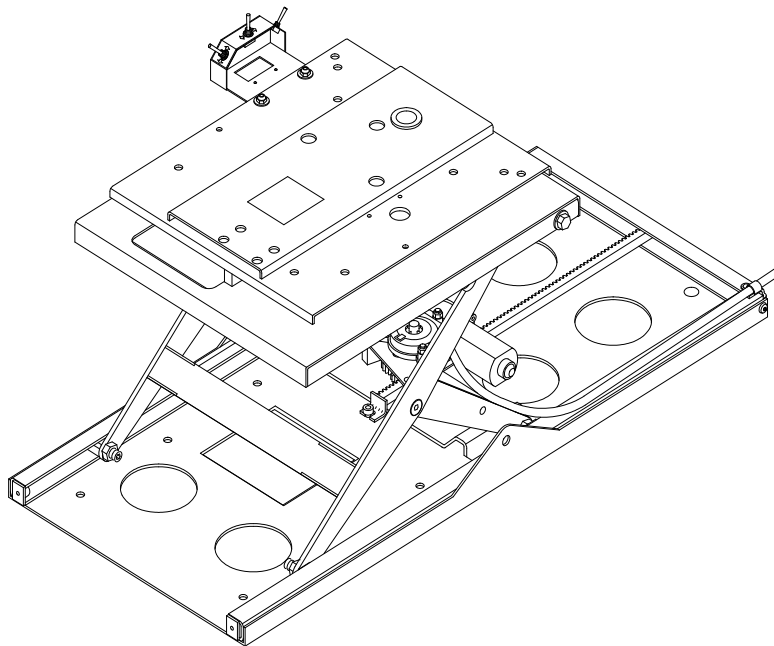




**Ricon**<sup>®</sup>

**A Wabtec subsidiary**

**R1209**  
**Six-Way<sup>™</sup> Power Seat Base**



[PRINT](#)

**Service Manual**

**This Ricon service manual is for use by qualified service technicians, and is not intended for use by non-professionals (do-it-yourselfers). The manual provides essential instructions and reference information, which supports qualified technicians in the correct installation and maintenance of Ricon products.**

**Qualified service technicians have the training and knowledge to perform maintenance work properly and safely. For the location of a Ricon dealer or qualified service technician in your area, call Ricon Product Support at 1-800-322-2884.**

Customer Name: \_\_\_\_\_  
Installing Dealer: \_\_\_\_\_  
Date Installed: \_\_\_\_\_  
Serial Number: \_\_\_\_\_

## Revision Record

REV	PAGES	DESCRIPTION OF CHANGE	ECR/ECO
32DSB04. B.2	Cover	Dates and Logo.	6663
	1-1	Update to company addresses.	
	3-1	Update to dealer and qualified service technician verbiage.	
	4-4	Update to item 41 (Superseded).	
	4-5	Update to item 85-1 (Superseded).	
	4-5	Update to item 85-2 (Superseded).	

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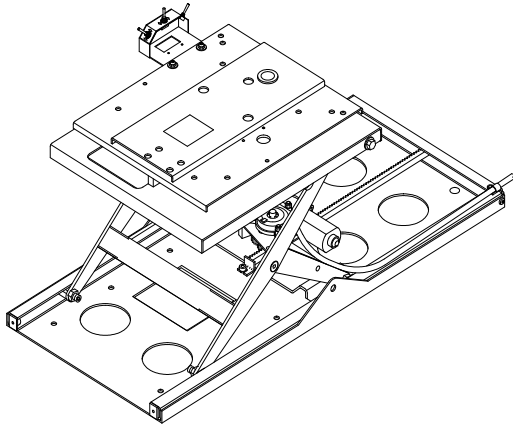
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## I. INTRODUCTION

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The RICON R1209 Six-Way® Power Seat Base facilitates the transfer from a wheelchair to an interior vehicle seat, and vice versa. The seat base provides 13.5" (34.3 centimeters) of front-to-rear travel, 9.0"(22.9 centimeters) of up and down travel, plus 90° of right swivel and 82° of left swivel. The original seat installs on the seat base. It uses a scissors-arm lifting mechanism with a capacity of 300 pounds (136 kilograms).



The R1209 Power Seat Base can be installed below either the driver or passenger seats, and is designed to provide adequate clearance to the airbag (SRS) control module, if present (located on the floor beneath the seats). Three fingertip control switches are used to control the motion of each seat.

This manual contains installation, service and maintenance instructions for the Power Seat Base. The installation instructions must be followed exactly, with no steps eliminated. It is equally important that the product not be modified in any way. Once the Power Seat Base is installed, it is important that it be properly maintained by following the Ricon recommended cleaning, lubrication, and inspection instructions.

If there are questions about this manual, or additional copies are needed, please contact Ricon Product Support at one of the following locations:

**Ricon Corporation**  
1135 Aviation Place  
San Fernando, CA 91340 ..... (818) 267-3000  
Outside (818) Area Code ..... (800) 322-2884  
World Wide Website..... [www.riconcorp.com](http://www.riconcorp.com)

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**Vapor Ricon Europe Ltd.**  
Meadow Lane  
Loughborough, Leicestershire ..... 0044 (9) 1509 635 920  
LE 1HS United Kingdom  
Website..... [www.riconuk.com](http://www.riconuk.com)

## A. RICON ONE-YEAR LIMITED WARRANTY

### RICON CORPORATION ONE-YEAR LIMITED WARRANTY

**Ricon Corporation (Ricon)** warrants to original purchaser of this product that Ricon will repair or replace, at its option, any parts that fail by reason of defective material or workmanship as follows:

- Repair or replace parts for a period of one year from date of purchase. A complete list of parts covered by this warranty can be obtained from an authorized Ricon dealer.

**If You Need to Return a Product:** Return this Ricon product to your installing dealer. Please give as much advance notice as possible, and allow a reasonable amount of time for repairs.

**If You are Traveling:** All Ricon dealers honor this warranty. Consult telephone directory or call our Product Support department for the name of the nearest Ricon dealer or qualified service technician.

**This Warranty does not Cover:**

- Labor or service charges (these may be covered separately by the installing dealer).
- Malfunction or damage to product parts caused by accident, misuse, lack of proper maintenance, neglect, improper adjustment, modification, alteration, the mechanical condition of vehicle, road hazards, overloading, failure to follow operating instructions, or acts of Nature (i.e., weather, lightning, flood).

**Note:** Ricon recommends that this product be inspected by a Ricon dealer or qualified service technician at least once every six months, or sooner if necessary. Any required maintenance should be performed at that time.



#### **WARNING!**

**THIS PRODUCT HAS BEEN DESIGNED AND MANUFACTURED TO EXACT SPECIFICATIONS.  
MODIFICATION OF THIS PRODUCT IN ANY RESPECT CAN BE DANGEROUS**

**This Warranty is Void if:**

- The product has been installed or maintained by someone other than a Ricon dealer or qualified service technician.
- The product has been modified or altered in any respect from its original design without written authorization by Ricon.

***Ricon disclaims liability for any personal injury or property damage that results from operation of a Ricon product that has been modified from the original Ricon design. No person or company is authorized to change the design of this Ricon product without written authorization by Ricon.***

***Ricon's obligation under this warranty is exclusively limited to the repair or exchange of parts that fail within the applicable warranty period.***

***Ricon assumes no responsibility for expenses or damages, including incidental or consequential damages. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply.***

***Important: The warranty registration card must be completed and returned to Ricon within 20 days after installation of this Ricon product for the warranty to be valid. The warranty is not transferable.***

***The warranty gives specific legal rights, and there may be other rights that vary from state to state.***

## B. SHIPMENT INFORMATION

Because of the specialized nature of the product, Ricon does not sell directly to the user. Instead, the product is distributed through the worldwide network of authorized Ricon dealers, who perform sales and installation.

- When the product is received, check the **Shock Indicator** on shipping box, unpack the product and check for freight damage. Claims for any damage should be made to the freight carrier immediately.
- Be sure the installation kit contains all items listed on the kit packing list. Please report any missing items immediately to Ricon Product Support. The warranty and owner registration cards must be completed and returned to Ricon within 20 days to validate the warranty.

**NOTE:** The Sales/Service Personnel must review the Warranty and this Service Manual with the user to be certain that they understand the safe operation of the product. Instruct the user to follow the operating instructions without exception.

