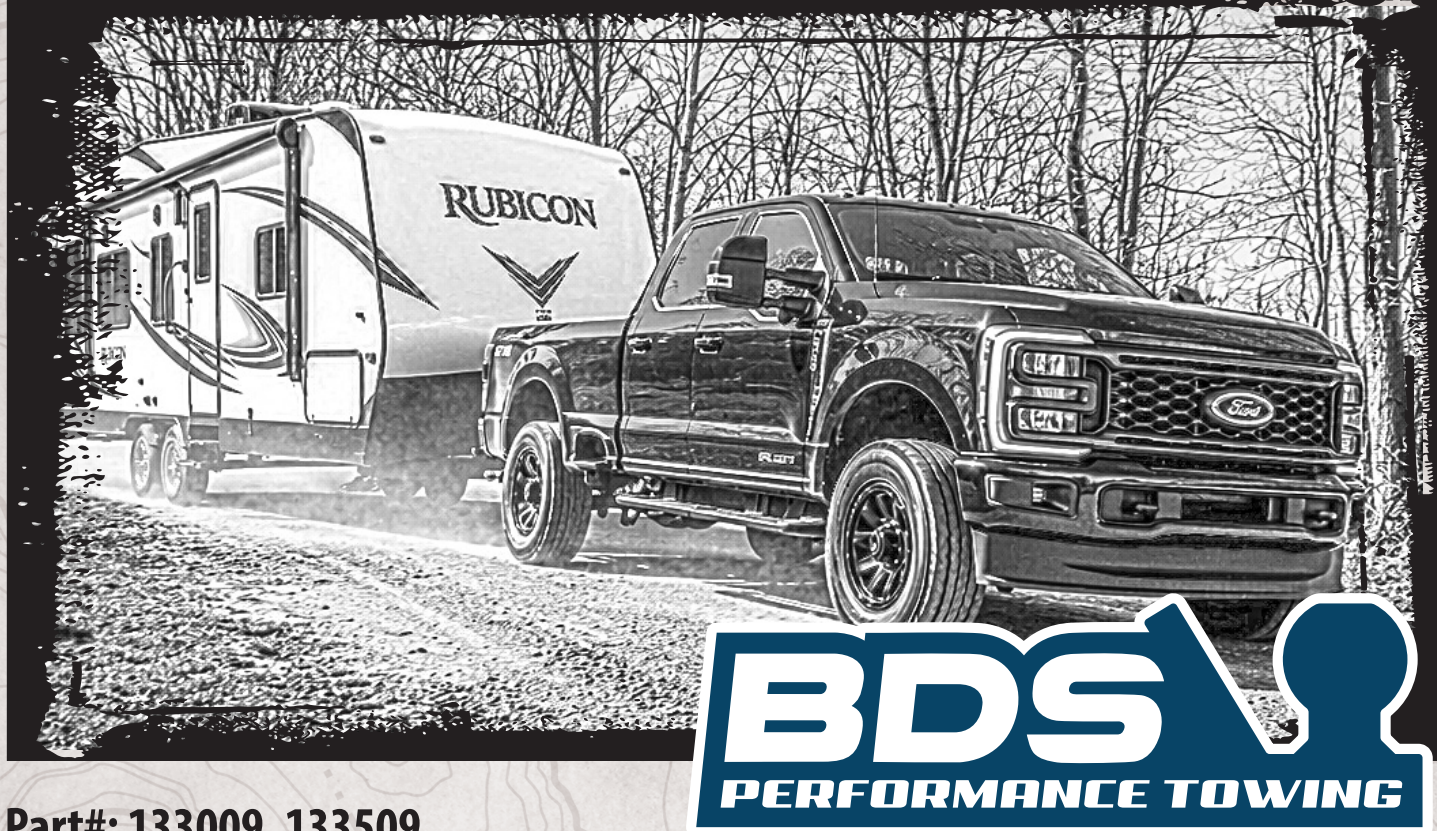


INSTALLATION GUIDE



Part#: 133009, 133509

HARDCORE LIMITED LIFETIME WARRANTY

0" to 3" Load Leveling Box Kit
4" to 7" Load Leveling Box Kit

Ford Super Duty 4WD | 2017-2026

Rev. 083126

491 W. Garfield Ave., Coldwater, MI 49036 • Phone: 517-279-2135

Web: www.bds-suspension.com • E-mail: tech-bds@ridefox.com

Read And Understand All Instructions And Warnings Prior To Installation Of System And Operation Of Vehicle.



THANK YOU

Your truck is about to be fitted with the best suspension system on the market today. That means you will be driving the baddest looking truck in the neighborhood, and you'll have the warranty to ensure that it stays that way for years to come.

Thank you for choosing BDS Suspension!

BEFORE YOU START

BDS Suspension Co. recommends this system be installed by a professional technician. In addition to these instructions, professional knowledge of disassembly/ reassembly procedures and post installation checks must be known.

FOR YOUR SAFETY

Certain BDS Suspension products are intended to improve off-road performance. Modifying your vehicle for off-road use may result in the vehicle handling differently than a factory equipped vehicle. Extreme care must be used to prevent loss of control or vehicle rollover. Failure to drive your modified vehicle safely may result in serious injury or death. BDS Suspension Co. does not recommend the combined use of suspension lifts, body lifts, or other lifting devices. You should never operate your modified vehicle under the influence of alcohol or drugs. Always drive your modified vehicle at reduced speeds to ensure your ability to control your vehicle under all driving conditions. Always wear your seat belt.

BEFORE INSTALLATION

- Special literature required: OE Service Manual for model/year of vehicle. Refer to manual for proper disassembly/reassembly procedures of OE and related components.
- Adhere to recommendations when replacement fasteners, retainers and keepers are called out in the OE manual.
- Larger rim and tire combinations may increase leverage on suspension, steering, and related components. When selecting combinations larger than OE, consider the additional stress you could be inducing on the OE and related components.
- Post suspension system vehicles may experience drive line vibrations. Angles may require tuning, slider on shaft may require replacement, shafts may need to be lengthened or trued, and U-joints may need to be replaced.
- Secure and properly block vehicle prior to installation of BDS Suspension components. Always wear safety glasses when using power tools.
- If installation is to be performed without a hoist, BDS Suspension Co. recommends rear alterations first.
- Due to payload options and initial ride height variances, the amount of lift is a base figure. Final ride height dimensions may vary in accordance to original vehicle attitude. Always measure the attitude prior to beginning installation.



Visit 560plus.com for more information.

BEFORE YOU DRIVE

Check all fasteners for proper torque. Check to ensure for adequate clearance between all rotating, mobile, fixed, and heated members. Verify clearance between exhaust and brake lines, fuel lines, fuel tank, floor boards and wiring harness. Check steering gear for clearance. Test and inspect brake system.

Perform steering sweep to ensure front brake hoses have adequate slack and do not contact any rotating, mobile or heated members. Inspect rear brake hoses at full extension for adequate slack. Failure to perform hose check/ replacement may result in component failure. Longer replacement hoses, if needed can be purchased from a local parts supplier.

