Return to Joe Lynch Index Page

Line Lock Installation Notes on a 1999 Cobra--Revised 11/22/01

These notes apply specifically to a 99 Cobra with ABS. A GT and new cars, at least through the 2001 model year are very similar. I have added some notes from people who used the initial version of this page for their install.

You will need the following items and tools....

Hurst Roll Control Kit Part Number 174 5000 Includes the solenoid, pushbutton, light, instructions
Hurst Roll Control Adapter Fitting Kit Part Number 567 1516 Includes fittings to adapt 3/16" fittings to metric
Hurst Installation Kit Part Number 567 1510 Includes some tubing, fittings, and plugs, no metric

These can be obtained from either Jeg's (www.jegs.com) or Summit (www.summitracing.com). In addition, you will need the following to duplicate my installation, your needs may vary....

One Additional 12" long 3/16" brake line
One 1/4"x 3/4" bolt, nut, flat washer, lock washer
Velcro adhesive strips--3" total length
ground lugs, 4amp in-line fuse, 16 gauge wire

Some people have commented that the Hurst installation kit has too much stuff left over and that the money would be better spent just buying the needed fittings and the two 12" brake lines and the adapter fittings and save some money. If you want, instead of buying the installation kit and one additional 12" line, buy the following loose pieces AND the adapter fitting kit....

two 3/16" x 12" brake lines
two 1/8" pipe thread plugs for the unused ports on the solenoid
two 1/8" pipe thread male 90 degree angle fittings with 3/16" female inverted flare to connect the tubing to the solenoid ports

Tools...

tape, solder, soldering iron
5/16" drill bit, 1/4" drill bit, drill
3/8, 1/2, 7/16,10 mm, 12 mm, 13 mm, 14 mm open end wrenches
10 mm socket, 6" extesion, ratchet
brake bleeder and some brake fluid

My idea of a line-lock installation was to install the switch and light where they could be removed and stuffed into the console. And I wanted to mount the solenoid as close to the ABS module as possible. I also didn't want

to drill any more holes than absolutely necessary.

I tied the hot wire into the same connection as the power to the Abbott unit, using a hot wire in the console just to the left of the shifter. Then I put a velcro strip on the side of the switch and just to the left of the CD player and installed the switch there. I can operate the switch with my index finger with the shift lever in first gear position. Then used a small piece of velcro on top of the dash for the indicator light. The light can be seen staging in either lane. The wires easily go into the console at the top of the shifter boot. The hot wire was run through the air conditioner drain hole in the firewall and routed up on the left side of the engine compartment to the ABS module.

The solenoid was mounted on the rear side of the ABS module bracket using the rear mount bolt and adding one bolt. You need two bolts to hold the solenoid securely. You have to drill out one hole in the solenoid mount to 5/16" so that it will fit over the stud, then use two 5/16" washers to space it out so that it fits the bracket contour. You will need to remove the bracket from the car to drill one 1/4" hole for the lower mounting bolt. Put the bracket back on the car, then mount the solenoid. The brake lines are in the way if you try to put the bracket back on with the solenoid mounted. Put a ground lug on the solenoid ground wire and put it under the 1/4" solenoid mounting bolt.


