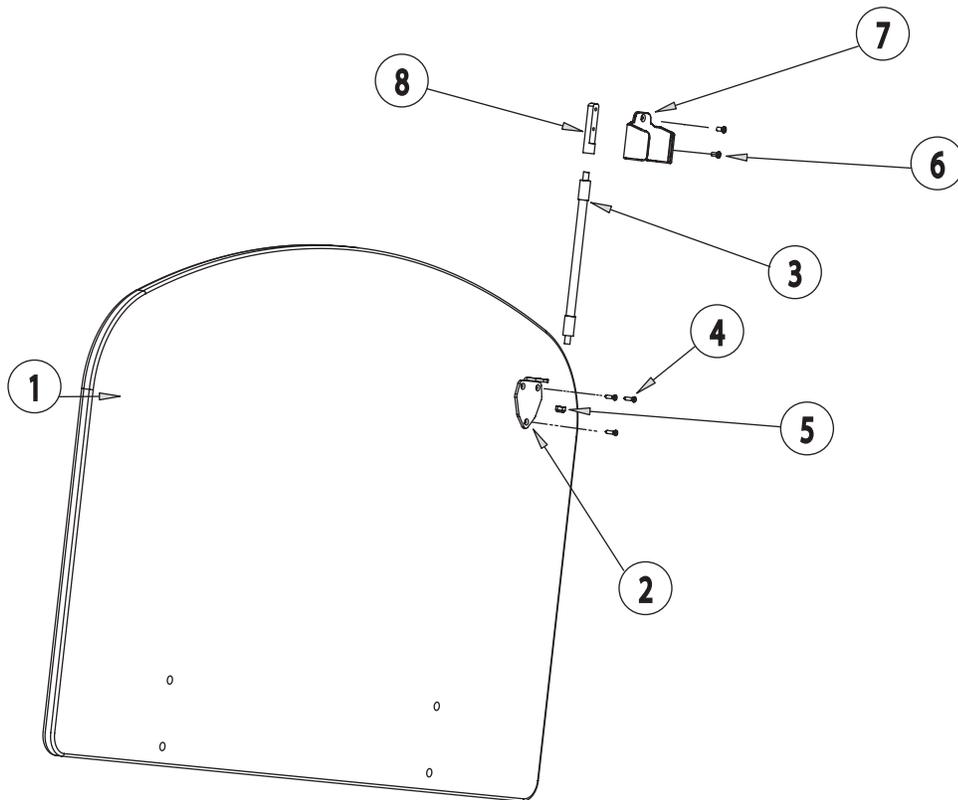
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## 29. GOOSENECK PENDANT HOLDER H/F BOARD MOUNT (Q6590)



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	0	--	ADVANTAGE HEAD BOARD
2	1	QS-3846	GOOSENECK MOUNT-METAL PAINTED
3	1	QP-2526	GOOSENECK GREY VINYL 3/8 X 7 INCH
4	3	QP-1312	SCREW WOOD FLAT HEAD #6X5/8
5	1	QP-1119	LOCKNUT NYLON INSERT 1/4-20
6	2	QP-2566	MACHINE SCREW #8-32 X 1/2 COUNTERSUNK PHILLIPS ZN
7	1	QP-2556	HB4X PENDANT HOLDER
8	1	QS-3866	GOOSENECKK HOLDER NUTSTRIP

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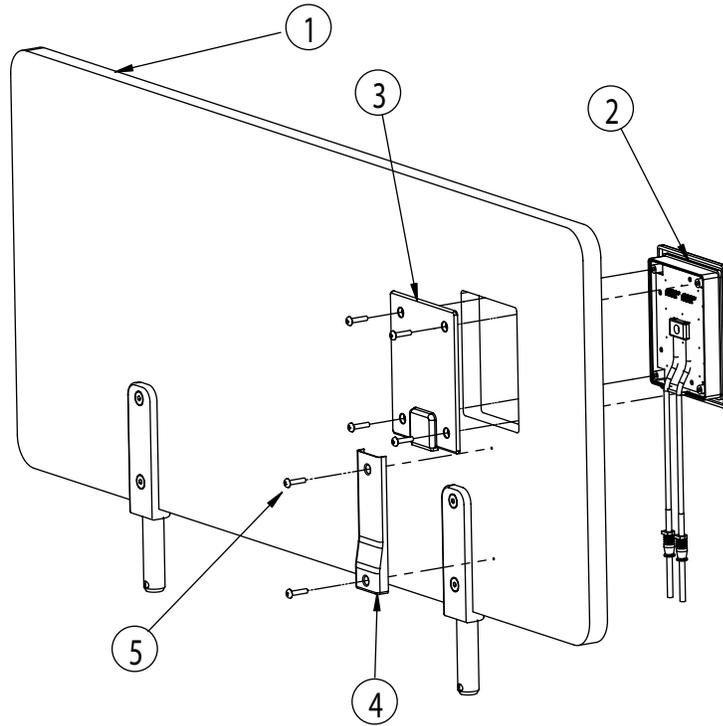
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## 30. FOOT END (STAFF) CONTROLLER (#Q6607)



