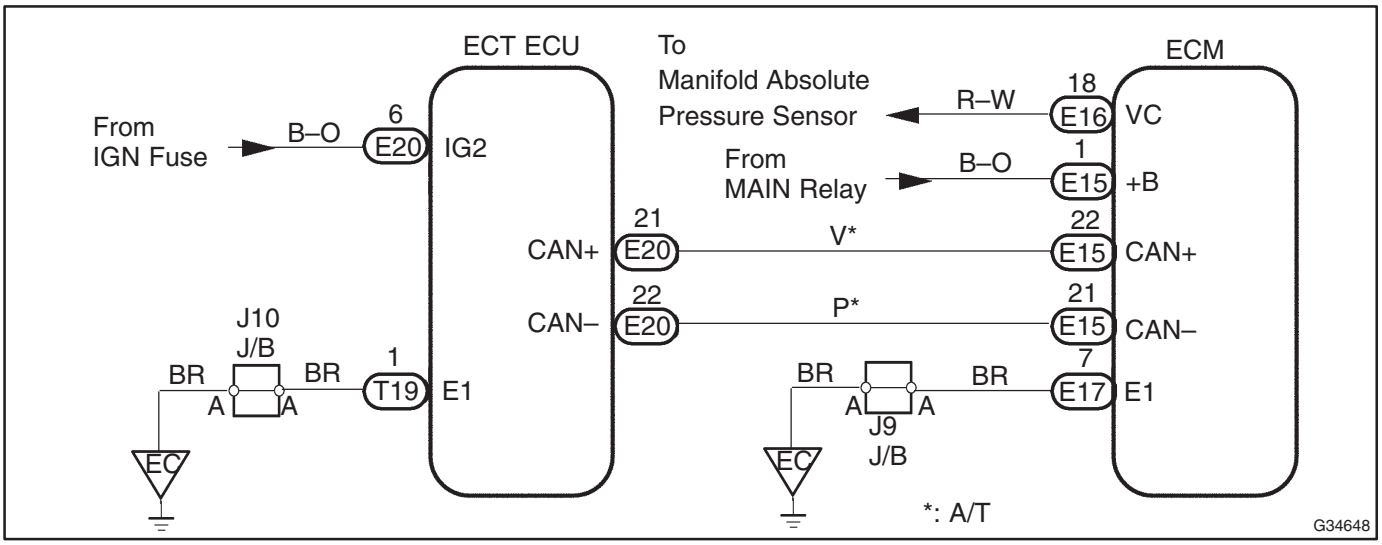
DTC	U0001/A2	HIGH SPEED CAN COMMUNICATION BUS

CIRCUIT DESCRIPTION

The Transmission Control Module (ECT ECU) and ECM perform 2–way communications with each other via the Controller Area Network (CAN). The ECT ECU sends signals to the ECM concerning required engine rpm, required engine torques, warning indicators in the combination meter DTCs, and other data. The ECM sends signals to the ECT ECU concerning engine rpm, opening angles of the throttle valve, temperature of intake air, temperature of engine coolant, engine torques and other data.
If the ECT ECU cannot communicate with the ECM, the ECT ECU will conclude that there is a malfunction in the CAN system, illuminate the MIL and set a DTC.

DTC No.	DTC Detection Condition	Trouble Area
U0001/A2	No communication from ECT ECU continues	• Open or short in ECT ECU and ECM circuit • ECT ECU • ECM

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:
Read freeze frame data using the intelligent tester II. Freeze frame data records the engine conditions when a malfunction is detected. When troubleshooting, freeze frame data can help determine if the vehicle was running or stopped, if the engine was warmed up or not, and other data from the time the malfunction occurred.

1	CHECK WIRE HARNESS

(a) Measure the resistance and voltage as the following table below.
Standard (for ECM):

Tester Connection	Ignition Switch Position	Specified Condition
E15–1 (+B) – Body ground	ON	9 to 14 V
E16–18 (VC) – Body ground	ON	4.5 to 5.5 V
E17–7 (E1) – Body ground	—	10 Ω or higher

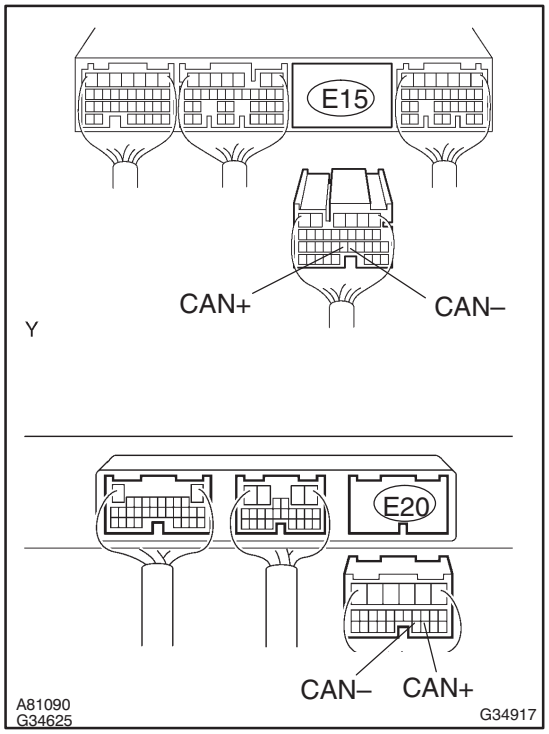
Standard (for ECT ECU):

Tester Connection	Ignition Switch Position	Specified Condition
E20–6 (IG2) – Body ground	ON	9 to 14 V
T19–1 (E1) – Body ground	—	10 Ω or higher

NG → REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

2 CHECK WIRE HARNESS (ECM – ECT ECU)



(a) Disconnect the E15 ECM connector.
(b) Disconnect the E20 ECT ECU connector.
(c) Measure the resistance of the wire harness side connectors.

Standard:

Tester Connection	Specified Condition
E15–22 (CAN+) – E20–21 (CAN+)	Below 1 Ω
E15–21 (CAN–) – E20–20 (CAN–)	Below 1 Ω
E15–22 (CAN+) or E20–21 (CAN+) – Body ground	10 kΩ or higher
E15–21 (CAN–) or E20–20 (CAN–) – Body ground	10 kΩ or higher

NG → REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

3 CHECK IF DTC OUTPUT RECURS

(a) Clear the DTC (see page 05–466).
(b) Replace the ECT ECU.

HINT:

Replace the ECT ECU with a ECT ECU from a normally functioning vehicle of the same model.

(c) Start the engine.
(d) Read the DTCs (see page 05–466).

Result:

Display (DTC Output)	Proceed to
U0001/A2	A
No DTC	B

B → REPLACE ECT ECU

A

REPLACE ECM (See Pub. No. RM990E, page 10–34)

NOTICE:

After replacing the ECM, allow for ECM learning start the engine and idle it until it is fully warmed up.