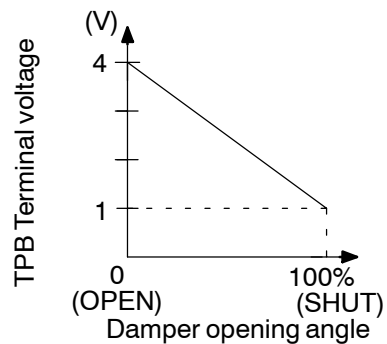DI8BX–01

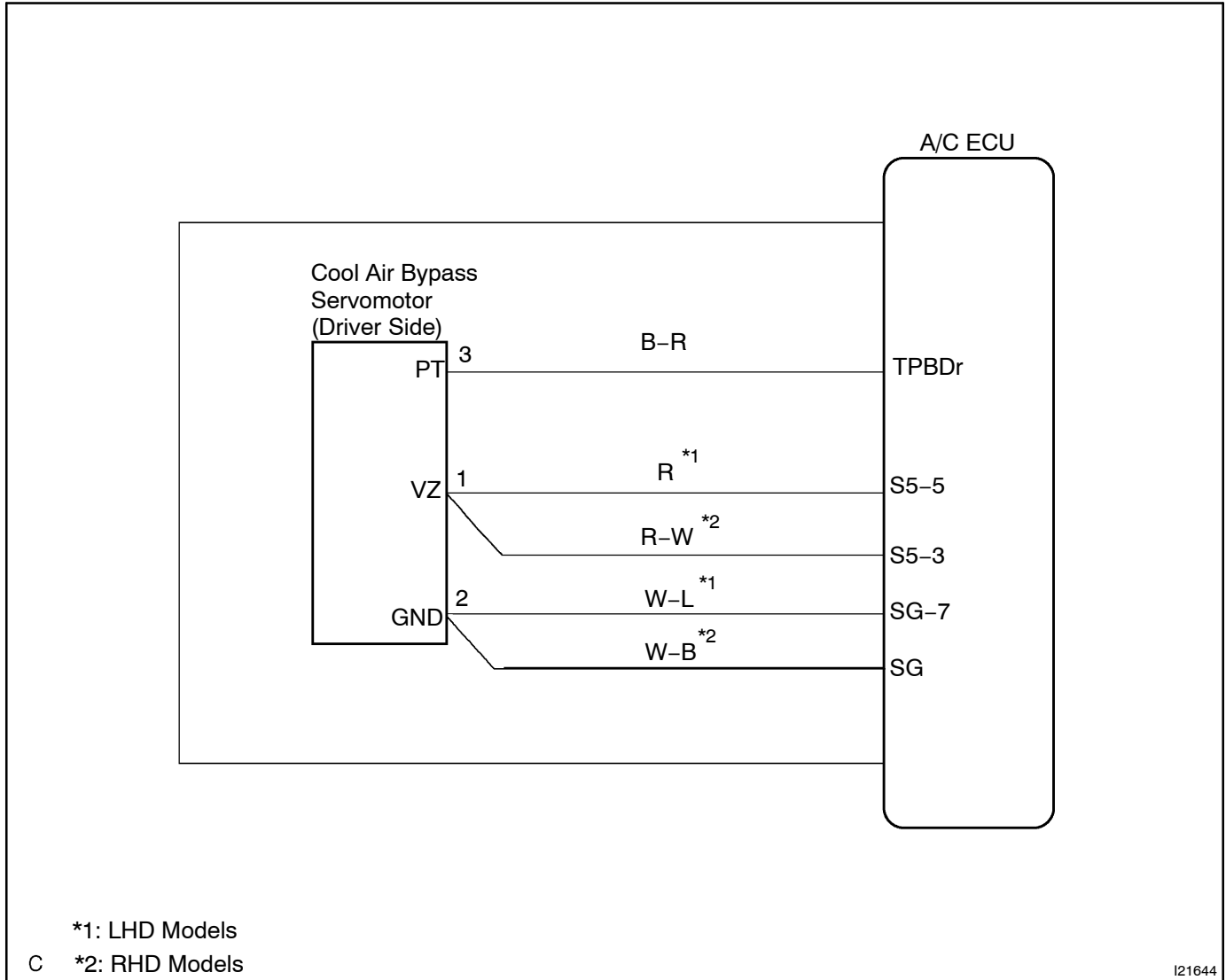| DTC	B1434/34	Cool Air Bypass Damper Position Sensor Circuit (Driver Side)

CIRCUIT DESCRIPTION

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

DTC No.	Detection Item	Trouble Area
B1434/34	Short to ground or power source circuit in cool air bypass damper position sensor circuit.	• Cool air bypass damper position sensor. • Harness or connector between cool air bypass damper control servomotor assembly and A/C ECU. • A/C ECU.

