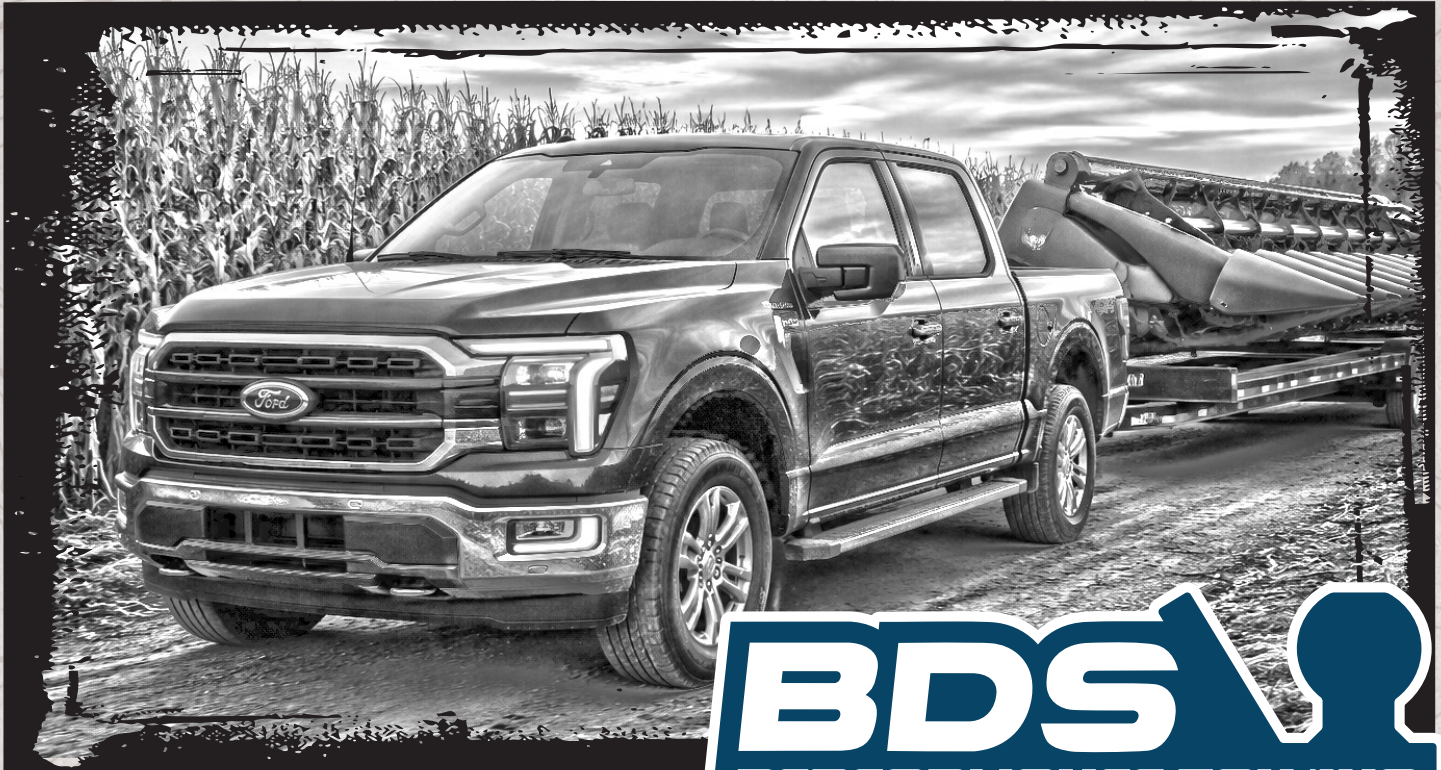


INSTALLATION GUIDE



Part#: 133008, 133609



HARDCORE LIMITED LIFETIME WARRANTY

Stock to 4" Load Leveling Kit

6" Load Leveling Kit

Ford F150 4WD | 2015-2026

Rev. 091626

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

Box Kit BDS133008 - Stock to 4" Load Leveling Box Kit

Part #	Qty	Description
B1716	1	Bag Kit - Air Spring Components (90°)
BP1121	1	Schrader Valve Mounting Hardware
	4	5/16" Panel Nut
	2	5/16" External Tooth Lock Washer
	2	5/16" Rubber Sealing Washer, Black EPDM
	4	8mm Flat Washer
099000	10	11.5" Nylon Cable Tie - Black
05710	2	1/4" PTC Schrader Valve - Air Fitting
05705	2	1/4" PTC - 1/4 NPT 90° - Air Fitting
05709	1	1/4" PTC Tee - Air Fitting
B1744	1	Bag Kit - BDS Performance Towing Badge Kit
05819	2	BDS Performance Towing Emblem
887	2	Bolt Pack
B1747	1	Bag Kit - F150 Lower Mount Air Support Kit
BP1016	1	Bolt Pack - 2x - 3/8 U-Bolt
	4	3/8"-24 Prevailing Torque Nut, Black
	4	3/8" SAE Washer, Black
383140334RB	2	3/8 x 3-1/4 x 3-3/4 Round U-bolt, Black
768	1	Bolt Pack
	2	1/4" x 3/4" Bolt
	2	1/4" Nylock Nut
	4	1/4" USS Washer
05836	1	F150 Brake Line Relocation Bracket - Stock
B1746	1	F150 Air Support Kit
05846	2	F150 Upper Air Spacer
05802	2	F150 Air Spring Upper Nut Tab
0708760	1	3/8" Wire Clip
BP1134	1	F150 Air Assist Hardware
	5	3/8" x 1-1/4" Bolt, Yellow Zinc
	1	3/8" Prevailing Torque Nut, Yellow Zinc
	6	3/8" Washer, Yellow Zinc
	4	3/8" x 3/4" Button Head Hex Bolt
	6	3/8" x 1-1/4" Carriage Bolt
	2	3/8" x 1-1/2" Flat Head Screw
	8	3/8" NyLock Nut
	8	3/8" SAE Washer
05842	1	F150 Upper Frame Bracket - DS
05843	1	F150 Upper Frame Bracket - PS
05844	2	F150 Upper Air Spring Bracket
05845	2	F150 Lower Air Spring Bracket
05711	1	1/4" Air Line - 16'
05900	2	6" Air Bag Perch/Seat Cradle
05902	2	6" Air Spring Cradle Pad

