PROPER METHOD FOR CLEANING DIAPHRAGM BLEEDERS

1. Remove adjusting cap and spring
2. Remove nylon line by depressing the orange donut on the center inlet, pull hose out
3. Remove nylon hose and spring from assembly
4. Holding bleeder with inlet and muffler facing upward, remove back piece (diaphragm will most likely come out still attached to the back piece)
5. Remove diaphragm, fiber washer, and poppit
6. Clean diaphragm with soap and water or 409. Do not use brake clean.
7. Wipe graphite off the washer and poppit
8. Clean back piece and O-ring assembly with 409 or equivalent
9. The back piece has a screen in the center inlet to keep dirt out. After cleaning use air to blow any dirt off the screen. Blow the muffler clean from the outside-in, as excess graphite will clog the muffler and stop the unit from working properly.
10. Wipe diaphragm with paper towel until dry. Use extra fine graphite (Carquest part # mz-2) put graphite in a little plastic container and drop diaphragms into graphite. Put the lid on and shake for about ten seconds. Remove diaphragms and set on paper towel with the center circle upward. Massage diaphragm with index finger until shiny. Blow off excess graphite or it will eventually clog the bronze muffler

ASSEMBLY

Install the fiber washer first, then put poppit washer in center (bevel side up). Drop diaphragm in last with the little impression circle up. Note: the diaphragm usually does not go in flat. Use the spring to push up slowly from the bottom side. It will center itself. Hold the main body in one hand, and start the back piece in the threaded hole. Slowly spin the bottom piece until you feel it bottom. Tighten back piece with a # 10 line wrench (1 inch). Do not over tighten. Re-install nylon hose up through the hole opposite the muffler. Put spring on hose and leave enough hose exposed so you can insert it into the inlet. Push it into the little orange donut, about 3/16 inch. Slide spring down to the orange donut and pull extra hose outward until the spring is snug. Inspect the O-ring on the plastic piece that goes into the wheel. It gets a lot of abuse and should be changed if it is cut up or grooved. It completes the passage of air from the tire to the bleeder and is a place that could leak air. You can spray it with Windex or soapy water to see if it bubbles. If you see bubbles replace the O-ring. Install the spring and adjusting cap. Screw the end cap all the way down. It is easier to arrive at the poundage you want, by loosening the end cap slowly.

SETTING THE BLEEDERS

The air tank is the quickest and easiest method to set the bleeders. Put +/-10 lbs of air in the tank. Start loosening the end cap slowly. You will hear the bleeder vibrate. When you get close to your setting bring the lock ring up to the end cap. Tap the whole bleeder on the tank or table and watch the air gauge. Tapping the bleeder gives the same effect that it gets in the axle when the car is bouncing on the track. Readjust air pressure if necessary and then lock end cap tightly. You can also use your tire to set the bleeders, however the volume of air in the tire is greater than in the tank and it takes much longer.

TROUBLESHOOTING THE BLEEDERS

Dirt and moisture are the enemy, and will adversely affect your bleeder. You should use screens on the wheel receivers to keep dirt out. Always plug the wheel when washing the car. Moisture can come from your air compressor. Drain it nightly or install a water separator in the air system. Using nitrogen will prevent moisture problems. If the bleeder does not bleed off quickly, your muffler is probably clogged. A good test is to remove the center inlet with a 7/64 Allen wrench, and then take the muffler out. Reinstall the center inlet and try again. If it vibrates, then you know the muffler is dirty. If the bleeder won't hold air, it is the diaphragm. Disassemble to make sure the diaphragm is free of dirt particles in the center impression of the diaphragm (the little circle). If it is clean of dirt, use graphite again.

SPRINGS: **Red:** 3 to 8 **Silver:** 8 to 15 **Yellow:** 8 to 21 **White:** 14 to 30