

PART NUMBER  
**SSA34.5**



## BEFORE YOU BEGIN

### PRIMARY APPLICATIONS

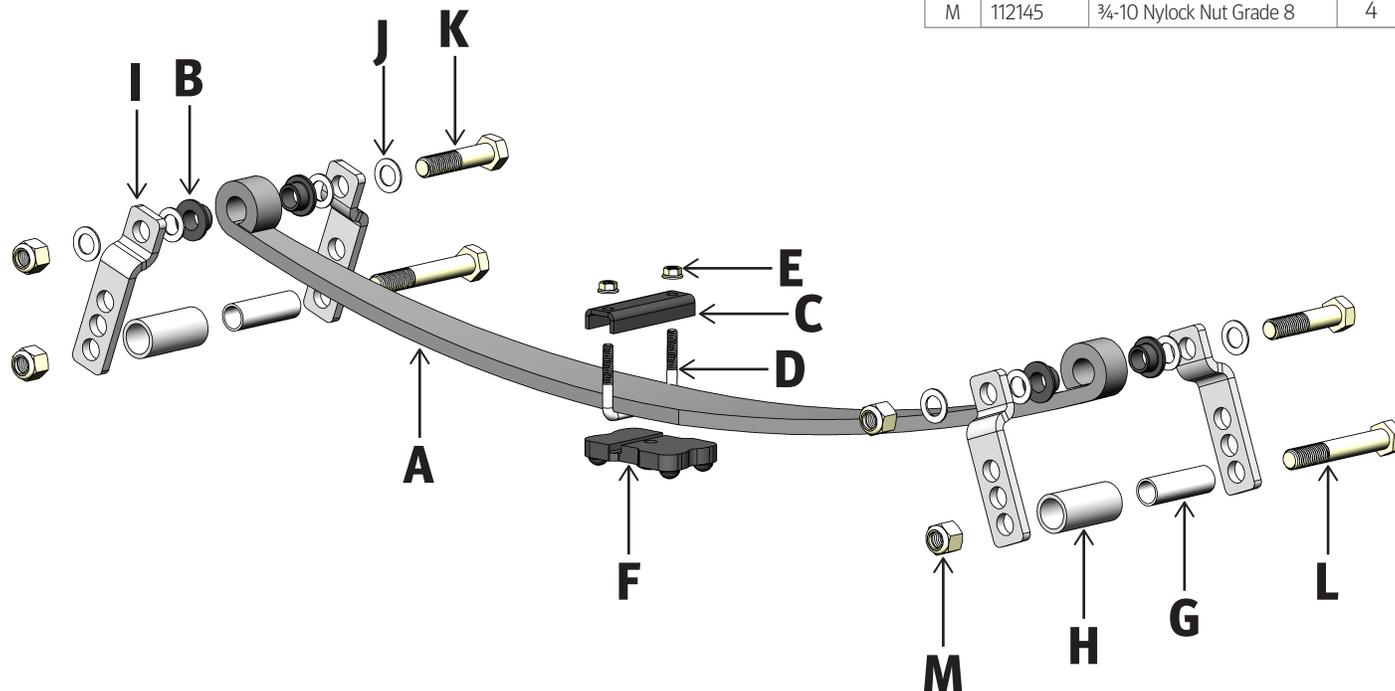
- > Ford E-350 Club Wagon 4 X 2 (2002 - 2005)
- > Ford E-350 Econoline 4 X 2 (1975 - 2000)
- > Ford E-350 Econoline Club Wagon 4 X 2 (1977 - 2002)
- > Ford E-350 Super Duty 4 X 2 (1999 - 2021)

### TOOLS REQUIRED

- > Floor Jack
- > Safety Jack Stands
- > Wheel Chocks
- > 1-1/16" Wrench/Socket
- > 1-1/8" Wrench/Socket
- > 9/16" Wrench/Socket
- > Heavy Duty Clamps or SuperSprings Installation Tool

### PARTS LIST

Item	Part #	Discription	QTY
A	102034	SSA34 Leaf Spring	1
B	112141	Polyurethane Bushing	4
C	112185	Clamp Bracket	1
D	112183	3/8 Square U-Bolt	1
E	512302	3/8-16 Locking Flange Nut	2
F	PSP-11	Polyurethane Spring Pad	1
G	112142	Steel Sleeve	2
H	112159	Steel Roller	2
I	122409	Shackle Leg	4
J	112146	3/4" Nylon Flat Washer	8
K	112144	3/4-10 x 3 1/2" Hex Bolt Grade 8	2
L	112143	3/4-10 x 5" Hex Bolt Grade 8	2
M	112145	3/4-10 Nylock Nut Grade 8	4



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Product Line: SUPERSPRINGS

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Questions or Concerns?

