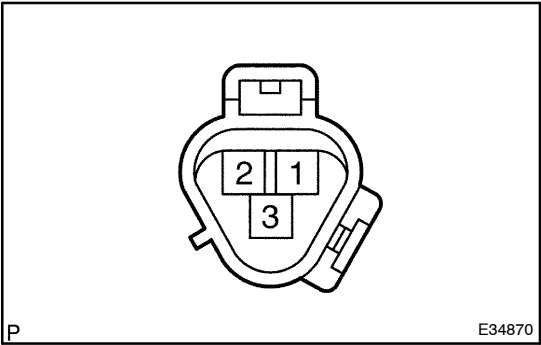


INSPECTION

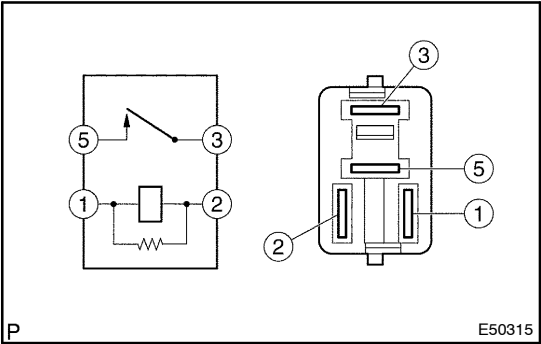


1. COOLER COMPRESSOR ASSY

- (a) Connect the positive (+) lead from the battery to terminal 1 and the negative (-) lead to the body ground.
- (b) Check that the magnetic clutch energized.
If operation is not as specified, replace the magnet clutch assy.
- (c) Measure resistance between terminals 2 and 4.

Standard resistance: 165 – 205 Ω at 20 °C (68 °F)

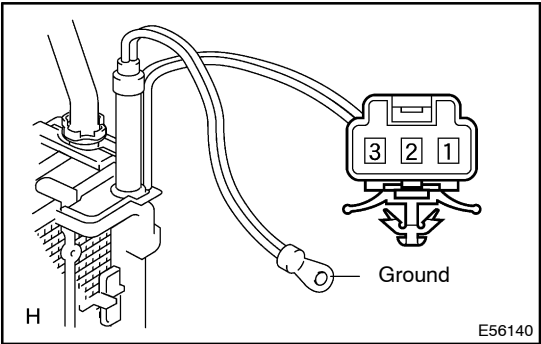
If resistance is not as specified, replace the cooler compressor assy.



2. MAGNET-CLUTCH RELAY

Condition	Tester connection	Specified condition
Constant	1 – 2	Continuity
Apply B + between terminals 1 and 2.	3 – 5	Continuity

If continuity is not as specified, replace the magnet-clutch relay.

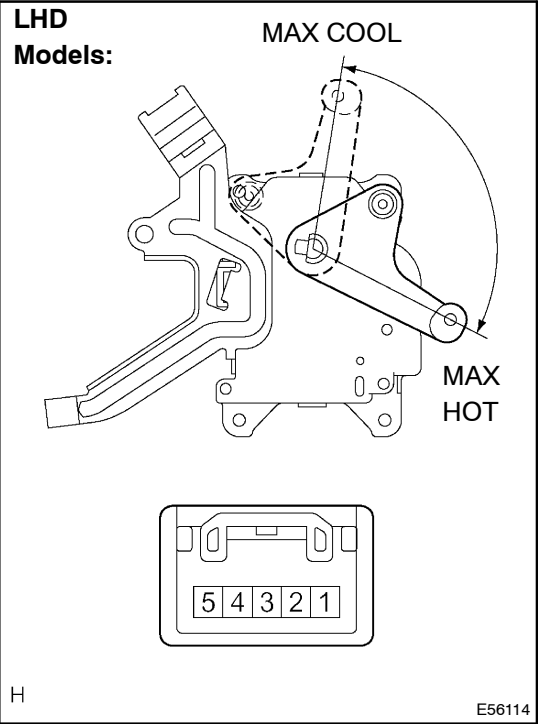


3. HEATER RADIATOR UNIT SUB-ASSY(COLD AREA)

- (a) Measure resistance between terminals as shown in the chart below.

Tester connection	Specified condition
1 – Ground	Continuity
2 – Ground	Continuity
3 – Ground	Continuity

If continuity is not as specified, replace the heater radiator unit sub-assy.



