

AIR CONDITIONER CONTROL ASSEMBLY

ON-VEHICLE INSPECTION

AC261-01

1. REMOVE A/C CONTROL ASSEMBLY

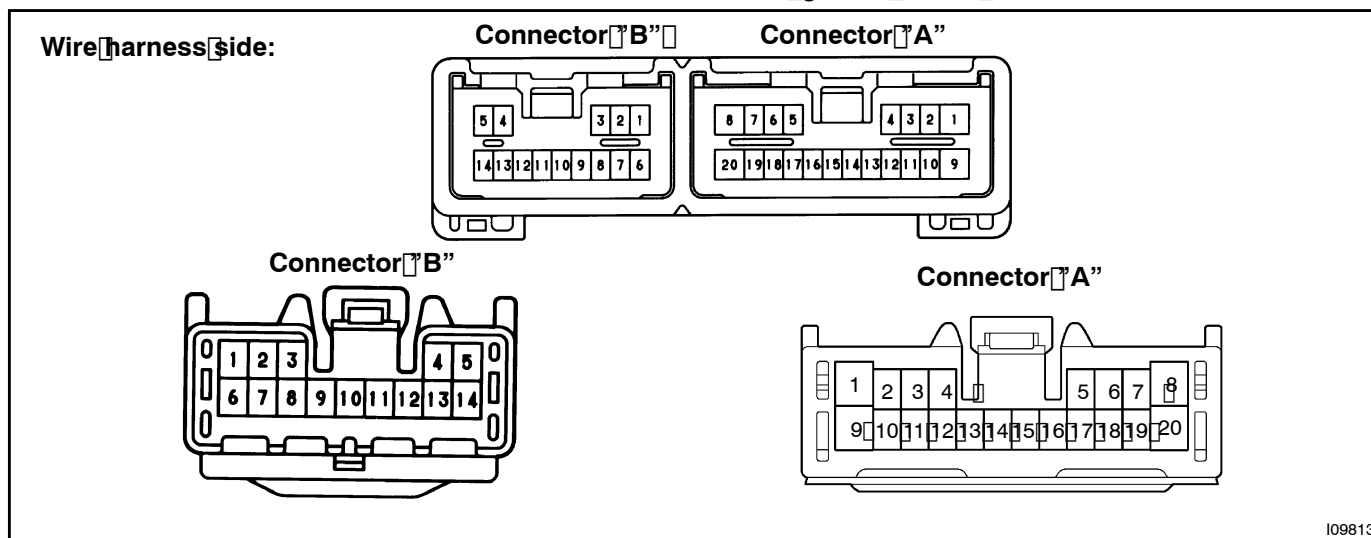
(See page AC-87)

2. INSPECT A/C CONTROL ASSEMBLY CIRCUIT

- (a) Disconnect the connector from the A/C control assembly and inspect the connector on the wire harness side, as shown in the chart below.

Test condition:

Turn Ignition switch ON



Tester connection	Condition	Specified condition
A13 - A6	Cover solar sensor with a cloth	No continuity
	Solar sensor subject to electric light	Continuity
B14 - Ground	Constant	Continuity
A17 - A18	Cabin temperature at 25°C (77°F)	Approx. 1.7 kΩ
A5 - A18	Evaporator temperature at 25°C (77°F)	Approx. 0.5 kΩ
B4 - Ground	Turn Ignition switch to ACC	Battery voltage
B13 - Ground	Turn Ignition switch to ON	Battery voltage
	Turn Ignition switch to LOCK or ACC	No voltage
B12 - Ground	Turn Light control switch to "TAIL"	Battery voltage
B5 - Ground	Constant	Battery voltage

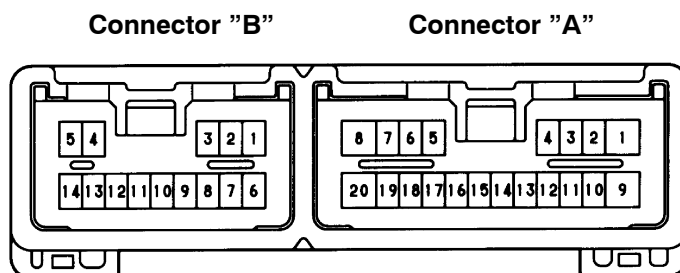
- If the circuit is not as specified, inspect the circuit connected to other parts.
- If the circuit is as specified, proceed to "INSPECTION" on page AC-91.

