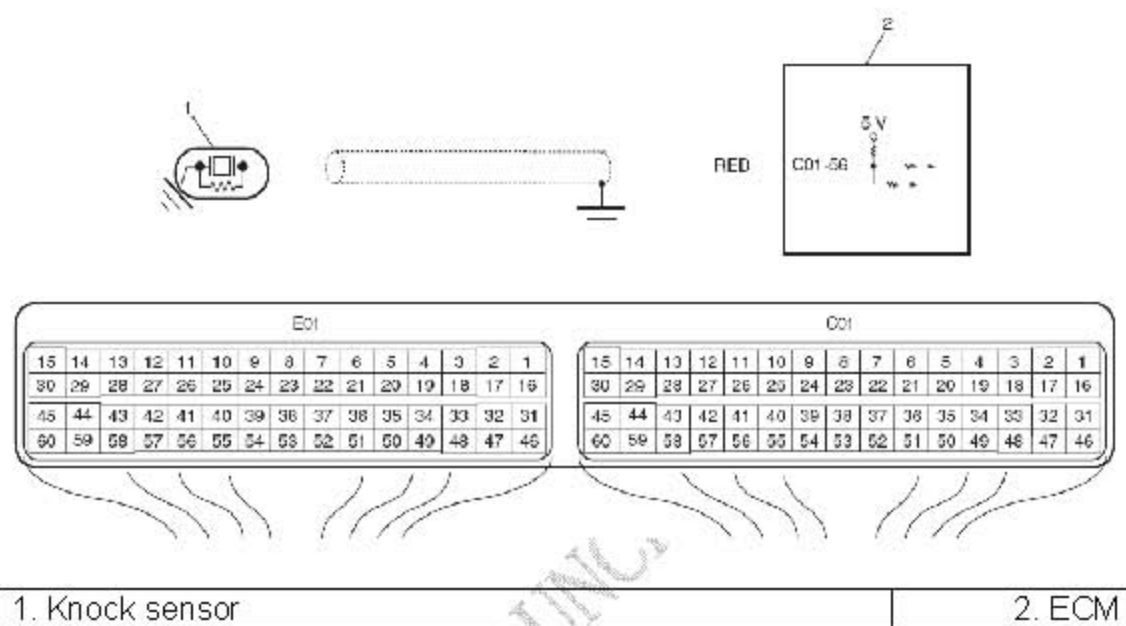


P0327 / P0328: Knock Sensor Circuit Low / High

Wiring Diagram



DTC Detecting Condition and Trouble Area

DTC detecting condition	Trouble area
DTC P0327: Voltage of knock sensor is lower than specified value with engine running. (1 driving cycle detection logic) DTC P0328: Voltage of knock sensor is higher than specified value with engine running. (1 driving cycle detection logic)	<ul style="list-style-type: none"> • Knock sensor circuit (open or short) • Knock sensor • ECM

DTC Confirmation Procedure

- 1) Connect scan tool to DLC with ignition switch turned OFF.
- 2) Turn ON ignition switch and clear DTC, pending DTC and freeze frame data by using scan tool.
- 3) Start engine and run it for 10 sec.
- 4) Check DTC by using scan tool.

DTC Troubleshooting

Step	Action	Yes	No
1	Was "Engine and Emission Control System Check" performed?	Go to Step 2.	Go to "Engine and Emission Control System Check".
2	Knock sensor circuit check 1) Remove ECM from its bracket with ECM connectors connected. 2) Measure voltage between "C01-56" terminal of ECM connector and vehicle body ground with engine running. Is voltage within 1.23 – 3.91 V?	Intermittent trouble. Check for intermittent referring to "Intermittent and Poor Connection Inspection in Section 00". If OK, substitute a known-good ECM and recheck.	Go to Step 3.
3	Knock sensor circuit for open check 1) Disconnect connector from knock sensor with ignition switch turned OFF. 2) Turn ON ignition switch, measure voltage between "RED" wire of knock sensor connector and engine ground. Is voltage 4 – 6 V?	Go to Step 6.	Go to Step 4.
4	Knock sensor circuit for open check 1) Turn ON ignition switch, measure voltage between "C01-56" terminal of ECM connector and engine ground Is voltage 4 – 6 V?	"RED" wire is open circuit.	Go to Step 5.

Step	Action	Yes	No
5	Knock sensor circuit for short check 1) Disconnect connectors from ECM with ignition switch turned OFF. 2) Measure resistance between "C01-56" terminal of ECM connector and vehicle body ground. Is resistance infinity?	Go to Step 6.	"RED" wire is shorted to ground circuit. If wire is OK, substitute a known-good ECM and recheck.
6	Knock sensor circuit for short check 1) Disconnect connectors from ECM with ignition switch turned OFF. 2) Turn ON ignition switch, measure voltage between "C01-56" terminal of ECM connector and vehicle body ground. Is voltage 0 V?	Go to Step 7.	"RED" wire is shorted to other circuit.
7	Knock sensor circuit for high resistance check 1) Turn OFF ignition switch, measure resistance between "C01-56" terminal of ECM connector and "RED" wire terminal of knock sensor harness connector. Is resistance below 5 Ω ?	Faulty knock sensor.	"RED" wire is high resistance circuit.