4. AIRMIX DAMPER SERVO SUB-ASSY

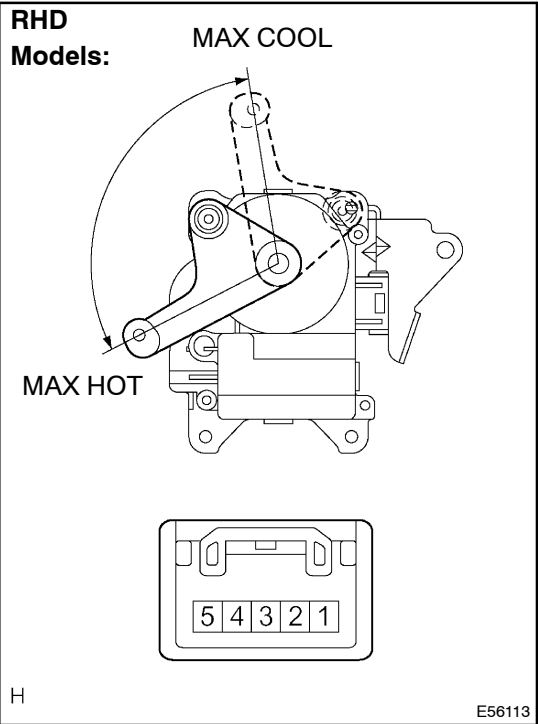
- (a) Inspect servomotor operation.
- (1) Connect the positive (+) lead from the battery to terminal 4 and negative (-) lead to terminal 5, then check that the arm turns to "COOL" side smoothly.
 - (2) Connect the positive (+) lead from the battery to terminal 5 and negative (-) lead to terminal 4, then check that the arm turns to "WARM" side smoothly.

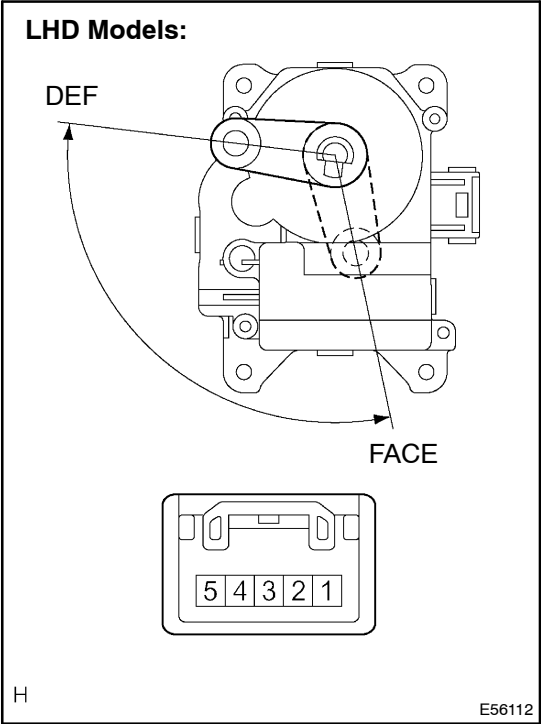
If operations are not as specified, replace the air mix servomotor.

- (b) Inspect position sensor resistance.
Measure resistance between terminals at servomotor arm each position as shown in the chart.

Tester connection	Condition	Specified condition
1 – 2	Constant	4.2 – 7.8 kΩ
2 – 3	Arm position at "COOL"	3.6 – 6.7 kΩ
2 – 3	Arm position at "WARM"	0.6 – 1.1 kΩ

If resistance is not as specified, replace the servomotor.





5. MODE DAMPER SERVO SUB-ASSY

- (a) Inspect servomotor operation.
 - (1) Connect the positive (+) lead from the battery to terminal 4 and negative (-) lead to terminal 5, then check that the arm turns to "DEF" side smoothly.
 - (2) Connect the positive (+) lead from the battery to terminal 5 and negative (-) lead to terminal 4, then check that the arm turns to "FACE" side smoothly.

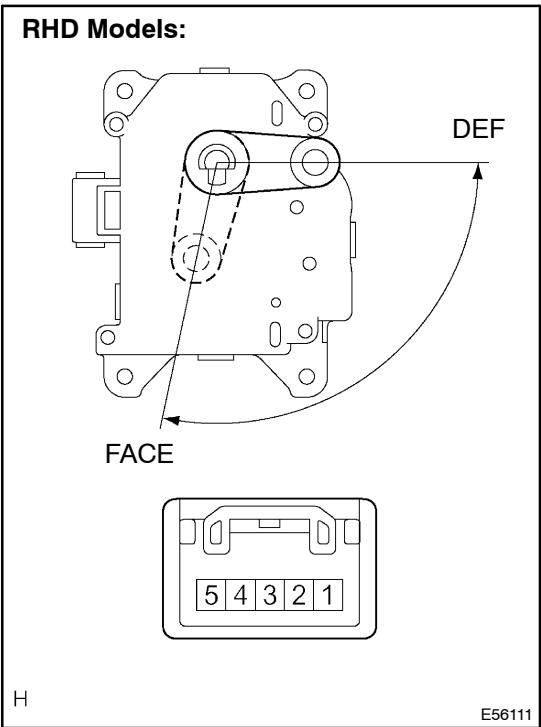
If operations are not as specified, replace the air outlet servomotor.

