

# Q-Series Passenger Boarding Stairs Operations & Parts Manual

Maintenance Schedule



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## • Overview •



The QS-L2-4558 (Q-Stair) is designed to accommodate passenger boarding at the L2 door of the aircraft. The Q-Stair is lightweight and easily maneuvered and deployed by one individual in less than 1 minute. The Q-Stair is designed with functionality and safety in mind, with its angled platform and folding gate, deployment of the Q-Stair is seamless.

The Q-Stair is equipped with a roll away stantion and retractable ribbon reel, that when used in conjunction with the QS-L1-3306 Q-step, forms an overall Q-400 system. This system allows the under wing area to be cordoned off, directing the passengers around this area and as a result, improving the overall safety of the passengers and security of the aircraft.

## • Operations •

### •Deployment•

Pull the brake arm towards the base of the stair until it is securely latched. This will allow the Q-Stair to be on all four wheels.  
Push the Q-Stair up to the aircraft L-2 door



When in position depress the brake arm latch and move the brake arm to the forward position, this will allow for the Q-Stair to rest on the rubber feet thereby becoming stationary.



## • Operations •

### •Deployment Cont.•

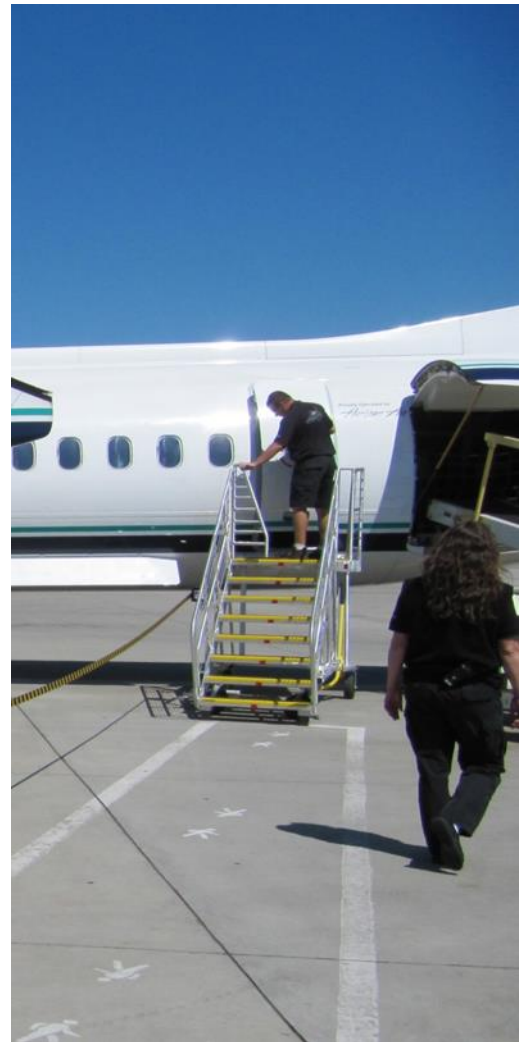
Once in position, remove the retractable ribbon reel station and position at the wingtip so as to cordon off the under wing area of the aircraft, see illustration below.



## • Operations •

### •Deployment Cont.•

Once the under wing area has been cordoned off, the L-2 cabin door may be opened. From the level deck of the Q-Stair, lift up on and fold back the level deck gate, this will provide for adequate clearance to open the cabin door. Once the cabin door is fully open, close the level deck gate and begin the boarding/deplaning process.



As seen in the illustration to the left when the Q-Stair is used in conjunction with the Q-Step, forms the overall Q system, safe, seamless, secure.



## • Operations •

### • *Optional Solar LED Lighting* •

The Q-400 passenger stairs are available with optional solar powered LED lights.

Simply turn the timer switch and the lights will remain on for the selected amount of time.



Timer Switch




Solar Panel

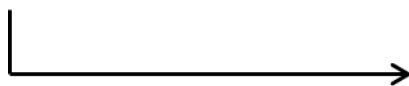
## • Operations •

### • *Loading the Wheelchair* •

Prior to loading any wheelchair, verify it has been placed in neutral.


1. Standing behind the wheelchair, firmly push it up the ramp. 



1. Continue up the ramp until the wheelchair is completely within the barge and is centered for proper use of the restraint belt. 



**Caution should be exercised during loading of the Wheelchair as it will be in neutral. Maintain a secure grasp and firm footing until barge ramp is in the up and locked position.**

2. While holding the yellow safety latch up, lift the transition ramp to its upright position. Lower the yellow safety latch to secure the transition ramp. 