- (b) Connect the connector to amplifier and inspect the wire harness side connector from the back side, as shown in the chart.

Test conditions:

- Running engine at idle speed
- Blower speed control dial at "HI" position
- Temperature control dial at "MAX. COOL" position
- A/C switch ON

From back side:



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Tester connection	Condition	Specified condition
A18 – Ground	Constant	Continuity
A1 – Ground	Hazard switch: OFF	No continuity
	Hazard switch: ON	Continuity
A2 – Ground	R/F switch: FRESH	Below 1.0 V
	R/F switch: RECIRC	No voltage
A3 – A11	Mode control dial: FACE	Below 1.0 V
	Mode control dial: DEF	Battery voltage
A4 – A12	Temperature control dial: MAX COOL	Below 1.0 V
	Temperature control dial: MAX HOT	Battery voltage
A6 – A18	Constant	5.0 ± 0.5 V
A9 – Ground	R/F switch: FRESH	Battery voltage
	R/F switch: RECIRC	Below 1.0 V
A10 – Ground	R/F switch: FRESH	No voltage
	R/F switch: RECIRC	Battery voltage
A11 – A3	Mode control dial: DEF	Below 1.0 V
	Mode control dial: FACE	Battery voltage
A12 – A4	Temperature control dial: MAX HOT	Below 1.0 V
	Temperature control dial: MAX COOL	Battery voltage
A14 – A18	Temperature control dial: MAX HOT	Approx. 1.0 V
	Temperature control dial: MAX COOL	Approx. 4.0 V
A15 – A18	Mode control dial: DEF	Approx. 1.0 V
	Mode control dial: FACE	Approx. 4.0 V
B2 – Ground	Parking brake lever: Release	Battery voltage
	Parking brake lever: Operate	Below 1.0 V
B3 – Ground	Pattern select switch: Except PWR	Battery voltage
	Pattern select switch: PWR	Below 1.0 V

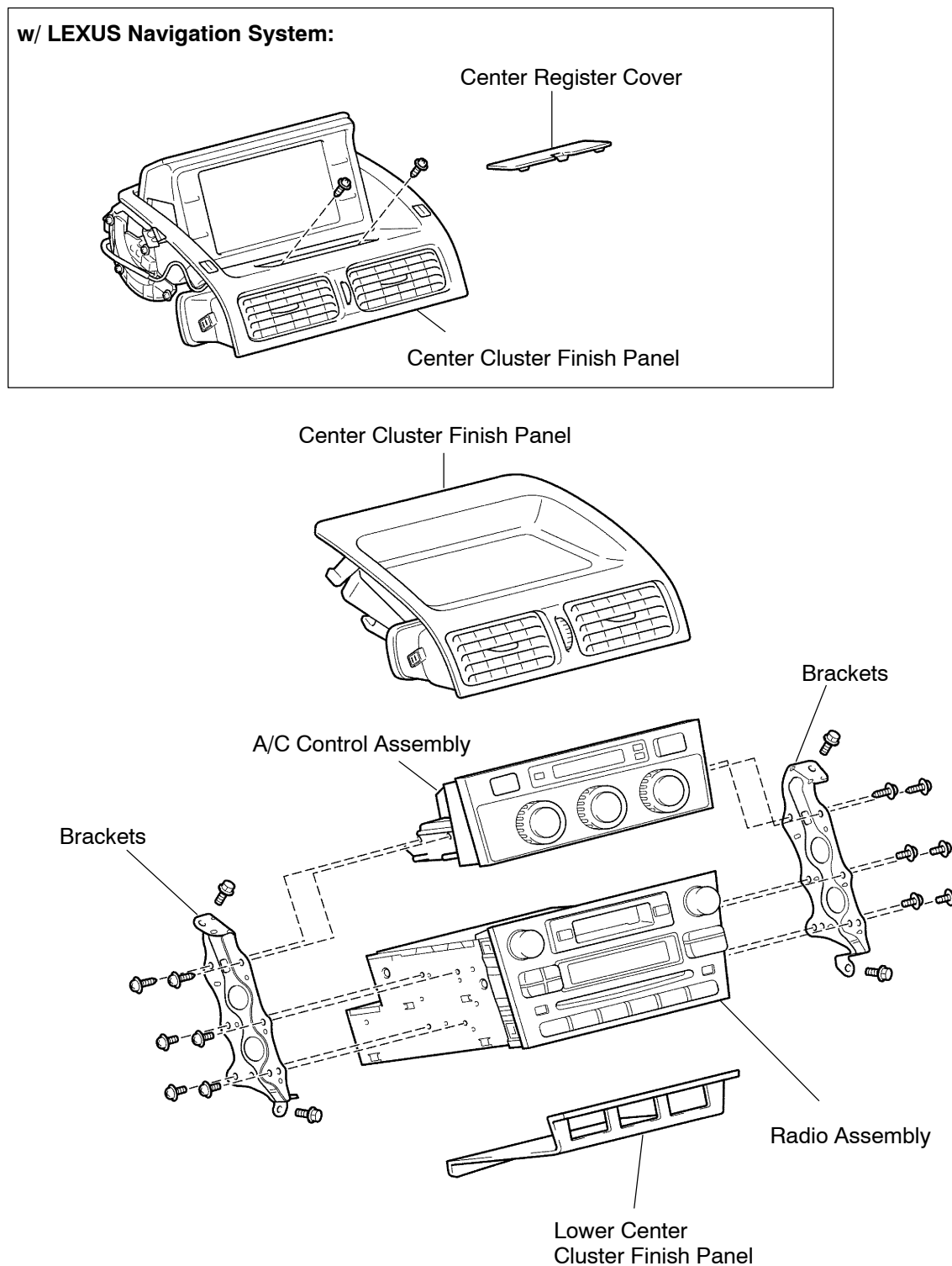
B6 - Ground	Ignition switch: ON	Below 1.0 V
	Ignition switch: OFF	Battery voltage
B7 - Ground	Blower motor: ON	Pulse generation
	Blower motor: OFF	Approx. 5.0 V
B8 - Ground	Pattern select switch: Except SNOW	Battery voltage
	Pattern select switch: SNOW	Below 1.0 V
B10 - Ground	Passenger seat belt: Unfastened	Below 1.0 V
	Passenger seat belt: Fastened	Battery voltage

