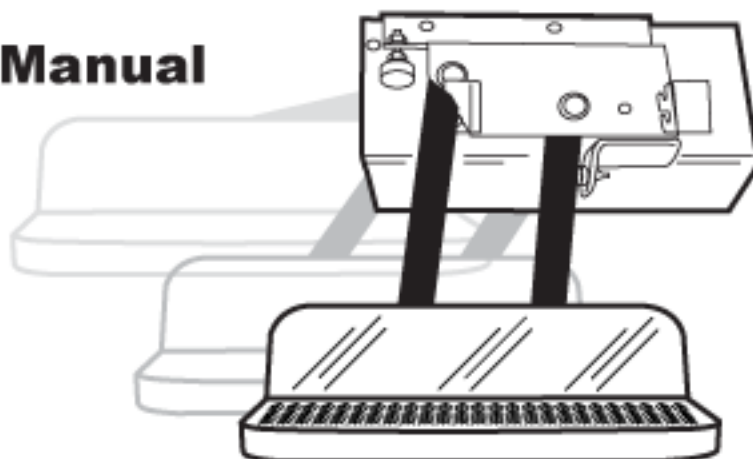




Owners Manual



Thank you for purchasing a KODIAK SideWinder™ retractable step.

Please take a few minutes to read through this Owners Manual and write the Serial Number of your step in the space provided by the Warranty Information, page 4.

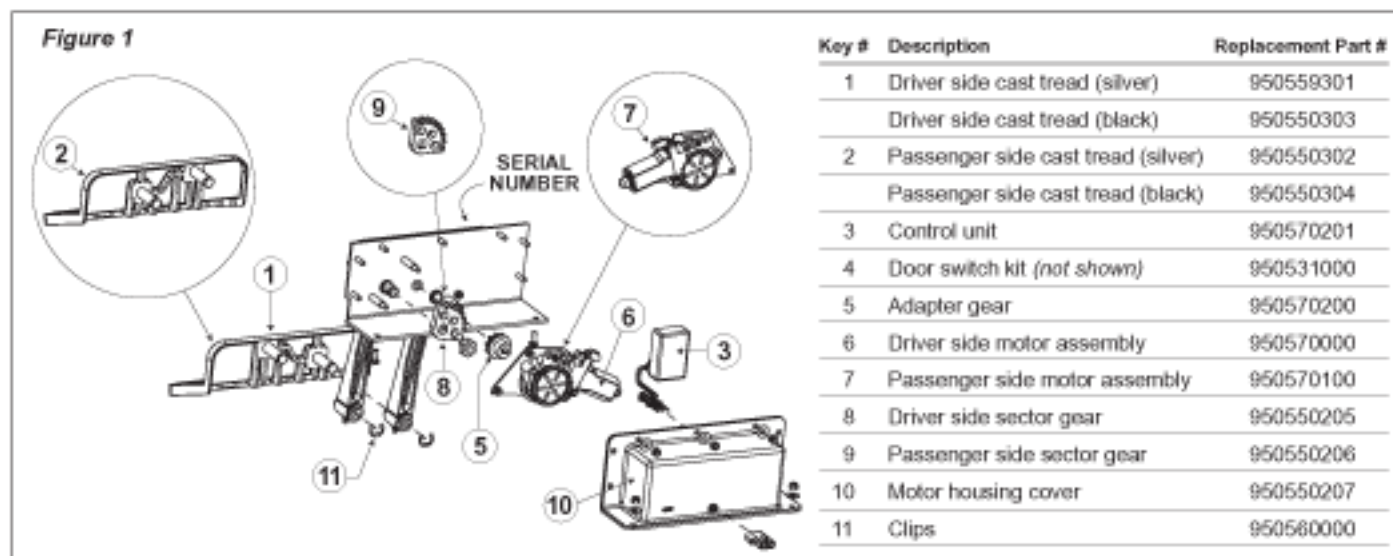
The Serial Number is located on the front of the step support (see Figure 1.)

INTRODUCTION AND OPERATION

This manual is provided to assist you with the operation and troubleshooting of the Sidewinder retractable electric step. The step operates with the use of a permanent magnet motor that uses gear reduction to extend and retract the tread. The door switch senses ground, and the step is extended when the switch is closed. An internal control unit is used as a sensor and switching device to run the step in both directions. When the motor assembly moves the step tread to the extended position, or stops moving because of an obstruction such as a curb, or binding in the mechanism, the motor draws more current. The control unit "senses" the increased current draw and shuts off power to the motor. In addition to the current protection, the motor is also thermally protected by an internal breaker that shuts off power to the motor and prevents overheating.

