

INSTALLATION INSTRUCTIONS for TR6 REAR DISC BRAKE KIT

Fitting original steel wheels with Good parts Rear Disc Brake Kit requires use of 3/8" thick wheel spacers.

Braking needs vary from one vehicle to another due to tire size, suspension settings, weight and other factors. Good Parts makes no recommendation as to the suitability of a particular caliper, piston size or brake pad combination for your vehicle.

WARNING: Optimum braking is achieved with the correct balance of front to rear bias. Too much braking power in the front reduces overall braking because the rear is contributing less. Too much rear braking is very dangerous because rear wheel lock-up can cause the car to spin out of control.

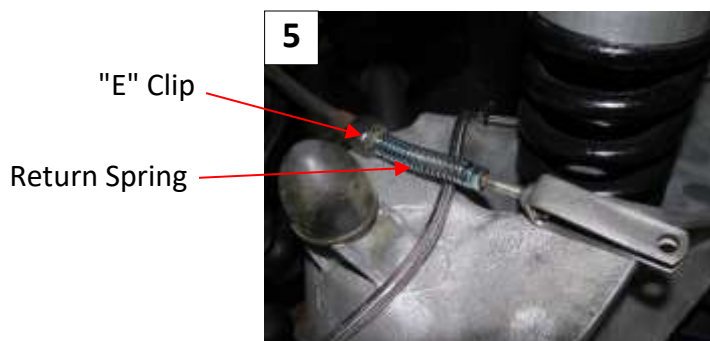
TEST YOUR BRAKES in a safe place where there is no danger to (or from) other people or vehicles **BEFORE** driving on the street.

- 1) Remove brake drum and the six nuts holding the hub to the trailing arm.
- 2) Before pulling the hub from the trailing arm, loosen one end of the gaiter between the stock half shafts or with Good Parts CV axles, remove the big nut on the outer end of the axle. If you have Good Parts hubs with U-joint axles you can either remove the big nut in the center of the hub or pull the half shafts apart. Good Parts heavy duty U-Joint half shafts simply pull apart.
- 3) Remove the clevis pin holding the parking brake cable to the lever.
- 4) Disconnect the brake line from the fitting on the top of the trailing arm and loosen it from the clip on the edge of the trailing arm. Remove the brake hoses from the fork of the trailing arm and from the tee fitting on the left side and the hard brake line on the right side
- 5) Remove the brake backing plate from the trailing arm.
- 6) Remove the six studs from the trailing arm and drill the holes to $\frac{5}{16}$ " diameter. Drill to a depth of $\frac{11}{16}$ ". Be sure to drill perpendicular to the face of the trailing arm.
- 7) Tap the six holes $\frac{3}{8}$ -16. Be sure to tap perpendicular to the face of the trailing arm. Use a plug type tap then a bottoming type tap so the threads are deep enough to allow full insertion of the new studs. Apply high strength thread locker and thread in the new studs.
- 8) Place the caliper mounting bracket over the studs with the two closer spaced ears pointed up as shown in Photo 1. The brackets are stamped "L" and "R" to indicate left (driver's) and right side.
- 9) Drill the bolt holes in the hub to $\frac{13}{32}$ " diameter to fit over the $\frac{3}{8}$ " studs.
- 10) **NOTE:** 3/8" thick wheel spacers are required to allow fitting of original steel rims. If using wheel spacers, replace the wheel studs with longer ones to maintain proper thread engagement. Good Parts offers longer studs that fit Good Parts hubs without drilling. Good Parts offers longer studs for the stock hubs but the holes must be enlarged to fit.

