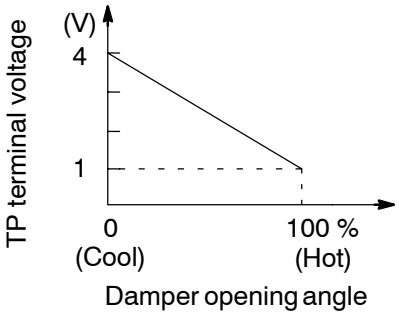
DIAR6–01

DTC	37, 47	Rear Air Mix Damper Position Sensor Circuit

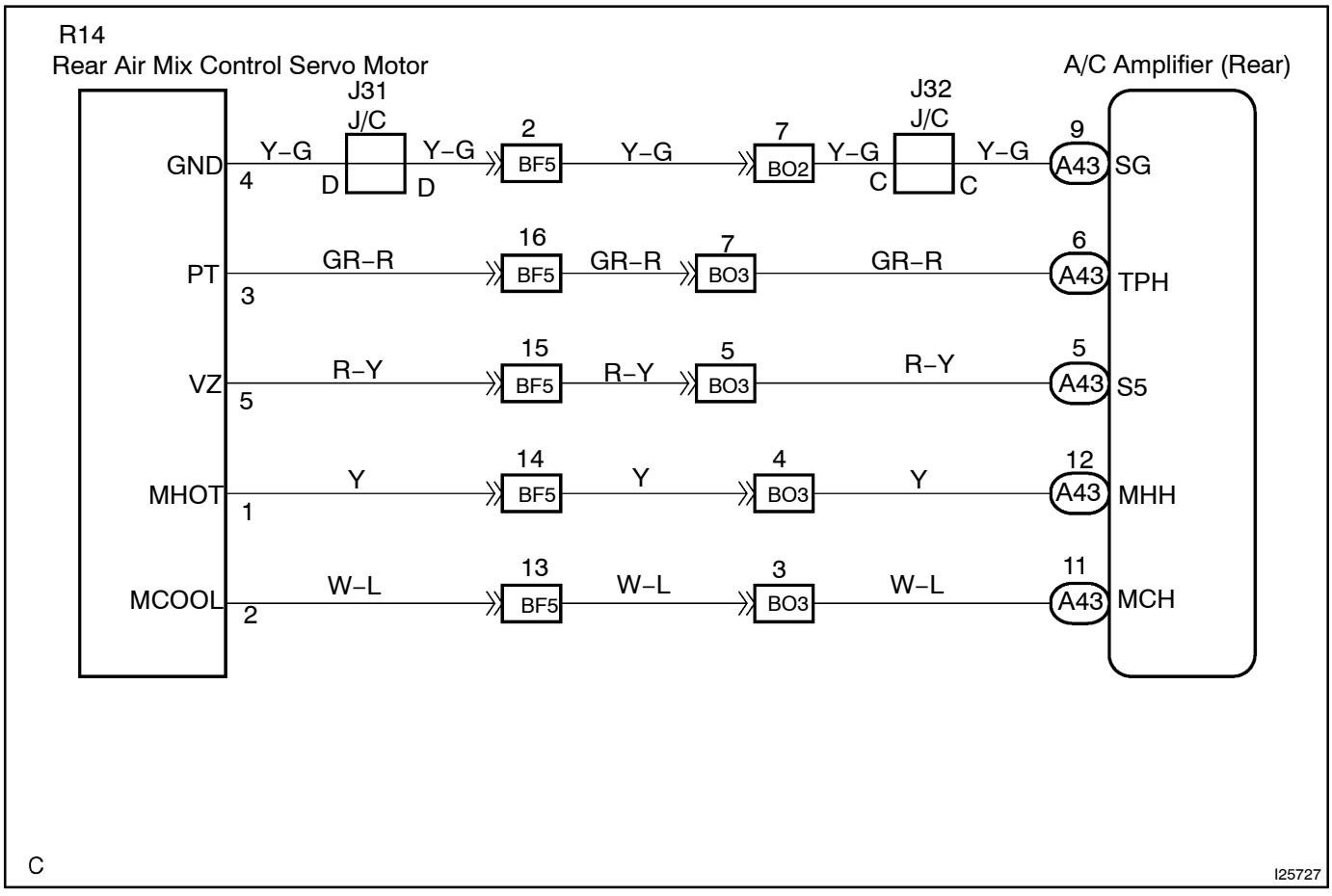
CIRCUIT DESCRIPTION



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

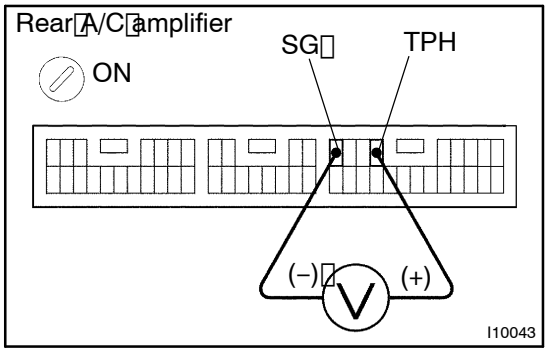
DTC No.	Detection Item	Trouble Area
37	Short to ground or to power source circuit in rear air mix damper position sensor circuit	• Rear air mix damper position sensor • Harness or connector between rear air mix damper position sensor and rear A/C amplifier • Rear A/C amplifier
47	Rear air mix damper position sensor value does not change even if rear A/C amplifier operates rear air mix damper control servomotor	

WIRING DIAGRAM



INSPECTION PROCEDURE

1	**Check voltage between terminals TPH and SG of rear A/C amplifier.**



PREPARATION:

Remove rear A/C amplifier with connectors still connected.

CHECK:

(a) Turn ignition switch to ON.

(b) Change the set temperature to activate the rear air mix servomotor, and measure the voltage between terminals TPH and SG of rear A/C amplifier connector each time when the set temperature is changed.

OK:

Set Temperature	Voltage
Max. cool	3.5 – 4.5 V
