



Innovation in Mobility

Radio Remote Control System

PRINT

Service/Owner Manual

(To be retained by owner after installation by an authorized RICON dealer)

This RICON product must be installed and serviced by an authorized RICON dealer.

The authorized RICON dealer 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 dealers who perform service and repairs.

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

RECORD OF CHANGE OR REVISION

This listing contains a record of all page changes and/or revisions added to this manual since the last revision. The arrows (» or °) found on the outer edge of the page(s) indicate the revised or changed paragraph, section, or figure.

REV	PAGES	DESCRIPTION OF CHANGE
11/25/03	All	Text converted from WordPerfect to MSWord.
END OF LIST		

TABLE OF CONTENTS

PAGE

I. INTRODUCTION	1
RICON ONE-YEAR LIMITED WARRANTY	2
DEALER INFORMATION	3
GENERAL SAFETY PRECAUTIONS	3
II. INSTALLATION	5
A. DASH STATION (P/N 29103) INSTALLATION	6
B. ANTENNA ADAPTER INSTALLATION	7
C. MAGNETIC SWITCH INSTALLATION	8
D. PRELIMINARY TESTING	8
E. RECEIVER (P/N 29102) INSTALLATION.....	9
F. NOISE SUPPRESSION DEVICES	9
G. INSTALLATION VERIFICATION	9
H. CUSTOMER ORIENTATION	10
III. OPERATING INSTRUCTIONS	11
A. SAFETY PRECAUTIONS	11
B. RADIO TRANSMITTER (P/N 29101) OPERATION	11
C. RADIO DASH STATION OPERATION.....	12
1. LIFT OPERATION	13
2. MAGNETIC LOCK-OUT SWITCH.....	13
D. RADIO MAGNETIC SWITCH OPERATION	13
IV. MAINTENANCE	15
A. CHANGING THE TRANSMITTER BATTERY	15
B. REPROGRAMMING THE TRANSMITTER	15
C. INSPECTION	15
V. TROUBLESHOOTING GUIDE	17

LIST OF FIGURES	PAGE
FIGURE 1: RADIO REMOTE CONTROL SYSTEM INTERLOCK WIRING	5
FIGURE 2: BLACK WIRE PIGGYBACK	6
FIGURE 3: RED HARNESS	7
FIGURE 4: RADIO TRANSMITTER	12
FIGURE 5: DASH STATION	12

LIST OF TABLES	PAGE
TABLE 1: PARKING BRAKE WIRING COLORS	6
TABLE 2: TROUBLESHOOTING GUIDE	17

I. INTRODUCTION

The RICON Radio Remote Control System provides wireless control of wheelchair lifts, and is designed to be operated by a person in a wheelchair or by an attendant. The system consists of a transmitter, a receiver with antenna, dash station and magnetic switch assembly plus interconnecting cables. The system uses a digitally coded signal that sends a message from the transmitter to the receiver. This digital message contains one of 1048 different "address" codes that reduce the chance that signals from other units in the same vicinity will affect the Ricon Radio Remote Control System.

This manual contains installation, operation, service and maintenance instructions for the Radio Remote Control System. The installation instructions must be followed exactly, no steps should be eliminated nor should the product be modified. It is important to user safety that the installation is thorough and correct. It is equally important that the Ricon sales/service staff be completely familiar with the Operating Instructions chapter of this manual to demonstrate and explain the proper use of the product to the user. Once the operator is installed, it is very important that it be properly maintained by following the Ricon 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

7900 Nelson Road

Panorama City, CA 91402

..... (818) 267-3000

Outside (818) Area Code

..... (800) 322-2884

World Wide Website

..... www.riconcorp.com

Ricon U.K. Ltd.

Littlemoss Business Park, Littlemoss Road

Droylsden, Manchester

United Kingdom, M43 7EF

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

**RICON CORPORATION
ONE-YEAR LIMITED WARRANTY**

Ricon Corporation (Ricon) warrants to the 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:

- C 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 the installing dealer. Please give as much advance notice as possible and allow a reasonable amount of time for repair.

