

# DAQ Series Ramp Training, Operations & Parts Manual

Maintenance Schedule



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## •Table of Contents•

Overview.....	2
Operations	
• Towing the Ramp.....	3-4
• Brake Station.....	4
• Moving the Ramp.....	5
• Setting the Ramp Height.....	6-10
• Level Deck Gates.....	12
• Pivoting Level Deck.....	13
Preparing the Ramp for Passengers	
• Stabilizer Feet.....	15-16
• Outriggers.....	17-18
• Lower Bridge.....	19-20
• Transition Plate.....	23
• Optional LED Walkway Lighting.....	24
Warnings and Restrictions.....	25-26
Preventative Maintenance.....	27-35
How to Order Replacement Parts.....	36
Parts Breakdown.....	37-47
Electrical Schematic.....	48
Warranty.....	49

## • Overview •

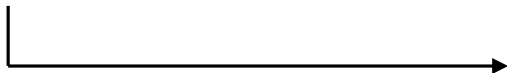


The KCI Inc. DAQ Passenger Ramp is a universal ramp designed to serve larger sized aircraft such as the MD80 up to the 757. The Ramp allows for a seamless boarding process for all passengers. This ramp, with its adjustable slope and platform with sliding rails provides a faster, safer, and more economical means of boarding and deplaning. The DAQ Series Passenger Ramp is comfortably sloped, non-motorized, and easy to operate. The combination of steel and aluminum construction, non-skid surface, provides strength and versatility.

## • Operations •

### • Towing the Ramp •

1. Remove safety clip on storage pin



2. While supporting tow bar with the right hand, remove storage pin. Lower the tow bar to the ground.

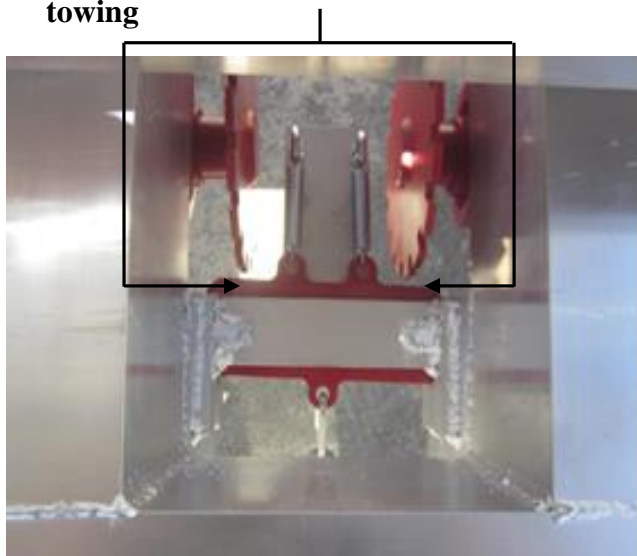


3. Connect tow bar to tow vehicle.

**! Do Not Exceed 10 MPH When Towing. Damage May Occur to Swivel wheel Bearings**

**! The ramp must be in its lowest position prior to towing!**

**! Note: A visual check must be performed to verify brake plate has been fully disengaged and that stabilizer feet are in the full up position prior to towing**

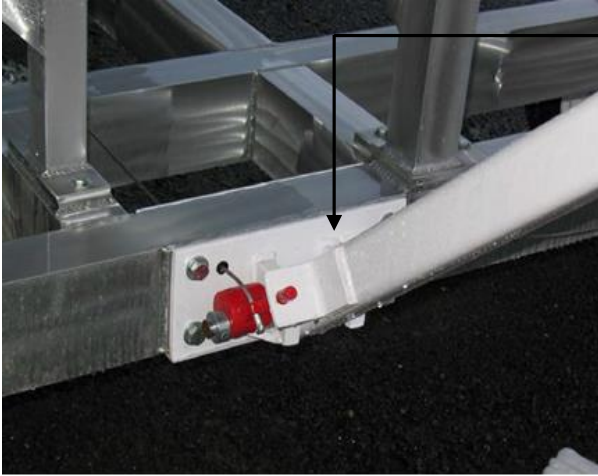




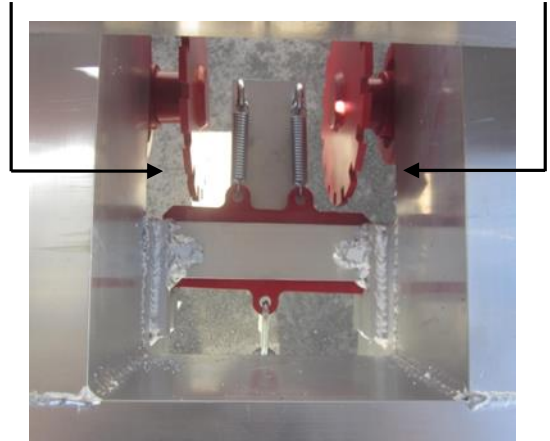
## • Operations •

### • *Towing the Ramp Continued* •

BAR series ramps have a brake release built into the towbar. The brakes will automatically release when the towbar is lowered.



*Visually check to ensure brake plate is disengaged prior to towing the ramp.*



### • *Brake Station* •



Brake handle/Push station

Hold down brake handle while moving ramp



## • Operations •

### • *Moving the Ramp* •

1. The ramp is to be maneuvered from the end with the castor wheels; this end will be farthest from the aircraft when the ramp is in place.
2. The operator must be positioned at the push station located at lower right end of the ramp when pushing into place. On smaller ramps a second person will be required to assist in pushing. Larger Ramps may require additional individuals. The ramp will not move unless the brake lever is depressed and held in that position for movement.
3. Large ramp being pushed, individual at front acts as guide to align ramp with aircraft door.
4. Push Ramp up to aircraft. Every attempt should be made to center the ramp platform with the door opening.
5. The ramp should be set several inches below the aircraft door, and away from the aircraft a minimum of 4", making the use of the transition plate mandatory. (Refer to page 13)
6. If needed adjust ramp elevation as required. (Refer to Page 7 & 8)
7. Prior to opening the aircraft door, the left sliding handrail must be opened. Once the aircraft door is open, close the sliding hand rail to within 4" of door and deploy the transition plate. (Refer to Pages 10 and 13)



Sliding Handrail

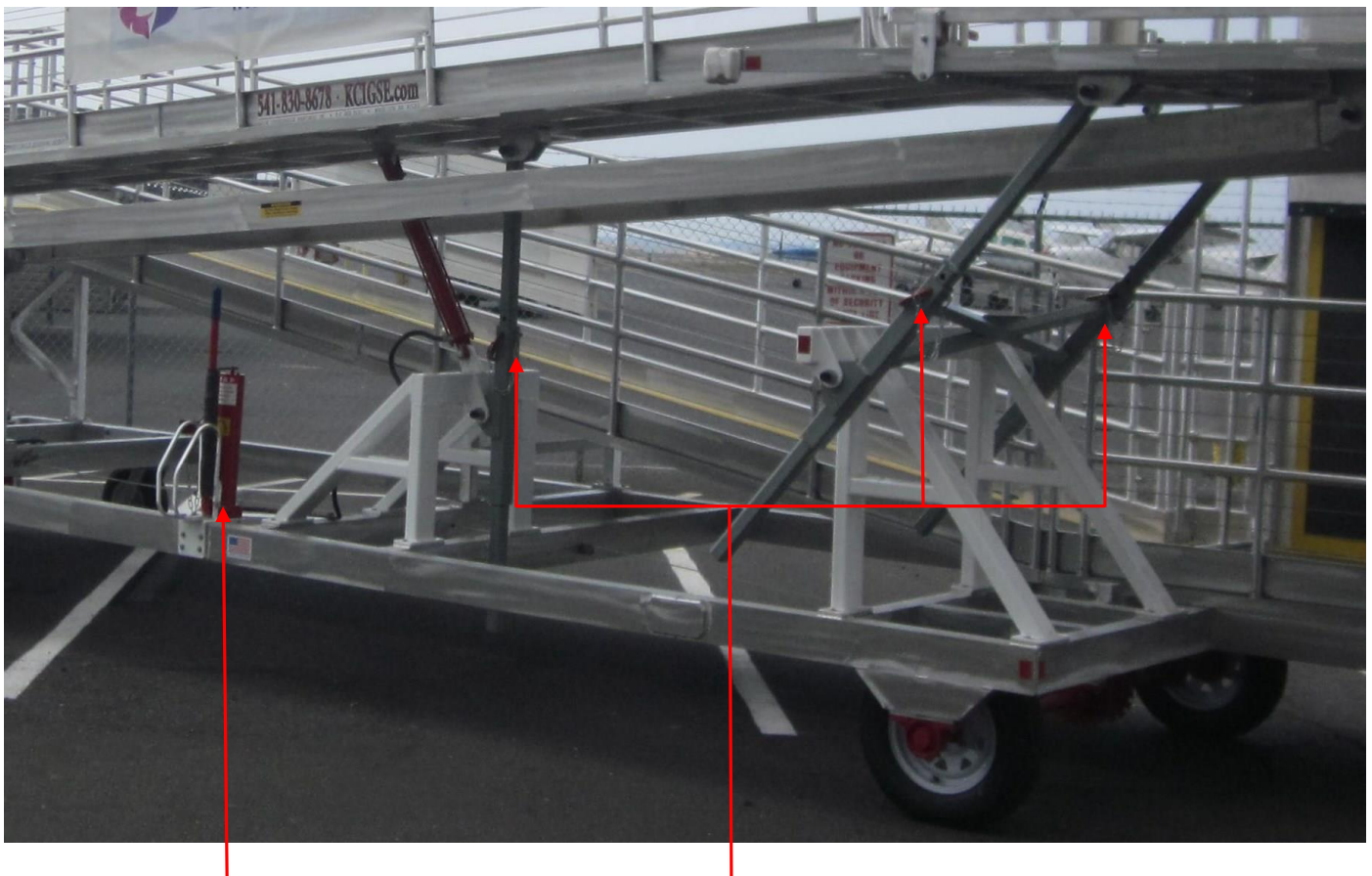


## • Operations •

### • *Setting the Ramp Height* •

Prior to aircraft arrival, adjust the upper ramp so the level deck platform is 6-8" below the aircraft door sill height. If the elevation is unknown or not marked on the unit, KCI recommends the following;

- If a set of stairs has been used check the height of the stairs and adjust the ramp to that height. Once the ramp is in place adjust as necessary.
- If stairs are not available, set the ramp at the following heights until final adjustments are made. MD-80 series 85", 737's - 103", A-319,320,321 - 127", 757 - 155".



