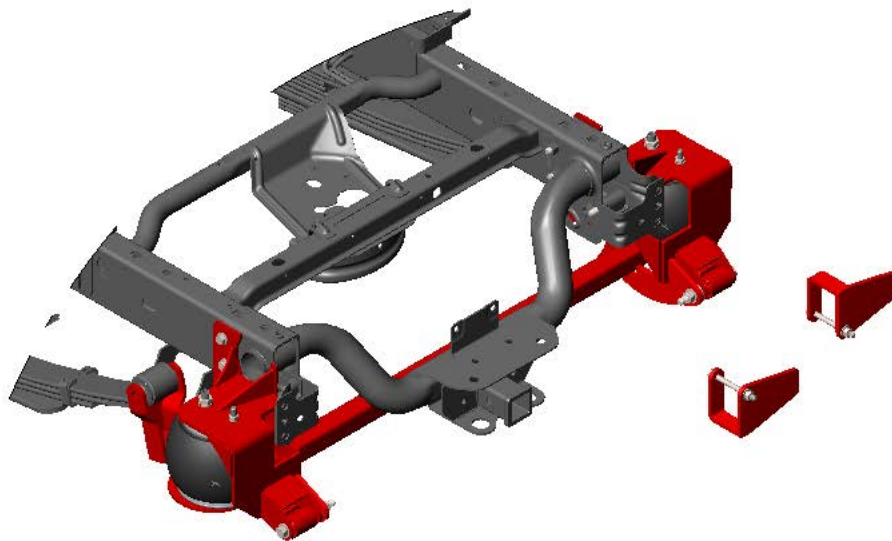




PART # D2RX-3-13

Version 1.1

# 2013+ RAM 3500 Pickup 2-Stage Rear Air Suspension Air Suspension System Installation Instructions



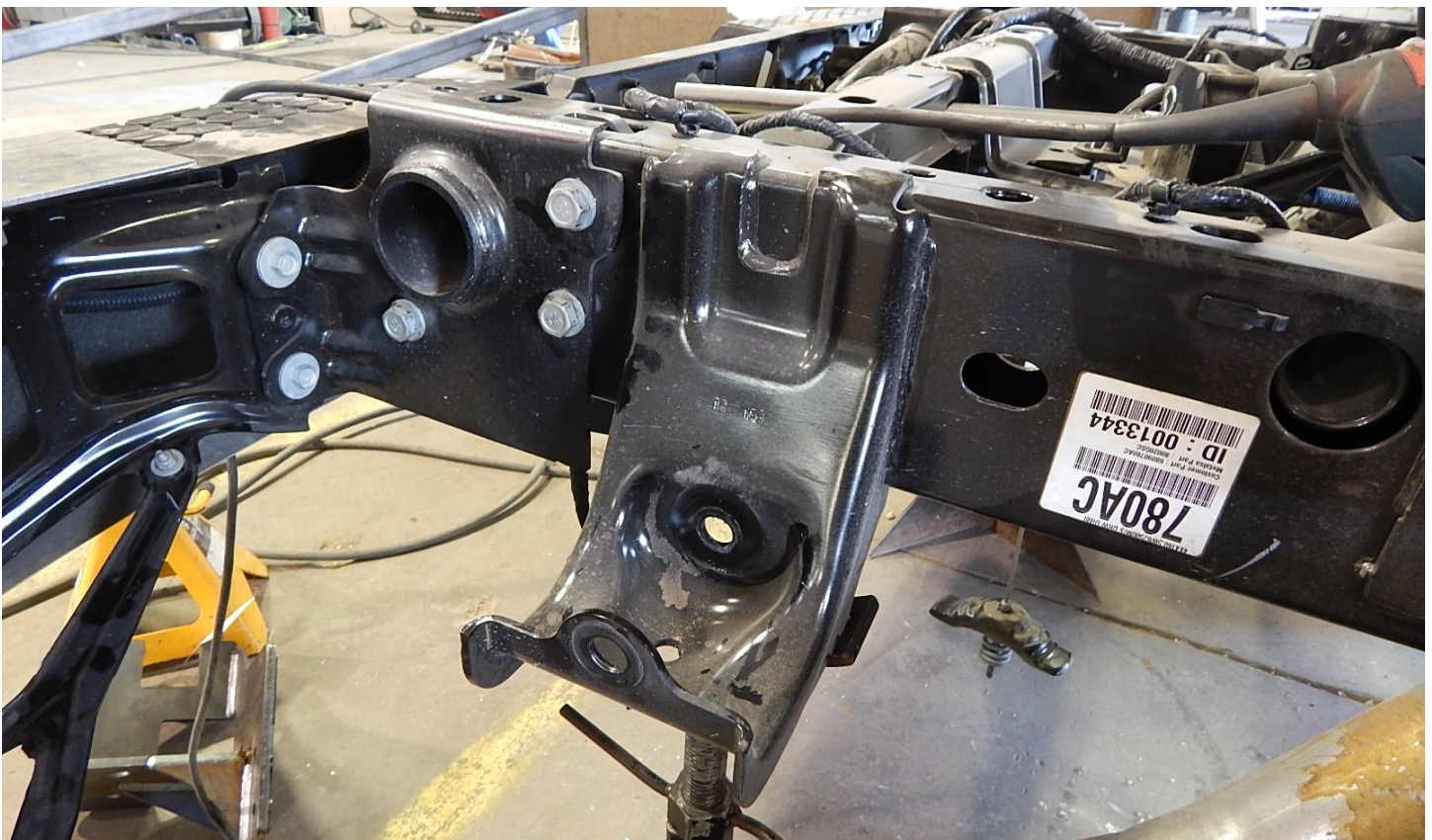
1.) Remove the spare tire from the vehicle. It will be re-installed later when the air suspension has been installed.