Max. hot	0.5 – 1.5 V

HINT:

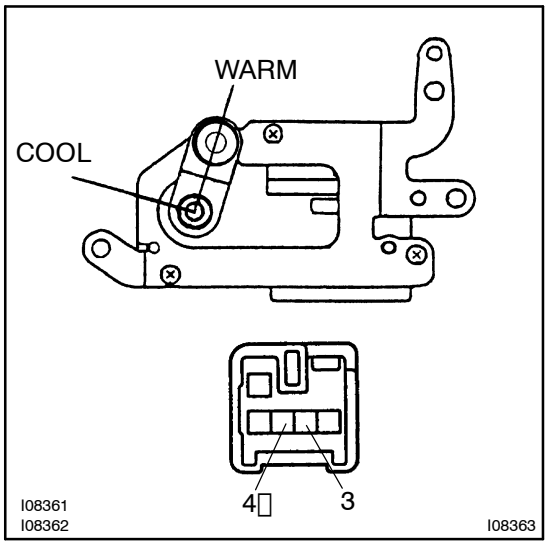
As the set temperature increases, the voltage decreases.

NG	**Go to step 2.**

Ok

Proceed to next circuit inspection shown on problem symptoms table (See page DI–1238). However, if DTC 37 or 47 is displayed, check and replace rear A/C amplifier.

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



PREPARATION:
Remove rear air mix servomotor.

CHECK:
Measure resistance between terminals 3 and 4 of rear air mix damper control servomotor connector.

OK:

Resistance: 4.2 – 7.8 kΩ

CHECK:
While operating rear air mix damper control servomotor, follow the procedure on page DI–1285 and measure resistance between terminals 3 and 4 of rear air mix servomotor connector.

OK:

Position	Resistance
Max. COOL	3.6 – 6.8 kΩ
Max. WARM	0.5 – 1.1 kΩ

HINT:
As the rear air mix servomotor moves from cool side to warm side, the resistance decreases.

NG → **Replace rear air mix servomotor assembly.**

OK

3	**Check harness and connector between rear air mix damper position sensor and rear A/C amplifier (See page IN–38).**

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

OK

Check and replace A/C amplifier.