If You are Traveling: All authorized Ricon dealers will honor this warranty. Consult a telephone directory or our Product Support Department for the name of the nearest authorized Ricon dealer.

This Warranty does not Cover:

- C Labor or service charges (these may be covered separately by the installing dealer).
- C 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).

Note: Ricon recommends that this product be inspected by an authorized Ricon dealer at least once every six months or sooner if necessary. Any required maintenance 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.

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

DEALER 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 the actual sale and installation.

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

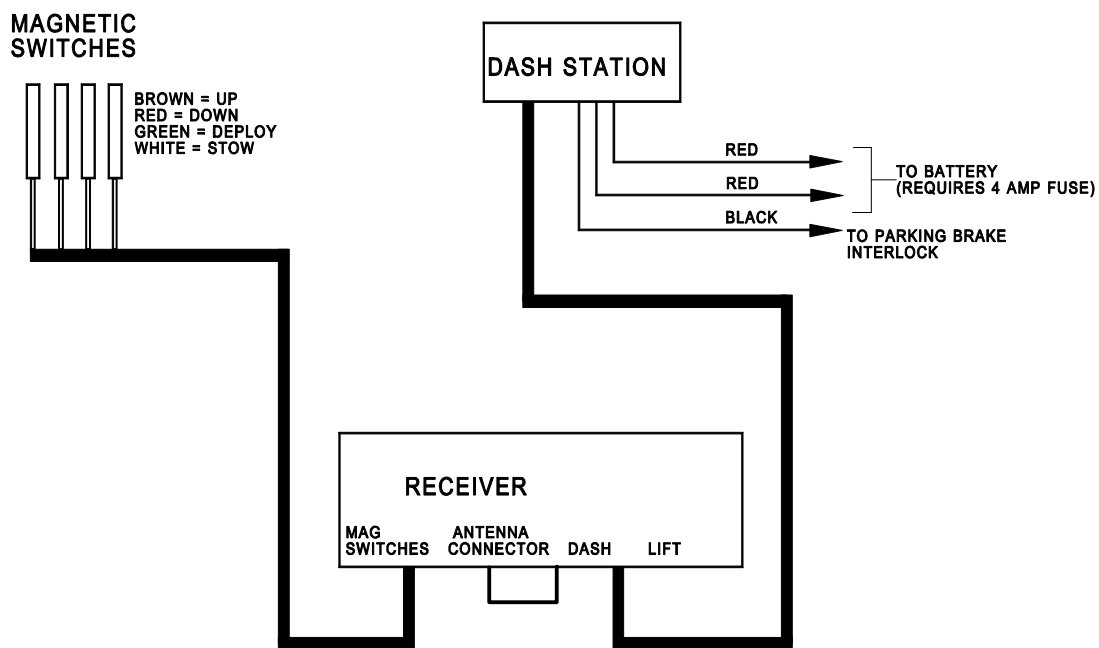
- Under no circumstances should installation, maintenance, repair, and adjustments be attempted without the immediate presence of a person capable of rendering aid.
- An injury, no matter how slight, should always be attended. Always administer first aid or seek medical attention immediately.
- Protective eyeshields and appropriate clothing should be worn at all times.
- 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.
- Batteries contain acid that can burn. If acid comes in contact with skin, flush affected area with water and wash with soap immediately.
- Always work in a properly ventilated area. Do not smoke or use an open flame near a battery.
- Do not lay anything on top of a battery.
- Check under vehicle before drilling so as not to drill into frame, subframe members, wiring, hydraulic lines, fuel lines, fuel tank, etc.
- Read and thoroughly understand the operating instructions before attempting to operate.
- Stay clear of power operated doors and the wheelchair lift platform during operation of the system.
- Never load or stand on the lift's platform and operate the remote control system until lift installation is complete and equipment is properly secured.
- Use proper wiring. Loose or frayed wires can cause power failure and prevent the system from operating properly.
- Do not bypass the safety wiring. Install the safety wires in accordance with the instructions to ensure safe operation.
- Do not install the receiver in hot locations of the vehicle. This apparatus can be damaged by heat in excess of 160E F.
- Do not install the receiver in high vibration areas of the vehicle. The life of this apparatus may be shortened through long exposure to intense shaking or vibration.
- Do not install in areas where water or contaminants can enter the receiver. Direct exposure to liquids or caustic materials may result in a malfunction of the unit. If water or other liquids get inside the remote unit, dry the unit immediately.
- Make sure equipment is clear of obstructions before operating. Do not activate the system unless the operator can clearly see that it is safe to do so.
- Turn off the receiver power before working on the system. Always disconnect the remote system before doing any maintenance to prevent unintentional operation of the wheelchair lift or accessories.
- Be aware of other vehicles nearby that may have radio controlled lifts. Although the short operating range and use of more than 1000 security codes make operation of another lift improbable, be aware that if another system has the same code as yours and the units are in close proximity, both systems could be activated by either of the transmitters.