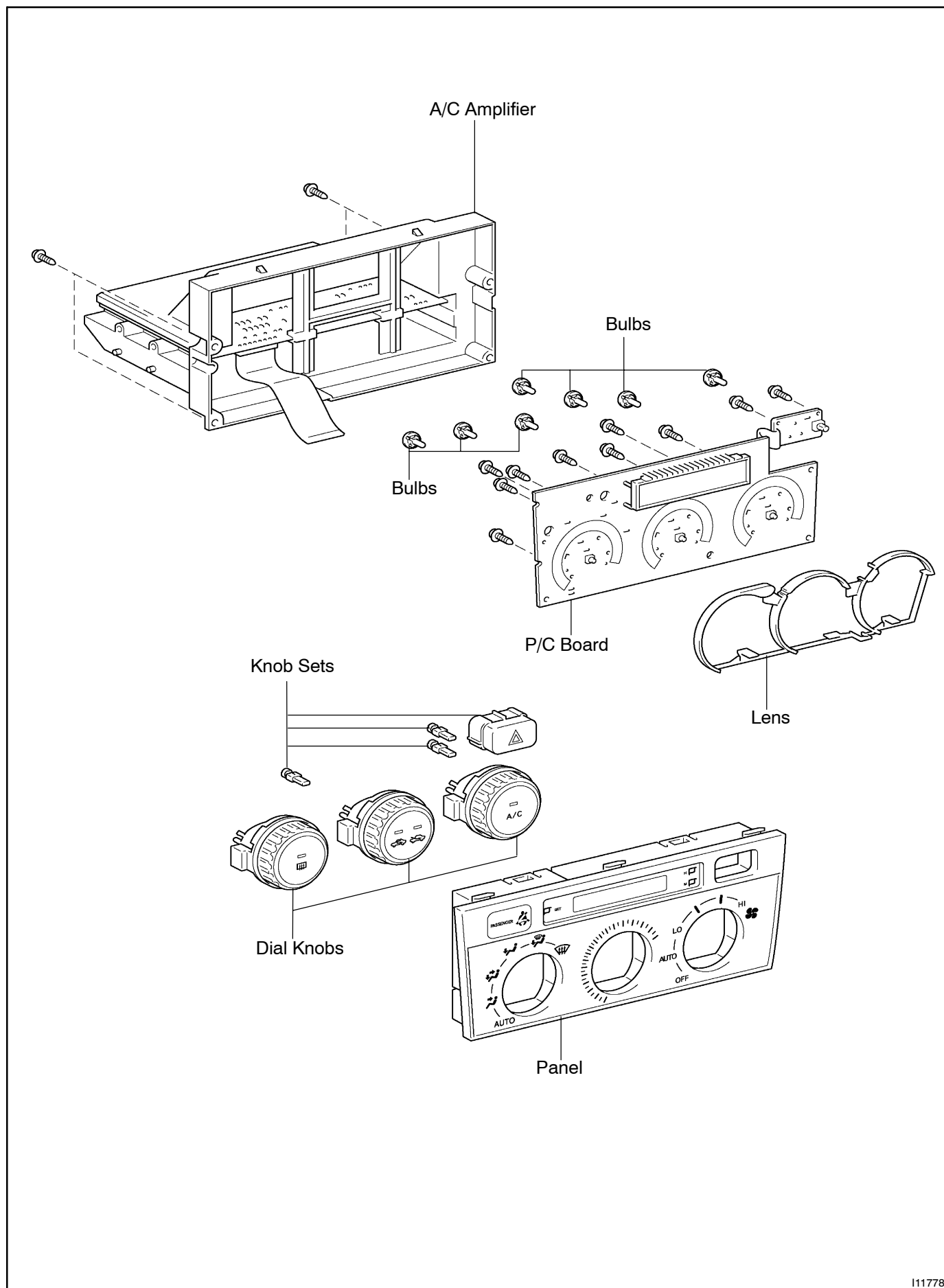
If the circuit is not as specified, proceed to "INSPECTION" on page AC-91.