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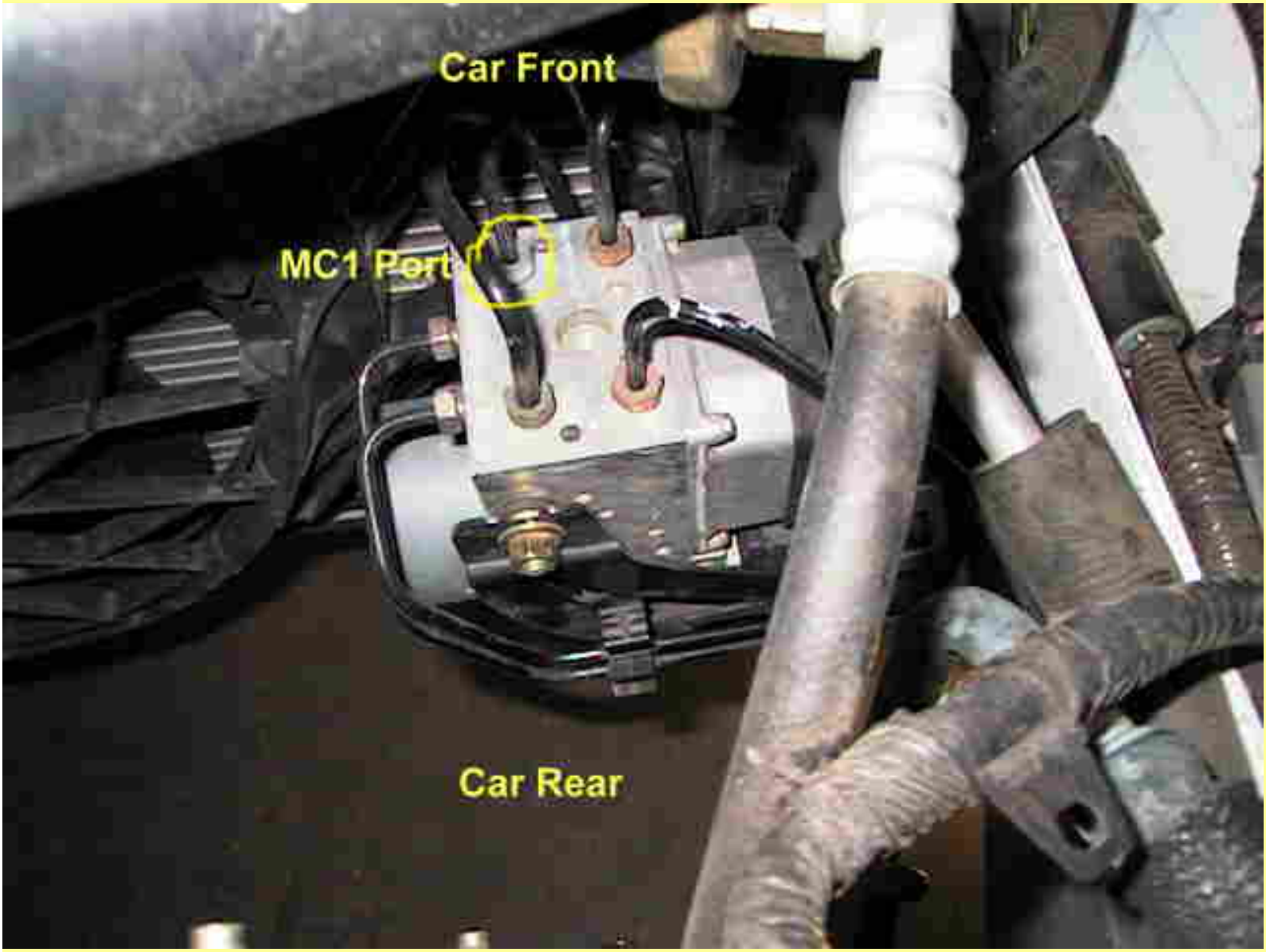
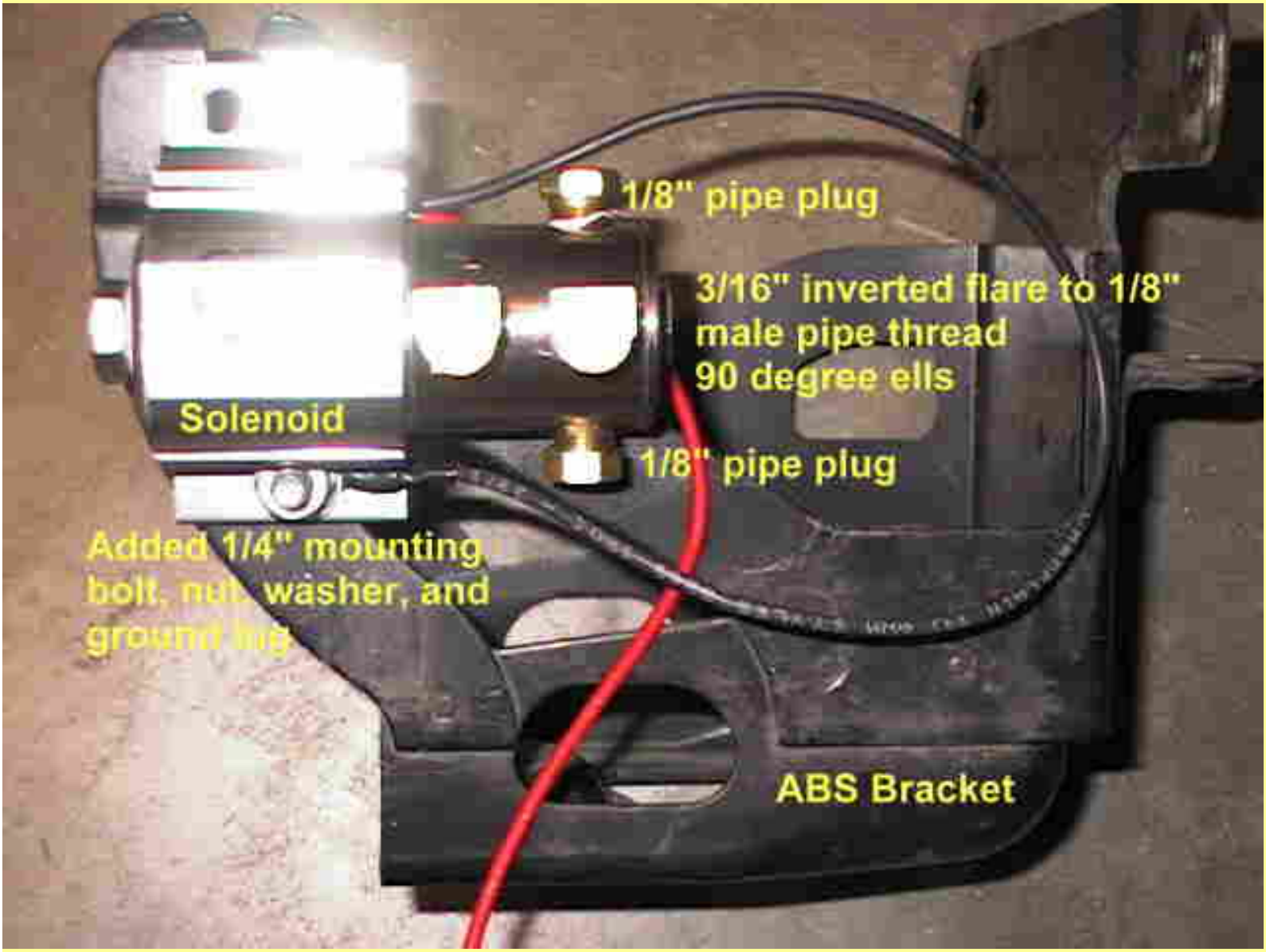
The metric fitting kit is needed to fit the MC1 line going to the ABS unit and to fit the ABS unit MC1 port. The Hurst solenoid uses 3/16" tubing and fittings and the ABS module has 10 mm fittings in it. You have to convert to 10 mm to 3/16" fittings using the union and fittings in the Mustang specific kit. The kit is marked for 96-99 Mustang with ABS and worked perfectly. I used two 12" lines to run from the MC1 tubing union and back to the MC1 port on the ABS module.