Box Kit BDS139000 - 6" Air Spring - Short

Part #	Qty	Description
05700	2	2B6 Short Air Spring

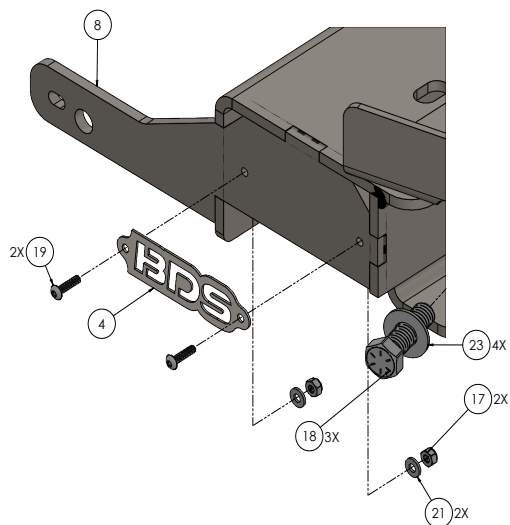
Box Kit BDS133609 - 6" Load Leveling Box Kit

Part #	Qty	Description
B1716	1	Bag Kit - Air Bag Components (90°)
BP1121	1	Schrader Valve Mounting Hardware
	4	5/16" Panel Nut
	2	5/16" External Tooth Lock Washer
	2	5/16" Rubber Sealing Washer, Black EPDM
	4	8mm Flat Washer
099000	10	11.5" Nylon Cable Tie - Black
05710	2	1/4" PTC Schrader Valve - Air Fitting
05705	2	1/4" PTC - 1/4 NPT 90° - Air Fitting
05709	1	1/4" PTC Tee - Air Fitting
B1744	1	Bag Kit - BDS Performance Towing Badge Kit
05819	2	BDS Performance Towing Emblem
887	2	Bolt Pack
B1746	1	F150 Air Support Kit
05846	2	F150 Upper Air Spacer
05802	2	F150 Air Spring Upper Nut Tab
0708760	1	3/8" Wire Clip
BP1134	1	F150 Air Assist Hardware
	5	3/8" x 1-1/4" Bolt, Yellow Zinc
	1	3/8" Prevailing Torque Nut, Yellow Zinc
	6	3/8" SAE Washer, Yellow Zinc
	4	3/8" x 3/4" Button Head Hex Bolt
	6	3/8" x 1-1/4" Carriage Bolt
	2	3/8" x 1-1/2" Flat Head Screw
	8	3/8" NyLock Nut
	8	3/8" SAE Flat Washer
354	2	Bolt Pack
	2	3/8"-16 x 1-1/4" Bolt, Yellow Zinc
	4	3/8" SAE Washer, Yellow Zinc
	2	3/8"-16 Prevailing Torque Nut, Yellow Zinc
05857	1	F150 Brake Line Relocation Bracket - 6"
05842	1	F150 Upper Frame Bracket - DS
05843	1	F150 Upper Frame Bracket - PS
05844	2	F150 Upper Air Spring Bracket
05853	2	F150 5" Air Spring Block Support
05805	2	Lift Block Air Spring Saddle
05711	1	1/4" Air Line - 16'
05900	2	6" Air Spring Perch/Seat Cradle
05902	2	6" Air Spring Cradle Pad

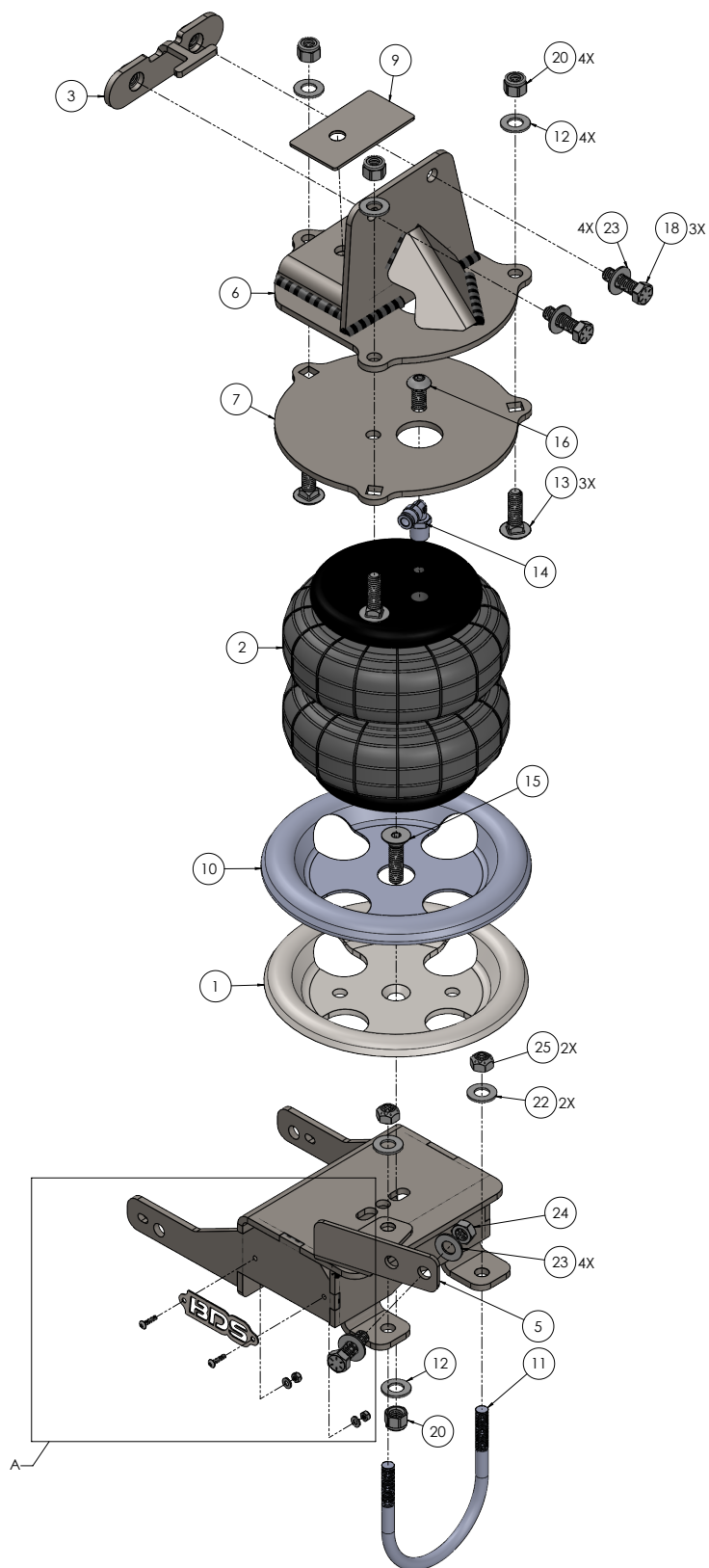
Box Kit BDS139001 - 6" Air Spring - Tall

