Congratulations! You have just purchased the best engineered, highest quality drop spindle kit available on the market for your 99-06 GM truck. Be sure to fully read and understand the instructions before starting your installation. As in any suspension installation, it is the installer’s responsibility to assure a correct installation. The installer is also responsible for providing adequate clearances between vehicle components such as sensors, shocks, brake lines, etc. to ensure a safe and reliable installation.

**Recommended Tools**

- Floor Jack and Jack Stands
- Internal Spring Compressor
- Metric and Standard Wrench Set
- Metric and Standard Socket Set
- Torque Wrench
- Die grinder with abrasive cut off wheel
- Metal File
- Air Hammer with chisel and punch attachments
- Metric Hex Key Set
- Flat blade screwdriver (small)
- Ball Peen Hammer
- Tie rod separating tool
- Punch or drift
Removal of Stock Components

1. Raise the vehicle until wheels are off the ground and support with jack stands under the frame.

2. Remove the wheels and shocks

3. Disconnect the sway bar end links and remove the 4 bolts attaching the sway bar pivot bushing brackets to the frame. Remove the sway bar and set aside

4. Remove the factory bump stops.

5. Remove the nut attaching the tie rod to the spindle. Use a tie rod separating tool to dislodge the tie rod end from the spindle

6. Unplug the ABS sensor from the wiring harness. The plug is located above the upper spring pocket on the frame. Remove the sensor wire from the plastic clips on the frame and upper control arm. Also remove the brackets that attach the brake line to the upper control arm and the top of the spindle.

7. Remove the brake caliper bolts and use a hook or bungee to hang the caliper out of the way. Be careful not to stretch or damage the brake hose. Remove the rotor and set aside
Extreme caution should be used in the next few steps to prevent personal injury and/or property damage. Coil springs have a lot of stored energy. It is recommended that a coil spring compressor be used when removing the coil spring. Failure to do so can cause the coil spring to eject. Use extreme caution when working with loaded coil springs.

8. Loosen the upper and lower ball joint nuts. Don’t take them off all the way; just back them off a few turns.

9. Use a hammer to tap the spindle on the upper and lower ball joint tabs to dislodge the ball joint from the spindle.

10. Install spring compressor and compress the spring.

11. Support the lower control arm with a floor jack and remove the lower ball joint nut.

12. Slowly lower the floor jack and remove the coil spring.

13. Remove the upper ball joint nut and remove the stock spindle.
14. Remove the 3 bolts that attach the wheel bearing assembly to the spindle housing. Remove the wheel bearing housing and the backing plate

**Lower Ball Joint Removal**

15. Support the lower control arm with a floor jack or jack stand

16. Use a cut off wheel to cut slots in the heads of the rivets that attach the ball joint to the control arm

17. Use an air hammer with a chisel bit to remove the heads of the rivets.

18. Use an air hammer to with a punch bit to remove the rivet shanks from the lower control arm and ball joint.

19. Remove the factory lower ball joint from the lower control arm
Installing the Spindle

20. Install new ball joint in the lower control arm with the stud pointing up. (opposite direction of factory ball joint)

21. Insert (4) ½-20 x 2” bolts from the underside of the lower control arm. Make sure that the heads seat flush with the flat underside of the lower control arm. DO NOT use washers between the bolt heads and the control arm, as there is not enough clearance. Tighten bolts and torque to 110 ft lbs

22. Remove the upper control arm pivot bolts and remove the upper control arm.

23. Flip the upper control arm over. Re install the arm in the frame mounts with the ball joint stud now facing up

24. Install the drop spindle by placing the lower ball joint tapered bore over the lower ball joint stud. Make sure that the dust boot has been installed prior to this step.

25. Install the wheel bearing assembly and backing plate into the spindle body. Make sure the ABS sensor is in the same position it was before removal. Torque the bolts to 110 ft lbs

Extreme caution should be used in the next few steps to prevent personal injury and/or property damage. Coil springs have a lot of stored energy. It is recommended that a coil spring compressor be used when handling the coil spring. Failure to do so can cause the coil spring to eject. Use extreme caution when working with loaded coil springs

26. Install coil spring compressor in the coil spring

27. Lift the lower control arm with a floor jack while making sure upper end of coil spring seats in upper spring pocket correctly.
28. Compress the coil spring with floor jack until the upper control arm stud aligns with the tapered bore in the spindle and tighten the upper ball joint nut.

29. Remove spring compressor and install shock

30. Install brake rotor and caliper. Tighten and torque caliper bolts to 150 ft lbs

31. Fasten factory brake hose bracket to upper spindle body using original bolt.

32. Apply a liberal amount of spray lubricant to the brake hose to upper control arm mounting bracket and surrounding hose area. Rotate bracket approximately 180 degrees while pushing back along the hose towards the frame, as far back as possible. DO NOT TWIST HOSE. Position bracket so that the hole aligns with threaded hole in upper control arm. Use original bolt to secure to upper control arm.

33. Turn spindle assembly lock to lock and check for brake hose stretching or binding. If brake hose appears to stretch or bind in any way, remove the screw and move the bracket some more.

**Brake hose check MUST be performed. Brake system damage or failure could result if brake hose is not installed properly. Check hose prior to connecting tie rod end to spindle and check again after installation is complete.**

34. Re connect ABS sensor to wiring harness. Re install the wire into the plastic clips on the control arm and the frame.

35. Install tie rod end into the steering arm. Tighten nut to 75 ft lbs

36. Reinstall the sway bar upside down from the way it was when it was removed. Note that steering will be above the sway bar rather than below it.