STEP DRIVE ASSEMBLY DIAGRAM

The diagram below shows an overview of the step assembly and identifies replacement parts that may be ordered if needed (see Figure 1). The main view illustration shows the driver side step, with components specific to a passenger side step shown in the bubbles. Please note the location of the Serial Number.



KODIAK
Specialty Vehicle Equipment

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TROUBLE SHOOTING

If the Sidewinder retractable step does not operate correctly after installation, please perform the following troubleshooting steps to isolate the problem before contacting customer service:

External Checks:

1. Check all fuses. The Sidewinder retractable step electrical kit includes an in-line fuse holder and a 20 amp fuse. Locate the fuse holder on the RED battery positive lead to the step. Check to see if the fuse is in place. If the fuse holder is empty, place a 20 amp blade style (ATC) fuse in the holder.

If the fuse is in place, remove the fuse and visually inspect the internal trace for breaks or burns. Replace the fuse if necessary.

2. Check all electrical connections for contact. Check the battery positive RED lead to the step to be sure it is connected tightly to the POSITIVE (+) terminal on the battery or a constant 12 volt POSITIVE (+) vehicle power source.

Check the ground GREEN lead to the step to be sure it is connected tightly to the NEGATIVE (-) terminal on the battery or an otherwise suitable ground location on the vehicle.

Check the 3 way connector from the chassis harness to the step. Be sure the colors on the harness match up to the colors on the step (RED to RED, GREEN to GREEN, and BROWN to BROWN). Be sure the connector is pushed together tightly until it "clicks" and is locked together.

Check the door switch connections. Make sure the paint around the door switch hole has been scraped to provide a good grounding surface.

Check any other splices that may have been made to lengthen or alter the provided harness. Make sure all splices are tight and free of corrosion.

3. Check wire harness at the step for power and ground continuity. This check requires the use of a meter. Disconnect the 3-way connector between the step and the harness. Using the meter set to read 12 volts, place one meter lead to ground and one to the RED battery positive lead in the harness. The meter should indicate at least 9.0 volts on the RED lead, and no more than 18.0 volts. If there is no voltage on the RED lead and all of the connections and fuses have been checked, the harness needs to be replaced. If there is less than 9.0 volts, check the battery voltage. If the battery voltage appears good, the harness needs to be replaced. If there is more than 18.0 volts, there may be a problem with the vehicle electrical system that should be addressed by a certified technician.

Set the meter to measure resistance (OHMS) or for a continuity check. With one meter lead to ground and the other to the GREEN lead from the harness, the meter should read very close to zero ohms or as a closed, continuous circuit. If all of the connections have been checked and the meter reads an open circuit or very high resistance, the harness needs to be replaced.

Re-connect the 3 way connector when all checks are complete.

4. Check the door switch operation. This check also requires the use of a meter, set to measure resistance (OHMS) or continuity. Disconnect the 3-way connector at the step. With one meter lead on ground and the other lead to the brown wire, close the vehicle door. With the door closed, the meter should show an open circuit. With the meter still in place, open the vehicle



KwikLube™ is a unique aerosol grease that has hundreds of automotive, household, and industrial uses in addition to lubricating the Kodiak SideWinder™ step. It sprays on and into hard to reach places. KwikLube™ changes from a penetrating fluid to a tough, protective grease in a matter of minutes! The cured film is impervious to moisture and can withstand temperatures above 400° F (204° C). This formulation also contains additives to prevent rust and reduce wear.

Ask for
KwikLube™
 At your local
 Auto Parts or
 RV Dealer

door. The meter should now show little or no resistance, or a continuous closed circuit. If all harness connections have been checked, and the meter does not confirm proper door switch operation, replace the door switch.

Re-connect the 3 way connector when all checks are complete.

5. Check the vehicle battery voltage. This check requires the use of a meter, set to read up to 20 volts. The Sidewinder step will not operate if the voltage at the step falls below 9.0 volts DC or rises above 18.0 volts DC. With the vehicle engine OFF, place one meter lead on the NEGATIVE (-) battery terminal, and one meter lead on the POSITIVE (+) battery terminal. The meter should read between 12 and 14 volts. If the meter indicates less than 12 volts, the battery may require charging or replacement.