Perform head light check and adjustment.

Re-torque all fasteners after 500 miles. Always inspect fasteners and components during routine servicing.

BDS PERFORMANCE TOWING

HOW TO USE YOUR NEW LOAD LEVELING KIT

Welcome to BDS Performance Towing. Your new air spring kit isn't a basic helper bag—it's engineered by the Sport Truck USA team in Coldwater, Michigan, to perform without limits: loaded, unloaded, on-road, and off. This guide covers how to dial it in and what every owner should know.

To keep it simple:

DAILY USE

- While driving an unloaded vehicle, feel free to release all the air pressure from the air springs. There is no minimum PSI requirement for our air springs when unloaded.
- When loaded, inflate the air springs until the vehicle sits level
- If you need more than 100 PSI to level your vehicle, no problem. We don't recommend going over 125 PSI. That is the limit of our compressor system.

OFF-ROAD USE

- Air springs act as adjustable bump stops, so up travel depends on air pressure. A lower plate design (instead of a fixed mount) preserves full droop travel. Heavy-duty bags handle the rest.

SERVICE & SAFETY

- When having your vehicle serviced, reduce the air pressure to zero if equipped with our compressor system. If not, no action is needed.
- **IMPORTANT:** Never exceed your vehicle's OEM GVWR or GAWR. This kit levels the load; it doesn't increase capacity.
- **GVWR (Gross Vehicle Weight Rating):** The maximum total weight of your truck, including passengers, cargo, fuel, and tongue weight.
- **GAWR (Gross Axle Weight Rating):** The maximum weight each axle can carry.

HAVE QUESTIONS OR NEED HELP?

Contact:

BDS Tech Department (Hours: 8am to 5pm - Mon. - Fri.)

Tech-BDS@ridefox.com

517-279-2135, Option 2



CONTENTS OF YOUR KIT

133009 - 0" Load Leveling Box Kit

Part #	Qty	Description
B1717	1	Bag Kit - Air Bag Components
BP1121	1	Schrader Valve Mounting Hardware
	4	5/16" Panel Nut, 7/64" Thick, Nickle Plated Brass
	2	5/16" External Tooth Lock Washer, Stainless Steel
	2	5/16" Rubber Sealing Washer
	4	8mm Flat Washer, Stainless steel
099000	10	11.5in Nylon Cable Tie - Black
05710	2	1/4" PTC Scradler Valve - Air Fitting
05706	2	1/4" Straight - Air Fitting
05709	1	1/4" PTC Tee - Air Fitting
05901	2	7" Air Bag Perch/Seat Cradle
05903	2	7" Air Spring Cradle Pad
BP1008	1	Bolt Pack - 4x - 5/8" U-Bolt
	8	5/8"-18 High Nut, Black
	8	5/8" SAE Washer, Black
BP1130	1	Bolt Pack - Air Support
	4	3/8" x 7/8" Hex Head Bolt, Grade 8, Yellow Zinc
	6	3/8" SAE Flat Washer, Yellow Zinc
	2	3/8" Prevailing Torque Lock Nut, Yellow Zinc
	2	3/8" x 1.5" Flat Head Cap Screw, Clear Zinc
	4	3/8" x 1-1/2" Button Head Hex Drive Bolt, Clear Zinc
	4	3/8" Clip Nut, Black
05824	1	Upper Air Spring Bracket - Driver Side
05825	1	Upper Air Spring Bracket - Passenger Side
05826	1	Lower Air Spring Block - Driver Side
05827	1	Lower Air Spring Block - Passenger Side
05828	2	Insert - 3.5" Axle
05829	2	Insert - 4.0" Axle
583181400SB	4	5/8" x 3-1/8" x 14" Semi-Round U-Bolt
05711	1	1/4" Air Line - 16'

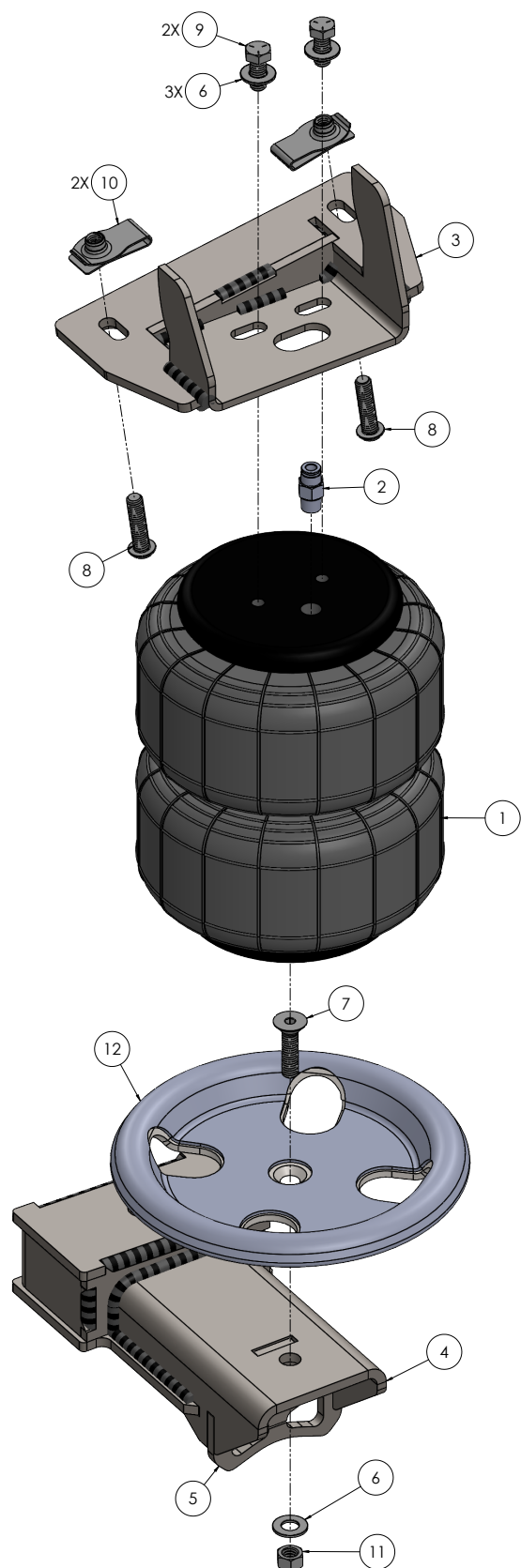
133509 - 4" - 7" Load Leveling Box Kit

Part #	Qty	Description
B1717	1	Bag Kit - Air Bag Components
BP1121	1	Schrader Valve Mounting Hardware
	4	5/16" Panel Nut, 7/64" Thick, Nickle Plated Brass
	2	5/16" External Tooth Lock Washer, Stainless Steel
	2	5/16" Rubber Sealing Washer
	4	8mm Flat Washer, Stainless steel
099000	10	11.5" Nylon Cable Tie - Black
05710	2	1/4" PTC Scradler Valve - Air Fitting
05706	2	1/4" Straight -Air Fitting
05709	1	1/4" PTC Tee - Air Fitting
05901	2	7" Air Bag Perch/Seat Cradle
05903	2	7" Air Spring Cradle Pad
BP1130	1	Bolt Pack - Air Support
	4	3/8" x 7/8" Hex Head Bolt, Grade 8, Yellow Zinc
	6	3/8" SAE Flat Washer, Yellow Zinc
	2	3/8" Prevailing Torque Lock Nut, Yellow Zinc
	2	3/8" x 1.5" Flat Head Cap Screw, Clear Zinc
	4	3/8" x 1-1/2" Button Head Hex Drive Bolt, Clear Zinc
	4	3/8" Clip Nut, Black
05824	1	Upper Air Spring Bracket - Driver Side
05825	1	Upper Air Spring Bracket - Passenger Side
05805	2	Lift Block Air Spring Saddle
05831	2	5.0" Block Support Leg - 3.5" axle
05832	2	5.0" Block Support Leg - 4.0" axle
05833	2	6.5" Block Support Leg - 3.5" axle
05834	2	6.5" Block Support Leg - 4.0" axle
05711	1	1/4" Air Line - 16'