3. INSTALL A/C CONTROL ASSEMBLY (See page AC-94)

COMPONENTS

w/ LEXUS Navigation System:

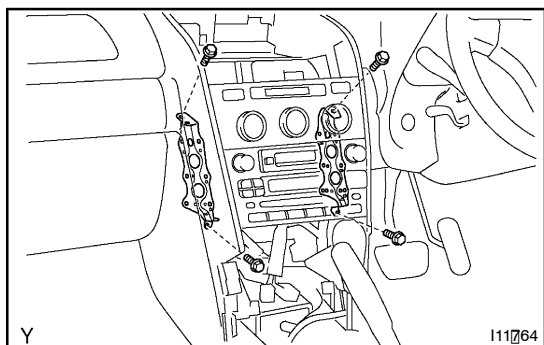




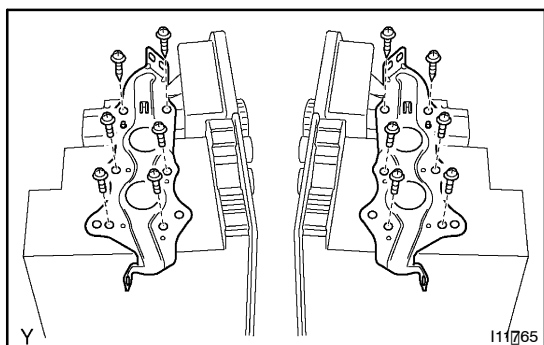
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REMOVAL

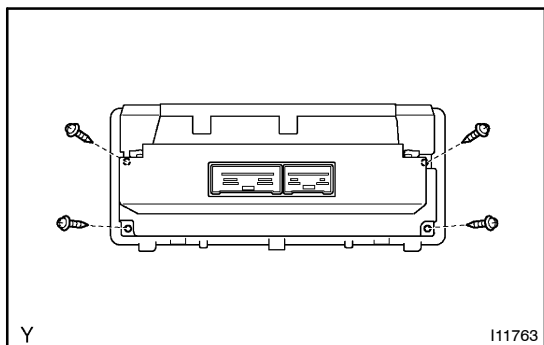
1. REMOVE CENTER CLUSTER FINISH PANEL
(See page BO-96)
2. REMOVE LOWER CENTER CLUSTER FINISH PANEL
(See page BO-96)



3. REMOVE A/C CONTROL ASSEMBLY
 - (a) Remove the 4 bolts and pull out the A/C control assembly with radio assembly, then disconnect the connectors.