II. INSTALLATION

This chapter contains instructions for installing the RICON Radio Remote Control system. Since it is impossible for us to provide specific information in this manual about every possible installation, we have developed the following general procedures that will apply to many installations. If a question arises that is not covered in this manual, please contact our Product Support Department for instructions about installations not covered herein.

For installation of the Radio Remote Control System, refer to **Figure 1**. The installation is performed in seven steps:

- (A) Dash Station Installation
- (B) Antenna Adapter Installation
- (C) Magnetic Switch Installation
- (D) Preliminary Testing
- (E) Receiver Installation
- (F) Noise Suppression Devices
- (G) Installation Verification



WARNING

- \$ Never route a live wire. Ensure that the battery is disconnected.
- \$ Route the cable such that it will not be snagged and damaged by persons or objects moving around the vehicle.
- \$ Always route the electrical wires clear of any moving parts and heat sources.
- \$ Ensure that cable is not directly in contact with any sharp edges, place grommets in all holes through which cables will be routed.
- \$ Neatly bundle and securely tie wires to the vehicle frame or subframe.
- \$ Always connect the interlock circuit from the Dash Station to the parking brake. This ensures that when the engine is running, the parking brake must be set for the Remote Control System to work.

A. DASH STATION (P/N 29103) INSTALLATION

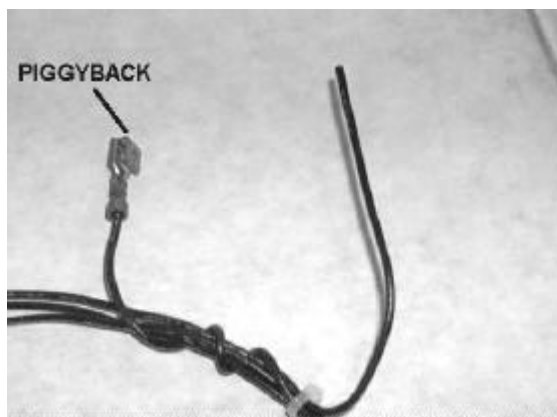
To install the Dash Station, follow this procedure:

1. Select a location to mount the Dash Station and drill a hole large enough to accommodate the receiver cable and connecting wires. It should be mounted with the connector facing DOWN.
2. Using the holes in the Dash Station as a template, drill two 1/8" pilot holes for mounting. Secure the Dash Station using #8 self-tapping screws.
3. Refer to **Table 1** for a partial listing of parking brake switch wire colors. Locate the wire leading to the switch.

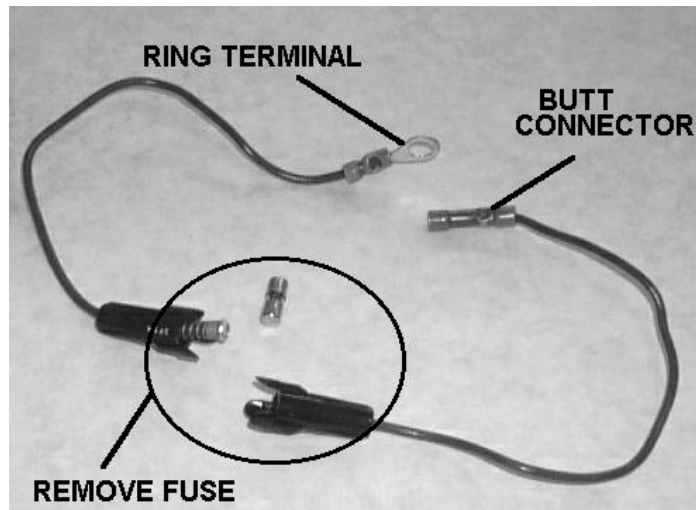
Note: The parking brake switch is normally located at the end of the parking brake pedal or handle.