2017- 2026 FORD SUPER DUTY AIR BAG ASSEMBLY

ITEM#	DESCRIPTION
1	2B7 AIR SPRING
2	1/4" PTC - STRAIGHT - AIR FITTING
3	UPPER AIR SPRING BRACKET - DRIVER SIDE
4	LOWER AIR SPRING BLOCK - DRIVER SIDE
5	STOCK HEIGHT INSERT
6	3/8" SCREW SIZE, GRADE 5, SAE WASHER, ZINC
7	3/8" X 1-1/2" FLAT HEAD BOLT, ZINC
8	3/8" X 1-1/2" BUTTON HEAD BOLT, ZINC-PLATED
9	3/8" X 7/8" HEX HEAD BOLT, GRADE 5 STEEL, ZINC
10	3/8" CLIP-ON BARREL NUT, BLACK-PHOSPHATE
11	3/8" DISTORTED-THREAD LOCKNUT, GRADE 5, ZINC
12	7" AIR SPRING CRADLE ASSEMBLY

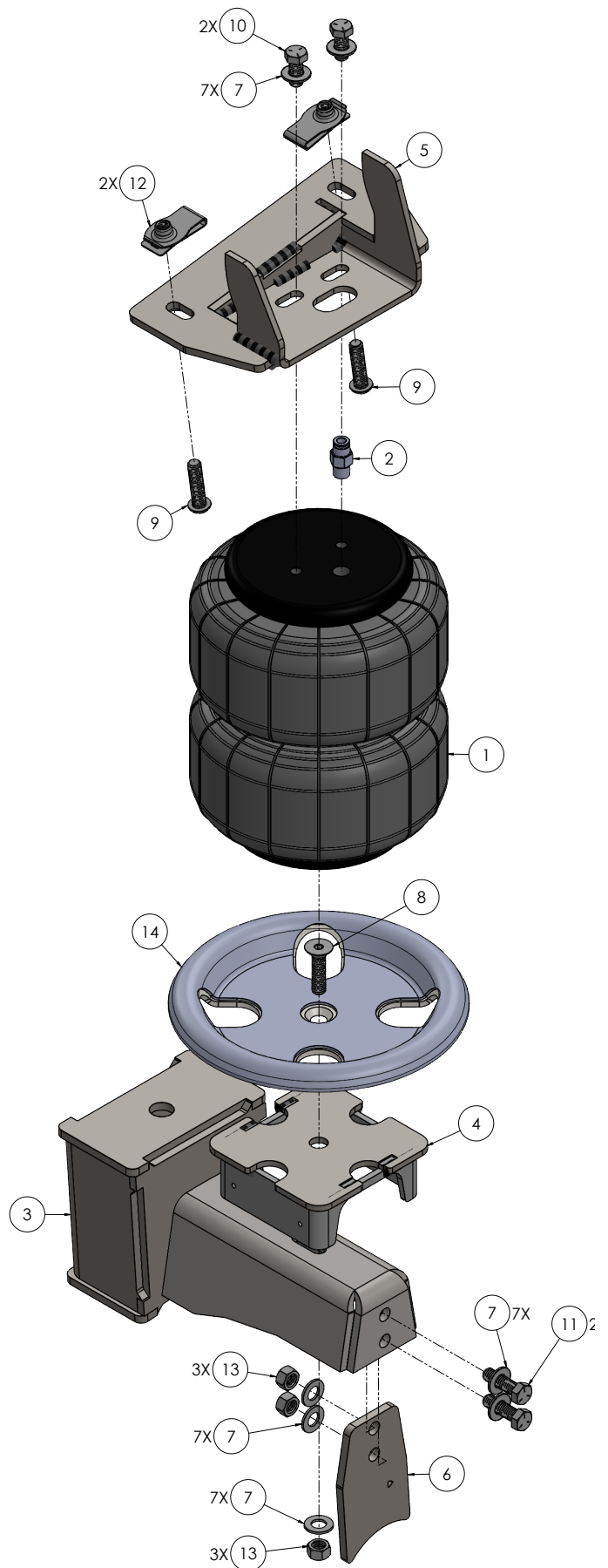
2017-2026 FORD F250/F350 SUPER DUTY STOCK AIR BAG ASSEMBLY



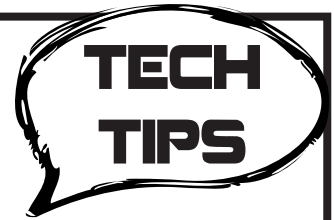
2017-2026 FORD F250/F350 SUPER DUTY AIR BAG ASSEMBLY - LIFTED

ITEM#	DESCRIPTION
1	2B7 AIR SPRING
2	1/4" PTC - AIR FITTING
3	REAR LIFT BLOCK - REQUIRES MOUNT HOLES
4	LIFT BLOCK AIR SPRING SADDLE
5	UPPER AIR SPRING BRACKET - DRIVER SIDE
6	5.0" INSERT - 3.5" AXLE
7	3/8" SAE WASHER, ZINC-PLATED
8	3/8"X 1-1/2" FLAT HEAD BOLT, ZINC
9	3/8" X 1-1/2" BOLT HEAD BOLT, ZINC
10	3/8" X 7/8" HEX HEAD BOLT, ZINC
11	3/8" 1-1/4" HEX HEAD BOLT, GRADE 5 STEEL, ZINC
12	3/8"- CLIP-ON BARREL NUT, BLACK-PHOSPHATE
13	3/8"- DISTORTED-THREAD LOCKNUT, GRADE 5, ZINC
14	7" AIR SPRING CRADLE ASSEMBLY

