

## 2003 and up Dodge Front 8/10" Lift Kit Instructions

**Step 1.** Before you remove anything off the truck, measure the pinion on the front and rear axle differential. Make sure to record this measurement as we will want to put each axle back to this angle after the suspension lift kit is installed. This is especially important for the front axle. Putting the front axle back to the same measurement will keep the stock camber and caster.

**Step 2.** Jack up the truck and place a jack stand under the frame on each side of the truck. Jack the truck up enough so that the front tires are just barely off the ground. Take a motorcycle strap and wrap the strap around the differential and to the frame. This will help keep the axle in the general proximity while the factory suspension is removed and the 4 link is installed.

**Step 3.** Remove shock absorbers, coil springs, front drive shaft (the front drive shaft will need to be lengthened 1.5") and trailing arms. Loosen the sway bar from the frame. This will allow the coil springs be easily removed. Also remove the bolt that holds the panhard/trac bar in place as well as remove the factory pitman arm.

**Step 4.** Locate the upper bag spacer (it is 6" tall), the air bag (Firestone 8979), the lower spacer (3" tall) and the lower shock mounts/lower bag mounts. Fasten the entire assembly together on the floor making sure that the upper bag spacer and the lower bag mount are inline with the factory holes. Use the 1/2x4 1/2" to fasten the bottom of the bag top of the 3" spacer, and use the 1/2x1 1/2" bolt to fasten the bottom of the spacer to the bottom bag/shock mount. Use the factory bottom shock bolt to fasten the bottom bag/shock mount in position. Use the 3/8" lock washers and nuts to fasten the upper shock mounts to the upper bag spacer in position. Repeat this on the other side.

**Step 5.** Locate the rear trailing arm mounts. There are one pair of mounts for the upper arms and one pair for the lower arms. Mount the upper trailing arm mounts over the frame with the 5/8x9" bolts. Don't tighten this bolt until the gusset and rear lower trailing arm bracket is fastened in place. Remove the 14mm bolts that hold the factory transmission crossmember in place. Slide the lower rear trailing arm mount over the crossmember and fasten in place with the 9/16x7.5" bolts. Put the bolts in from the back to the front with the gusset that holds the 2 brackets in place

**Step 6.** Locate the trailing arms. The upper trailing arms are shorter. The shorter arms have one end that is about 1/4" shorter than the other end. Before you install the trailing arms, unbolt the brake lines from the lower bracket. Make sure to run the brake lines on top of the upper trailing arms instead of under the bottom arms as the truck came from the factory. Drill a hole in the upper trailing arm mount "cage" and fasten the brake line in place. Make sure before you test drive to turn the wheels stop to stop to make sure the brake lines don't bind or need adjustment. The shorter end goes into the axle and uses the factory 14mm bolt. The large end goes into the rear trailing arm mount and uses the 5/8" bolt. The lower trailing arm also goes into the axle and uses the factory eccentric bolt and the 5/8" bolt in the rear trailing arm mount.

**Step 7.** Locate the panhard/trac bar drop. Use the 9/16" bolt to fasten into the factory hole and use the 1/2" bolt to fasten the drop bracket up through the hole in the

crossmember under the engine. Place the 1" square on the topside of the crossmember to prevent the bolt from pulling through the factory hole. It is also recommended to weld the bracket to the frame to help keep the bracket from working loose.

**Step 8.** Locate the dropped pittman arm. Fasten in place and torque to 200 ft/lbs. Make sure to retighten after the first 5 miles of driving. Recheck after another 50 miles to make sure it is still torqued to at least 200 ft/lbs.

**Step 9.** Locate the sway bar drop brackets. Fasten in between the frame and sway bar brackets.

**Step 10.** Locate the transmission indexing ring. Follow the supplied instructions and install. Make sure if you are installing on an automatic to clean the weep hole and install some JB Weld or high quality silicone.

**Step 12.** Locate the 1x3" steel block that has the notches torched out of it. Mark the factory crossmember and cut the center out of it. Weld the steel block to the crossmember. Make sure the notches are installed forward. Reinstall the front drive shaft. It should be lengthened 1.5" if you are going to run the kit at the full 10".

**Step 13.** Locate the shocks that go towards the rear and mount them in place. The upper shock spacers are the wide ones and the bottom spacers are the narrow ones. Before you attempt to fasten the front shocks on place, it is required to grind the lip down on the factory coil bracket. Hold the shock up in position and use a marker to indicate where you are going to grind so you can do a clean job.

**Step 14.** Alignment. You can do this after you do the rear system or after the front is installed. Inflate the bags until each side is at 12". You will now need the pinion angle measurement you took before the front end was disassembled. Measure out the front so the axle is centered in the wheel well. Put the pinion angle back to stock. Pick a point on the frame to make sure the axle is centered. You will need to also adjust the steering wheel. This is usually done after the first test drive.