TABLE 1: PARKING BRAKE WIRE COLOR		
VEHICLE	WIRE COLOR	
CHEVROLET	Light Brown with White stripe	
CHRYSLER	FULL SIZE	White with Black stripe
	MINIVAN	Gray with Black stripe
FORD (UP TO 1991)	Green with Yellow stripe	
FORD (1992 AND ABOVE)	Green with White stripe (sometimes enclosed in black tubing).	
END OF TABLE		

4. Disconnect the factory wire from the parking brake switch terminal.
5. Refer to **Figure 2**. Attach the factory wire to the piggyback terminal crimped to one end of the Dash Station BLACK wire.



6. Attach the black wire piggyback to the terminal of the parking brake switch terminal.
7. Refer to **Figure 3**. To avoid any accidental electrical shorts during installation, remove the fuse from supplied Red Harness and reconnect the fuse housing.



8. Fasten the ring terminal of the Red Harness to positive (+) terminal of the vehicle battery.

CAUTION

IF WIRE IS ROUTED THROUGH SHEET METAL HOLES OR AROUND SHARP EDGES, PROTECT POINT OF CONTACT WITH A SUITABLE GROMMET OR AT LEAST FIVE LAYERS OF VINYL ELECTRICAL TAPE. ENSURE THAT WIRES ARE PROPERLY SECURED AND PROTECTED TO PREVENT DAMAGE IN ANY WAY.

9. Route harness inside the vehicle to Dash Station using existing cavities.
10. At Dash Station, cut about 1" from ends of RED wires to remove tinning. Re-strip red wires to fit blue butt-connector crimped to end of Red Harness. Insert both red wires into blue butt-connector and crimp.
11. Reinstall fuse.

Note: If the fuse fails for any reason, it should be replaced with a fuse which matches the vehicle manufacturer's specifications.

12. Route the Dash Station Cable from the Dash Station to the right-rear corner of the vehicle (or other planned location of the Receiver) using existing bodywork cavities.
13. Connect the cable to the antenna connector of the Dash Station.

B. ANTENNA ADAPTER INSTALLATION

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The Radio Remote Control System uses the existing vehicle radio antenna. In order to do this, an adaptor that installs between the vehicle radio and the vehicle antenna has been provided. To install the antenna adapter, follow this procedure:

1. Disconnect the vehicle antenna from the back of the vehicle radio.
2. Plug the adaptor male connector into the back of the radio.
3. Plug the vehicle antenna into the adaptor.
4. Route the 20-foot cable through the vehicle to the planned location of the receiver.

NOTE: If the 20-foot cable cannot be routed to the planned receiver location due to length constraints, it is strongly recommended that a new receiver location be tried. Any extension of the antenna cable is not recommended due to decreased performance of the system.

 **CAUTION**

UNDER NO CIRCUMSTANCES SHOULD THE BNC CONNECTOR AT THE END OF THE 20-FOOT CABLE BE CUT OFF. ANY MODIFICATION OF THE CABLE OR ANY OTHER PART OF THE REMOTE CONTROL SYSTEM **VOIDS WARRANTY**.

C. MAGNETIC SWITCH INSTALLATION

To install the magnetic switches, follow this procedure:

1. Disassemble the tail light housing on the curb side of the vehicle and determine if sufficient room exists for the magnetic switches.
2. If necessary, drill a hole to feed the magnetic switches into the housing area.
3. Place the switches and secure them to the inside of the tail light housing using RTV or other appropriate adhesive. Ideally, the switches should be placed in the same pattern as the switch pad on the Dash Station or Transmitter. If that is not possible, arranged them in a logical vertical or horizontal line, depending on the restrictions of the taillight.

