

# **Installation Instructions**

For easy installation, you will need to:

- READ ALL the instructions completely before beginning.
- Have the necessary tools available

Tools required:

- 1 1 1/16" wrench / socket
- $1 1 \frac{1}{8}$ " wrench / socket
- 1 Industrial strength steel clamp[s]/press or SuperSprings Installation tool (recommended).

**SAFETY NOTICE**: WE RECOMMEND THAT THIS INSTALLATION BE DONE BY A PROFESSIONAL OR PERSONS WITH SOUND MECHANICAL KNOWLEDGE.

**SUPERSPRINGS** are designed to work in conjunction with <u>original equipment (factory) springs only</u>. Please consult SuperSprings factory (866-898-0720) if original springs have been replaced with an after-market product.

**WARNING:** These instructions are meant to be a general guide for installing SuperSprings. SuperSprings International assumes no liability for the actual installation process. Consumers should apply common automotive safety practices when raising and working on any vehicles. Do NOT put yourself in a position where if the vehicle should move unexpectedly, you may be seriously hurt. SuperSprings are designed to improve vehicle carrying capacity and road handling. Do NOT load any vehicle beyond the manufacturer's specifications.

#### LIMITED WARRANTY

See separate warranty information page.

SuperSprings International Corporation 505 Maple Avenue, Carpinteria, CA 93013 www.supersprings.com Technical Support: 866-898-0720 Email: tech@supersprings.com

### Prior to installation ensure the following steps have been taken:

Vehicle must be on level solid surface. Parking brake ON - Ignition OFF. Place blocks in front and rear of the front tires to prevent the vehicle moving.

# During and / or after installation

Ensure emergency brake cables are not touching the SuperSprings blade(s). Secure them out of the way with zip ties or by re-routing. Avoid all air conditioning lines, all fuel filler hoses and all brake lines or cables. Position the SuperSprings so there is sufficient clearance from any frame contact both horizontally and vertically. Also, where applicable, the ends (eye) of the SuperSprings must avoid contact with any factory overload spring perch or bracket.

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### Installation Instructions SuperSprings Model #SSA33 with Poly Spring Pad (PSP-19) Dodge RAM 4500 /5500HD Chassis Cab

Note: Installation requires compressing and affixing the SuperSprings to the factory spring pack. The model of SuperSprings and the type of factory springs are important factors in determining the amount of compressive force needed. The level of compressive/force required is greatly minimized when the factory spring pack[s] are placed in their most "relaxed & unloaded" state. Ease of installation is greatly improved when using one of our Installation Tools found on our website.

**Step 1:** Regardless method of lifting to be employed [i.e. jack, hoist, fork lift], lifting support must only be applied via the <u>chassis/frame</u>. Removal of the wheels is unnecessary in most cases although may be required with certain commercial truck bodies. [Ex. wrecker bodies] Optionally elevate the entire vehicle rear or lift one side to begin with providing adequate lift until the back wheel[s] until slightly off the ground.

**Step 2:** Installation: Remove the SuperSprings roller bolts, steel rollers & sleeves from shackle ends. Torque of spring eye bolts is pre-set at factory and no adjustment is needed. Swing the shackles up parallel to the blade[s] in preparation to be installed.

Step 3: Install included PSP-19 poly spring mounting pad grooved side-up as shown on following page.

**Step 4:** Insert spring with the eye bolts threads facing outward & position top of the PSP-19. **Position the SuperSprings so there is sufficient clearance from any frame contact both horizontally and vertically.** Also, where applicable, the ends (eye) of the SuperSprings must avoid contact with any factory overload spring perch or bracket.

**Step 5:** Front Side: Adjust the spring position until the eyes are approximately located as shown on following page. Removal of plastic tab below factory spring leaf is suggested if it conflicts with roller placement. Swing shackles down into place as shown. Using a heavy duty clamp or a SuperSprings *installation tool* compress down the front until bolt, sleeve & roller can be re-assembled under the factory leaf pack, secure with nut. Note: See "<u>Shackle hole selection</u>" below.

**Step 6:** Rear Side: Install as in Step 5 above, swing shackles into position. Shackle should be in the space just to the inside [axle side] of the clip as shown. Optimum spring action is obtained when there is a small gap remaining between the roller & the nearest axle-ward obstacle or next leaf end. Compress SuperSpring & select desired shackle hole re-assemble & secure the shackle hardware.

**Step 7:** To install opposite side, repeat above installation method. Ensure spring eye bolts threads are facing outward. Lower, test drive and/or test load vehicle, check for SuperSpring clearance to frame, spring hangers, brake or other cables/lines. Ensure installed nuts are tightened. If needed, make any desired adjustments to vehicle level via shackle hole re-selection at this time.

<u>Shackle hole selection</u>: Use of top/upper shackle bolt holes will induce maximum preload tension and result in the greatest "lift" to the rear of the vehicle. Use of bottom/lower shackles bolt holes will induce minimum preload tension and least "lift" possible. Use of different combinations of upper/ lower shackle bolt holes, either back to front or side to side allows for leveling adjustments to be made to the rear of vehicle to accommodate varying fixed load configurations. Not all applications will allow use of all hole positions.



Suspension Enhancement Dodge 4500HD/5500HD Chassis Cab [2007-2017] SuperSprings Part # SSA33 with PSP Mounting





PSP-19 with hold-down clamp assembly

## **Typical PSP Mounting Kit Installation**



Place PSP-19 on top of spring plate flat side up facing, with groove toward the front



Install the SuperSprings as pictured below, then thread the channel crossplate on to the ubolt. Tighten securely.





Front>

# Adjustment For Preload & Ride Height

<Rear

Refer to SuperSprings application guide for part selection www.supersprings.com [Tech line #866-898-0720] SuperSprings enhance load carrying capability, handling & towing. Never exceed vehicle manufacturer's GVWR rating.