



Innovation in Mobility

***S2000/5000 Series
Wheelchair Lift
Including Supplement for S3030***

Service/Owner Manual

(Owner retains after Installation by an Authorized RICON Service Technician)

This RICON product must be installed and serviced by authorized RICON service technicians.

The authorized RICON service technician must refer to this manual for installation instructions.

The owner must refer to this manual for operating instructions, then retain it for future reference by authorized RICON service technicians who perform service and repairs.

Customer Name: _____
Installing Dealer: _____
Date Installed: _____
Serial Number: _____

REVISION RECORD

REV #	PAGE(S)	DESCRIPTION OF CHANGE	ECR/ECO
32DM2050. G 09/07/00	41	Wiring diagram redrawn to show second motor solenoid.	3343/ 4567
END OF LIST			

I. INTRODUCTION	1
5-YEAR LIMITED WARRANTY	2
SHIPMENT INFORMATION	3
GENERAL SAFETY PRECAUTIONS	3
PRODUCT TERMINOLOGY	4
II. INSTALLATION	7
A. MECHANICAL	7
1. LIFT LOCATION & MOUNTING	7
2. VAN INSTALLATIONS	9
3. BUS INSTALLATIONS	11
B. ELECTRICAL	12
1. INSTALL MAIN CIRCUIT BREAKER	12
2. ROUTE/CONNECT MAIN POWER CABLE	13
3. PROPER GROUNDING INSTRUCTIONS	14
a. 12 VDC Systems	14
b. Special Provisions for 24 VDC	15
4. "AFTER MARKET" INTERLOCK DEVICE INSTALLATION	15
C. FINAL ADJUSTMENTS	21
1. LIMIT SWITCH ADJUSTMENT	21
2. ROLLSTOP (PLATFORM TILT) ADJUSTMENT	22
3. TIE ROD ASSEMBLY INSTALLATION/ADJUSTMENT	23
4. PLATFORM LOAD SENSOR SWITCH ADJUSTMENT	24
D. INSTALLATION VERIFICATION	25
III. OPERATING INSTRUCTIONS	27
A. S2000/5000 FEATURES	27
B. SAFETY PRECAUTIONS	28
C. DAILY SAFETY CHECK	30
D. THE CONTROL PENDANT	30

E. LIFT OPERATION	31
1. TO ENTER VEHICLE	31
2. TO EXIT VEHICLE	31
3. TO STOW PLATFORM	32
4. MANUAL OPERATION	32
IV. MAINTENANCE SCHEDULE	35
V. TROUBLESHOOTING	37
HYDRAULIC CIRCUIT DIAGRAM	39
ELECTRICAL WIRING DIAGRAM	41
PARTS DIAGRAMS AND PARTS LISTS	Appendix 1
LIFT SPECIFICATIONS	Appendix 2

LIST OF FIGURES	PAGE
FIGURE [1]: PRODUCT TERMINOLOGY	4
FIGURE [2]: WARPED BASE EXAMPLE	7
FIGURE [3]: PROPER MOUNTING	8
FIGURE [4]: CLAMPING BAR USE ON BUSES AND FORD VANS	8
FIGURE [5]: STEPWELL BRACKET	9
FIGURE [6]: LIFT POSITION IN VEHICLE	9
FIGURE [7]: MARK AND DRILL MOUNTING HOLES	10
FIGURE [8]: BRACKET ALIGNMENT	10
FIGURE [9]: ELECTRICAL INSTALLATION	12
FIGURE [10]: POWER CABLE INSTALLATION	13
FIGURE [11]: CABLE ROUTING	14
FIGURE [12]: CONTROL INTERFACE AND STRAIN RELIEF KIT #01007	14
FIGURE [13]: 24 VDC WIRING	15
FIGURE [14]: INTERLOCK METHOD #1	17
FIGURE [15]: INTERLOCK METHOD #2	19
FIGURE [16]: INTERLOCK METHOD #3	20