NOTE: The wires for the magnetic switches are color coded as follows:

DEPLOY = GREEN STOW = WHITE DOWN = RED UP = BROWN

4. Route the magnetic switch cable to the planned Receiver location.

◦ **D. PRELIMINARY TESTING**

Before permanent installation of the receiver, the antenna and all harnesses must be connected for testing. Test the system in an open area, outdoors, with no obstacles between the transmitter and the vehicle. Stand 25-feet from the **vehicle's antenna**, in direct view of the equipment. Deploy and lower the equipment. There should not be any hitching in the motion of the lift during the deploy sequence. Raise and stow the equipment. There may be one or two hitches in the raising sequences, depending on the test conditions. This is acceptable since the AUP function will not normally be operated from that distance.


Improper coupling to the antenna is indicated if the unit hitches repeatedly or does not work at all at 25-feet. Determining the range at which it will work will aid in troubleshooting.

If the unit deploys normally but hitches repeatedly in the raising functions, it may be a faulty vehicle antenna, a poor coupling between the antenna and the adaptor, or a weak battery in the transmitter. Check to be sure that the male connector from the antenna is seated fully in the adaptor. Check that the BNC connector at the receiver is fully inserted.


If normal operation is possible at half the range (approximately 12-feet) then relocation of the receiver to an area farther away from motors may help. Noise suppression devices installed onto the motors may also help.

E. RECEIVER (P/N 29102) INSTALLATION

Note: For best operation and minimum electrical interference caused by the lift motor, the receiver must be mounted as far as possible from the lift motor.

 CAUTION »
THE RECEIVER MUST BE MOUNTED IN A LOCATION WHERE CONTACT WITH WATER OR OTHER ELECTRICAL CONDUCTING LIQUIDS CAN NOT OCCUR. THIS INCLUDES ANY SPACE BETWEEN THE OUTER SKIN AND THE INNER STEEL STRUCTURE, OR UNDER WINDOWS.

1. Remove the vehicle interior panels from the proposed location of the receiver.
2. Position the receiver in the proposed location to ensure proper wire and cable length.

 CAUTION
THE RECEIVER MAY BE MOUNTED IN ANY ORIENTATION. HOWEVER, THE CONNECTORS MUST BE ACCESSIBLE. IT IS PREFERRED THAT THE RECEIVER BE MOUNTED WITH THE CONNECTORS FACING DOWN TO MINIMIZE THE POSSIBILITY OF FOREIGN OBJECTS ENTERING THE RECEIVER CASE.

3. Drill 3/16" pilot holes for the screws and mount the receiver using #10 self-tapping screws.
4. Connect the wiring harness from the lift assembly by plugging the 6-pin connector into the receiver LIFT connector.
5. Route lift harness to the pendant interface connection on the lift. Disconnect the pendant. Plug the lift harness into the lift and the pendant into the lift harness.
6. Plug the Magnetic Switch harness and the Dash Station cable into the Receiver.
7. Reinstall vehicle interior panels.

F. NOISE SUPPRESSION DEVICES

The motor and motor wiring that operate the lift produce electrical noise which can reduce the effective operating range of the Radio Remote Control System. If range is a problem, check the connections between the Receiver and the antenna wire connector and the connections between the Antenna Adapter and the vehicle antenna. If the problem persists, install a suitable noise suppression device across the leads of any motor that operates as a result of Remote Control operation (0.1FF capacitor rated at 100 volts or more).

G. INSTALLATION VERIFICATION

- C Upon completion of installation, run the Radio Remote Control System through several cycles to ensure proper operation.
- C Make sure that the vehicle radio still receives FM stations adequately.

H. CUSTOMER ORIENTATION

IMPORTANT

- Customer Orientation -

Your Service Personnel should review the Warranty and the Service/Owner Manual with the owner to be certain they understand the safe operation of this product. Instruct the owner to always follow the operating instructions without exception.

