

5/16"-18, 1/4"-20 taps
13/64", 17/32" drill bits
are required if installing
height control sensors
or valves

A welder is required



Version 1.4

Kit# 10004394

2686 Highway 92 - Oskaloosa, IA 52577
phone: 641.673.0468 - fax: 641.673.4168
www.kelderman.com

2019 + Ram 2500/3500 2-Stage Front Air Suspension Installation Instructions



1. Jack the truck up by the frame and remove the tires. You will need a couple of floor jacks under the front axle to keep the axle from dropping when you remove the shock. We will install the drivers side first. The passenger side mounts exactly the same (but does not have anything above the shock mount). If two people are doing the install both sides can be done at once.
2. Remove the plastic inner fender liner. Remove the shock. Now drop the jacks that are holding the axle up until the tension is off the coil springs. Pull out the coil springs.

Drivers side pictured



3. Locate the upper bag mounts (Part# 10004268-DS and 10004272-PS). Locate the hole in the upper in the coil bucket. Put the upper bag mount in position. You will have to drill (2) holes in the coil bucket, so with the bag mount in position mark the holes. Remove the bag mount and drill it out for the 3/8" bolt. Once the holes are drilled install the bag mount with the 3/8 x 1-1/2" bolts. Torque these two bolts to 35 ft/lbs.



Drivers Side Only:

You will not be able to get a nut on the rear bolt on the drivers side upper bag mount.

Drill rear hole to 21/64" and then tap to 3/8"-24.

4. Locate the bottom air bag mounts (Part# 10004278-DS and 10004273-PS) and 5323 air bags (part# 80012-5323). The lower bag mounts will fasten to the lower spring bucket with the 1/2 x 1" and 3/8" x 1-1/2" bolts. The hole for the 3/8" bolt will have to be drilled and tapped for 3/8-24 bolt. The hole for the 1/2" bolt just needs to be tapped with a 1/2"-20 tap. Set the lower bag mount in position and make your mark where to drill. Once you have the hole tapped and other hole drilled, fasten the 5323 air bag to the lower bag mount with the 1/2" x 3-1/2" bolts. Make sure to set the orientation of the bag first by test fitting it in the upper bag mount before torquing the bolt to 35 ft/lbs. Once the bag is lined up, torqued to the lower bag plate, fasten the lower bag mount to the spring bucket. Torque the 3/8" bolt to 35 ft/lbs. and the 1/2" bolt to 55 ft/lbs. Now jack the axle up and fasten the top of the bags to the upper bag mount with the 1/2 and 3/4" nuts and washers. Torque each nut to 35 ft/lbs.





5. Now that the air bags and brackets are installed, locate the shocks (Part#80118-99042) and lower shock mounts (part#10004766DS and 10004760PS). Turn the dial on the bottom of the shock to setting 3. Setting 3 and 4 are where the ride quality is the best.



Use the OEM bolt to fasten the lower shock relocation bracket in place. Torque to 75 ft/lbs.

Weld the lower shock mount here. The lower shock mount fastens to the OEM shock location with the OEM bolt.

