INSTALLATION INSTRUCTIONS

#SUM-161350, #SUM-161358, #SUM-161400, #SUM-162396, #SUM-162454
Small Block and Big Block Chevrolet Nodular Iron Crankshaft Harmonic Dampers

Note: SUMMIT Nodular Iron Crankshaft Harmonic Dampers are designed to be a direct replacement of the original Harmonic Dampers used on your vehicle. They are however made of durable nodular iron instead of simple gray iron and feature a bonded elastomer (rubber) between the inner hub and outer ring which virtually eliminates any rotation of the outer ring, a common problem with stock dampers. Our dampers also feature bolt-in counterweights which provide a great degree of accuracy and flexibility if you are balancing your engine or decide to switch the damper from an external balanced engine to an internally balanced one, or vice-versa.

1. Engine must be completely cold.
2. Remove original Damper, using a Damper puller or removal tool.
3. Check the end of the crank snout to ensure that it has been drilled and threaded 7/16" UNF (some early model cranks require this modification).
4. Inspect crankshaft snout to ensure there are no burrs or rust, if required polish with very fine emery paper or steel wool, wash clean.
5. Examine key, should the key be damaged or loose in the key-way groove of the crankshaft, install a new key.
6. Replace the front timing cover oil seal.
7. The SUMMIT Damper can be installed just like any other Damper using a Damper installation tool. However, you can make installation much easier by immersing the Damper in boiling water for 15 minutes, or placing in a pre-heated oven at the lowest temperature (max. 250°F or 120°C) for 15 minutes. This process will expand the hub of the Damper.
8. If you are NOT using a professional installation tool, it is ESSENTIAL that the Damper be pre-heated as outlined in step 7 above, to expand the hub. All subsequent steps will need to be followed carefully.
9. Smear crank snout and the timing cover oil seal with clean oil.
10. If you are not using a Damper installation tool, remove Damper from boiling water (or oven), using insulated, heat proof gloves. Smear bore of Damper with oil.
11. Immediately locate Damper onto the crankshaft and rotate until the hub locates in the key-way.

IMPORTANT - DO NOT ALLOW DAMPER TO COOL.

12. If using a professional Damper installation tool, install the Damper following the instructions supplied with your installation tool and ignore step 13.
13. If you are not using an installation tool, quickly, utilizing a block of aluminum to protect the machined face, drive the Damper on the crankshaft.
14. Promptly reinstall the Damper retaining bolt and washer and tension to 65 lb/ft torque.

NOTE: Use LOCTITE to secure the crankshaft and pulley bolts.

15. Check that the pulley alignment is correct.
16. Recheck for adequate clearance of all components before re-starting engine.

*** Special Note for Externally Balanced Dampers.**
Externally balanced dampers have bolt-in counterweights. The counterweight can be removed allowing the Damper to be used on an internally balanced engine. Counterweights are also sold separately and may be added to use an internal style damper on an externally balanced engine.

NOTE: Chevrolet has used two different TDC locations. The SUMMIT Damper is designed to be used in-conjunction with the aftermarket "bolt-on" style timing tab indicator. Refer website for timing pointers.

Should you have any difficulty fitting your SUMMIT Damper, please call:
SUMMIT Technical Department Tel: (330) 630 0240 SUMMIT Customer Service Tel: (800) 517 1035

WARNING! This Nodular Iron Harmonic Damper has been spin tested for one hour at 8,000 rpm by the official SFI Test Lab. However these are static tests unlike the dynamic workout that a damper receives when on an engine. As a result we do not recommend that these dampers be utilized in applications over 6,000 rpm. You must observe this warning! **WARNING: DO NOT use these dampers in any racing application.** For racing, we recommend our Summit line of SFI-Spec. dampers.