

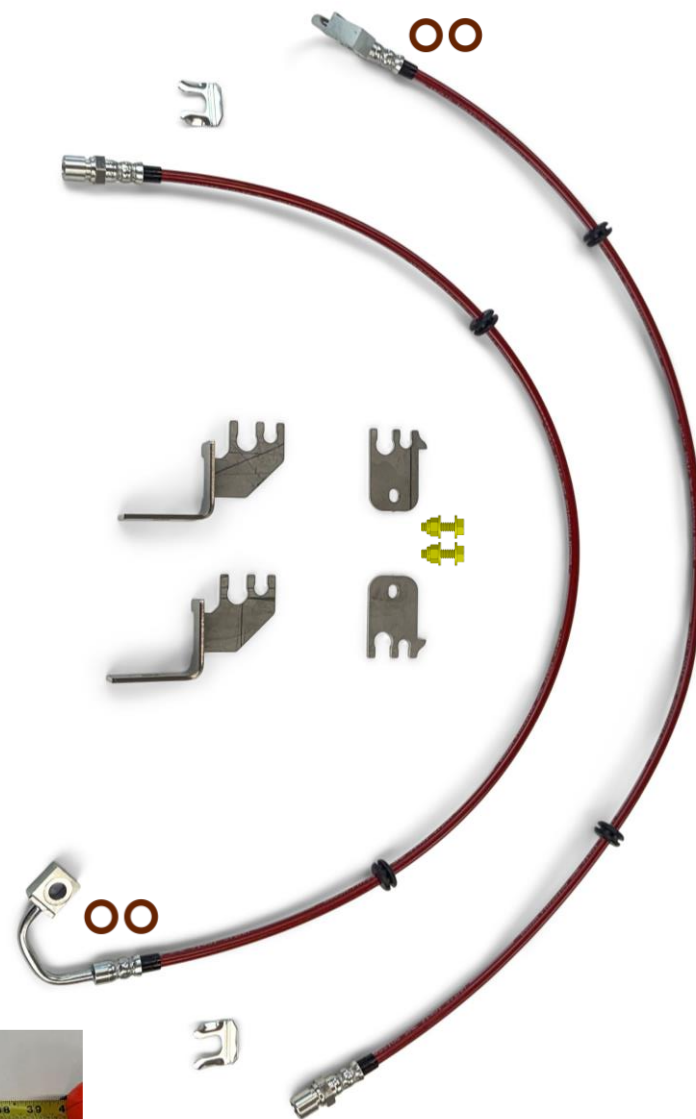
What is Included?

1309100 Jeep Front Brake Lines (2018+, JL/JT)			
QTY	Part Number	Description	Class/Grade
2	1309100	Left/Right Brake Line Hose Assembly	N/A
2	1309100A	JL Front Brake Line Axle Mount	Stainless Steel
2	1309100BF	JL Front Brake Line Control Arm Mount	Stainless Steel
2	15005	0.25" - 20 x 1" Hex Bolt	Grade 8
4	33813	0.25" x 0.625" Washer	Grade 8
2	37183	0.25" - 20 NyLock Nut	Grade 8
4	BQ 1016	Banjo Fitting Copper Crush Washers (10mm hole)	N/A
2	BQ 3052	Brake Hose Retaining Clip	N/A

Product Notes and Features:

The Jeep Front Brake Line Kit (2018+, JL/JT) includes all necessary hardware to replace the front OEM braking system with extended, anti-expansion hosing. Included brackets provide safe rerouting options to keep the brake line and ABS cable routed away from numerous pinch points on the vehicle's suspension.

