



C4 Coilover Instructions

Thank your purchasing Van Steel coilovers for your C4 Corvette.

- 1) Start by securing the car on jack stands.
- 2) Unbolt the upper front shock mounting hardware.
- 3) Unbolt the sway bar end links.
- 4) Next, you need to remove the lower ball joint on the front a-arms. Loosen the ball joint nut and leave the nut on at the top of the stud. Use a brass hammer on the knuckle to loosen the ball joint by hitting the side of the knuckle. When it frees up, the nut will keep the arm from slamming down. Now take a floor jack and jack up the lower a-arm and remove the lower ball joint nut. Once the nut is off, you can slowly lower the a-arm down. Repeat on the other side.
- 5) Remove the 2 bolts that hold the shock to the a-arm and remove the shock
- 6) Next, remove the front spring from the cradle brackets. When the bolts are removed, you can slide the spring out.
- 7) Most of the coilover kits will have the front shocks inverted (Hot Rods and custom applications may not). Corvette does. The t-bar on the shock goes to the bottom and the clevis goes to the top. The upper clevis has a nut, nord lock washer and an eccentric washer. All 3 of these pieces go on top of the frame mount. The eccentric washer has a top hat to it. This faces down. You may need to open the ID of the hole in the frame so the washer will sit inside it. The washer is eccentric to buy clearance. You may need to push the shock toward the wheel or toward the driver for clearance of the sway bar and frame pocket.
NOTE: It is VERY important that the head of the bolt faces the front or rear of the car. If the clevis is mounted on an angle, you will blow the upper heim out and it will cause premature failure.
- 8) Mount the bottom of the shock using your stock bolts.
- 9) Jack up the lower a-arm to reinstall the ball joint nut. You need to wait to reinstall the sway bar until both sides are done.
- 10) When you install the sway bar end links, you need to check for clearance issues. There lies a potential interference with the front sway bar end link area of the sway bar and the new coil over shock. There is no specific generation of the C4 Corvette that is exempt. We believe this occurs in the manufacturing tolerance for the sway bar installation. The contact in the random occurrences has been minor. In the example picture shown below, use a high speed die-grinder, slot the sway bar frame mounting bracket, allowing you to move the sway bar forward, approximetly.250" (1/4) forward. By doing so, you slightly move the sway bar end link forward, providing the clearance needed to the lower coil over unit. Do both sides to maintain the bars alignment side to side.



- 1) Remove the rear shocks.
- 2) Remove the bottom shock mount stud from the knuckle.
- 3) On the rear spring there is a metal plate at the tips of the spring. Use vice grips and clamp the spring on the metal clamp. **DO NOT CLAMP DOWN ON THE FIBERGLASS.** Take a floor jack and up the spring using the vice grips as a locator. When pressure is off the spring, you can remove the nut on the bottom of the spring bolt. Repeat on the other side.
- 4) Remove the spring from the 2 cradles.
- 5) You can now install the upper diamond shaped mount with clevis. The clevis is offset from center and that should be to the center of the car. This will move it away from the half shaft. You will have to flip the t-arm bolts around (upper and lower) to clear the shock/spring/spanners.
NOTE: It is VERY important that the head of the bolt faces the front or rear of the car. If the clevis is mounted on an angle, you will blow the upper heim out and it will cause premature failure.
- 6) You can remove the lower coilover mount from the shock since this is a file to fit application. You have to file to fit the bracket for maximum strength; needed to support the load. The mount is designed to be lightly tapped on to the OEM shock knuckle, once the factory shock stud is removed. A standard file will deburr, remove casting slag and "file to fit" for perfect alignment of the 5/8 shoulder bolt provided in the kit.
- 7) Test fit the lower coilover mount to ensure you can slide the bolt through.
- 8) Raise the knuckle to slide the bottom of the coilover into place and use the shoulder bolt provided.
- 9) Make sure everything is tight on the front and rear and lower the car back to the ground. Bounce the car up and down to let everything settle. Once settled, you can now establish ride height via the spanner wrenches. We like to start out high and adjust down. It will also be easier to raise or lower the spanner when there is no weight on the wheel. We use Hyperco composite springs as these are extremely consistent in spring rate.

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