

DIAGNOSTIC TROUBLE CODE CHART

DTC No.	Detection Item	Trouble Area	See page
C1241/94	Low Power Supply Voltage	-Battery -generator -ECU-IG1 -Wire harness -4WD control ECU	TF-21
C1280/82	Engine Circuit Malfunction	-Throttle position sensor -Throttle position sensor wire harness and connector -CAN communication system	TF-24
C1296/96	ABS Malfunction	-Wire harness -4WD control ECU -Skid control ECU -Speed sensor -Yaw rate sensor -CAN communication system	TF-25
C1297/97	Steering Angle Sensor	-Steering angle sensor -CAN communication system -Wire harness -4WD control ECU	TF-27
C1298/98	Linear Solenoid Circuit	-Wire harness -Electromagnetic coupling -4WD control ECU	TF-30
C1299/99	Cancellation of 4WD Control	-Tire size -Electromagnetic coupling -4WD control ECU	TF-32
U0073/86	Control Module Communication Bus OFF	-Wire harness (CANH, CANL circuit) -4WD control ECU	TF-34
U0100/85	Lost Communication with ECM / PCM "A"	-Wire harness (CANH, CANL circuit) -4WD control ECU -ECM	TF-34
U0126/84	Lost Communication with Steering Angle Sensor Module	-Wire harness (CANH, CANL circuit) -4WD control ECU -Steering angle sensor	TF-34
U0129/83	Lost Communication with Brake System Control Module	-Wire harness (CANH, CANL circuit) -4WD control ECU -Skid control ECU	TF-34

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DTC	C1241/94	Low Power Supply Voltage
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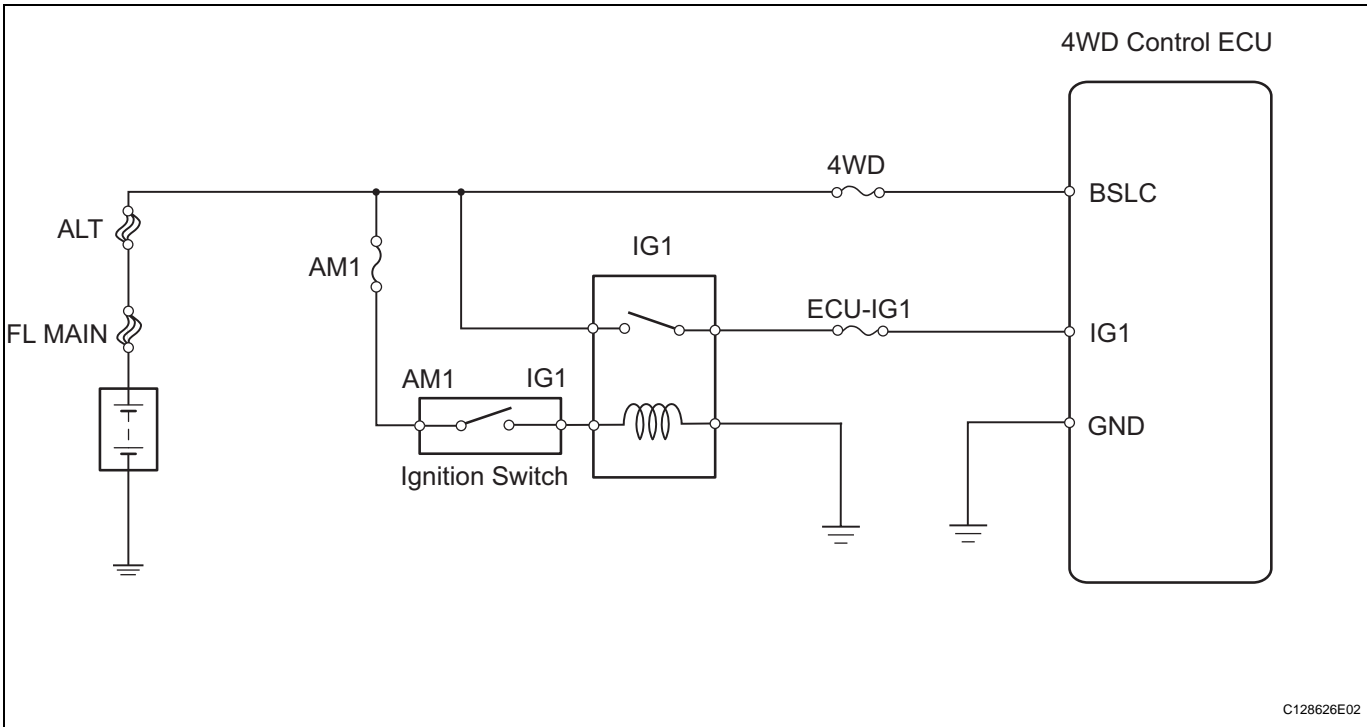
DESCRIPTION

If a malfunction in the power source circuit occurs, or a malfunction in communication with the skid control ECU or in a speed sensor occurs, the 4WD control ECU will prohibit operations by the fail-safe function.