- Included axle and control arm brackets are laser cut using 1/8" thick stainless steel and formed using the latest CAD software and manufacturing techniques
- OEM-style hydraulic brake fittings ensure a precise, no-leak fit
- Approximately 39" overall length (~36" hose length) allows for use in many different vehicle suspension setups

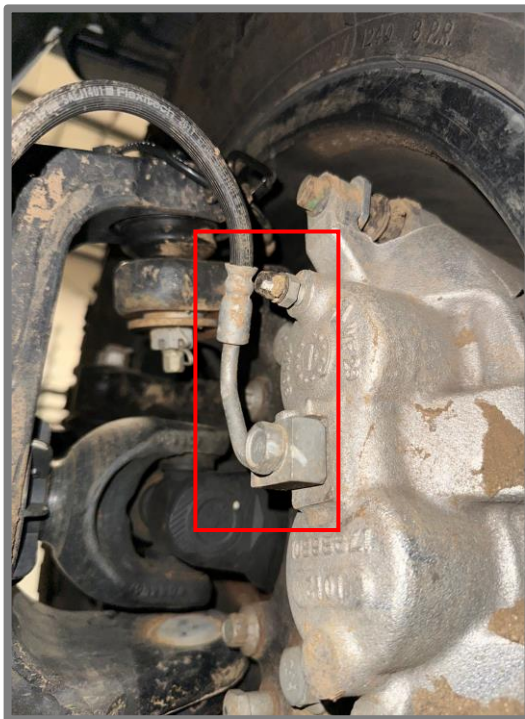


Attention!

Verify that you have the proper brake line kit for your vehicle.

1309100 should only be installed on vehicles with the OEM HD double-piston brake caliper (pictured left).
1309101 should only be installed on vehicles with the OEM Standard single-piston brake caliper (pictured right).

NOTE: Identify which front brake kit you need by comparing your OEM front brake fitting to the photos below.



*HD double-piston brake caliper
Use 1309100*



*Standard single-piston brake caliper
Use 1309101*

Installation Instructions

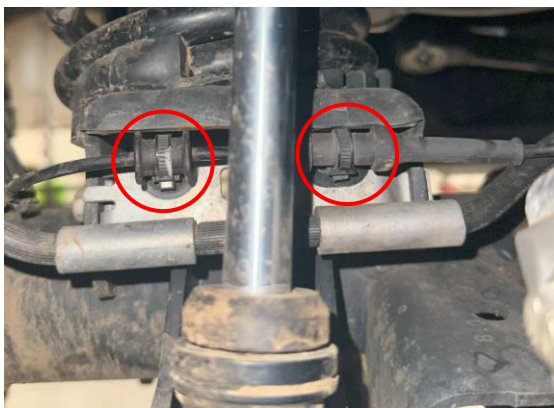
TOOLS REQUIRED FOR INSTALLATION

- Basic hand tools
- Metric ratchet wrench set, (12mm, 15mm, 16mm, 17mm)
- Metric socket set, (10mm, 13mm)
- Standard socket set, (7/16in, 1/2in)
- Vice Grips
- Pliers
- Brake Fluid and Rags

*****Take this product to a licensed professional if you are hesitant about the installation process!*****

*****Remove the front tires and jack the vehicle on stands for easy wheel-well access*****

1. Remove all ABS cable clips/zip ties holding the line to the brake hose. This includes the zip ties at the bottom of the coil, the c-clips retaining the ABS line next to the brake hose, the OEM control arm mount, and the frame mount. See figures below. Take care when cutting the zip ties so you don't accidentally cut the ABS cable.



Coil bucket zip ties to be cut



Old brake-line clips to be removed



Frame mount ABS Cable to be removed

The ABS cable should be completely free from the OEM brake line hose. At this point, it should only be connected at the sensor, and past the frame mount.

Installation Instructions

2. Remove the brackets holding the brake line to the axle. The retaining bolt can be removed using a 10mm ratchet or wrench and is located under the coil, as seen in the figures below. You can replace this bracket with the included JL Front Brake Line Axle Mount (1309100A). There is no left or right specific side for this bracket.



NOTE:

Use the supplied 0.25" – 20 x 1" Bolts, washers, and NyLock nut to mount the included Axle Mount to the axle. Use a 7/16" wrench and socket to tighten.

