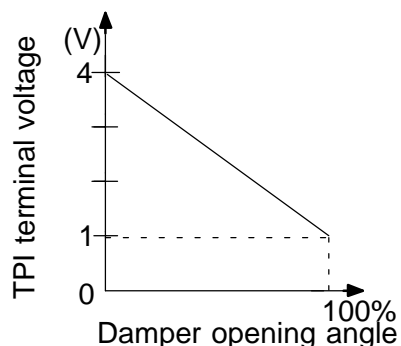


DTC	31, 41	Air Mix Damper Position Sensor Circuit
------------	---------------	---

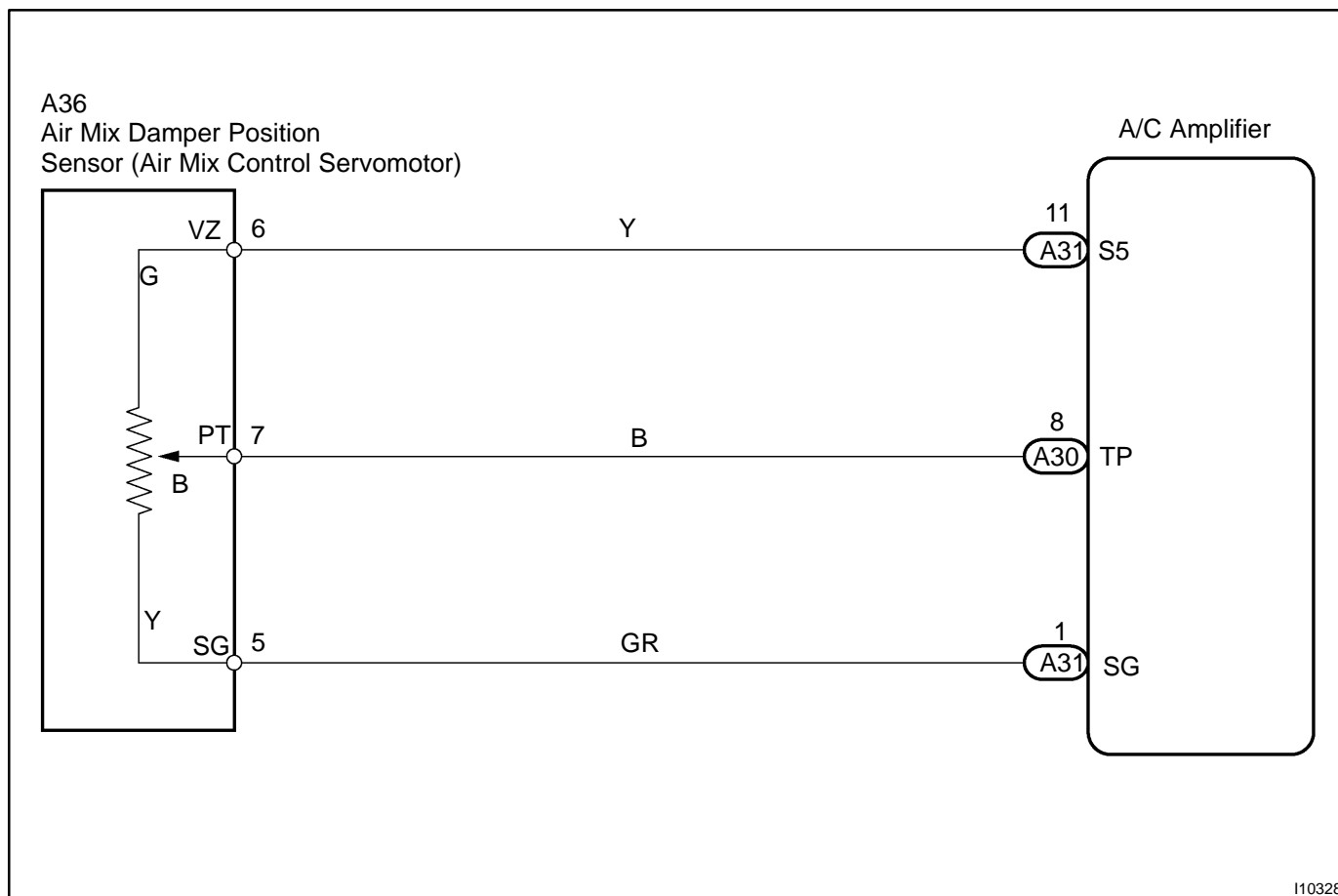
CIRCUIT DESCRIPTION



This sensor detects the position of the air inlet damper and sends the appropriate signals to the A/C control assembly. The position sensor is built into the air inlet control servomotor.