DTC No.	DTC Detection Condition	Trouble Area
C1241/94	When one of following conditions is met: 1. When following continues for 10 seconds or more: - At a vehicle speed of 3 km/h (2 mph) or more, voltage of IG1 terminal is 9.5 V or less. 2. When both of following continue for 60 seconds or more: - With the voltage of IG1 terminal 9.5 V or less, communication with the skid control ECU cannot be performed. - A malfunction in communication with skid control ECU. 3. When following continue for 3 seconds or more: - With the voltage of IG1 terminal 9.5 V or more, communication with the skid control ECU cannot be performed.	<ul style="list-style-type: none"> • Battery • Generator • ECU-IG1 • Wire harness (IG1 circuit, GND circuit) • 4WD control ECU

TF

WIRING DIAGRAM



C128626E02

INSPECTION PROCEDURE

HINT:

Check the condition of each related circuit connector before troubleshooting (see page [IN-37](#)).

1 CHECK FOR DTC

- (a) Clear the DTC (see page [TF-16](#)).
- (b) Turn the ignition switch ON and check that no CAN communication system DTC is output.
- (c) Start the engine.
- (d) Drive the vehicle, accelerate to a speed of 3 km/h (2 mph) or more, and check that no speed sensor DTC (brake control system DTC) is output (see page [BC-57](#)).

Result

Result	Proceed to
Neither CAN communication system DTC nor speed sensor DTC (Brake control system DTC) is output	A
CAN communication system DTC is output	B
Speed Sensor DTC (Brake control system DTC) is output	C

B → REPAIR CIRCUIT INDICATOR BY OUTPUT CODE (CAN COMMUNICATION SYSTEM)

C → REPAIR CIRCUIT INDICATOR BY OUTPUT CODE (BRAKE CONTROL SYSTEM)

A

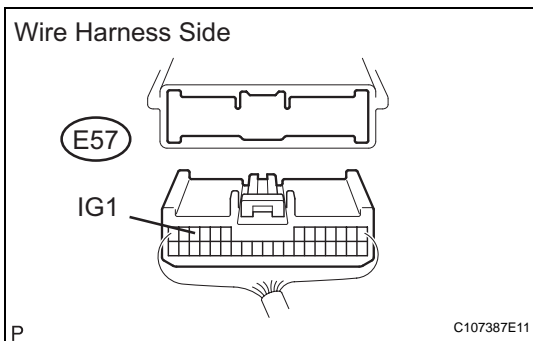
2 INSPECT FUSE (ECU-IG)

- (a) Remove the ECU-IG1 fuse from the instrument junction block
- (b) Measure the resistance of the fuse.
Standard resistance:
Below 1Ω
HINT:
 Check for short circuits in all harnesses and connector connected to the ECU-IG1 fuse (see page [IN-5](#)).

NG → REPLACE FUSE

OK

3 CHECK WIRE HARNESS (4WD CONTROL ECU - BATTERY)



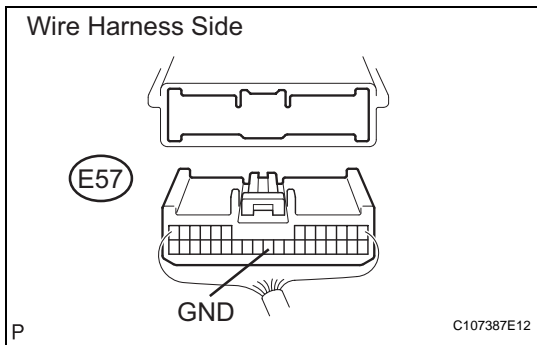
- (a) Disconnect the E57 ECU connector.
- (b) Measure the voltage of the wire harness side connector.
Standard voltage

Tester Connection	Condition	Specified Condition
E57-11 (IG1) - Body Ground	Ignition switch ON	10 to 14 V

NG → REPAIR OR REPLACE HARNESS AND CONNECTOR

OK

4 CHECK WIRE HARNESS (4WD CONTROL ECU - BODY GROUND)



- (a) Disconnect the E57 ECU connector.
- (b) Measure the resistance of the wire harness side connector.

Standard resistance

Tester Connection	Specified Condition
E57-23 (GND) - Body Ground	Below 1 Ω

NG REPAIR OR REPLACE HARNESS AND CONNECTOR

OK

5 RECONFIRM DTC

- (a) Clear the DTC (see page [TF-16](#)).
- (b) Start the engine.
- (c) Drive the vehicle, accelerate to a speed of 3 km/h (2 mph or more), and check if the same DTC is output.

Result

Result	Proceed to
DTC is output	A
DTC is not output	B

HINT:

Reinstall the sensor, connectors, etc. and restore the vehicle to its prior condition before rechecking DTCs.

B END

A

REPLACE 4WD CONTROL ECU