You can discard the OEM 10mm bolt retaining the factory axle mount, as it is not reused.



Installation Instructions

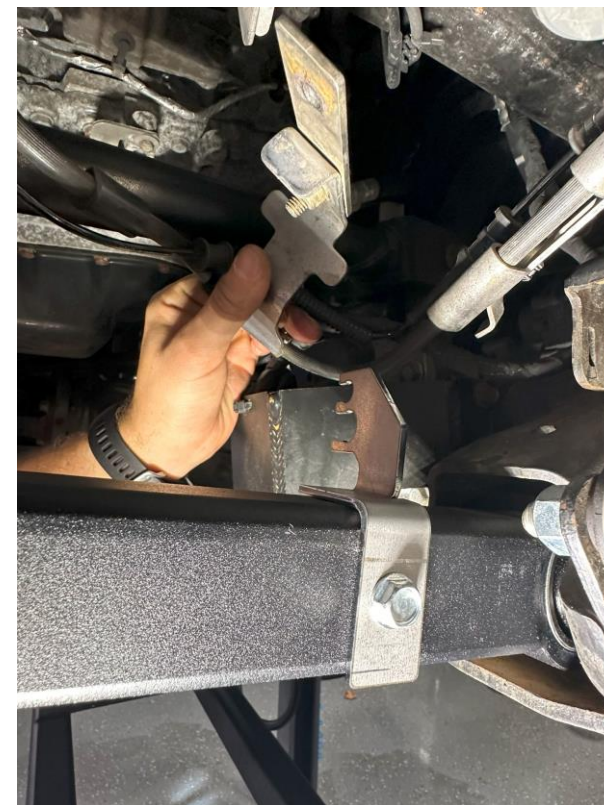
3. Remove any brake line bracket that is installed on the lower control arm. The size of this bolt may vary, but Clayton Off Road lower control arms come with a self-tapping, 0.5" bolt. Install the new control arm brake line brackets onto the control arm.



NOTE:

Reuse the control arm bolt to mount the new control arm bracket.

If you already have a brake line extension bracket (as seen to the left), you may reuse it as an extension or remove it.



Installation Instructions

4. Once the front brackets (axle and frame) are in place, you may replace the front brake lines. You may find it easier to remove the banjo bolt at the caliper first, hang the loose end to avoid a mess, then remove the frame end fitting of the brake line.



Brake caliper banjo bolt (15mm)

TIP:
Use rags when removing any brake line fittings to absorb as much brake fluid as possible.



Frame end fitting (16mm and 12mm)

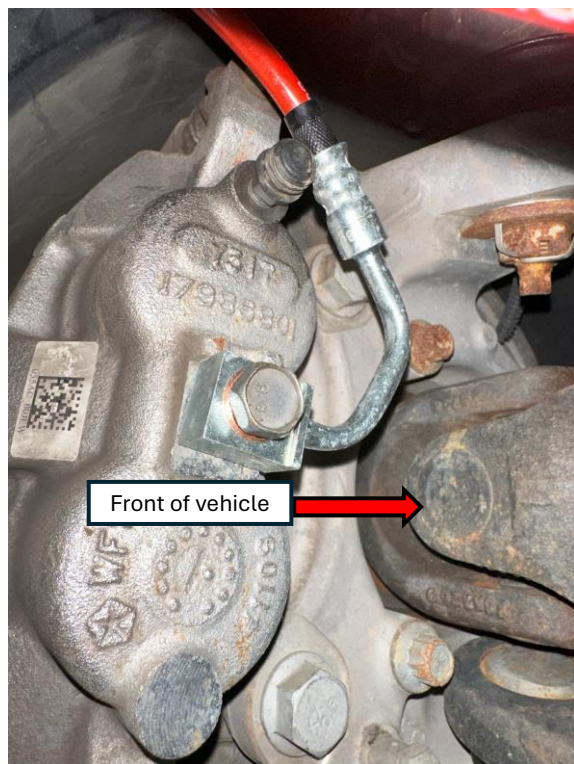
Installation Instructions

5. Remove the metal retaining clip on the frame-end fitting using pliers. Both the left and right front frame-end brackets will have one. You can discard these clips, as you are given new clips to use in the kit .



