Tube Shock Conversion

Installation Instructions

MGB

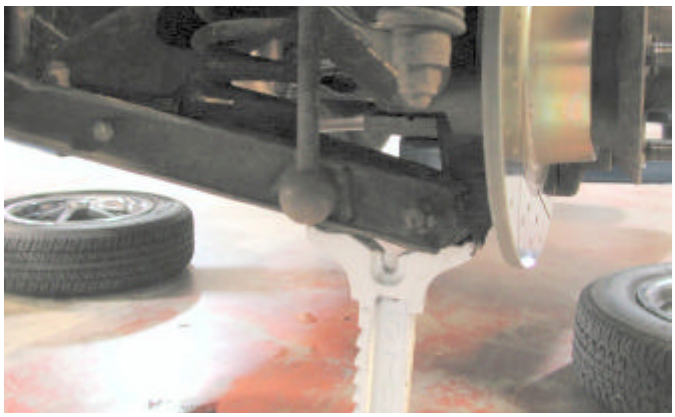
PART # 268-121 & 268-122

440 Rutherford St. P.O. Box 847 Goleta, CA 93117
1-800-642-8295 • FAX 805-692-2525 • www.mossmotors.com

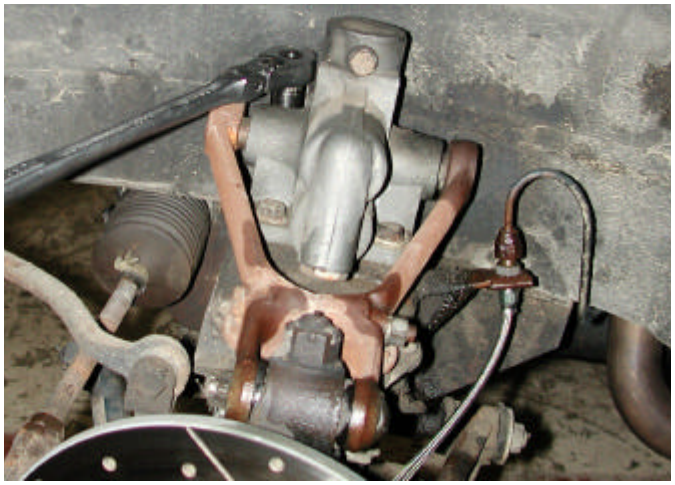
Tools needed: 9/16 & 1/2 socket, 5/8 deep socket & 15/16 deep socket (or socket & extension) and ratchet, 3/4 socket w/torque wrench, 1/2" & 3/4" combination wrenches, an adjustable wrench, jack, jackstands, hammer (a deadblow hammer is suggested), towels, a fluid catch bucket, safety wire/hanger/large zip-ties.

(If you have the Moss Wilwood kit, review step 26)

1. Jack up the front of the car and remove the left wheel. Place a jackstand under the outer end of the lower left A-arm. Lower the car until the jackstand just touches the lower A-arm. Then slowly lower the car another half inch to inch to lift the upper A-arm off of the rebound bumpstop on the crossmember. Make sure that the car is securely supported by the jackstand. Alternatively, place the car on jackstands and use the jack to lift the lower A-arm off of the rebound bumpstop.

