

PART NUMBER

# SSR-106-40-1/47-1/54-1



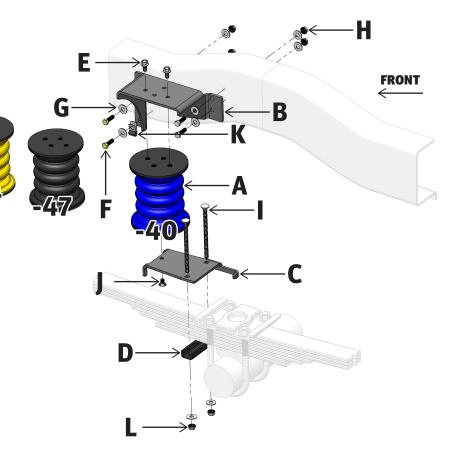
### **BEFORE YOU BEGIN**

#### PRIMARY APPLICATIONS

- Ford E-350 Club Wagon 4 X 2 (2002 - 2005)
- > Ford E-350 Econoline Club Wagon 4 X 2 (2001 - 2002)
- > Ford E-350 Super Duty 4 X 2 (2001 - present)
- > Ford E-450 Econoline Super Duty 4 X 2 (2001 - 2002)
- > Ford E-450 Super Duty 4 X 2 (2003 - present)

#### **TOOLS REQUIRED**

- > Floor Jack
- > Jack Stands
- Wheel Chocks
- 9/16" Wrench
- > 9/16" Socket & Wrench
- > Electric Drill
- > 3/8" Drill Bit
- > 7/32" Allen Wrench



### **DRIVER SIDE (PASSENGER SIDE SIMILAR)**

### **PARTS LIST**

Item	Part #	Discription	QTY
А	511405	SumoSprings Blue -40	
	511402	SumoSprings Black -47	2
	511403	SumoSprings Yellow -54	
В	512067	Upper Bracket (Passenger)	1
	512068	Upper Bracket (Driver)	1
С	512066	Lower Bracket	2
D	512047	Bracket Strap	2
Е	512207	3/8-16 x ¾" Serrated Flange Hex Bolt	4
F	512223	3/8-16 x 1 ¼" Hex Bolt	8
G	512227	3/8 Flat Washer	20
Н	512209	3/8-16 Serrated Flange Hex Nut	8
- 1	512210	3/8-16 x 6" Carriage Bolt	4
J	512245	3/8-16 x 7/8" FHCS	2
K	512285	3/8 P-Clamp	1
L	512234	3/8-16 Top-Lock Nuts	4

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### **Product Line: SUMOSPRINGS REAR**

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SAFETY NOTICE: We recommend installation be done by a professional or persons with sound mechanical knowledge.

**WARNING:** These instructions are a general guide for installation. SuperSprings International (SSI) assumes no liability for the actual installation process. Consumers and installers should apply common automotive safety practices when raising and working on any vehicle. Do not put yourself in a position where, if the vehicle were to move unexpectedly, you may be injured. SSI's products are designed to improve vehicle ride quality. Do not load any vehicle beyond the manufacturer's specifications.

Never exceed the manufacturer's Gross Vehicle Rating (GVWR) located on your vehicles identification tag.

BEFORE INSTALLATION: Ensure the vehicle is on a hard level surface, the parking brake is ON, with the ignition OFF, and place chocks in front of and behind the tires to prevent the vehicle from moving.

DURING AND/OR AFTER INSTALLATION: Ensure emergency brake cables are not touching the SSI products. Secure any cables out of the way with zip ties or by re-routing. Ensure all A/C lines, brake cables, and frame are clear of contact or interference