Hydraulic Pump

Support Pins



**Do not stand or go under the ramp when adjusting the height.  
Never adjust the ramp height with someone on it**



## • Operations •

### • *Adjusting the Ramp Height* •

#### Raising the Ramp

1. To raise the ramp, move the pump valve counter clockwise to the closed position as shown in the image to the right.



2. Pull the pin to engage the elevation locks.



3. Operate the hand pump and the ramp will begin to raise in height. As the ramp raises, the elevation locks will automatically “click” into the corresponding cogs in the sliders.
4. Once the desired height has been achieved and all 3 elevation locks have clicked into the slider cogs, move the pump valve to the open position to allow the ramp to slightly lower and settle onto the elevation pins.



**Do not adjust the ramp height with someone on it.**

**Do not stand or go under the ramp when adjusting the height.**



## • Operations •

### • *Adjusting the Ramp Height* •

To lower the ramp

1. Grasp the foam covered handle of the elevation lock and rotate in a clockwise direction. This will allow for the lock pins to engage.

Lock Pin

Elevation Lock Handle



1. With the pump valve in the closed position, slightly operate the pump and begin to raise the ramp. This will allow for the elevation locks to fully disengage. The image to the right shows the elevation lock fully disengaged.
2. Move the pump valve to the open position and the ramp will begin to lower.



## • Operations •

### • *Adjusting the Ramp Height* •

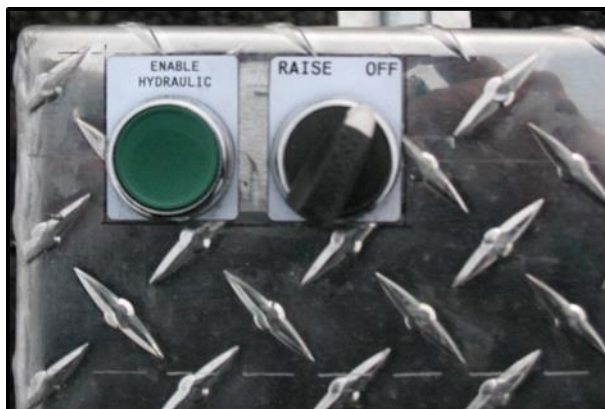
When equipped with an electric hydraulic pump perform steps 1 and 2 for raising the ramp on page 7, then proceed with the steps listed below.

1. Move the pump valve counterclockwise to the closed position.
2. While pressing the Enable button, turn and hold the switch to the raise position. The ramp will begin to raise.



Closed

Open



## • Operations •

3. As the ramp raises, the elevation lock pins will “click” into corresponding cogs in the sliders. When the desired aircraft height has been achieved, release the raise switch.
4. Move the pump valve to the open position to release the hydraulic pressure and allow the ramp to “settle” onto the elevation lock pins.

### • *Lowering the Ramp* •

1. Rotate the latch arms until the locking pins engage.
2. With the pump valve in the closed position, raise the ramp slightly to allow the elevation lock pins to disengage.
3. Move the pump valve to the open position, the ramp will begin to lower.



## • Operations •



*Image showing aircraft markings on slider.*

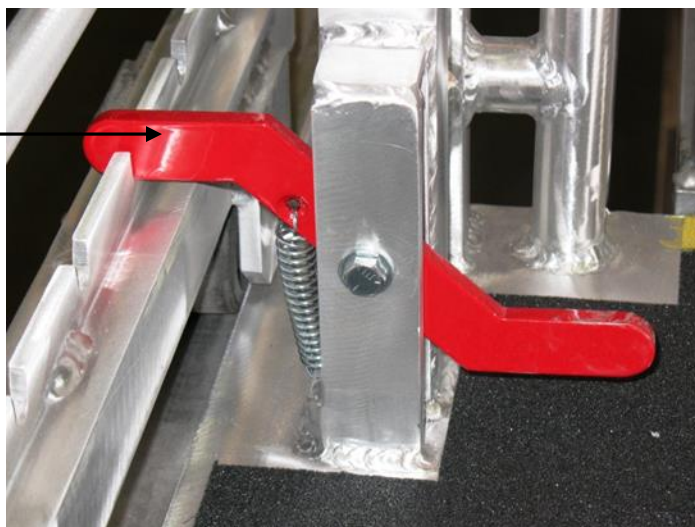
## • Operations •

### • *Level Deck Gates* •

The level deck of the ramp is equipped with sliding gates. Both gates will be required to be positioned within 4" of the aircraft door/fuselage upon deployment to ensure adequate safety for passengers.



Grasp the handrail of the gate with one hand and depress the foot lock to allow the gate to slide forward or aft. Make sure foot lock is fully engaged after adjusting the sliding gate.



**Level deck gates MUST be closed to within 4" of the fuselage and cabin door.**

## • Operations •

### • *Pivoting Level Deck (If Equipped)* •

Located on the right hand side of the level deck next to the sliding gate is the handle to pivot the level deck. This pivoting action allows for the level deck to be more uniformly positioned to the aircraft fuselage.

1. Grasp the handle and move forward or aft to pivot the level deck.



*Image showing pivoting handle*



*Image showing deck position when pivoting handle is moved to the aft position.*



## • Operations •

### • *Extendable Gate* •

*(For Models Equipped With Pivoting Level Deck)*

The extendable gate can be extended and retracted as needed to allow for opening and closing of the main cabin door.

1. Retract the gate to allow for the cabin door to be opened.
2. With the cabin door in the open position, extend the gate to within 4" of the cabin door.
3. Install the lock pin to secure the gate in the desired position.



**Level deck gates MUST be fully retracted prior to approaching the aircraft and closed to within 4" of fuselage and cabin door when parked at the aircraft.**



*Image showing gate partially extended*

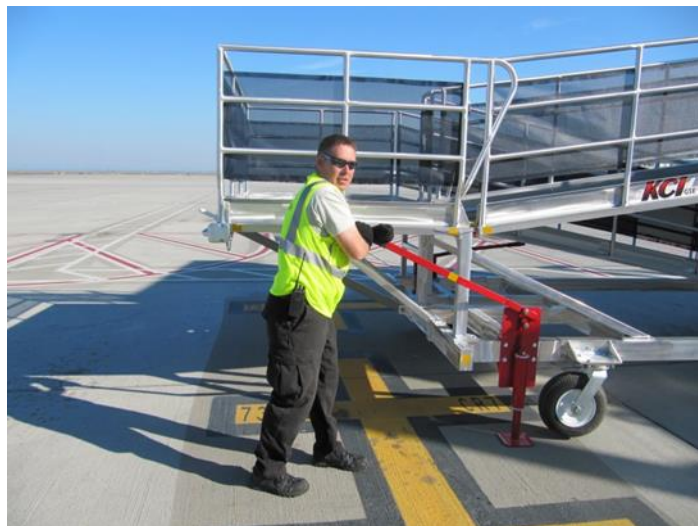
## • Operations •

### • Stabilizer Feet •

1. While grasping the stabilizer foot arm, articulate the arm 180 degrees so as to deploy the stabilizer foot, repeat for opposing side.
2. Reverse procedure to stow the stabilizer feet




*Image showing deployment*



*Image showing preparation to stow*



Stabilizer feet are also adjustable in height. Use the provided wrench to loosen the lock nut, spin the foot plate to raise or lower the foot. Do not over increase the height as it will become difficult to set the


 **To prevent injury, stand to the side of the stabilizer when disengaging. Once unlocked the handle will continue forward rapidly and forcefully!**



## • Preparing the Ramp for Passenger Use •

### • Hydraulic Stabilizer Feet • (on some models)

Units with Hydraulic Stabilizers have pumps which operate the same as the pump described on page 8.

1. Move the valve lever on the pump to the “closed” position. 
2. Operate the pump handles so as to deploy the stabilizer feet.
3. It is only necessary to lower the hydraulic feet until the swivel wheel is off the ground.

To stow the stabilizer feet, simply move the pump valve to the open position.



Closed

Open





## • Preparing the Ramp for Passenger Use •

### • *Outriggers* •

1. To deploy the outrigger, grasp the handle and lift the outrigger out of the storage bracket.
2. Pull the outrigger away from the frame of the ramp until the outrigger locks into place. An audible click can be heard and felt.
3. Visual verification that the outrigger is locked can be made by looking underneath the outrigger. Ensure that the locking pin has inserted into the outrigger.
4. Repeat for opposite outriggers.



**Always ensure that the Outriggers are locked when deploying them. This can be achieved by visually inspection or by attempting to recover the Outrigger to the stowed position. When properly locked, the Outrigger will not move to the stowed position.**

## • Preparing the Ramp for Passenger Use •

### • *Outriggers Continued* •



5. To recover the outrigger, lift up on the diagonal outrigger strut where it meets the main frame of the ramp. This will release the locking pin.



6. Continue by rotating the outrigger back to the stowed position, ensuring that it is placed back into the storage bracket.
7. Repeat for opposite outriggers.



