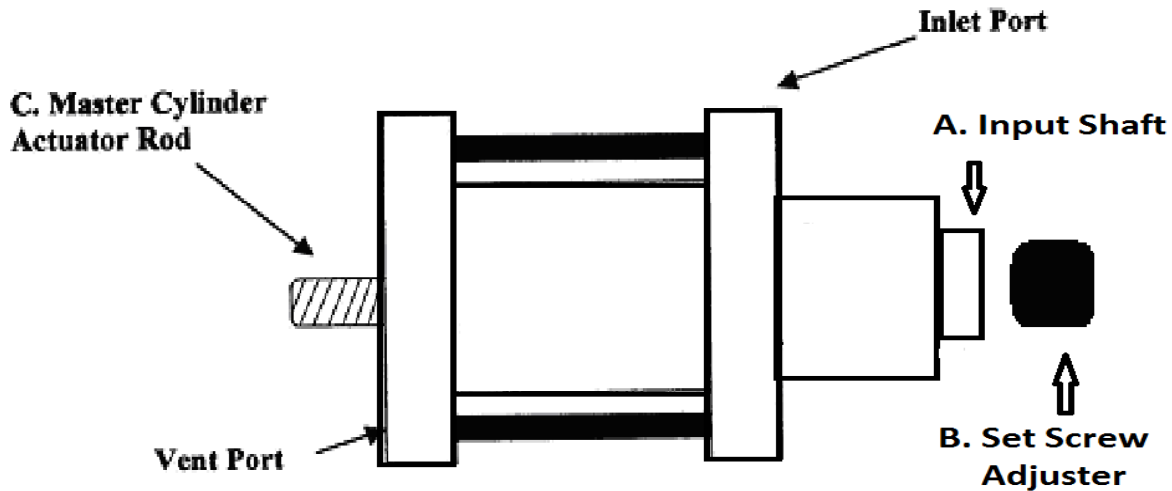
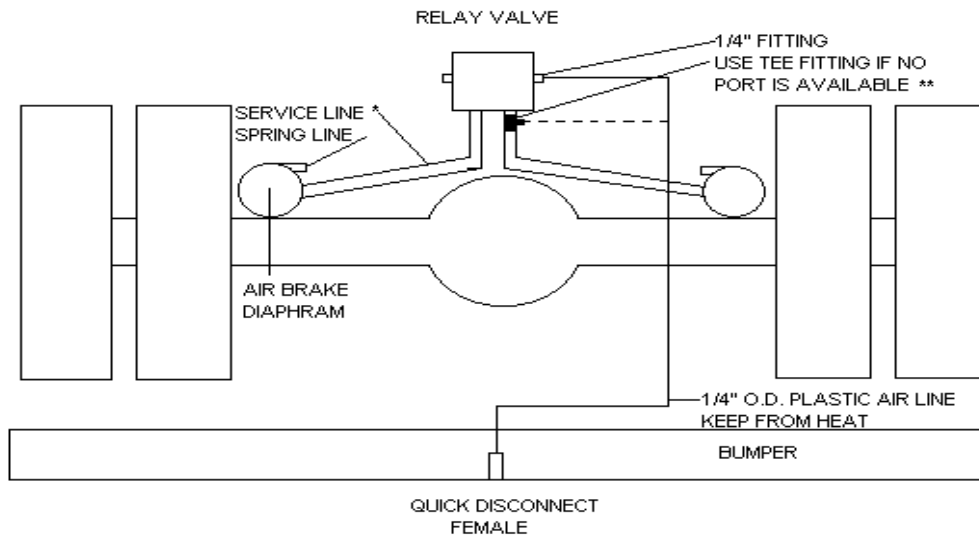