## C. GENERAL SAFETY PRECAUTIONS

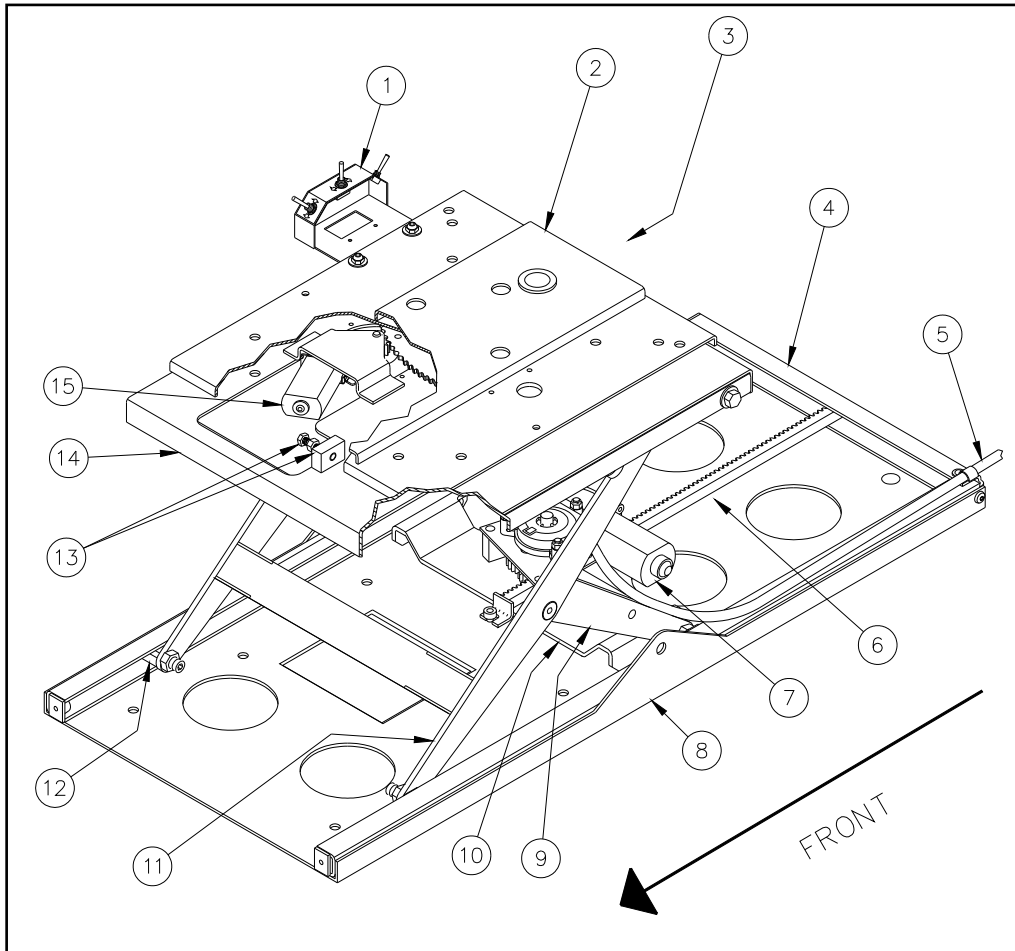
The following general safety precautions must be followed during installation, operation, service, and maintenance:

- Under no circumstances should installation, maintenance, repair, and adjustments be attempted without the immediate presence of a person capable of rendering aid.
- An injury, no matter how slight, must be attended to. Administer first aid or seek medical attention immediately.
- Protective eyeshields and appropriate clothing should be worn at all times.
- To avoid injury, exercise caution when operating and be certain that hands, feet, legs, and clothing are clear of the seatbase.
- Batteries contain acid that can burn. If acid comes in contact with skin, flush affected area with water and wash with soap immediately.
- Work in a properly ventilated area. Do not smoke or use an open flame near a battery.
- Do not lay anything metallic on top of battery.
- Check under vehicle to avoid drilling into frame, subframe members, wiring, hydraulic lines, fuel lines, fuel tank, etc.
- Read and thoroughly understand the operating instructions before attempting to operate.
- Inspect the product before each use. If an unsafe condition, unusual noises or movements exist, do not use seatbase until the problem is corrected.
- Keep others clear during operation.
- The product requires regular periodic maintenance. The product should be maintained at the highest level of performance.



## D. MAJOR SEAT BASE COMPONENTS

Component references used throughout this manual are illustrated in **Figure 1-1** and defined in **Table 1-1**. Refer to **Chapter IV** for more details. The illustration below represents an installation on the driver side.



**FIGURE 1-1: R1209 SIX-WAY POWER SEAT BASE**

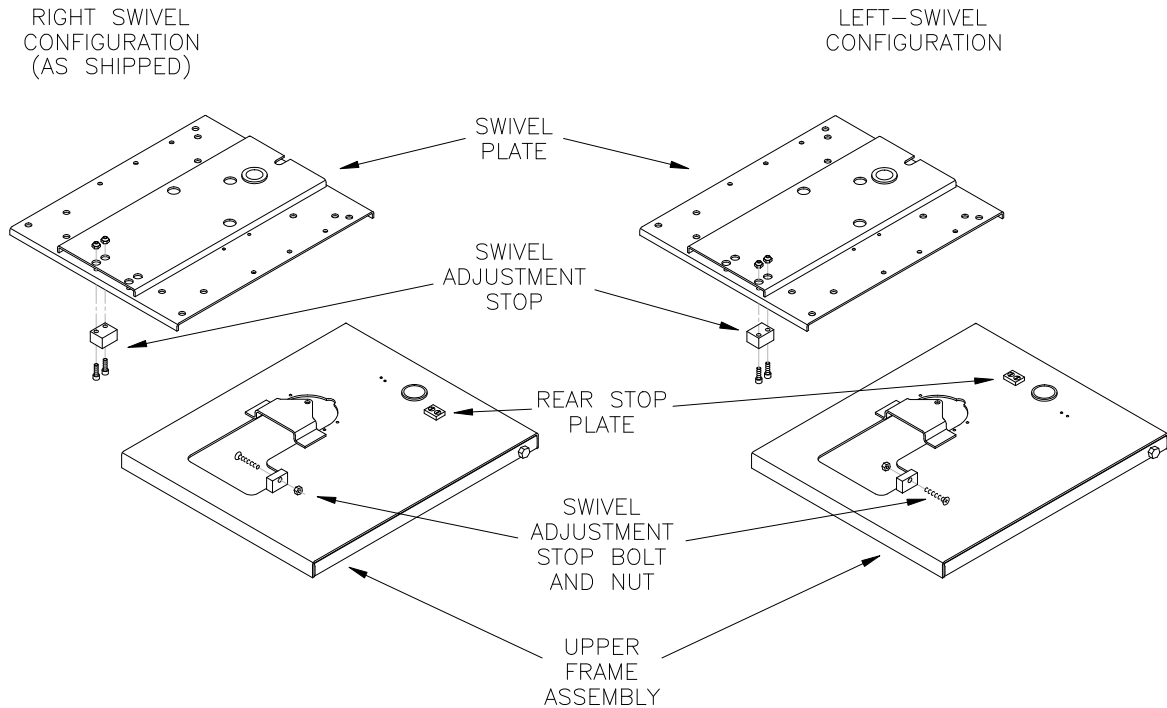
<b>TABLE 1-1: MAJOR POWER SEAT BASE COMPONENTS</b>	
<b>REF</b>	<b>DESCRIPTION</b>
1	Control box (mounts control toggle switches)
2	Swivel plate
3 *	Scissor actuator motor assembly (located beneath upper frame assy)
4	Rear frame channel
5	Power seat base electrical harness
6	Rack gear assembly
7	Horizontal motor (forward & reverse)
8	Base frame
9	Inner scissor assembly
10	Horizontal drive plate
11	Outer scissor assembly
12	Slide bearing
13	Swivel adjustment stop (with screw & locknut)
14	Upper frame assembly
15	Swivel motor
* Item not shown.	
<b>END OF TABLE</b>	

## II. INSTALLATION INSTRUCTIONS

### A. LEFT-SWIVEL CONVERSION

The Power Seat Base is shipped in the configuration that would be installed on the driver side. To convert it to swivel to the left (for use on the right-side of the vehicle), follow this procedure:

1. Temporarily connect a 12VDC power source to the Power Seat Base; positive to harness RED wire and negative to GREEN wire.
2. At Control Box, use "Swivel In/Out" toggle switch to rotate swivel plate out 2 - 3°.
3. Disconnect power source from Power Seat Base.
4. Refer to **Figure 2-1**. At underside of swivel plate, remove and reposition swivel adjustment stop, rear stop plate, and swivel adjustment stop bolt and nut as shown.



