

DTC	C1203/53	ECM COMMUNICATION CIRCUIT MALFUNCTION
-----	----------	---------------------------------------

CIRCUIT DESCRIPTION

1MZ, 3MZ

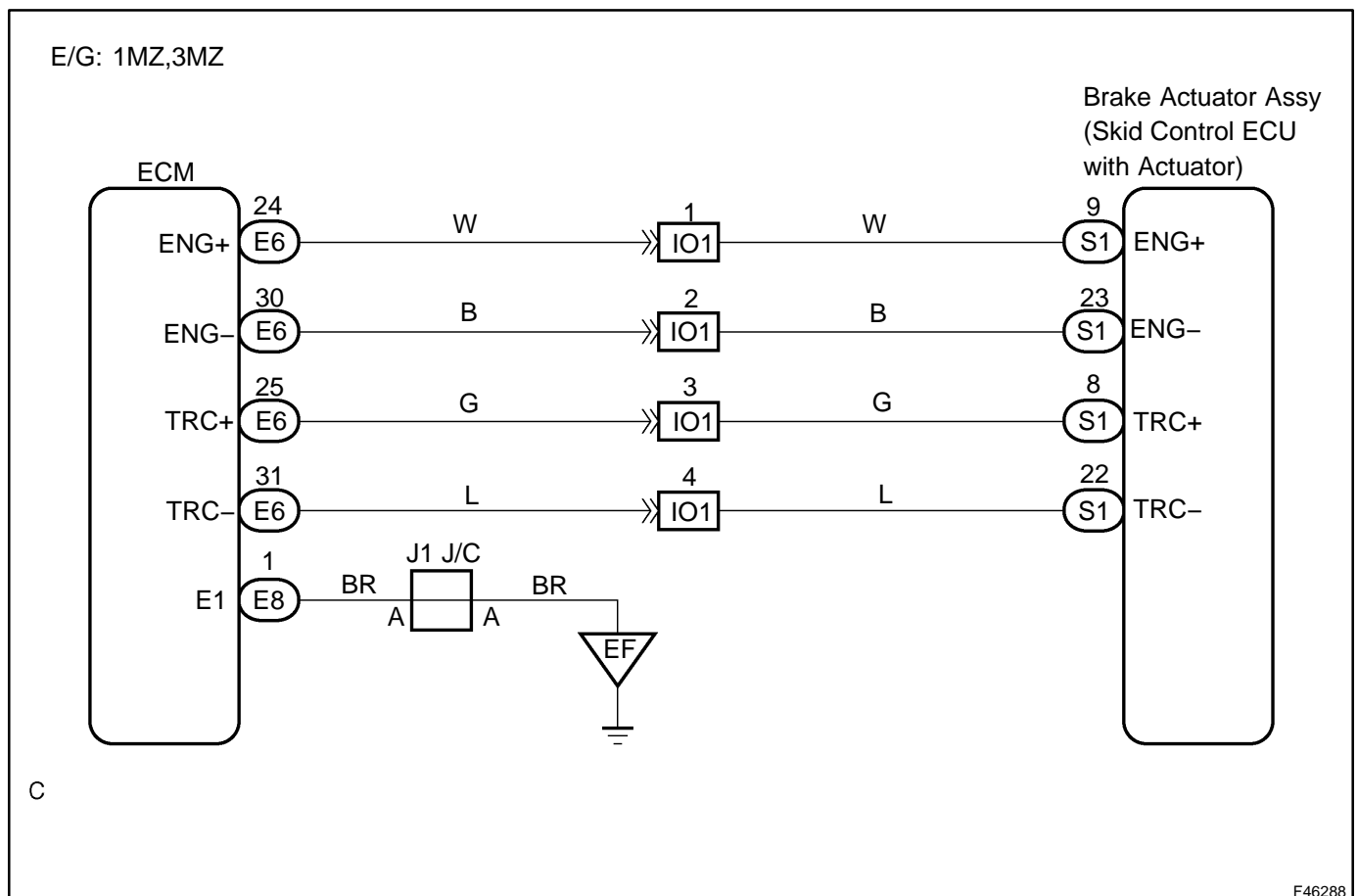
The circuit is used to send TRAC & VSC control information from the skid control ECU to the ECM (TRC+, TRC-), and engine control information from the ECM to the skid control ECU (ENG+, ENG-).