2017-2026 FORD F250/F350 SUPER DUTY AIR BAG ASSEMBLY - LIFTED



IMPORTANT INFORMATION FOR YOUR VEHICLE



1. BDS133009 does not work with dually (**DRW**) models. Leaf spring pin size is different.
2. Will work with Tremor models, but the BDS133009 kit lowers the rear ride height 1" total utilizing a 2" tall block. Can purchase a 1" bolt on rear block kit (**BDS013108**) to lift the rear of a Tremor back to factory height.
3. Requires BDS133506, BDS013506, BDS013618, or BDS133618 lift blocks with mount holes on the wing.
4. Removal of the rear OE bump stop mount is required for installation.
5. Kit is **not** compatible with replacement leaf springs.
6. Measure distance between air spring mounting plate and top of the cradle pad. The ideal air spring working height for 05702 is 6.0"-9.0"
7. If your air spring is not in contact with the cradle, it may be necessary to add ~ 10 PSI or until the air spring extends to contact the cradle.
8. BDS Performance Towing Air Bag kits utilize serviceable parts and can be purchased accordingly.
 - Air Bag (**Qty 1**): BDS139909
 - Air bag cradle pads (**Qty 2**): BDS139901
 - Replacement air line (**16 feet**): BDS139906
 - Schrader valves (**Qty 2**) and mounting hardware: BDS139902
 - 90 Degree air bag fittings (**Qty 2**): BDS139903
 - Air line Tee fitting (**Qty 1**): BDS139905
9. After installation, if air spring does not self-center into bottom of cradle, a dry lubricant may need to be sprayed onto the air spring cradles to consistently allow the air spring to fall into the cradle.
10. Before adding air pressure above 5 PSI, it is recommended to check that the air spring is fully seated into the cradle.
11. Follow the Air Line Installation Guide for air line install guidelines and tips.

INSTALLATION INSTRUCTIONS

SPECIAL TOOLS

1. Chock front wheels and raise the rear of the vehicle and support the frame with jack stands.
2. Support the axle on the side you are working on with a jack. (**Fig. 1**)

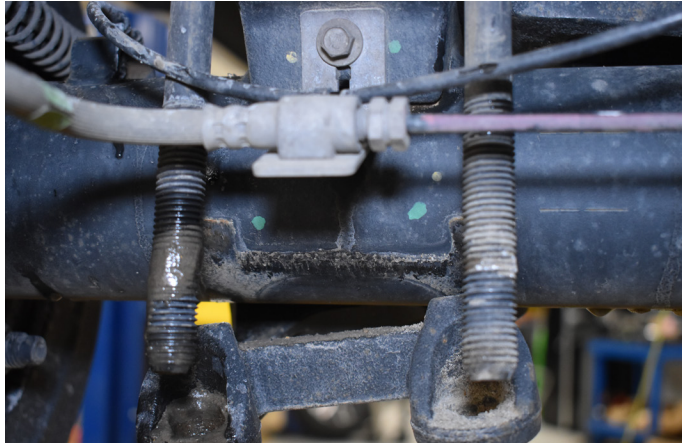
- Torque Wrench
- Max Wrench/Socket sizes up to 15/16"
- Allen Wrench sizes up to 7/32"

FIGURE 1



3. Remove the U-bolt nuts and U-bolts. **(Fig. 2)**

FIGURE 2



4. Lower the axle and remove the OE tapered block. **(Fig. 3)**

FIGURE 3



5. To allow for clearance of the block assembly the wiring bracket on the driver side axle needs to be modified. Disconnect the 2 tree clips from the bracket. **(Fig. 4)**

FIGURE 4



6. Using channel locks or an adjustable wrench, bend the bracket as shown in **(Figures 5A and 5B)**. Zip tie wiring to the bracket securing the wiring away from the any contact with the airbag assembly. **(Fig. 5C)**

FIGURE 5A



FIGURE 5B

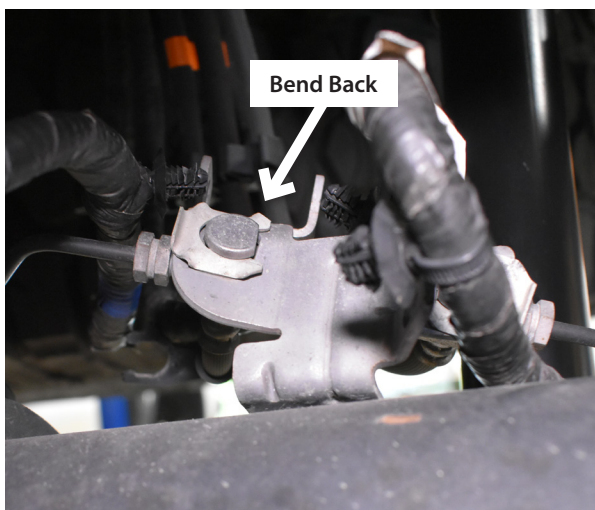


FIGURE 5C



7. Install the rubber isolator to the cradle by aligning the locking nibs with the holes in the cradle. **(Fig. 6A)** Push the nibs through the 4 holes then wrap the rubber isolators edge around the cradle, snapping it into place. **(Fig.6B)**

FIGURE 6A



FIGURE 6B



8. Using pliers pull the locking nibs until they fully seat into the cradle holes, you will feel them snap into place. **(Fig. 7A)** DO NOT OVER STRETCH THE NIBS. With all nibs locked into place, use a sharp knife to cut them off flush to the bottom of the cradle. **(Fig. 7B)**

FIGURE 7A



FIGURE 7B



9. Mount the air bag cradle to the lower axle bracket using the provided 3/8" x 1" Flat Head Screw, 3/8" Washer & 3/8" Nylock Nut [BP1112] Torque to 23 ft-lbs **(Fig. 8)**

FIGURE 8



10. **FOR 0" kit:** Determine which axle diameter you have and use the corresponding support leg for your application. Install the block wing axle support as shown in **(Fig. 9A and Fig. 9C)** **FOR 4" - 7" Kit:** Determine which axle diameter you have and use the corresponding support leg for your application **(Fig. 9B and 9D)**. Install the support leg using the provided 3/8" bolts, 3/8" nuts and washers. **(Fig. 9B)**

