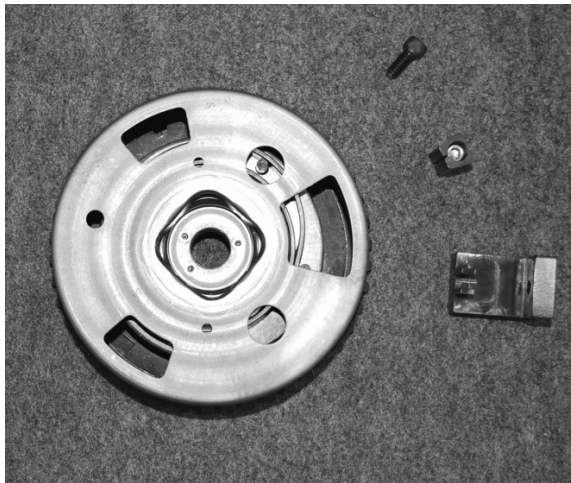




INSTRUCTIONS

5.7L & 6.4L Chrysler Hemi Phaser Lock Kit (Part #5760)

Thank you for choosing COMP Cams® products; we are proud to be your manufacturer of choice. Please read this instruction sheet carefully before beginning installation, and also take a moment to review the included limited warranty information. Contact us toll free at 1.800.999.0853 or at www.compcams.com under Tech Support with any questions.



Description	Quantity	Description	Quantity
Lock	1	Pipe Plug	1
Tool	1	Screw	1

Tools Required	
T-25 Torx Bit	Ft./lbs. Torque wrench
3/32" Allen wrench	Blue Loctite
5/32" Allen Socket	Ratchet

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Part #COMP4-156
Revised 1/4/12

Read This Pre-installation Guide Before Installing Kit !!!!!

Chrysler 5.7L and 6.4L engine cam phasers, how they work, their limitations, and how COMP uses them for making more power

What are cam phasers?

Chrysler's cam phasers are specially designed, computer controlled cam gears that have the ability to adjust camshaft position while the engine is running. They are used on all 2009 5.7L and 2011 6.4L newer engines.

How do they work?

Engine oil is pressure fed through a series of passageways in the cylinder heads and camshafts, out to the cam phasers. The engine computer controls a pair of solenoids that adjust this oil flow into, and out of, a series of chambers inside the cam gears. Located inside these chambers are vanes, attached to a spring-loaded central hub. The hub is directly attached to the camshaft, and as oil is allowed into and out of these chambers, the position of the cam can be retarded up to 38 crankshaft degrees.

Why did Chrysler put them in the engine?

Chrysler's primary reason for using cam phasers was to increase the engine's efficiency by reducing its pumping losses. Basically, when the cams are retarded 15-30 degrees, during part throttle engine operation, it takes less power to turn the engine over. This helps to increase the engine's fuel efficiency, but an additional power benefit is also realized by being able to position the camshaft for maximum power, regardless of what rpm the engine is running at. This results in an engine that makes more torque and horsepower and extends the high rpm power-band by an additional 800-1000 rpm.

Why should I modify the cam phasers with COMP's lock kit?

If there is a downside to the cam phaser as designed by Chrysler, it is that they have such a wide range of movement. Since the cam can theoretically be retarded by up to 38 degrees, there is very little piston to valve clearance in the engine. This minimal piston to valve clearance limits us to fairly small cam profiles with very little overlap; not the best for making maximum power or achieving an aggressive idle sound.

What does COMP's cam phaser lock kit do?

COMP's Cam Phaser Locks is a precision made spacer that installs into the cam gear's oil chambers. This spacer takes up all the volume that would normally be used by the factory cam gear for movement. By installing the cam phaser limiter, the cam design window opens up, allowing you to install big powerful camshafts with safe piston to valve clearances.

Why can't I just reprogram the ECU to limit cam phaser movement?

Since Chrysler's factory engine computer is programmable, the question arises as to why you can't simply program in the limits and not bother with mechanically limiting the cam phasers. Theoretically you could do that, but a problem arises if something happens that would cause the engine's rpm to shift faster than the cam phaser controls can react to. For example, if you ever missed a shift, broke a driveline part, did a clutch dump on a sticky set of slicks, or anything that could for a split second cause the cam phaser to get out of its programmed limit, the valves could crash into the pistons. By mechanically limiting the maximum movement of the cam phaser, total engine safety is assured when running a big performance cam in these engines.