Part #	Qty	Description
05701	2	2B6 Tall Air Spring

FORD F150 STOCK RIDE HEIGHT TO 4" AIR BAG ASSEMBLY	
ITEM#	DESCRIPTION
1	6" STAMPED STEEL CRADLE
2	2B6 SHORT AIR SPRING or TALL AIR SPRING
3	AIR SPRING UPPER NUT TAB
4	BADGE: BDS PERFORMANCE TOWING EMBLEM
5	BRAKE LINE RELOCATION BRACKET - STOCK
6	UPPER FRAME BRACKET - DRIVER SIDE
7	UPPER AIR SPRING BRACKET
8	LOWER AIR SPRING BRACKET
9	UPPER FRAME SPACER
10	6" AIR SPRING CRADLE PAD
11	U-BOLT
12	3/8" SAE WASHER
13	3/8" X 1-1/4" CARRIAGE BOLT
14	90° AIR FITTING
15	3/8" X 1-1/2" FLAT HEAD BOLT
16	3/16" X 3/4" BUTTON HEAD BOLT
17	#5-40 NYLOCK NUT
18	3/8" X 1-1/4" HEX HEAD BOLT
19	#5-40 X 1/2" BUTTON HEAD BOLT or RIVETS
20	3/8"-16 NYLOCK NUT
21	#5 SAE WASHER
22	3/8" SAE WASHER, BLACK
23	3/8" SAE WASHER, ZINC YELLOW
24	3/8"-16 LOCKNUT, ZINC YELLOW
25	3/8"-24 LOCKNUT, BLACK