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#### **INSTALLATION**

- **1.** Park vehicle of level hard surface. Place wheel chocks in front and behind the front wheels to prevent rolling. Observe all safety precautions and wear safety glasses.
- **2.** Using a properly rated floor jack, raise the back of the vehicle by placing the jack under the center of the differential. Raise the vehicle far enough so that the rear wheels can be removed and the installation can be performed comfortably.
- **3.** Place properly rated safety stands under the frame and lower the axle, if necessary, to be able to remove the rear wheels. Removal of the rear wheels is optional.
- **4.** Open the SumoSprings carton and remove the contents. Starting on the driver side select the SumoSpring [ITEM A], Upper Bracket [ITEM B] and Lower Bracket [ITEM C]. Attach the upper bracket to the top of the SumoSpring using two 3/8-16 X ¾" Serrated Flange Hex Bolts [ITEM E] utilizing the two wider set of holes that have a 2.75" centerline. Attach the lower bracket to the underside of the SumoSpring using the 3/8-16 x 7/8" FHCS [ITEM J] with a 7/32" Allen wrench. Align the lower bracket parallel to the upper bracket as shown and torque all attaching bolts to 35 ft. lbs.
- **5.** Remove the spring that holds the emergency brake cable in position on the outside of the left frame rail. Relocate the spring to the hole in the brake-line bracket as shown and attach the other end to the emergency brake cable. See diagram A and B below.



**DIAGRAM A** 



DIAGRAM B

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### **INSTALLATION**

- **6.** Place the SumoSpring assembly on top of the leaf spring pack immediately forward of the u-bolt attaching plate, ensuring that the hook on the lower bracket is behind the forward u-bolt on the inside of the leaf spring. If there is a cable clamp bolt protruding from the outside of the frame on the driver side this threaded stud will damage the Sumospring and needs to be trimmed back. Alternatively you can remove the nut and install washers onto the bolt inside of the frame then replace the nut to reduce the bolt protrusion and eliminate damage to the Sumospring. See diagram C.
- 7. Attach the lower bracket to the leaf spring pack using 2 3/8-16 X 6" Carriage Bolts [ITEM I]. Place the Bracket Strap [ITEM D], grooved side up, over the bolts under the leaf spring pack and retain with 3/8-16 Lock Nuts [ITEM L] and 3/8 Flat Washers [ITEM G]. Ensure that the bracket is against the u-bolt attaching plate and the hook properly engages the u-bolt. Tighten the nuts securely.
- 8. The front two holes in the bracket will align with two 5/16" factory holes that are vertically situated just behind the sway-bar attaching link. See diagram D. The three holes marked with arrows are all used and to be enlarged to 3/8". The axle may have to be raised or lowered to achieve the correct height for bolt alignment.
- 9. Ensure that all electrical, fuel, brake lines and other items are moved from inside the frame prior to drilling in all locations. It is recommended that a small piece of wood be placed inside the frame between the lines etc. to eliminate possible damage from the drill bit. Use this procedure whenever drilling during this installation.







**DIAGRAM D** 

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#### **INSTALLATION**

- **10.** Enlarge these 5/16" holes with a 3/8" drill bit using the bracket as a template.
- **11.** Loosely attach the bracket using a 3/8-16 x 1" bolt, nut and washers through the front top hole. Place the 3/8 P-clamp [ITEM K] around the emergency brake cable so the cable will pass under the bracket and the hole in the clamp will align with the lower front hole in the bracket. Attach the P-clamp to the bracket by inserting a 3/8 bolt and washer through the hole in the clamp and through the lower hole in the bracket. Loosely attach with washer and nut.
- **12.** The top hole in the rear of the bracket will align with a 5/16" hole in the frame [DIAGRAM D]. Check for clearance on the inside of the frame and enlarge this 5/16" hole to 3/8" hole using a 3/8" drill bit using the bracket as a template. Using the bracket as a template again, drill a 3/8" hole in the frame through the lowest hole in the rear of the bracket after again checking behind the area for lines and wires. Insert two 3/8-16 x 1" bolts, nuts and washers and tighten all four of the bracket attaching bolts securely.
- 13. Repeat steps 4 through 12 on the passenger side of the vehicle (with exception of P-clamp attaching detail).
- **14.** If rear wheels were removed you can now reinstall the rear wheels and torque wheel nuts to manufacturers specifications.
- **15.** Jack up vehicle, remove safety jack stands.
- **16.** Remove wheel chocks from the front wheels.
- **17.** Register the warranty for your SuperSprings International part. A warranty card can be found in the box your part came in.

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