



## Oldsmobile Adjustable Roller Timing Set Part #3113KT

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.

*Note: The installation procedures which follow assume that the engine has been disassembled and cleaned as it would be for a normal timing set change.*

### *Tools and supplies needed:*

1. Torque Wrench
2. Degree Wheel (optional, but recommended)
3. Depth Micrometer or Good Steel Scale
4. Assembly Lube or Camshaft Lube
5. Thread Locking Compound (Loctite® #271 or equiv.)

### **INSTALLATION INSTRUCTIONS:**

1. **Prepare the Engine.** Loosen all rocker arms so that the camshaft can rotate freely.
2. **Clean Everything!** Make sure that the engine mounting surfaces and timing set components are as clean as possible. The life of the chain and sprockets depend on it.
3. **Install the Dowel Pin.** Remove the old dowel pin by clamping the pin in a vise and carefully prying the camshaft away. Trial fit the new dowel pin in the camshaft, making sure that it is fully seated in the camshaft. The pin should protrude 9/16" to 19/32" from cam nose. If the pin is too long, grind it until the length is correct. Remove the pin and apply the thread locking compound to the end of the pin. Press the dowel pin back into place, making sure that it is fully seated in the camshaft.
4. **Align the Engine.** Rotate the crankshaft until the number one piston is at top dead center. The crankshaft key should be pointing up to the right. Rotate the camshaft until the dowel pin is pointing straight up.
5. **Assemble the Timing Set.** Select the appropriate keyway and timing mark on the crankshaft sprocket for the camshaft timing baseline desired. We recommend the Standard Timing position, which uses the round timing mark and round keyway. Loop the chain over the camshaft sprocket. Align the camshaft and crankshaft timing marks and loop the chain around the crankshaft sprocket. Lift the sprocket and chain assembly into place on the camshaft and crankshaft. Slide the crankshaft sprocket onto the crankshaft while sliding the camshaft sprocket onto the camshaft. Make sure that the sprockets are fully seated on their shafts.
6. **Install the Fuel Pump Eccentric.** Install the eccentric onto the camshaft sprocket making sure that the dowel pins fully engage the proper holes in the eccentric. Be sure that the dowel pin installed

earlier does not protrude through the eccentric, or the offset washer will not seat properly. Install the old bolt and the offset washer (included) and thread it all the way in, but leave it slightly loose. The Adjustable Fuel Pump Eccentric is infinitely adjustable so you can fine adjust your engine's CAMSHAFT TIMING to EXACTLY WHERE YOU WANT IT.

7. **Adjust the Camshaft Timing.** Do NOT try to turn the camshaft with the eccentric unless there is NO LOAD on the camshaft. There must be NO VALVE SPRING PRESSURE against the camshaft or the bushing will SPLIT. Make sure that the three camshaft bolts are LOOSE. For a simple installation, adjust the eccentric to the desired timing setting. For a more accurate installation, use a degree wheel. The degree wheel method is strongly recommended.

8. **Torque Loose Bolts.** Remove the cam gear mounting bolt, one at a time, and apply the Thread Locking Compound, then torque each bolt to 300in-lb (25 ft-lb).

9. **Lubricate the Timing Set.** Make sure that the engine oil has a clear path to the timing set through the lifter valley oil drain-back holes, or through some other means. A timing set requires plenty of oil to survive. Before installing the timing cover gasket and timing cover, pour plenty of assembly lube over the sprockets and bearings.

10. **Install the Timing Cover and Gasket.** Install the timing cover gasket using a small amount of gasket sealer if desired. Mount the timing cover and install the mounting bolts. Torque these bolts as specified by the manufacturer.

#### **Limited Warranty**

Competition Cams, Inc. warrants that all of its products are free from defects in material and workmanship, and against excessive wear for a period of (1) one year from the date of purchase. This **limited warranty** shall cover the original purchaser.

**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.**

**There are no implied warranties of merchantability or fitness for a particular purpose.** There are no warranties, which extend beyond the description of the face hereof. Competition Cams, Inc. will not be responsible for incidental and consequential damages, property damage or personal injury damages to the extent permitted by law. Where required by law, implied warranties or merchantability and fitness are limited for a term of (1) one year from the date of original purchase.

This warranty gives you specific legal rights and you may also have other legal rights, which vary from state to state.



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