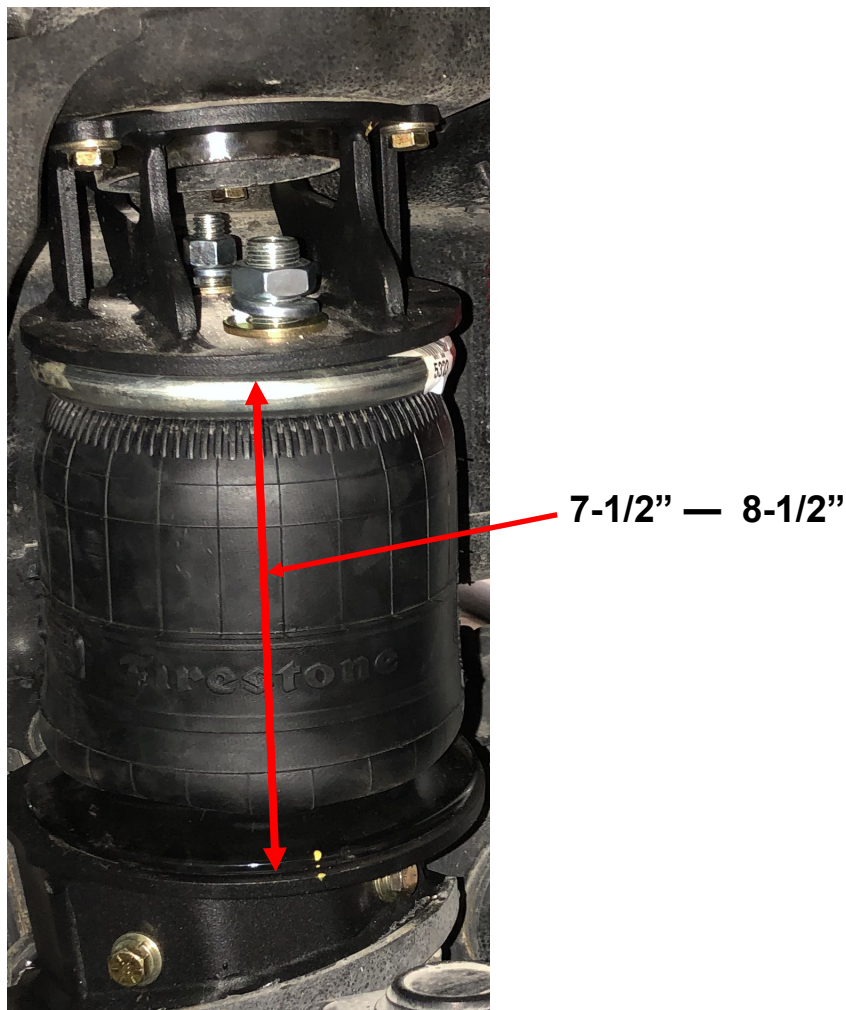


9. Plumbing of the air bags. (If you are not running height control valves or electronic sensors, go ahead and install the plastic inner liner now.

The best ride for the 5323 air bag is between 7.5-8.5" When measuring the air bag, measure between the upper and lower mounting brackets.

There are 3 options for air controls. Manual fill, Mechanical sensors and Electronic Sensors

1. Manual fill If you are not running any onboard air controls on the truck, simply air up the air bags with the supplied Shrader valves. You will insert the air fitting in the air port and tighten it finger tight, then one full turn after that. Now figure out where you want to place your Shrader valves. Under the hood or right off the air bag are popular choices. Once you have decided on the Shrader valve placement, cut the air line to fit between the valve and the air bag fitting. Make sure to use a razor blade and cut the air line so it's straight and clean. Next simply push the air lines into the fittings. Alternate sides when filling the air bags. Don't just fill up one bag to 8" and then do the other bag. Doing that result in the first bag becoming taller and then you will be chasing yourself. Typical pressures on this system will be around 65-75 psi. Both sides should end up being within 5-10 pounds of each other.

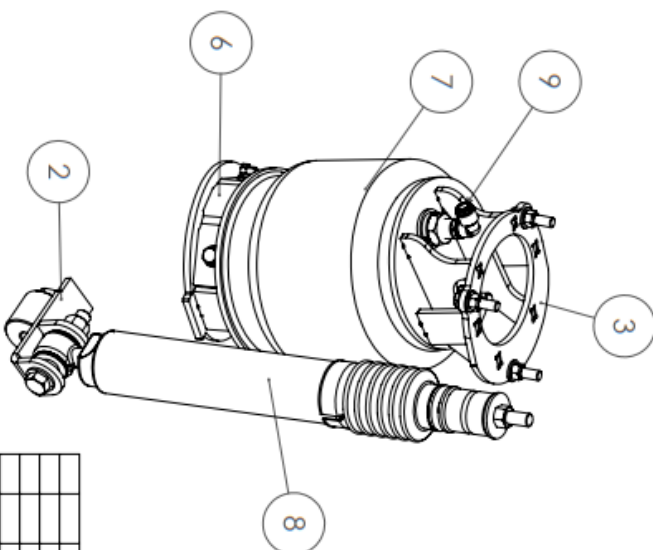

















2. Mechanical and Electronic sensors The electronic sensors and mechanical valves fasten to the side of the frame. You will have to trim part of the inside of the fender liner.
3. Locate the inner fender liner. Before reinstalling, trim the area around the height control valve so the arm doesn't rub on the plastic inner fender liner.