**FIGURE 2-1: SWIVEL PLATE CONVERSION**

5. Temporarily reconnect 12VDC power source to Power Seat Base (positive to RED and negative to GREEN) and verify that swivel plate stops face-forward when rotated IN.

**NOTE:** To adjust the face-forward position, use the "Swivel In/Out" toggle switch to rotate swivel plate out 2 - 3°, loosen swivel adjustment stop bolt as needed, tighten locknut, and then rotate swivel plate IN.) Disconnect power source from Power Seat Base.

6. At underside of swivel plate, remove and retain bolts anchoring control box assembly. Relocate wiring harness and install control box assembly on right side of Power Seat Base.

## B. MECHANICAL INSTALLATION

To install the Power Seat Base, refer to the following sections and perform the procedures carefully and in the order that they are presented. Be certain that the installation instructions are followed exactly and do not eliminate any steps or modify the product. If any questions arise that are not covered in this section, contact Ricon Product Support for assistance.

### 1. VEHICLE PREPARATION

- a. Safely park vehicle on a flat, level surface and turn engine off.
- b. Disconnect seat belt wiring. Remove and retain seat belt (plus shoulder harness, if present) and mounting hardware.
- c. Remove and retain locknuts that attach seat to factory seatbase. Remove seat from vehicle.
- d. Remove and retain locknuts and/or screws that attach factory seatbase to floor. Remove factory seatbase from vehicle.
- e. Clear vehicle floor of all loose material, high-plush carpet strands, etc. that may interfere with installation or operation of the Power Seat Base.
- f. Refer to the installation instructions provided with the R1209 Power Seat Base for instructions pertaining to your particular vehicle.



#### WARNING!

**VERIFY THAT THE SEATBASE TRAVELING FRAME, AFTER INSTALLATION, HAS A MINIMUM CLEARANCE OF .120" (1/8") BETWEEN IT AND THE AIRBAG CONTROL MODULE. THE AIRBAG CONTROL MODULE COULD INADVERTENTLY DEPLOY THE AIRBAGS IF STRUCK BY THE TRAVELING FRAME.**



#### WARNING!

**THE BASE FRAME MAKES USE OF SIX MOUNTING SCREWS, ONLY. ADDITIONAL SCREWS INSTALLED IN NON-SPECIFIED LOCATIONS MAY ACT AS SEAT POSITION STOPS, WHICH COULD RESULT IN MOTOR FAILURE DURING UP/DOWN MOTION. THE PROPER DRIVING POSITION OF THE POWER SEAT BASE IS THE LOWEST AND FORWARD-MOST POSITION.**



#### CAUTION!

Check vehicle before drilling. Do not drill into factory wiring, hydraulic lines, fuel lines, fuel tank, etc.

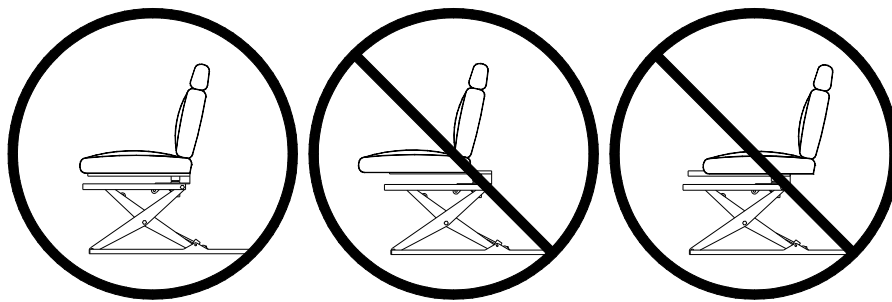
To prepare the vehicle for installation of the Power Seat Base, perform this procedure:

- a. Safely park vehicle on a flat, level surface and turn engine off.
- b. Disconnect seat belt wiring. Remove and retain seat belt (shoulder harness if necessary) and mounting hardware.
- c. Remove and retain locknuts that attach seat to factory base. Remove seat from vehicle.
- d. Remove and retain locknuts and/or bolts that attach factory seat base to vehicle floor. Remove factory seat base from vehicle.
- e. Clear vehicle floor of all loose material, high-plush carpet strands, etc. which may interfere with installation and/or operation of the Power Seat Base.

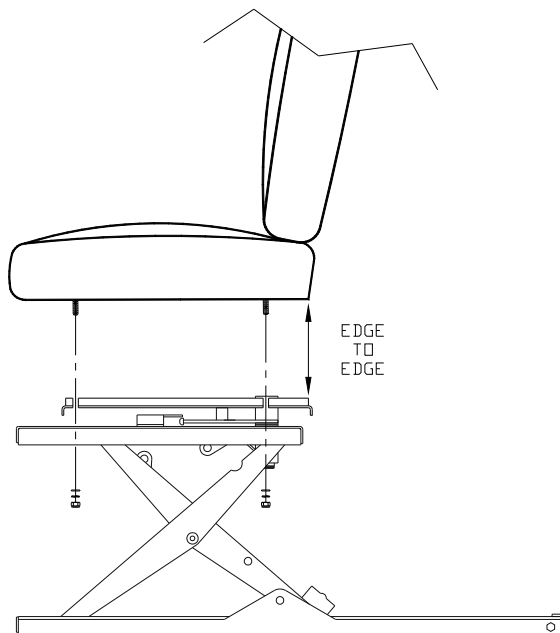
### 2. ATTACH FACTORY SEAT AND BASE TO POWER SEAT BASE

To attach the factory seat and base to the Power Seat Base, follow this procedure:

- a. Position factory seat base onto Power Seat Base Swivel Plate. Factory seat base must be centered on Swivel Plate with equal front and rear overhang. Use factory hardware to attach seat base to Swivel Plate.
- b. Refer to **Figures 2-2** and **2-3**. Position factory seat onto factory seat base. Rear-edge of seat must be **EVEN** with rear-edge of Swivel Plate. Use factory hardware to attach seat to factory seat base.



**FIGURE 2-2: PROPER SEAT ATTACHMENT POSITION**

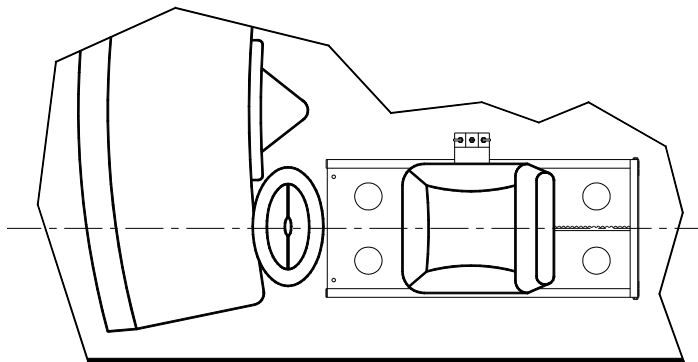


**FIGURE 2-3: SEAT ATTACHMENT**

**3. POWER SEAT BASE POSITIONING AND INSTALLATION**

To position and install the Power Seat Base, follow this procedure:

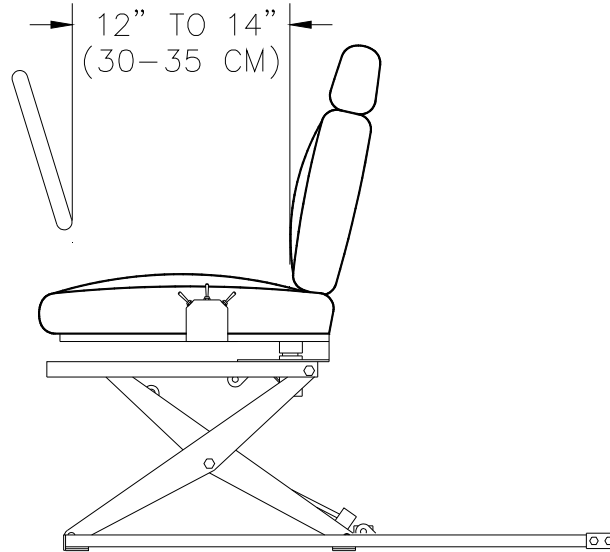
- a. At Power Seat Base Frame, remove and retain six mounting bolts.
- b. Refer to **Figure 2-4**. Position Power Seat Base at mid-position of factory seat base location (centered on steering wheel and square/parallel to vehicle wall.)