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superspringsinternational.com

**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 the vehicle on a hard, level surface. Ensure emergency brake is ON and Ignition is OFF. Chock both front and rear of the front tires to prevent the vehicle from moving. Observe all safety precautions and wear safety glasses.
  2. Raise the rear of vehicle to allow the axle to hang freely and support the frame using safety jack stands. Removal of the wheel is optional but suggested when bodies are mounted.
  3. Remove the shackle roller assemblies from the SuperSprings and set aside the bolts [ITEM L], nuts [ITEM M], rollers [ITEM H], and sleeves [ITEM G]. Rotate the shackles toward the center and parallel to the spring so that they are positioned in the way they were shipped in the box. The SSA34 does not have a designated left/right, or front/rear, but should be positioned so the threads of the shackle bolts are facing outboard, away from the frame.
  4. As shown in the diagram, place the Square U-Bolt [ITEM D] around the spring so the threads are facing up. Install the clamping plate [ITEM C] onto the U-bolt with the open side down and center onto the spring blade. Using 9/16" tools, install the 3/8 Locking Flange Nuts [ITEM E] but only partially tighten the nuts so that the clamp assembly can still be moved freely on the spring blade.
  5. Place the PSP-11 [ITEM F] with the flat side up, centered between the U-bolts on top of the factory spring-plate.
  6. Starting with the driver side, place the SuperSpring on top of the OE leaf pack and position the lockdown assembly so that the base of the U-bolt is placed into the surface relief slot of the PSP-11 mounting pad.
- NOTE:** The top/spring eye shackle bolts are factory pre-torqued; no adjustment/further tightening is needed. If any are loosened during installation, retighten to 35 ft. lbs.
7. Shackle Attachment Front - Rotate the front shackles legs down

on both sides of the leaf spring. Using a SuperSprings Installation Tool or other high capacity clamp(s), compress the SuperSprings and factory leaf pack together. Place the Sleeve [ITEM G] and the Roller [ITEM H] between the Shackles and align with desired preload holes. Secure with 3/4-10 x 5" Hex Bolt [ITEM L] (threads facing away from the frame) and 3/4-10 Lock Nut [ITEM M]. Torque to 35 ft. lbs. Ensure there is clearance on all sides of the shackle.

8. Shackle Attachment Rear – Rotate the rear shackles legs down on both sides of the leaf spring. Using a SuperSprings Installation Tool or other high capacity clamp(s), compress the SuperSprings and factory leaf pack together. Place the Sleeve [ITEM G] and the Roller [ITEM H] between the Shackles and align with desired preload holes. Secure with 3/4-10 x 5" Hex bolt [ITEM L] and 3/4-10 Lock Nut [ITEM M]. Torque to 35 ft. lbs.

**NOTE:** The upper hole use is optional if additional spring preload is desired. In either case, install the low profile bolt [ITEM K] with threads facing outward toward the wheel. The final front shackle position, roller will be just upon 2nd leaf in close proximity to the leading edge. Install nut [ITEM M] and tighten until the inner sleeve is in full contact with shackle legs. Torque to 35 ft. lbs.

9. Tighten flange nuts [ITEM E] until cross plate has fully engaged spring surface. Do not over tighten or distort plate shape to excess.
10. Repeat steps 3 through 9 on the passenger side.
11. Lower the vehicle – elevate chassis, remove the jack stands, lower to the ground. Remove wheel chocks from front wheels.
12. Check the position of the SuperSprings ensuring for correct hardware application and orientation. Observe all hardware ensuring for static and dynamic interference clearances. Recheck all hardware to ensure it is securely tightened.
13. 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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