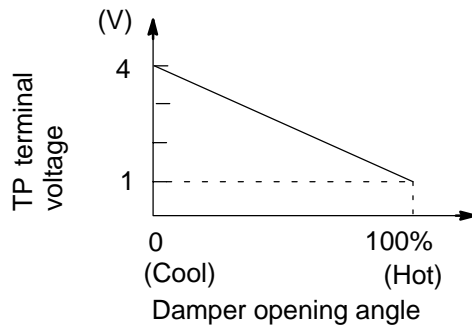


<b>DTC</b>	<b>31, 41</b>	<b>Air Mix Damper Position Sensor Circuit</b>
------------	---------------	---

## CIRCUIT DESCRIPTION

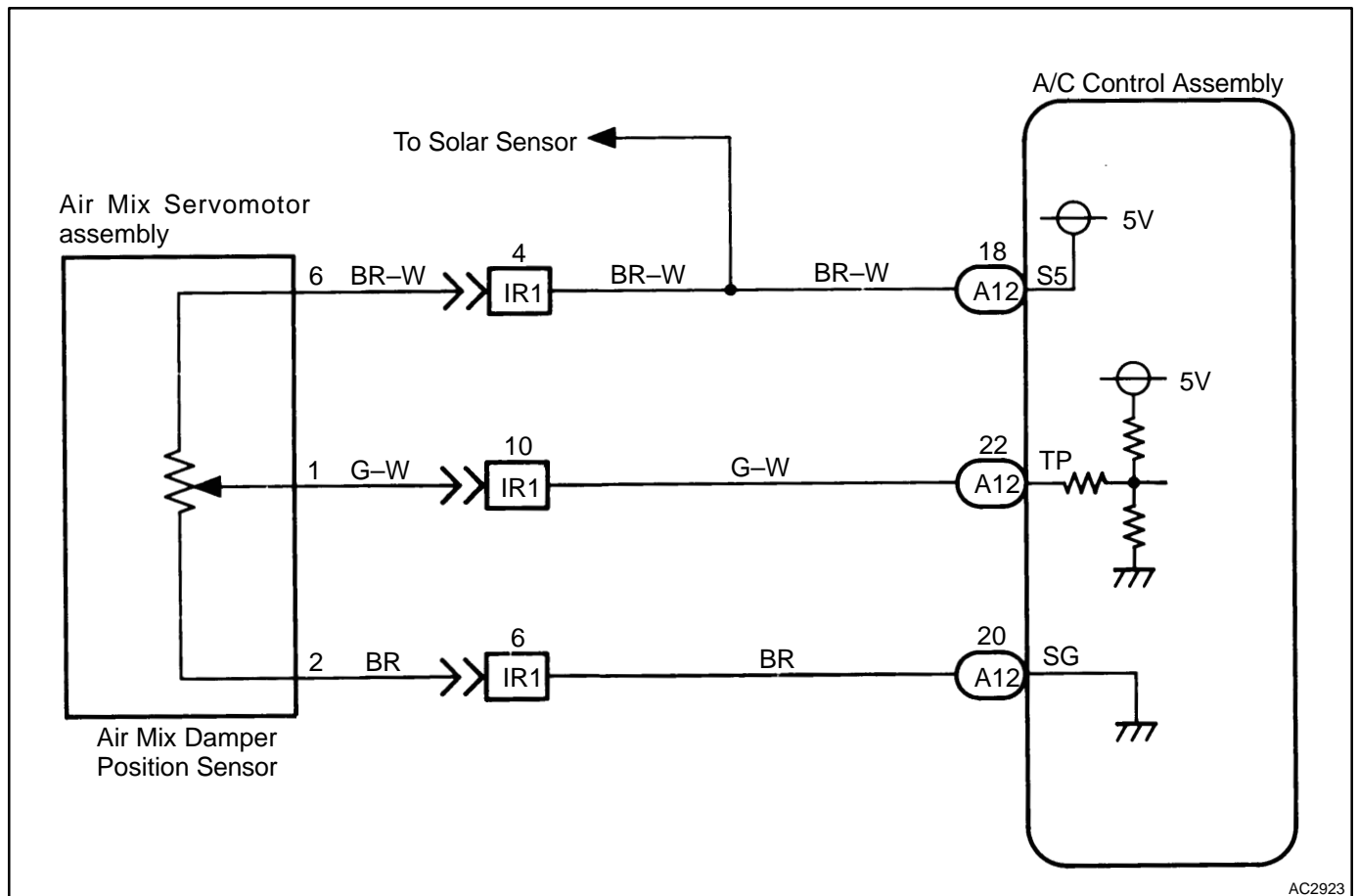


This sensor detects the position of the air mix damper and sends the appropriate signals to the air conditioning control assembly.