**FIGURE 2-4: POWER SEAT BASE POSITION**

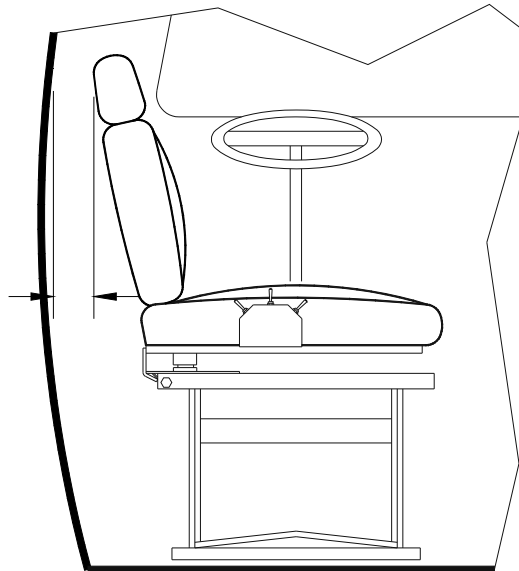
- c. Temporarily connect 12VDC power source to the Power Seat Base, battery positive terminal to Harness RED wire and battery negative terminal to GREEN wire.
- d. Using "Up/Down" toggle switch, move seat DOWN to lowest position.
- e. Using "Forward/Reverse" toggle switch, move seat to most FORWARD position.

- f. Refer to **Figure 2-5**. If applicable, adjust vehicle tilt-steering wheel to straight (not tilted up or down) driving position. Measure distance from bottom of steering wheel to lower-front edge of seat-back. Position Power Seat Base so distance is equal to 12 - 14 inches (30 - 35 cm).



**FIGURE 2-5: WHEEL-TO-SEAT CLEARANCE**

- g. Ensure that Power Seat Base is still square/parallel with vehicle wall and mark position with tape or chalk.
- h. Using "Forward/Reverse" toggle switch, move seat to most REARWARD position.
- i. Using "Swivel In/Out" toggle switch, swivel seat to OUT position.
- j. Using "Up/Down" toggle switch, move seat UP to highest position.
- k. Refer to **Figure 2-6**. If applicable, make sure seatback is not reclined and in most upright position. Position entire Power Seat Base to allow adequate clearance between seatback and vehicle wall. Allow additional clearance for seatback flexing when occupied.



**FIGURE 2-6: SEAT-TO-WALL CLEARANCE**

- l. Using "Forward/Reverse" toggle switch, move seat to middle of Power Seat Base.
- m. Using "Swivel In/Out" toggle switch, swivel seat to IN position.
- n. Disconnect power source from Power Seat Base.

**WARNING!**

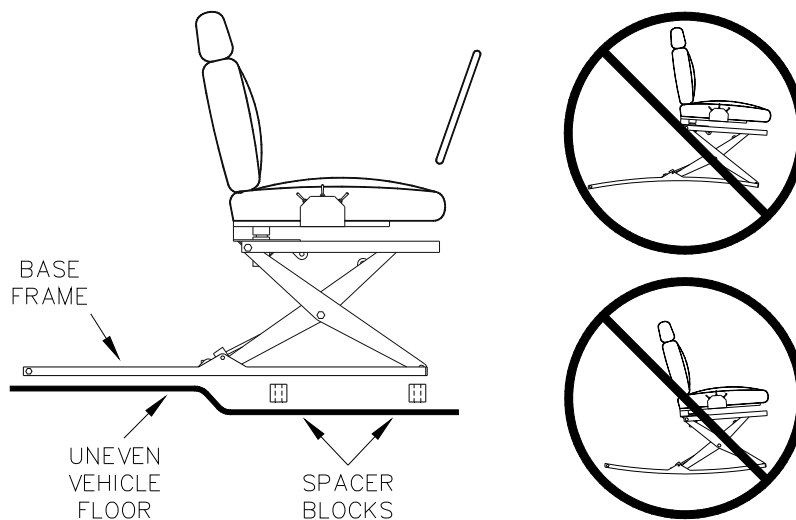
THE BASE FRAME IS DESIGNED TO ACCOMMODATE ONLY SIX MOUNTING BOLTS. ADDITIONAL BOLTS IN NON-AUTHORIZED LOCATIONS MAY ACT AS SEAT POSITION STOPS AND CAUSE MOTOR FAILURE DURING THE UP/DOWN FUNCTION. THE PROPER DRIVING POSITION OF THE POWER SEAT BASE IS THE FORWARD-MOST AND LOWEST POSITION.

- o. At each base frame mounting hole, drill a 5/16" (8 mm) diameter hole through floor.

**CAUTION!**

A warped, or uneven, base frame installation can cause seat motor failure during forward or reverse movement. Variations in vehicle floor designs make it essential that care be taken when fastening the base frame to the floor. Add spacers between the floor and base frame to achieve level installation. The seat support must move freely on base frame.

- p. Refer to **Figure 2-7**. Determine if spacer blocks are needed between Base Frame and vehicle floor (due to floor surface being uneven). Fabricate spacer blocks if required and position between base frame and floor.

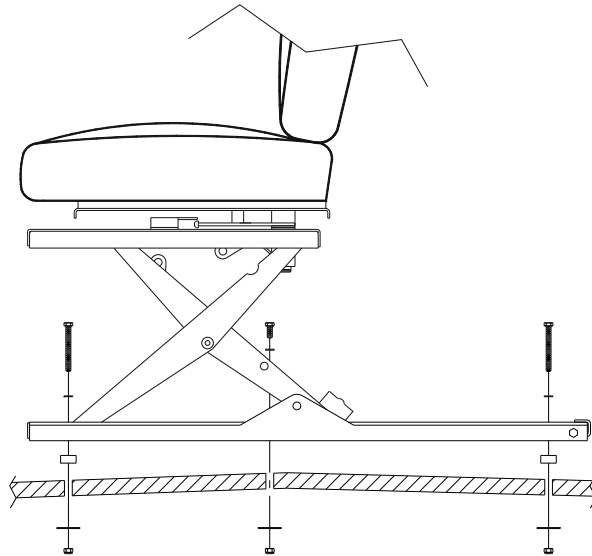


**FIGURE 2-7: UNEVEN VEHICLE FLOOR PROFILE**

**WARNING!**

**MOUNTING SCREW LENGTH MUST BE SUFFICIENT TO PROVIDE AT LEAST ONE FULL THREAD PROTRUDING BEYOND THE LOCKNUT, WHEN INSTALLED. IF SPACERS ARE NEEDED, USE CORRESPONDINGLY LONGER GRADE 5 SCREWS.**

- q. Refer to **Figure 2-8**. Insert six mounting screws through base frame mounting holes.



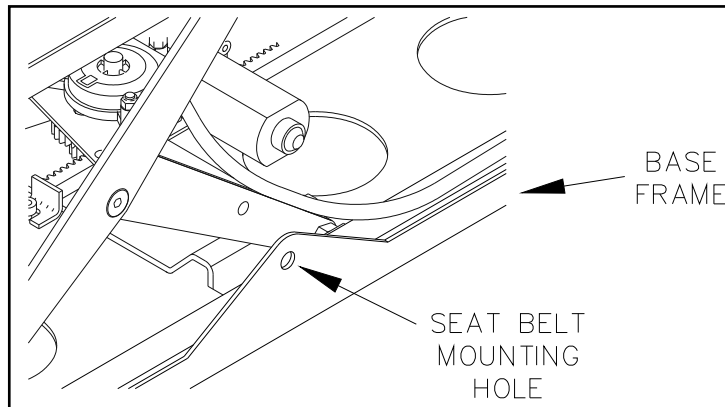
**FIGURE 2-8: BASE FRAME MOUNTING**

- r. From beneath vehicle, install fender washers and locknuts on each mounting screw.

#### **4. REINSTALL FACTORY SEAT BELT AND SHOULDER HARNESS**

To reinstall the factory seat belt (and shoulder harness if necessary), follow this procedure:

- a. If factory seat belts and shoulder harness were mounted on vehicle floor and/or body and their mounting position is still accessible, remount in original position with original hardware.
- b. If factory seat belts and shoulder harness were attached to factory seat base or their mounting holes covered by Power Seat Base, refer to **Figure 2-9** and attach to Base Frame using original or equal strength hardware.