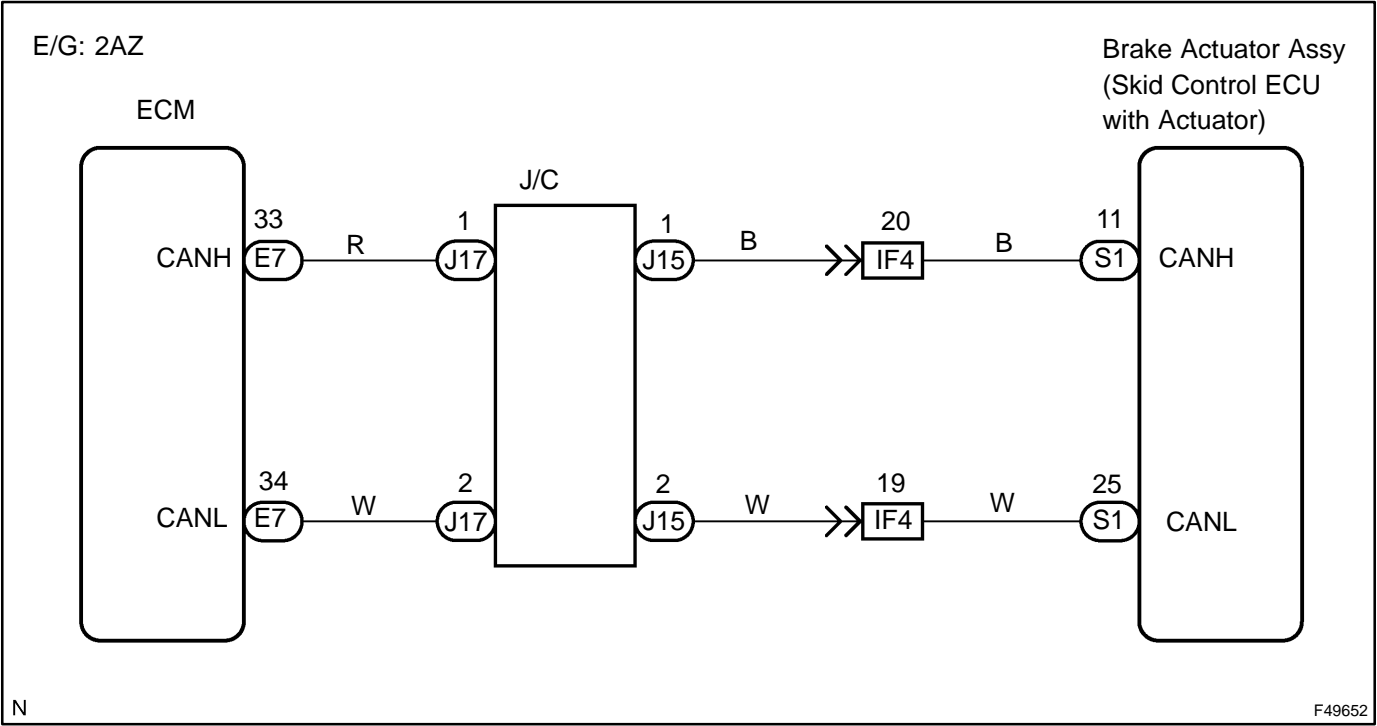
2AZ

The ECM signal circuit is used for the CAN communication system.

DTC No.	DTC Detecting Condition	Trouble Area
C1203/53	<p>When any of the following (1 to 4) is detected: 1MZ, 3MZ When the following (4) is detected: 2AZ</p> <p>(1) All the following conditions continue for at least 5 seconds.</p> <ul style="list-style-type: none"> • IG1 terminal voltage is 9.5 V or more. • Cannot send data to ECM. <p>(2) All the following conditions continue for at least 5 seconds.</p> <ul style="list-style-type: none"> • IG1 terminal voltage is more than 9.5 V. • Engine speed is 500 rpm or more. • Cannot receive data from ECM. <p>(3) All the following conditions repeat 10 times in a series.</p> <ul style="list-style-type: none"> • Cannot send data to ECM. • Cannot receive data from ECM. • Both of the above occur at least once within 5 sec. <p>(4) Destination information from ECM does not much stored value.</p>	<ul style="list-style-type: none"> • TRC+ or TRC- circuit (1MZ, 3MZ) • ENG+ or ENG- circuit (1MZ, 3MZ) • ECM • CAN communication system (2AZ)

WIRING DIAGRAM





INSPECTION PROCEDURE

NOTICE:

When replacing the brake actuator assy, perform zero point calibration (see page 05-987).