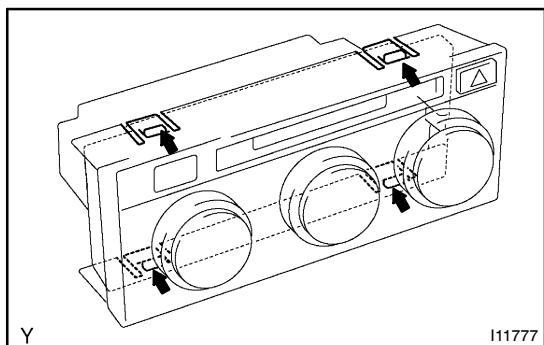
- (b) Remove the 12 screws and 2 brackets.
 - (c) Separate the A/C control assembly and radio assembly.



DISASSEMBLY

1. REMOVE A/C AMPLIFIER

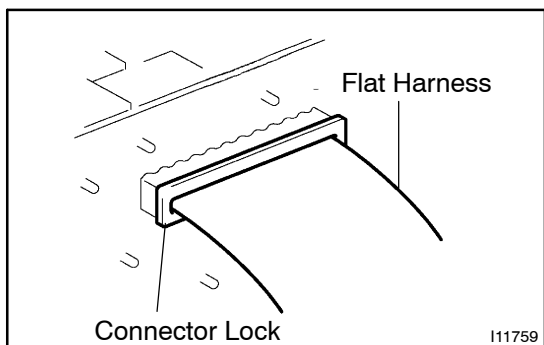
- (a) Remove the 4 screws.



- (b) Using a screwdriver, release the 4 claws and pull out the A/C amplifier.

HINT:

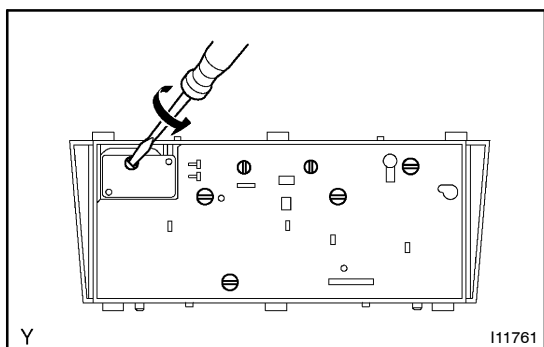
Tape the screwdriver tip before use.



- (c) Release the connector lock and pull out the flat harness.

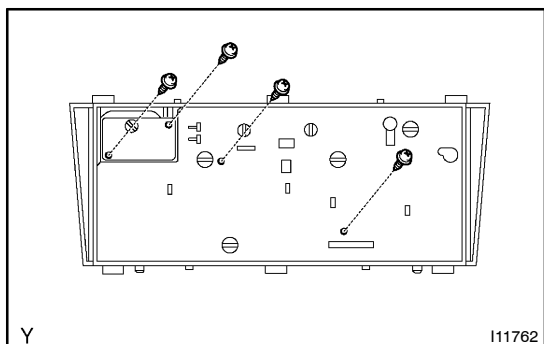
NOTICE:

Pull the lock of the connector securely toward you and pull off the flexible flat cable.



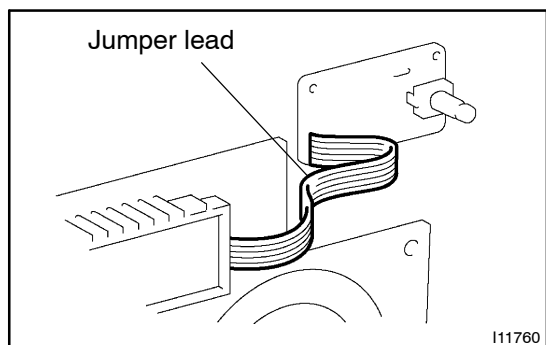
2. REMOVE BULBS

Using a screwdriver, turn the bulbs to the left and pull out the bulbs.

