## APPLICATION GUIDE

**20310, 20311**
Chevrolet Small Block Engines:
V6 200, 229, 262
V8 262, 265,267,283,302,305,307,327,350L,400
(Except with Factory Roller Cam)

**20315, 20316**
Chevrolet Small Block Engines:
(with Factory Roller Cam)
V6 262 V8 305,350

**20320, 20321**
Chevrolet Big Block Engines:
V8 396, 400, 402, 427, 454

**20325, 20326**
Chevrolet Big Block Gen VI Engines:
V8 454, 502

**20360, 20361**
Chrysler Big Block Engines:
(with 3 Bolt Cam)
V8 383, 400, 413, 426 Hemi

**20330, 20331**
Pontiac Engines:
V8 287, 316, 326, 347, 350M, 350P, 370, 389, 400, 421, 428, 455

**20340, 20341**
Ford Small Block Engines:
V8 289, 302, 5.0L 302 H/O, 351 Windsor, 351W H/O

**20345, 20346**
Ford Engines:
V8 351C, (2BBL & 4BBL), 351M, 400

**20350, 20351**
Ford Big Block Engines:
V8 429, 460

## STANDARD WARRANTY POLICY

DUE TO THE INTENDED USE OF PERFORMANCE APPLICATIONS, JEG'S WARRANTIES THIS PRODUCT FOR 90 DAYS FROM THE DATE OF PURCHASE. INSTALLATION OF THESE PARTS COULD AFFECT THE VEHICLE MANUFACTURERS WARRANTY COVERAGE.

JEG'S IS NOT LIABLE FOR INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH THE USE OF THE ITEM PURCHASED.

WARNING: Not Legal For Sale on Pollution Controlled Vehicles. Modifications of the timing system may cause increased emissions. Refer to local, state, and federal vehicle emission regulations before installing this product. Installation of this product may be illegal under certain local, state, and federal laws.

JEG'S Performance Products
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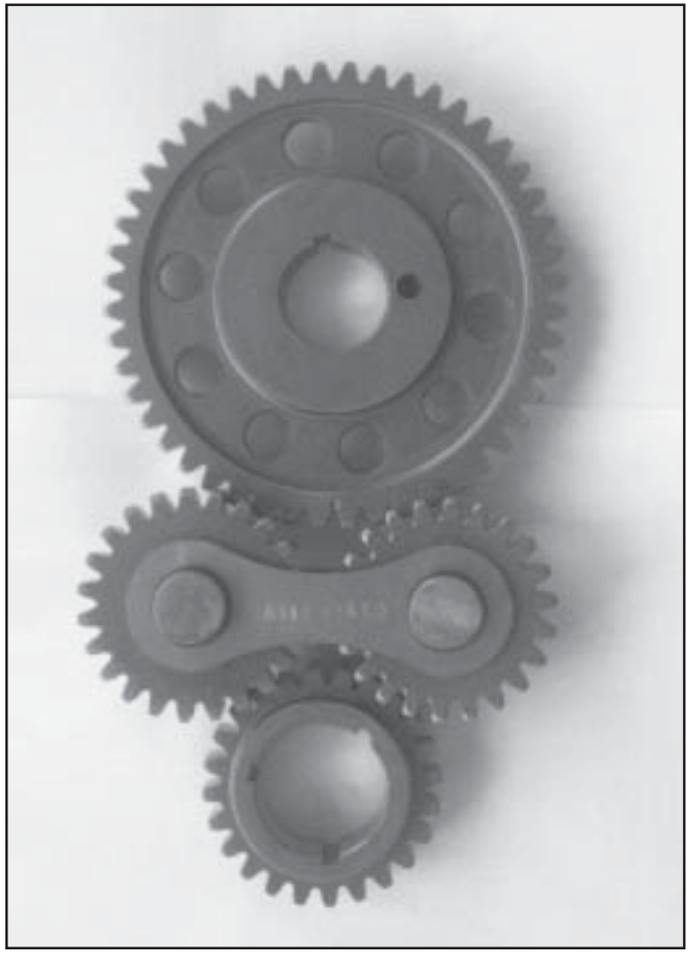
SA007P

JEG'S Performance Products

# GEAR DRIVE INSTALLATION INSTRUCTIONS

*PONTIAC V8 (20330, 20331)*



# INSTALLATION INSTRUCTIONS

## PONTIAC V8

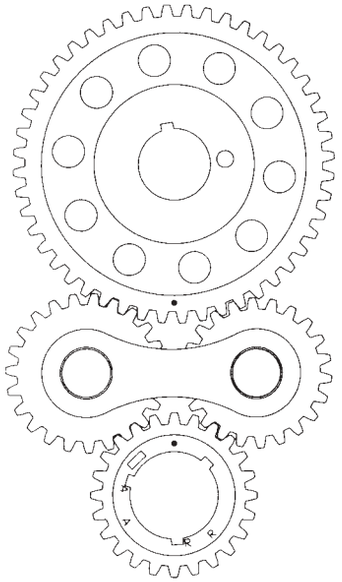
THIS SET IS DESIGNED TO ENHANCE AND INCREASE ENGINE SOUND. ALL GEARS ARE MADE FROM A HIGH ALLOY STEEL, CASE HARDENED TO PROVIDE A DURABLE, HIGH STRENGTH, WEAR RESISTANT SET.

