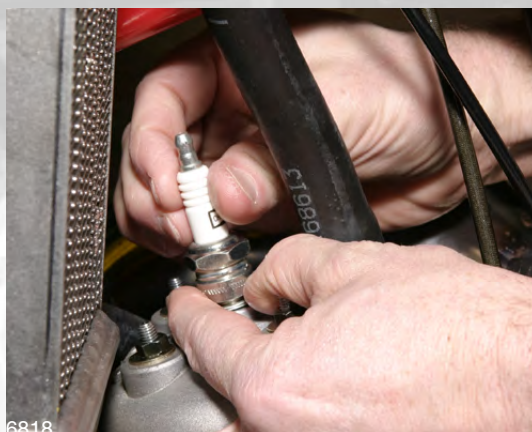


# Setting Cobra ignition timing



1. Clean debris from around spark plug area to make sure no foreign objects fall into cylinder.



2. Remove spark plug from cylinder head using a 13/16 wrench.



3. Insert Dial Indicator (Cobra part # ECMU0079) into spark plug hole.



4. Make sure dial indicator collar is tightened down snugly to cylinder head insert. A loose fit here can cause your timing to be off.

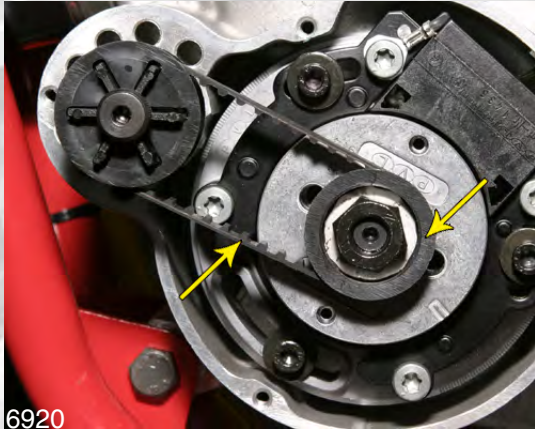


5. Remove the four socket head bolts from the ignition cover using a 3mm Allen wrench.

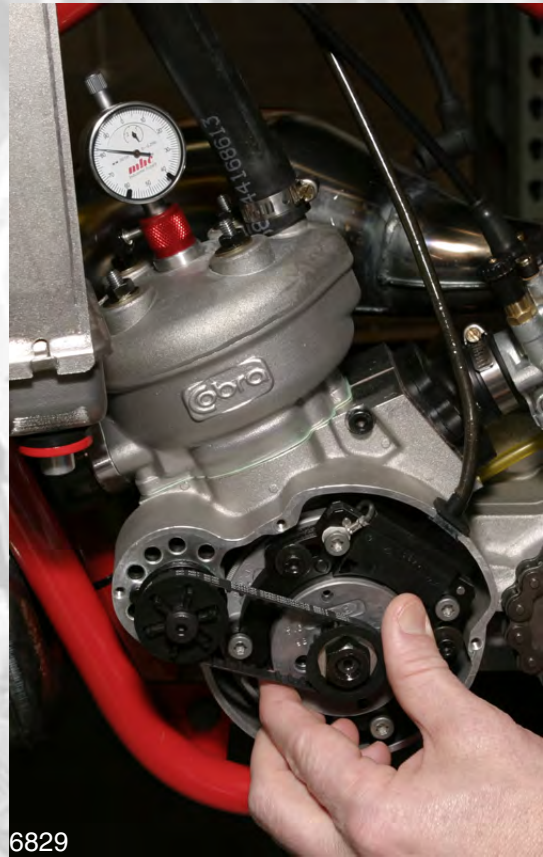


6. Remove the stator cover from the engine being careful not to tear the stator cover gasket during disassembly.

# Setting **Cobra** ignition timing



7. Note: It is not necessary to remove the water pump belt from the water pump shaft pulley and the crankshaft rotor pulley to set timing. However this belt will need to be removed to replace the stator assembly.



8. Leaving the thumbscrew loose on your dial indicator, rotate the crankshaft counterclockwise until the piston reaches Top Dead Center (TDC) Watch your dial indicator body assembly to see when the indicator starts to move up and down this will indicate your TDC reference point.



9. Now slide your dial indicator further down into the collar allowing the needle one full rotation and tighten the thumbscrew in the collar tightly to the dial indicator body.