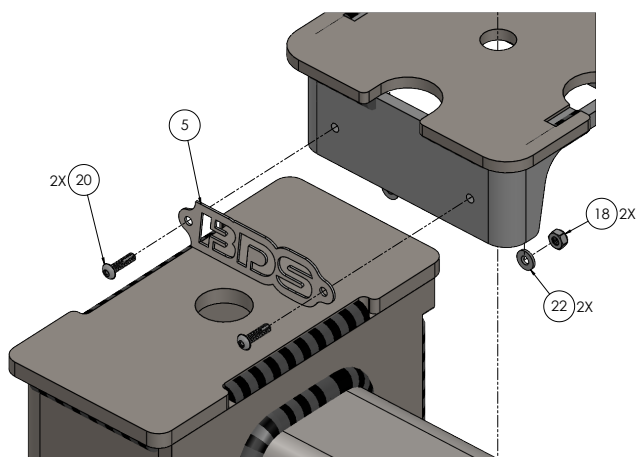


FORD F150 STOCK RIDE HEIGHT TO 4" AIR BAG ASSEMBLY - DRIVER SIDE

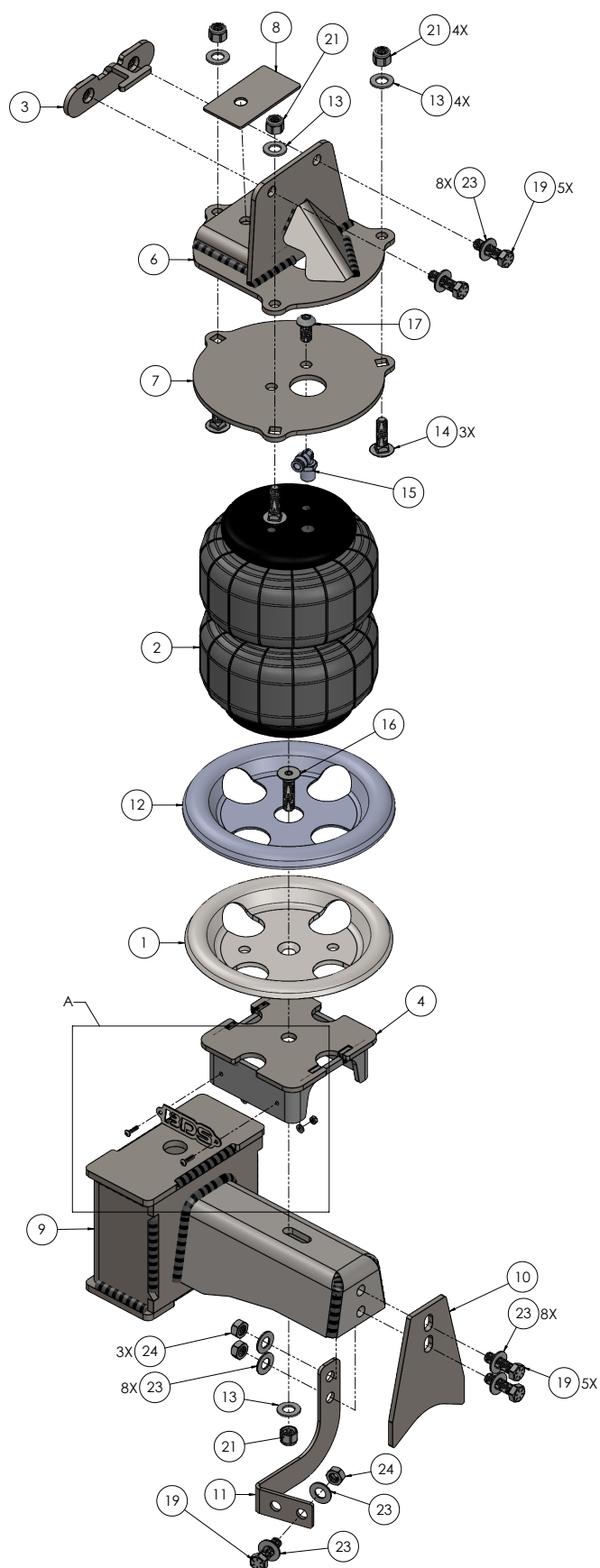


15-26 FORD F150 6" AIR BAG ASSEMBLY

ITEM#	DESCRIPTION
1	6" STAMPED STEEL CRADLE
2	2B6 TALL AIR SPRING
3	AIR SPRING UPPER NUT TAB
4	LIFT BLOCK AIR SPRING SADDLE
5	BADGE: BDS PERFORMANCE TOWING EMBLEM
6	UPPER FRAME BRACKET - DRIVER SIDE
7	UPPER AIR SPRING BRACKET
8	UPPER FRAME SPACER
9	5" AIR SPRING BLOCK
10	5" AIR SPRING BLOCK SUPPORT
11	BRAKE LINE RELOCATION BRACKET - 6"
12	6" AIR SPRING CRADLE PAD
13	3/8" SAE WASHER
14	3/8" X 1-1/4" CARRIAGE BOLT
15	90° AIR FITTING
16	3/8" X 1-1/2" FLAT HEAD BOLT
17	3/16" X 3/4" BUTTON HEAD BOLT
18	#5-40 NYLOCK NUT
19	3/8" X 1-1/4" HEX HEAD BOLT
20	#5-40 X 1/2" BUTTON HEAD BOLT or RIVETS
21	3/8"-16 NYLOCK NUT
22	#5 SAE WASHER
23	3/8" SAE WASHER, ZINC YELLOW
24	3/8"-16 LOCKNUT, ZINC YELLOW



FORD F150 6" AIR BAG ASSEMBLY - DRIVER SIDE



IMPORTANT INFORMATION FOR YOUR VEHICLE

1. Does not work with 2WD Trucks without a minimum factory lift block of 1.25"
2. 6" Lift Kits only utilize a 5" block as shown in the block kit options below. BDS133609 does not work with a 4" rear lift block:
 - 2015-2020 models: 5" rear block kit BDS133536 or BDS013536
 - 2021-2026 models: 5" rear block kit BDS133537 or BDS013537
3. 4" Lift Kits with a 2" or 3" rear lift block will utilize BDS133904. 4" Lift Kits with a 4" rear lift blocks will not work with BDS133904.
4. Measure distance between air spring mounting plate and top of the cradle pad. The ideal air spring working height for air spring 05700 is 5.5 in. to 6.5 in. The ideal working height for air spring 05701 is 5.5 in. to 7.5 in.
5. 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.
6. BDS Performance Towing Air Bag kits utilize serviceable parts and can be purchased accordingly.
 - Short Air Bag (**Qty 1**): BDS139907 : Tall Air Bag (**Qty 1**): BDS139908
 - Air bag cradle pads (**Qty 2**): BDS139900
 - Replacement air line (**16 feet**): BDS139906
 - Schrader valves (**Qty 2**) and mounting hardware: BDS139902
 - 90° air bag fittings (**Qty 2**): BDS139903
 - Air line Tee fitting (**Qty 1**): BDS139905
7. 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.
8. Before adding air pressure above 5 PSI, it is recommended to check that the air spring is fully seated into the cradle.
9. Follow the Air Line Installation Guide for air line installation guidelines and tips.

INSTALLATION INSTRUCTIONS

SPECIAL TOOLS

• Torque Wrench

• Max Wrench/Socket sizes up to 9/16"

1. Park the vehicle on clean, flat, and level surface. Block the front wheels for safety.
2. Raise the rear of the vehicle and support the frame rails with jack stands.
3. Remove rear wheels.

4. Install the rubber isolator to the cradle by aligning the locking nibs with the holes in the cradle. **(Fig. 1A)** Push the nibs through the 4 holes then wrap the rubber isolators edge around the cradle, snapping it into place. **(Fig. 1B)**

FIGURE 1A



FIGURE 1B



5. Using pliers pull the locking nibs until they fully seat into the cradle holes, you will feel them snap into place. **(FIG.2A)** 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. 2B)**

FIGURE 2A

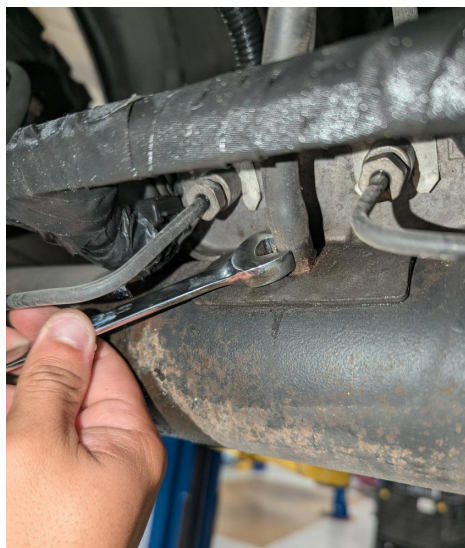


FIGURE 2B



6. Remove the axle vent fitting using a 13mm wrench. Twist the vent line while loosening the vent fitting to avoid kinking the line. **(Fig. 3)**

FIGURE 3



LOWER CRADLE AND BRACKET MOUNT (STOCK TO 4" KITS ONLY)

7. The lower axle bracket contains a series of slots to position the cradle inline with the air spring. For the 2015-2020 F150, the center hole was found to be the ideal cradle position. For the 2021+ F150, the cradle slotted forward was found to be the ideal position. **(Fig. 4B)** Mount the cradle to the lower axle bracket with the 3/8"-1-1/2" flat head bolt, 3/8" washer and 3/8" lock nut found in BP1134. Torque to 23 ft-lbs. **(Fig. 4A)**