FIGURE 9A



FIGURE 9B

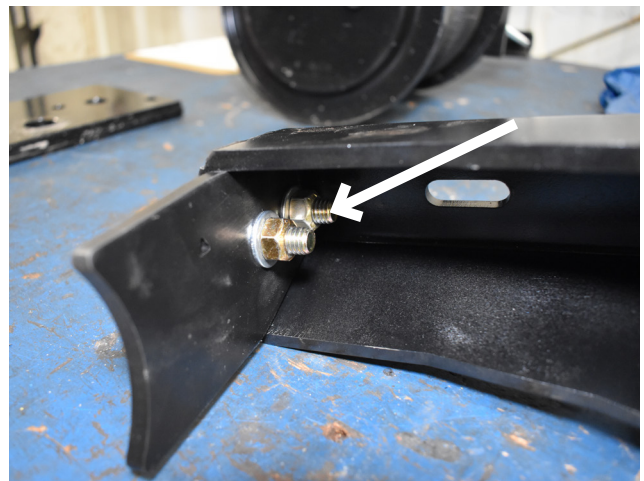
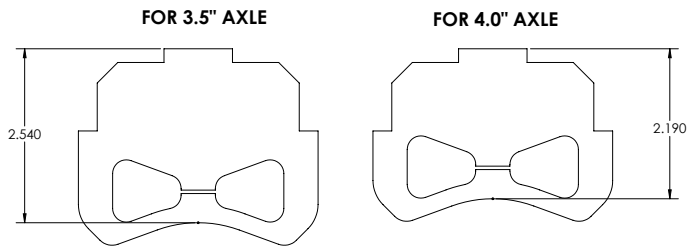
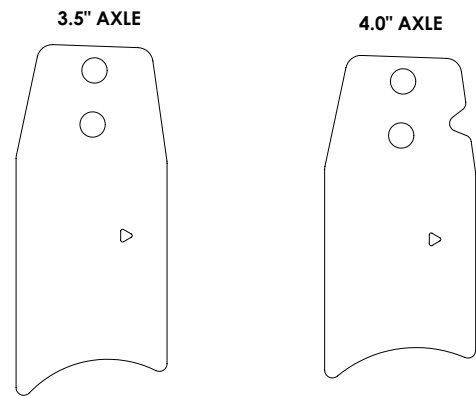
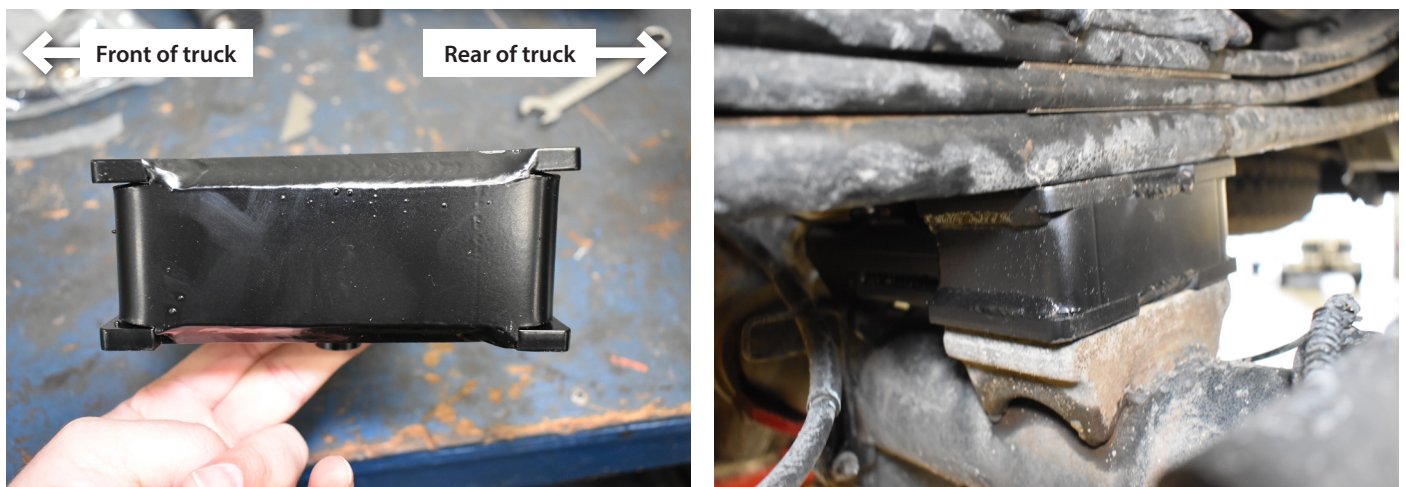


FIGURE 9C**FIGURE 9D**

11. Install the block between the axle and the leaf spring. Lift the axle aligning the block pin top and bottom. Ensure that the block is mounted correctly. The short (**low**) end of the tapered lift block faces forward (**toward the front of the truck**), and the taller (**high**) end faces rearward (**toward the back of the truck**). (Fig. 10)

FIGURE 10

12. Install the provided U-bolts. Tighten the U-bolt nuts in a cross pattern in 4 stages. See the chart below. (Fig. 11)

FIGURE 11**U-Bolt Torque:**

Single Rear Wheel Vehicles:

Stage 1: 48 lb.ft (65 Nm)

Stage 2: 96 lb.ft (130 Nm)

Stage 3: 148 lb.ft (200 Nm)

Stage 4: 195 lb.ft (265 Nm)



13. Remove the upper bump stop from the frame. (Fig. 12A, 12B)

FIGURE 12A

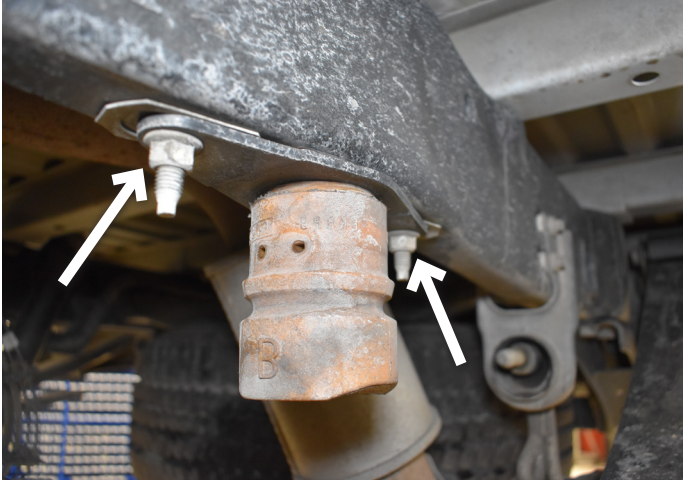


FIGURE 12B



14. Install the 2 clip nuts found in BP1130, into the OE bump stop holes. Verify that the clips are fully seated. (Fig. 13)

FIGURE 13



15. Install the air fitting into the air bag assembly. Finger tighten, then tighten 1 and 1/2 turns. (Fig. 14)

FIGURE 14



16. Install the upper frame mount to the bag assembly using the 3/8" x 7/8" hex head bolts and 3/8" washers. Push the spring all the way forward toward the wide end of the taper. Torque to 23 ft-lbs. **(Fig. 15)**

FIGURE 15



17. Install the upper frame mount into the 2 clip nuts using the 3/8" x 1-1/2" button head bolts. Ensure that the bracket taper, tapers toward the rear of the vehicle. Snug up bolts, do not torque at this time. **(Fig. 16A, Fig. 16B)**

