INSTALLATION INSTRUCTIONS

INSTALLATION INSTRUCTIONS FOR THE FOLLOWING:

#24270 Ford 5.0L V8, 1981 model & later only (externally bal. 50 in.oz.) This model is drilled for both 3 and 4 bolt pulleys, and suit internally balanced engines upon removal of bolt-in counterweight- see note below.

NOTE: PRO/STREET Nodular Iron Crankshaft Harmonic Dampers are designed to be a direct replacement of the original Crankshaft Damper 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 water pump.

3. Remove original Damper carefully, using Damper Puller or removal tool.

4. Ford has used three different TDC (Top Dead Center) locations in the SB V8 engine family and to accommodate all timing pointer locations, the PRO/STREET Damper has been engraved with 3 sets of timing marks, only one will be used in timing operations. To determine which set of timing marks to use on your PRO/STREET Damper you can either compare to the original Damper by aligning keyways and marking the appropriate set of timing marks on the PRO/STREET Damper which correspond to the timing marks on the original Damper. Alternatively, on your engine, rotate the crankshaft until the key in the crank snout is pointing straight up in the 12 o'clock position. Temporarily align the PRO/STREET Damper keyway with the key in the crank snout and observe which set of timing marks on the Damper lines up with your timing pointer.

   Once you have determined which timing marks suit your engine, you may want to highlight the degree mark for your initial timing setting (or full advance setting if you power time your engine) with paint, or white-out. White or yellow will show up best.

5. Inspect crank snout and ensure there are no burrs or rust. If required polish with very fine emery paper or steel wool, wash clean.

6. Examine key, should the key be damaged or loose in the keyway groove of the crankshaft, install a new key.

7. Replace the front timing cover oil seal.

8. The PRO/STREET Damper can be installed just like any other Damper using a Damper installation tool. However, you can make installation much easier by placing Damper 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.

9. If you are NOT using a professional installation tool, it is **ESSENTIAL** that the Damper be pre-heated as outlined in step 8 above, to expand the hub. All subsequent steps will need to be followed carefully.

10. Smear crank snout and the timing cover oil seal with clean oil.

11. If you are not using a Damper installation tool, remove Damper from oven using insulated, heat proof gloves. Smear bore of Damper with oil.

12. Immediately locate Damper on to the crankshaft and rotate until the hub locates in the keyway.

IMPORTANT - DO NOT ALLOW DAMPER TO COOL

13. If using a professional Damper installation tool, install the Damper following the instructions supplied with your installation tool and ignore step 14.

14. 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.

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15. Promptly reinstall the Damper retaining bolt and washer and tension to 90 lb/ft torque.

16. Ford has used many different styles of Dampers with various pulley spacings, bolt hole and spigot combinations, therefore it is necessary to identify the Damper originally fitted to your engine by measuring with a steel rule through the bore of the original Damper to establish the overall length, then refer to the respective instructions shown in the table below:

For dimension	3" refer (A)	3 3/16" refer (B)
	3 3/8" refer (C)	4" refer (D)

(A) This Damper utilizes an internal hollow boss to locate the crank pulley, no sleeve, circlip or spacers are required. Install pulley using the original bolts.

(B) This Damper utilizes an external raised boss to locate the crank pulley. Only the tubular sleeve is used with the circlip fitted in the circlip groove located at the stepped shoulder. Fit the sleeve into the centre hub of the Damper and, with the circlip located between the Damper face and the crank pulley, fasten using the original bolts.

(C) This Damper utilizes a tubular sleeve with a circlip at the center position circlip groove, together with 4 short spacers located between the Damper face and the crank pulley. Fasten with 4 new 1" long x 3/8" U.N.C. Hi-Tensile bolts (Min. grade 6) and tension to 32 lb/ft torque.

(D) This Damper utilizes a tubular sleeve as in (C) together with both 4 short and 4 long spacers located between the Damper face and the crank pulley. Fasten with 4 new 1 1/2" long x 3/8" U.N.C. Hi-Tensile bolts (Min. grade 6) and tension to 32 lb/ft torque.

NOTE: Use LOCTITE to secure the crankshaft and pulley bolts and spigot sleeve in Damper.

17. Before reinstalling water pump, ensure there is a minimum of 1/8" clearance between Damper ring and the water pump housing, check that the pulley alignment is correct. **WARNING**: Some cast iron water pumps have a casting lug which must be ground off to clear Damper ring.

18. Re-check for adequate clearance of all components before re-starting engine.

*** Special Note for Internally Balanced Engines.**

For special internally (neutrally) balanced engines, simply unscrew two socket head cap screws and remove the counterweight before commencing installation.

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 PRO/RACE and PRO/SPORT lines of SFI-Spec. dampers.

Should you have any difficulty fitting your PRO/RACE "All Steel" Crankshaft Vibration Damper, please contact:

PRO/RACE Performance Products
Email: tech@pro-race.com
Website: www.pro-race.com

OR alternatively please contact your place of purchase or closest Distributor.