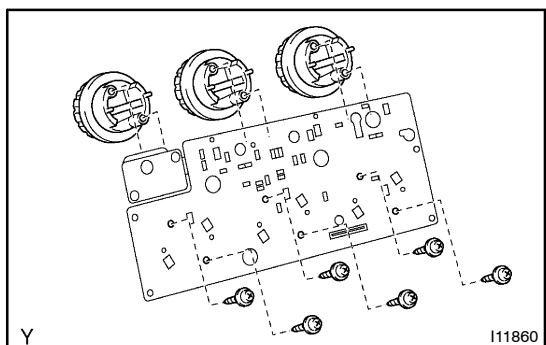


3. REMOVE P/C BOARD

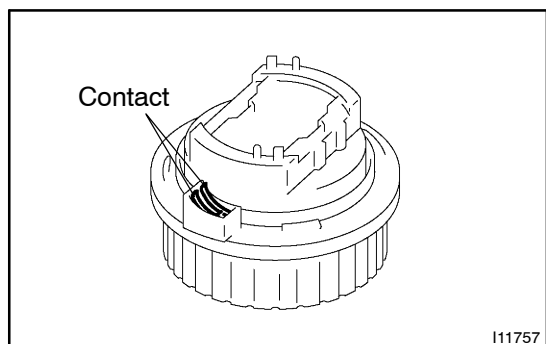
Remove the 4 screws and P/C board.

**NOTICE:**

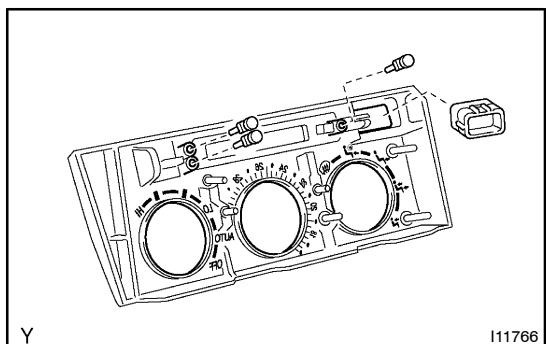
- Do not let any oil, dirt or foreign object on the connecting part of the P/C board.
- When holding the P/C board by hand, hold it at the edge and do not touch the soldered part and connecting part.
- Do not apply unnecessary force to the jumper lead.
- Do not let the accumulated static electricity in an operator apply to the electronic components.
- Do not tumble the LED as this soldered to the P/C board at right angles.

**4. REMOVE DIAL KNOBS**

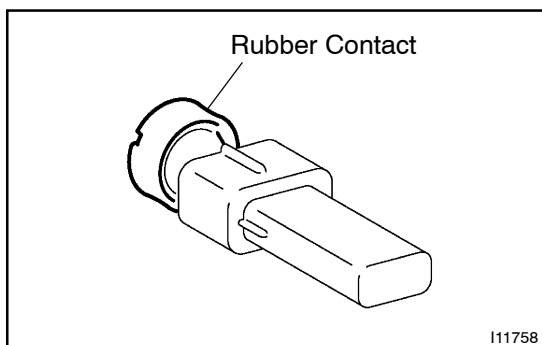
Remove the 6 screws and dial knobs.

**NOTICE:**

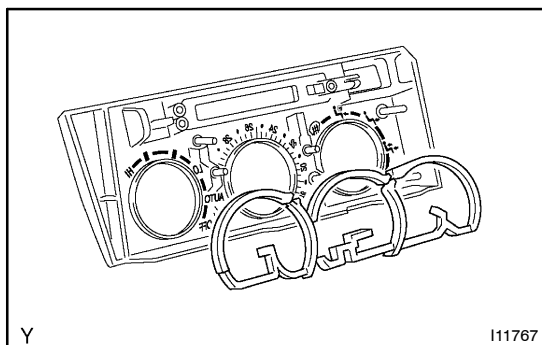
- Do not let any oil, dirt or foreign object attach on the connecting part of the connector.
- Do not deform the contact.
- Be careful not to drop the contact.