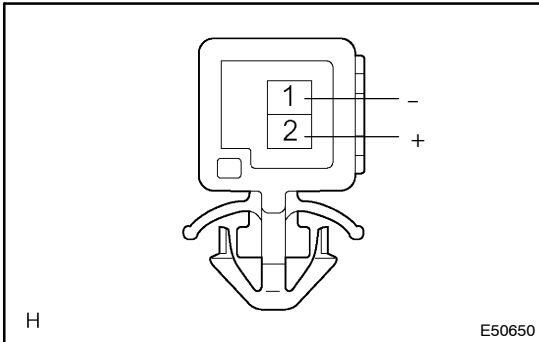
- (b) Inspect position sensor resistance.

Measure resistance between terminals at servomotor arm each position as shown in the chart.

Tester connection	Condition	Specified condition
1 – 2	Constant	4.2 – 7.8 kΩ
2 – 3	Arm position at "DEF"	3.6 – 6.7 kΩ
2 – 3	Arm position at "FACE"	0.6 – 1.1 kΩ

If resistance is not as specified, replace the servomotor.

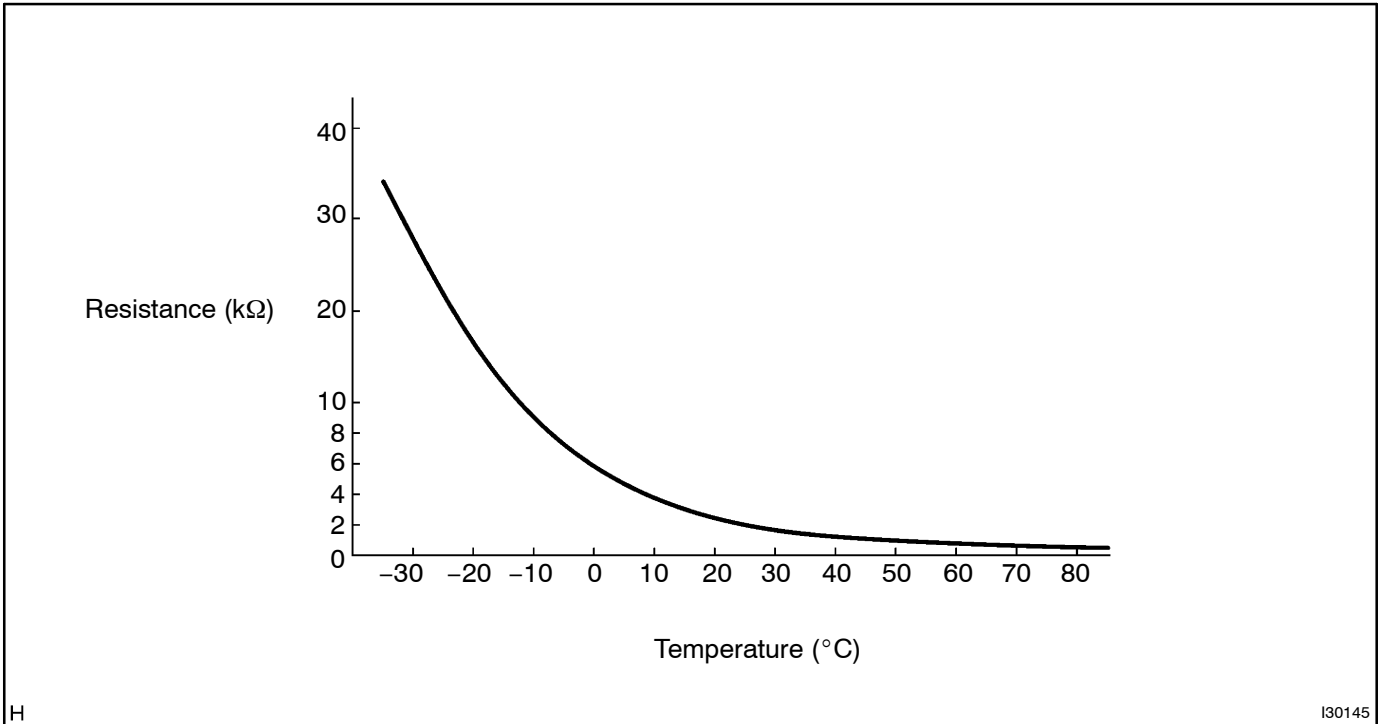




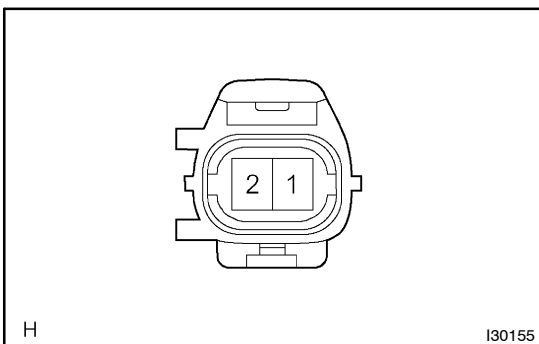
6. COOLER THERMISTOR NO.1

- (a) Check resistance between terminals 1 and 2 of cooler thermistor No. 1 at each temperature, as shown in the chart.

