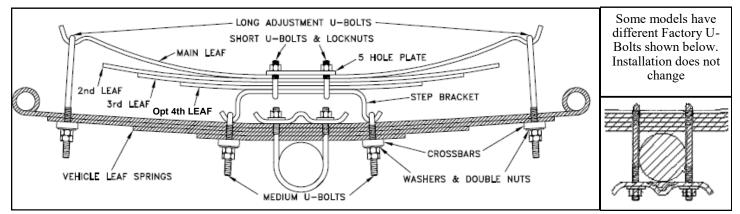


# INSTALLATION INSTRUCTIONS LP Helper Springs

Thank you for purchasing a quality Hellwig Product. PLEASE READ THIS INSTRUCTION SHEET COMPLETELY BEFORE STARTING YOUR INSTALLATION.



# SAFETY: BEFORE STARTING YOUR INSTALLATION, PARK YOUR VEHICLE ON A FLAT LEVEL SURFACE, SET THE PARKING BRAKE, AND CHOCK THE FRONT TIRES.

IMPORTANT NOTES:

- 1. IF YOUR VEHICLE IS EQUIPPED WITH A BRAKE FLUID PROPORTIONING VALVE ON THE REAR AXLE READ INSERT (R-362)
- 2. IF YOUR VEHICLE IS EQUIPPED WITH A FACTORY CONTACT OVERLOAD IT MUST BE REMOVED BEFORE INSTALLING THE NEW HELPER SPRINGS
- 3. DO NOT INSTALL ON VEHICLES WITH COMPOSITE (PLASTIC) LEAF SPRINGS.
- 4. THIS KIT INCLUDES LOCK NUTS WHICH REQUIRE TIGHTENING WITH A WRENCH AFTER BEING STARTED BY HAND.
- 5. YOUR SPRING MAY HAVE A SMALL HOLE IN THE END. THIS IS FOR OUR MANUFACTURING PROCESS AND WILL NOT BE USED.
- HELLWIG HELPER SPRINGS ARE DESIGNED TO INCREASE THE "LEVEL LOAD" CARRYING CAPACITY OF YOUR VEHICLE. NEVER LOAD THE VEHICLE THAT THIS UNIT IS INSTALLED ON BEYOND THE MANUFACTURER'S MAXIMUM GROSS VEHICLE WEIGHT RATING.
- 7. SEE PAGE 2 FOR ADDITIONAL VEHICLE SPECIFIC NOTES.

## STEPS:

- 1. Lay out the spring leaves into two sets. Each will consist of a long, medium and a short leaf (with an additional shorter leaf if installing an LP-35). The hole in the middle of the leaves is punched off center. Lay the leaves so that the long ends are all in the same direction.
- 2. Stack the leaves so that the short leaf is on the bottom and the long leaf is on the top. Use the 3/8" bolt, nut, and lock washer to fasten the spring stacks together and torque to spec.
- 3. Place the spring stacks on top of the step brackets and install the 5 hole plate on top of the spring stack using the small (7/16") U-bolts and lock nuts as shown in the diagram above. Four leaf LP-35 installations will use the slightly longer U-bolts provided in the leaf spring box. Make sure the springs are straight in line with the step bracket and torque to spec.



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- 4. Place the assembled spring on top of the truck springs with the step bracket straddling the axle U-bolts. In most cases the long ends of the springs go towards the rear. Adjust the spring stacks fore or aft as necessary to for best fitment between spring clamps, leaf tips, and any other vehicle components.
- 5. Place the medium U-bolts in the cups at the ends of the step brackets as shown in the diagram. Loosely install crossbars using provided hardware.
- 6. Place the long U-bolts in the cups at the ends of the helper springs as shown in the diagram. Loosely install the crossbars using provided hardware. It may be necessary to raise the vehicle by the frame to increase arc in factory leaf pack to ease installation. If raised, lower vehicle back to ground after installing crossbars.
- 7. Torque nuts on medium u-bolts on step brackets to spec and double nut.
- 8. Adjust the U-bolts at the end of the springs to the desired preload and double nut. The minimum adjustment is having enough tension on the end U-bolts so that they do not loosen or rattle when the vehicle is driven over rough or bumpy surfaces. Maximum adjustment is when the leaf cups have been deflected two inches from their free state. DO NOT EXCEED THE MAXIMUM ADJUSTMENT OF 2 INCHES.
- 9. Check your installation for clearance on all undercarriage components; wires, fuel, brake, and air conditioning lines. Test drive the vehicle and recheck your installation, adjust as needed. Recheck on a periodic basis thereafter.

# TORQUE TABLE:

BOLT SIZE: 3/8" = 20-30 ft. lbs. -7/16" = 35-45 ft. lbs.  $-\frac{1}{2}" = 50-70$  ft. lbs. -9/16" = 70-90 ft. lbs.

# ATTENTION INSTALLER: BE SURE THAT THE CUSTOMER RECEIVES THIS INSTRUCTION SHEET, ALL IMORTANT NOTE CARDS AND THE WARRANTY FORM

### MAINTENANCE AND INSPECTION:

Your Hellwig Suspension Product is built to last. However, as with all vehicle systems, it requires routine inspection. Inspect your Hellwig installation looking for secure hardware and tight fitting brackets. If you do not perform this inspection, have your professional mechanic inspect as described.

### THANKYOU FOR PURCHASING A QUALITY HELLWIG PRODUCT

Hellwig Products Company, located in Visalia, California was founded in 1946 with solutions for load and sway control. The family operated company produces components for trucks, RVs, muscle cars, fleets and military vehicles. Hellwig is ISO9001 certified and is proud to develop, test and manufacture products in the USA.

### VEHICLE SPECIFIC NOTES:

- DODGE Sprinter van or chassis: Do NOT install on monoleaf springs. This product is designed to be installed on multi-leaf applications only.
- DODGE van or motorhome chassis models B300, B400, MB300, MB400, F30, F40, or F44 with plastic molded gas tank: A special clearance bracket is required and is available through your local dealer or from Hellwig Products Company (SB621).