- 11) Slide the hub into the trailing arm. Good Parts heavy duty U-Joint axles need to be indexed so the yokes on each half shaft are on the same plane before sliding the splines together. The stock axles have one missing spline so they can only fit together one way.
- 12) Thread on the six nylon stop nuts holding the hub to the trailing arm (medium strength thread locker optional) and torque to 19 ft/lb.
- 13) Re-clamp the rubber gaiter between the stock half shafts or install the big nut on Good Parts CV axles with high strength thread locker and torque to 220-250 ft/lb.
- 14) Clean the rotor with brake cleaner then slide it over the wheel studs and thread on two lug nuts to hold it in place temporarily.
- 15) Bolt the caliper onto the mounting bracket using the bolts, lock washers and thick flat washers supplied. Removable thread locker is recommended. Check to make sure there is clearance between the end of the bolt and the rotor. Check that the rotor is reasonably centered in the caliper. Extra standard thickness flat washers are provided to use as shims between the caliper and bracket if needed. If shim washers are required then use standard thickness washers next to the lock washers in lieu of the extra thick ones to maintain proper thread engagement.
- 16) Install brake pads in calipers. To help prevent brake squeal, I suggest using the Disc Brake Quiet included with the brake pads. Thoroughly knead the packet before opening. Apply a thin even coat over the entire steel back of each brake pad stopping just short of the edges. Do not get any of the material on the edges of the metal backing or on the friction surface. The product description mentions that it is to form a plastic film between the piston and pad to prevent squeal. The instructions do not mention a drying time before installation of the pads. I feel that the material should be well dried before installation but you can use your judgement.
- 17) Remove the sticker covering the inlet port on the back side of the caliper, apply thread sealant and install the 90 degree fitting. Turn it so that the hose end is aimed just over the top of the trailing arm.
- 18) Bend the brake line as needed to rout it from the fitting in the caliper, over the top of the trailing arm, around the outside of the bump stop, behind the spring, through the brake line clip and to the fitting attachment fork of the trailing arm. Photo 2 shows the brake line routing. (Clip not shown.)
- 19) Attach brake line and flexline to bulkhead fitting then fasten bulkhead fitting in the fork on the trailing arm as shown in Photo 3. The bulkhead fitting can be turned whichever way seems to work better. Either way it is hard to hold the nut that is within the fork.
- 20) Photo 4 shows how to loop flexline to the fitting on the frame. On the left side connect the flexline to the tee using the $\frac{3}{8}$ -24 straight thread adapter and copper washer and on the right side connect to the hard brake line using a bulkhead fitting bolted into the bracket on the frame.
- 21) Bolt the parking brake caliper to the ears on the top of the caliper mounting bracket using the shoulder bolts. The calipers are marked left and right. Apply medium strength thread locker to the threads in the

mounting ears and anti-seize compound or grease to the shank of the shoulder bolts and a thin film to the inside of the mounting holes in the parking brake caliper. Torque to 25 ft/lb. Note that the bolts will not clamp the caliper tight to the bracket. It is a floating caliper so it has to be able to slide on the bolts.

- 22) If your parking brake cables have no return spring at the end, install the ones included with the kit. Remove the clevis and nuts from the end of the cable. Remove the rubber boot. Install the "E" clip in the groove if one exists to hold the cable sheath in the mounting block. Slip the spring over the cable then thread on two nuts as far as possible and lock together. See Photo 5.
- 23) With the parking brake handle fully down and the lever on the parking brake caliper held out toward the rotor, install and adjust the clevis on the end of the cable to line up with the hole in the end of the lever. Install the clevis pin, washer and split pin. Parking brake free play may be adjusted with the set screw on the lever which pushes against the piston. Test the parking brake and adjust as needed.
- 24) Fill the system with high temperature DOT 3 or 4 brake fluid and bleed the air using the small bleed screws on the top of the inside and outside of each caliper. DOT 5 fluid is not recommended for any racing application due the possibility of boiling of collected moisture in the system. Also, DOT 5 fluid is highly compressible due to aeration and foaming under normal braking conditions, providing a spongy brake feel. Dot 5 fluid is best suited for a show car where its anti-corrosion and paint friendly characteristics are important.