**FIGURE 2-9: SEAT BELT MOUNTING LOCATION**

- c. Make sure seat belt wiring is reconnected.

#### **5. ADJUST SEAT FOR FACE-FORWARD POSITION**

To ensure that the seat position is perfectly face-forward when swivelled to the IN position, follow this procedure:

- a. Temporarily connect 12VDC power source to the Power Seat Base, battery positive(+) terminal to Harness RED wire and battery negative (-) terminal to GREEN wire mounting bolt.
- b. At Control Box Assembly, use "Swivel In/Out" toggle switch to rotate seat OUT 2 - 3° to allow access to Swivel Adjustment Stop Bolt.
- c. Loosen locknut, adjust Swivel Adjustment Stop Bolt as needed, and tighten locknut.
- d. Use "Swivel In/Out" toggle switch to rotate seat IN and verify face-forward position. Repeat steps **b** and **c** if needed.

### C. ELECTRICAL INSTALLATION



#### CAUTION!

Check vehicle before drilling. Do not drill into factory wiring, hydraulic lines, fuel lines, fuel tank, etc.

1. At vehicle engine compartment, mount supplied main circuit breaker within 10 - 12" (25 - 30 cm) of battery.
2. At rear of power seat base, drill one 1/2" (12-mm) hole through vehicle floor, deburr hole, and install rubber grommet.
3. Insert power seat base electrical harness through grommet.
4. From beneath vehicle, run harness along vehicle frame to circuit breaker. Be certain harness does not contact hot or moving parts. Secure harness with cable ties every 18" (45 cm).
5. At engine compartment, cut 12" (30 cm) from the end of RED harness wire and save.
6. Trim RED harness wire to reach circuit breaker.
7. Crimp supplied terminal, using wire crimpers, to end of RED harness wire, and then fasten to circuit breaker "AUX" terminal.
8. Connect end of 12" (30 cm) length of saved RED wire to circuit breaker "BAT" terminal, and connect other end to positive terminal of vehicle battery.

### D. VERIFY INSTALLATION

- Be certain that all decals are properly located and affixed to the power seat base.
- Clear the vehicle floor of all loose material, high-plush carpet strands, etc. which may interfere with the operation of the power seat base.
- Make sure that all fasteners are tightened properly.
- Make sure that the inside rails of the upper frame, base frame, and the scissor actuator assembly are lubricated with light oil.
- Operate the Power Seat Base through several cycles of Up/Down, Forward/Reverse, and Swivel Left/Right movements.
- Verify that the face-forward position for the seat is straight ahead relative to the vehicle.
- The proper driving position for the Power Seat Base is at its LOWEST and FORWARD-MOST position. Adjust, if necessary.
- Make sure that the seat belt indicator chime operates properly when the vehicle ignition is turned ON.

### E. CUSTOMER ORIENTATION

#### IMPORTANT

- Customer Orientation -

Ricon Sales/Service Personnel must review the Warranty and the Service/Owner Manual with the customer to be certain he/she understands the safe operation of the Power Seat Base. Instruct the customer to always follow the operating instructions without exception.



#### WARNING!

VERIFY THAT THE SEATBASE TRAVELING FRAME, AFTER INSTALLATION, HAS A MINIMUM CLEARANCE OF .120" (1/8") BETWEEN IT AND THE AIRBAG CONTROL MODULE. THE AIRBAG CONTROL MODULE COULD INADVERTENTLY DEPLOY THE AIRBAGS IF STRUCK BY THE TRAVELING FRAME.



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### III. MAINTENANCE AND TROUBLESHOOTING

Regular maintenance of the RICON R1209 Six-Way® Power Seat Base will provide optimum performance and reduce the need for repairs. Ricon products are highly specialized and maintenance must be performed by a Ricon dealer or qualified service technician using Ricon replacement parts. Maintenance inspections should be done at least every six months.

#### A. MAINTENANCE SCHEDULE

TABLE 3-1: SIX MONTH SAFETY CHECK	
SERVICE POINT	ACTION TO PERFORM
Pivot point and fastener tightness.	Tighten, as necessary.
Upper frame and base frame assembly inside rail lubrication.	Apply light oil, as necessary.
Scissor actuator assembly (Up/Down ball and screw) lubrication.	Apply light oil as necessary.
Electrical harness routing.	Adjust, as necessary.
Slide bearing wear in upper and lower rails.	Replace, if necessary.
Swivel plate bronze bearing wear.	Replace, if necessary.
Rack gear assembly wear.	Replace, if necessary.
END OF TABLE	

#### B. TROUBLESHOOTING GUIDE

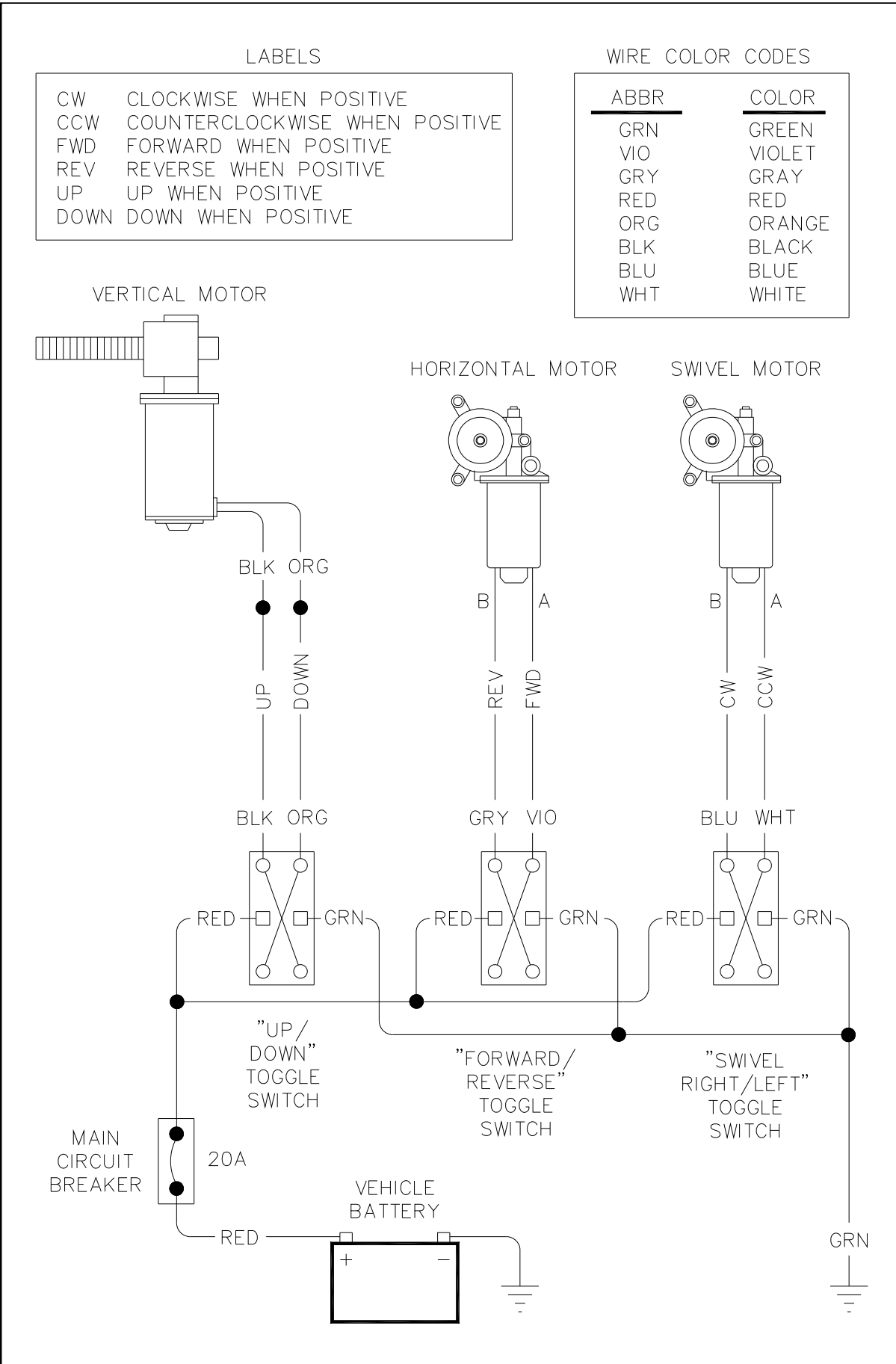
For troubleshooting the Power Seat Base, refer to **Table 3-2** and **Figure 3-1**. The troubleshooting guide is intended to provide a logical starting point for general lift problems. However, not all possible problems or combinations of problems, are listed. The guide requires that the vehicle battery is fully charged and the battery connections are clean and tight.