This set is equipped with a 3 keyway crank gear to provide standard factory timing, 4 degrees camshaft advance,and 4 degrees camshaft retard. Aligning “0”, “A”, and “R” mark on crank gear with the “0” mark on cam gear provides these 3 valve timing options.

INSTALLATION

**Step 1:**
Remove stock timing cover. Rotate engine to top dead center of cylinder #1 so that the timing marks on the original crank and cam sprockets are directly lined up with each other, i.e. the mark on the crank sprocket will be at 12 o’clock (straight up) and the mark on the cam sprocket will be at 6 o’clock (straight down).

**Step 2:**
Remove sprockets and chain.



**Step 3:**
Install cam gear on camshaft. Install washer (fuel pump eccentric if required) and cam bolt. Using a torque wrench, tighten cam bolt to 20-28 foot-pounds.

**Step 4:**
Select the keyway for the timing setup desired. Align crank gear keyway to the keystock on the crankshaft. Press or tap (on the hub only) crank gear in place. When using cam retard (R) or cam advance (A), rotate crank 4 degrees to align the mark straight up at 12 o’clock (and permit installation of the idler assembly). **CAUTION: DO NOT ROTATE THE CRANKSHAFT BY GRIPPING THE GEAR TEETH.**

## Clearance Test

DOGBONE INSTALLATION

**Step 5 *(figure 2)*:**
Install dogbone idler assembly as follows; Power Idler (large) gear must be installed on left side. Put idler gear assembly about halfway in so idler shafts contact cover upon installation. Fit-up cover with gasket in place. Cover should seat completely on gasket face. **DO NOT BOLT COVER IN PLACE.** Remove cover and check clearance between idler studs and block. Clearance should measure .005” to .075” for proper operation.

In operation crankshaft gear will force Power Idler (large gear) into tight mesh with camshaft gear as crankshaft rotates clockwise.
Reverse Idler (small gear) should have free vertical movement of .005”-.075” when drive idler gear is in tight mesh with cam and crank gears.
Gear damage will occur from excessive friction if Reverse Idler (small gear) does not have sufficient running clearance.

## Alternate Clearance Test

Clearance Putty can be used to accurately check axle to block end clearance. **DO NOT TRAP AXLES** between the block and front cover.

Use clearance putty as follows: place a thin piece of putty between the block and the axle. **WITHOUT USING A GASKET,** hand tighten the timing cover in place, then remove to check axle to block end clearance. There should be a very thin film of clearance putty remaining on the Power Idler axle. This assures that after installation of a gasket the proper .005” to .075” clearance is maintained.

**Step 7:**
Bolt timing cover in place and test.

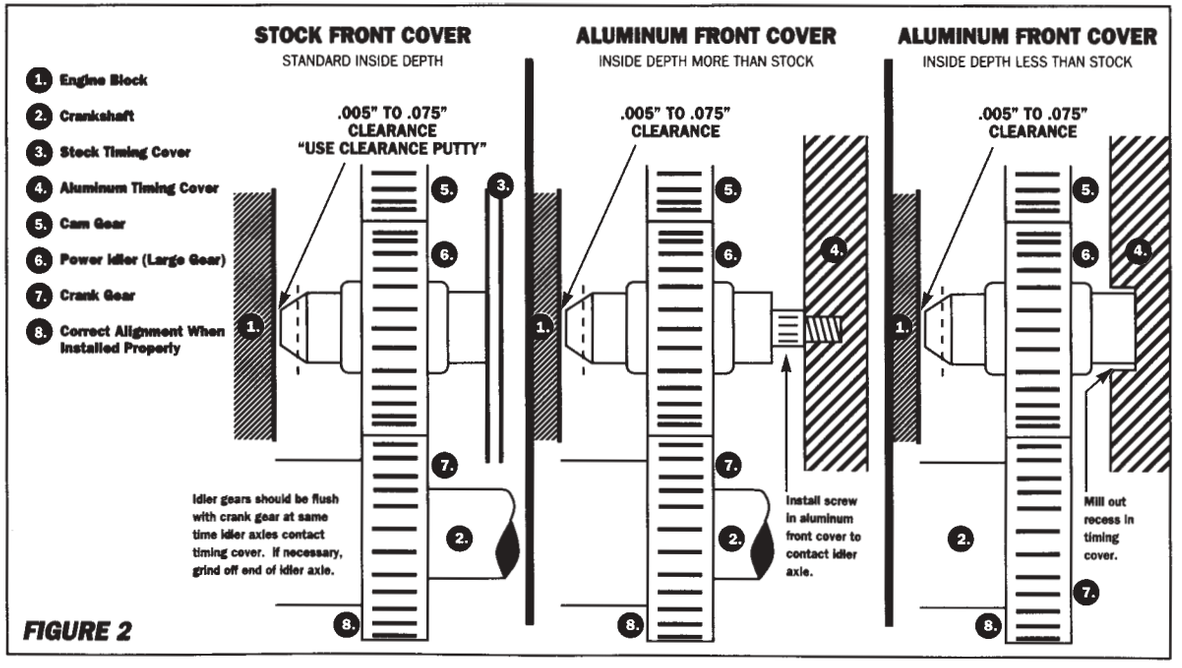


FIGURE 2