FIGURE 4A

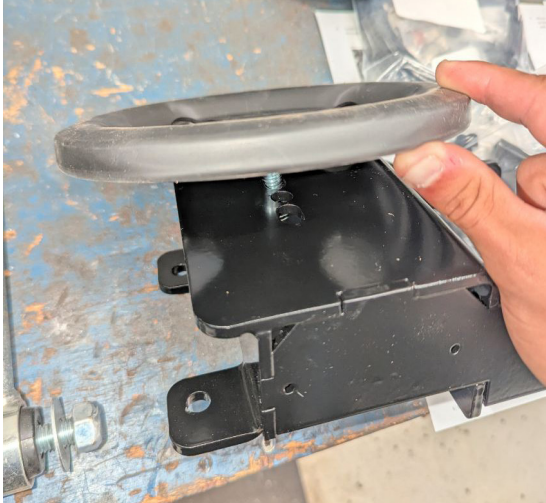
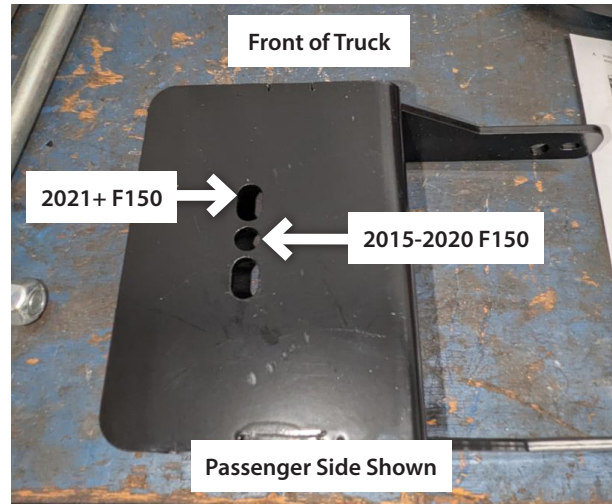
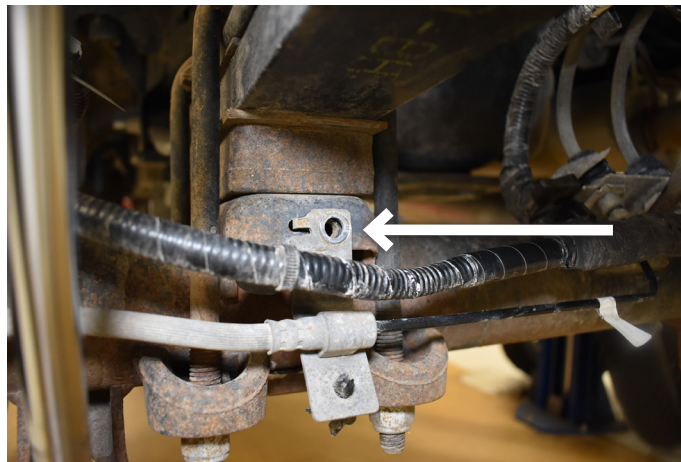


FIGURE 4B



8. Remove 10mm bolt holding the brake line bracket to the rear of the axle leaf spring pad. **(Fig. 5)**

FIGURE 5



9. Mount the lower bracket to the axle leaf spring perch using the 10mm bolt previously removed **(6A)** and a 1/4" bolt, 1/4" washers and 1/4" lock nut **(6B)** found in bolt pack **(768)**. Torque the factory bolt to 22 ft-lbs and the 1/4" bolt to 6 ft-lbs

FIGURE 6A

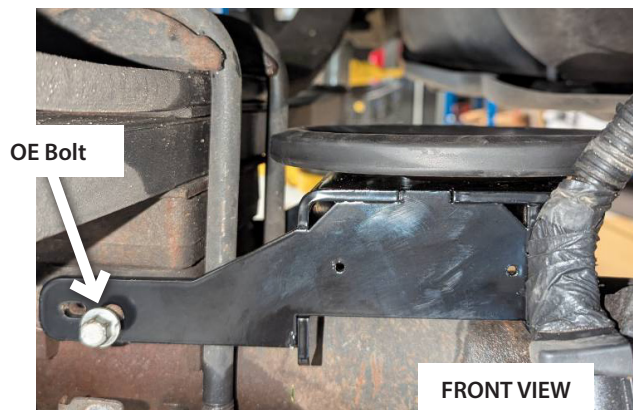
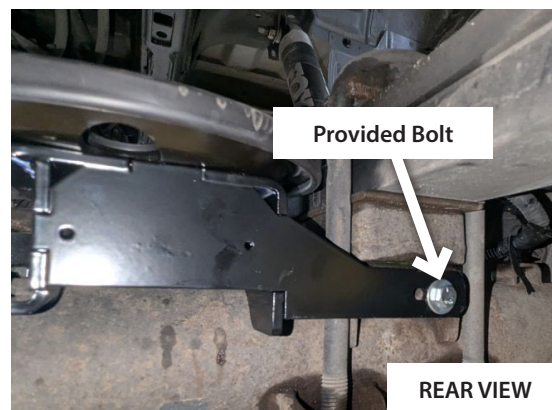


FIGURE 6B



10. Install the 3/8" U-bolt found in **(B1747)** and the 3/8" black washers and 3/8" lock nuts found in **(BP1016)** around the axle to secure the lower mount to axle. **(Fig. 7A)** Place the brake line relocation bracket **(B1747)** on the driver's side rear u-bolt stud. **(Fig. 7B)** Tighten the lock nuts in incremental intervals, torque to 27 ft-lbs. **DO NOT OVER TORQUE THE U-BOLTS!**

FIGURE 7A



FIGURE 7B



11. Install the axle vent fitting back into the axle. Torque to 159 in-lbs **(Fig. 8)**

FIGURE 8



12. Bend open the wire clamp **(B1746)** and insert the axle vent line through it near the fitting. **(Fig. 9B)** Secure the OEM brake line bracket to the brake line relocation bracket with a 3/8" x 1-1/4" bolt, 3/8" washers, 3/8" yellow zinc lock nut **(BP1134)** and the wire clamp. **(Fig. 9A)** Torque to 33 ft-lbs.