Installation Instructions

6. The front brake lines **ARE** side specific. Make sure that you match each fitting to its proper side. Reference the photos below. The new banjo fittings included in the kit have one raised edge. Ensure this edge is facing the front of the vehicle on both sides, and torque the banjo bolt (15mm) to 26lbs-ft.

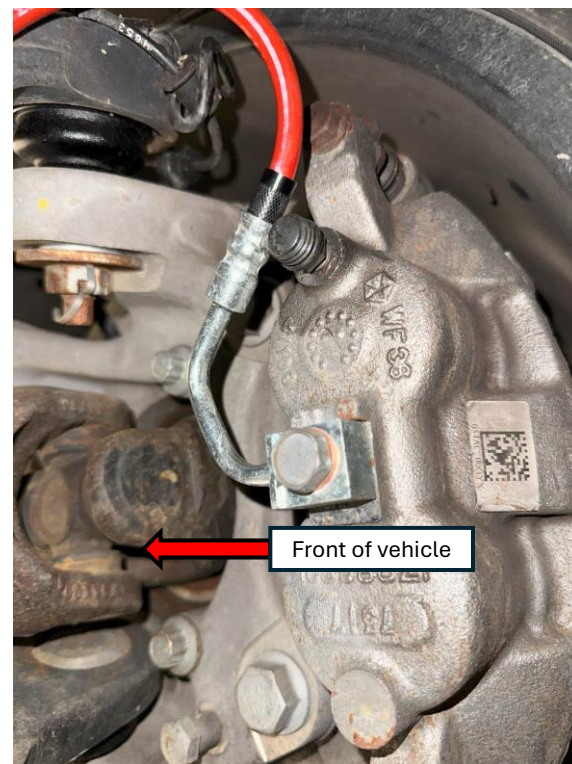
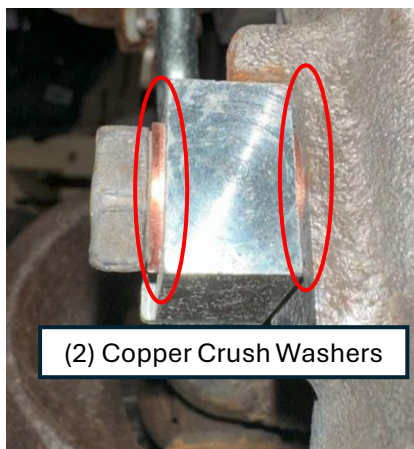


New banjo fitting installed (front driver's side)

NOTE:

When reinstalling the banjo bolt, use the **new** copper crush washers that are included in this kit. Put one washer on either side of the fitting.