## • Warnings and Restrictions •



1. Only trained and authorized personnel should deploy the Q-Stair for passenger use.
2. Under no circumstances should the Q-Stair be positioned with any person on it.
3. The Q-Stair should be inspected before each use to assure a clean and unobstructed pathway.
4. The swivel wheels must always be disengaged prior to passenger use.
5. Qualified airport/airline personnel should always be present when the Q-Stair is in use.
6. Water, ice, snow or any other natural or foreign substance should not be allowed to accumulate on the Q-Stair.
7. It is the responsibility of the operating staff to ensure that the aircraft is not damaged when using the Q-Stair.
8. The Q-Stair is to be maneuvered from the end with the castor wheels; this end will be furthest from the aircraft when in place.

## • Preventative Maintenance Checklist •

The following is a general maintenance checklist which covers the major components of your Q-400 Passenger Stair. It is recommended that the following be checked regularly as scheduled to ensure proper function, and the longevity, and safety of your Q-Stair Boarding System.

COMPONENT	SUGGESTED ACTION	SCHEDULE		
		Monthly	Quarterly	Bi-Annually
<b>WHEELS</b>	Grease wheels			
<b>STRUCTURAL</b>	General Check: Loose bolts, etc. tightened. Cracks, broken areas.			
<b>HANDRAILS</b>	General Check: cracks			
<b>WALKING SURFACES</b>	General Check: Anti slip panels are secure, loose rivets			

## • How to Order Replacement Parts •

**Please have model number and serial number available when ordering 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 •



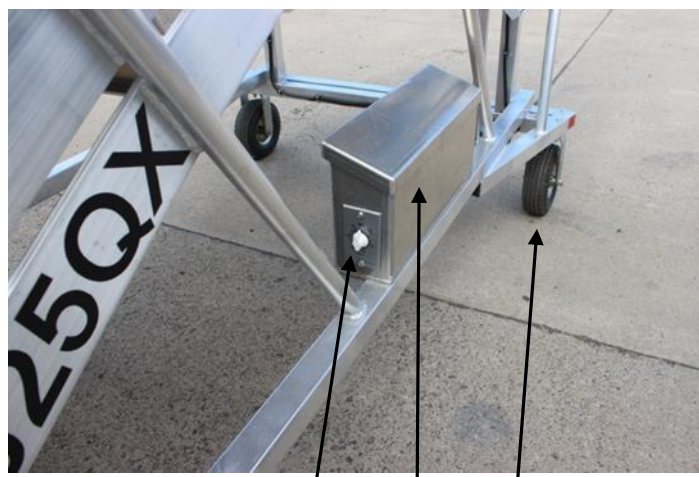
<i>Item</i>	<i>Description</i>	<i>Part Number</i>
1	Rubber Foot	P00070
2	Swivel Wheel Assembly	P00134
3	Brake Bar Latch Spring	P00045
4	Brake Bar Latch	K00171
5	Brake Bar	K00376
6	Foam Handle Grip	P00024



## • Parts Breakdown •



7



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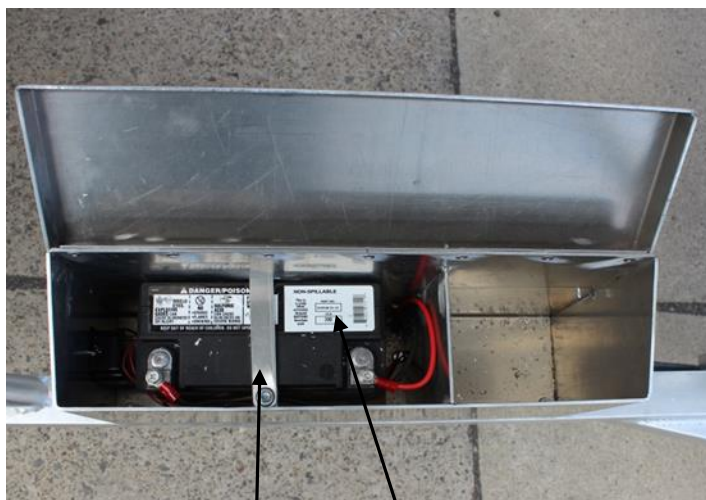
11



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<i>Item</i>	<i>Description</i>	<i>Part Number</i>
7	LED Light Strip	STQ4-03
8	Timer Switch	TIM60
9	Battery Enclosure	STQ4-01
10	Rigid Wheel	P00212
11	Solar Controller	SCC66F
12	Solar Panel	SP1411