Resistance:



If resistance value is not as specified, replace the sensor.



7. THERMISTOR ASSY(COLD AREA)

- (a) Measure resistance between terminals 1 and 2 of cooler (ambient temp. sensor) connector at each temperature.

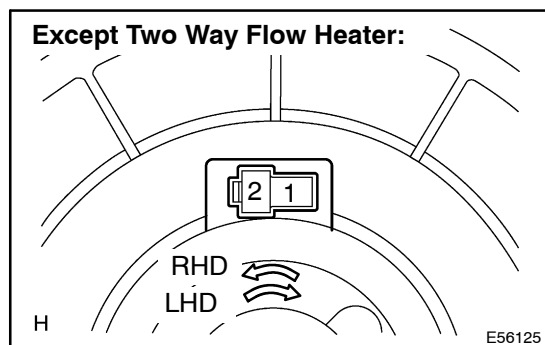
Resistance:

at 25 °C (77 °F): 1.65 – 1.75 kΩ

at 40 °C (104 °F): 0.55 – 0.65 kΩ

HINT:

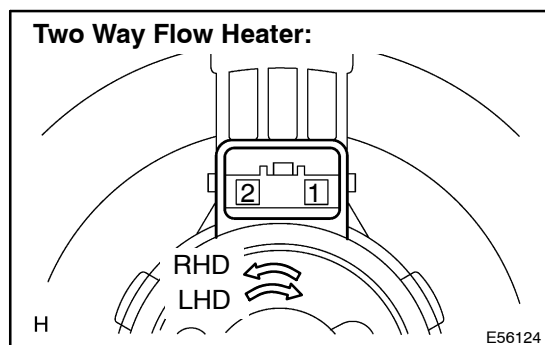
As the temperature increases, the resistance decreases.

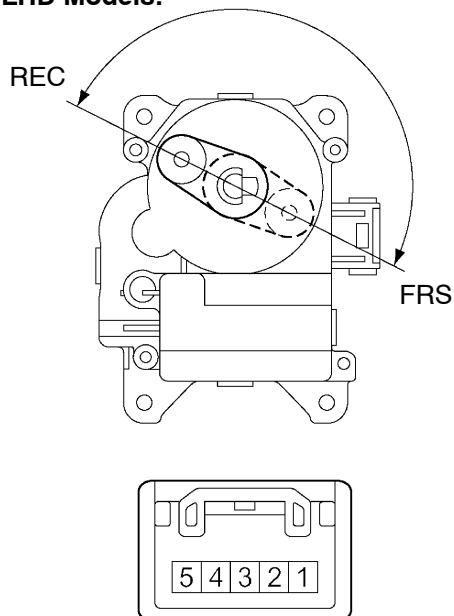


8. BLOWER W/FAN MOTOR SUB-ASSY

- (a) Connect the positive (+) lead from the battery to terminal 2 and negative (-) to terminal 1, then check that the motor operation smoothly.

If operation is not as specified, replace the blower motor.



LHD Models:

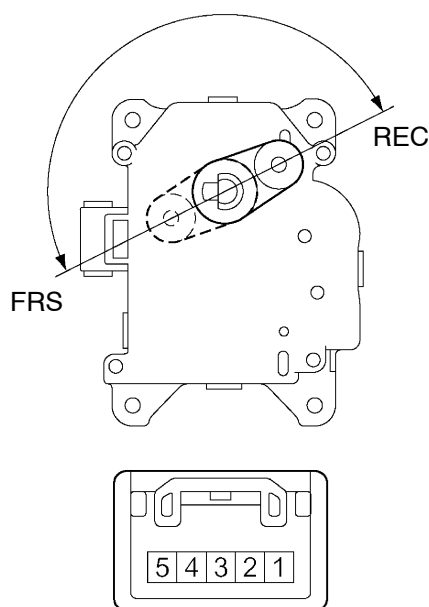
H

E56116

9. BLOWER DAMPER SERVO SUB-ASSY(EXCEPT 2 WAY FLOW HEATE

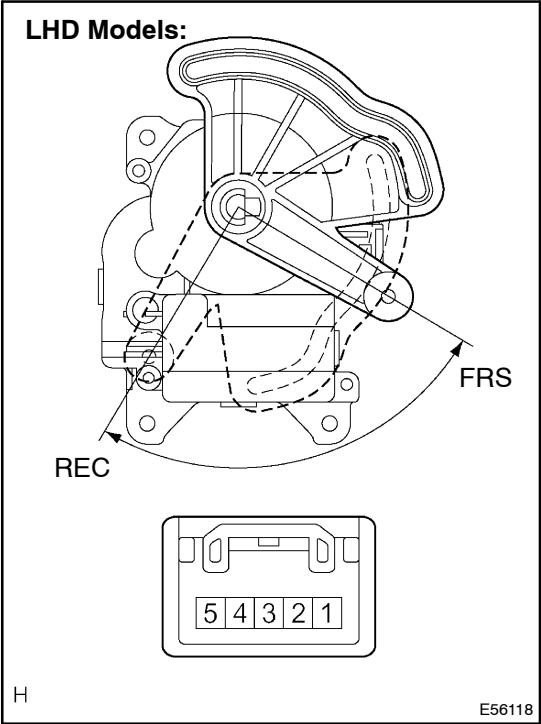
- (a) Inspect servomotor operation.
- (1) Connect the positive (+) lead from the battery to terminal 5 and negative (-) lead to terminal 1, then check that the arm turns to "FRS" side smoothly.
 - (2) Connect the positive (+) lead from the battery to terminal 5 and negative (-) lead to terminal 2, then check that the arm turns to "REC" side smoothly.

If operations are not as specified, replace the mode damper servomotor.

RHD Models:

H

E56115



10. BLOWER DAMPER SERVO SUB-ASSY(2 WAY FLOW HEATE

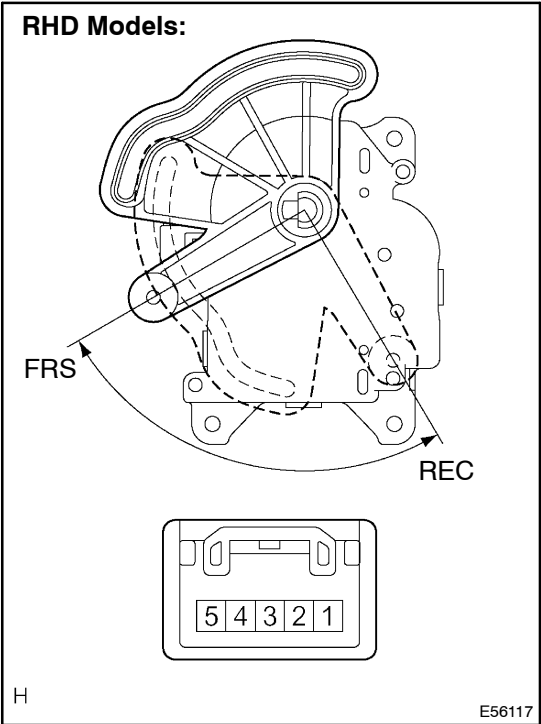
- (a) Inspect servomotor operation.
- (1) Connect the positive (+) lead from the battery to terminal 4 and negative (-) lead to terminal 5, then check that the arm turns to "REC" side smoothly.
 - (2) Connect the positive (+) lead from the battery to terminal 5 and negative (-) lead to terminal 4, then check that the arm turns to "FRS" side smoothly.

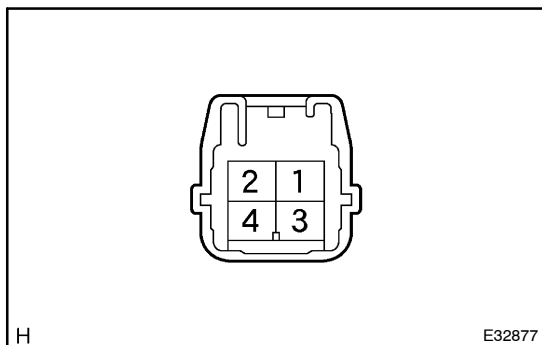
If operations are not as specified, replace the air outlet servo-motor.

- (b) Inspect position sensor resistance.
- Measure resistance between terminals at servomotor arm each position as shown in the chart.

Tester connection	Condition	Specified condition
1 – 2	Constant	4.2 – 7.8 kΩ
2 – 3	Arm position at "REC"	3.6 – 6.7 kΩ
2 – 3	Arm position at "FRS"	0.6 – 1.1 kΩ

If resistance is not as specified, replace the servomotor.

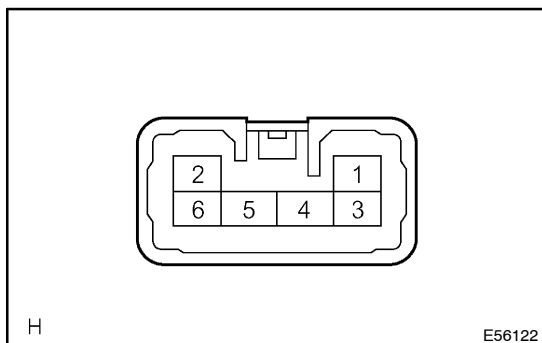


**11. BLOWER RESISTOR(EXCEPT 2 WAY FLOW HEATER)**

- (a) Measure resistance between terminals, as shown in the chart below.

