

## 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.



1-800-345-4545 [jeps.com](http://jeps.com)

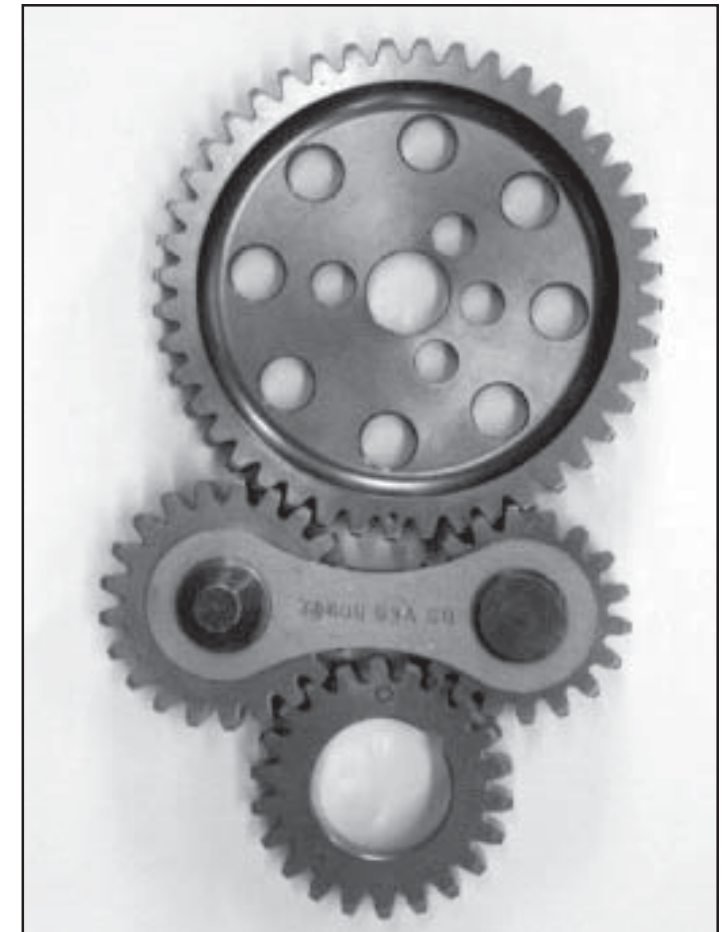


## GEAR DRIVE INSTALLATION INSTRUCTIONS

CHEVY SMALL BLOCK (20315, 20316)

(WITH FACTORY ROLLER CAM)

CHEVY BIG BLOCK GEN VI (20325, 20326)



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).
2. Remove sprockets and chain.
3. To insure proper clearance, replace cam thrust plate bolts with button head allen bolts included in the hardware kit. Secure bolts with Loctite.
4. Install cam gear with press fit thrust bearing included. Rotate the cam gear to make sure it moves freely and has clearance from cam thrust plate and bolts. Torque enclosed cam bolts with washers to the factory spec of 21 ft/lbs.

5. Install crank gear with 3 keyway option. (See **FIGURE 2**)  
 "O" FACTORY STANDARD TIMING  
 (Same as original equipment valve timing)  
 "▲" CAMSHAFT ADVANCE, for earlier timing  
 (Provides 4° camshaft advance)  
 "□" CAMSHAFT RETARD, for later valve timing  
 (Provides 4° camshaft retard)
6. Install dog bone idler assembly as in **figure 1**.

**NOTE:** The Jeg's Gear Drive is made to fit under stock steel or a chrome replacement of the original timing cover. If you are using an aluminum cover, you might need to modify the bearing-to-cover endplay clearance.

**Failure to do so could result in a cracked timing cover or a timing malfunction.**

## Clearance Test

7. POWER IDLER (LARGE GEAR) AXLE/ENGINE BLOCK CLEARANCE TEST  
 RE-INSTALL DOG BONE IDLER ASSEMBLY AS FOLLOWS:

**Note:** In operation, idler axles are always in contact with the front cover.  
 All engine clearances between engine block and drive idler axles as shown in **FIGURE 3**.

Put idler gears about half way in, then install cover (with gasket) and push into place. Remove cover and that is where idler assembly will run. The chamfered end of Power Idler axle must **NOT** touch block, grind if necessary for at least .005" end clearance.