FIGURE [17]: LIMIT SWITCH ADJUSTMENT DIAGRAM 22

FIGURE [18]: ROLLSTOP ADJUSTMENT 22

FIGURE [19]: ROD END INSTALLATION 23

FIGURE [20]: SENSOR SWITCH ADJUSTMENT 24

FIGURE [21]: 50 LB. LOAD SENSOR 24

FIGURE [22]: LIFT DECAL LOCATIONS 26

FIGURE [23]: MAX LOAD DECAL 28

FIGURE [24]: UNSAFE CONDITION 28

FIGURE [25]: VEHICLE PARKED DANGEROUSLY - SIDE SLOPE 29

FIGURE [26]: VEHICLE PARKED DANGEROUSLY - FRONT/REAR SLOPE 29

FIGURE [27]: CONTROL PENDANT 30

FIGURE [28]: LIFT STOW AND DEPLOY LEVELS 30

FIGURE [29]: MANUAL OPERATION 32

FIGURE [30]: PUMP DECAL 32

FIGURE [31]: S-SERIES™ HYDRAULIC CIRCUIT DIAGRAM 39

FIGURE [32]: WIRING DIAGRAM LEGEND 40

FIGURE [33]: ELECTRICAL WIRING DIAGRAM 41

FIGURE [A1]: Monarch Hydraulic Power Unit Appendix 2

FIGURE [A2]: S2000/S5000 Series Hydraulic System Appendix 4

FIGURE [A3]: S2000/S5000 Series Electrical System Appendix 6

FIGURE [A4]: S2000/S5000 Series Platform Appendix 8

FIGURE [A5]: S2000 Series Traveling Frame Appendix 10

FIGURE [A6]: S5000 Series Traveling Frame Appendix 14

FIGURE [A7]: S2000/S5000 Series Standard Options (Suppl) Appendix 18

FIGURE [A8]: S2000 Series Platform (Supplement): Model S3030 Appendix 22

LIST OF TABLES **PAGE**

TABLE [1]: S2000/5000 WHEELCHAIR LIFT PRODUCT TERMINOLOGY 5

TABLE [2]: LIMIT SWITCH ADJUSTMENT CHART 21

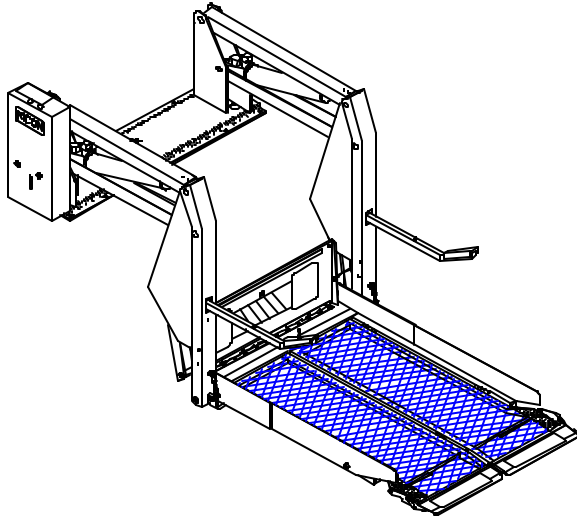
TABLE [3]: MAINTENANCE SCHEDULE 35

TABLE [4]: POWER INDICATOR TROUBLESHOOTING GUIDE	37
TABLE [5]: TROUBLE SHOOTING GUIDE	38



I. INTRODUCTION

The RICON S2000/5000 Series Wheelchair Lift provides wheelchair access to personal vans. The patented movement ensures smooth, safe entry and exit and easily lifts up to 800 pounds (364 kilograms). It is designed to be operated by the wheelchair occupant or a trained attendant. The lift contains a powerful electro-hydraulic pump that includes a built-in manual backup pump. If the lift loses electrical power, it can still be raised and/or lowered manually.



By using the lift control switches, the lift is unfolded out (or deployed) from the vehicle. The user boards the large non-skid platform and the operator uses the control switches to gently lower the platform to the ground. After the user departs, the platform is raised and folded into (stowed) the vehicle.

This manual contains operation and maintenance instructions and a troubleshooting guide for the lift. It is important to user safety that the lift operator(s) be completely familiar with the Operating Instructions chapter of this manual. Once the lift is installed, it is very important that the lift 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 the Ricon Service Department at one of the following locations:

Ricon Corporation

7900 Nelson Rd.

Panorama City, CA 91402

Outside (818) Area Code

World Wide Website

..... (818) 267-3000

..... (800) 322-2884

..... riconcorp.com

Ricon U.K. Ltd.