III. OPERATING INSTRUCTIONS

Before operating the RICON Radio Remote Control System, a thorough understanding of the operation of the lift and any accessories is important. Please read and understand all operating instructions and safety precautions for the lift and accessories (e.g., power door operators) before attempting to operate the Radio Remote Control System.

A. SAFETY PRECAUTIONS

The following safety precautions must be complied with at all times:

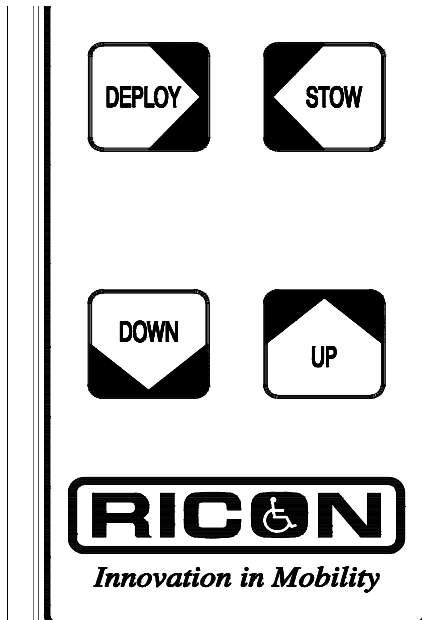
- C Vehicle must be safely parked, with engine turned off before using the remote control. If you must use the remote control with the engine running, be certain that the transmission is set in **PARK** and the parking brake is properly set.
- C Unusual noises or movements should be inspected immediately by an authorized Ricon Dealer.
- C Inspect the equipment being operated by the remote control prior to each use. If any unsafe condition exists, **DO NOT** use the equipment. Return to an authorized Ricon Dealer for repair.
- C Keep others clear of the equipment being operated with the remote control.
- C **ALWAYS** keep the wheelchair lift and accessories in full view when operating the Remote Control. Operating the Remote Control when the equipment is not in full view can be dangerous to other persons in the immediate area of the equipment.
- C Never leave the platform outside of the vehicle unattended. Always return the platform to stowed position and close the vehicle door(s) after use.
- C Do not allow children or others to play with the remote control as this may be dangerous.
- C Close supervision is necessary if the remote control is used by or near children.
- C Do not place your arms or legs in or near any folding parts of the lift or accessories.
- C Thoroughly read and understand all operating instructions for all equipment being operated by the remote control.

Be sure you have read, and understand each of these safety precautions. Review them periodically, and ask any attendants, or other wheelchair users operating your lift to read them as well. If you have any questions, please contact your installing Ricon Dealer, or call our Product Support Department at Ricon Corporation.

B. RADIO TRANSMITTER OPERATION

All Radio Transmitter functions are controlled by push-button, momentary switches. When a switch is pressed, power is applied to the transmitter and the command signal for the switch is sent to the encoder. The transmitter sends command messages as long as a switch is pressed. For the description of operation using the Radio Transmitter, refer to **Figure 4** and the following paragraphs:

 CAUTION
FOR SAFETY REASONS, ALWAYS BE WITHIN 25-FEET AND IN DIRECT VIEW OF THE VEHICLE WHEN OPERATING THE RADIO TRANSMITTER. NEVER PRESS ANY OF THE RADIO TRANSMITTER SWITCHES UNLESS WITHIN THIS SAFE OPERATING DISTANCE.



C The motor operating the lift may cause sporadic operation if the user is beyond a radius of approximately 25-feet. When operating within 25-feet of the vehicle, the transmitter power should be sufficient to overcome the interference and smooth control can be expected.

C Always set vehicle parking brake before using the Radio Remote Control System.

C The lift passenger and attendant should **always** follow the *LIFT OPERATION* instructions to enter or exit the vehicle as described in your wheelchair lift's Service/Owner Manual.

C To operate the lift using the Radio Transmitter, press and hold the appropriate switch for the desired function. As long as the switch is held, that function will operate. Releasing the switch will stop the function.

