Installing Super Dampers on Chevy LS/LT Engines

***** ATTENTION: Manual transmission Corvette LS1, 2 & 3 owners *****

A very small number of manual transmission-equipped Corvettes had a balance issue from the factory. GM addressed the issue with a 1/4" dowel installed in the OEM damper. ATI's Super Damper will not accept this dowel. The problem this dowel corrected was a small vibration felt in the shifter at a certain RPM. Take note when removing your OEM damper to see if you have this factory installed dowel. Remember - the ATI damper CAN NOT be drilled to install this dowel. It will damage the damper.

Additional tools you may need: 1/2" 6 or 12 point socket, Torx 45 Plus bit

Installing the Hub onto the Crank

1. Remove existing damper bolt and damper from engine. If necessary, use ATI Puller/Installer (#918999) with Adapter for LS1/LS7 (#918999SC) or similar damper puller. **Save your old bolt for installation in the last step. (OEM bolts are a 1-time use only bolt - do not reuse as a primary bolt!)**
2. Depending on the year of your engine / vehicle you may notice a thin "friction" washer behind the damper hub in front of the first oil pump gear. This washer should be left in place and will not hurt anything if you are or are not pinning or keying your crankshaft. If your year does not have this washer and you would like to add one, there must be a machined "lip" provision on the back of the hub to do so.

   If you are <u>not</u> using a key or pin, you must fill the key slot with some high temp silicone so no oil leaks past the damper bolt washer!
3. This would be the time to consider whether or not you would like to pin the crankshaft as the ATI damper has a keyway in the hub unlike many OEM dampers. If you decide to pin the crankshaft (a must for super charging), you will need to purchase ATI's LS Crank Pin Drill Fixture (#918993) and follow the instructions enclosed with the Fixture before proceeding.
4. If a rear pulley (i.e. 4 rib A/C) is being used, it must be placed on the back of the hub before the hub is pressed on the crank.

Installing an Accessory Pulley

Note! Most LS dampers will include a front or rear pulley for OEM accessory drives. If no front pulley is used and/or you choose not to use a front or rear mounted pulley, you MUST still put the additional (3) bolts through the unit for a total of (9) bolts holding the assembly together and to the hub. Some applications require the damper shell or hub to be modified if a rear pulley is not used.

⚠ ***Damper damage will occur if you do not use at least nine bolts total!***

IMPORTANT: A NEW CRANK BOLT SHOULD BE USED FOR ALL INSTALLATIONS

Using the GM Factory Bolt

Note! The GM factory bolt is a 1-time use bolt! Directions are for installing a new bolt only, part #951499 for wet sump LS or part #951500 for LS7 / LS9.

LS CRANK BOLTS

OEM GM - LS1/2/3/6, L92
& '2014+ LT1/ LT4 Wet Sump 951499

OEM GM - LS3/7/9
& '2014+ LT1/ LT4 Dry Sump.....951500

LS1/2/3/6 and L92 - ARP.....951503

1. Use the ATI Puller/Installer (# 918999) with Adapter for LS1/LS7 (#918999SC) or similar damper puller to install the hub. Use your old bolt to finish seating the damper and torque to 240 ft/lbs, then remove and discard it.
2. Use and install a new bolt and tighten to 37 ft/lbs. We recommend Blue or Red Loctite here if you are doing any high performance driving with this engine.
3. This step is to get a reference on the front of the engine: With the torque wrench hanging at the spot where the 37 ft/lbs was achieved, reference 140° clockwise for another tightening cycle. Put a mark or a piece of tape where you need to tighten.
4. Then go another 140° from the 37 ft/lbs starting point and you are now tight.

If using an aftermarket ARP Bolt for any LS damper, or bolt #951359 (16 mm, 10.9 grade supplied with Super Damper part numbers 918844, 918845, 918852 and 918855):

1. Apply high temperature RTV to both sides of the washer prior to installation.
2. Use 262 Red Loctite and tighten to 230 ft/lbs.