2.) Remove the rear bumper. Be sure to carefully disconnect all wiring for trailer plug-ins, backup sensors, etc. **NOTE: The pickup bed does not need to be removed. Photos in these instructions were taken during the design process and for clearer photos.**

3.) Place a jack under each side of the truck frame at the rear of the truck. Use a floor jack to lift the truck up so that the rear wheels are off the ground.

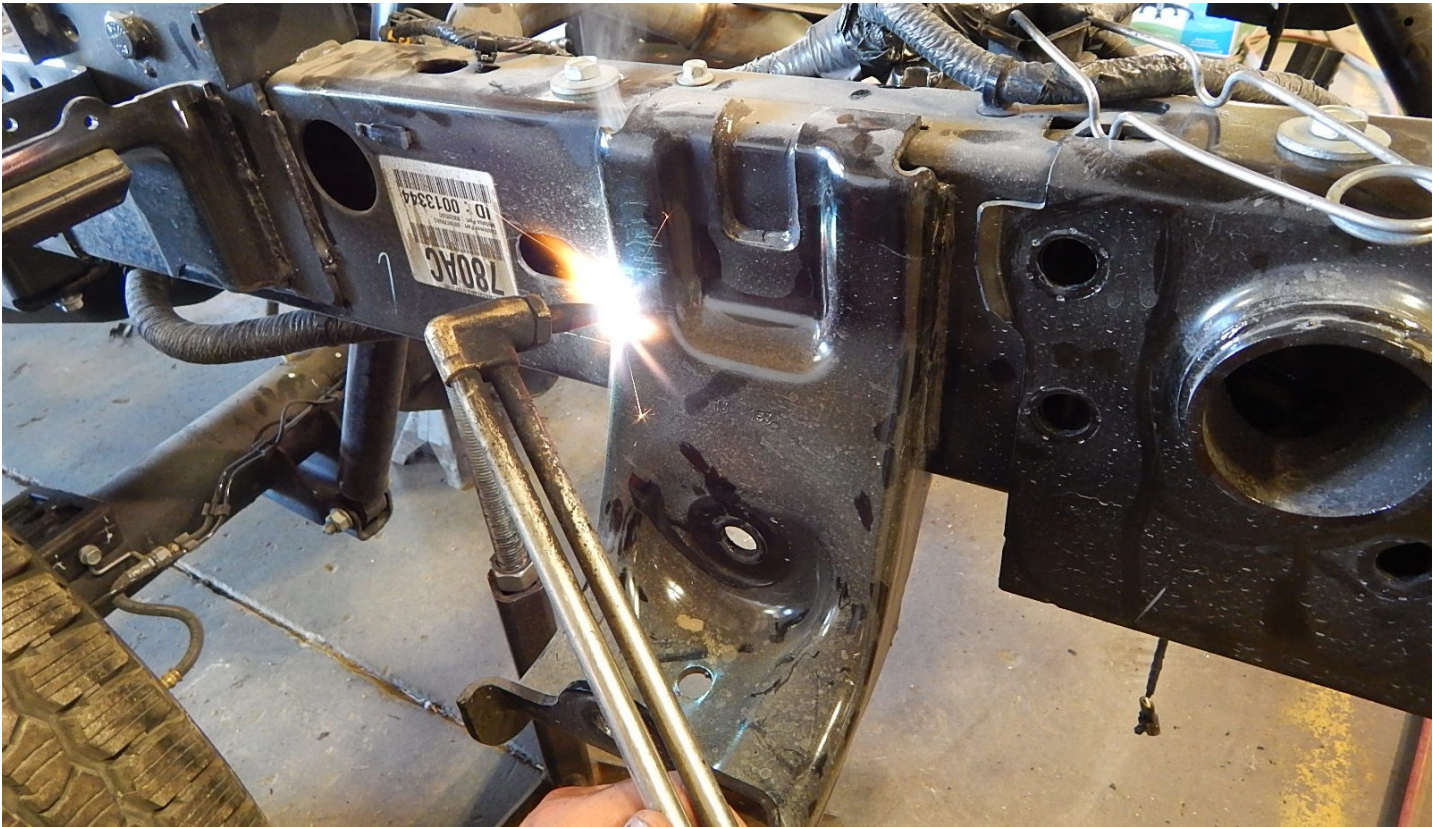
4.) Remove the bolt that holds the leaf spring shackle to the shackle hanger. This bolt will be re-used later on in the installation process at step 12.