## • Preparing the Ramp for Passenger Use •

### • Lower Bridge •

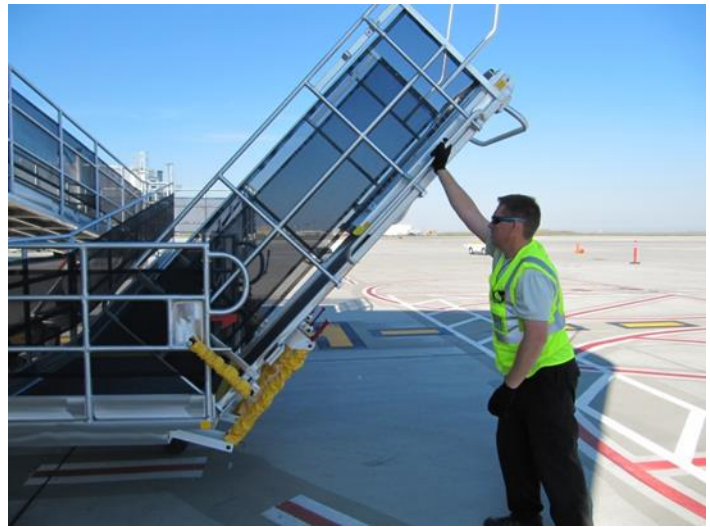
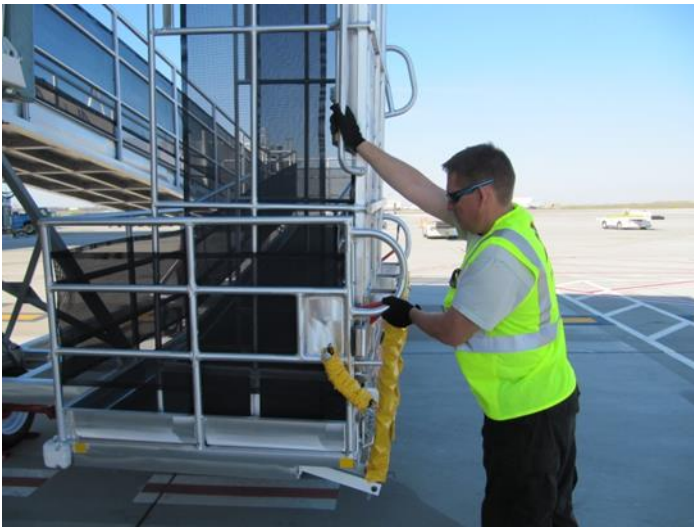


**Do not allow the lower bridge or flip down section to drop of their own weight, damage to bridge can occur!**

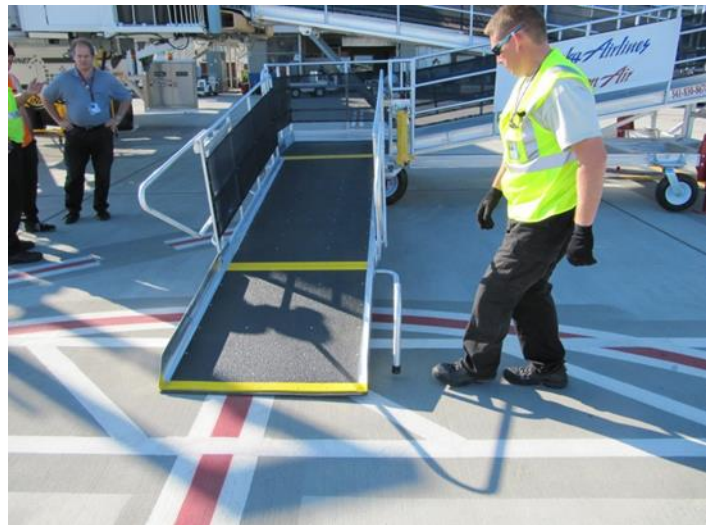


**Never stand directly under bridge when lowering, personal injury could occur. The lower bridge weighs approximately 200 lbs.**

1. While lifting the latch with one hand, start to lower the bridge with the other.
2. Continue to lower the bridge until it is in contact with the ground.



3. Grasp the handle of the flip down section of the bridge
4. Articulate the flip down section of the bridge 180 degrees.





## • Preparing the Ramp for Passenger Use •

### • *Lower Bridge Continued* •

Grasp the folding handrail, lift slightly to release from retainer cup, unfold and lower into opposite retainer cup. Repeat this step for opposite handrail.



### • *Using the MBA* •

Use of the MBA is required when servicing the Q-400, ERJ 135/145, CRJ 100/200/700/900



**It is required the ramp operators read and understand the MBA Operations Manual Prior to using the MBA with the DAQ Passenger Ramp.**

1. Read and understand the MBA Operations Manual prior to deploying the MBA.
2. Calibrate the MBA Positioning Guide as described on page 14 of the MBA Operations Manual.



## • Preparing the Ramp for Passenger Use •

### • *Preparing the MBA for Use* •

1. Place the MBA on the floor on its main wheels.
2. Release the Velcro securing strap on the handrails.
3. Lift the folded handrails until they snap into the vertical position.
4. Pull the brake lever at each push handle to release the parking brakes.
5. Push down on the handles until the MBA is balanced on its wheels.

### • *Positioning the MBA* •

1. Push the MBA until the wheels drop over the edge of the jet bridge.
2. Lower the nose of the platform onto the aircraft's floor (not the top step).
3. Move the MBA forward until the front of the platform is a minimum of THREE inches into the doorway.
4. Check that the rear end of the MBA's platform overlaps the FLOOR (not the bumper) of the jet bridge by a minimum of 3 inches.

**Figure 3 – Side View of Set-up, Air Stair with folding handrails.**



Correct Set-up

Incorrect Set-up

Check the stability of the MBA. If there is any side-to-side instability, use the cross-slope adjusting mechanism to stabilize the unit.

- Step on the cross-slope adjusting flap (located on the jet bridge side of the unit) to set its position (the adjusting mechanism will hold it in place)
- The unit should feel stable and not rock side to side when the flap is adjusted correctly.
- If the cross-slope adjusting flap has been set too low, release the adjusting mechanism by stepping on the metal tab to the right of the Flap

## • Preparing the Ramp for Passenger Use •

5. Attach the curtain (snap hooks) to both inside walls of the jet bridge or ramp (eyebolts). (See figure 4).

The curtain is very important because:

- The curtain guides passengers onto the Mobile Bridge Adapter.
- The curtain acts as a restraining device by preventing the MBA from moving too far forward.
- Curtains should have enough slack to allow the MBA to pivot freely as the aircraft's height changes.

Figure 4 – Top View of MBA Ready for Use.

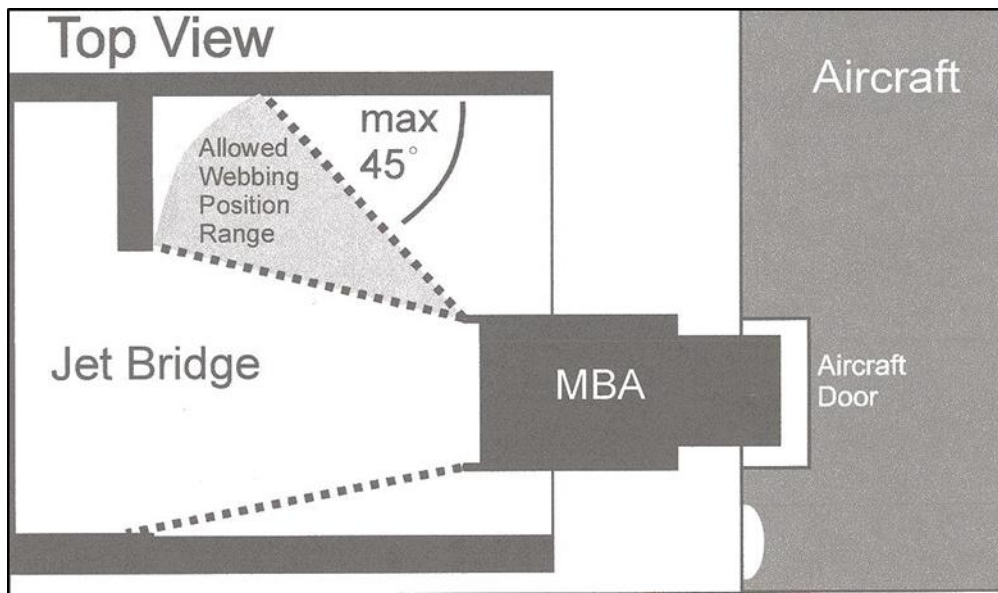
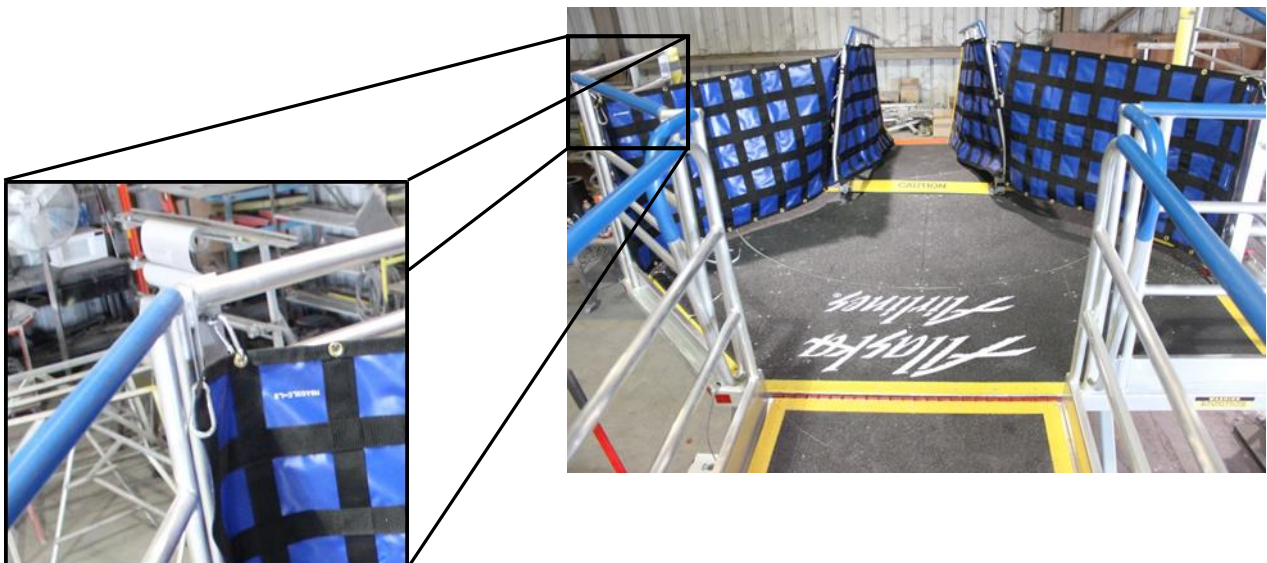


Image showing deployed MBA and curtain connection





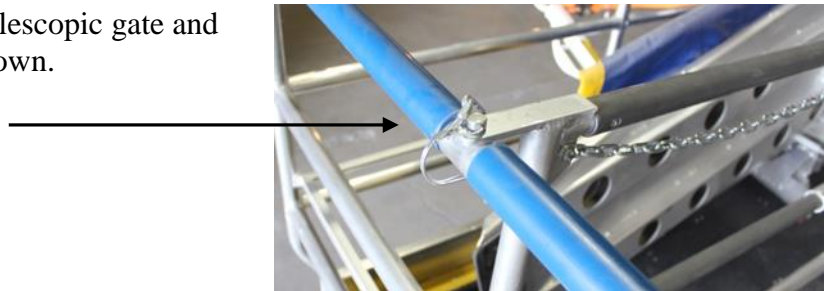
## • Preparing the Ramp for Passenger Use •

### • *Storing the Adapter* •

1. When the MBA is not required for passenger boarding, it can be easily folded and stored behind the locking gate on the turndeck.