The position sensor is built into the air mix servomotor assembly.

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

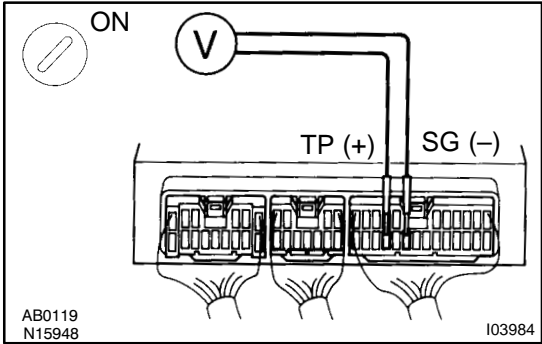
## WIRING DIAGRAM



AC2923

# INSPECTION PROCEDURE

1	Check voltage between terminals TP and SG of air conditioning control assembly connector.
---	---



## PREPARATION:

- Remove upper console panel.
- Remove A/C control assembly with connectors still connected.
- Turn ignition switch ON.

## CHECK:

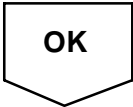
Change the set temperature to activate the air mix damper, and measure the voltage between terminals TP and SG of air conditioning control assembly connector each time when the set temperature is changed.

## OK:

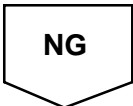
Set Temperature	Voltage
Max. cool	3.70 – 4.27 V
Max. hot	0.88 – 1.16 V

## HINT:

As the set temperature increases, the voltage decreases.

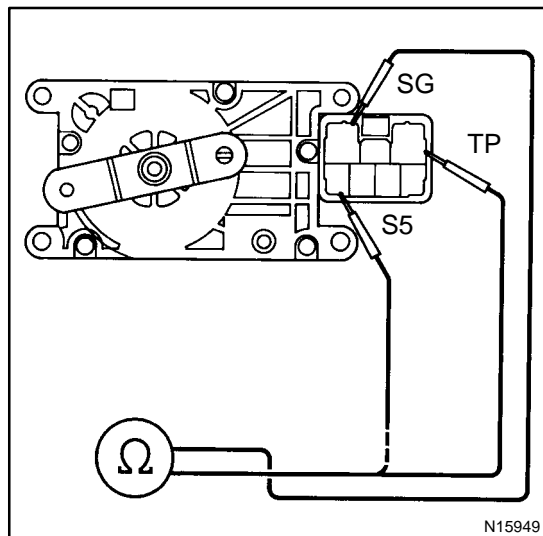


Proceed to next circuit inspection shown on matrix chart (See page DI-821). However, if DTC31 or 41 is displayed, check and replace air conditioning control assembly.
--



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

## 2 Check air mix damper position sensor.



### PREPARATION:

- (a) Remove A/C unit (See page AC-24).
- (b) Disconnect air mix servomotor assembly connector.

### CHECK:

Measure resistance between terminals S5 and SG of air mix servomotor assembly connector.

### OK:

**Resistance: 4.8 – 7.2 kΩ**

### CHECK:

While operating air mix servomotor as in the procedure on page DI-843, measure resistance between terminals TP and SG of air mix servomotor assembly connector.

### OK:

Position	Resistance
Max. cool	3.84 – 5.76 kΩ
Max. warm	0.96 – 1.44 kΩ

### HINT:

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

**NG**

**Replace air mix servomotor assembly.**

**OK**

## 3 Check for open and short in harness and connector between air conditioning control assembly and air mix servomotor assembly (See page IN-29).

**NG**

**Repair or replace harness or connector.**

**OK**

**Check and replace air conditioning control assembly.**