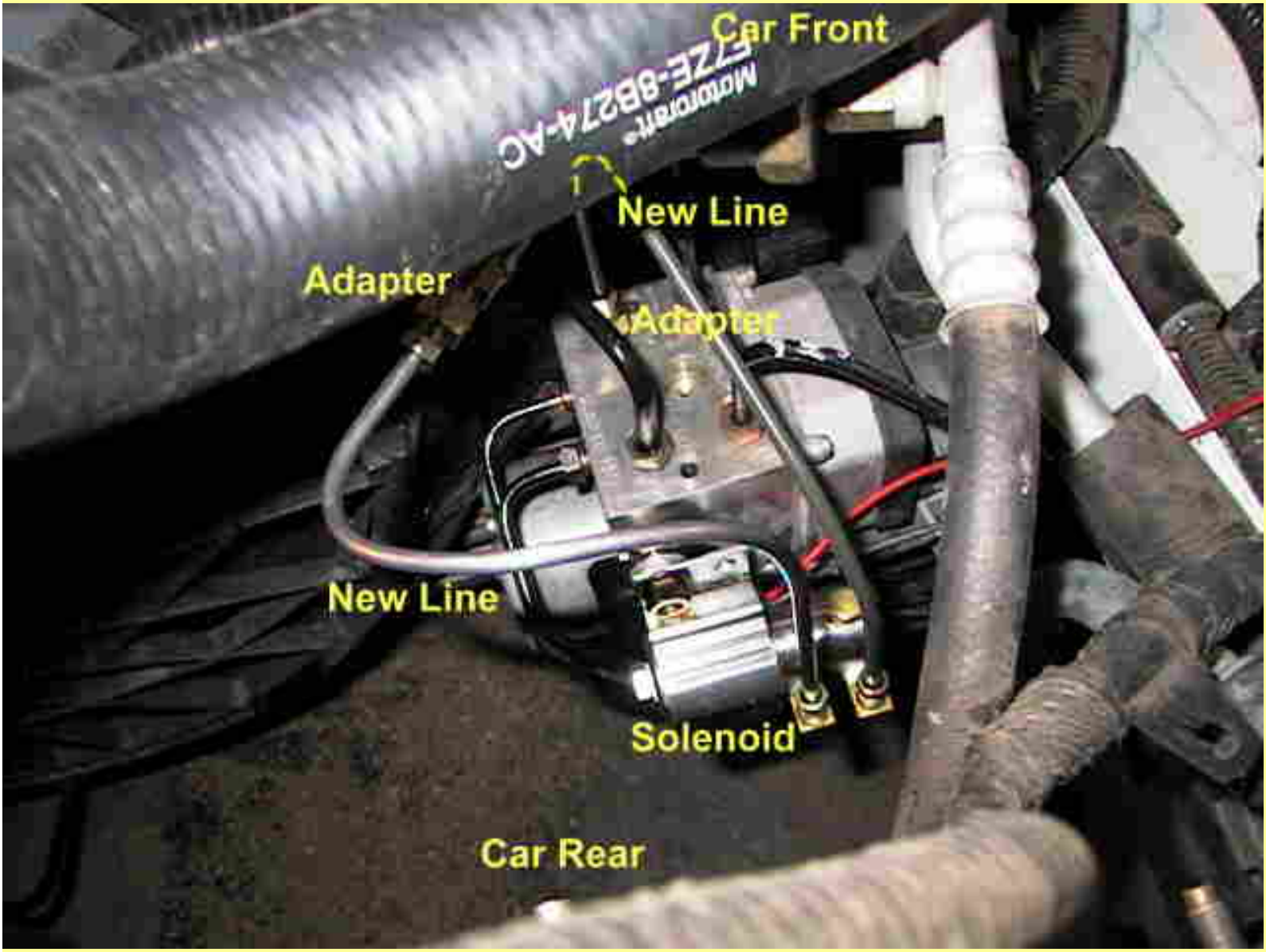
This is what the ABS looks like from the top before the Line-Lock was installed.



Here is the bracket removed from the car and drilled for the solenoid mount.



Here is the finished solenoid installation.



You have to bleed the brakes after installing the line-lock.

I will get a better picture of the final installation later, and edit this writeup.

How it works--

The line-lock is nothing but a solenoid valve in the front brake lines which is energized (closes) on pressing the switch near the shifter.

It is used at the line and in the water box. At the line, you can stage, apply the brake, push the button, let off the brake, and the front brakes are held on until the button is released. This allows you to let out the clutch some without accidentally rolling the car forward. You release the button at the same time you release the clutch and launch the car.

In the water box, you can hold the car in the box using the front brakes only, after positioning the car, pushing the brake pedal, pushing the switch, release the foot

brake, spin the tires to your heart's content, release the button, car moves out of the box and lurches as it hits drier pavement.

During normal driving, the solenoid is open and the brake pressure is applied to the ABS unit exactly as it is without the solenoid installed. Only when the solenoid is powered via the dash button is the brake line valved off and pressure held on the front brakes.

Joe Lynch 2/7/01 (then modified 11/22/01)

Return to Joe Lynch Index Page