## Rear Kit

**Step 1.** Measure the rear pinion angle. Record this angle as you will need it to align the rear axle after the kit is installed.

**Step 2.** Jack up the rear of the truck so the rear wheels are just barely off the ground. Put a motorcycle strap over the differential to the frame. Remove the rear leaf springs, sway bar and the rubber bump stops located on the bottom of the frame. You will reuse the bolts that hold the front of the leaf spring in the spring perch, so set them aside.

**Step 3.** Locate the lower air bag mount and the lower axle clamps. The passenger side lower air bag mount is the one with the panhard bar mount welded to the back side of it. Place the lower axle clamps on the top of the axle leaf spring perches. Use the 5/8 x 8" bolts to fasten components into place. Make sure to run the bolts in from the top down (nuts on the bottom).

**Step 4.** Locate the front lower trailing arm mounts. These brackets are mounted to the side of the frame with the supplied U-bolts. On the long box trucks, use the 1" hole in the side of the frame to locate where the mounts fasten. On the short box trucks the rear hole in the mount to slide over the muffler mount (passenger side) and the tab on the drivers side. On the drivers side, it is recommended to loosen the fuel tank and hold in place with a couple of motorcycle straps in order to slide the U-bolts around the frame. After the mounts are mounted and the U-bolts are tightened, use a welder to lay a couple of 2" welds on the bottom of the mount on the inside of the frame.

**Step 5.** Locate the trailing arms. The short ones go on top. Locate the step bushing and slide it into the end of the trailing arm that goes into the factory leaf spring perch. The step side of the bushing goes against the outside, away from the frame. Use the factory bolt to fasten into place. Use the 7/8" x 5" bolt to fasten the other end in the bottom air bag axle mount. Locate the bottom trailing arms and fasten them into place. The spacer goes on the frame side. Use the 7/8" by 7" bolt on the front mounting bracket and the 7/8"x5" on the bottom bag mount.

**Step 6.** Remove the factory rubber bump stops. Locate the drivers side upper bag/panhard bar bracket. Fasten the bracket in place using the countersunk bolts and backing plate. Locate the passenger side upper bag mount (3" spacer) and fasten in place with the countersunk bolts.

**Step 7.** Locate the airbags. Fasten into place using the 1/2" by 4 1/2" bolt (8979 bags) in the bottom and the 1/2" coarse nut and 3/4" fine thread nut. Insert the air fitting into the bag.

**Step 8.** Locate the panhard bar. Use the 3/4" bolts to fasten into place. Put a spacer on each side of the heim end in order to center the panhard bar.

**Step 9.** Locate the 2x3" driveshaft carrier bearing spacer and the 1/4" spacer with the tab welded to it. Fasten in place so that the driveshaft is in a straight line.

**Step 10.** Locate the shocks and spacers. The drivers side upper shock mount is located on the panhard drop bracket. The passenger side upper shock mount fits on the frame utilizing the factory 5/8" hole in the frame. Use the spacers to center up the shocks.

**Step 11.** Once the bags are inflated to around 12" (12" should equal 9-10" of lift) set the upper arms so they are the same length. Now set the bottom bars to the same length. Find a hole on the frame that the same on each side. Use that as a reference point as you are squaring up the axle. Also try to keep the pinion angle close to the original measurement. It is easier to adjust the trailing arms by turning each one 1/2 a turn and then going to the opposite arm and turning it 1/2 a turn. If you get to point where an arm will not turn, take a jack stand and place it under the rear hitch. Let the air out of the

bags. Keep the truck and ride height. This should relieve some of pressure and make the adjusting easier. Once you get the ride height established, axle squared up, and pinion angle set, adjust the panhard bar side to side. After everything is lined up, go over and retorque all the bolts. NOTE: Do not be alarmed if the bottom of the bags are angled.

**Step 12.** Now that the rear axle is square, you will want to make sure the front axle is square with the rear axle. Take a tape measure and have a helper hold the end of the tape on the front side of the rear axle. Measure forward to the kingpin on top of the front axle. Record this measurement. Measure the other side. Try and get this measurement within 1/8". You should have the front airbags setting pretty square when all is done. Be sure to recheck the front panhard bar to make sure the front axle is square.

**Step 13.** The next suspension install is the optional rear sway bar. Install the upper brackets with the supplied bolts. The top bracket has the 2 holes in it and the lower bracket has the 3 holes in it. Install so the third hole goes on the outside of the frame. Fasten the sway bar on the bottom of the axle using the mounts that attach to the bottom of the shock mounts. Locate the strut rods, washers and poly bushings. Place a washer on each end of the strut rod, then put on a poly bushing, place the strut rod against the upper bracket on top, and the sway bar on bottom. Next put on a poly bushing, washer and then nut. Tighten so that the poly bushings start to squish.

**Step 13.** Depending on which control system you use, locate the instructions and follow. Most control systems will include a tank/air compressor bracket that clamps around the frame on the drivers side. The tank fits on the outside and the compressor on the inside.