M&G CAR BRAKING SYSTEMS ADJUSTMENT INSTRUCTIONS

602



1. Remove vacuum hose from vacuum booster. Remove master cylinder from vacuum booster. Remove o-ring from the master cylinder.
2. Place M&G cylinder on vacuum booster studs. Be sure that vacuum booster push rod slips inside of screw B. There should be a gap between M&G and vacuum booster. Do not push brake cylinder with force onto studs. This will move piston and throw off adjustment. Remove M&G and turn B clockwise (set screw will thread in about 2") until there is no gap and you can hold M&G against vacuum booster with no resistance (you are looking for a small gap between push rod and set screw). Once zero clearance is found turn screw B $\frac{1}{4}$ of a turn clockwise to allow for error or expansion of metal. Secure screw B with 290 Loctite (green). Place just a drop between threads to allow it to run into threads. **DO NOT** allow Loctite to run on O.D. of shaft A. If adjustments need to be changed after Loctite has set, a small torch can be used to break loose. (heat until Loctite starts to smoke). **DO NOT** use pliers or vise to hold $\frac{7}{8}$ " shaft, protect shaft from scratches.
3. Hold M&G up to master cylinder if no gap is present turn shaft C counter-clockwise until a gap is present. This method of adjustment is same as in #2. Turn rod C clockwise until no gap is present or two pieces meet together. Also turn $\frac{1}{4}$ of turn clockwise after zero clearance is found. **Adjustment is necessary on both ends of M&G cylinder.** Loctite is used on both ends also, but use sparingly.
4. Install o-ring on vacuum booster end of M&G.(if no oring is found look inside vacuum booster and oring should be hanging on pushrod).
5. Fasten M&G to vacuum booster.
6. Reposition master cylinder to bolt to M&G and secure.
7. M&G cylinder is permanently lubricated so no maintenance is required.
8. Run $\frac{1}{4}$ " plastic air line (DOT approved) from M&G cylinder to breakaway system or front of vehicle. Attach SILVER MALE quick disconnect to front of vehicle. This fitting **MUST** remain open to allow system to breathe. **DO NOT** seal end of quick disconnect. Use spark plug boot to cover fitting.
9. Vehicle **MUST** be driven for at least 2 miles without using the brake pedal, only use the parking brake and gear down when necessary to stop. After vehicle is stopped, go out and feel the front rotors for heat. If rotors are cool to touch, adjustments are correct. If rotors are hot, adjustments are too long (readjustment is necessary).
10. If vehicle passes previous test, drive towed vehicle normal for 2 miles using brake pedal frequently. Rotors will be hot, but not smoking. Place vehicle in neutral and you should be able to move vehicle without resistance. If vehicle does not move call M&G for further assistance.

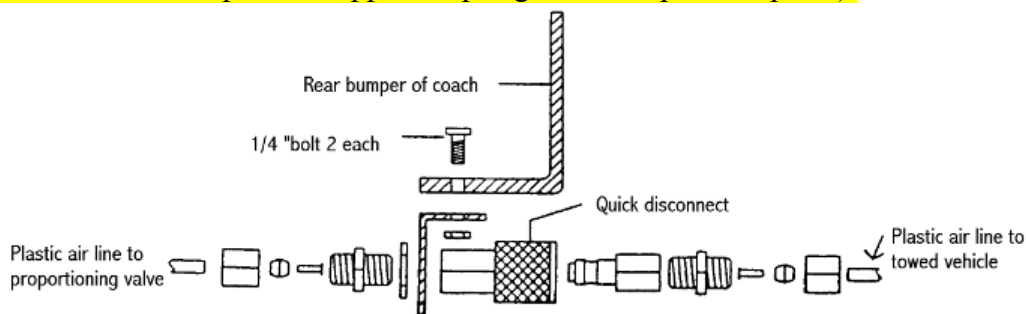


***SERVICE will be stamped on diaphragm. **Not Supplied
If coach has tandem axle use driving axle.**

1. On motorhomes with Freightliner chassis only, go to rear driving axle. Locate relay valve above and just forward of axle. There will be two relay valves connected together with a Black 3/8" OD plastic air line. Cut plastic line and insert 3/8" tee or disconnect 3/8" line fitting and install street tee.