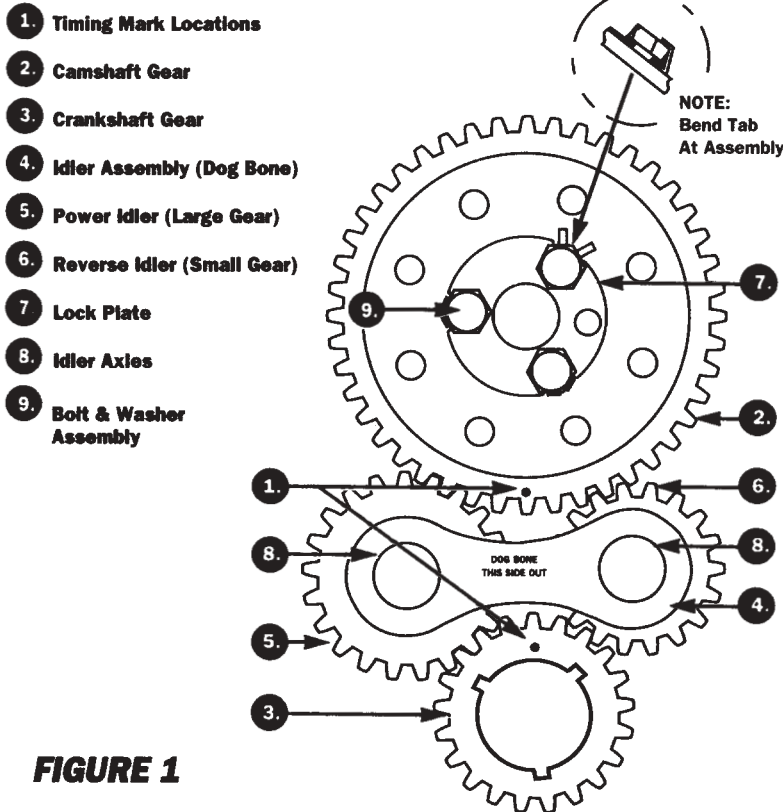
Clearance putty can be used to accurately check axle/block end clearance.  
**DO NOT TRAP AXLES** between block and front cover.

## ALTERNATE CLEARANCE CHECK:

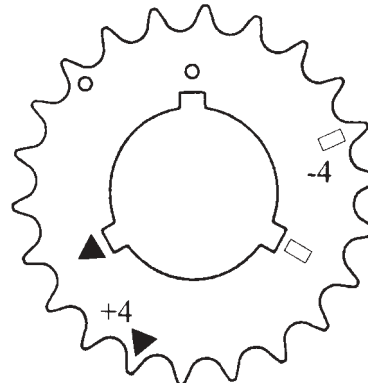
Use clearance putty as follows: place a thin piece of putty between the block and the axle. **WITHOUT USING A GASKET**, hand tighten the timing cover in place, then remove to check axle/block end clearance. There should be a very thin film of clearance putty remaining on the Power Idler axle. This assures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

**NOTE:** Must use in conjunction with Harmonic Balancer.

\* Always refer to the proper repair manual for the most specific and detailed instructions.



**FIGURE 1**



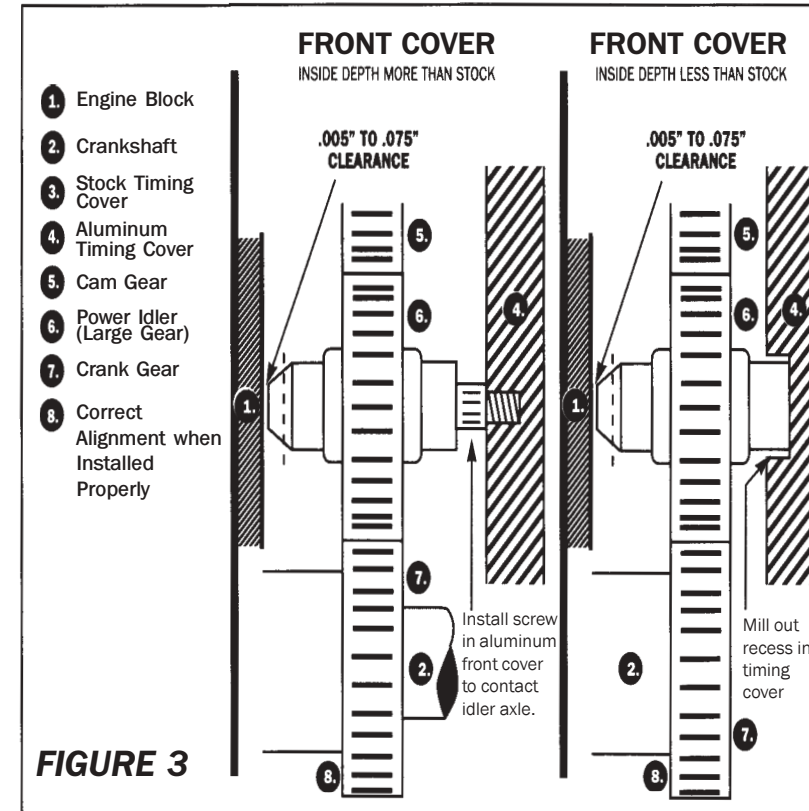
## Installation

Use keyway marked "O". Align mark at tooth rim with cam sprocket timing mark on cam/crankshaft centerline.

Use keyway marked "▲". Align mark at tooth rim with cam sprocket "O" mark on cam/crankshaft centerline.

Use keyway marked "□". Align mark at tooth rim with cam sprocket "O" mark on cam/crankshaft centerline.

**FIGURE 2**



**FIGURE 3**