5.) Lower the truck down so that the shackle is a few inches above the shackle hanger.





6.) Using a torch, saw or a plasma cutter, remove the shackles from the frame as shown in the photo below. **DO NOT CUT INTO THE FRAME.** The leaf springs do not have to be removed for the installation of this kit.





7.) Trimming of the rear bumper mounting brackets is required to install the rear air suspension. Locate the factory rear bumper and remove the corner bracket. It will not be re-used.



8.) Mark each side of the inner bumper mounting structure as shown in the photos below.. Use a cutting wheel to cut off the part of the structure that needs removed. Take your time while cutting and be sure not to cut into the bumper itself. The entire substructure of the rear bumper can also be removed if you do not wish to cut it.



9.) With the leaf spring perches removed, locate the upper framework of the 2-Stage Rear Air Suspension. Remove the (3) factory 14mm bolts from each side of the factory hitch framework. The upper framework will fasten into the frame/hitch assembly with these 14mm x120 bolts. Torque these bolts to 115 ft./lbs.



10.) Locate the F5323 airbags provided with the kit. Install the air line fitting into the airbag and tighten into the port. The airbags will then slide into the upper airbag framework and fasten into place with the 1/2" and 3/4" nuts and lock washers. Torque to 25 ft./lbs.

11.) Locate the lower swing arm for the air suspension. Use the 5/8 x 6" bolts and one flat washer to fasten the swing arm into the upper air bag mounts. The bolts need to be installed from the outside in. Leave the bolt in place for now and use a 5/8" washer to shim it if there is larger than a 3/8" gap present on one side of the bushing. Additional washers, limiters, and lock nuts will be installed later on.





12.) Slide the swing arm up so that the ears of the swing arm. It might be necessary to raise or lower the truck using the jack to get everything lined up properly. Once the swing arm ears line up with the shackle hole, connect them with the shackle bolt removed from the truck in step 4. **NOTE: The shackle bolt needs to be installed from the inside out with the bolt head near the frame side.**



13.) Locate the 1/2 x 3 1/2" bolts, flat washers and lock nuts. Insert the bolt through the bottom of the swing arm and up through the bottom of the airbag. You may need to wiggle the bottom of the airbag side to side to get the bolt to align properly in the threads of the airbag. With the bolt started in the threads, torque the bolt to 30 ft./lbs. **DO NOT OVERTIGHTEN THE BOLT OR IT WILL CAUSE DAMAGE TO THE AIRBAG.**



14.) Locate the (6) 5/8" flat washers, the (2) limiters (P/N # 18234) and the (2) 5/8" lock nuts. Place (2) of the flat washers over the 5/8" bolts that fasten the lower swing arm framework to the upper portion of the air ride. Two washers will install over each bolt.