2. When the MBA is stored, extend the telescopic gate and secure with the provide snap clip as shown.



### • *Transition Plate* • (when servicing the ERJ 175 and Wide Body Aircraft)

Each ramp is supplied with a transition plate. The purpose of this plate is to act as a bridge between the ramp level deck and the aircraft cabin. Using the transition plate allows the ramp to be set well below the door height of the aircraft eliminating the possibility of the door being damaged by the ramp as the aircraft moves up or down. The transition plate also eliminates the need for the ramp to contact the fuselage of the aircraft.

The transition plate is typically stowed on the level deck when the ramp is not in use.

Once the ramp is properly positioned, simply pick up the transition plate and place the shorter end into the cabin of the aircraft.

The ramp is now ready to accept passenger traffic.

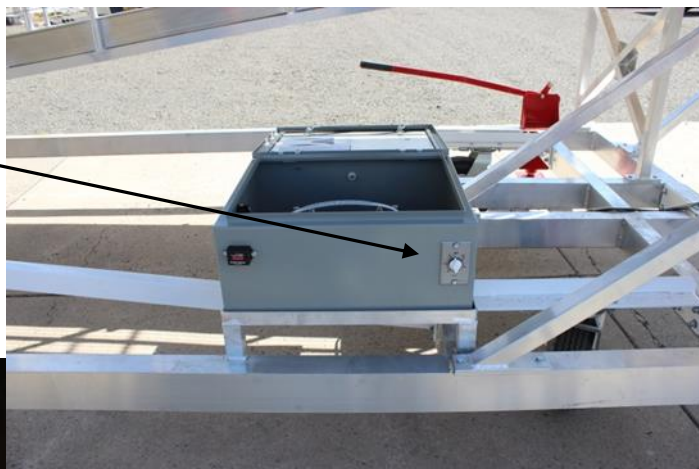


## • Optional Light Kit (If Equipped) •

### • *Light Kit (If Equipped)* •

If selected as an option, the SGR Ramp can be equipped with LED Lighting.

Located under the level deck is the battery/drive control enclosure. On the front panel of the enclosure is the ON/OFF switch for controlling the lights.





## ***Warnings and Restrictions Summary***



1. It is the responsibility of the operating staff to ensure that the aircraft is not damaged when using the KCI Passenger Ramp.
2. To ensure the aircraft is not damaged, the ramp should never come in contact with the airplane. It needs to be stopped a minimum of 4" away from the aircraft, and set at 4" below the door opening.
3. For the safety of all passengers and ramp personnel, the transition plate must always be used when the ramp is deployed.
4. Only trained and authorized personnel should raise, lower, or adjust the ramp, operate the hydraulic mechanism, adjust the ramp's height and install all safety pins and clips.
5. The ramp is to be maneuvered from the end with swivel wheels; this end will be farthest from the aircraft when in place.
6. Disabled passengers in an aisle or wheel chair must never be left unattended on the ramp.
7. Two attendants are required to assist disabled passengers who are overweight or large of stature.
8. Under no circumstances should the ramp be raised, lowered, moved, or towed with any person on it.
9. Water, ice, snow, or any other natural or foreign substance should not be allowed to accumulate on the ramp's surface.
10. The ramp should be inspected before each use to assure a clean and unobstructed pathway.
11. The weight of the ramp, when in use, must always rest on the safety pins and not be dependent upon the hydraulic unit to support it.
12. The ramp is not to be towed at speeds exceeding 10 mph and should always be stowed when not in use. Do not back up using the tow bar.
13. Prior to towing, a visual check must be performed to verify the brake plate is fully disengaged.
14. The lower bridge should always be up and locked when not in use.





## ***Warnings and Restrictions Summary***



15. The ramp has a maximum capacity of 3,000 lbs., per ramp section, upper platform 1,000 lbs., and the lower bridge 1,000 lbs.
16. The adhesive non-skid surface affixed to the ramp will lose its traction enhancing properties over time, depending on the extent of usage and climatic conditions, which exist at each airport. Replacing non-skid surface is the responsibility of the ramp owner; material can be obtained directly from KCI.
17. Do not let the lower bridge drop of its own weight.
18. The canvas canopy should be inspected for rips or tears. Replacing the canopy is the responsibility of the ramp owner. The canopy can be obtained from KCI.
19. Qualified airport ground crew personnel or airline personnel should always be present when the ramp is in use.
20. No passengers are allowed on or near the ramp except when it has been properly set up at the aircraft and wheel chocks are in place.
21. The ramp and the bridges have been designed solely for the usual and customary operation of loading and deplaning of qualifying aircraft. Any other use is strictly forbidden, and voids any and all warranties relating to the passenger ramp.
22. It is recommended that the outriggers be deployed during storage and when ramp is in service. It is required to deploy outriggers where winds or jet blast may exceed 45 mph. Ramp should be stowed in the full down position.
23. Outriggers must be stowed during ground movements.
24. Where winds are forecasted over 70 mph it is strongly recommended that the canopy be removed. Should this not be feasible then some type of wind protection should be taken, at a minimum position lower end of ramp into wind.
25. Never tow the ramp in a raised or slightly raised position! The ramp must be lowered to its lowest setting prior to towing.
26. To prevent injury, stand to the side of the stabilizer when disengaging. Once unlocked, the handle will continue forward rapidly and forcefully.

## • Preventative Maintenance Checklist •

The following is a general maintenance checklist which covers the major components of your BAR Ramp. It is recommended that the following be checked regularly as scheduled to ensure proper function and safety of your BAR Series Ramp.

COMPONENT	SUGGESTED ACTION	SCHEDULE		
		Monthly	Quarterly	Bi-Annually
<b>WHEELS</b>	Grease swivel wheels and pillow block bearings.			
<b>STRUCTURAL</b>	General Check: Loose bolts, etc. tightened. Cracks, broken areas.			
<b>TIRES</b>	Inspect for serviceability.			
<b>WALKING SURFACE</b>	General check for adequate traction, No loose rivets in Safeguard panels.			
<b>HYDRAULICS</b>	Check fluid level, check hydraulic hose and fittings for leaks.			
<b>BRAKES</b>	Check for proper function, adjust with turnbuckle as needed			
<b>LOWER BRIDGE</b>	Check side springs, check flip bridge bushings, replace as needed			
<b>SCISSOR LIFT</b>	Lubricate monthly with Lubriplate® 1552 NLGI 2 Grease			
<b>LEVEL DECK TELESCOPIC GATES (WIDE DECK)</b>	Coat with Graphite Dry Film Lubricant as needed			

## • Recommended Lubricants •

Axle Pillow Block Bearings	Lubriplate® 1552 NLGI 2 Grease
Scissor Lift	Lubriplate® 1552 NLGI 2 Grease
Level Deck Telescopic Gates	Graphite Dry Film Lubricant
Hydraulic Pump	Lubriplate® HO-1 Hydraulic Oil
Swivel Wheels	Lubriplate® 1552 NLGI 2 Grease

## • Preventative Maintenance •

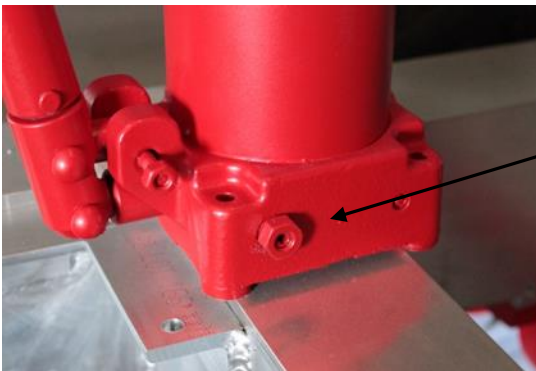
### • Servicing the Hydraulic Pump •

- When servicing the hydraulic pump, the ramp must be fully lowered. Remove the filler plug from the top of the pump and add fluid as needed. The reservoir is considered full when the fluid is within  $\frac{1}{2}$ " of the top of the pump.



Filler Plug

Hydraulic pumps have a pressure regulator that can be adjusted if need be.



1. Using a crescent wrench, loosen the outer regulator nut.
2. While keeping the crescent wrench on the outer regulator nut, insert a  $\frac{5}{32}$ " allen wrench into the inner regulator screw, tighten to increase pressure, loosen to decrease pressure.
3. Tighten outer regulator nut.



## • Preventative Maintenance •

### • *Lubrication Points* •

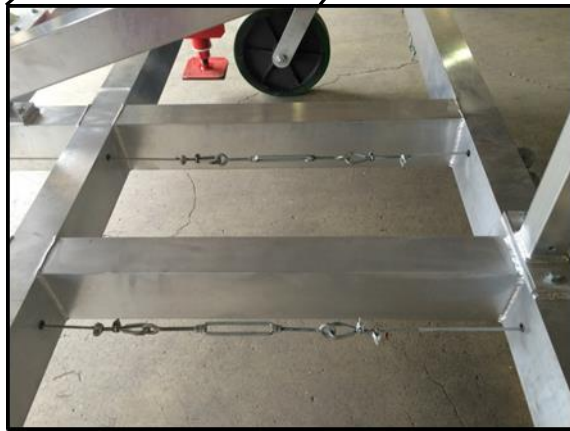


Wheels and bearings should be greased with multi-purpose grease such as Lubriplate® 1552 NLGI 2 Grease

## • Preventative Maintenance •

### • *Adjusting the Brakes* •

1. To adjust the brakes, locate the inline turnbuckles closest to the end of the ramp with the swivel wheels.
2. Loosen the backing nuts on both ends of the turnbuckles, adjust the tension on the cables as needed. Retighten the backing nuts and secure with zip ties to prevent accidental loosening of the backing nuts.



