# INSTALLING ATI SUPER DAMPER ON TR6

**CAUTION!** Damper assembly must not be drilled to balance. The assembly is fully machine-balanced and must not be altered. **DO NOT** have the damper on the crank while balancing the crank. The damper may show out of balance until the engine reaches 2000 RPM the first time and the inertia weight centers itself.

**NOTE:** Before beginning, read #13 and #15 regarding clearance between damper pulley, steering rack and cross brace.

**NOTE:** Damper installation requires a Torx Plus T-40 bit. Use of a regular Torx T-40 bit may damage the mounting bolts.

1) Remove the radiator, fan, cross brace and steering rack mounts and move the rack forward. Remove the original damper and belt.
2) The new damper is larger in diameter than the original, before installing the damper, you will need to move the timing pointer upwards. Measure from the surface of the crank and make a mark beside the pointer 2-7/8" from the crank. Clamp a Vise Grip or similar locking pliers onto the pointer about 3/16" away from the surface of the cover. While holding the pliers horizontal to keep the pointer perpendicular to the cover, tap upwards on the pliers until the pointer is just above the mark. The area of the pointer between the pliers and cover should be able to bend enough to allow this movement.
3) File any burrs off the crank and key then position the damper hub on the crank with the larger diameter side toward the engine. Use great care to perfectly align the keyway in the hub with the key in the crank. The hub is a tight fit and cannot be turned once you start pulling it onto the crank.
4) If you have purchased the kit with the fan extension replacer washer, start pulling the hub onto the crank using the 5/8-18 x 2” bolt, flat washer and fan extension replacer washer. Check that the key is lining up with the keyway as you pull it on. Change to the 5/8-18 x 1.5” 12-point bolt to finish, then torque it to 130 ft/lb. A 5/8” 12-point socket is required. If you have purchased the kit with the fan extension, a 5/8-18 x 1.5" bolt and flat washer are included to start pulling the hub onto the crank. Finish pulling the hub on with the fan extension and original bolt but do not torque. Just pull the hub into place, then remove the fan extension. To hold the crank from rotating, bolt the torque arm tool included with the kit to two of the 3/8” threaded holes in the hub using the bolts supplied with the kit. DO NOT thread the bolts in fully or they will protrude from the back of the hub and damage the timing cover.
5) Install the damper onto the hub using the six flat head bolts and a Torx Plus T-40 bit. Use medium strength thread locker such as Loctite 242 blue. Note that one bolt is offset to orient the damper on the hub. Pull the damper onto the hub evenly by tightening the bolts on one side then the other, then torque to 16 ft/lb. Check that the timing pointer is not scraping the damper.
6) Install the pulley onto the damper and torque the bolts to 28 ft/lb. A 3/8” 12-point socket is required.
7) If you have purchased the kit with the fan extension, install the fan extension with the original bolt and torque to 100-110 ft/lb. To hold the crank from rotating, bolt the torque arm tool onto the front of the fan extension with the bolts supplied.
8) Remove the original water pump and scrape the old gasket from the pump housing.
9) Install the new water pump with new gasket and gasket sealer. Make sure the weep hole is turned down.
10) The new belt position is 3/8” forward from original. To align the alternator pulley, the alternator must be moved forward 3/8”. This is easily done on early TR6 alternators by moving the 3/8” spacer from behind the mounting bracket to in front of the bracket. This allows the use of the original alternator pulley. Later TR6 alternators used a wider belt so they will need to have the pulley replaced. Also, they can only be moved forward 1/4” by installing spacer washers between the front of the mounting bracket and the alternator. The sleeve in the rear alternator mount will slide in the mount to allow the alternator to move forward. The remaining 1/8” needed is made up by replacing the original pulley with the Good Parts offset pulley.

11) To align the alternator tightener to the alternator, replace the attachment bolt in the water pump housing with the longer one supplied and use washers as needed between the tightener and pump housing.
12) Install the belt and tighten.
13) When the steering rack and cross brace are in place it will not be possible to slip a belt between them and the crank pulley. If desired, a spare belt can be tied around the rack and cross brace for emergency use.
14) Re-install the steering rack, cross brace and radiator.
15) Since the new damper and pulley are thicker than the original damper, there will be very little clearance between the pulley and steering rack and cross brace. In fact, depending on how your engine is positioned there may be interference. For maximum clearance, the engine must be moved rearward far as possible in its adjustment slots. Loosen the two nuts fastening each engine mount to the bracket bolted to the block. The holes in the brackets are slotted. On cars prior to CF1, loosen the two nuts fastening the rear trans mount to the bracket that it sits on. The holes in the bracket are slotted. On cars after CF1, loosen the four bolts fastening the trans mounting bracket to the frame. The holes in the bracket are slotted. Move the engine and trans rearward far as the slots allow. Slots may be lengthened for further movement. Spacers may be added between the engine mounts and the frame to move the engine mounts further back. With these modifications it is possible to move the engine back far enough to allow a belt to fit between the pulley and rack but watch for any points of interference. Make sure the driveshaft is not fully compressed. Check for clearance between the rear of the head and accelerator shaft and between the overdrive and mounting bracket if fitted. Adjustment of exhaust connections and accelerator linkage may be required when moving the engine rearward. Make sure the shifter operates with no interference.

## Parts List

1 - Instructions
1 - Torque Arm Tool
1 - Damper
1 - Hub with dowel pins
1 - Crank Pulley
1 - Alternator Pulley
1 - Water Pump with Pulley & Gasket
1 - Belt
6 - Flat Head Bolt 5/16-18 x 7/8"
3 - Bolt, 3/8-16 x 1", 12 point
1 - Bolt, 5/16-24 x 2-3/4" Grade 5
1 - Lock Washer, 5/16"
8 - Flat Washer, 5/16" x 1/16" thick

**Kit with fan extension replacer washer also includes:**
1 - Fan Extension Replacer Washer
1 - Flat Washer, 5/8" SAE
1 - Bolt, 5/8-18 x 2" Grade 8
1 - Bolt, 5/8-18 x 1.5", 12 point, Grade 8+

**Kit with fan extension also includes:**
1 - Fan Extension
1 - Flat Washer, 5/8" USS with flats ground
1 - Bolt, 5/8-18 x 1.5" Grade 8
2 - Bolt, 5/16-24 x 3/4" Grade 5

**Good Parts Inc.**
**Richard Good**
**4316 New Holland Rd.**
**Mohnton, PA 19540**
**(610)777-4457**
**goodparts@verizon.net**