"Quality Suspension Components Since 1981"

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REAR FLIP KIT INSTRUCTIONS

Make	Model	Years	Drop	Part #
Chevy/GMC	C10/Blazer	1973-1987	4.5"-5.5"	2104
Chevy/GMC	C20/Blazer	1973-1987	4.5"-5.5"	2115
Chevy/GMC	C30 Reg. Cab	1973-1987	6"-7"	2116
Chevy/GMC	C30 Crew Cab	1973-1991	6"-7"	2116
Chevy/GMC	C1500/Blazer	1988-1998	6"	2106
Chevy/GMC	C1500 Pickup	1999-Current	5.5"	2110
Chevy	C1500 SS 454	1990-1994	6"	2108
Chevy/GMC	C3500 Reg./Ext	1988-Current	7"	2109
Chevy/GMC	C3500 Crew Cab	1992-Current	7"	2109
Ford	F150 Pickup	1997-Current	6"	2119
Dodge	Ram 1500	1994-Current	6"	2113

♦**SPECIAL NOTE**: Before starting installation, carefully measure all four corners of the vehicle. To measure the proper ride heights take a measurement from the center of the hub to the bottom of the fender well. Please document your measurements here.

RF_____ LF_____ RR_____ LR_____

PLEASE READ: Read the instructions thoroughly before beginning this installation. Do not work under a vehicle supported by only a jack. Place support stands securely under the vehicle in the manufacturer's specified locations unless otherwise instructed. Do not drive vehicle until all work has been completed and checked. Torque all hardware to values specified. Proper use of safety equipment and eye / face / hand protection is necessary when using tools to perform procedures. It is very helpful to have an assistant available during installation.

TOOLS NEEDED FOR INSTALLATION:

- Floor Jack
- Jack Stands
- Socket Wrenches
- Sawzall or Cutting Wheel Grinder
- Power Drill & 1/2" Drill Bit

FIRST STEPS FOR INSTALLATION:

1. Park the vehicle on a smooth, level concrete surface and activate the parking brake.

2. Block the front wheels of the vehicle with appropriate wheel chocks.

3. Using a properly rated floor jack, lift the rear of the vehicle off the ground. Place support stands in the factory specified locations **(Refer to the owner's manual).** Before you lower the vehicle onto the stands, make sure the supports will make secure contact with the chassis.

Note: Vehicle must be properly supported during this installation to prevent personal injury and chassis damage! Make sure that the support stands are properly placed prior to performing the following procedures. Do not use wheel ramps while performing the installation. Slowly lower the vehicle onto the stands double checking that there is a secure contact made between the chassis and jack stands. Please make sure there are not any easily damaged components in the way before lowering the chassis

REMOVAL / INSTALLATION

1. Working on one side at a time, remove the rear wheel.

2. Place a floor jack under the axle to hold the weight when the springs are removed.

3. Disconnect the shock from the rear end.

4. Remove the u-bolts and the leaf spring retaining plate.

5. Lower the rear axle assembly, separating it from the leaf spring.

6. Remove front and rear leaf spring eye connecting bolts to remove entire spring.

7. C-3500 Only: Unbolt each leaf spring pack by loosening the center bolt. Remove the top overload leafs as well as the separating spacer plate. Bolt the remaining leafs back together with the new leaf center bolts in the kit. The new bolts have more threads since the leaf pack is not as thick as it was in the factory configuration. Remove factory overload bump brackets for proper clearance once lowered.

8. If reusing existing shocks, install new shock extender brackets over the existing shock mounts on the axle pointing downward to increase shock travel. If you have replaced your shocks with shorter lowering shocks, the shock extenders are only necessary on 7" or more rear drops. Shock extenders bolt to the shock tabs on the rear axle and require that the small bolt holes be drilled in the tabs to lock it into a fixed position.

9. Install shock absorbers with all bolts facing inward so the spring plate will not hit them during assembly.

10. Raise the rear axle and reinstall leafs under rear end.

11. Locate the spring saddle (axle locator) onto the center pin of the spring pack with the off-center hole towards the front of the truck. This will center your wheels in the fender well and pull the driveshaft out of the back of the transmission slightly for proper output shaft clearance.