FIGURE 16A

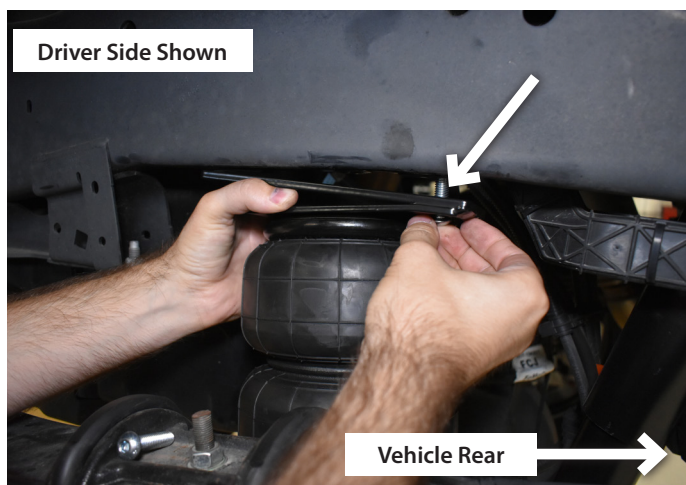
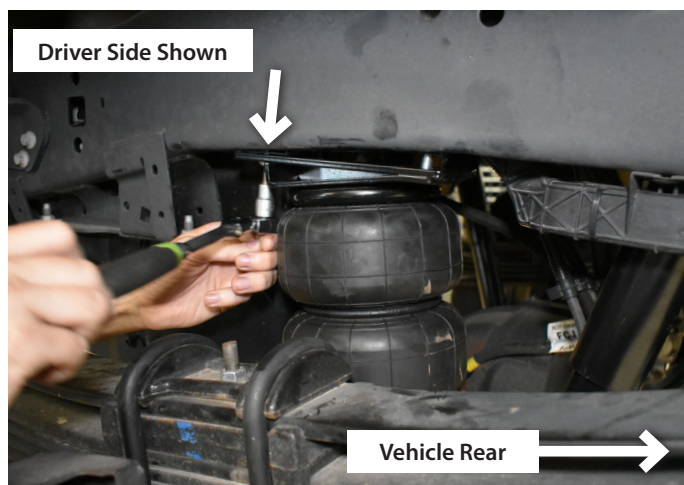


FIGURE 16B



18. Ensure that the upper bracket is fully seated against the frame. Used a rubber hammer to tap bracket into position. Torque button head bolts to 23 ft-lbs. **(Fig. 17A, 17B)**

FIGURE 17A

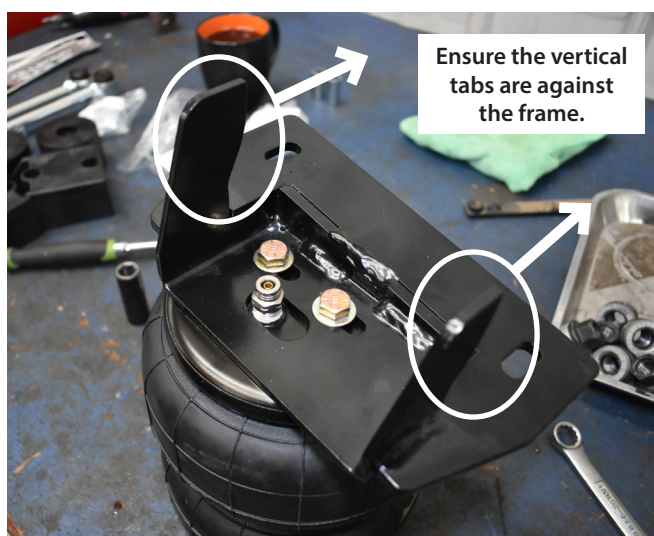


FIGURE 17B

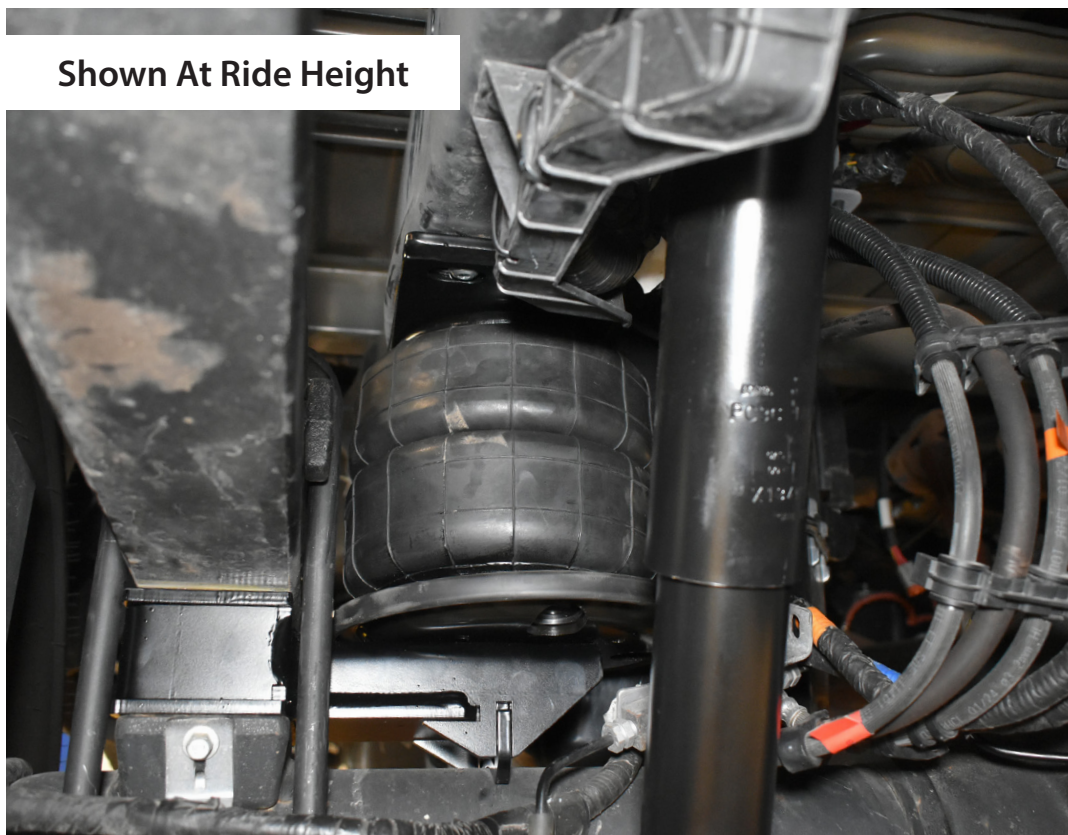
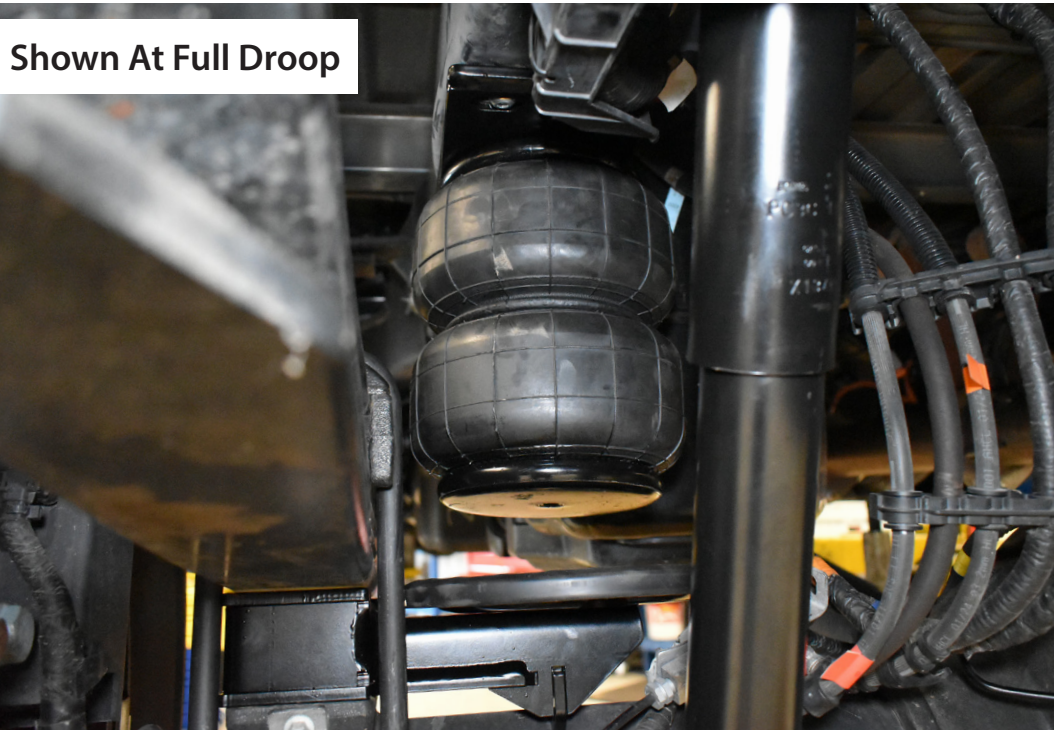