Tester connection	Specified condition
1 – 2	1.398 – 1.605 Ω
1 – 3	0.465 – 0.535 Ω
1 – 4	3.069 – 3.531 Ω

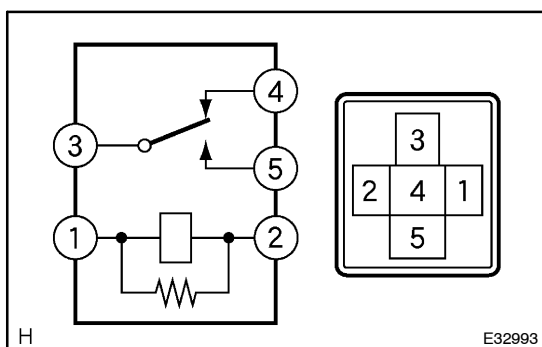
If resistance is not as specified, replace the blower resistor.

**12. BLOWER RESISTOR(2 WAY FLOW HEATER)**

- (a) Measure resistance between terminals, as shown in the chart below.

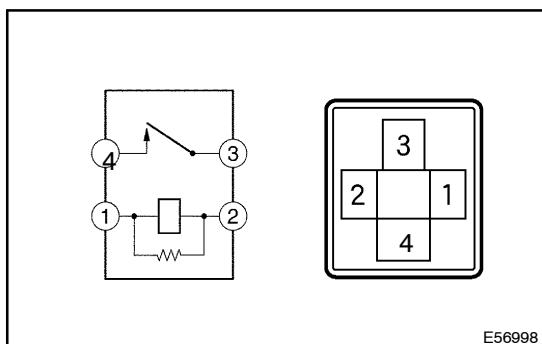
Tester connection	Specified condition
2 – 6	0.307 – 0.353 Ω
1 – 6	0.883 – 1.017 Ω
1 – 3	1.646 – 1.894 Ω

If resistance is not as specified, replace the blower resistor.

**13. HEATER BLOWER MOTOR RELAY ASSY**

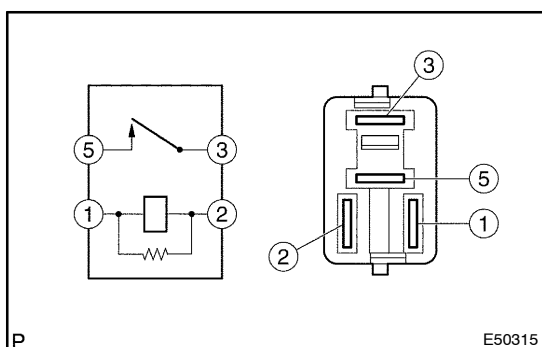
Condition	Tester connection	Specified condition
Constant	1 – 2 3 – 4	Continuity
Apply B + between terminals 1 and 2.	3 – 5	Continuity

If continuity is not as specified, replace the heater blower motor relay.

**14. HEATER RELAY NO.1**

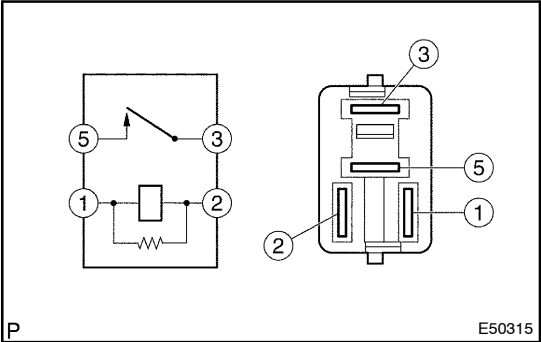
Condition	Tester connection	Specified condition
Constant	1 – 2	Continuity
Apply B + between terminals 1 and 2.	3 – 5	Continuity

If continuity is not as specified, replace the heater relay No. 1.

**15. HEATER RELAY NO.2**

Condition	Tester connection	Specified condition
Constant	1 – 2	Continuity
Apply B + between terminals 1 and 2.	3 – 5	Continuity

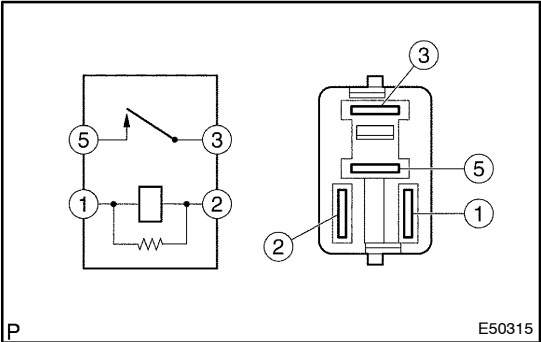
If continuity is not as specified, replace the heater relay No. 2.