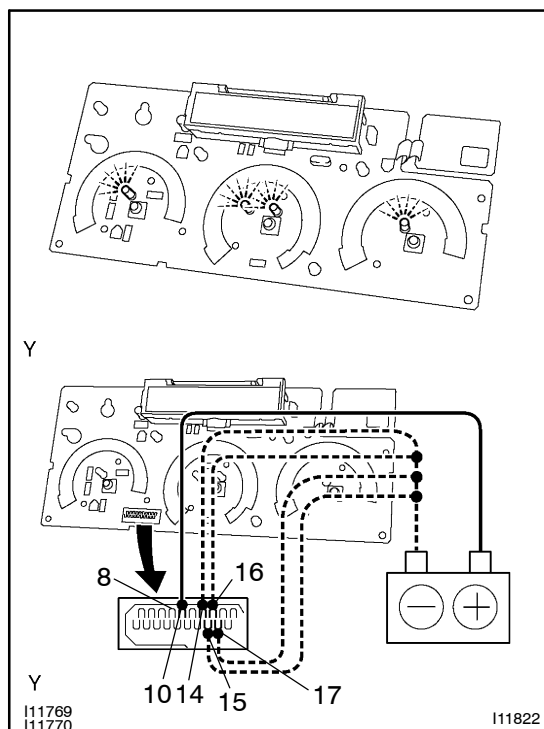
**5. REMOVE KNOB SETS**

Pull out the knob sets.

**NOTICE:**

Do not let any oil, dirt or foreign object attach on the rubber contact part.

**6. REMOVE LENS**



INSPECTION

1. INSPECT INDICATOR OPERATION

Connect the positive (+) lead from the battery to terminal 10 and negative (-) lead to each terminal, then check that the indicator lights up as shown in the chart.

Switch	Tester connection
DEF	14
FRESH	15
RECIRC	16
A/C	17

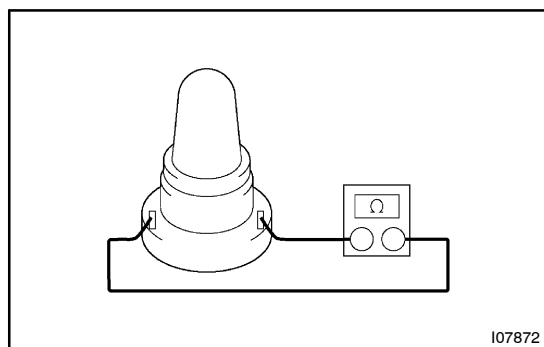
If operation is not as specified, replace the P/C board.

2. INSPECT INDICATOR DIMMING OPERATION

- Perform each indicator light up (See step 1).
- Connect the positive (+) lead from the battery to terminal 8 and check that the each indicator dims.

If the operation is not as specified, replace the P/C board.

If the operation is as specified, replace the A/C amplifier.

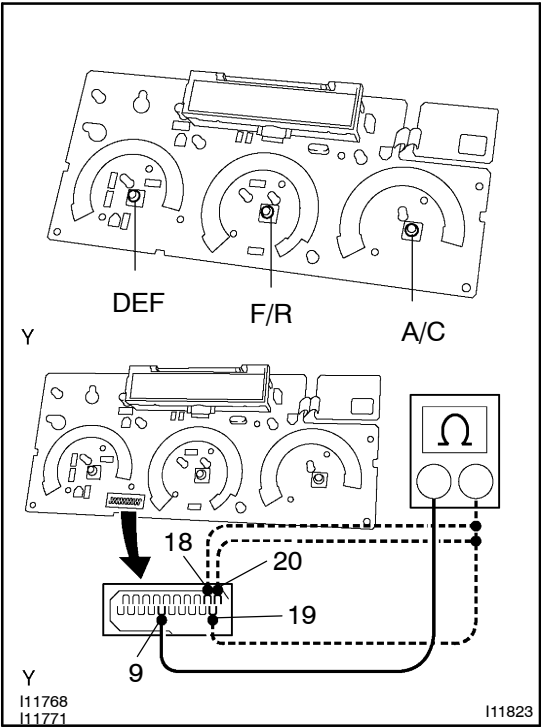


3. INSPECT BULB OPERATION

Apply the tester as shown in the illustration to the test for continuity.

If continuity exists, replace the P/C board.

If on continuity exists, replace the bulb.



4. INSPECT SWITCH OPERATION

Check the continuity exists between terminals while the switch is pressed.

Switch	Tester connection	Specified condition
A/C	9 - 18	Continuity
DEF	9 - 19	Continuity
F/R	9 - 20	Continuity

If operations is not as specified, replace the P/C board.

If operations is as specified, check the wire harness or replace the A/C amplifier.

REASSEMBLY

Reassembly is in the reverse order of disassembly (See page AC-88).