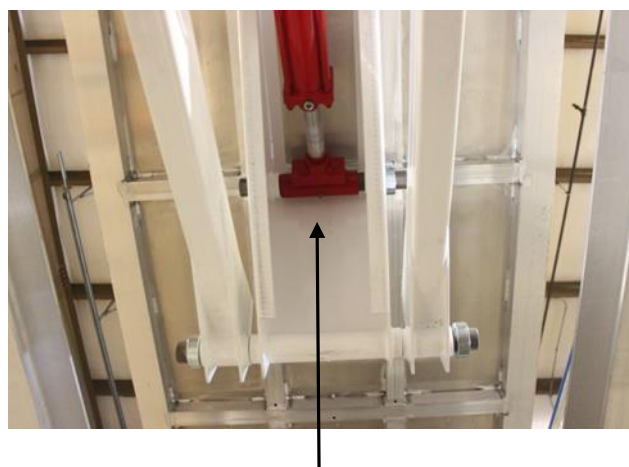
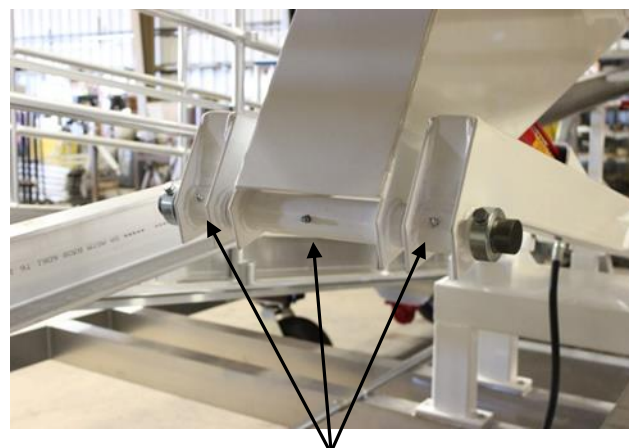
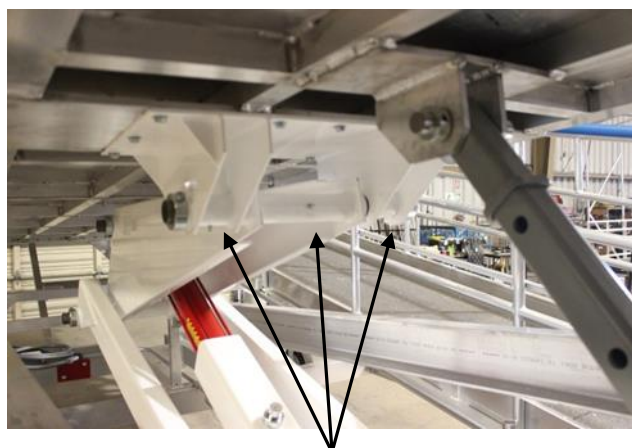
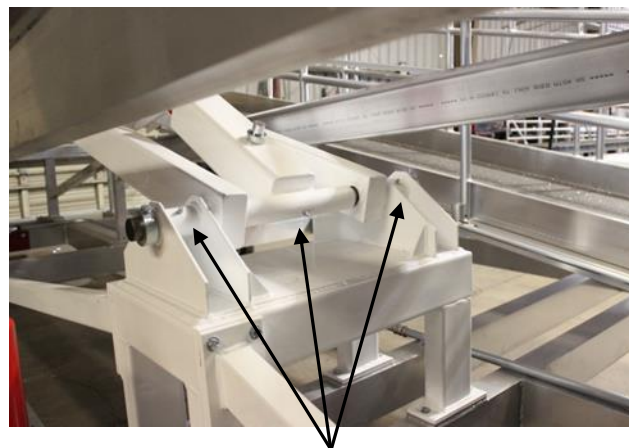


# • Preventative Maintenance •

## • *Scissor Lift Lubrication Points* •



Scissor Lift





## • Preventative Maintenance •

### • *Checking the Lower Bridge* •

1. Inspect the lower bridge for overall serviceability.
2. Check the side springs, replace as needed.



3. Inspect the mounting hardware for the flip bridge section of the lower bridge. Replace bushings if they appear cracked or worn.

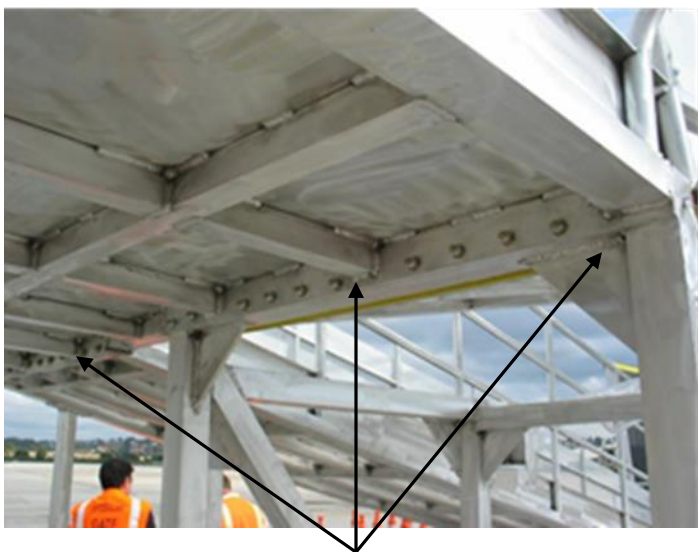
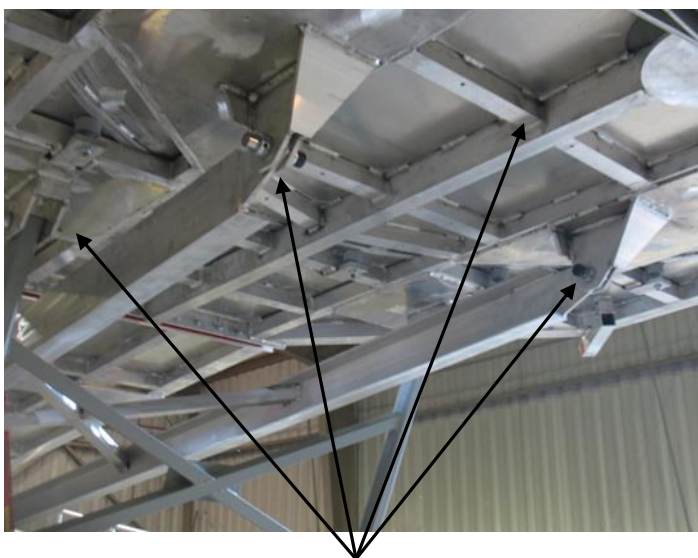


4. Inspect lower bridge support bar, replace if cracked, broken or shows signs of excessive wear.

## • Preventative Maintenance •

### • *Structural Check Points* •

*Check all areas indicated by arrows, these areas should be free from cracks and all hardware should be secure.*

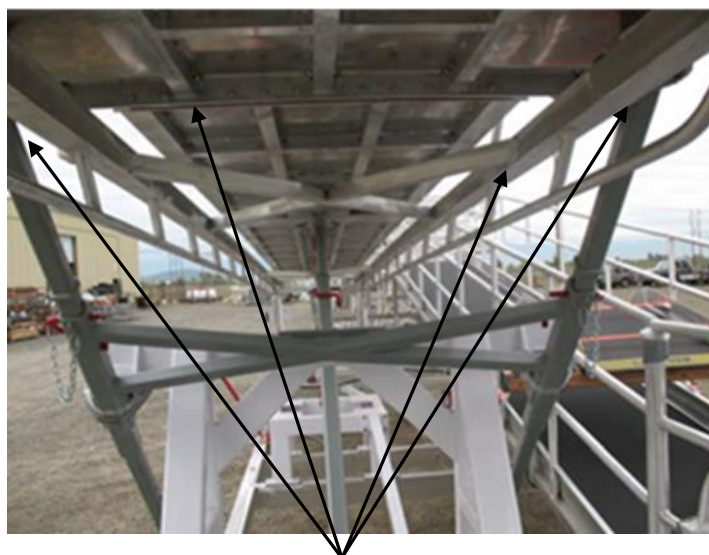




## • Preventative Maintenance •

### • *Structural Check Points* •

*Check all areas indicated by arrows, these areas should be free from cracks and all hardware should be secure.*





## • Preventative Maintenance •

### • Canopy Check •



*Canopy cover should be tight and free from cuts or tears*

## • How to Order Replacement Parts •

When ordering replacement parts:

- Contact the KCI parts dept. at (541) 830-4877 or email [msankey@kci.nu](mailto:msankey@kci.nu)
- Give the Model Number, Serial Number, and Mfg. Date) to the parts representative.
- If possible, give the part number and a description from the parts list. Or describe the needed part(s) to the best of your ability.
- If you are in a breakdown situation, please tell us, we will try to get your unit operational as soon as possible.



### Serial Number

(The ID Plate is located on the frame.)

