

Synergy Extended Front/Rear DOT Approved Brake Line Kit

Installation Guide

Installation Time: 3 hours

Tools Required:

- ✓ Ratchet wrench
- ✓ 10 mm socket
- ✓ 12 mm socket
- ✓ 15 mm socket
- ✓ 18 mm socket
- ✓ 12 mm box wrench
- ✓ 17 mm box wrench
- ✓ 18 mm box wrench
- ✓ Latex gloves
- ✓ Pan or small bucket

When you unpack the box, you should have the following:

1. [2] 24 ½" Stainless Steel Braided Brake Lines
2. [2] L Mounting Brackets
3. [2] Spring Clips
4. [4] Brass Washers

Installation Instructions:

Removing the stock soft brake lines:

1. Jack up the Jeep using a floor jack or a scissor jack.
2. Place a pan/bucket under the brake caliper to catch the brake fluid.

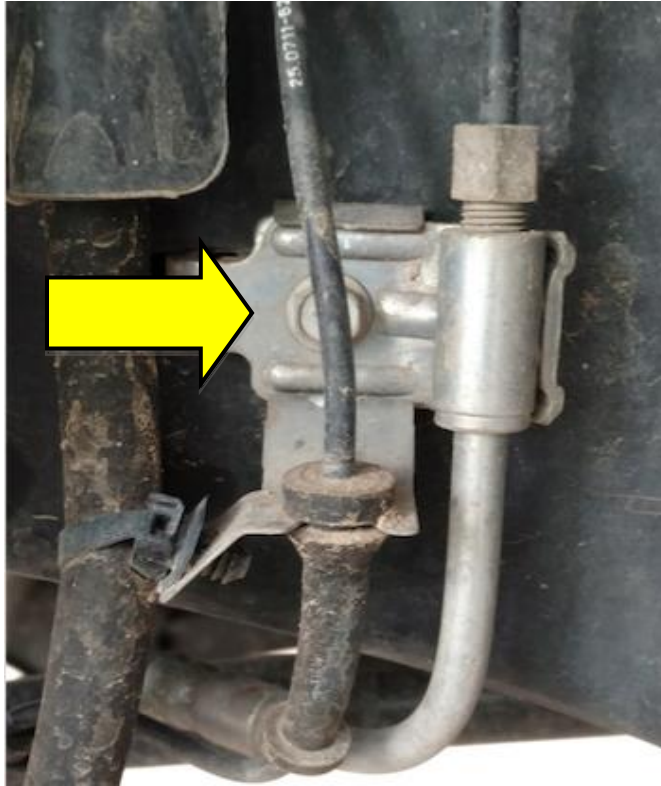


3. Wear latex gloves to protect your skin from the brake fluid.
4. Use a 15 mm socket to remove the “banjo” bolt from the brake calipers.



5. Detach the entire ABS line from the brake line, you can do this by opening the rubber clips and then snipping the zip ties. ****Be careful not to snip the ABS line when you snip the zip ties.****

6. Once the ABS line is detached from the brake line bracket, use a 10 mm socket to unscrew the brake bracket from the frame of the Jeep.



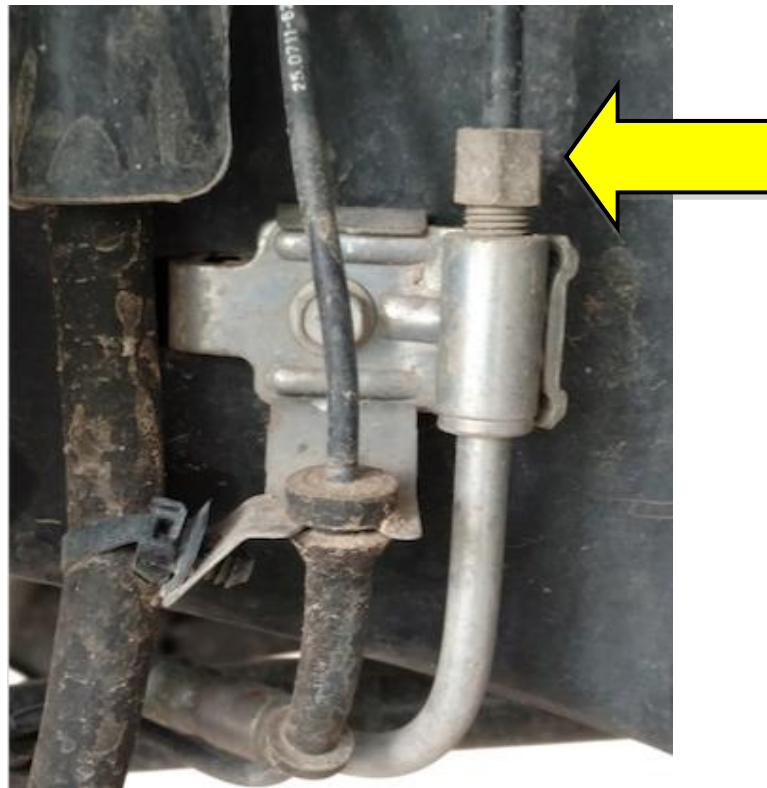
7. Next you will have to remove the ABS bracket. This is the bracket which is located in front of the bottom of the front shock. Locate the bottom bolt of the front shock and you will see the bracket that is holding both the brake line and the ABS line.