DTC No.	Detection Item	Trouble Area
31	Short to ground or power source circuit in air mix damper position sensor circuit.	<ul style="list-style-type: none"> • Air mix damper position sensor • Harness or connector between air inlet control servomotor and A/C control assembly • A/C assembly
41	Air mix damper position sensor value does not change even if A/C control assembly operates air inlet control servomotor.	

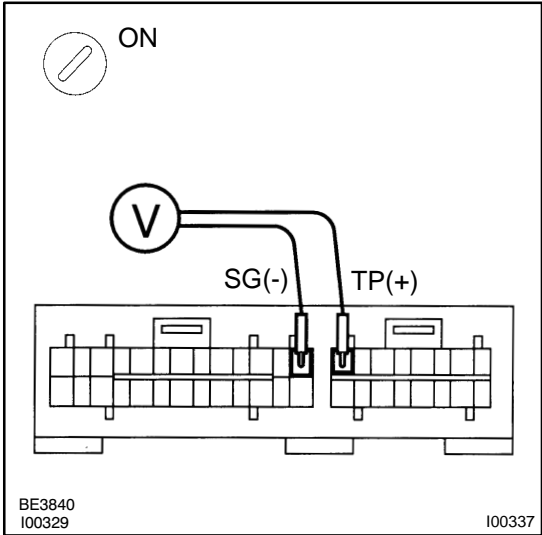
WIRING DIAGRAM



I10328

INSPECTION PROCEDURE

1	Check voltage between terminals TP and SG of A/C control assembly connector.
---	--



PREPARATION:

- Remove A/C control assembly with connectors still connected (See page [AC-84](#)).
- Turn ignition switch to ON.

CHECK:

Change the set temperature to activate the air mix damper, and measure the voltage between terminals TP and SG of A/C control assembly connector each time when the set temperature is changed.

OK:

Set Temperature	Voltage
Max. cool	3.5 - 4.5 V
Max. hot	0.5 - 1.8 V

HINT:

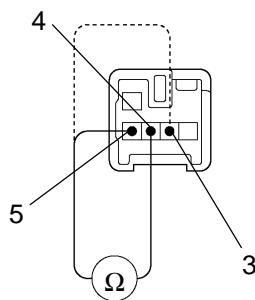
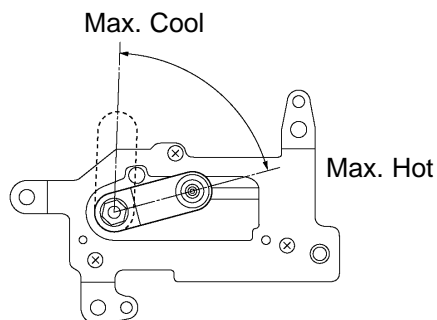
As the set temperature increases, the voltage decreases gradually without interruption.

NG	Go to step 2.
----	---------------

OK

Proceed to next circuit inspection shown on problem symptoms table (See page [DI-586](#)). However, if DTC 31 or 41 is displayed, check and replace A/C control assembly.

2 Check air mix damper position sensor.



I09231

PREPARATION:

Remove air mix control servomotor (See page [AC-34](#)).

CHECK:

Measure resistance between terminals 4 and 5 of air inlet control servomotor connector.

OK:

Resistance: 4.8 - 7.2 kΩ

CHECK:

While operating air mix control servomotor as shown in the procedure on page [DI-612](#) , measure resistance between terminals 3 and 5 of air mix control servomotor connector.

OK:

Position	Resistance
Max. cool	3.8 - 5.8 kΩ
Max. hot	0.95 - 1.45 kΩ

HINT:

As the air inlet control servomotor moves from cool side to hot side, the resistance decreases gradually without interruption.

NG

Replace air mix control servomotor.

OK

3 Check harness and connector between A/C control assembly and air mix control servomotor. (See page [IN-28](#)).

NG

Repair or replace harness or connector.

OK

Check and replace A/C control assembly.