

**POWER CIRCUIT INSPECTION** EDEFFCA0

1. Ignition "OFF"
2. Disconnect CKP sensor connector
3. Ignition "ON" & Engine "OFF"
4. Measure voltage between terminal 1 of the sensor harness connector and chassis ground

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Specification : Approx. B+

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5. Is voltage within the specification?

**YES**

- ▶ Go to "Ground Circuit Inspection" procedure

**NO**

- ▶ Check for an open in the power supply circuit between the main relay and the CKPS  
Repair as necessary and go to "Verification of Vehicle Repair" procedure

**GROUND CIRCUIT INSPECTION** EE00704C

1. Ignition "OFF"
2. Measure resistance between terminal 2 of the sensor harness connector and chassis ground

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Specification : Approx. 0Ω

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3. Is resistance within the specification?

**YES**

- ▶ Go to "Signal Circuit Inspection" procedure

**NO**

- ▶ Check for an open in the ground circuit. Repair as necessary and go to "Verification of Vehicle Repair" procedure

**SIGNAL CIRCUIT INSPECTION** EA2F1AFC

1. Ignition "ON" & Engine "OFF"
2. Measure voltage between terminal 3 of the sensor harness connector and chassis ground

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Specification : Approx. 5V

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Is voltage within the specification?

**YES**

- ▶ Go to next step as below

**NO**

▶ Check for open or short circuit or poor connection. Repair as necessary and go to "Verification of Vehicle Repair" procedure.

**COMPONENT INSPECTION** E5DF2358

1. Reconnect the CKPS and ECM connectors
2. Set up an oscilloscope as follows :  
 Channel A (+): terminal 3 of the CKPS, (-): ground  
 Channel B (+): terminal 3 of the CMPS, (-): ground
3. Start the engine and check for signal waveform whether synchronize with camshaft sensor or not and tooth is missing

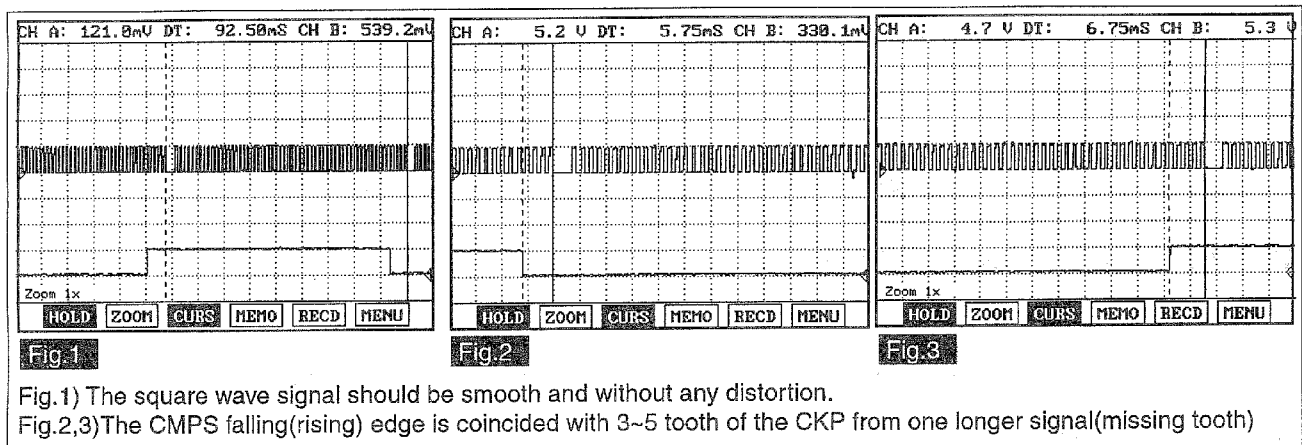


Fig.1) The square wave signal should be smooth and without any distortion.  
 Fig.2,3)The CMPS falling(rising) edge is coincided with 3~5 tooth of the CKP from one longer signal(missing tooth)

EFRF200N

4. Is the signal waveform normal?

**YES**

▶ Check for poor connection between ECM and component: backed out terminal, improper mating, broken locks or poor terminal to wire connection. Repair as necessary and go to "Verification of Vehicle Repair" procedure

**NO**

▶ Remove CKP and calculate air gap between sensor and flywheel/torque converter. Readjust as necessary and go to next step.

**NOTE**

Air gap [0.3~1.7 mm [0.012~0.067 in] = measure distance from housing to teeth on flywheel/torque converter (measurement "A") and from mounting surface on sensor to sensor tip (measurement "B") subtract "B" from "A"

If fail to synchronize with CMP sensor, readjust timing system and go to next step.  
 Check CKPS for contamination, deterioration, or damage. Substitute with a known-good CKPS and check for proper operation. If the problem is corrected, replace CKPS and then go to "Verification of Vehicle Repair" procedure

**VERIFICATION OF VEHICLE REPAIR** EE66AEAF

After a repair, it is essential to verify that the fault has been corrected.

1. Connect scan tool and select "Diagnostic Trouble Codes(DTCs)" mode

2. Press F4(DTAL) and confirm that "DTC Readiness Flag" indicates "Complete". If not, drive the vehicle within conditions noted in the freeze frame data or enable conditions
3. Read "DTC Status" parameter
4. Is parameter displayed "History(Not Present) fault"?

**YES**

- ▶ System performing to specification at this time. Clear the DTC

**NO**

- ▶ Go to the applicable troubleshooting procedure.