On all other coaches, locate the two brake actuating diaphragms on the driving axle. Either can be used. There will be two air lines going to each diaphragm. Find the air line that has SERVICE stamped next to it or the air line located slightly closer to the axle. Follow this line up to the nearest valve that is easiest to access. (There may be up to six relay valves on coach) Remove air line, remove fitting from valve. Chock wheels on coach, **release parking brake**, if no air pressure is escaping from opening, step on air brake to check for controlled air flow. You should only have air flow when brakes are applied. Install a street tee which has one male and two females (normal pipe threads) into valve (this tee can be 1/4", 3/8", or 1/2" not supplied). Reinstall original brake line and use a reducer to attach new 1/4" plastic line. Install 1/4" line from rear brake relay valve to rear of coach. Be careful to secure the air line, keep it away from exhaust system. Install female quick disconnect at rear of coach in a desirable location using either 90 degree bracket or straight bracket.

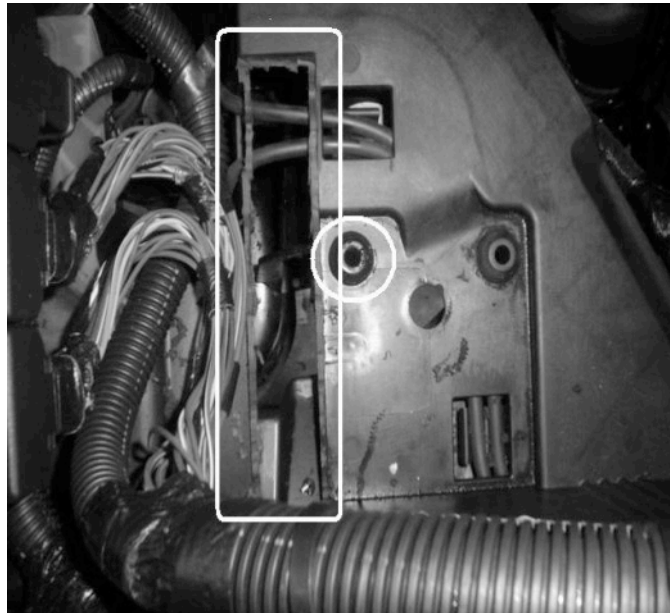
2. Place male quick disconnect, without line attached, into female. Chock wheels on coach, release parking brake, step on brake in coach to test air flow for controlled air flow. Run air line from vehicle to coach and cut to correct length. Install male quick disconnect to air line. Connect together -brakes are now functional. **To test brake system, have one person step on brake in coach while another person applies light pressure on towed vehicles brake pedal. Towed vehicles brake pedal should move when air brakes are applied on coach.(pedal will not move without pressure applied- spring will hold pedal in place).**



2007 and above Wrangler 602

1. Unplug wires and unfasten ABS motor by removing 10 mm bolt fastening ABS to plastic wall, push ABS motor towards engine to release one stud from grommet and pull straight up and pry with screwdriver under motor to release last grommet, leave brake lines attached (WD40 may be used to free stud from grommet).
2. If vehicle has manual transmission, remove rubber hose from reservoir and clutch slave cylinder. Must replace with 12" neoprene or silicone hose which is brake fluid compatible.
3. Unplug vacuum line to vacuum booster to release vacuum, unbolt master cylinder, and remove o ring from master cylinder (set o ring aside to place on M&G cylinder).
4. Remove plastic wall between ABS and computer with die grinder or dremel tool. Pic 1
5. Cut plastic fastener holding ABS wire loom to tray. This will allow wire loom and connector to be repositioned.
6. Remove rubber grommet from plastic wall, position ABS motor closer to computer and mark and drill one hole to move rubber grommet closer to computer. Computer wires may need to be repositioned. Pic 1
7. Adjust both ends of M&G cylinder and Loctite into place.
8. Transfer o ring from master cylinder to M&G cylinder, mount "90" brass fitting to M&G for air line, fasten to vacuum booster, and fasten master cylinder to M&G.
9. Position ABS motor into grommet and reroute wire to plug in.
10. Connect vacuum line to booster and any other wires unplugged.
11. Mount breakaway system (if equipped) and plumb air lines to system.
12. Mount Silver male quick disconnect on front of vehicle.

