



INSTALLATION INSTRUCTIONS

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5052

AIR JACK

94-99 DODGE ½ TON RAM C-1500

Congratulations! You were selective enough to choose a BELLTECH PRODUCT. We have spent many hours developing our line of products so that you will receive maximum performance with minimum difficulty during installation.

- Note: Confirm that all of the hardware listed in the parts list is in the kit. **Do not** begin installation if any part is missing. Read the instructions thoroughly before beginning this installation.
- Warning:** **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.
- Warning:** **DO NOT** drive vehicle until all work has been completed and checked. Torque all hardware to values specified.
- Reminder: Proper use of safety equipment and eye/face/hand protection is absolutely necessary when using these tools to perform procedures!

Note: This is a relatively complex installation and as such **we recommend** that a qualified mechanic perform it. **We also recommend** that to retain the stability of the leaf spring pack and axle assembly, only one side of the vehicle should be modified at a time. **NOTE:** As it may be necessary to temporarily loosen the fuel tank mounting straps to install the driver side hanger, **we recommend** that the fuel level be as close to empty as possible to reduce fuel tank weight.

RECOMMENDED TOOLS:

- Properly rated floor jack, support stands, and wheel chocks
- Combination wrench set
- Torque wrench: *0-75 lb ft. range*
- Ratcheting socket wrench and socket sets
- Air Chisel / Die grinder W/ cut off wheel
- Heavy Duty Drill
- C-Clamps
- Safety Glasses

KIT INSTALLATION

1. Open the hardware kit and remove all of the contents. Refer to the part list (Page 3) to verify that all parts are present.
2. Park the vehicle on a smooth level asphalt or concrete surface. Place a block in front of and behind the front wheels. Jack up the rear of the vehicle and place jack stands securely under the frame in the manufacturer's specified locations. Remove the rear wheels.

3. Block the front wheels and raise the rear of the vehicle with a floor jack rated for this load, positioned under the center of the rear axle housing. (PHOTO 1) If this kit is being installed on a vehicle equipped with a Belltech flip kit, position the jack stands under the chassis rails just forward of the rear leaf spring forward hangers. (PHOTO 2) If this kit is being installed on a stock vehicle, position jack stands rated for this load under the rear axle housing tubes. (PHOTO 3) Lower the vehicle onto the jack stands and check for vehicle stability with the floor jack located under the rear axle housing. Remove the rear wheels and tires.
4. On a stock vehicle, locate the hole in the chassis above the OEM axle stopper. (PHOTO 4) Position the kit supplied template onto the chassis side following the directions on the template. (PHOTO 5) Transfer the Air-Jack mounting bracket holes locations from the template to the chassis rail using a center punch, or suitable tool, at the locations indicated on the template, and proceed with step 3. (PHOTO 6) On a vehicle equipped with a Belltech flip kit, the upper Air-Jack bracket will be mounted using the 4 existing holes in the rear portion of the C-section. Remove the existing ½" hardware and proceed with step 4.
5. Drill through the chassis at the locations transferred from the template using a ½ drill bit to mount the Air-Jack upper bracket. (PHOTO 7) **NOTE:** This procedure can be made easier by starting with a small "pilot" drill and using progressively larger drill bits until the final drill size is used. **CAUTION: Always wear eye protection when using power tools. CAUTION:** Before drilling through the chassis rail check the inside of the chassis rail for electrical or fuel system components that may be damaged by the drilling operation and secure them away from the immediate work area before drilling.
6. Install the Air-Jack upper bracket using the ½" button headed bolts supplied in the kit, making sure that the washers are only used on the inside of the frame rail. Torque these bolts to 123-128 Ft-Lbs. (PHOTO 8 & 9)
7. Install the 90° elbow fittings into the top of the air springs. Position the fitting openings so that they are pointed between the air spring studs. Check for clearance using the upper brackets. (PHOTO 10)
8. Mount the air springs to the lower brackets using the kit supplied 3/8" bolts. On a stock vehicle, mount the air springs so that the bolt is in the center of the slot on the lower bracket. (PHOTO 11) On a vehicle with a Belltech flip kit installed, mount the air springs so that the bolt is at the outside of the slot on the lower bracket for each side. (PHOTO 12) This compensates for the thickness of the C-section behind the Air-Jack upper bracket. The use of LOCTITE or a comparable thread locking agent is recommended. Make sure that the studs on top of the air spring are in a line with the fore and aft centerline of the Air-Jack lower bracket. (Refer to PHOTO 10) Torque the bolts to 15-20 Ft-Lbs.
9. Re-check that the vehicle is stable on the jack stands and that the center of the rear axle housing is supported with the floor jack.
10. On a stock vehicle loosen and remove the U-bolts, one side at a time. Lift the U-bolt bearing plate off of the top of the leaf spring pack and position the Air-Jack lower bracket so that the hole in the tongue is over the leaf spring center bolt and the bracket extends toward the rear of the vehicle. (PHOTO 13) Reinstall the U-bolt bearing plate, the U-bolts and related hardware. Torque the U-bolt nuts in a gradual crisscross pattern to 85-90 Ft-Lbs. Repeat this procedure for the other side of the vehicle.
11. On a vehicle with a Belltech flip kit installed, loosen and remove the U-bolts, one side at a time. Raise the floor jack and the rear axle housing so that the rear axle housing saddle can be lifted from the top of the leaf spring pack. Position the Air-Jack lower bracket so that the hole in the tongue is over the leaf spring center bolt and the bracket extends toward the rear of the vehicle. (PHOTO 14) Reposition the rear axle housing saddle over the Air-Jack lower bracket. (PHOTO 15) Lower the rear axle back into the saddle; re-install the U-bolts, spring support plates and related hardware. Torque the U-bolt