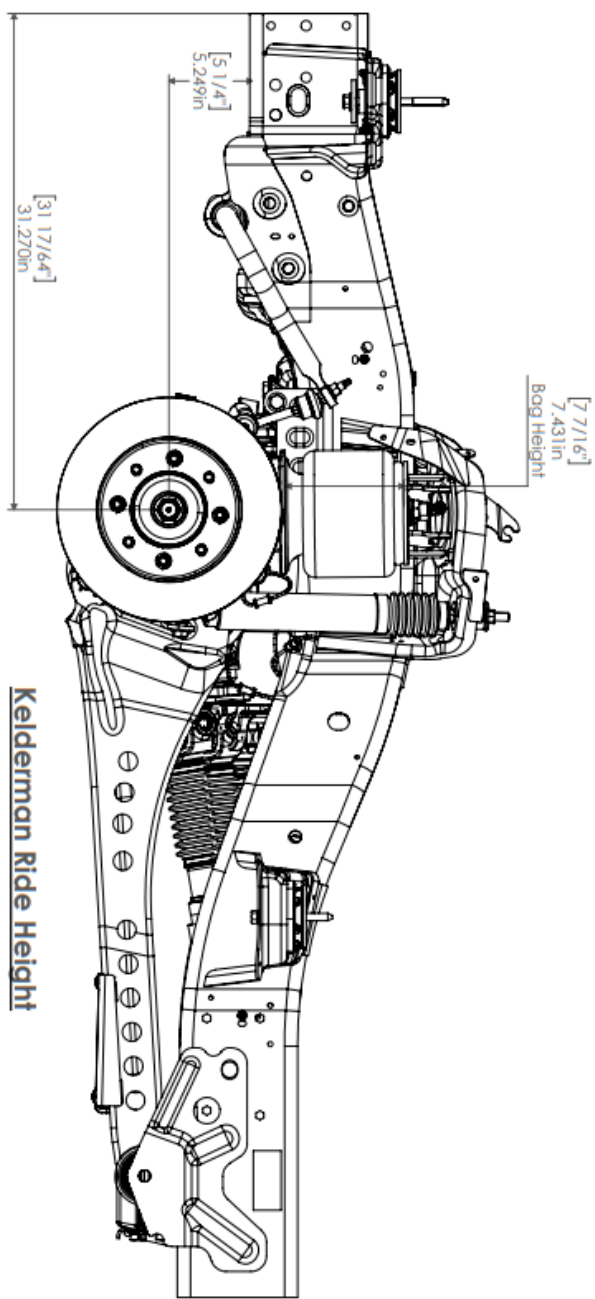


Note: Make sure to turn the wheels lock to lock to make sure there is clearance between wheels and valves/sensors.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
		<i>Assemblies</i>	
1	10004760	Assembly - (PS) Shock Bracket	1
2	10004766	Assembly - (DS) Shock Bracket	1
		<i>Weldments</i>	
3	10004268	Weldment - (DS) Upper Bag Mount	1
4	10004272	Weldment - (PS) Upper Bag Mount	1
5	10004273	Weldment - (PS) Lower Bag/Axle Mount	1
6	10004278	Weldment - (DS) Lower Bag/Axle Mount	1
		<i>Purchased Parts</i>	
7	80012-5323	Firestone 5323	2
8	80118	Rancho RS999042	2
9	80168	KV2L11-35s - 90° Elbow, 3/8" x 1/4-18 NPT	2



REV	ECN	CHANGE DESCRIPTION	CHANGED BY	DATE	DESCRIPTION	MOAT SPEC.	NO. OF SCALE DRAWING	1:50	Approximate Weight = kg
					 TOP VIEW PROJECTION				
					 FRONT VIEW PROJECTION				
					 SIDE VIEW PROJECTION				
					 ISOMETRIC VIEW PROJECTION				
					 PERSPECTIVE VIEW PROJECTION				
					 SECTION VIEW PROJECTION				
					 DETAIL VIEW PROJECTION				
					 ENLARGED VIEW PROJECTION				
					 REDUCED VIEW PROJECTION				
					 ISOMETRIC SECTION VIEW PROJECTION				
					 PERSPECTIVE SECTION VIEW PROJECTION				
					 SECTION VIEW PROJECTION				
					 DETAIL VIEW PROJECTION				
					 ENLARGED VIEW PROJECTION				
					 REDUCED VIEW PROJECTION				



REV	ECN	CHANGE DESCRIPTION	CONSIDER BY	DATE	 200 ANGLE PROJECTIONS UNLESS OTHERWISE SPEC SID. TOLERANCES XXX ± .030 XXX ± .010 FRONT ± .010 Dwg. 2 5/16"	A MATL. SPECS. DESCRIPTION: Kd - Stock Height front PROJECT 2019* Rem 2500 /3500 - Control Arm front - Stock Height PART NUMBER: 10004394	1:20 Approximate Weight = lbs	 Kelderman 10004394 2019* Rem 2500 /3500 - Control Arm front - Stock Height DATE: 1/18/2022 SHEET 2 OF 2
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