 <b>WARNING!</b>
<b>THE TROUBLESHOOTING GUIDE DOES NOT INCORPORATE ROUTINE SAFETY PRECAUTIONS OR PRELIMINARY PROCEDURES. A RICON DEALER OR QUALIFIED SERVICE TECHNICIANS SHOULD PERFORM TROUBLESHOOTING.</b>

**TABLE 3-2: TROUBLESHOOTING GUIDE**

<b>TABLE 3-2: TROUBLESHOOTING GUIDE</b>			
<b>SYMPTOM</b>		<b>POSSIBLE CAUSE</b>	<b>REMEDY</b>
NO OPERATION	No electrical power to Power Seat Base	Main circuit breaker tripped.	Reset circuit breaker.
		RED wire in electrical harness shorted to vehicle frame.	Investigate reason for short or breakage and repair wire or replace harness.
		RED wire in electrical harness broken/open.	
		Circuit breaker defective.	Replace circuit breaker.
		Poor ground connection at base frame.	Clean and tighten connection or repair.
	No electrical power to toggle switches	Broken common wire electrical connector.	Repair connector.
NO UP OR DOWN	Partial motion	Obstruction in base frame rails.	Remove obstruction and check for any damage.
	No motion	Broken electrical connector at "Up/Down" toggle switch.	Repair connector.
		Toggle switch defective.	Replace toggle switch.
		Scissor actuator assembly defective.	Replace scissor actuator assembly.
NO FORWARD OR REVERSE	Partial motion	Obstruction in base frame rails.	Remove obstruction and check for any damage.
		Rack gear assembly jammed.	
	No motion	Broken electrical connector at "Forward/Reverse" toggle switch.	Repair connector.
		Toggle switch defective.	Replace toggle switch.
		Horizontal motor defective.	Replace motor.
NO SWIVEL RIGHT OR LEFT	Partial motion	Contact between seat and wall or seat belt/shoulder harness wrapped.	Make sure seat-back is not reclined or clear seat belt/shoulder harness.
	No motion	Broken electrical connector at "Swivel Right/Left" toggle switch.	Repair connector.
		Toggle switch defective.	Replace toggle switch.
		Swivel motor defective.	Replace motor.
<b>END OF TABLE</b>			

**C. ELECTRICAL WIRING DIAGRAM**

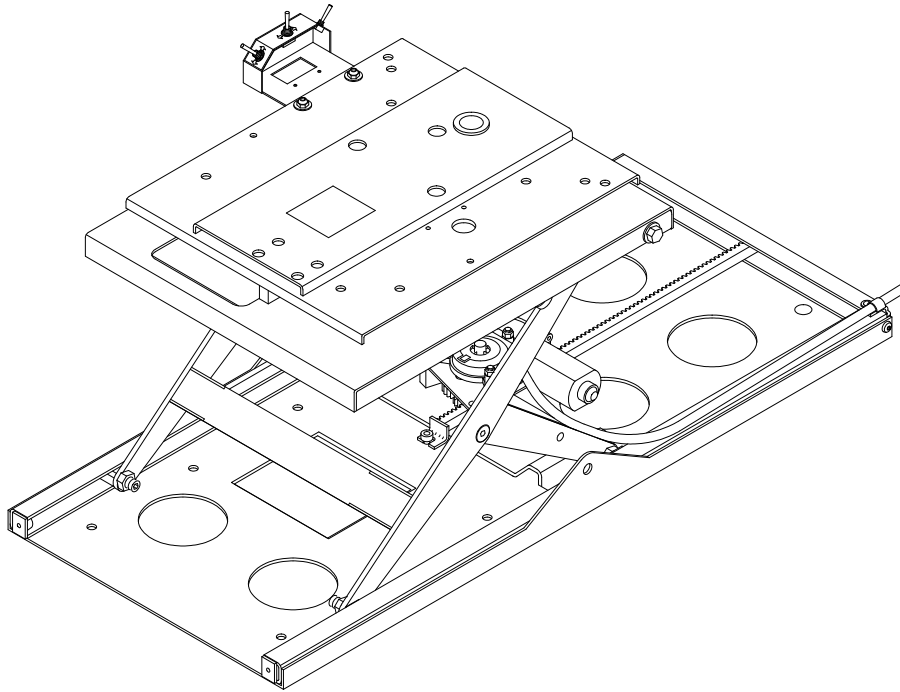


**FIGURE 3-1: ELECTRICAL WIRING DIAGRAM**

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## IV. PARTS DIAGRAMS AND LISTS

This chapter contains parts diagrams and parts lists for the RICON R1209 Six-Way Power Seat Base. The exploded view of each major lift assembly shows individual components referenced by numbers. On each associated parts list are reference numbers, parts descriptions, the quantities used, and Ricon part numbers.



PRODUCT MODEL AND KIT NUMBERS	
PRODUCT NUMBER	R1209, R1209-E and R1209-L
DOCUMENTATION KIT NUMBER	16054
SPARE DECAL KIT NUMBER	17141

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SIX WAY POWER SEAT BASE  
 ASSEMBLY  
 SERIAL NO's. 91685 and HIGHER