nuts in a gradual crisscross pattern to 85-90 Ft-Lbs. Repeat this procedure for the other side of the vehicle.

12. On a stock vehicle, slip the air studs into the holes in the upper Air-Jack bracket, install the kit supplied flange nuts, and torque this hardware to 15-20 Ft.-Lbs. (PHOTO 16) On a vehicle with a Belltech flip kit installed, raise the rear axle housing to the point that the air spring studs can be fitted into the Air-Jack upper bracket. Install the flange nuts on the air spring studs and torque the nuts to 15-20 Ft-Lbs.
13. After making sure the ends of the airline tubing are cut square to the tubing, insert the tubing into the fittings on the air springs. (PHOTO 17) Proceed to install the airlines according to the guidelines included with these instructions, making sure that the airlines are not cut too short and all air lines are routed to avoid abrasion and heat. A common location for the system fill port is inside the fuel door. (PHOTO 18)
14. After completing the airline installation, pressurize the system with approximately 10 PSI of air and check for leaks. This can be done by listening for a leak or by applying a solution of soap and water to the junction points for the airline and looking for bubbles. **CAUTION:** If an air leak is detected, release all air from system, at the fill port, before attempting to remove the airlines from the fittings. The airlines can be removed from the fittings by pressing firmly in on the fitting "collar" and pulling the line out of the fitting. The airline should easily slip out of the fitting.
15. If no leaks are detected, re-check all hardware for security, re-install the wheels and tires, remove the jack stands, and lower the vehicle to the ground.
16. **NOTE:** It is important to re-check the U-bolt torque periodically after installation. Check them after an initial trip around the block and then after approximately 100 miles. **CAUTION: Never exceed the manufacturer's maximum weight rating for the vehicle.**
18. **CAUTION:** The manufacturers recommended pressure range for the air springs are from 10 to 100 PSI. **Do not** operate the vehicle with the Air-Jack system beyond these limits as damage to the air springs may occur.
19. After installation, check clearances in all areas surrounding the Air-Jack air springs including brackets, hardware and fittings.
20. When installing the Air-Jack system, bolt the wheels in place to insure that there will be a minimum of 1/2" of clearance at all times between the tires and Air-Jack springs before operation. Warranty on the Air springs will not be honored if air springs are damaged as a result of inadequate clearance between air springs and wheels, tires or other suspension components.
21. On some wide aftermarket tires, snow chains and cables will interfere with the Air-Jack air spring. Please test fit the chains or cables **BEFORE** entering an area where chains are recommended or required. If interference occurs, **DO NOT** use the chains or cables. Without adequate clearance, air spring failure will occur.
22. Although Air-Jack springs can support a load of up to 5,000 pounds per pair, they are intended as a ride height maintenance device only and you should NEVER EXCEED THE MAXIMUM LOAD CAPACITY OF YOUR VEHICLE. Consult your owner's manual to find the maximum payload capacity and Gross Vehicle Weight Rating (GVWR) of your specific make and model of vehicle.

23. If you have any questions about the Air-Jack spring suspension system, contact a Belltech factory representative at (800) 445-3767. In California, call (559) 875-0222.

PART LIST FOR 5052 DODGE RAM

AIR JACK KIT

| PART No. | DESCRIPTION | QTY. |
|----------|-------------------------------|------|
| 5007-010 | Air Jack Upper Bracket | 2 |
| 5050-005 | Air Jack Lower Bracket | 2 |
| 5000-100 | Firestone Air Spring | 2 |
| 5000-002 | Air Line Kit | 1 |
| 110316 | 1/2"-13 x 1-3/4" Grade 8 Bolt | 8 |
| 110660 | 1/2"-A325 Flat Washer | 8 |
| 110601 | 1/2"-13 Grade C Locknut | 8 |
| 110258 | 3/8"-16 x 3/4" Grade 8 Bolt | 2 |
| 110674 | 3/8"-16 Grade C Flange Nut | 4 |
| 110625 | 3/8" A325 Flat Washer | 2 |
| 5052T | Template | 1 |
| 5096-015 | Male Elbow 1/4" | 2 |
| 5096-020 | T-Fitting 1/4" | 1 |
| 9999-975 | Nylon Black Cable Tie | 6 |
| 5096-003 | Airline wire 30' x 1/4" Black | 1 |