1. To deploy the platform, press and hold DEPLOY until the platform is fully deployed.

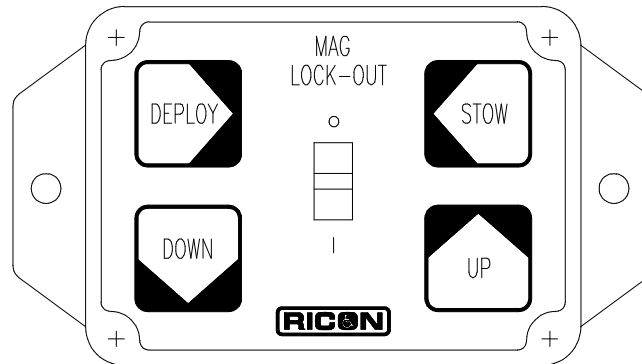
2. To lower the platform, press and hold DOWN until the platform is fully lowered to the ground and the rollstop opens completely.

3. To raise the platform, press and hold UP until the platform is raised to the safe floor level position.

4. To stow the platform, press and hold STOW until the platform is fully stowed.

C. RADIO DASH STATION OPERATION

For the descriptions of the Dash Station, refer to **Figure 5** and the following sections:



1. LIFT OPERATION

For the description of operation using the Dash Station, refer to the following paragraphs:

- C Always set vehicle parking brake before using the Radio Remote Control System.
- C The lift passenger and attendant should **always** follow the *LIFT OPERATION* instructions to enter or exit the vehicle as described in your wheelchair lift's Service/Owner Manual.
- C To operate the lift using the Dash Station, press and hold the appropriate switch for the desired function. As long as the switch is held, that function will operate. Releasing the switch will stop the function.
 - a. To deploy the platform, press and hold DEPLOY until the platform is fully deployed.
 - b. To lower the platform, press and hold DOWN until the platform is fully lowered to the ground and the rollstop opens completely.
 - c. To raise the platform, press and hold UP until the platform is raised to the safe floor level position.
 - d. To stow the platform, press and hold STOW until the platform is fully stowed.

2. MAGNETIC LOCK-OUT SWITCH

The MAG LOCK-OUT switch allows operation of the lift using the magnetic switch assembly located in the taillight of the vehicle. When the switch is in the "O" (ON) position, the magnetic switches may be used to operate the lift. When the switch is in the "I" (INOPERATIVE) position, the magnetic switches are disabled.

D. RADIO MAGNETIC SWITCH OPERATION

Before the lift can be operated using the magnetic switches, be certain the vehicle is parked on a level area away from traffic, and the engine is turned off. The MAG LOCK-OUT switch on the dash station must be in the "O" position.

- C To operate the lift using the taillight-mounted magnetic switches, hold the magnet key near the taillight location of the function switch to be activated. As long as the magnet is held near the switch, the function will operate. Removing the magnet from the switch will stop the function.

NOTES

IV. MAINTENANCE

Maintenance of the of the RICON Radio Remote Control System consists of changing the transmitter battery, re-programming the transmitter, and routine inspections. For maintenance procedures refer to the following sections:

A. CHANGING THE TRANSMITTER BATTERY

To change the transmitter battery, follow this procedure:

NOTE
USE ONLY A 9V ALKALINE OR LITHIUM BATTERY. SERVICE LIFE IS APPROXIMATELY 3-MONTHS, DEPENDING ON USAGE. RECHARGEABLE OR STANDARD BATTERIES ARE NOT RECOMMENDED.

1. Press in and down on the transmitter battery compartment cover. Slide the cover back and remove it from the transmitter.
2. Carefully remove the connector from the battery. *DO NOT* remove the connector by pulling on the wires.
3. Place the connector on the new battery and place the battery in the compartment.
4. Reinstall the battery compartment cover, being careful not to pinch the connector wires.

