

ATI "SUPER DAMPER" INSTALLATION INSTRUCTIONS

By BlowerWorks

INSPECTION

1. THOROUGHLY READ & UNDERSTAND THE ENCLOSED 'ATI' INSTRUCTIONS. IF YOU HAVE ANY QUESTIONS CALL ME TO DISCUSS OR E-MAIL ME AT: greg@BlowerWorks.net
Please note you will not be able to install the ATI balancer/pulley without either temporarily moving the steering rack forward or as some have done by moving the steering box. Of course if this balancer/pulley is being installed on an engine outside of the vehicle it is not necessary to move anything. So it may make life easier to move the rack first with regard to removing the GM balancer/pulley & hub as well.
2. Remove the stock balancer/pulley by removing the 3 bolts (7/16-14 x 7/8" use 5/8" socket) that hold it to the GM hub. You may want to soak the balancer/pulley where it meets the hub overnight. Then tap on the balancer/pulley with a hammer and it should pop off.
3. Remove the GM hub. You will need Kent Moore tool J-39046 or similar. The tool is like a steering wheel puller in that it is a flat plate with slotted holes that U bolt to the hub. Traditional pullers may not fit due to the limited space between the hub and the cross member frame piece. After removing the stock balancer/pulley and hub clean up the mating surfaces and reassemble. We are going to compare the assembled height of the GM piece and your new ATI piece. Besides maybe U can sell on E-Bay !
4. Temporarily assemble your new ATI crank balancer/pulley & hub. Follow the ATI instructions.
5. Stand up the GM & ATI assemblies next to each other on a flat surface such as your kitchen countertop.
6. Compare the GM & ATI accessory 6 rib serpentine belt groove height. If your vehicle is a 1996 LTx the 6 rib belt grooves of the ATI should match exactly the GM. If your vehicle is a 1992 thru 1995 Corvette (no crank sensor) place the included .047" shim under your ATI Super Damper. The 6 rib grooves of each assembly should now match up. If for any reason they don't align we must find out why and possibly change our shim. Note however I have never had to do so. I'd say plus or minus a 1/32" would be OK.
7. Next you must compare/check the ATI hub to crankshaft interference as noted in the ATI instructions **BEFORE INSTALLING**. We must have approximately .0001" interference fit. See the included ATI specifications. You must check the crankshaft OD with a machinist's micrometer (not a dial caliper). The ATI hub must be checked with a dial bore gage. Typically fitting the ATI hub to a stock GM crankshaft will not require honing, however you must check before installing !!! Typically installing the ATI hub on an "aftermarket" crankshaft (Callies, Eagle, etc.) **WILL REQUIRE HONING** the hub to spec.

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INSTALLATION

1. Thoroughly clean your crankshaft.
2. If required install your shim.
3. Insert the supplied GM woodruff key (GM PN: 10029208) into the crankshaft slot. Tap into place with a plastic hammer if necessary. Be careful not to drop the key into the timing cover behind the seal or you'll be another job !!!
4. Coat the crankshaft with a graphite anti-seize grease.
5. Remove (dis-assemble) the ATI hub from the balancer/pulley.
6. Lock the crankshaft in place with a flywheel tool. Install the ATI hub with the appropriate tool & washer. Some hub installation tools will require making an adaptor as they bottom out before the ATI hub is fully seated. You must make sure the ATI hub is all the way on & fully seated. Rotate the engine slowly and check the ATI hub clears the Opti-Spark. We have an hub installation tool that may be loaned to you if need be.
7. If you are running a non-vented Opti this may be a good time to replace it with a vented unit. In any case if you are replacing an Opti (especially with an MSD unit) be sure to disassemble it and inspect all screws etc. Some may require Loc-Titing.
8. Install the ATI balancer/pulley. Please note you will not be able to install the ATI balancer/pulley without either temporarily moving the steering rack forward or as some have done by moving the steering box. Of course if this balancer/pulley is being installed on an engine outside of the vehicle it is not necessary to move anything.
9. Install the new supplied 6 rib accessory belt (68.5"). You must use this belt as the new ATI balancer/pulley is a slightly larger OD than the original GM piece.
10. Start the engine and check the belt alignment. It must be perfect.
11. If all is correct re-assemble the steering rack etc.
12. You are DONE !!!

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STEERING RACK RELOCATION

1. Remove as much as you can from front of engine.
2. Remove P.S. reservoir.
3. If so equipped remove P.S. cooler.
4. Disconnect steel 'hard lines' to steering rack.
5. Disconnect driver's side outer tie rod.
6. Remove 2 bolts joining steering shaft "rag joint". Note: do not turn steering wheel after disconnecting!
7. Remove top bolt from passenger side rack bracket ('C' shaped bracket near sway bar mount).
8. Loosen lower bolt on passenger side bracket about 1 inch.
9. Remove driver's side rack bolt.
10. Rotate passenger side bracket 90 degrees, completely off top of rack.
11. Rotate entire rack so the top moves towards the front of the vehicle. You might need to move it slightly towards the passenger side as well.
12. You should now be able to install or uninstall balancer or hub.

ALTERNATELY SOME CUSTOMERS' HAVE TOLD ME THEY WERE ABLE TO INSTALL THE NEW BALANCER BY MOVING THE STEERING BOX OVER AS OPPOSED TO MOVING THE STEERING RACK.