15.) You will then slide the limiters over the bolts. The limiters are designed to function as a 'stop' for the swing arm, in case it is over extended when removing a trailer or lifting the vehicle on a shop hoist. With the limiters installed, use a 5/8" washer and 5/8" lock nut. Torque the bolt to 150 ft./lbs. AFTER the air control system is installed (if present) and the bottom swing arm is level with the ground. See the photo on Page 8.





Inflate the airbags until the lower swing arm is parallel with the ground. This will provide the truck with the most travel and the most comfortable ride quality.

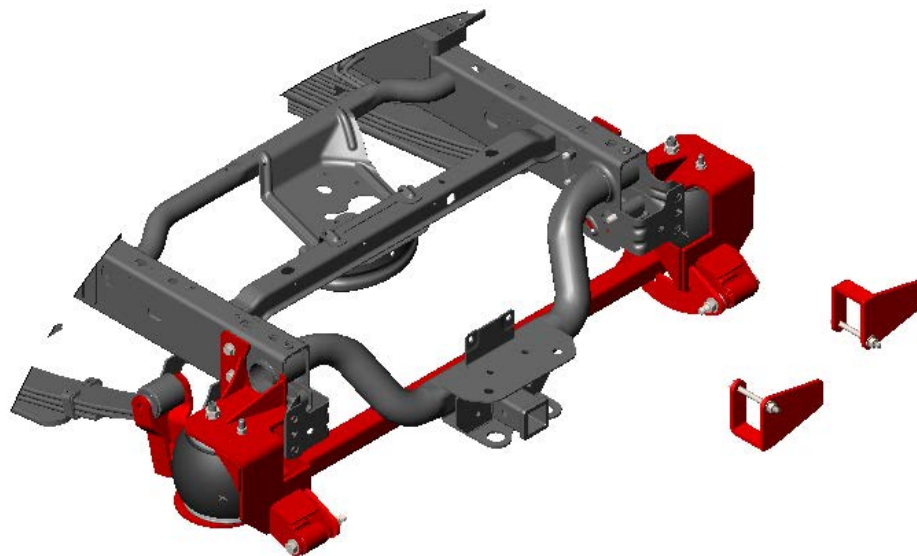
16.) **3500 pickup trucks only:** If the vehicle has the factory overload springs, located the overload pads, P/N # 14564DS and P/N # 14563PS). With no load on the leaf springs, use a large clamp (or something similar) to pull the overload spring down. Slide the clamp over the top of the spring and tighten.