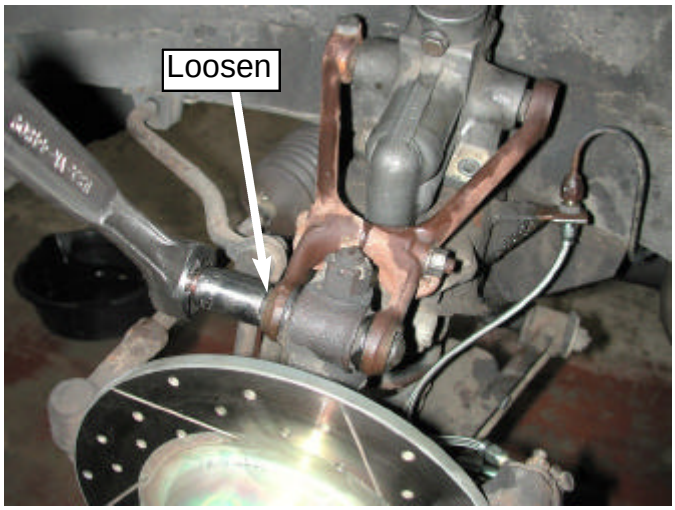


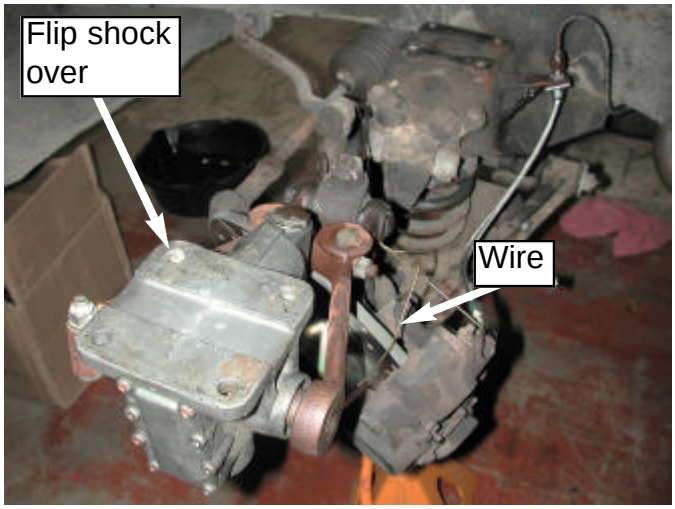
2. Use a 9/16" deep socket and a ratchet to remove the **four** bolts holding the lever arm shock to the crossmember. Alternatively, a 9/16" socket and a short extension could be used.



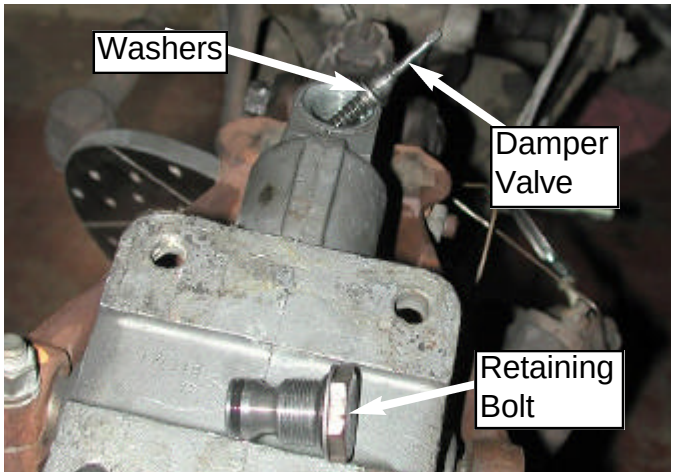
3. Pull the A-arm so that the shock sits upside-down and the large damper valve retaining bolt is accessible. Either hold the spindle and brake caliper in place or

wire it so that it does not fall towards you. If necessary, use a 3/4” socket to slightly loosen the bolt and a-arm-to-trunion nut to allow the a-arm to move more easily.





4. Place a towel under the shock but over the brake caliper and rotor. Place the bucket under the A-arm.
5. Use an 15/16” socket to unscrew the damper valve retaining bolt. Hold the lever arm shock so that the shock does not rotate up or down to avoid fluid loss. **Avoid dripping fluid on the brake rotor, pads and caliper.**

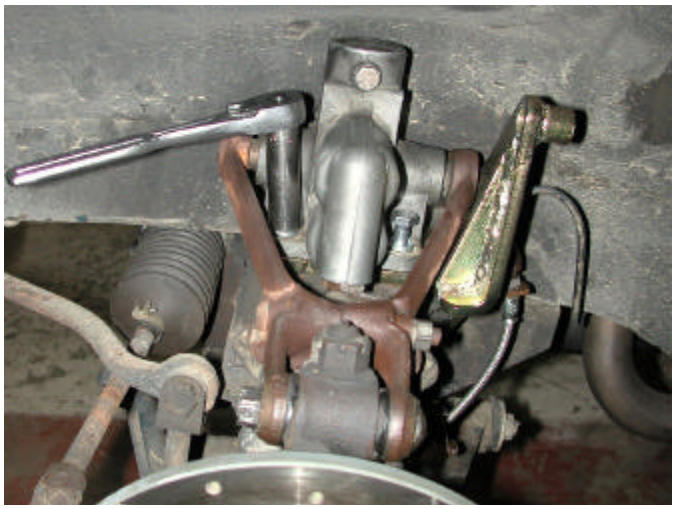


6. Pull the damper valve out of the lever arm shock. It may have washers on it. Remove those as well and save them with the removed damper valve.