19. Repeat installation on the other side of the vehicle.

SEE AIRLINE INSTALLATION GUIDELINES (SEE PAGE 15)

20. When installation is completed, replace rear wheels, lower vehicle to the ground and torque lug nuts to 130 ft-lbs.

21. Check all lines and hardware after 500 miles and at every maintenance interval.



AIRLINE INSTALLATION GUIDELINES

STEP 1: PICK YOUR SETUP

- Dual-path: Separate valve for each air bag.
- Single-path: One valve for both. (Use the provided T-air fitting).

STEP 2: VALVE LOCATION

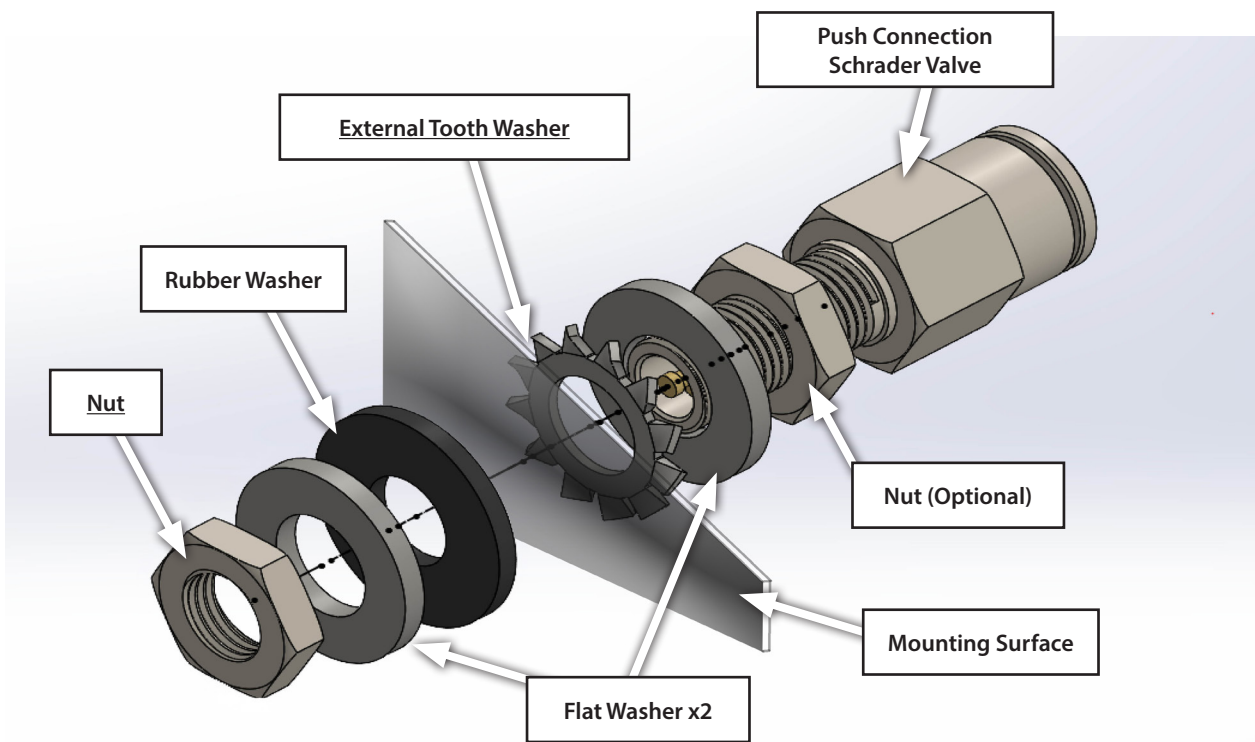
- Choose an accessible location for the air inflation schrader valves.

LOCATION SUGGESTIONS:

- Bumper, near the license plate.
- Tow hitch
- Inside fuel door

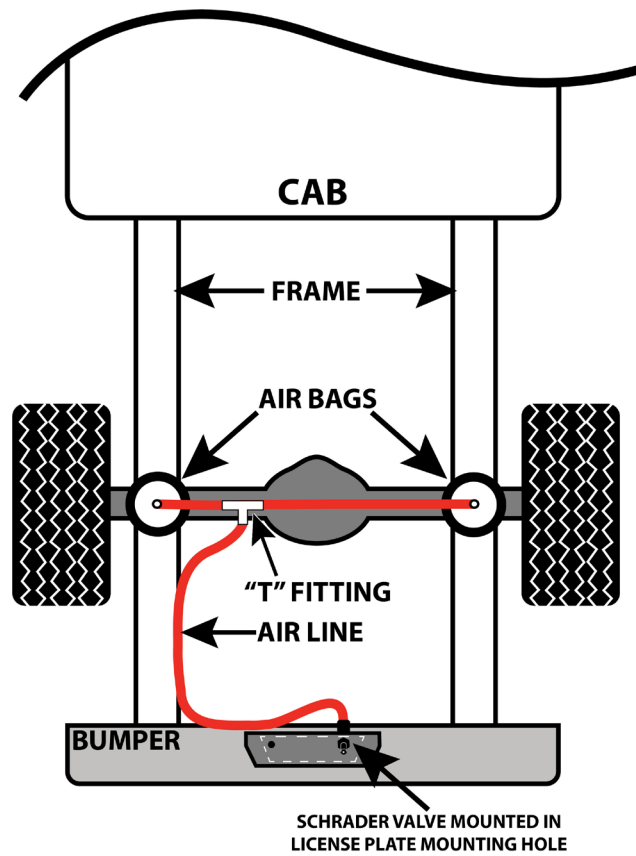
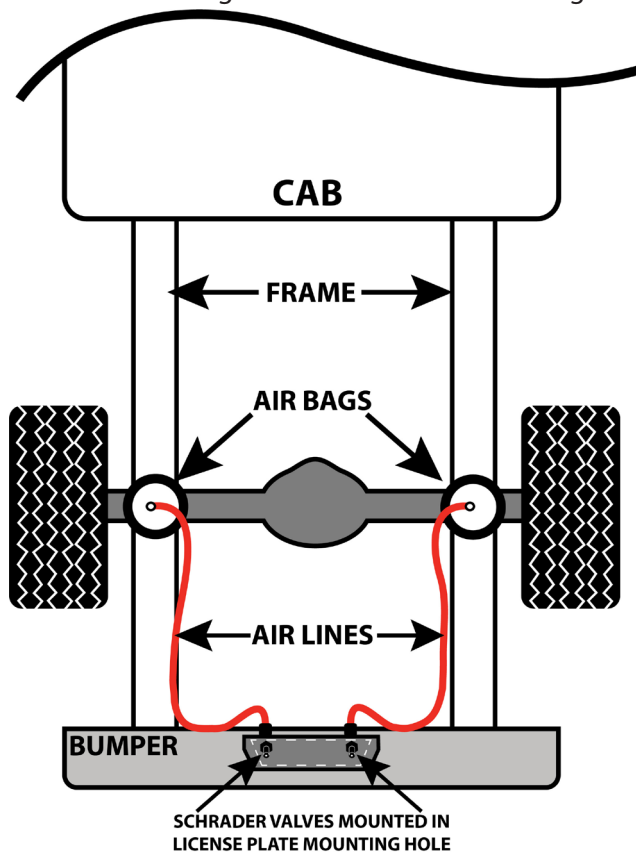
STEP 3: INSTALL SCHRADER VALVES