INSTALLATION

Installation is in the reverse order of removal (See [page AC-87](#)).

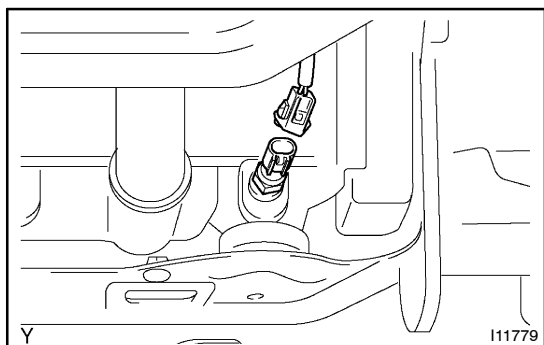
WATER TEMPERATURE SWITCH INSPECTION

AC268-01

1. REMOVE ENGINE UNDER COVER
2. DRAIN ENGINE COOLANT FROM RADIATOR

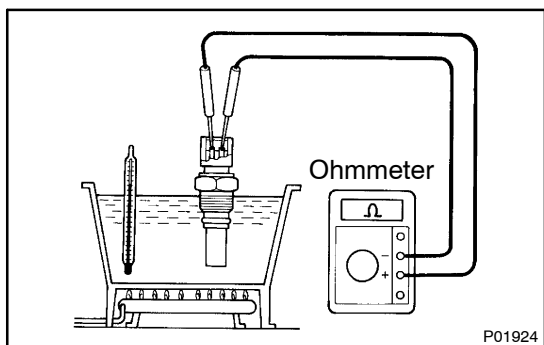
HINT:

It is not necessary to drain out all coolant



3. REMOVE WATER TEMPERATURE SWITCH

- (a) Disconnect the connector.
- (b) Remove the water temperature switch.
- (c) Remove the O-ring from the switch.



4. INSPECT WATER TEMPERATURE SWITCH

- (a) Using an ohmmeter, check that no continuity exists between the terminals when the coolant temperature is above 100 °C (212 °F).

If continuity exists, replace the switch.

- (b) Using an ohmmeter, check that continuity exists between the terminals when the coolant temperature is below 91 °C (196 °F).

If there no continuity exists, replace the switch.

5. INSTALL WATER TEMPERATURE SWITCH

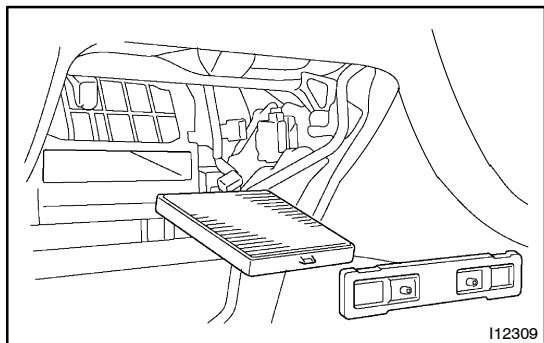
- (a) Install the new O-ring to the switch.
- (b) Install the water temperature switch.

Torque: 7.4 N·m (75 kgf·cm, 65 in·lbf)

6. FILL WITH ENGINE COOLANT TO RADIATOR
7. INSTALL ENGINE UNDER COVER

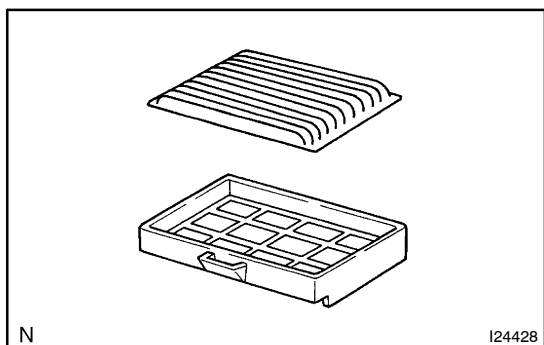
AIR REFINER FILTER REMOVAL

1. REMOVE GLOVE COMPARTMENT DOOR
(See [page BO-96](#))



2. REMOVE AIR REFINER FILTER

- (a) Remove the cover.
- (b) Pull out the air refiner filter.



- (c) Remove the filter from the flame.

INSTALLATION

Installation is in the reverse order of removal ([See page AC-96](#)).