7. If there was significant fluid loss or the shock was low on damper fluid, refill the shock with oil.

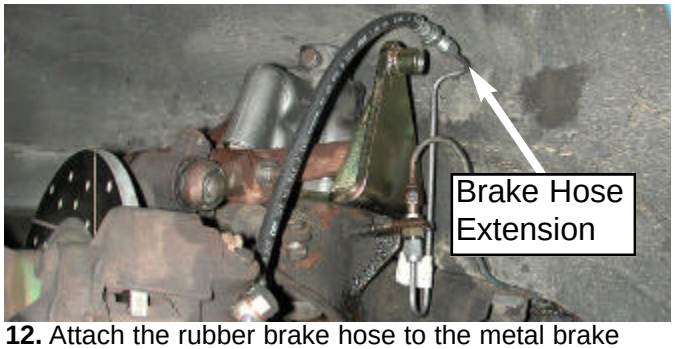
8. Replace the damper valve retaining bolt. Tighten until snug. **Avoid dripping fluid on the brake rotor, pads and caliper.**

9. Flip the lever shock back over into place. Then, lift the lever arm shock slightly and slide in the upper tube shock bracket under it. **Note how the bracket upright points toward the rear of the car.** If you wired the spindle and caliper in place previously, you may need to unwire them to fit the bracket into place. The hole in the bracket for the shock should be on the rearward side of the crossmember. Insert four bolts & lockwashers into the mounting holes for the lever arm (Armstrong) shocks, through the four holes in the bracket and into the four threaded holes in the crossmember. Be careful not to cross thread them. Torque bolts to 30 ft-lbs in a cross pattern using a **9/16** deep socket (or socket and short extension) and a ratchet.

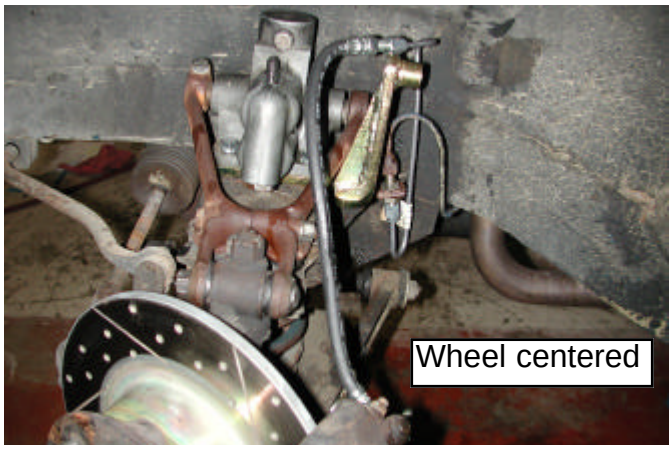


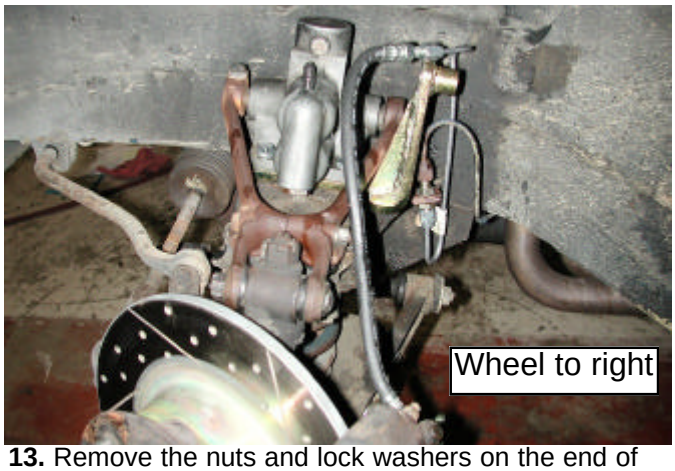
10. With the lever arm (Armstrong) shocks bolted down, retorque the bolt and nut at the end of the upper A-arm to 30 ft-lbs. Note: this bolt should not be too tight, as that will restrict the movement of the arm. If there is a cotter pin, reinstall it after tightening.