- Drill a 5/16" hole in your chosen spot
- Mount the valve with washers and nuts found in Bolt Pack BP1121.



STEP 4: ROUTE AIR LINES

- Run air lines along the frame rail toward air bags

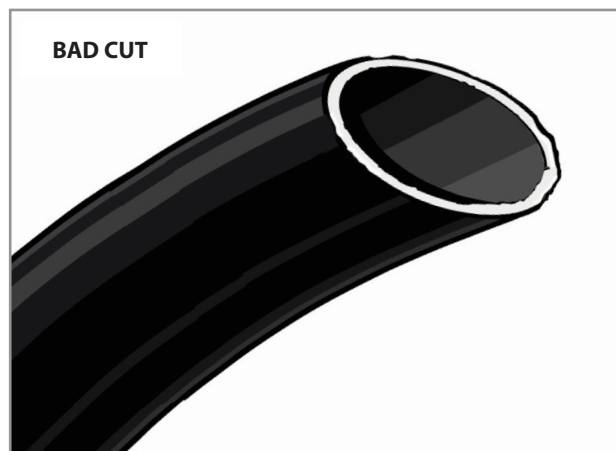
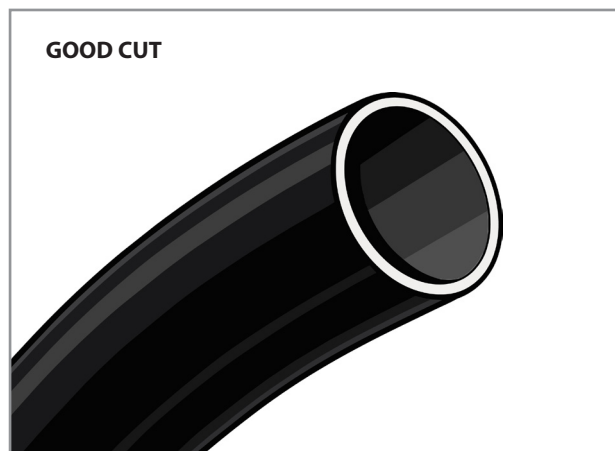


AVOID:

- Exhaust (keep 6+ inches away)
- Sharp edges
- Tight gaps that could pinch the line
- (Bend Radius ~ 2" or smaller).

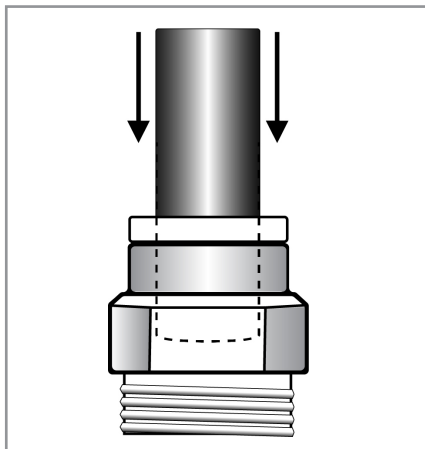
STEP 5: CUT THE LINE RIGHT

- Cut straight (90° only)
- Use a razor or hose cutter
- No scissors or wire cutters**

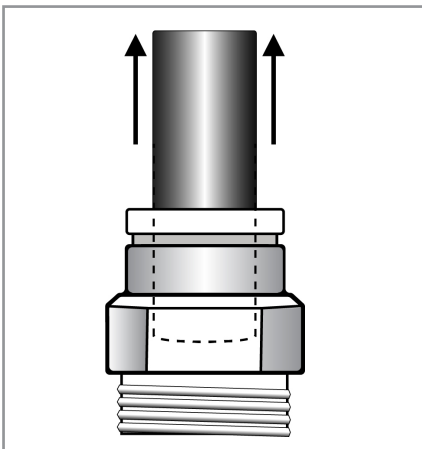


STEP 6: CONNECT LINES TO AIR BAGS AND SCHRADER VALVES

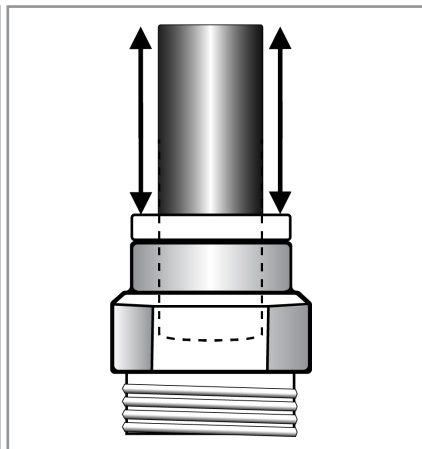
Push line fully into fitting



Tug lightly to confirm it's locked



To remove line, press down on the locking sleeve and pull out the line



STEP 7: SECURE & TEST

- Zip tie every 12–15 inches (not too tight)
- Inflate to 50–70 PSI
- Spray soapy water on fittings:
- Bubbles = leak = re-cut + reconnect
- Let sit overnight (~30 PSI) to confirm no leaks



WE WANT TO SEE YOUR RIDE!

Grab photos of your BDS-equipped truck in action and send them in for a chance to be featured. Send it in to our Bad Ass Rides customer gallery at bds-suspension.com/bar and post them on the BDS Fan Page on Facebook at facebook.com/BDSSuspensions. Don't forget about your BDS swag! BDS offers t-shirts, hoodies, decals and more available on the BDS website or through your local BDS distributor.

TIME TO HAVE SOME FUN

Thank you for choosing BDS Suspension.

For questions, technical support and warranty issues relating to this BDS Suspension product, please contact your distributor/installer before contacting BDS Suspension directly.