Littlemoss Business Park, Littlemoss Road

Droylsden, Manchester

United Kingdom, M43 7EF

..... (+44) 161 301 6000

Ricon Scandinavia A/S

Stanseveien 27

N-0976 Oslo

Norway

..... (+47) 22 16 70 90

RICON

5-YEAR LIMITED WARRANTY

Ricon Corporation (Ricon) warrants to the original purchaser of this product that Ricon will repair or replace, at its option, any part that fails due to defective material or workmanship as follows:

- Repair or replace parts for a period of one (1) year from date of purchase.
- Labor costs for specified parts replaced under this warranty for a period of one (1) year from date of purchase. A Ricon rate schedule determines the parts covered and labor allowed.
- Repair or replace lift power train parts for a period of five (5) years from date of purchase. A complete list of parts covered can be obtained from your authorized Ricon service technician or Ricon.

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

If You are Traveling: All authorized Ricon service technician will honor this warranty. Consult the telephone directory or call our Service Department for the name of the nearest authorized Ricon service technician.

This Warranty does not Cover:

- Malfunction or damage to product parts caused by accident, misuse, lack of proper maintenance, neglect, improper adjustment, modification, alteration, the mechanical condition of the vehicle, road hazards, overloading, failure to follow operating instructions, or acts of Nature (i.e., weather, lightning, flood, etc.).

Note: Ricon recommends that this product be inspected by an authorized Ricon service technician at least once every six months or sooner if necessary. Any required maintenance or repair should be performed at that time.

This Warranty is Void if:

▲WARNING

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

- The product has been installed or maintained by someone other than an authorized Ricon 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 twenty (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.

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 service technicians, who perform the actual installation.

- When the product is received, unpack the product and check for freight damage. Claims for any damage should be made to the carrier immediately.
- Be sure the installation kit contains all items listed on the kit packing list. **Please report any missing items immediately to the Ricon Service Department.** The warranty and owner's registration cards must be completed and returned to Ricon within twenty (20) days for the warranty to be valid.

NOTE

The Sales/Service Personnel must review the Warranty and this Service/Owner 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.

GENERAL SAFETY PRECAUTIONS

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

1. Under no circumstances should installation, maintenance, repair, and adjustments be attempted without the immediate presence of a person capable of rendering aid.
2. An injury, no matter how slight, should always be attended. Always administer first aid or seek medical attention immediately.
3. Protective eye shields and appropriate clothing should be worn at all times.
4. To avoid injury, always exercise caution when operating and be certain that hands, feet, legs, and clothing are not in the path of product movement.
5. Batteries contain acid that can burn. If acid comes in contact with skin, flush affected area with water and wash with soap immediately.
6. Always work in a properly ventilated area. Do not smoke or use an open flame near a battery.
7. Do not lay anything on top of a battery.
8. Check under vehicle before drilling so as not to drill into frame, subframe members, wiring, hydraulic lines, fuel lines, fuel tank, etc.
9. Read and thoroughly understand the operating instructions before attempting to operate.
10. Inspect the product before each use. If an unsafe condition, unusual noises or movements, exists, do not use it until the problem is corrected.
11. Never load or stand on the platform until installation is complete. Upon completion of installation, always test load the lift to 125% of its rated load capacity.
12. Stand clear of doors and platform and keep others clear during operation.
13. The product requires regular periodic maintenance. A thorough inspection is recommended at least once every six months. The product must always be maintained at the highest level of performance.

PRODUCT TERMINOLOGY

The references used throughout this manual are illustrated in Figure [1] and defined in Table [1]. Refer to the Parts List (Appendix 1) for more details.