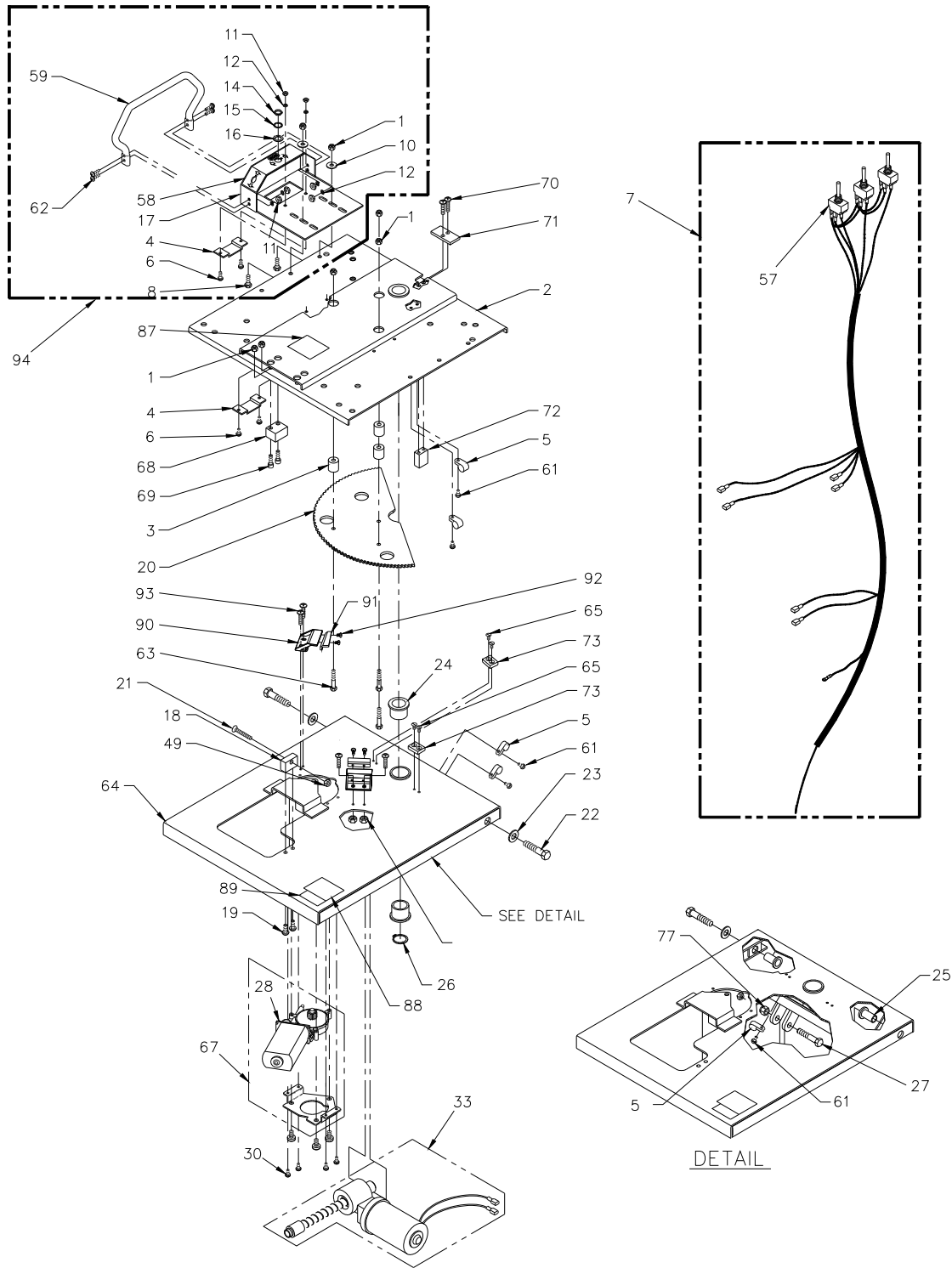


FIGURE 4-1: POWER SEAT BASE - UPPER

SIX WAY POWER SEAT BASE  
 ASSEMBLY  
 SERIAL NO's. 91685 and HIGHER

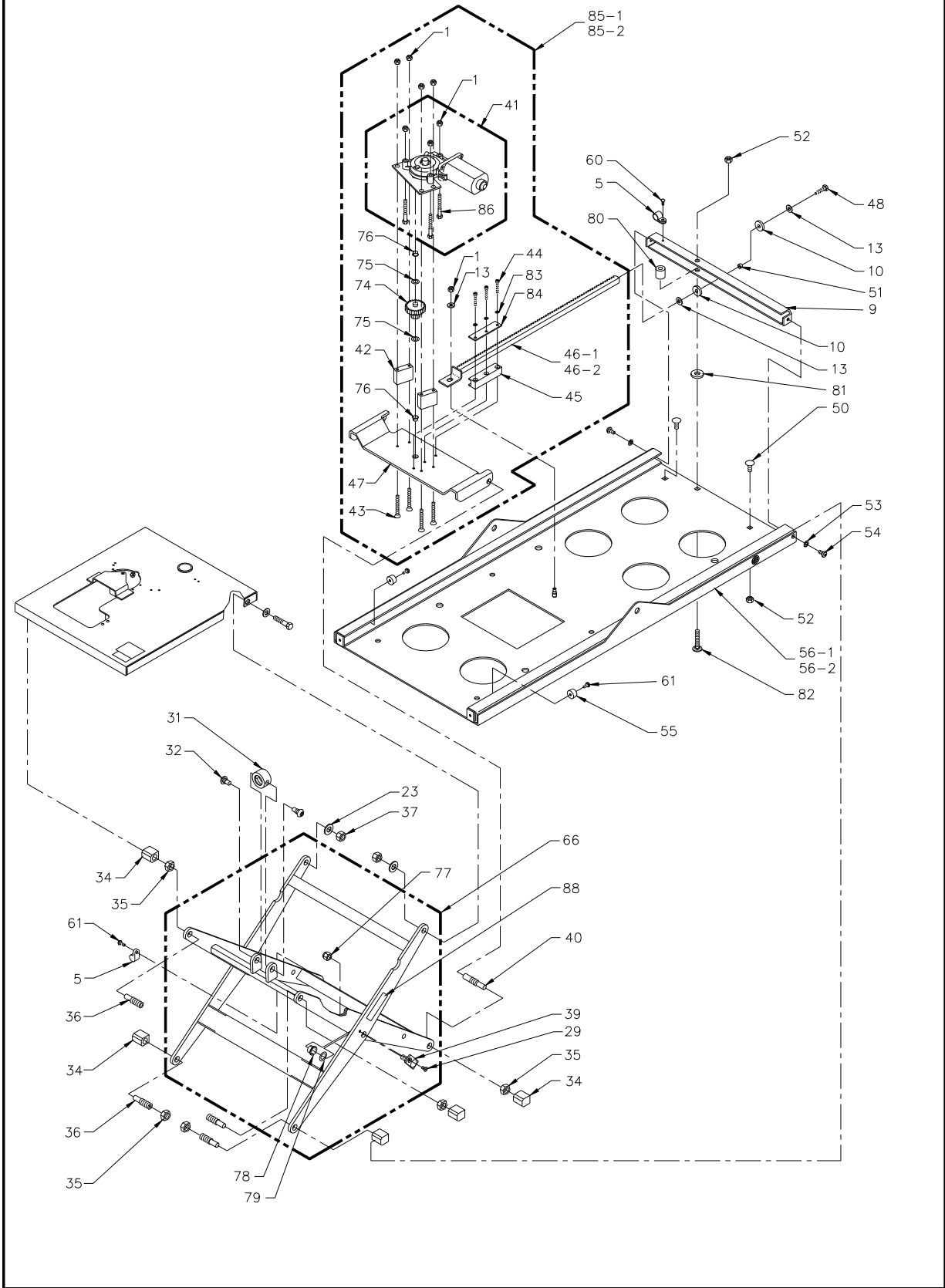


FIGURE 4-2: POWER SEAT BASE - LOWER



**SIX-WAY POWER SEAT BASE ASSEMBLY**  
**R 1209**  
**SERIAL NO'S. 91685 and HIGHER**

REF	DESCRIPTION	QTY	PART NO
1	NUT-HEX 1/4-20 NYLON INSERT (BAG OF 10)	12	15919
2	ASSY., WELD, SWIVEL PLATE	1	16018
3	SPACER, SWIVEL GEAR	3	PS-1124
4	CLAMP, FLAT PLASTIC	2	PS-1068
5	CLAMP, NYLON, 1/2" BLACK (BAG OF 10)	7	19774
6	SCREW, PHP, 10-24 X 1/4" (BAG OF 10)	4	45811
7	HARNESS, POWER SEAT BASE	1	PS-1069
8	SCREW, HEX, 1/4-20 X 3/4" GR5 (BAG OF 10)	2	13308
9	BAR-REAR FRAME	1	PS-2004
10	WASHER, FLT, .35 X .62 X .09 RBR (BAG OF 10)	2	19788
11	NUT-HEX 10-24 (BAG OF 10)	6	14489
12	WASHER #10 SPLIT LOCK (BAG OF 10)	6	15941
13	WASHER,FLT, .281 X .625 X .065 (BAG OF 10)	3	17504
14	NUT, TOGGLE, SWITCH, U-550 (BAG OF 10)	3	25639
15	WASHER, STAR, TGL, SWTCH, U-109 (BAG OF 10)	3	25638
16	LOCATING RING, TOGGLE SWITCH, U-108 (BAG OF 10)	3	15905
17	CONTROL BOX ASSY	1	PS-1051
18	STOP, SWIVEL-ADJUSTMENT (SEE KIT 01282)	1	PS-1205
19	SCREW, BHS, 1/4-20 X 5/8" (BAG OF 10)	2	45812
20	GEAR, SWIVEL-BASE PLATE (SEE KIT 01282)	1	PS-1112
21	MS 1/4-20 X 1 1/4 PHIL FLAT (BAG OF 10)	1	19762
22	SCREW, HEX, 7/16-14 X 2, GR 5 (BAG OF 10)	2	45813
23	WASHER, FLT, .469 X .922 X .065 (BAG OF 10)	4	19716
24	BEARING, BRONZE, 1620-16 FL 2402	2	25306
25	SPACER, FLANGED, UPPER FRAME	2	PS-0052
26	SNAP RING, EXTERNAL RETAIN 1"	1	15987
27	SCREW, HEX, 3/8-16 X 2 GR5 (BAG OF 10)	1	45814
28	MOTOR-DELCO PH3 MODIFIED	2	V2-ES-040
29	SCREW, FHS, 10-24 X 3/8" (BAG OF 10)	2	25343
30	SCREW, PHP, 8-32 X 1/4" (BAG OF 10)	11	25780
31	NUT, SCISSORS ACTUATOR (DISCONTINUED) (REFERENCE ONLY)	1	PS-1046
32	SCREW, SPECIAL, ACTUATOR NUT	2	PS-1059
33	ASSY, SCISSOR ACTUATOR	1	PS-1140
34	BEARING, SLIDE	6	PS-0031
35	NUT, JAM, 1/2-20 (BAG OF 10)	6	19758
36	PIN, SLIDE BEARING ADJUSTMENT X 1.50	4	PS-0032
37	NUT-HEX 7/16-14 (DISCONTINUED) (REFERENCE ONLY)	2	28336
39	STUD-WASSY	2	PS-2022
40	PIN, SLIDE BEARING ADJUSTMENT X 2.25	2	PS-0033
41	MOTOR DRIVE-ASSY (USE FOR S/N 77200 THRU S/N 500820)	1	PS-2046
41-1	MOTOR DRIVE-ASSY (USE FOR S/N 500821 AND ABOVE)	1	48497
42	BLOCK, STANDOFF	2	PS-2042
43	SCREW, FHP, 1/4-20 X 2" (BAG OF 10)	4	19796
44	SCREW, SHC, 8-32 X 1" BLK (BAG OF 10)	3	19797
45	GUIDE, WELD, RACK GEAR	1	PS-1009
46-1	GEAR, RACK-WASSY, STANDARD	1	PS-2037
46-2	GEAR, RACK-WASSY, EXTENDED	1	PS-2038
47	PLATE, HORIZONTAL DRIVE	1	PS-2041
48	BOLT-HEX 1/4-20 X 1 GR 5 (BAG OF 10)	1	14493
49	NUT, HEX, 1/4-20 (BAG OF 10)	1	25612
50	BOLT-CARRIAGE, 5/16-18 X 3/4L, GR5 PL (DISCONTINUED) (REFERENCE ONLY)	2	282293
51	STANDOFF-GEAR MOUNT	1	PS-2006
52	NUT, ESN, 5/16-18 (BAG OF 10)	3	13349
53	WASHER, SPL, 1/4" (BAG OF 10)	2	45815
54	SCREW, BHS, 1/4-20 X 1/2" BLK (BAG OF 10)	2	15985
