



Installation Instructions

CT GOLD DAMPER

Step 1 – Tools & Procedures

- EQUIPMENT: Damper Installation Tool
- Anti-seize Compound
- The Proper Size Key
- Whenever it's necessary to remove a vibration damper, only a proper puller tool should be used.
- Do not use hammers or pry bars to install or remove Fluidampr, this can cause damage to the Fluidampr resulting in engine damage and will void your warranty.
- Honing or machining Fluidampr bore is not recommended. A diametrical press fit of .0005" to .0015" is recommended for proper damper function. Using a micrometer, make sure to measure the crank snout and the inner bore of Fluidampr to assure proper fit.

Step 2 - Balancing

EXTERNALLY BALANCED ENGINES

PART NUMBERS: 80251E, 80252E, 80253E, 80254E

REPLACING THE DAMPER -Fluidampr counterweights have been designed to OEM specifications. If the damper being replaced has never been altered, Fluidampr can be installed with no additional balancing.

BALANCING OR MATCH BALANCING -Fluidamprs designed for externally balanced engines include the damper ring (A) bolted to a counter-weighted hub (B). See photo below.



Damper Ring (A)

Counterweighted Hub (B)

BOLT TORQUES -TWO PIECE FLUIDAMPRS

Part Number	No. of Bolts	Torque
80250E, 80251E, 80252E, 80253E, 80254E, 80255E, 80256E, 80257E,	6 SOC. HEAD	50 FT-LBS.

FOR ALL PART NUMBERS WITH BOLTS



WARNING: IF YOU DISASSEMBLE THE FLUIDAMPR, FAILURE TO CORRECTLY REASSEMBLE FLUIDAMPR USING ALL THE BOLTS TORQUED PROPERLY WILL VOID THE WARRANTY, AND COULD RESULT IN DAMPER SEPARATION DURING ENGINE OPERATION

INTERNALLY BALANCED ENGINES

62260D 80250E* 80255E* 80256E* 80257E*

* NOTE: It is not necessary to remove the bolts or disassemble the Fluidampr during installation. The 6 socket head bolts should be torqued to 50 ft-lbs.

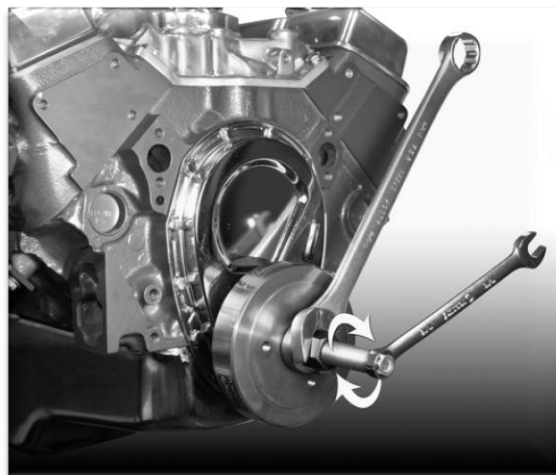
- DO NOT DRILL IN THE DAMPER RING (A).
- Each Fluidampr component is precision balanced during manufacturing, so NO additional balancing is required.
- DO NOT DRILL FLUIDAMPR -the inertia ring and silicone fluid are in a hermetically sealed housing. Drilling can cause silicone fluid to leak, causing damper failure and resulting in engine damage.
- CT Gold Fluidamprs can be balanced with the rotating assembly. Simply install the damper assembly on the end of the crankshaft and then balance the crank masses using standard procedures.

Step 3 – Fluidampr Installation

- Carefully remove burrs, scratches, or nicks on the crank snout by filing and polishing the snout so that it's smooth and free of surface irregularities. Remove any sharp keyway corners. The key should fit snugly in the keyway. A heavy press fit creates high stress on the slot and should be avoided. If you have to use a hammer for anything other than a light tap to install the key, the key is too wide. Replace the key if it is too tight, too loose or if its condition is questionable.
- Coat the crankshaft snout and damper inside diameter with an anti-seize compound or moly grease to prevent galling during installation.
- Place the damper on the crank snout, and thread the installation tool into place. It will take a little effort to tighten the installation tool nut.
- As you tighten the nut on the installation tool, you should meet smooth steady resistance until the damper is fully seated against the timing gear or spacer.

Engine	Torque
Chevy Small Block	70 ft-lbs
Chevy Big Block	110 ft-lbs
WARNING: Failure to use a properly torqued crank bolt will void warranty and could result in damper inner bore, key or crank snout damage.	

- If resistance increases dramatically, (aside from when the damper seats fully), something is wrong. Find out what it is before proceeding.
- BE SURE FLUIDAMPR IS ALL THE WAY ON! When the damper is fully seated, remove the installation tool and install a new crankshaft bolt and washer. Tighten the bolt to the engine manufacturer's recommended torque specification:



Step 4 – Timing Check

- Check the ignition timing marks. Some engines have been equipped with different timing tabs over the years. The engine's tab may not be positioned the same as the one for which Fluidampr is designed.
- Use the positive stop method to locate true Top Dead Center (TDC). Remark or relocate the timing tab as required.
- Finding TDC -Top Dead Center may be found by installing a positive stop on top of the block (if the heads haven't been installed) or by threading a positive stop into the number one spark plug hole. Adjust the stop so that it contacts the piston at 15 to 30 before TDC. Mount a degree wheel to the damper and install a pointer on the block. Carefully rotate the crankshaft by hand_clockwise until the piston contacts the stop. Be careful as the position approaches TDC-what you want is positive stop, not a hole in the piston. Note the reading on the degree wheel. Then rotate the crankshaft counterclockwise until the piston once again contacts the stop and note the reading again. TDC is located exactly halfway between the two readings (within the area the engine did not rotate). Adjust the pointer as required. If you don't have a degree wheel, mark the damper next to the timing pointer "0" mark at each positive stop. Then divide the distance in half. That is TDC.

Step 5 – Pulley Installation

- Accessory drive pulleys should be piloted on the damper or pulley mandrel. Otherwise, they will run out of round, causing side loads on the crankshaft.

Warranty

LIMITED WARRANTY: All Fluidampr's are warranted to be free from defects in workmanship and materials for a period of one (1) year from the DATE OF PURCHASE. A copy of the sales receipt showing DATE OF PURCHASE must be presented at the time of warranty claim. In the unlikely event you need to make a claim, for warranty consideration, you must contact Horschel Motorsports for a returned goods authorization number. During the warranty period, Horschel Motorsports will repair or replace, at our discretion, any part or parts that are determined by Horschel Motorsports to be defective due to workmanship or materials. Transportation charges for return of defective parts must be PREPAID by the purchaser. THIS WARRANTY DOES NOT INCLUDE AND IS NOT LIMITED TO THE FOLLOWING: • Failure due to improper installation or maintenance.

• Loss or injury incurred from use or operation of Horschel Motorsports products. • Misuse, abuse, or unauthorized repairs. • Removal or replacement cost. • Cost incurred due to downtime of vehicle. • Damage to other engine or vehicle components. • Normal wear and tear.