

Last Modified: 7-13-2007		1.6 C
Service Category: Engine/Hybrid System		Section: Starting
Model Year: 2008	Model: ES350	Doc ID: RM000000YD4024X
Title: 2GR-FE STARTING: SMART ACCESS SYSTEM WITH PUSH-BUTTON START: B2286: Runnable Signal Malfunction (2008 ES350)		

DTC	B2286	Runnable Signal Malfunction
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## DESCRIPTION

This DTC is output when serial communication signals and CAN communication signals in the circuit between the main body ECU and ECM are inconsistent.

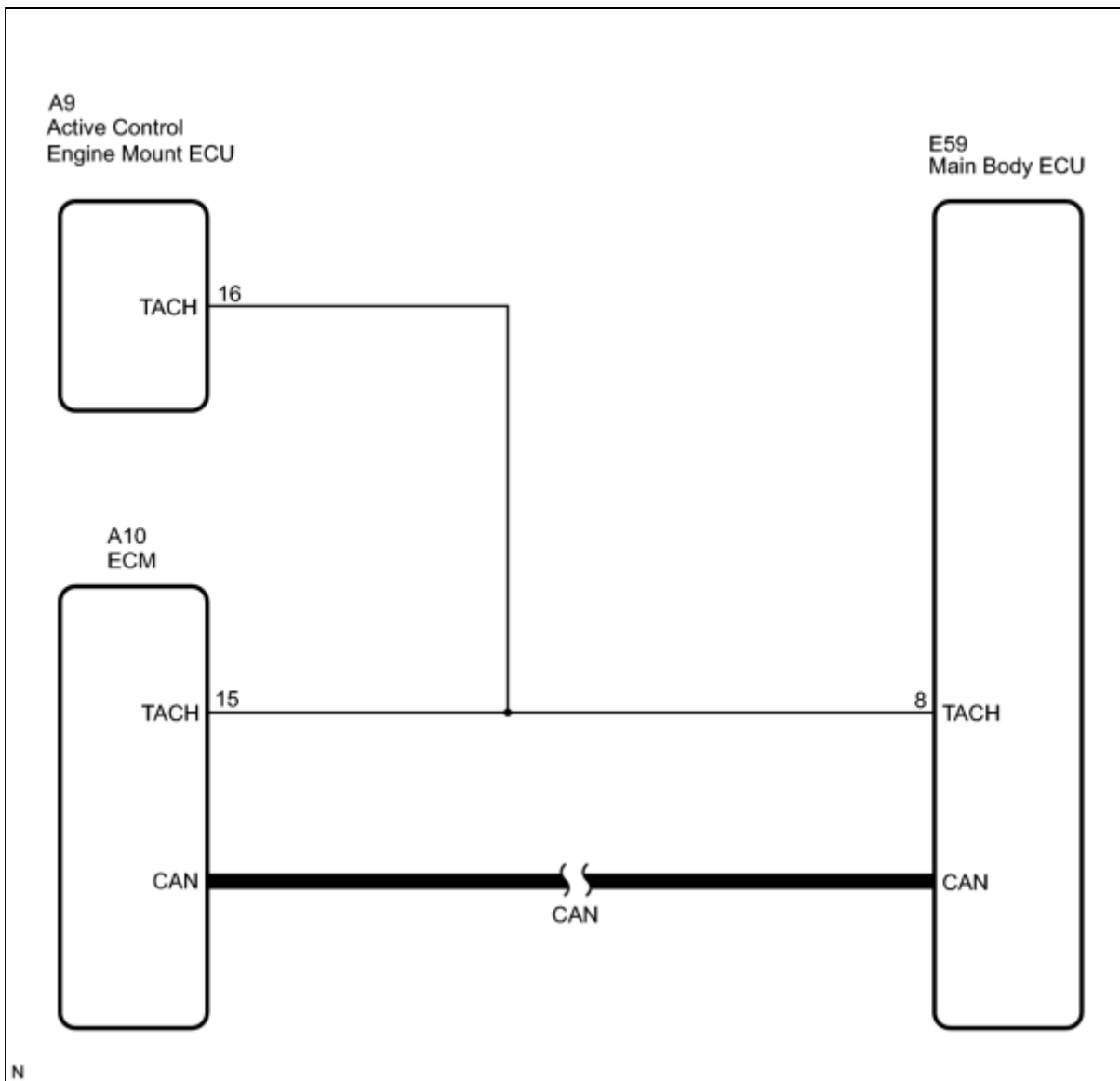
### HINT:

When the main body ECU is replaced with a new one and the negative (-) battery terminal is connected, the power source mode becomes the IG-ON mode. When the battery is removed and reinstalled, the power source mode that was selected when the battery was removed is restored.

After the main body ECU is replaced, perform the registration procedures for the engine immobiliser system [INFO](#) .

DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B2286	Serial communication signals and CAN communication signals in the circuit between the main body ECU and ECM are inconsistent.	<ul style="list-style-type: none"> <li>• CAN communication system</li> <li>• ECM</li> <li>• Main body ECU</li> <li>• Wire harness or connector</li> </ul>

## WIRING DIAGRAM



## INSPECTION PROCEDURE

### PROCEDURE

#### 1. CHECK OPERATION OF TACHOMETER

(a) Run the engine and check if the function of the tachometer in the combination meter is normal.