55	BUMPER, RUBBER #315-009 (BAG OF 10)	2	19784
56-1	PLATE, FRAME-WASSY, STANDARD	1	16003
56-2	PLATE, FRAME-WASSY, EXTENDED	1	16070
57	SWITCH, TOGGLE, DPDT (4 TABS) OLD RGB/PSB	3	26433
58	DECAL, CONTROL PANEL PSB	1	26112
59	GUARD, SWITCH-SAFETY	1	PS-1052
60	SMS #8 X 1/2" PHIL PAN HD TEK (BAG OF 10)	1	15961
61	MS 10-24 X 3/8" PHIL PAN (BAG OF 10)	12	15944
62	SCREW, PHP, 10-24 X 5/8" (BAG OF 10)	4	28112
63	BOLT-HEX 1/4-20 X 1-1/2" GR5 (BAG OF 10)	3	25640
64	ASSY., WELD, UPPER FRAME	1	16065
65	SOCKET FLAT 10-24 X 3/8, SST (BAG OF 10)	4	15962

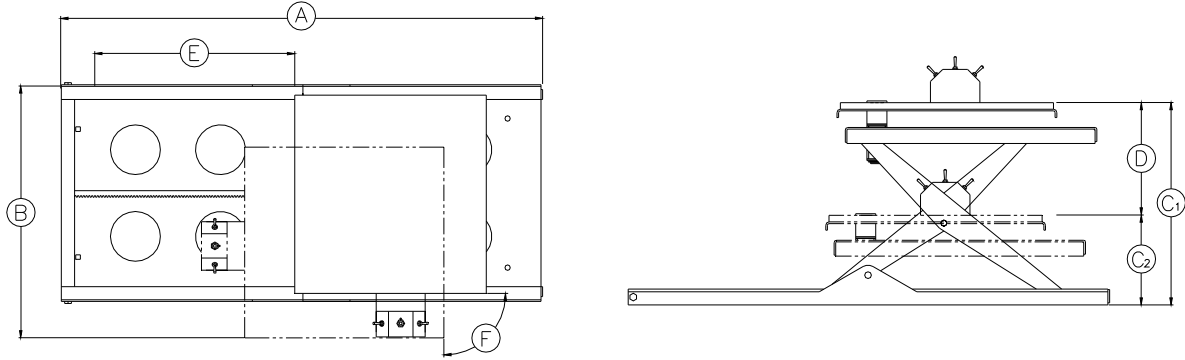
REF	DESCRIPTION	QTY	PART NO
66	ASSY, SCISSOR FRAME	1	16059
67	MOTOR, ASSEMBLY-UPPER (SEE KIT 01002)	1	PS-1106
68	STOP, SWIVEL, DELRIN BLOCK (SEE KIT 01006)	1	PS-1202
69	SOCKET CAP 1/4-20 X 0.75, (BAG OF 10) (SEE KIT 01006)	2	15972
70	SOCKET BUTTON HEAD SCREW BLK 1/4-20 X 1"	2	28183
71	PLATE, MOUNT-REAR BLOCK (SEE KIT 01282)	1	PS-1200
72	STOP, REAR BLOCK (SEE KIT 01282)	1	PS-1198
73	PLATE, REAR STOP (SEE KIT 01282)	2	PS-1199
74	GEAR, DRIVE	1	PS-2010
75	BEARING-THRUST .375 ID X .625 OD X .0585	2	25375
76	BEARING, DU FLG, 3/8" ID X 1/4"L	2	253845
77	NUT-HEX 3/8-16 NYLON INSERT (BAG OF 10)	3	15931
78	BEARING, DU FLG, 1/2" ID X 1/4"L	2	253846
79	WASHER, STEEL-0.508 I.D. X 0.749 O.D. X 0.045 THK (BAG OF 10)	2	25344
80	SPACER, REAR FRAME	1	10887
81	STANDOFF-BRIDGEPLATE ACTUATOR PIVOT	1	F9-0234
82	SCREW, CAR, 5/16-18 X 1 3/4" (BAG OF 10)	1	45816
83	WASHER, SPL, #8 (BAG OF 10)	3	15913
84	PLATE, STIFFENER, GEAR GUIDE	1	PS-2035
85-1	DRIVE, HORIZONTAL-ASSY - STD (SUPERSEDED)	1	PS-2047
85-1A	MOTOR/BACKET ASSY,HORIZONTAL DRIVE,W/SHOCK	1	48400
85-2	DRIVE, HORIZONTAL-ASSY EXT. (SUPERSEDED)	1	PS-2045
85-2A	MOTOR/BRKT ASSY,HRZNTL DRIVE,EXT,W/SHOCK	1	48496
86	SCREW, HEX, 1/4-20 X 1 1/4", SST (BAG OF 10)	3	25779
87	DECAL, UNPACKING INSTR, PSBASE	1	26203
88 *	DECAL, SERIAL#, "CE" UNIVERSAL	1	*
89	DECAL, PATENT# ; PENDING GENERIC	1	32-10-171
90	BRACKET, SWIVEL GUIDE	2	16021
91	BRACKET, INSERT SWIVEL GUIDE	2	UL-BA-021
92	SCREW, PHP, 10-24 X 1/2" (BAG OF 10)	4	13304
93	SCREW, HEX, 1/4-20 X 3/4" (BAG OF 10)	4	13308
94	KIT, REPLACEMENT, ASSY, SWITCH BOX, PSB	1	17707
**	CIRCUIT BREAKER, 20A	1	26400

\* Decal is in two parts, and is replaceable only by Ricon.

\*\* Not shown

## APPENDIX 1 R1209 POWER SEAT BASE SPECIFICATIONS

Power ..... Electro-Mechanical  
 Motor Rating - Vertical ..... 12 Volt DC, 16 Amp avg./cycle  
 Motor Rating - Horizontal ..... 12 Volt DC, 9 Amp avg./cycle  
 Motor Rating - Swivel ..... 12 Volt DC, 5 Amp avg./cycle  
 Rated Load Capacity ..... 300 Pounds  
 Seat Base Weight ..... 95 lbs.



REF	A	B	C <sub>1</sub>	C <sub>2</sub>	D	E	F
<b>DIMENSIONS (inches)</b>							
Product	Length	Width	Height, Highest Position	Height, Lowest Position	Vertical Travel	Forward/Reverse Travel	Swivel
R1209	36.25	16.31	13.43	6.25	8.25	13.63	172 degrees (90 deg right and 82 deg left)