WIRING DIAGRAM

Cool Air Bypass
Servomotor
(Driver Side)

A/C ECU

Pin	Signal	Wire	ECU
3	PT	B–R	TPBDr
1	VZ	R *1	S5–5
		R–W *2	S5–3
2	GND	W–L *1	SG–7
		W–B *2	SG

*1: LHD Models

C   *2: RHD Models

I21644

INSPECTION PROCEDURE

1	Check voltage between terminals TPBDr and SG of A/C ECU connector.
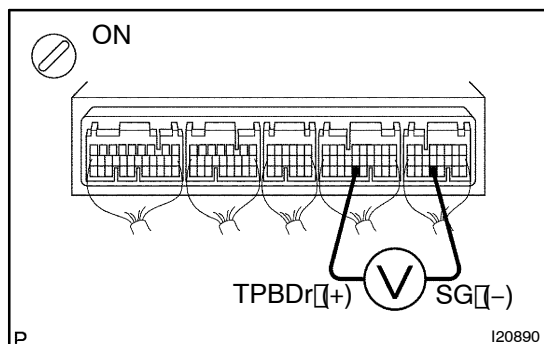
PREPARATION:
Remove A/C ECU with connectors still connected.

CHECK:
(a) Turn ignition switch to ON.
(b) Change the set temperature to activate the cool air by-pass damper servomotor and measure voltage between terminals TPBDr and SG of A/C ECU 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:
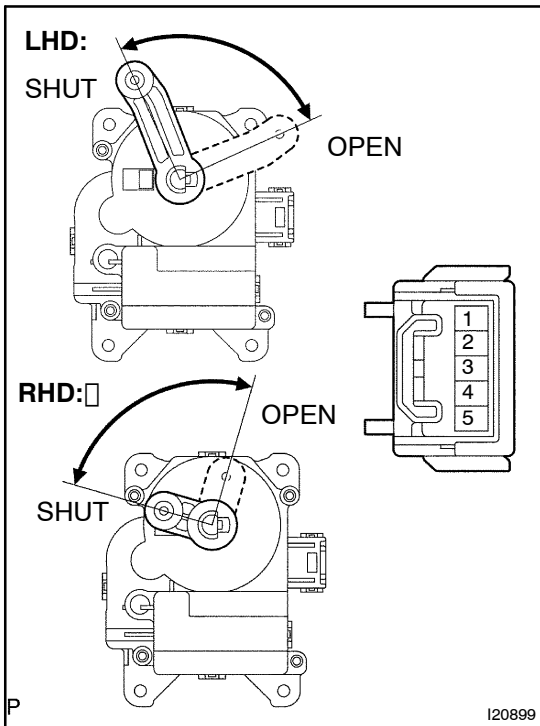As the set temperature increases, the voltage decreases.

NG	Go to step 2.

OK

Proceed to next circuit inspection shown on problem symptoms table (See page DI–1772). However, if DTC B1434/34 is displayed, check and replace A/C ECU.

2	Check cool air bypass damper position sensor.

LHD:

SHUT

OPEN

RHD:

OPEN

SHUT

1
2
3
4
5

P   I20899

PREPARATION:
Remove cool air bypass damper control servomotor
(See page AC−79).

CHECK:
Measure resistance between terminals 1 and 2 of cool air by-pass damper control servomotor assembly connector.

OK:
> **Resistance: 4.2 − 7.2 kΩ**

CHECK:
While operating max. cool damper control servomotor, following the procedure on page DI−1830, measure resistance between terminals 2 and 3 of max. cool damper control servomotor assembly connector.

OK:

Damper Position	Resistance
Max. cool	3.33 − 4.03 kΩ
Max. hot	0.80 − 1.60 kΩ

HINT:
As the max cool damper control servomotor moves from the cool side to the hot side, the resistance decreases.

NG	**Replace cool air bypass damper control servomotor assembly.**

OK

3	Check harness and connector between A/C ECU and cool air bypass damper control servomotor assembly (See page IN−35).

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

OK

Check and replace A/C ECU.