11. Use an adjustable wrench to attach the supplied brake hose to the supplied brake hose extension labelled 181-225. Use a small adjustable wrench to disconnect the brake hose from the hard line at the body. Then, attach the hard line/soft hose with the loop at the bottom and the S-curve at the top doglegging rearward, **away from the steering rack.** The picture shown is of the car's left side. Try to match the angle/orientation.



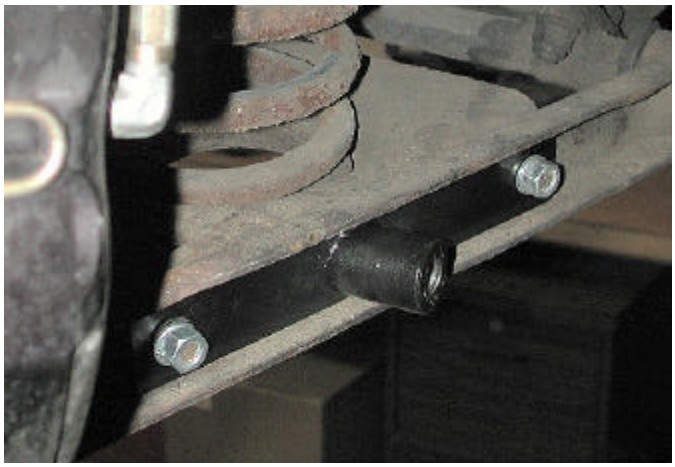
12. Attach the rubber brake hose to the metal brake hose extension. Working on the left side, give the brake line a slight clockwise twist so that it will clear the wheel with the steering wheel turned all the way to the left or all the way to the right. Attach the line to the brake caliper but do not tighten the crush washers. You will readjust the twist in the brake line for clearance later.



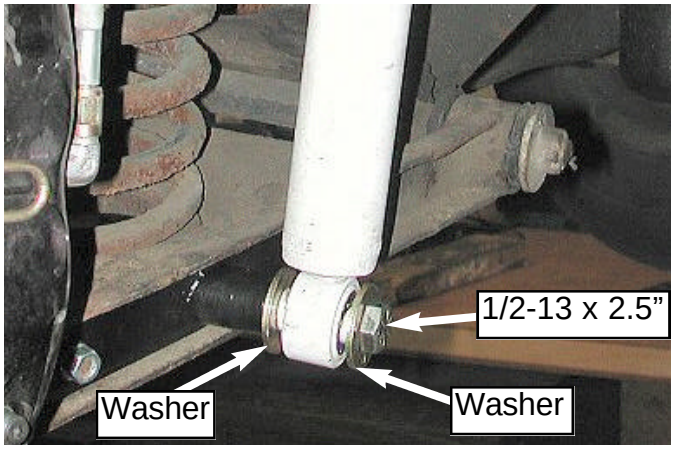


13. Remove the nuts and lock washers on the end of the two bolts on the rear face of the lower spring pan. Use a 1/2" combination wrench and a 1/2" socket. **DO NOT** remove the bolts. If you do remove the bolts, you must fully support the spring pan with a jack, or the suspension spring may bend the spring pan or break the front spring pan bolts.

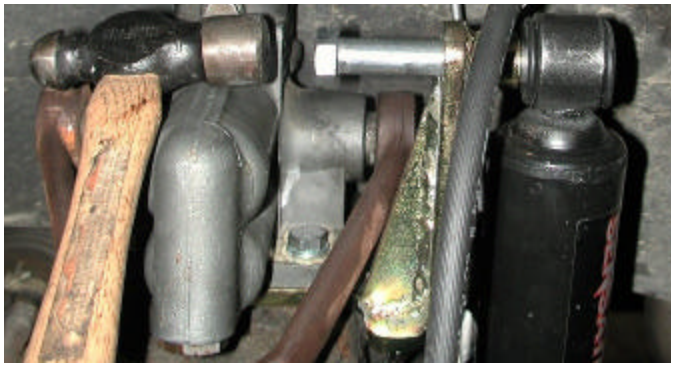
14. Slide the new lower shock bracket (the lowers are the same) over the two bolts in the lower spring pan with the shock stud parallel to the hole in the upper shock mount. Slide on the factory lockwashers. Thread on the provided 5/16-24 nuts and tighten them to 18 ft-lbs with a 1/2" socket.