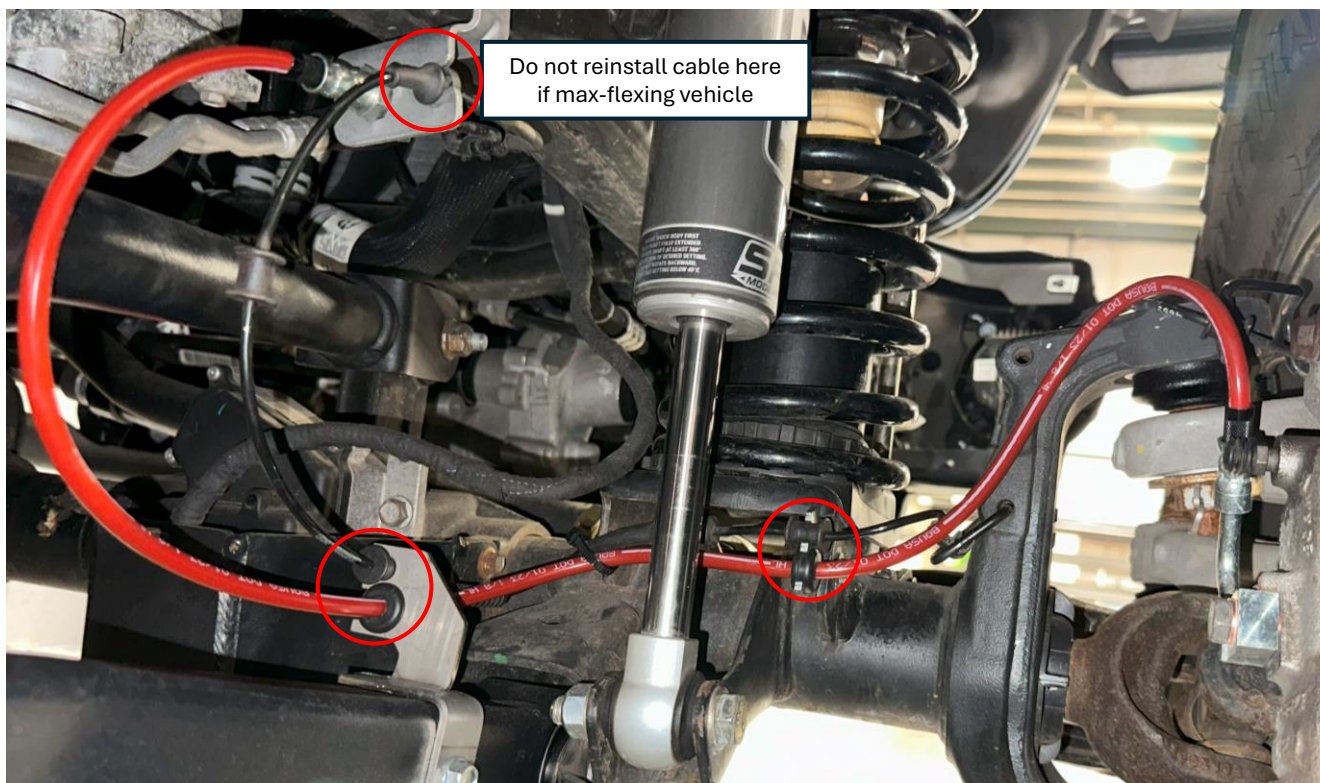
See the assembly photo below.



New banjo fitting installed (front passenger's side)

