DI69K–06

DTC	78 (3)	Fuel Pump System Malfunction (Over Pressure)

DTC	78 (8)	Fuel Pump System Malfunction (Short)

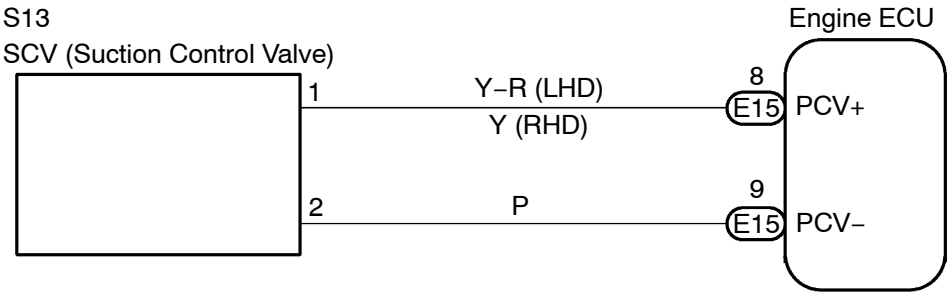
CIRCUIT DESCRIPTION

The supply pump is a single type pump and has circuits for the fuel suction and force feed processes. These processes achieve both high pressure force feed of fuel and reduction of driving torque. In the suction process, the engine ECU controls, the SCV (Suction Control Valve) which suctions fuel by a plunger.

DTC No.	DTC Detection Condition	Trouble Area
78 (3)	Fuel pressure of common rail is too high when suction control valve (SCV) was closed and pressure discharge valve was opened	• Short in SCV circuit (SCV – engine ECU) • SCV • Engine ECU
78 (8)	Open/short in SCV circuit	• Wire harness/connector (SCV – engine ECU) • SCV • Engine ECU

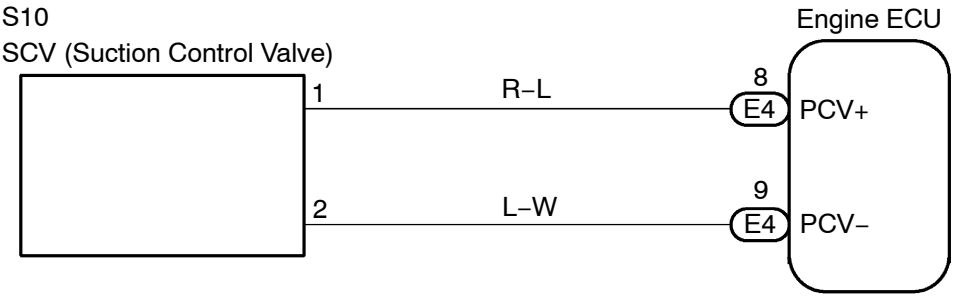
WIRING DIAGRAM

KLH



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INSPECTION PROCEDURE

HINT:
Read freeze frame data on the hand–held tester, as freeze frame data records the engine conditions when a malfunction is detected. When troubleshooting, it is useful for determining whether the vehicle was running or stopped, the engine was warmed up or not, etc. at the time of the malfunction.

1	**Are there any other codes (besides DTC 39, 49 or 97) being output?**

YES → **Go to relevant DTC chart (See page DI–12).**

NO

2	**Check SCV (See page FU–13).**

NG → **Replace supply pump (See page FU–15).**

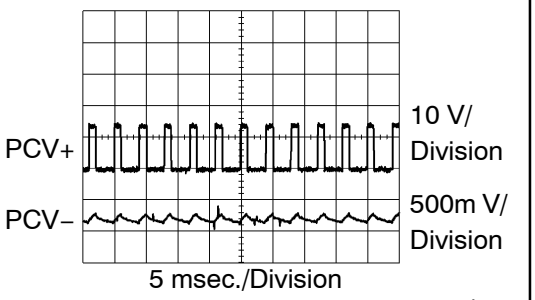
OK

3	**Check for open and short in harness and connector between SCV and engine ECU (See page IN–20).**

NG → **Repair or replace harness or connector.**

OK

4	Check voltage between terminals PCV+ and PCV– of engine ECU.



Reference: INSPECTION USING OSCILLOSCOPE
Check the waveforms between terminals PCV+ and PCV– of the engine ECU connector when the engine is cranking or idling.
HINT:
The correct waveforms are shown in the illustration.

NG → **Check and replace engine ECU (See page ED–25).**

OK

Replace supply pump (See page FU–15).