

# INSTALLATION INSTRUCTIONS

### **INSTALLATION INSTRUCTIONS FOR THE FOLLOWING:**

# 32560 - GM LS1 Camaro & Firebird, LS2 GTO 25% Under Drive Damper.

- **Important**: Before attempting installation, please read these instructions and note the Supplementary instructions for <u>Australian installations</u> below.
- **NOTE:** The PRO/SPORT SFI Bonded Steel Crankshaft Damper has a specially machined inner bore, sized for an interference fit to the crankshaft which requires special attention prior to installing. The 32560 and 32561 are designed with a reduced diameter to under drive the accessory system by 25% and will require a new poly-V belt(s) of a suitable length dependant on the configuration and accessory pulleys fitted to the vehicle.

These will need to be purchased prior to damper installation.

**WARNING**: Engine cooling and battery charging may not be adequate in city driving with heavy stop/start traffic.

- 1. Engine must be completely cold.
- 2. Remove poly-V belt(s).
- 3. Remove original Damper, using a Damper puller or removal tool. Note the front of the Damper has three machined holes to facilitate use of a Damper puller for removal.
- 4. Inspect crank snout to ensure there are no burrs or rust, if required polish with very fine emery paper or steel wool, wash clean.
- 5. OEM crankshafts are not machined with a key-way groove, however the PRO/SPORT damper has been machined to accept 3/16" keys for circumstances when an aftermarket crankshaft with key-way groove is used, or if the OEM crankshaft has been custom machined. If appropriate install a new key in the crankshaft key-way groove and ensure the height of the key does not hinder damper installation.
- 6. Replace the front timing cover oil seal.
- 7. The PRO/SPORT Damper can be installed just like any other Damper using a Damper installation tool. However, you can make installation much easier 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.
- 8. If you are <u>NOT</u> 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 case oil seal with clean oil.
- 10. If you are not using a Damper installation tool, remove Damper from oven, using insulated, heat proof gloves. Smear bore of Damper with oil.
- 11. Immediately locate Damper on to the crankshaft. If a custom keyway and key is fitted, rotate damper 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 aluminium which fits into the recess of the damper to protect the machined hub face, drive the Damper hub onto the crankshaft. DO NOT drive the damper onto the crankshaft by the outer ring!



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- 14. Install and tighten the old crankshaft Damper bolt to 240 lb/ft, make sure the damper is fully seated. Remove and discard the old crankshaft Damper bolt.
- 15. Install a new OEM crankshaft Damper bolt GM #12557840 and tighten to 37 lb/ft, then tighten to final torque by turning an additional 140 degrees.

### **NOTE:** Use LOCTITE to secure the crankshaft bolt.

16. The smaller (under drive) diameter of the 32560 and 32561 will require new poly-V belt(s) of a suitable length to be fitted. Some known belt lengths are listed below for certain applications, however due to the variety of accessory drive configurations between vehicles using the same engine it may be necessary to trial fit a shorter belt(s) accordingly. Install appropriate belts and ensure adequate belt tension exists.

### **NOTE**: LS1 F bodies, use Goodyear 4060763 & 4040377. GTO LS2, use Goodyear 4060760 & 4040405.

17. Recheck for adequate clearance of all components before re-starting engine.

#### Supplementary Instructions for Australian installations of #32560

The Australian applications for these models are listed below.

32560:GM V8 25% Under drive - LS1 Camaro & Firebird.LS2 GTO LS1 5.7L, 6L L76 V8 Holden Commodore VT-VZ 1999-06

Please follow installation instructions supplied with your PRO/SPORT damper.

The smaller (under drive) diameter of the 32560 and 32561 will require new poly-V belt(s) of a suitable length to be fitted. Some known belt lengths are listed below for certain applications, however due to the variety of accessory drive configurations between vehicles using the same engine it may be necessary to trial fit a shorter belt(s) accordingly. Install appropriate belts and ensure adequate belt tension exists.

For validation purposes, the belt length in mm is part of the belt part number, e.g., 6PK1930 – is a 6-rib belt of length 1930mm. The length could be approximated to validate length prior to purchasing belts.

**32560**: LS1 5.7L, 6L L76 V8 Holden Commodore VT-VZ 1999-06 Suggested drive belts are Dayco or equivalent 6PK1930 and 4PK1015.

If you have any problems installing your PRO/SPORT Damper, please contact:

PRO/RACE Performance ProductsEmail:tech@pro-race.comWebsite:www.pro-race.com

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