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PARTS LIST

- 1 - Parts list
- 1 - Installation instructions
- 1 - Pad and rotor bedding instructions
- 2 - Rotor, disc brake
- 1 - Caliper mounting bracket, right side
- 1 - Caliper mounting bracket, left side
- 2 - Hydraulic brake caliper
- 1 - Parking brake caliper, right side
- 1 - Parking brake caliper, left side
- 2 - Brake line, 19" 3 JIC-3 JIC
- 2 - Flexline, 14" 3 JIC -3 JIC
- 2 - Fitting, 1/8" MNPT x 3 JIC, 90 degree
- 3 - Fitting, bulkhead, 3 JIC
- 1 - Fitting, adapter, 3 JIC -3/8-24 with copper washer
- 3 - Nut, 3/8-24, jam
- 3 - Washer, internal star, 3/8"
- 4 - Bolt, 3/8-24 x 1 1/8", hydraulic caliper attachment
- 4 - Washer, 3/8" split lock
- 8 - Washer, 3/8" SAE
- 4 - Washer, 3/8" SAE, extra thick
- 4 - Shoulder bolt, parking brake mount
- 2 - Clevis pin, 5/16 x 3/4
- 2 - Washer, 1/4" USS
- 2 - Split pin, 3/32 x 3/4
- 12 - Stud, 3/8-16/24 x 2"
- 12 - Nut, nylon locking, 3/8-24
- 2 - Spring, parking brake return
- 4 - Nut, 1/4-28
- 2 - "E" clip, parking brake sheath



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PAD AND ROTOR BEDDING

Bedding is a "real conditions" heat cycle and the final step in preparing the pads and rotors for service. All pads, even OE stock replacement parts, will benefit from a proper bedding cycle. All rotors, especially cast iron rotors that will be operated at sustained high temperatures, will provide longer service life and smoother braking when properly bedded. Bedding can be done either in the vehicle, or on a special bedding dyno that can realistically duplicate the torque loads, pressure, and temperature that will be realized in the vehicle.

ROTOR BEDDING

Rotor bedding is an essential element to high level performance and durability. It is most critical with cast iron rotors. Cast iron is extremely well suited to use as a brake rotor, but it can be susceptible to thermal stress, distortion, and even cracking if subjected to rapid changes in temperature when it's new. The cracking sound that you may hear when pouring a favorite beverage over a glass of ice is thermal shock. A proper bedding cycle will gradually bring the rotors up to temperature and then allow them to cool slowly and completely in order to "season" and relieve any remaining stresses from the casting and machining processes. With some compounds, a layer of pad material may also be embedded onto the rotor face. It is important that this "transfer layer" be deposited slowly and smoothly. Otherwise, pedal pulsing and compromised friction values can result.

PAD BEDDING

The bedding process is the final "heat cure" for the pads. This final bedding cure differs from an oven heat cure in such that the oven heat cure does not include the pressure, torque, and elevated surface temperatures that are necessary to properly condition the pad for service. As it is with the rotors, new pads must be gradually brought up to temperature and then slowly cooled. If the pads are put into hard service right from the start, damage from fractures or accelerated deterioration due to extreme temperature variations between the surface and the body of the pad can occur. Overall poor performance with the potential for rotor damage are often the results.

BEDDING STEPS

Once the brake system has been tested and determined safe to operate the vehicle, follow these steps for bedding of all pad materials and rotors.

- 1)** Begin with a series of 8-10 light stops from approximately 30 MPH down to 15 MPH allowing 20-30 seconds for cooling between each stop.
- 2)** Progress with a series of 8-10 moderate stops from around 45 MPH down to 30 MPH allowing a 20-30 second cool down period between each stop.
- 3)** Proceed with a series of 8-10 hard stops from 55-65 MPH down to 25 MPH allowing 20-30 seconds of cool down time between each stop.
- 4)** Drive at a moderate cruising speed, with the least amount of brake contact possible, until most of the heat has dissipated from the brakes. Avoid sitting stopped with the brake pedal depressed to hold the car in place during this time. Park the vehicle and allow the brakes to cool to ambient air temperature.

NOTES:

During the bedding process, a more positive feel from the brakes should develop. This is an indication that the bed in process is working. If any level of brake fade is observed during the hard stops, it may be an indication that the brakes have been more than adequately heated. Begin cooling the brakes with light driving and without brake contact immediately.