B. REPROGRAMMING THE TRANSMITTER

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The Transmitter of the Radio Remote Control System is programmed and tested to match the Receiver address code. Reprogramming of a transmitter is necessary only if the original transmitter or receiver is replaced or a second transmitter is purchased. To reprogram a transmitter, follow this procedure:

1. Note the receiver address code printed on the decal found on the side of the receiver.
2. Press in and down on the transmitter battery compartment cover. Slide the cover back and remove it from the transmitter.

NOTE
THE 10-POSITION DIP SWITCH IS NUMBERED FROM 1-10 ALONG THE TOP WITH AN INDICATION OF THE OPEN/OFF POSITION AT THE BOTTOM. POSITION THE SPECIFIC SWITCHES TOWARD THE NUMBER TO MATCH THE RECEIVER ADDRESS CODE. THE REMAINING SWITCHES MUST BE LEFT IN THE OPEN/OFF POSITION.

3. At the 10-position DIP switch, set the individual switches to match the receiver address code.
4. Reinstall the battery compartment cover.

C. INSPECTION

Ricon recommends that the Radio Remote Control System be inspected by an authorized Ricon dealer at least once every six months or sooner if necessary, depending on usage. Any required maintenance or repairs should be performed at that time.

NOTES

V. TROUBLESHOOTING GUIDE

The troubleshooting guide is designed to provide a logical starting point to locate general problems that could occur with the RICON Radio Remote Control System. However, not all possible problems or combinations of problems are listed.

TABLE 2: TROUBLESHOOTING GUIDE			
FUNCTION	SYMPTOM	POSSIBLE CAUSE	REMEDY
Radio Control System	No functions working.	Faulty cable connection.	Examine cable connection from Dash Station to Receiver, and from Receiver to Lift.
		Faulty connection of either safety input (red) wires.	Verify that both wires are properly connected to a source of 12 VDC when the lift should be operating.
		Improper grounding.	Verify that the black wire from the lift harness is connected to electrical ground.
		Lift inoperable.	Refer to Service/Owner manual for the lift to verify proper operation.
	Dash Station and magnetic switches will operate the lift, but the Radio Transmitter will not.	---	Go to "Radio Transmitter" function.
	Dash Station will operate the lift, but the magnetic switches will not.	---	Go to "Magnetic Switch" function.
	Unintended spontaneous operation.	Water or liquid has been introduced into the receiver.	Install receiver in a location protected from water or other liquids. »
Radio Transmitter	Lift Operates Intermittently over a wide range.	Transmitter range is poor.	Check connections between the receiver, antenna wire, vehicle antenna, and antenna adapter.
			Move receiver to another location, away from the lift motor or wires leading to the lift assembly.
			Replace the transmitter battery (9V Alkaline or Lithium).
			Install noise suppressors on the lift motor(s).
	Transmitter will not operate.	Improper address code.	Ensure that the address code in the transmitter matches the address code in the receiver.

TABLE 2: TROUBLESHOOTING GUIDE

FUNCTION	SYMPTOM	POSSIBLE CAUSE	REMEDY
		Transmitter or receiver may be defective.	Place the transmitter next to the receiver and press a switch a number of times and listen carefully at the receiver for a relay "click". If a click is heard when a switch is activated on the transmitter, the problem may be in the interconnection to the lift assembly. If no click is heard, the transmitter or receiver may be defective. Replace the transmitter and/or receiver pursuant to results of aforementioned test.
		Parking brake not set.	Set parking brake.
		Interlock circuit disconnected.	Contact Ricon dealer for repair.
	One or more transmitter functions will not work.	Transmitter may be defective.	Check that the same function(s) work when operated from the dash unit.
Magnetic Switch	None of the switches operate.	Poor connection at receiver-connector interface.	Make sure connector is plugged into the receiver.
		The dash unit Magnetic Lock-Out switch may be activated.	Make sure the Dash Station Magnetic Lock-Out switch is not in the AOPERATIVE@ (I) position.
	One or more of the switches do not operate.	Improper mounting of inoperable magnetic switches.	Make sure the magnetic switches that are not operable are mounted so that they are not too far from the lens to be operated by the magnet.
		Poor connections at receiver.	Check that all connections to the receiver are secure.

END OF TABLE

