Installation Instructions Cloyes® 3-Keyway Crank Sprockets

The Cloyes® Patented 3-Keyway crank sprocket allows adjustment of the crankshaft timing by ± 4°. Remember: The camshaft angle is half of the crankshaft angle, therefore the camshaft will correspondingly advance or retard by ± 2°. By changing the cam timing, enhancements to the camshaft characteristics can be achieved. For example, retarding the cam timing will increase high RPM horsepower, and advancing the cam timing will increase low-end torque. The following examples illustrate which timing mark is used with its corresponding keyway:

- **GM and Chrysler**
  - **Retard keyway**
  - To retard the camshaft timing, use the □ timing mark on the crank sprocket and the retard keyway shown above.

- **GM and Chrysler**
  - **Factory keyway**
  - For factory specified timing, use the Ω timing mark on the crank sprocket and the factory keyway shown above.

- **GM and Chrysler**
  - **Advance keyway**
  - To advance the camshaft timing, use the ∆ timing mark on the crank sprocket and the advance keyway shown above.

**Notes:**

- After determining which setting to use, we advise marking (with white marker or similar) the corresponding timing mark and keyway. This will make them easier to identify during installation.

- Some high performance camshafts are ground with advance or retard built in. In this case the cam manufacturer intends the cam to be set at the factory specified timing.

- Also, during and after installation, observe for any interference between the timing set and engine block. If interference is found, remove or grind that area of the block so adequate clearance is obtained. When removing a press fit crank sprocket, a proper pulling tool should be used.