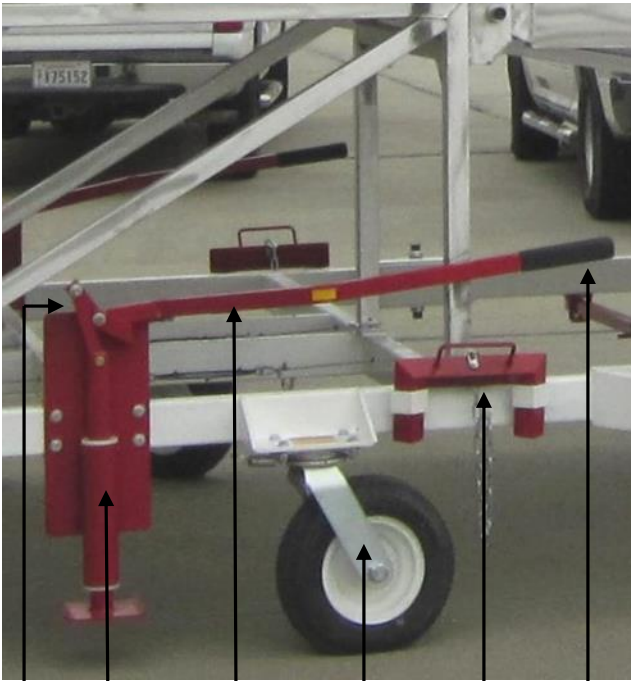


### Mfg. Date

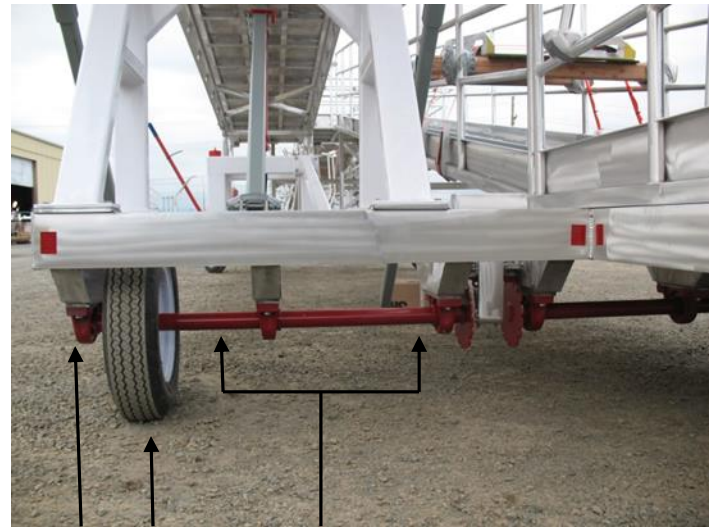
(You may be asked the Mfg. Date of your unit, have it ready if you are asked for it)



## • Parts Breakdown •



1 2, 2A 3, 3A 4 5 6

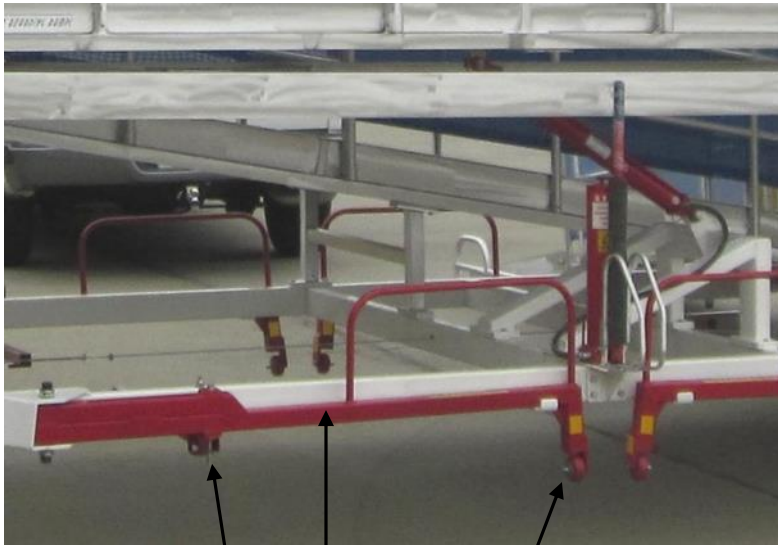


7 8 9

<i>Item</i>	<i>Description</i>	<i>Part Number</i>
1	Manual Stabilizer Linkage Bar	K00003
2	Manual Stabilizer, Steel Frame (Left Side)	K00087
2A	Manual Stabilizer, Steel Frame (Right Side)	K00086
2.1	Manual Stabilizer, Aluminum Frame (Left Side)	K00085
2.1A	Manual Stabilizer, Aluminum Frame (Right Side)	K00084
3	Stabilizer Handle (Left Side)	K00012
3A	Stabilizer Handle (Right Side)	K00011
4	16" Swivel Caster	P00031
5	Wheel Chock	B-WC16
6	Foam Grip Handle Cover	P00024
7	Outer Axle Bearing	P00032A
8	22" Foam Filled Tire	P00096
9	Axle Assembly Complete	B-AX43



## • Parts Breakdown •



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13, 13A

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16, 16A

<i>Item</i>	<i>Description</i>	<i>Part Number</i>
10	Outrigger Support Bar (Aluminum Frame)	K00318
10A	Outrigger Support Bar (Steel Frame)	K00274
11	Outrigger (Aluminum Frame)	B-AOR75
11A	Outrigger (Steel Frame)	B-SOR75
12	Outrigger Wheel, 3" red	P00076
13	Stabilizer Hydraulic hose (Long)	HH102
13A	Stabilizer Hydraulic hose (Short)	HH72
14	Hydraulic Stabilizer Springs	P00179
15	Hydraulic Stabilizer Mounting Bracket	B-HSB
16	Hydraulic Cylinder	P00255
16A	Hydraulic Stabilizer Foot Assy	B-SF

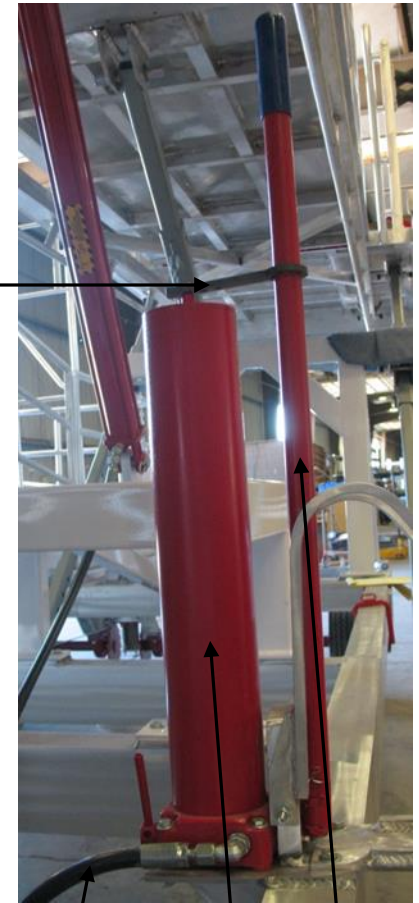
## • Parts Breakdown •



17      18      19



20      21      22



23      24      25

<i>Item</i>	<i>Description</i>	<i>Part Number</i>
17	Pump Guard	B-PG
18	Hydraulic Stabilizer Pump Handle	B-PH18
19	Hydraulic Stabilizer Pump	P00108
20	Brake Release Handle	K00043
21	Brake Handle Spring	P00034
22	Pump Handle Strap	P1869
23	Main Hydraulic hose	HH72
24	Main Hydraulic Pump	P00257
25	Main Hydraulic Pump Handle	B-PH29

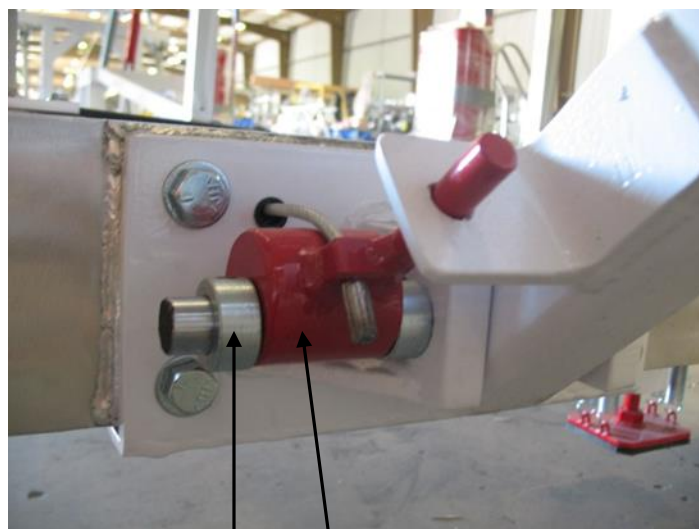
## • Parts Breakdown •



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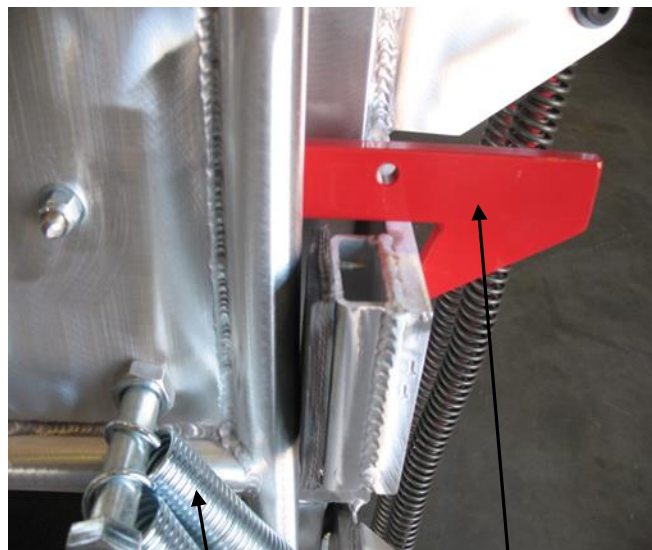
31



<i>Item</i>	<i>Description</i>	<i>Part Number</i>
26	Push Station Handle	B-PSH
27	Tow Bar	K00486
28	White Corner Bumper	P00025
29	¾" Set Collar	P00078-014
30	Tow Bar Brake Cable Cam	K00488
31	Tow Bar Safety Pin and Clip	P00068
32	Brake Plate	WJ-S375-41
33	Brake Plate Springs	P00045