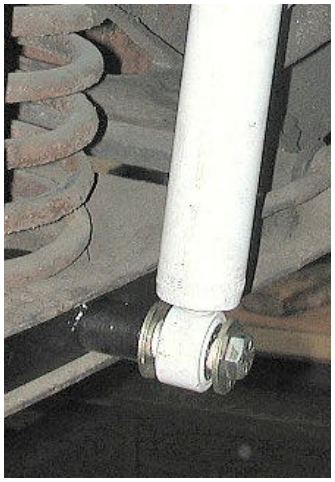
15. Slide a 1/2" washer over a provided 1/2-13 x 2.5" bolt. Slide it into the lower eye of a shock, with the "S" of SensaTrac (or KYB sticker) at the top. Apply blue loctite to the bolt and thread it into the lower bracket.

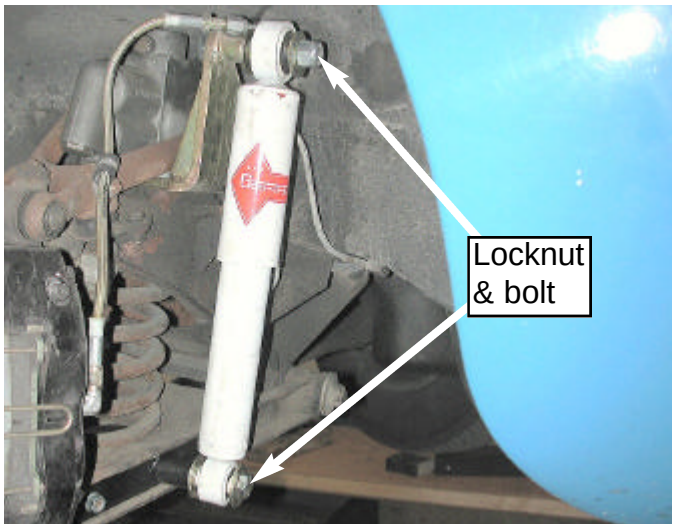


16. Slide a provided 1/13-3.5" bolt into the upper bracket. It should slide in freely. If it does not, use a screwdriver to knock any weld flash that may be in the way.
17. Slide the bolt so that there is 1/4" of thread protruding from the bracket. Slide on a provided 1/2" washer. Pull down on the shock with one hand and push the bolt into the shock with the other. Once the bolt enters the shock eye 1/2", hold the shock while tapping the bolt all the way in with a deadblow hammer. Slide on a 1/2" washer and thread on a provided 1/2-13" locknut.



18. Tighten the upper locknut and lower bolt to 50 ft-lbs.





19. Put the wheel on and recheck for clearance. You may have to add some twist to the soft brake line (loosen brake line at metal brake hose using an adjustable wrench) or reorient the hard brake line so that it crosses over the shock bracket at a sharper angle.

20. Once you are satisfied that it clears the tire and suspension, take the wheel off and tighten the fittings. Tighten the banjo bolt at the caliper to crush the brass crush washers and create a tight seal. Tighten the soft to hard brake line connection and the hard brake line to body brake line conection. The hard brake line connections should be tightened with an adjustable wrench (or a 5/16 Whitworth wrench or a 13mm flare nut wrench).
21. Repeat all steps for the right side using the brake hard line labelled 181-235.
22. Bleed the brakes to remove any air in the lines.
23. Once the brakes have been bled, check for leaks by pushing firmly on the brake pedal (start the car in neutral if you have power brakes) several times and then (with the car off) look closely at the various connections. Use a rag to wipe away any leaks, tighten any leaking fittings and repeat until there are no leaks. Then doublecheck.
24. Remount the wheels and torque the lugnuts to factory spec.
25. Enjoy your new Moss Tube Shock Conversion!

FOR MOSS WILWOOD BRAKE KIT APPLICATIONS:
26. If you have Moss Wilwood Brakes on your MGB, you should use the P-clamps as shown below to hold the stainless steel brake lines away from the tire.