8. To remove the ABS bracket you will first need to remove the bottom shock bolt. Use an 18 mm socket on the bolt head and an 18 mm box wrench on nut. Hold the box wrench to hold the nut still, while using the ratchet to loosen and remove the bolt. Do not lose or discard the bolt as you will need to use it to reconnect the shock!



9. The last step in removing the stock brake lines is to disconnect the soft brake line from the hard brake line. To do that, use a 12 mm wrench to unscrew the hard brake line. Move the pan/bucket under this part of the Jeep because any remaining brake fluid will leak out once you undo the screw.



Installing the new Synergy soft brake lines:

1. Use the 10 mm bolt to install the L Mounting Bracket into the same place where you removed the original stock bracket from the frame of the Jeep. Do not tighten the bolt all the way, leave it loose as this will give the bracket some movement to help line up the soft brake line connection with the hard brake line.
2. Put the nut end of the Synergy brake line through the wide hole in the L Mounting Bracket. Screw the hard brake line into the Synergy brake line. Use a 12 mm wrench on the hard brake line and an 18 mm wrench on the Synergy brake line to tighten the connection. The connection should resemble this photo:



3. Next install the spring clip between the L Mounting Bracket and the top of the Synergy brake line. Line up the clip and then tap it with a rubber mallet to secure it in place.



4. Once the spring clip is in place, tighten the 10 mm bolt that holds the L Mounting Bracket onto the frame of the Jeep.
5. Note - the stock brake lines were fed in front of the front shock and the connected to the caliper. With the extended Synergy brake line, you can leave them behind the front brake line (as per this photo) which will allow for more articulation when flexing your Jeep.



6. Next, place one of the new brass washers onto the original banjo bolt.



7. Thread the banjo bolt with the washer on it through the square end of the Synergy brake line. Put the second brass washer onto the other side of the banjo bolt so there is one on either side of the square end of the Synergy brake line.
8. Using small zip ties, zip tie the ABS line and the Synergy brake line together.
9. Line up the square end of the Synergy brake line onto the brake caliper and screw in the banjo bolt to hold it in place. Tighten the banjo bolt using a 15 mm socket. **IMPORTANT** - do not over tighten the banjo bolt. Since this bolt has a hole in it to allow the brake fluid to flow through to the brake caliper it is more fragile than your typical bolt. Tighten it so it feels snug and the brass washers will compress to prevent it from leaking. The final set up should look similar to this:



10. Replace the bottom bolt of the front shock. Thread the bolt through the bracket and the shock then use a 18 mm socket on the bolt head and a 18 mm box wrench on nut to tighten it



11. Lastly, you will need to refill the brake reservoir with Mopar brake fluid and then bleed the brakes. **IMPORTANT** – you cannot drive the Jeep until you’ve completed the brake bleed. Air in the brake lines can prevent the brakes from working.
12. Repeat all of these steps on the opposite side.

Old vs. New:

This photo is to show what the old brake lines look like vs. the new brake lines. This shows everything you take off with the old brake lines, notice the bracket at the top and in the middle, both of them are connected to the old brake line and should not be saved to install with the new brake line.



Final Result:



Submitted by customer Lori N. on 4/10/17