

Engine and ECT Electronic Control Unit (ECU)

INSPECTION OF ECU

HINT: The EFI circuit can be checked by measuring the voltage and resistance at the wiring connectors of the engine and ECT ECU.

1. PREPARATION

(See page [FI-30](#))

2. INSPECT VOLTAGE OF ENGINE AND ECT ECU

Check the voltage between each terminal of the wiring connectors.

- Turn the ignition switch ON.
- Measure the voltage at each terminal.

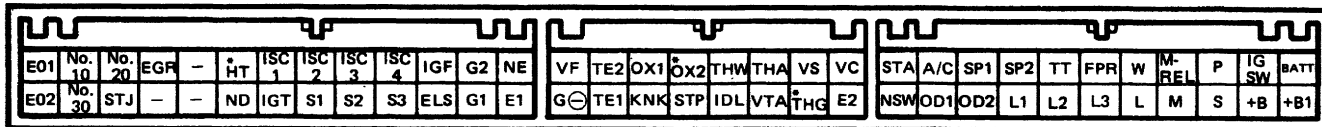
HINT:

- Perform all voltage measurements with the connectors connected.
- Verify that the battery voltage is 11 V or more when the ignition switch is ON.

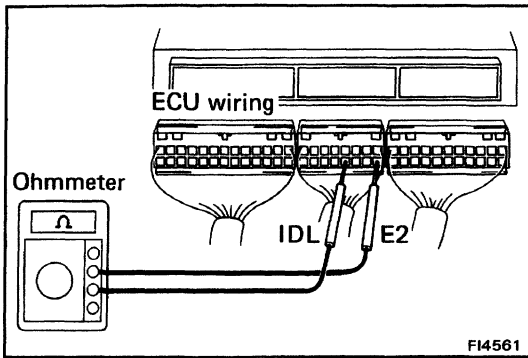
Voltage at Engine and ECT ECU Wiring Connectors

Terminals	Condition		STD Voltage (V)
BATT - E1	-		10 - 14
IG SW - E1	Ignition SW ON		10 - 14
M-REL - E1	Ignition SW ON		10 - 14
+B (+B1) - E1	Ignition SW ON		10 - 14
IDL - E2	Ignition SW ON	Throttle valve open	4 - 6
VC - E2	Ignition SW ON	-	4 - 6
VTA - E2	Ignition SW ON	Throttle valve fully closed	0.1 - 1.0
		Throttle valve fully open	3.2 - 4.2
VC - E2	Ignition SW ON	-	4 - 6
VS - E2	Ignition SW ON	Measuring plate fully closed	3.7 - 4.3
		Measuring plate fully open	0.2 - 0.5
	Idling		2.3 - 2.8
	3,000 rpm		1.0 - 2.0
No. 10 E01 No. 20 E02 No. 30 E02	Ignition SW ON		10 - 14
THA - E2	Ignition SW ON	Intake air temperature 20°C (68°F)	1 - 3
THW - E2	Ignition SW ON	Coolant temperature 80°C (176°F)	0.1 - 1.0
STA - E1	Cranking		6 - 14
IGT - E1	Ignition SW ON		0.7 - 1.0
ISC1 { - E1 ISC4	Ignition SW ON		9 - 14
W - E1	No trouble ("CHECK" engine warning light off) and engine running		8 - 14
A/C - E1	Ignition SW ON	Air conditioning ON	10 - 14
TE1 - E1	Ignition SW ON	Check connector TE1 - E1 not connected	4 - 6
		Check connector TE1 - E1 connected	0
NSW - E1	Ignition SW ON	Shift position P or N range	0
		Ex. P or N range	10 - 14

Engine and ECT ECU Terminals



*California specification vehicles only



2. INSPECT RESISTANCE OF ENGINE AND ECT ECU

NOTICE:

- Do not touch the engine and ECT ECU terminals.
- The tester probe should be inserted into the wiring connector from the wiring side.

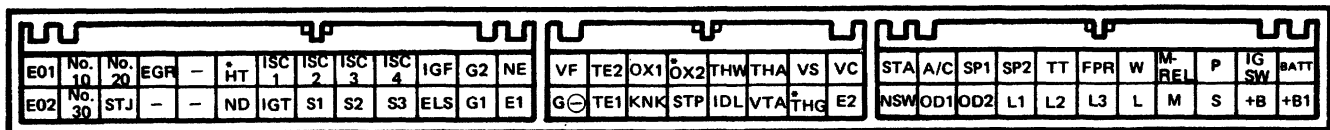
Check the resistance between each terminal of the wiring connectors.

- Disconnect the connectors from the engine and ECT ECU.
- Measure the resistance at each terminal.

Resistance of Engine and ECT ECU Wiring Connectors

Terminals	Condition	Resistance (Ω)
IDL – E2	Throttle valve open	∞
	Throttle valve fully closed	2,300 or less
VTA – E2	Throttle valve open	3,500 – 10,300
	Throttle valve fully closed	300 – 6,300
VC – E2	—	200 – 400
VS – E2	Measuring plate fully closed	200 – 600
	Measuring plate fully open	20 – 1,200
THA – E2	Intake air temperature 20°C (68°F)	2,000 – 3,000
THW – E2	Coolant temperature 80°C (176°F)	200 – 400
G1, G2 – G ⊖	—	140 – 180
NE – G ⊖	—	180 – 220
ISC1, ISC2 ISC3, ISC4 – +B	—	10 – 30

Engine and ECT ECU Terminals



* California specification vehicles only