ITEM #.	QTY.	PART NO.	DESCRIPTION
1	1	various	ADVANTAGE FEC FOOT BOARD
2	1	QP-2535	ADV FEC CONTROLLER BOX ASM
3	1	QP-2534	ADV FEC BACK COVER
4	1	QP-2536	ADV FEC CABLE COVER
5	6	QP-2537	SCREW WOOD 5/32 X 5/8" PHILLIPS ZN

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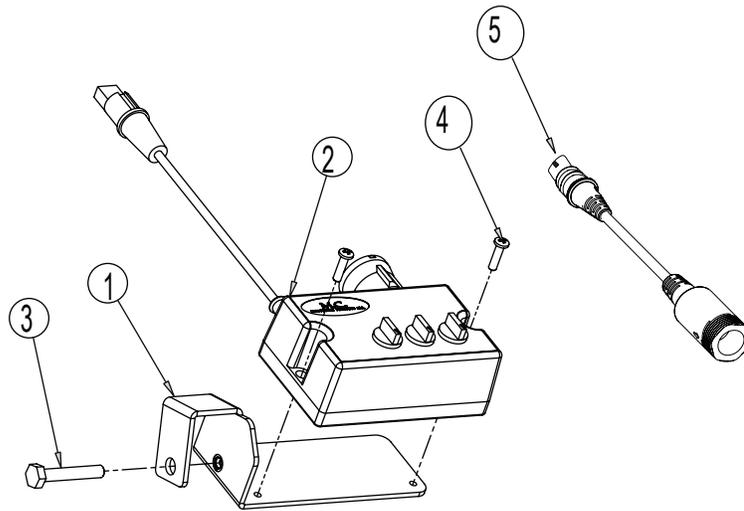
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# REPLACEMENT PARTS

## 32. LOCKOUT BOX 3 SWITCH (#Q6588)



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	QS-3845	ADVANTAGE LOCKOUT BRACKET ASM
2	1	QP-2575	ACM LOCKOUT BOX
3	1	QP-2235	HEX HEAD BOLT
4	2	QP-2532	SCREW PHILIPS PAN HD TYPE B TAP#8 X 5/8
5	1	QP-2576	EXTENSION CABLE FEMALE RJ45 TO MALE DIN

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# LIMITED WARRANTY

## Beds and Accessories

M.C. HEALTHCARE PRODUCTS a division of Span Medical Products Canada Inc. (The Company) warrants all beds and accessories sold to be free, under normal and proper use and maintenance, from defects in workmanship and material for a period of two (2) years from the date of initial delivery by the Company. The Company warrants all welds to be stronger than the parent material for the entire life expectancy of the product. The Company's obligation and the purchaser's remedy pursuant to this warranty are limited to repair or replacement at the Company's option. Any claims must be submitted in writing within the warranty period to the Company.

Except as stated above, the Company makes no and expressly excludes warranties, expressed or implied, including warranties as to merchantability, or fitness for any particular use or purpose, even if it has been informed of same, and shall not be liable for any loss or damage, directly or indirectly, arising from the use, installation, or maintenance of such merchandise or for indirect, special or consequential damages.

No other party is authorized to make any warranties on behalf of the Company.

This warranty does not cover any labour expenses for service, nor for removing or reinstalling parts which are the purchaser's expense.

This warranty does not apply where:

- The product has been abused, misused, or improperly maintained
- The product has been exposed to excessive loads
- Any repairs or alterations have been done that were not expressly approved by M.C. Healthcare Products

All authorized warranty claims, must have an RMA number attached to any returns.

Returned RMA's are subject to inspection, it is the sole discretion of M.C. Healthcare's personnel to determine if the claim is billable, or a no charge warranty replacement.

Each warranty claim will be invoiced for the full replacement cost of the parts shipped. Upon return and inspection of the warranty claimed parts, the billing invoice will either be credit if the warranty claim is validated, or if the warranty claim is not validated, the warranty invoice will be due and payable 30 days from the invoice date.

No warranty claims, or credit for warranty is extended to accounts which have an overdue outstanding balance with our accounts payable department.

This warranty is extended to the original purchaser of the equipment only.

Shipping expenses are covered during the first year of the warranty. Following the first year of the warranty, shipping expenses will be billed to and payable by the recipient of the warranty items.