16. HEATER RELAY NO.3

Condition	Tester connection	Specified condition
Constant	1 – 2	Continuity
Apply B + between terminals 1 and 2.	3 – 5	Continuity

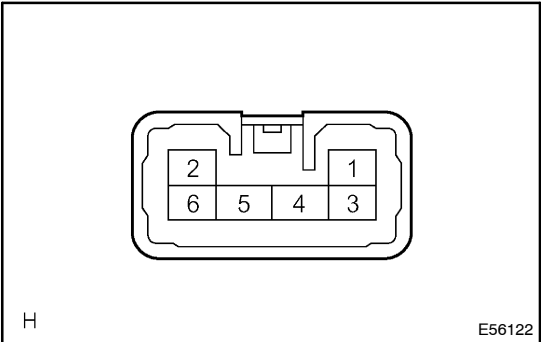
If continuity is not as specified, replace the heater relay No. 3.



17. PTC HEATER RELAY(COLD AREA)

Condition	Tester connection	Specified condition
Constant	1 – 2	Continuity
Apply B + between terminals 1 and 2.	3 – 5	Continuity

If continuity is not as specified, replace the PTC heater relay.



18. REAR HEATER BLOWER SWITCH(W/ REAR HEATER)

(a) Inspect switch continuity.

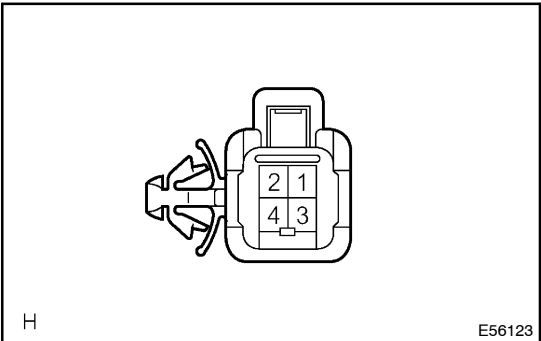
Condition / Circuit	Tester connection	Specified Condition
OFF	–	No continuity
LO	3 – 4	Continuity
HI	3 – 5	Continuity

If continuity is not as specified, replace the switch.

(b) Inspect illumination operation.

Connect the positive (+) lead from the battery to terminal 2 and negative (–) lead to terminal 3 then check that the illumination light up.

If there is bulb not light up, replace the bulb.

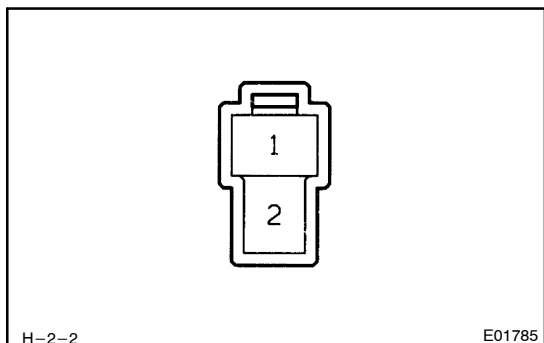


19. REAR HEATER BLOWER RESISTOR(W/ REAR HEATER)

(a) Inspect blower resistor continuity.

Tester connection	Specified condition
1 – 3	5.95 – 6.85 Ω

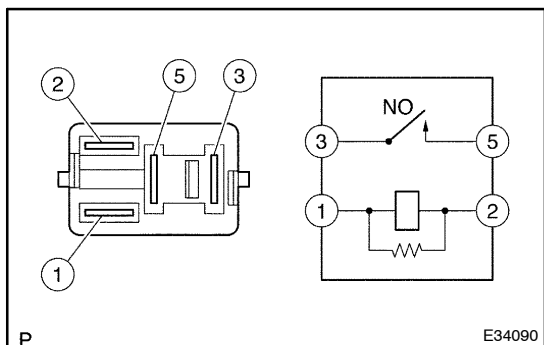
If continuity is not as specified, replace the blower resistor.



20. REAR HEATER BLOWER MOTOR SUB-ASSY(W/ REAR HEATER)

- (a) Connect the positive (+) lead from the battery to terminal 2 and negative (-) to terminal 1, then check that the motor operation smoothly.

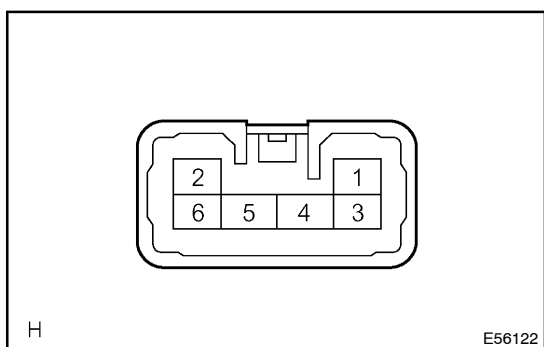
If operation is not as specified, replace the blower motor.