## • Parts Breakdown •



34, 34A

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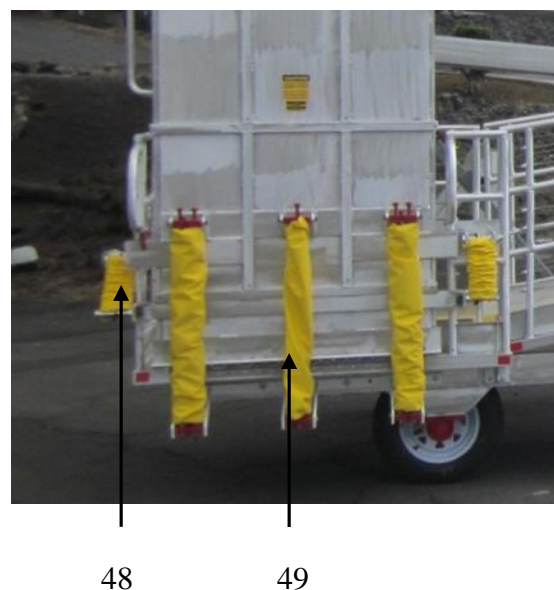
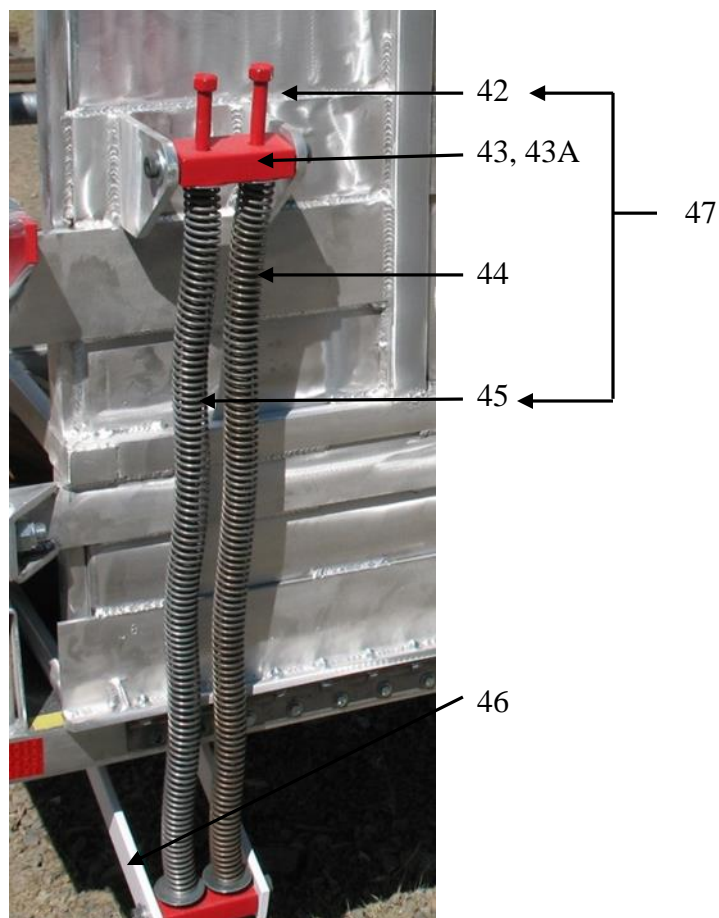
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<i><b>Item</b></i>	<i><b>Description</b></i>	<i><b>Part Number</b></i>
34	Handrail Loop (Left Side)	B-LL-BOL1409-L
34A	Handrail Loop (Right Side)	B-LL-BOL1409-R
35	Lower Bridge	B-LB
36	Lower Bridge Support Bar	B-LBS3608
37	Lower Bridge Folding Handrail	B-LBHR-G4636
38	Flip Bridge	K00485
39	Flip Bridge Handle	B-FBH
40	Lower Bridge Side Springs	P00179
41	Lower Bridge Safety Latch	WJ-S375-6

## • Parts Breakdown •



<i>Item</i>	<i>Description</i>	<i>Part Number</i>
42	Spring Rod	K00357
43	Spring Block (Double Rod)	K00356
43A	Spring Block (Single)	K00355
44	Outer Spring	P00123
45	Inner Spring	P00124
46	Spring Block Frame Mount	B-LSH2
47	Lower Bridge Spring Assembly	B-SK2
48	Lower Bridge Side Spring Sock	B-SS22
49	Lower Bridge Main Spring Sock	B-SS36

## • Parts Breakdown •

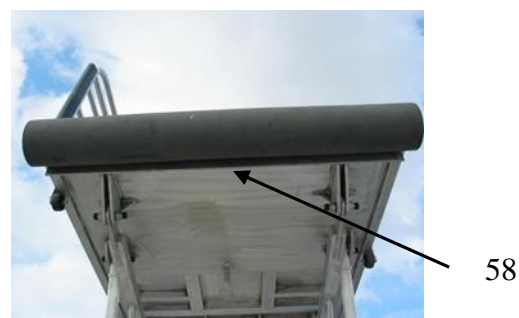
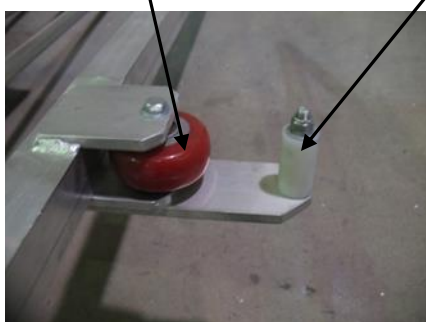
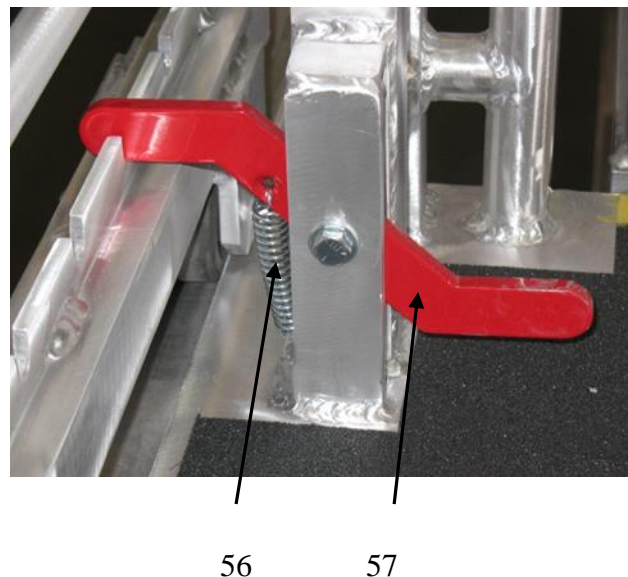
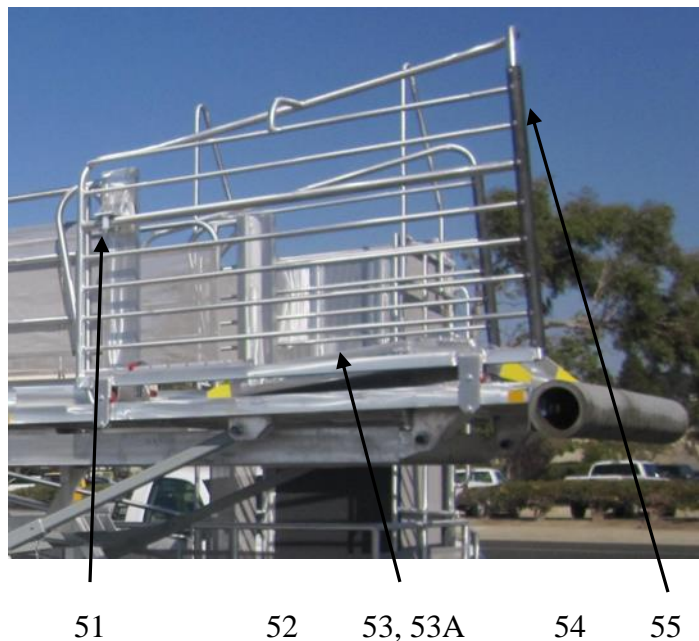


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<i>Item</i>	<i>Description</i>	<i>Part Number</i>
50	Hydraulic Lift Cylinder	P00178



## • Parts Breakdown •

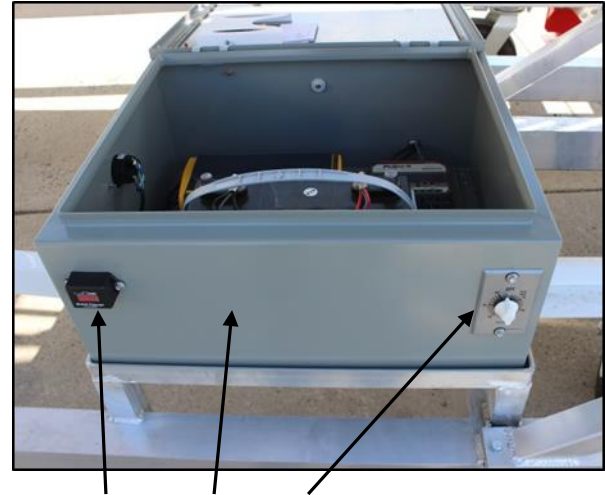


<i>Item</i>	<i>Description</i>	<i>Part Number</i>
51	Sliding Gate Tower Roller	K00029
52	Sliding Gate Wheel, 3" red	P00076
53	Sliding Gate (Right Side)	B-LD-HRS-R
53A	Sliding Gate (Left Side)	B-LD-HRS-L
54	Sliding Gate Bottom Roller	K00029
55	Sliding Gate Rubber Bumper	P00175
56	Sliding Gate Foot Latch Spring	P00023
57	Sliding Gate Foot Latch	WJ-S375-12
58	Gray Bumper	P00140

