

ERA COBRA REPLICA

BRAKE UPDATE TO TILTON MASTER CYLINDERS 12/91

Enclosed:

- 1 Tilton 74-875U (front, $\frac{7}{8}$ " bore) w/adaptor cap and clamp
- 1 Tilton 74-750U (rear, $\frac{3}{4}$ " bore) w/adaptor cap and clamp
(The master cylinders will have brake switches and adaptors installed)
- 1 Weld-on brake cylinder bracket
- 1 Metal brake line, front 28 inches long
- 1 Metal brake line, rear 47 inches long
- 2 Reservoir filler hoses
- 4 $\frac{5}{16}$ " USS x 1" Bolts, with flat & lock washers and nuts
- 1 Diagram for installing new brake bracket on chassis
- 1 Diagram for preliminary balance bar adjustment

Installation procedure:

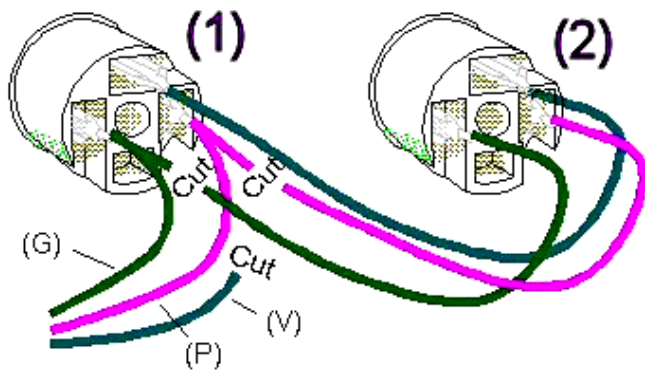
- a) Remove the brake box. Remove original brake pedal stop from brake box and discard. Remove the front and rear metal brake lines from the car, the two rubber fill lines from the reservoir to the cylinders, and then the front and rear master cylinders and pushrods. These parts will not be reused.
- b) Carefully remove original brake bracket from chassis. Grind original welds flush, being sure not to weaken or damage the frame rail. **Have this operation done by a professional if you are not skilled in this type of work.**
- c) Weld the provided brake bracket to the chassis as directed in the diagram enclosed with this kit. The bracket should be MIG welded on all 3 edges of the bracket where they contact the chassis. Keep the weld narrow where it comes close to the inner master cylinder mounting hole. It is essential that the bracket be located properly, and that the welds have good penetration. **This is a critical chassis part, upon which the brake system depends. It must be installed by an experienced welder, using proper techniques and equipment.** ERA will assume no liability for brake failure if the bracket and other parts of this kit are not installed properly.
- d) After attaching the bracket to the frame rail as directed and repainting the bracket and chassis on the affected areas, install the new brake lines provided in this kit. The **red fittings** install into the master cylinders. Be sure the rubber insulators are properly located, and that the frame tabs hold the brake lines securely and without damage.
- e) Loosely install the rear cylinder ($\frac{3}{4}$ ") on the inside of the bracket, closest to the frame rail.
- f) Carefully screw the rear brake line fitting into the cylinder. Don't cross-thread! Always start the threading by hand, going in at least 1 full turn. It may be necessary to bend the line slightly so that it enters the master cylinder at the proper angle. Tighten the bolts securing the cylinder, and then the fitting on the brake line.
- g) Install the front cylinder ($\frac{7}{8}$ ") on the outside of the bracket, following the procedures outlined in steps e and f.

- h) Install the jam nuts and rod ends onto the new cylinders using the enclosed diagram as a guide, and reassemble the balance bar and brake pedal assembly.
- i) Check all hardware and threaded fittings for proper tightness, but do not over-tighten. Bleed the front and rear brakes using Non-Silicone brake fluid. Dot 3 brake fluid is acceptable, Dot 4 is better. Be sure not to depress the master cylinder pushrod more than $1\text{-}\frac{1}{8}$ " to avoid damage to the internal seals in the unit. The unit may also be bench bled before installation, which will expedite the installation and bleeding process.
- j) The rubber pedal stop on the front of the brake box is no longer needed. Replace the stop with a short $\frac{5}{16}$ " USS bolt.

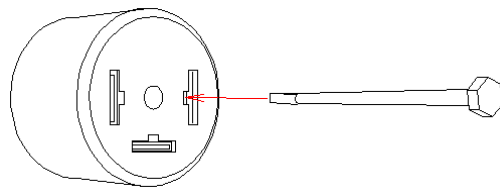
You may adjust the **pedal height** by changing the lengths of the threaded links on the master cylinder.

Readjust the balance bar assembly, following the instructions in the original assembly manual.

Wiring: If your original wiring only supports a single brake light switch, use the terminals #81 and #82A on the front master cylinder switch. The other switch can be ignored or removed completely.



Use a small jeweler's screwdriver to remove the green and pink wire terminals from the remaining socket. Push the flat blade into the small slot adjacent to the blade. It will flatten a retaining tab so that the terminal can be removed. Alternately, if you have a good crimper, you can cut the wires and put on a new terminal end included with the update kit.



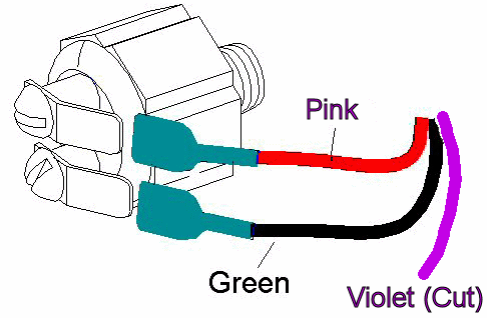
Cover the bare female terminals with the included shrink tubing and shrink with a heat gun or match.

Attach the male tabs to the switch posts with the screws included.

Connect the wires as shown (although they can be reversed without a problem). Tape off the violet wires.

Press hard on the brake pedal and check for leaks at the threads.

Replace the brake cover.



You will find that the brakes are higher and somewhat firmer. This is a necessary compromise in any non-assisted system.

If there are any problems, please feel free to call.