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Do I have to reprogram my engine's computer after installing COMP's Cam Phaser Lock Kit?

Yes, you MUST have your engine's computer reprogrammed for the engine to operate properly after installing the cam phaser lock. The Chrysler factory computer does a diagnostic sweep test of the cam phasers upon start-up. If the computer cannot get the cam phasers to reach their programmed maximum limit, an error mode occurs. When reprogramming your computer; just make sure that the maximum retard amount entered for any of the cam phaser tables in your tuning software is set to zero.

Installation Instructions

Step 1

There are two bolts where some of the threads have been partly turned down as pins. The tool slips over one pin/bolt and is used to relieve the spring tension. The other one must remain in the phaser during the lock installation. Place the tool over the visible pin. Run the adjusting screw down until it just touches the outside face of the trigger wheel. Tighten the screw one turn. This takes the spring pressure off the pin.



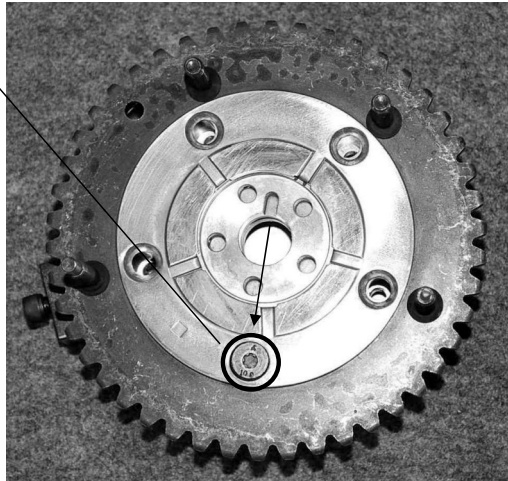
Step 2

Turn the phaser over and loosen the circled bolt/pin that's opposite of the dowel pin slot one turn (in the picture below). Proceed to remove the remaining 4 bolts.

CAUTION!

1. DO NOT COMPLETELY REMOVE THIS BOLT; SPRING WILL UNWIND!

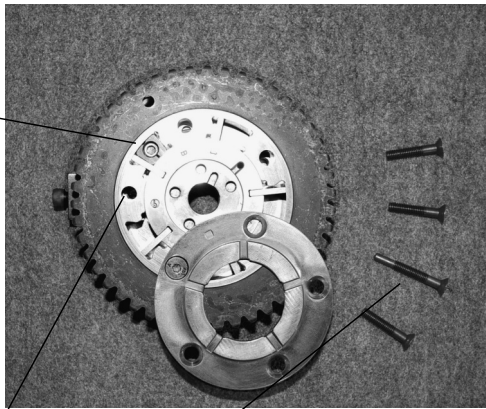
2. DO NOT REMOVE TOOL UNLESS ALL BOLTS ARE INSTALLED!



Step 3

Rotate the plate to view the internals of the phaser. Place Loctite on the pipe plug, and thread the plug into the lock. Then place the lock in the phaser, pipe plug facing up. Use your 5/32" socket and ratchet to tighten the plug until the lock does not move.

Insert lock here with the slit facing the center of phaser.



Remember the bolt/pin goes in the hole **that** the tool is over.

Step 4

Rotate the plate back around. Apply blue Loctite to each bolt before installation. Torque the bolts to 14 ft.-lbs.; remove the tool and the phaser is ready for installation.



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Competition Cams, Inc.'s obligation under this warranty is limited to the repair or replacement of its product. To make a warranty claim, the part must be returned within (1) one year of purchase to the address listed below, freight prepaid. Items covered under warranty will be returned to you freight collect.

It is the responsibility of the installer to ensure that all of the components are correct before installation. We assume no liability for any errors made in tolerances, component selection, or installation.

There is absolutely no warranty on the following:

- A) Any parts used in racing applications;**
- B) Any product that has been physically altered, improperly installed or maintained;**
- C) Any product used in improper applications, abused, or not used in conjunction with the proper parts.**

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