## • Parts Breakdown •



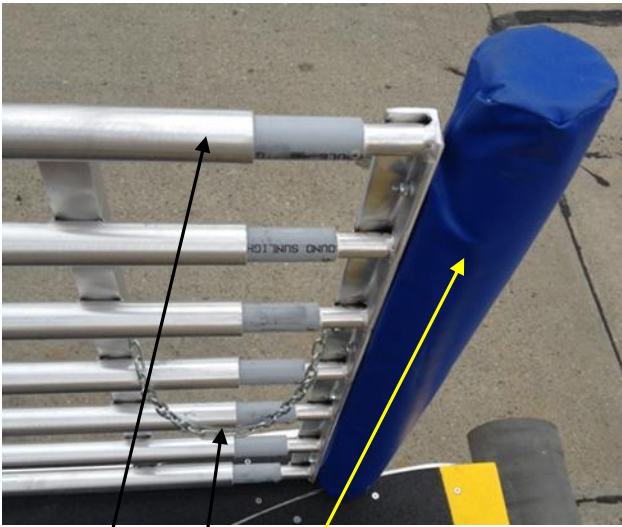
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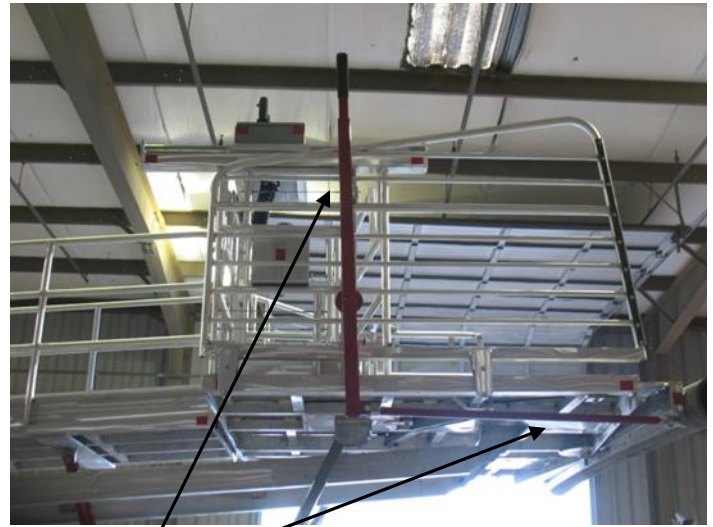
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<i>Item</i>	<i>Description</i>	<i>Part Number</i>
59	Flanged Power Inlet	P00333
60	Battery Charger	P00312
61	Battery	P00277
62	Solar Charger Control	P00338
63	Battery Charge Indicator	P00156
64	Locking Enclosure Box	P00341
65	Timer Switch	P00362
66	Solar Panel (Not Pictured)	P00337
67	Solar Panel Frame (Not Pictured)	K00824
68	Solar Panel Support Arm (Not Pictured)	SPA0047

## • Parts Breakdown •



69 70 71



72 73

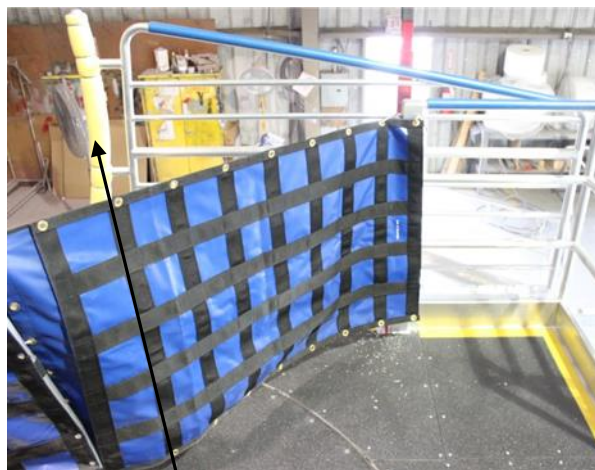


74

<i>Item</i>	<i>Description</i>	<i>Part Number</i>
69	Telescopic Gate	K00668
70	Stop Chain, Telescopic Gate	P00180
71	Blue Gate Bumper	K00769
72	Level Deck Pivot Lever	K00657
73	Linkage Arm	K00658
74	Lower Ramp Swivel Wheel	P00181



## • Parts Breakdown •

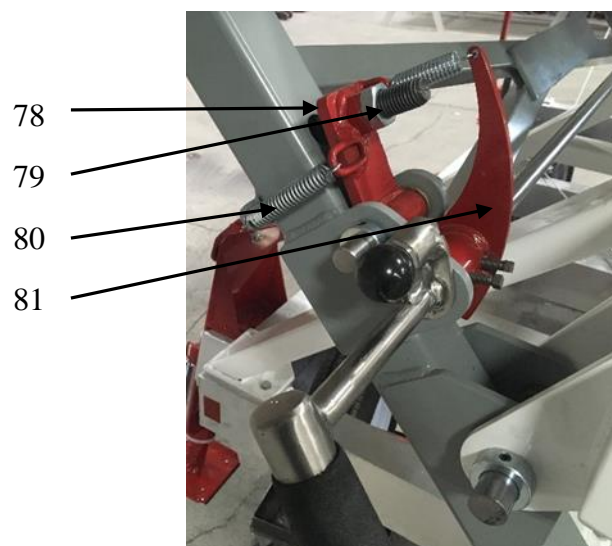


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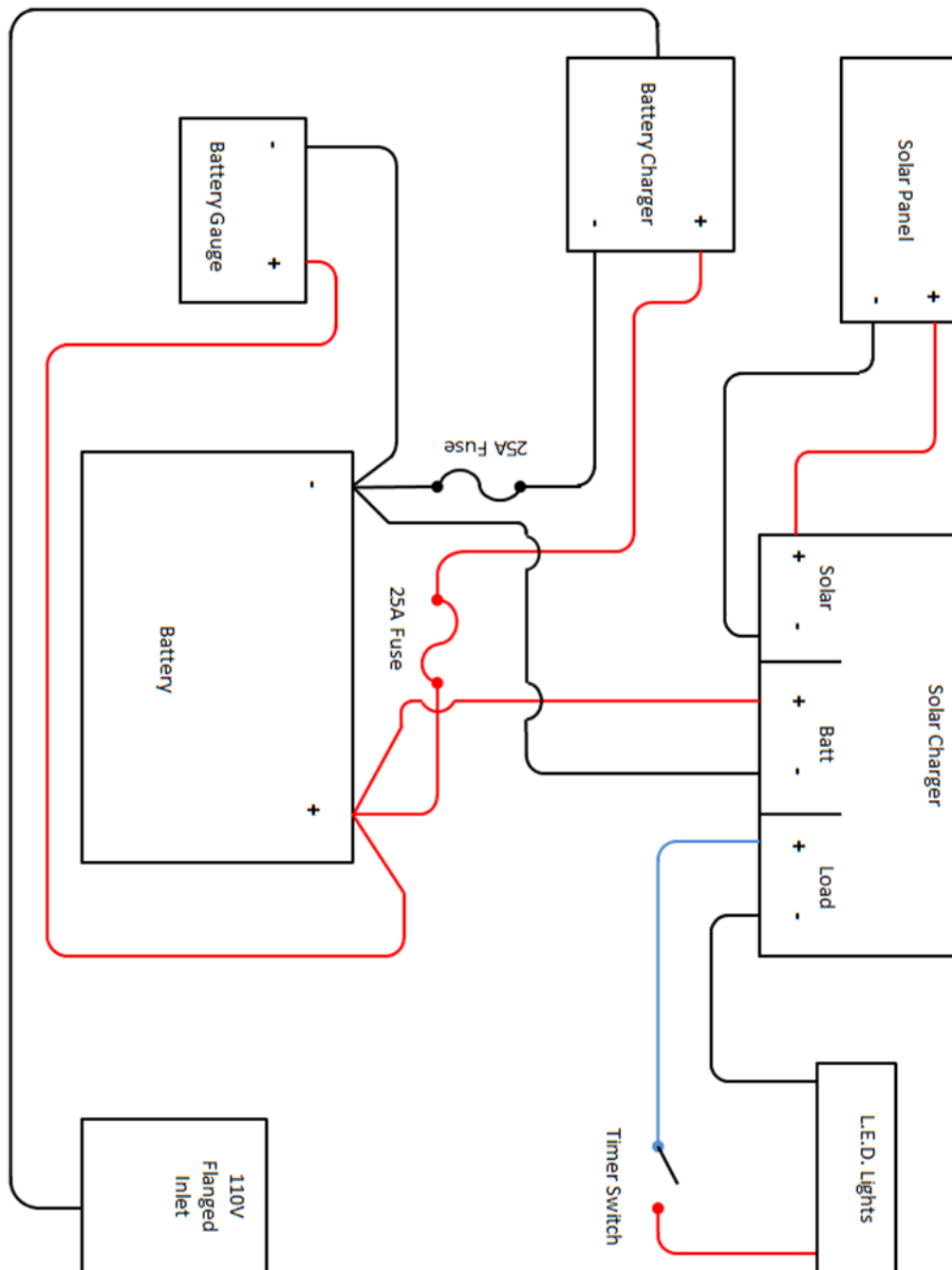
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<i>Item</i>	<i>Description</i>	<i>Part Number</i>
75	Yellow Safety Foam	P00115
76	Snap Clip, Turndeck Gate	98416A120
77	Telescopic Turndeck Gate	TDG001-DAQ
78	Locking Plate	K01029
79	Elevation Locking Pin	P00418
80	Spring, Elevation Lock	P00023
81	Disengagement Arm	K01033

- Electrical Schematic •



## • Warranty •

This warranty is in lieu of all other warranties, either expressed or implied.

### **What is Covered:**

This warranty covers equipment manufactured by KCI, Inc. from any defects in materials, workmanship and/or installations performed.

### **Period of Coverage:**

This warranty lasts for a period of two years, electrical component coverage is for one year from the date the product ships, or until the original ownership of the ramp is transferred to another party, whichever comes first. Any repairs or modifications without the express written consent of KCI, Inc. will be grounds to immediately void all or part of this warranty.

### **What is Not Covered:**

This warranty does not cover the following:

1. Accidental damage.
2. Misuse or abuse.
3. Damage caused by adverse weather, disasters, or other forces of nature.
4. Worn out adhesive skid walk.
5. Worn out tires/wheels.
6. Worn out/faded canvas canopies.
7. Any other wear or damage caused by the ramp's general use.
8. Any consequential or incidental damages to include:
  - a. Any loss of profit.
  - b. Loss by reason of airport or flight line shutdown.
  - c. Non-operation or increased expense of operation.
  - d. Loss of passengers or business.

### **What KCI Will Do:**

Repair or replace any original part, component or piece of equipment that is found to have defects from time of shipment through the end of the period of coverage.

### **How to Make a Service Claim:**

Provide a claim in writing within the period of coverage to the address listed below or email to [msankey@kci.nu](mailto:msankey@kci.nu). We will then determine if the problem is a defect with the product. Once the nature of the problem is ascertained, we will notify the buyer of our planned resolution. This may include an on-site visit by KCI, Inc. for repairs, or that the buyer ships the defective part or component to us for inspection and replacement at KCI's expense.

KCI GSE Inc.  
1718 Antelope Road  
White City, Oregon 97503