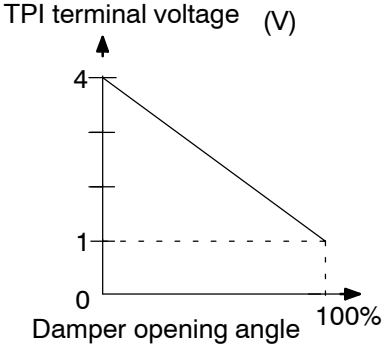
DI6S8–01

DTC	31, 41	Air Mix Damper Position Sensor Circuit

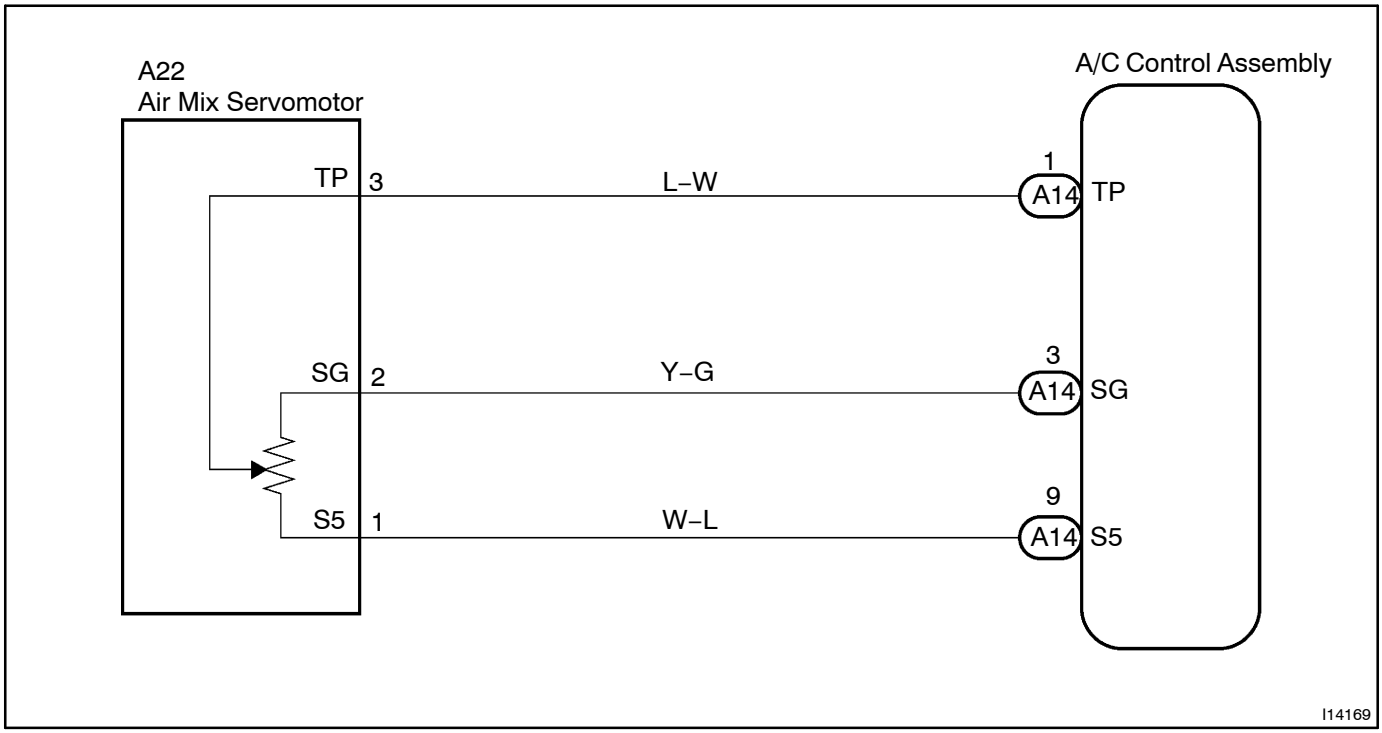
CIRCUIT DESCRIPTION



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

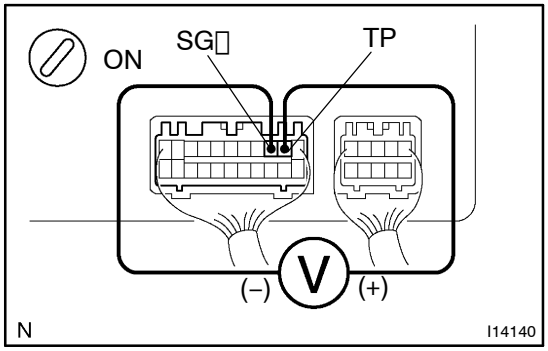
DTC No.	Detection Item	Trouble Area
31	Short to ground or power source circuit in air mix damper position sensor circuit.	• Air mix damper position sensor. • Harness of connector between air mix control servomotor and A/C control assembly. • A/C control assembly.
41	Air mix damper position sensor value does not change even if A/C control assembly operates air mix control servomotor.	

WIRING DIAGRAM



INSPECTION PROCEDURE

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



PREPARATION:

(a) Remove A/C control assembly with connectors still connected.

(b) Turn ignition switch 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:

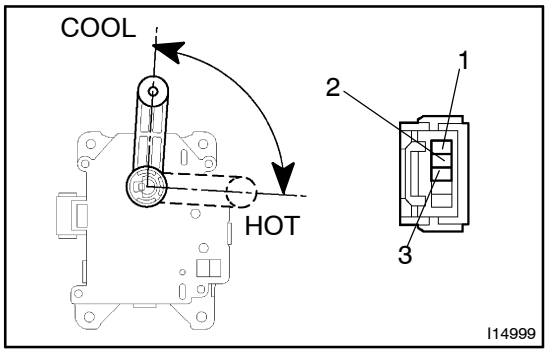
As the set temperature increases, the voltage decreases gradually without interruption.

NG → **Go to step 2.**

OK

Proceed to next circuit inspection shown on problem symptoms table (See page DI–432). However, if DTC 31 or 41 is displayed, check and replace A/C control assembly.

2	**Check air mix damper position sensor.**



PREPARATION:

(a) Remove air mix control servomotor (See page AC–54).

(b) Disconnect air mix control servomotor connector.

CHECK:

Measure resistance between terminals 1 and 2 of air mix control servomotor connector.

OK:

Resistance: 4.2 – 7.8 kΩ

CHECK:

While operating air mix control servomotor as shown in the procedure on page DI–458, measure resistance between terminals 2 and 3 of air mix control servomotor connector.

OK:

Position	Resistance
Max. cool	3.3– 6.3 kΩ
Max. hot	0.8 – 1.6 kΩ

HINT:

As the air mix 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–20).**

NG → **Repair or replace harness or connector.**

OK

Check and replace A/C control assembly.