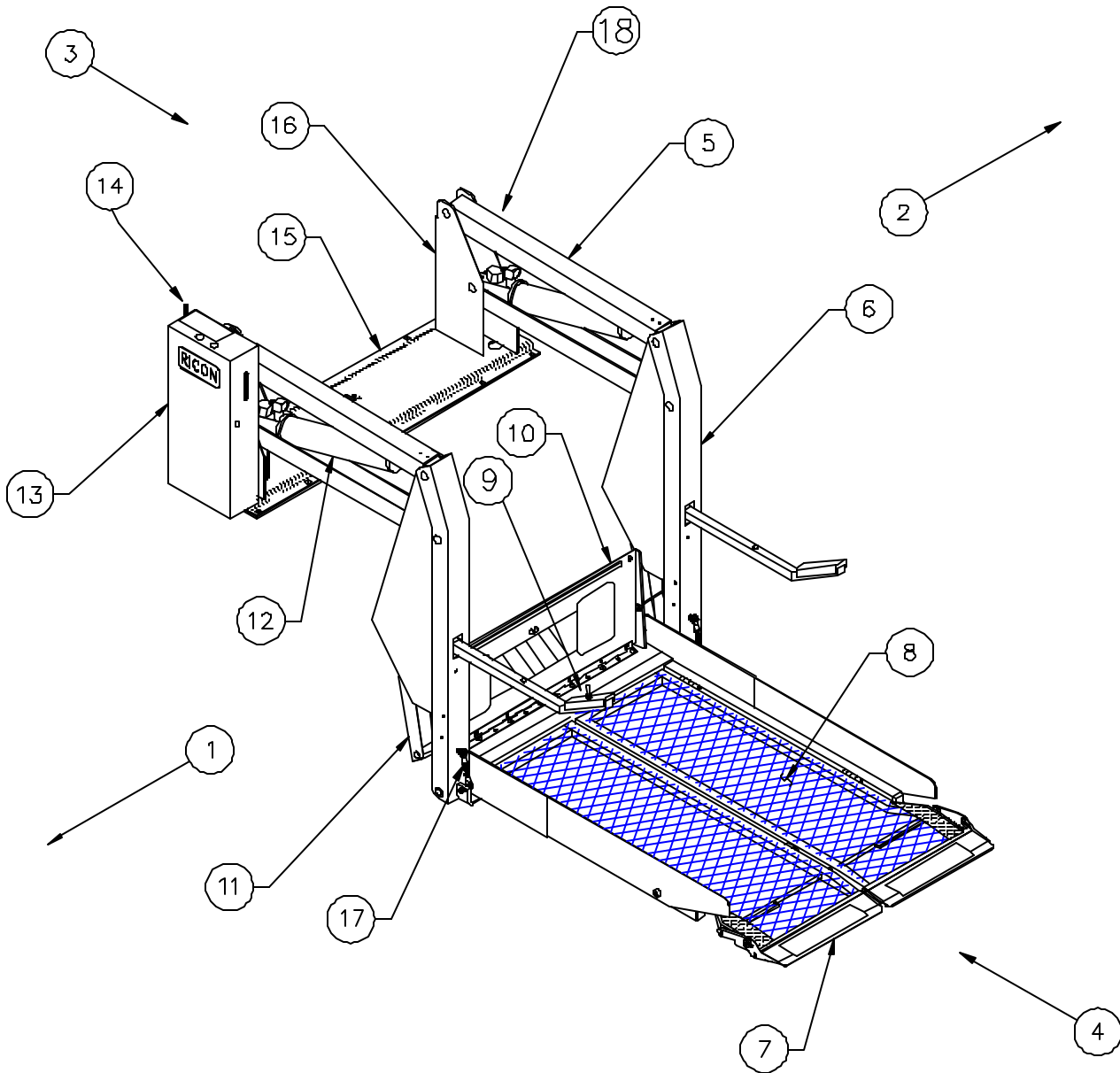


FIGURE [1]: PRODUCT TERMINOLOGY (LIFT REFERENCES)

TABLE [1]: S2000/5000 WHEELCHAIR LIFT PRODUCT TERMINOLOGY

REF.	NAME	DESCRIPTION
1.	Left	Reference point from outside the vehicle looking inward at the lift.
2.	Right	
3.	Back	
4.	Front	
5.	Parallel Arm(s)	(Left/Right) Upper and lower links connecting vertical arm to base assembly.
6.	Vertical Arm	(Left/Right) Connects platform to top/bottom arms.
7.	Platform Rollstop	Barrier to prevent the wheelchair from inadvertent slow rolling off of the platform.
8.	Platform	Component of lift where the wheelchair and occupant sit during "Up" and "Down" operations.
9.	Handrail Switch	Switch on the left handrail controlling UP and DOWN functions (for lifts operated by wheelchair occupant).
10.	Bridgeplate	Plate that bridges vehicle threshold and lift platform. Also doubles as rear rollstop.
11.	Knuckle Actuator Assembly	(Left/Right) Linkage which folds the platform.
12.	Hydraulic Cylinder	(Left/Right) Telescoping steel tube which converts hydraulic pressure into lifting force.
13.	Hydraulic Power Unit	Contains pump used to create hydraulic pressure to raise and fold lift, as well as valving to unfold and lower lift.
14.	Manual Backup Handle	Allows manual lift operation in the case of electrical failure.
15.	Base	Assembly that bolts securely to the vehicle floor.
16.	Main Support	Component that attaches parallel arms to the lit base.
17.	Tie Rods	Links found on split platform models only which cause the platform to split as the platform folds.
18.	Serial Number	Location of serial number decal.
END OF TABLE		