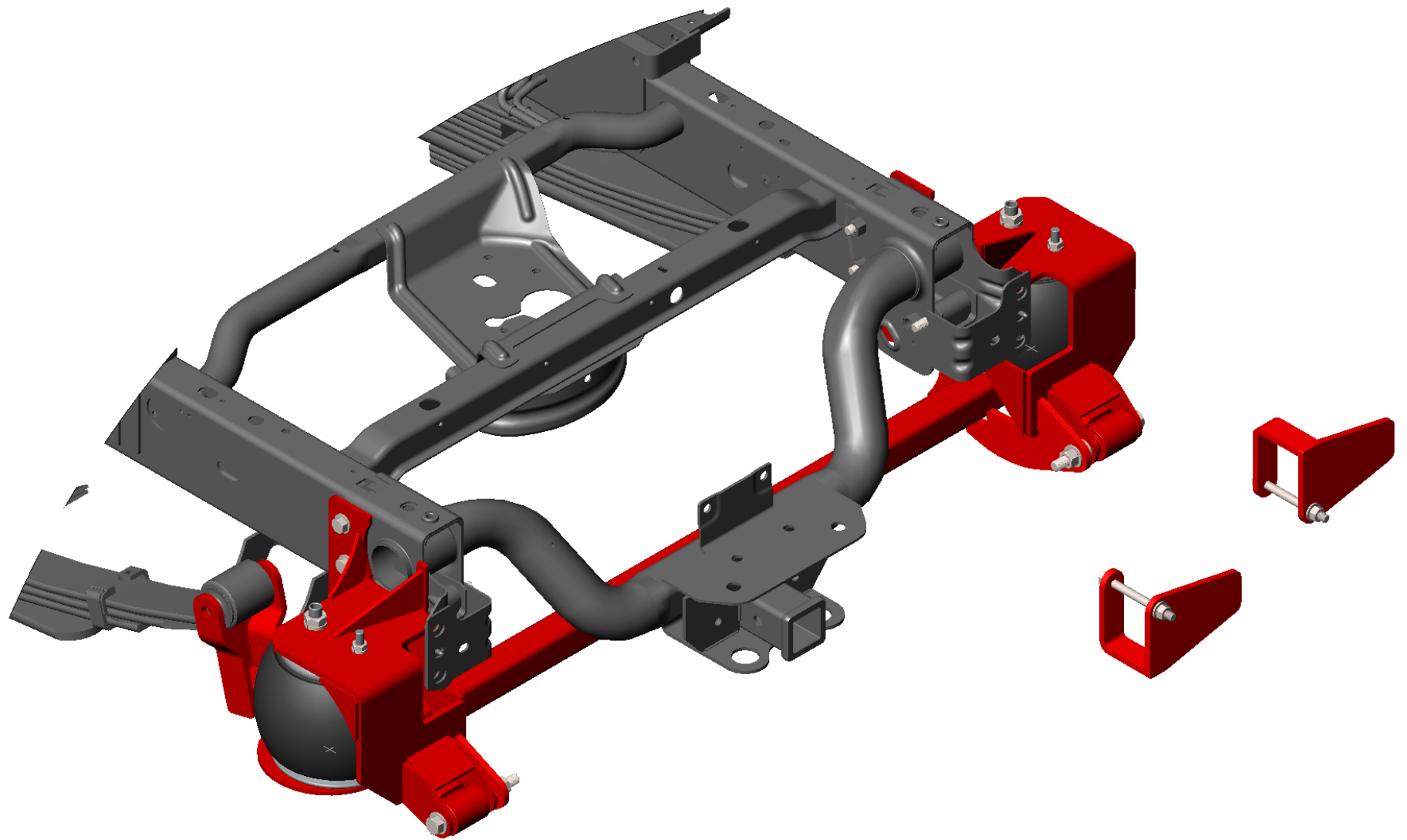


12.) Use the instructions/diagrams provided to install the optional air control systems, if needed.



| Item No. | Part Number                     | Description                             | Qty. |
|----------|---------------------------------|---|------|
| 1        | 18205                           | Driver Side Top Frame Mount             | 1    |
| 2        | 18210                           | Passenger Side Top Frame Mount          | 1    |
| 3        | 18212                           | Dodge Swing Arm (G5)                    | 1    |
| 4        | F5323                           | Firestone Air Bag F5323                 | 2    |
| 5        | 18243                           | Limiter                                 | 2    |
| 6        | 14563                           | Passenger Side Overload Bracket         | 1    |
| 7        | 14564                           | Driver Side Overload Bracket            | 1    |
| 8        | Hex bolt M14 x 2.0 x 120 -- 34S | M14-2.0x120 Hex Cap DIN 931 GR.10.9 Z&Y | 6    |
| 9        | Bolt-1/2-13x3 1/2 GR5           | Bolt - 1/2-13 x 3 1/2 HEX CAP GR5       | 2    |
| 10       | Bolt-1/2-13x5 GR5               | Bolt - 1/2-13 x 5 HEX CAP GR5           | 2    |
| 11       | Bolt-5/8-11x6                   | Bolt - 5/8-11 x 6                       | 2    |
| 12       | 13024                           | Washer - 1/2 SAE MIL-CARB ZINC          | 7    |
| 13       | 13025                           | 9/16 SAE MIL-CARB WASHER ZINC           | 6    |
| 14       | 13026                           | Washer - 5/8 SAE MIL-CARB ZINC          | 8    |
| 15       | Nut,Lock 5/8-11 GRB Zinc        | Lock Nut - 5/8-11 GRB Zinc              | 2    |
| 16       | Nut, Hex-1/2-13GR5              | Hex Nut - 1/2-13 GR5                    | 2    |
| 17       | Nut, Hex Jam-1/2-13GR5          | Hex jam nut - 1/2-13 GR5                | 2    |
| 18       | Nut, Hex Jam-3/4-10             | Hex jam nut - 3/4-10                    | 2    |
| 19       | Regular LW 0.75                 |   | 2    |
| 20       | Regular LW 0.5                  |   | 4    |





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