ENGINE SIDE



FENDER SIDE

WARRANTY & REGISTRATION CARD INFORMATION PERTAINING TO THE PROPER USE OF THIS PRODUCT

WARRANTY PROCEDURES

If you have any problems with this product, immediately contact M&G Engineering at 1-800-817-7698. If necessary, we can direct you to your nearest warranty service center and make arrangements for any warranty repairs or replacements. While under warranty, M&G Engineering will make arrangements for your product to be repaired or replaced. **Do not purchase replacement parts or pay for labor - you will not be reimbursed.**

ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

M&G Engineering warrants to the original retail purchaser-consumer of this product that such product when used for its normal intended purposes is free of defects in workmanship and materials. This warranty, together with any and all warranties implied by law, shall be limited to a duration of a lifetime on the Brake cylinder only, three (3) years on proportioning valve, and one (1) year on any other components from the date of purchase by the original retail purchaser-consumer and is not transferable.

This warranty only covers failures due to defects in materials or workmanship which occur during normal and proper use and does not cover damage which occurs in shipment, or failures which are caused by products not supplied by M&G Engineering or failures which result from normal wear, misuse, abuse, neglect, mishandling, misapplication, faulty installation, setup adjustments, improper maintenance, alteration, maladjustment, modification, commercial use or service of the product by anyone other than M&G Engineering. Furthermore, this warranty does not apply to any product or material or part which has been installed, maintained or used contrary to the operating, maintenance or installation instructions and shall not apply to any parts or materials used in the installation that were not supplied with the product in the original carton or to any damage which said parts or materials may cause.

THIS WARRANTY DOES NOT COVER, AND IS INTENDED TO EXCLUDE, ANY LIABILITY ON THE PART OF M&G ENGINEERING, WHETHER UNDER THIS WARRANTY OR UNDER ANY WARRANTY IMPLIED BY LAW, FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

RESPONSIBILITY OF M&G Engineering

With proof of date of purchase by the consumer, M&G Engineering's responsibility under this warranty shall be limited to the repair or replacement (at its option) of any product or part which is actually defective at no charge to the consumer except for shipping and/or mailing charges. In no event shall M&G Engineering's liability under any claim or theory exceed the purchase price of the equipment in respect of which damages are claimed. No agent, representative, dealer or employee has the authority to alter or increase the obligations or limitations of this warranty. All specifications are subject to change without notice.

RESPONSIBILITY OF THE PURCHASER

In order to qualify for this warranty, the purchaser must completely fill out and, within thirty (30) days of purchase, send to M&G Engineering the attached warranty registration card or email information to montymg@live.com.

The purchaser must contact M&G Engineering prior to returning any product so that M&G Engineering may determine the nature and extent of the claim and to obtain a return authorization number. Returned products must include the return authorization number and a copy of the sales slip as proof of purchase. The date of purchase must coincide with the original warranty registration card on file. If return of the product is required, it must be shipped prepaid UPS to M&G Engineering at the address listed below.

M&G Engineering

**11267 State Hwy. 19 North
Athens, TX 75752
1-800-817-7698**

STAMP

**M&G ENGINEERING
P.O. BOX 1107
ATHENS, TX 75751**

WARRANTY

DATE OF PURCHASE:

DATE INSTALLED:

MAKE, MODEL & YEAR OF COACH:

MAKE, MODEL & YEAR OF TOW CAR:

NAME OF INSTALLER

WHERE UNIT WAS PURCHASED

NAME & ADDRESS OF PURCHASER

Mail or Email to montymg@live.com