

DTC	P0325	Knock Sensor 1 Circuit Malfunction
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CIRCUIT DESCRIPTION

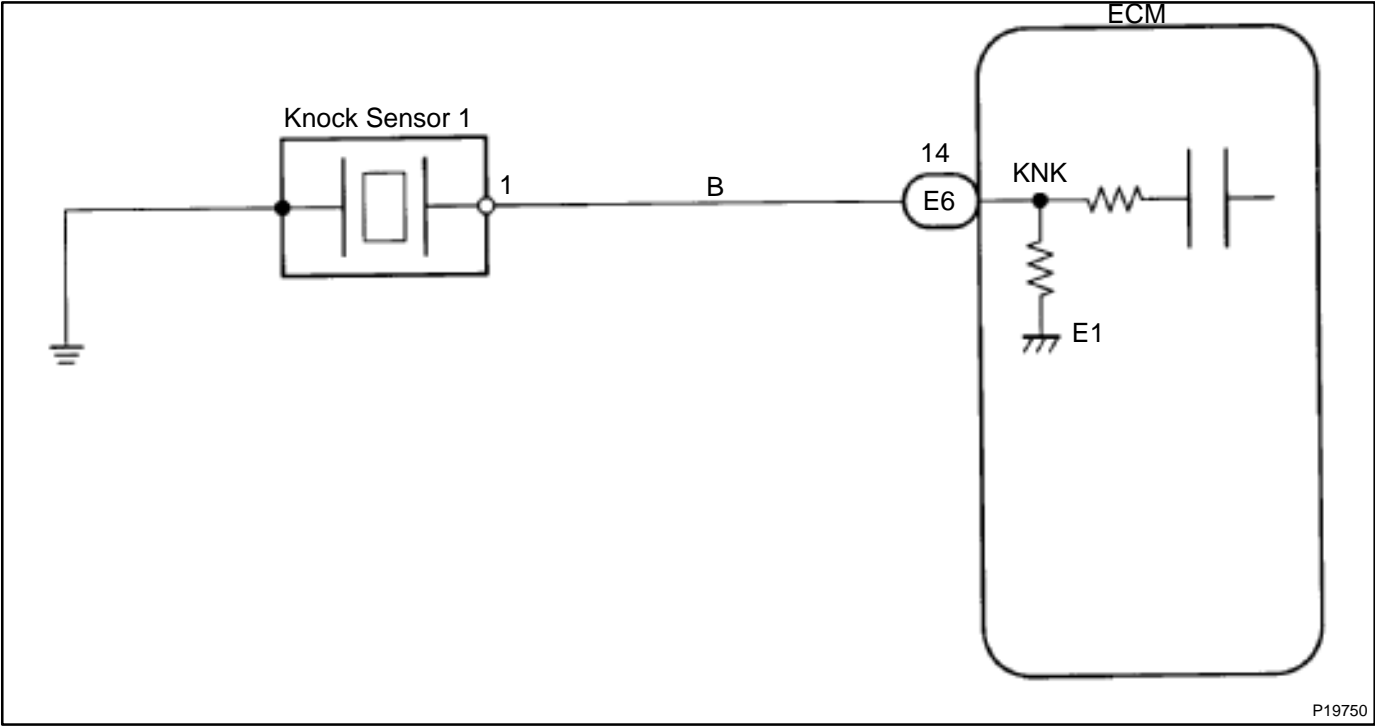
A knock sensor is fitted to the cylinder block to detect engine knocking. This sensor contains a piezoelectric element which generates a voltage when it becomes deformed, which occurs when the cylinder block vibrates due to knocking. If engine knocking occurs, ignition timing is retarded to suppress it.

DTC No.	DTC Detecting Condition	Trouble Area
P0325	No knock sensor 1 signal to ECM with engine speed, 1,200 rpm or more (2 trip detection logic)	<ul style="list-style-type: none">• Open or short in knock sensor 1 circuit• Knock sensor 1 (looseness)• ECM

HINT:

If the ECM detects the above diagnosis conditions, it operates the fail safe function in which the corrective retard angle value is set to the maximum value.

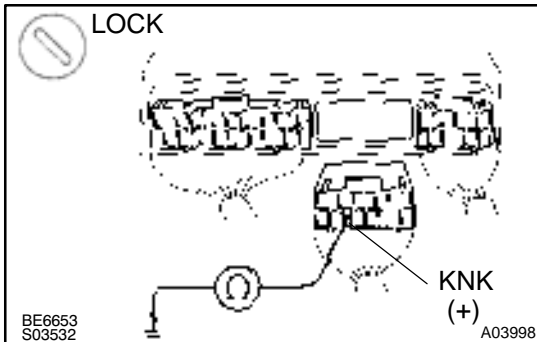
WIRING DIAGRAM



P19750

INSPECTION PROCEDURE

- | | |
|----------|--|
| 1 | Check continuity between terminal KNK of ECM connector and body ground. |
|----------|--|

**PREPARATION:**

- (a) Remove the lower finish panel.
- (b) Disconnect the "E6" connector of ECM.

CHECK:

Measure resistance between terminal KNK of ECM connector and body ground.

OK:

Resistance: 1 MΩ or higher

OK**Go to step 3.****NG**

- | | |
|----------|---|
| 2 | Check knock sensor (See page SF-52). |
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NG**Replace knock sensor.****OK**

- | | |
|----------|---|
| 3 | Check for open and short in harness and connector between ECM and knock sensor (See page IN-27). |
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NG**Repair or replace harness or connector.****OK**

4 Does malfunction disappear when a good knock sensor is installed?

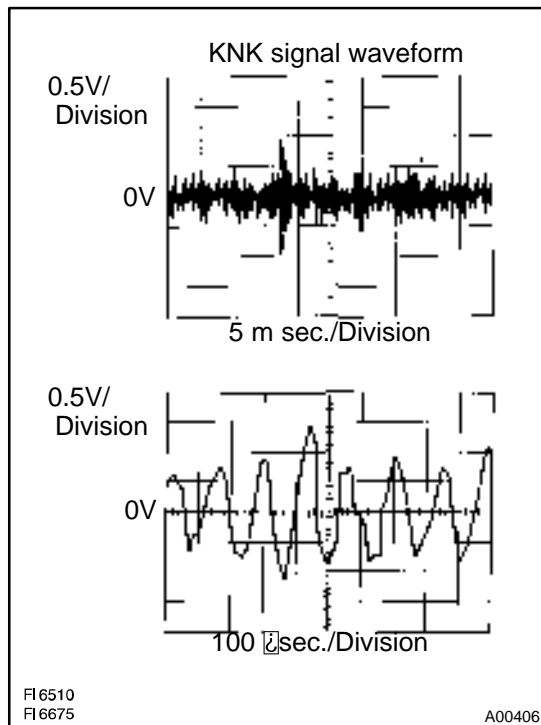
YES

Replace knock sensor.

NO

Check and replace ECM (See page [IN-27](#)).

Reference: INSPECTION USING OSCILLOSCOPE



- With the engine racing (4,000 rpm) measure between terminal KNK of ECM and body ground.

HINT:

The correct waveform is as shown.

- Spread the time on the horizontal axis, and confirm that period of the wave is 123 μ sec.
(Normal mode vibration frequency of knock sensor: 8.1 kHz)

HINT:

If normal mode vibration frequency is not 8.1 kHz, the sensor is malfunctioning.