12. Lower the rear axle down until the prongs of the new spring saddle fit up inside the existing rear axle pads.

13. Install the new u-bolts over the top of the axle and the retaining plate onto the bottom of the spring pack. The offset center pin hole should be forward to match with the leaf spring center pin.

14. '73-'87 C20/'73-'91 C30 (Part #'s 2115 & 2116) Only: It is recommended that the new saddle (axle locator) be welded to the existing pad at the top of the new saddle. The new saddles are not painted for this reason. Before welding make sure the offset hole on the locator is to the front of the truck. Weld at the point the legs (prongs) of the saddle rest up against the existing rear axle pad. Weld across the legs/prongs and pad to ensuring the new saddles cannot slip. Unbolt each leaf spring pack by loosening the center bolt, remove the top overload leafs and the separating spacer plate. Bolt remaining leafs back together with new center bolts. The new bolts have more threads since the leaf pack is not as thick as it was in the factory configuration. Remove factory overload bump brackets for proper clearance once lowered.

15. Repeat installation on the other side of the vehicle.

16. Chevy/GMC C-10 Only: It is impossible to properly adjust the alignment of the two shafts at the center support bearing, two-piece driveshafts should be changed to a one-piece shaft.

17. Chevy/GMC C1500/C2500/C3500 Extended/Crew Cabs Only: One piece drive shafts are not available for extended and crew cabs. Retain the two-piece driveshaft and install a spacer under the carrier bearing that connects the two driveshafts for better alignment. Shim the frame-mounted center support bearing upward within the mounting cradle with a 1" thick spacer. For C1500 1988-1999 use part number 9999. Use part number 9998 for the 1999 C1500 Extended cab to move the center carrier bearing upward for better alignment.

FINAL ASSEMBLY:

- Check that all components and fasteners have been properly installed, torque and tightened.
- To prevent chassis damage **never** over torque the hardware.
- Check brake hoses and all other components for any possible interference.
- Lift vehicle and remove support stands. Carefully lower vehicle to the ground.
- The vehicle will need to be aligned back to the factory specifications. This should be done after the vehicle has been test driven and all modifications have been completed.
- Installation is complete
- Check all of the hardware and re-torque at intervals for the first 10, 100, and 1000 miles.

HELPFUL HINTS:

Leveling Adjustments: If the rear of the truck seems uneven side-to-side, this may be caused from over tightening the leaf spring eyelet bolts while the truck was still in the air and the springs are torqued into a fixed position. To remedy, first loosen all four eyelet bolts on both sides. Then, lower the tailgate and jump up and down a few times to make sure the leaf springs are flexing and free at the eyelets. Do not over tighten while re-bolting. The leaf springs must be free to move slightly at both the front and rear eyelets.

Pinion Angle Adjustments: Chevy and Dodge Trucks Only: Test Drive the vehicle and determine whether there is any need for adjustment of the rear axle pinion angle. This is indicated by a hum or vibration in the rear of the vehicle, usually at lower speeds but sometimes at highway speeds. This is the result of the pinion pointing up too high in relation to the rear of the driveshaft causing noise out of the awkwardly angled rear u-joint.

While it is not uncommon that an adjustment would be necessary on Chevy or Dodge Trucks with drops of 4" or less, each truck comes off the assembly line with its own unique characteristics. Condition of this nature should not cause concern and are easily remedied. Shim can be obtained from your Western Chassis Dealer or any local Truck or 4WD Shop. Note: The same type of shims are used on 4WD lifted applications.

Normally for a 4" rear shackle & hanger drop, a two degree shim will cure any existing vibration. Four degree shims are also available but normally are not required on a Chevy or Dodge unless it has been lower 6-7". Six degree shims are also available but usually only necessary on Ford F-Series.

Pinion Shims are small, wedge-shaped parts with a forked opening so they can be inserted between the spring perch and the leaf spring. The forked opening allows the shim to be inserted around the leaf spring center bolt with ease.

In most configurations where the leaf springs are mounted on top of the axle, the thicker end of the wedge-shaped shim should be towards the front of the vehicle so as to force the pinion down for better alignment with the rear of the driveshaft.

In configurations where the leafs are mounted under the axle the thicker end of the wedge-shaped shim should be towards the rear of the vehicle so as to forced the rear of the axle housing up and the pinion down for better pinion-to-driveshaft alignment.