FIGURE 9A

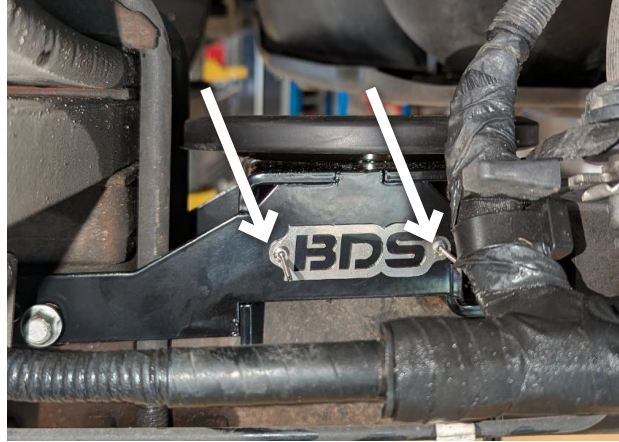


FIGURE 9B



13. Install the badge (**B1744**) to the lower axle mount using the provided 1/8" rivets or using the #5 button head screws, #5 washers and #5 lock nuts in bolt pack (**887**). (**Fig. 10**)

FIGURE 10



LOWER CRADLE AND SADDLE MOUNT (6" KITS ONLY)

14. Place Saddle (**Fig. 11A**) and Cradle (**Fig. 11B**) on top of the lift block wing. Attach the cradle, saddle, and lift block wing together using the provided 3/8" x 1-1/2" Flat Head Bolt, washer, and lock nut (**Fig. 11C**) found in BP1134. Torque to 23 ft-lbs.

FIGURE 11A



FIGURE 11B

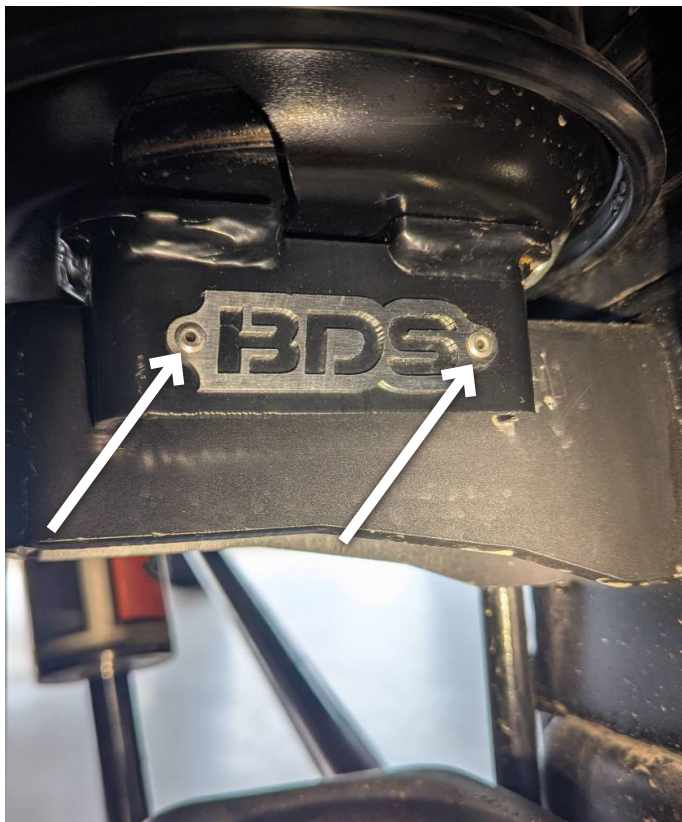


FIGURE 11C



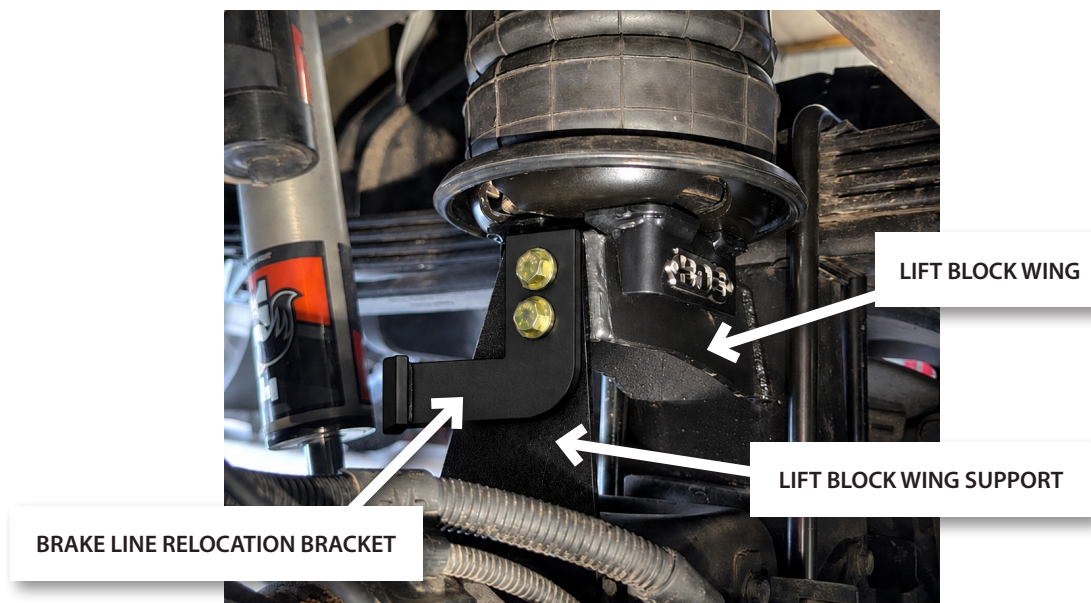
15. Attach badge to the saddle using either the supplied rivets or #5 button head screws, washers, and lock nuts found in B1744. (Fig. 12)

FIGURE 12



16. Attach brake line relocation bracket and lift block wing support to the lift block using the supplied 3/8" x 1-1/4" bolts, washers, and lock nuts found in BP1134. Torque to 33 ft-lbs. (Fig. 13)

FIGURE 13



17. Bend open the wire clamp (**B1746**) and insert the axle vent line through it near the fitting. (**Fig. 14B**) Secure the OEM brake line bracket to the brake line relocation bracket with a 3/8" x 1-1/4" bolt, 3/8" washers, 3/8" yellow zinc lock nut (**BP1134**) and the wire clamp. (**Fig. 14A**) Torque to 33 ft-lbs.