21. REAR HEATER RELAY(W/ REAR HEATER)

Condition	Tester connection	Specified condition
Constant	1 – 2	Continuity
Apply B + between terminals 1 and 2.	3 – 5	Continuity

If continuity is not as specified, replace the relay.

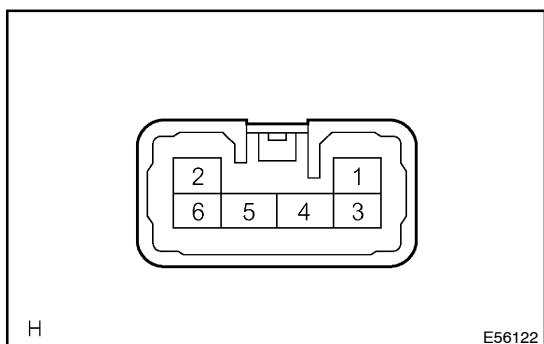


22. COOLER CONTROL SWITCH ASSY(W/ REAR COOLER)

- (a) Inspect switch continuity.

Condition / Circuit	Tester connection	Specified Condition
OFF	–	No continuity
LO	1 – 2	Continuity
M1	1 – 2 – 5	Continuity
M2	1 – 2 – 4	Continuity
HI	1 – 2 – 3	Continuity

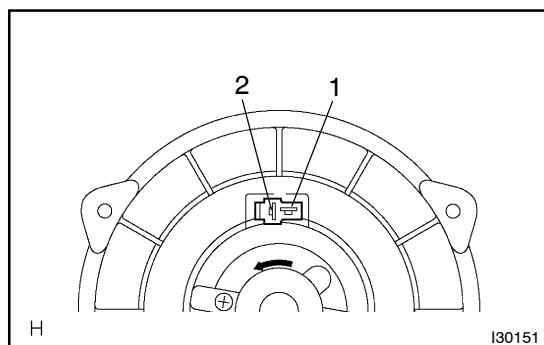
If continuity is not as specified, replace the switch.



23. BLOWER (REAR) RESISTOR(W/ REAR COOLER)

- (a) Inspect blower resistor continuity.

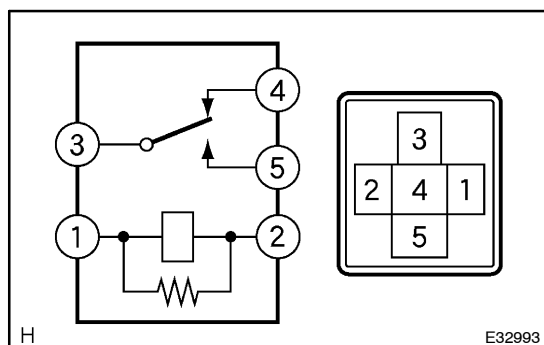
Tester connection	Specified condition
1 – 6	0.09 – 0.11 Ω
5 – 6	0.46 – 0.52 Ω
4 – 6	0.55 – 0.63 Ω
3 – 6	1.48 – 1.70 Ω
1 – 6	3.15 – 3.63 Ω



24. COOLER BLOWER MOTOR SUB-ASSY NO.1(W/ REAR COOLER)

- (a) Connect the positive (+) lead from the battery to terminal 2 and negative (-) to terminal 1, then check that the motor operation smoothly.

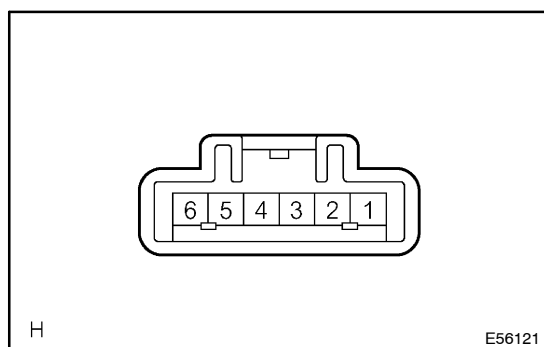
If operation is not as specified, replace the blower motor.



25. REAR COOLER RELAY(W/ REAR COOLER)

Condition	Tester connection	Specified condition
Constant	1 – 2 3 – 4	Continuity
Apply B + between terminals 1 and 2.	3 – 5	Continuity

If continuity is not as specified, replace the relay.



26. IDLE UP SWITCH(2 WAY FLOW HEATER)

- (a) Inspect switch continuity.
Check the continuity between terminals while switch is pressed, as shown in the chart.

Tester connection	Specified condition
3 – 4	Continuity

If continuity is not as specified, replace the switch.

- (b) Inspect illumination operation.
Connect the positive (+) lead from the battery to terminal 6 and negative (-) lead to terminal 5 then check that the illuminations light up.

If operation is not as specified, replace the switch.