Installation Instructions

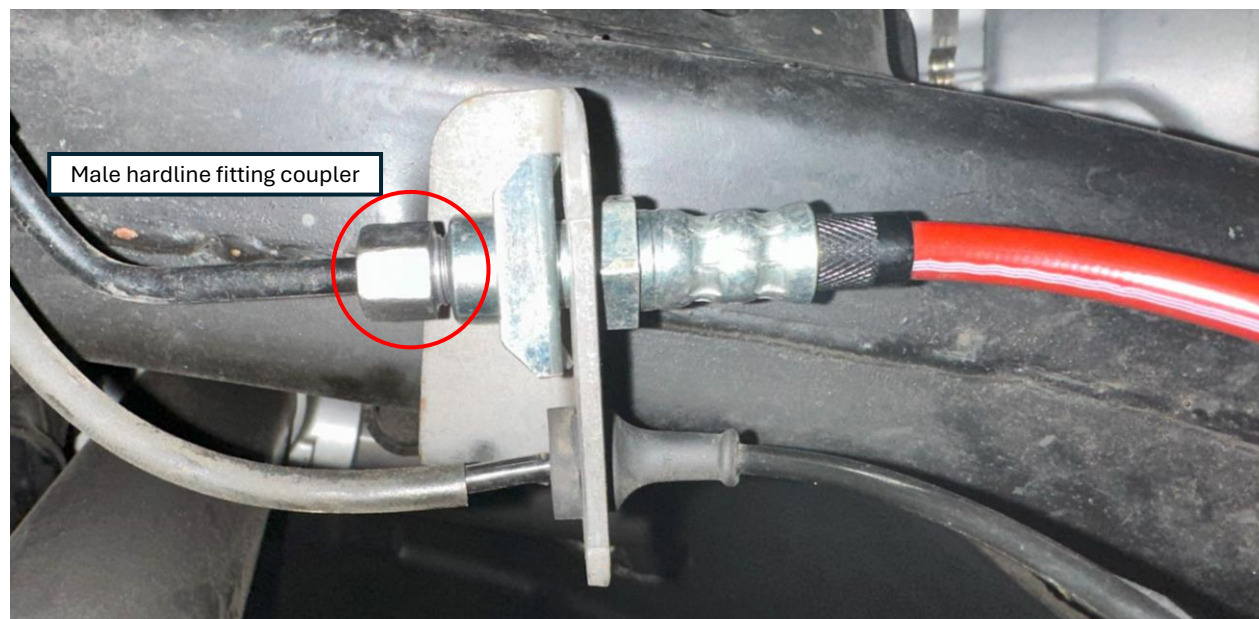
7. With the caliper-end of the new brake line installed, route the hose around the shock, and install the first rubber grommet into the new axle mount that you previously installed. Then route the brake line and the second rubber grommet to the control arm mount. The new brackets also provide new routing points for your ABS cable, however, **use caution: make sure there is enough slack in the ABS cable from the control arm mount to the frame mount at full flex.** You may need to leave out the ABS frame mount (see note below) to provide enough cable slack at full-flex.

**TIP:**

You may zip tie the brake line and ABS cable together on the opposite side of the coil bucket (zip ties not included).

Installation Instructions

8. Route the new fitting through the frame mount bracket. Without cross-threading the fitting, thread the male hardline fitting at the frame into the new female fitting. The male fitting should spin freely on the hardline, like a coupler. Tighten this connection point to 15lbs-ft using a 12mm and 17mm wrench. Install the new spring retaining clip as shown in the figure below.



WARNING:

If the male coupler fitting is seized on the hardline, you may need to disconnect the caliper banjo fitting and spin the entire new line onto the fitting. **Use caution when doing this to not cross-thread the fittings.**

NOTE:

If the threads on your vehicle's male coupler fittings are stripped, Jeep over-torqued your brake line fittings at the factory. If the coupler does not thread properly into the new female fitting, Clean and/or re-tap the male coupler fitting to M10x1.00.

Installation Instructions

9. If you are only installing new front brake lines, you may now bleed the brakes. If you are installing new rear brake lines, top off the brake fluid reservoir. It is best to keep brake fluid flowing during a brake line swap to keep air out of the lines. If air is introduced from the reservoir at any point, you will have to do a full brake bleed. It is easiest to do a brake bleed with another person, with the use of a brake bleed tool.

Check all connections for leaks. Wipe down surfaces coated in brake fluid with simple green or your favorite surface cleaner. Brake fluid will eat away paint, so wipe clean as soon as your connections are tight.

WARNING:

Do not drive the vehicle until you are sure that there is no air remaining in the brake lines. Driving the vehicle with air in the brake lines will result in poor braking power, putting you and others at risk.

POST-INSTALLATION CHECKLIST:

- Caliper Banjo Bolts torqued to 26lbs-ft
- Copper Crush Washers installed on both sides of the banjo fitting
- Frame mount brake line fitting torqued to 15lbs-ft
- Brake line is evenly spaced between the control arm and the axle mount
- ABS Cable has enough slack at full-flex (see step 8)
- No air is present in the brake lines
- Brake pedal is firm after brake bleed
- Lug nuts are torqued to 125 lbs-ft