Start the vehicle engine, taking care to be sure all tools and meter leads are away from the fan and other moving parts. With one meter lead on the NEGATIVE (-) battery terminal, and one meter lead on the POSITIVE (+) battery terminal, the meter should read around 14 volts. If the meter indicates more than 18 volts when the vehicle engine is running, there may be a problem with the vehicle electrical system that should be addressed by a certified technician.

If all of these checks have been completed and the Sidewinder step still does not function properly, contact Kodiak's Customer Service group at 1-800-962-2881 from 7:00 am to 5:00 p.m. Pacific time for additional assistance.

MAINTENANCE AND LUBRICATION

Clean all mud, salt, and road grime from the step before lubricating. Lubricate the upper bearing points with a good quality moisture and heat resistant penetrating grease, as shown in **Figure 2**. Kwiklube Spray Grease is specially formulated for this purpose.

The pivot point at the lower end of the legs contain zinc grease fittings and are illustrated in **Figure 3**. Apply standard automotive chassis grease to these at the same intervals as the vehicle chassis is greased.

Note: We recommend that penetrating oils and silicone lubricants not be used on the step as they do not retain lubrication.

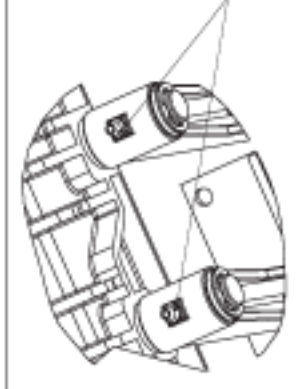
Figure 2



Spray Lubrication Points

Figure 3

Leg End Grease Fittings



SERIAL NUMBER

Use this space to record the Serial Number of your step. You will find it on the front of the step support (see *Figure 1*).

SERIAL NUMBER

DATE OF PURCHASE

Please have your Serial Number handy before calling the Kodiak Service Line.

WARRANTY

1. We warrant that the equipment is free from defects in material and workmanship under normal use and service. The provisions of this warranty shall not apply to any equipment that has been subject to misuse, negligence, alteration, accident, improper installation, or has been repaired in any way as, in our reasonable judgement, to adversely affect its performance and reliability.

2. Our obligation under this warranty is limited to repairing or replacing, at our option, any product that is returned to our place of business and when in its examination shall disclose to our reasonable satisfaction that it is defective. The repair or replacement of the defective parts under this warranty will be made without charge for parts. Shipping charges for returning parts to Kodiak Products shall be the responsibility of the customer. Kodiak will not accept C.O.D. shipment of any returned goods.

3. The warranty is effective as of the date of sale to the original purchaser and extends one year for parts on the step mechanism. Since it is the responsibility of the owner to verify the original purchase date, Kodiak Products recommends that a bill of sale or sales receipt be kept for that purpose.

4. The duration of any implied warranty of merchantability or fitness for a particular purpose shall be limited in all respects to the duration of the limited warranty, and the warranty described above shall be in lieu of any other express warranty. Some states do not allow limitations on how long implied warranty last, so the above limitations may not apply to you. We neither assume or authorize any other persons to assume any other liability in connection with our products.

5. The buyer's sole and exclusive remedy against the seller shall be for the repair or replacement of defective merchandise as provided above. No other remedy, including but not limited to, incidental or consequential damages for lost profits, lost sales, injury to property or any other incidental or consequential loss, shall be available to him. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. Before using, user shall determine the suitability of the product for its intended use, and user assumes all risk and liability whatsoever in connection there with.

6. Kodiak will not, under any circumstances, reimburse the cost of warranty parts purchased from sources other than Kodiak Products Company.

7. This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

Warranty Guidelines and Procedures

1. Replace only those parts that are defective. Motors, gears, covers, and control units are all replaceable as individual parts. If you exchange a complete assembly when only the replacement of an individual part is required, the non-defective parts will be returned and only the defective part will be credited to you or replaced.

2. A Returned Goods Authorization (RGA) number must be obtained before any parts or claims are sent in. Call Kodiak's Service Line at 1-800-962-2881 for an RGA number.

Our warranty is limited solely to replacement of defective parts.