DTC P0340: NO CAM SIGNAL AT PCM (3.3L & 3.8L)

NOTE: **For connector terminal ID, see CONNECTOR IDENTIFICATION . For wiring diagram, see WIRING DIAGRAMS article.**

NOTE: **Cam signal is monitored during engine cranking and after 64 crankshaft position sensor signals. DTC may be stored in Powertrain Control Module (PCM) when no signal is received from camshaft position sensor when crank signal exists. Possible causes are: engine does not start, defective camshaft position sensor or camshaft sprocket, defective PCM, or defective connectors or wiring.**

1. Turn ignition on with engine off. Using scan tool, check for DTCs. If GLOBAL GOOD TRIP counter is displayed and equal to zero, go to next step. If GLOBAL GOOD TRIP counter is not displayed and equal to zero, go to step 14 .
2. Turn ignition off. Disconnect connector at camshaft position sensor. Camshaft position sensor is located on top of timing chain cover, just below thermostat housing and contains a 3-pin connector.
3. Turn ignition on with engine off. Using voltmeter, check voltage at terminal No. 1 (Orange wire) on camshaft position sensor connector. If voltage is more than 7 volts, go to next step. If voltage is 7 volts or less, repair open on Orange wire between PCM and camshaft position sensor. PCM is located between driver's side front fender and power distribution center, near battery. Perform **TEST VER-5A** .
4. Turn ignition off. Using ohmmeter, check resistance between ground and terminal No. 2 (Black/Light Blue wire) on camshaft position sensor connector. If resistance is less than 5 ohms, go to next step. If resistance is 5 ohms or more, repair open on Black/Light Blue wire between PCM and camshaft position sensor. PCM is located between driver's side front fender and power distribution center, near battery. Perform **TEST VER-5A** .
5. Inspect camshaft position sensor connector for corroded, pushed out, miswired or damaged terminals. If terminals are not corroded, pushed out, miswired or damaged, go to next step. If terminals are corroded, pushed out, miswired or damaged, repair as necessary. Perform **TEST VER-5A** .
6. Ensure ignition is off. Connect one end of a jumper wire to terminal No. 3 (Tan/Yellow wire) on camshaft position sensor connector. Turn ignition on with engine off.
7. Using scan tool, read camshaft position sensor signal state while momentarily touching other end of jumper wire to terminal No. 2 (Black/Light Blue wire) on camshaft position sensor connector. If scan tool detects a change in camshaft position sensor signal state, go to next step. If scan tool does not detect a change in camshaft position sensor signal state, go to step 9 .
8. Remove camshaft position sensor. Inspect camshaft sprocket for damage. If camshaft sprocket is okay, replace camshaft position sensor. Perform **TEST VER-5A** . If camshaft sprocket is damaged, repair or replace camshaft sprocket as necessary. Perform **TEST VER-5A** .
9. Turn ignition off. Disconnect PCM connectors. PCM is located between driver's side front fender and power distribution center, near battery.
10. Using ohmmeter, check resistance between terminal No. 3 (Tan/Yellow wire) on camshaft position sensor connector and terminal No. 33 (Tan/Yellow wire) on Black PCM connector C1. If resistance is less than 5 ohms, go to next step. If resistance is 5 ohms or more, repair open on

Tan/Yellow wire between PCM and camshaft position sensor. Perform **TEST VER-5A** .

11. Ensure camshaft position sensor and PCM connectors are still disconnected. Using ohmmeter, check resistance between terminals No. 1 (Orange wire) and No. 3 (Tan/Yellow wire) on camshaft position sensor connector. If resistance is 5 ohms or more, go to next step. If resistance is less than 5 ohms, repair Orange wire and Tan/Yellow wire between camshaft position sensor and PCM as they are shorted together. Perform **TEST VER-5A** .
12. Ensure camshaft position sensor and PCM connectors are still disconnected. Using ohmmeter, check resistance between ground and terminal No. 3 (Tan/Yellow wire) on camshaft position sensor connector. If resistance is 5 ohms or more, go to next step. If resistance is less than 5 ohms, repair short to ground on Tan/Yellow wire between PCM and camshaft position sensor. Perform **TEST VER-5A** .
13. Using ohmmeter, check resistance between terminals No. 2 (Black/Light Blue wire) and No. 3 (Tan/Yellow wire) on camshaft position sensor connector. If resistance is 5 ohms or more, replace PCM. Perform **TEST VER-5A** . If resistance is less than 5 ohms, repair Tan/Yellow wire and Black/Light Blue wire between PCM and camshaft position sensor as they are shorted together. Perform **TEST VER-5A** .
14. Attempt to start engine. If engine starts, go to next step. If engine does not start, go to **TEST NS-SEL: NO START TEST SELECTION** .
15. Turn ignition off. Inspect wiring harness and connectors between camshaft position sensor and PCM. Camshaft position sensor is located on top of timing chain cover, just below thermostat housing and contains a 3-pin connector. PCM is located between driver's side front fender and power distribution center, near battery. If no problems exist, test is complete. If any problems exist, repair wiring or connectors as necessary. Perform **TEST VER-5A** .