1	CONFIRM ENGINE TYPE
---	---------------------

A	2AZ
B	1MZ, 3MZ

B	Go to step 4
---	--------------

A

2	CHECK DTC(CAN COMMUNICATION SYSTEM)
---	-------------------------------------

(a) Check DTCs of the CAN communication system (see page 05-2174).

Result:

A	DTC is not output
B	DTC is output

B	REPAIR CIRCUIT INDICATED BY OUTPUT CODE (SEE PAGE 05-2174)
---	--

A

3 RECONFIRM DTC

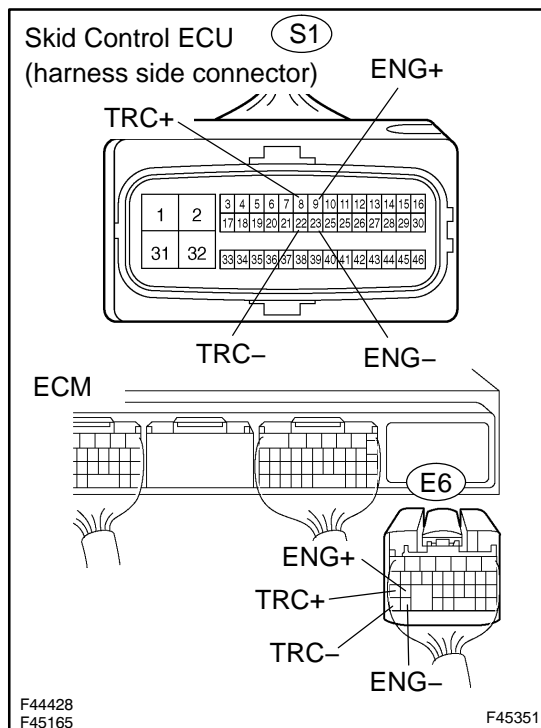
- Clear the DTCs (see page 05-1002).
- Turn the ignition switch to the ON position.
- Are the same DTCs recorded?

NO → END

YES

REPLACE BRAKE ACTUATOR ASSY (SEE PAGE 32-63)

4 CHECK HARNESS AND CONNECTOR(ECM – SKID CONTROL ECU)



- Disconnect the skid control ECU connector S1 and ECM connector E6.
- Measure the resistance according to the value(s) in the table below.

Standard:

Tester Connection	Specified Condition
S1-8 (TRC+) – E6-25 (TRC+)	Below 1 Ω
S1-22 (TRC-) – E6-31 (TRC-)	Below 1 Ω
S1-9 (ENG+) – E6-24 (ENG+)	Below 1 Ω
S1-23 (ENG-) – E6-30 (ENG-)	Below 1 Ω

- Measure the resistance according to the value(s) in the table below.

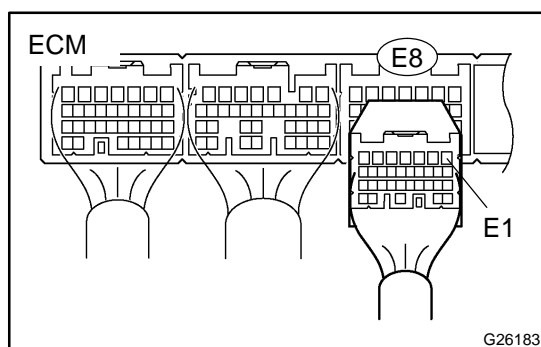
Standard:

Tester Connection	Specified Condition
S1-8 (TRC+) – Body ground	10 kΩ or higher
S1-22 (TRC-) – Body ground	10 kΩ or higher
S1-9 (ENG+) – Body ground	10 kΩ or higher
S1-23 (ENG-) – Body ground	10 kΩ or higher

NG → REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

5 CHECK HARNESS AND CONNECTOR(E1 OF ECM AND BODY GROUND)



- Disconnect the ECM connector E8.
- Measure the resistance according to the value(s) in the table below.

Standard:

Tester Connection	Specified Condition
E8-1 (E1) – Body ground	Below 1 Ω

NG → REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

6 RECONFIRM DTC

- (a) Clear the DTCs (see page [05-1002](#)).
- (b) Turn the ignition switch to the ON position.
- (c) Are the same DTCs recorded?

NO**END****YES****REPLACE BRAKE ACTUATOR ASSY (SEE PAGE [32-63](#))**