## • Parts Breakdown •



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<i>Item</i>	<i>Description</i>	<i>Part Number</i>
13	Battery Keeper	BAT-HD
14	Battery	BATV12SM
15	Stantion	K00379
16	Level Deck Gate	STQ-02
17	Yellow Foam, Gate	P00115
18	Yellow Foam, Handrail	P00115
19	White Corner Bumper	P00132

## • Parts Breakdown •

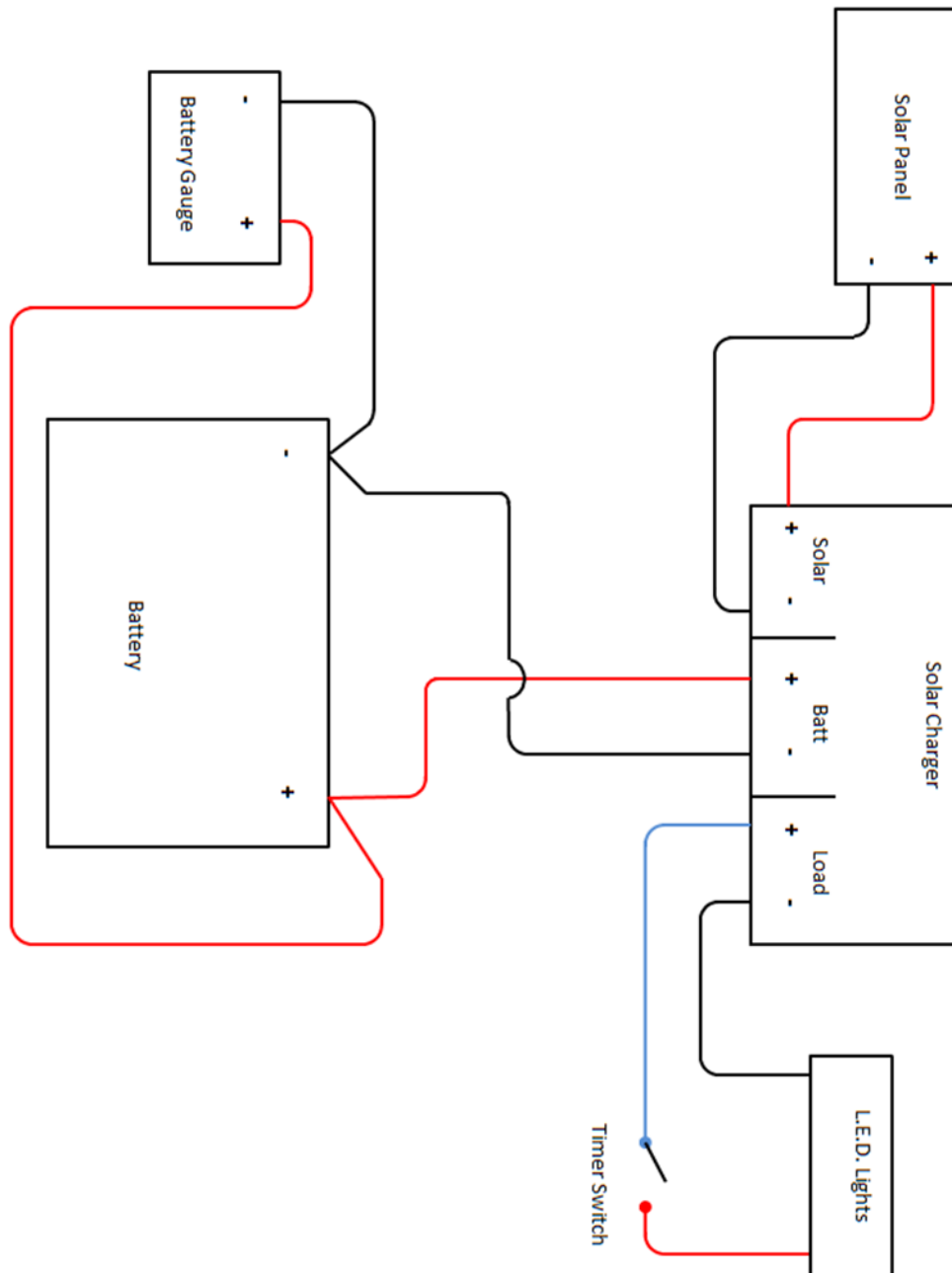
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<i>Item</i>	<i>Description</i>	<i>Part Number</i>
20	Retractable Reel	P00217



- 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 equipment'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.

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