OK:

Actual engine revolution speed and the revolution indicated on the tachometer are the same.

**OK** ► CHECK WIRE HARNESS (MAIN BODY ECU - ECM)

**NG**



#### 2. CHECK DTC OUTPUT (CAN COMMUNICATION SYSTEM)

(a) Delete the DTC INFO.

(b) Check for the CAN communication system DTC U0146.

**HINT:**

If the DTCs for the CAN communication system malfunction are output, inspect those DTCs first INFO.

OK:

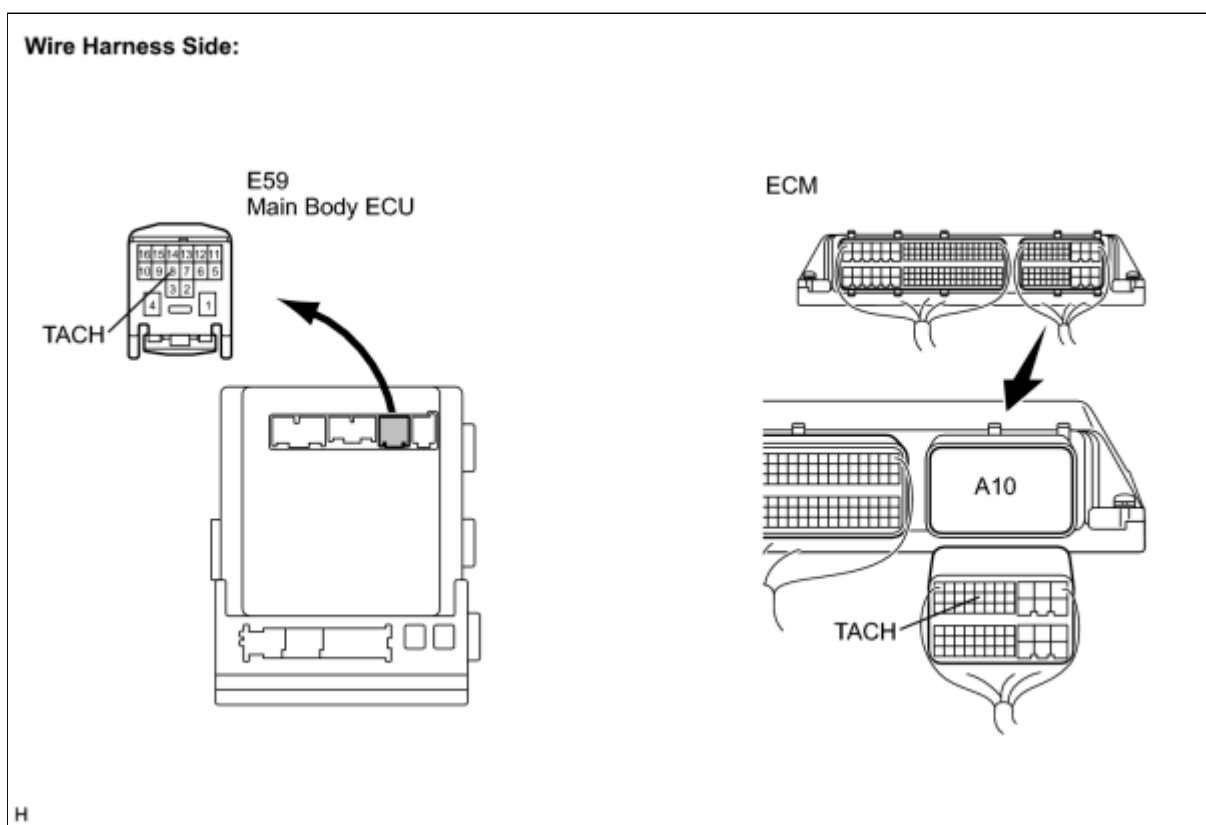
No DTC is output.

**NG** ► GO TO CAN COMMUNICATION SYSTEM

**OK** ► GO TO COMBINATION METER SYSTEM

**3. CHECK WIRE HARNESS (MAIN BODY ECU - ECM)**

(a) Disconnect the A10 ECM connector.



(b) Disconnect the E59 ECU connector.

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

Standard resistance:

TESTER CONNECTION (SYMBOLS)	CONDITION	SPECIFIED CONDITION
E59-8 (TACH) - A10-15 (TACH)	Always	Below 1 $\Omega$
E59-8 (TACH) or A10-15 (TACH) - Body ground	Always	10 k $\Omega$ or higher

**NG** ► REPAIR OR REPLACE HARNESS OR CONNECTOR

**OK****4. READ VALUE OF TECHSTREAM**

- (a) Reconnect the connectors.
- (b) Connect Techstream to the DLC3.
- (c) Check the DATA LIST for proper functioning of the engine.

**HINT:**

**When using Techstream with the engine switch off, turn on and off any of the door courtesy light switches repeatedly at 1.5 second intervals or less until communication between the tester and vehicle starts.**

**Main Body:**

TESTER DISPLAY	MEASUREMENT ITEM/RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Engine Condition	Engine condition/STOP or RUN	STOP: Engine is stopped RUN: Engine is running	-

OK:

STOP (engine is stopped) and RUN (engine is running) appear on the screen.

**NG** REPLACE ECM**OK** REPLACE MAIN BODY ECU