10. With the thumbscrew tightened turn the face of the dial indicator so that the needle is set to zero. 6831 - 6834 Recheck your TDC location to make sure nothing has changed while tightening your indicator. 6832

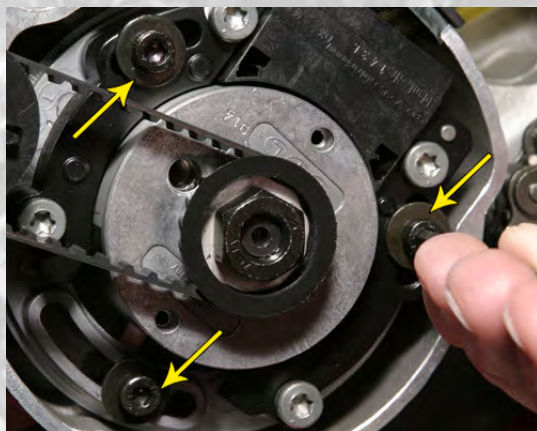
# Setting Cobra ignition timing



11. Next turn the crankshaft clockwise until the dial indicator reaches 0.040 (1.02mm) Before Top Dead Center (BTDC) or your desired setting. \*See note at bottom of page.



12. Now check to see if the line on your stator and the line on your rotor are lined up directly.



13. If these lines are not correctly lined up you will need to loosen the three socket head screws holding the stator to the engine crankcase using a 4mm Allen wrench. We suggest removing each socket head screw and applying a small amount of Blue Loctite to ensure bolts stay tight after setting timing.



14. After stator assembly is loosened up you will need to adjust the stator plate in the proper direction required to line up your timing mark lines.

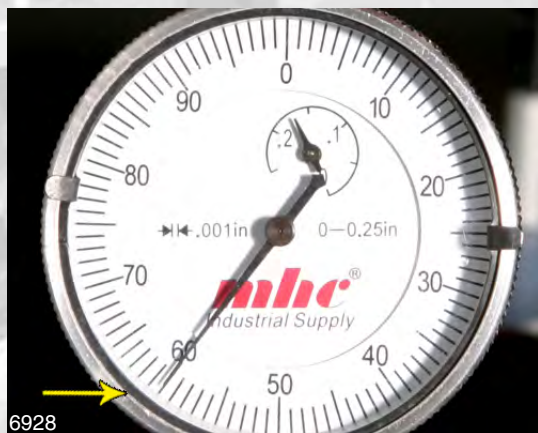


\*Note: This will be the subtracting from 0 going backwards to 60 giving you a 0.040 BTDC reading.

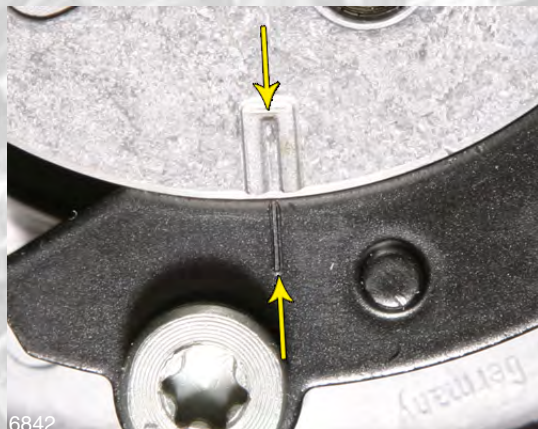
- 0.00 - 0.010 = 90      6925
- 0.00 - 0.020 = 80      6926
- 0.00 - 0.030 = 70      6927
- 0.00 - 0.040 = 60      6928

Do not turn your dial indicator back to the number 40 position. This would be 0.060 BTDC and cause the engine to not run properly.

# Setting Cobra ignition timing



6928



6842

15. After you have made the timing adjustment and your timing marks are lined up (6842) and set properly with each other recheck your dial indicator (6928) and make sure it is set correctly at 0.040 BTDC then tighten down your socket head screws firmly. (25in-lb)



16. After final tightening of your stator assembly socket head screws recheck your settings to insure proper timing before reassembly.



6823



6822

17. Reassemble stator cover and tighten down stator cover socket head screws using your 3mm Allen wrench. (20 in-lb) Be sure to align gasket properly during reassembly and replace any torn or damaged gaskets to help prevent water damage to stator assembly.



18. Remove dial indicator assembly and take care of properly.



19. Install Champion 8339 Spark plug using 13/16 wrench.

**Allegan Motorsports**  
**739 Airway Drive**  
**Allegan, MI 49010-8507**  
**PH: 1-800-475-5660**

Allegan Motorsports - <http://www.alleganmotorsports.com>  
Cobra Mini - <http://www.cobramini.com>  
Cobra Talk - <http://www.cobratalk.com>