FIGURE 14A



FIGURE 14B



UPPER MOUNT INSTALLATION

18. Remove the bump stop bolt, and remove the bump stop cup and bumper assembly from the frame. (**Fig. 15A, 15B**)

FIGURE 15A



FIGURE 15B



19. Mount the air spring plate to the air bag using the provided 3/8" button head bolts. Torque to 23 ft-lbs. Install the 90° air fitting (**B1716**) finger tight, then tighten 1 - 1/2 turns. Face Fitting to the rear of the truck, the fitting will need to be aligned with the access port on the upper frame bracket for each side. (**Fig. 16**)

FIGURE 16



20. Insert the upper bracket nut tab (**B1746**) through the inside frame rail access hole (**Fig. 17A**) Loosely install the upper bracket to the nut tab with the provided 3/8" X 1-1/4" Hex bolts and washers found in BP1134. (**Fig. 17C**) Place the upper frame spacer (**B1746**) between the frame and upper bracket, then secure the upper bracket to the frame using the OE bump bolt in the factory bump stop threaded hole. (**Fig. 17B**) Torque bump stop bolt to 41ft-lbs then torque 3/8" hex bolts to 33 ft-lbs each.

FIGURE 17A



FIGURE 17B



FIGURE 17C



21. Attach upper air spring bracket assembly to upper frame bracket with (3) 3/8"x 1-1/4" carriage bolts, (3) 3/8" nuts and (3) 3/8" washers. (**BP1134**) Torque nylock nuts to 23 ft-lbs. (**Fig. 18**)

FIGURE 18



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

SEE AIRLINE INSTALLATION GUIDELINES (PAGE 16)

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

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



Full Droop - Stock kit shown



Ride Height - Lifted kit shown

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

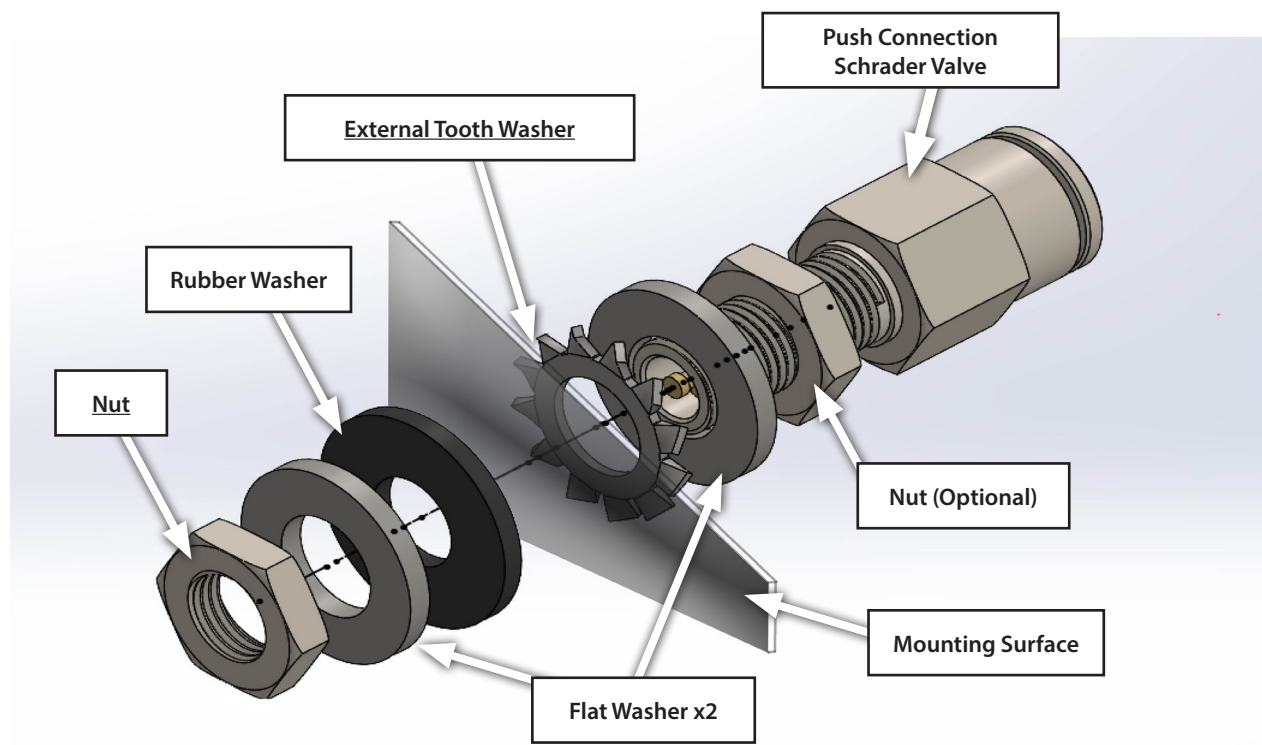
- Choose an accessible location for the air inflation schrader valves.

LOCATION SUGGESTIONS:

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

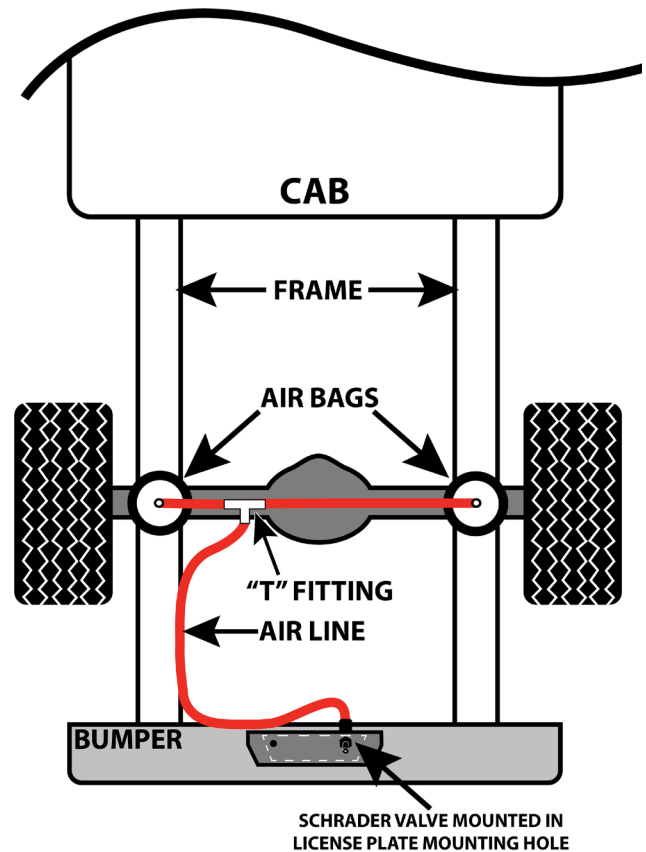
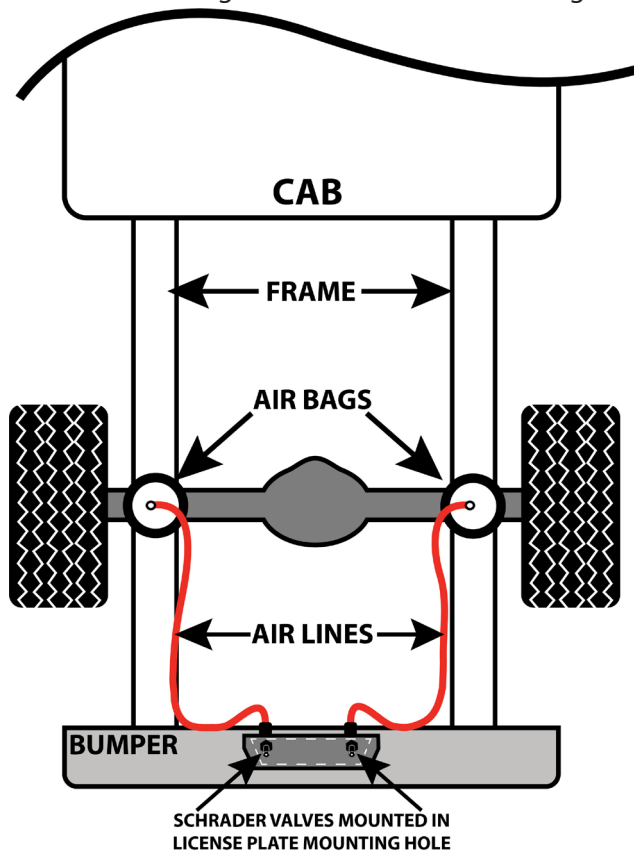
STEP 3: INSTALL SCHRADER VALVES

- 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

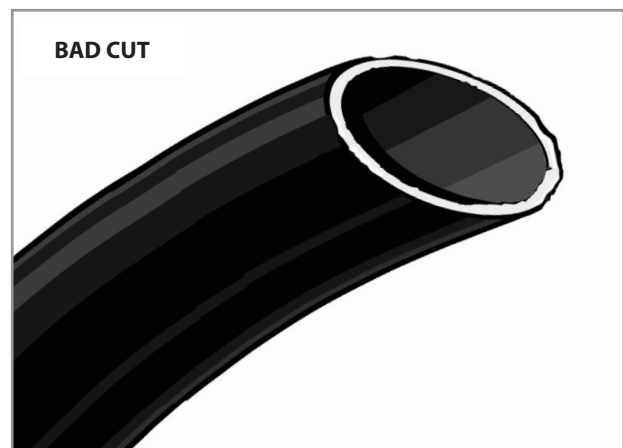
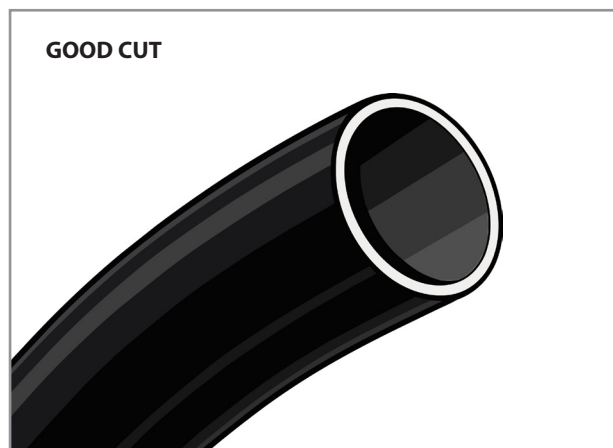


AVOID:

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

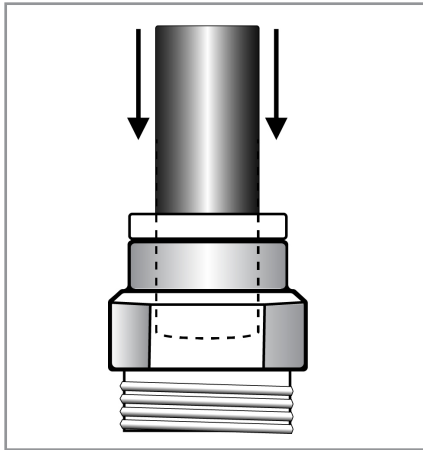
STEP 5: CUT THE LINE RIGHT

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

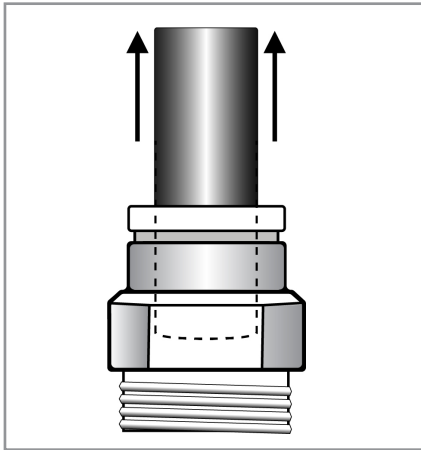


STEP 6: CONNECT LINES TO AIR BAGS AND SCHRADER VALVES

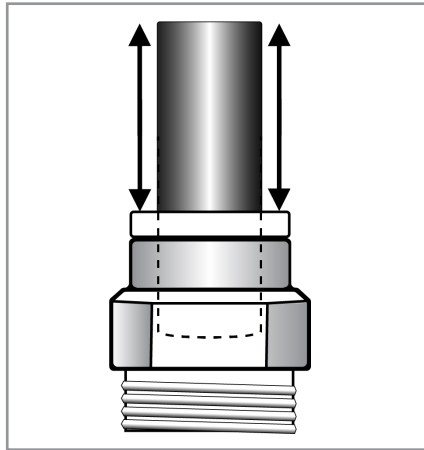
Push line fully into fitting



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.