Component Procedures: Air Door Actuator / Motor

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Component Procedures: Air Door Actuator / Motor

Parts and Labor (itype_189)

Parts

Qualifier	Part #	Name	Price	Note
Controls > Door Actuator	971623SAA0	Intake	142.66	
Controls > Door Actuator	97154F2000	Mode Door	54.03	
Controls > Door Actuator > T?	97159F2010	Left	74.95	
Controls > Door Actuator > T?	97159F2000	Right	58.03	

Labor

Operation	Qualifier Path	Skill	Std Hrs	Wty Hrs
Remove & Replace	Controls > Door Actuator, R&R > Auto Defogging	B	7.3	0.0
Remove & Replace	Controls > Door Actuator, R&R > Mode	B	7.3	0.0
Remove & Replace	Controls > Door Actuator, R&R > Recirculation	B	7.3	0.0
Remove & Replace	Controls > Door Actuator, R&R > Temperature >?	B	0.7	0.0
Remove & Replace	Controls > Door Actuator, R&R > Temperature >?	B	0.8	0.0

Auto Defogging Actuator - Description and Operation (Article 44871)

- Description

Intake Actuator - Description and Operation (Article 44883)

- Description

Mode Control Actuator - Description and Operation (Article 44867)

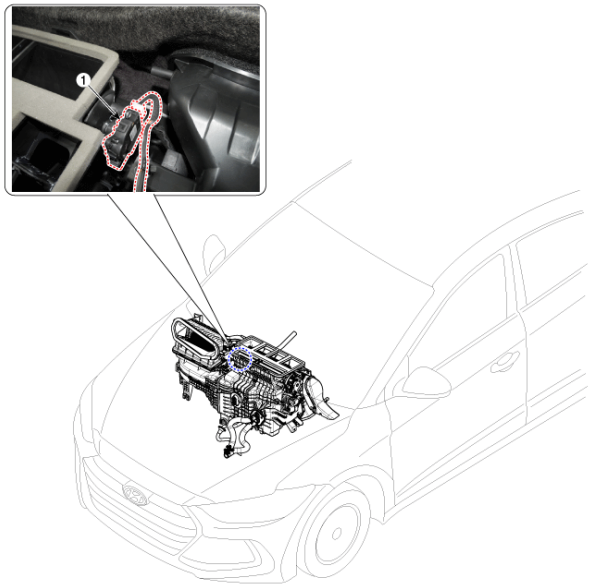
- Description

Temperature Control Actuator - Description and Operation (Article 44860)

- Description

Auto Defogging Actuator - Components and Components Location (Article 44870)

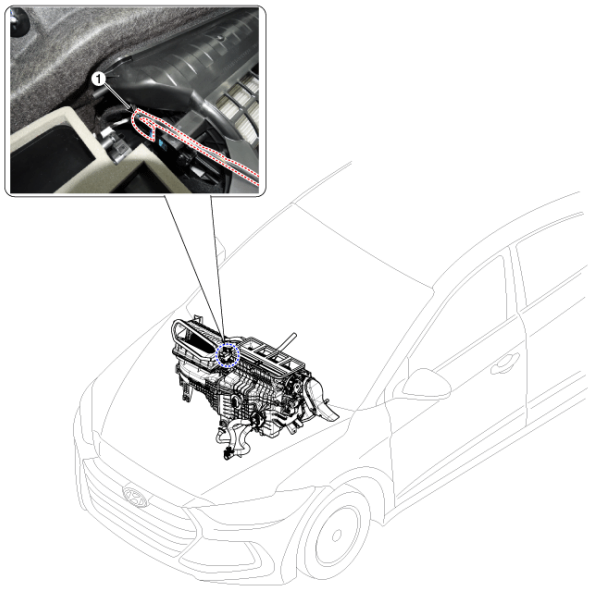
- Components Location



1. Auto logging actuator

Intake Actuator - Components and Components Location (Article 44882)

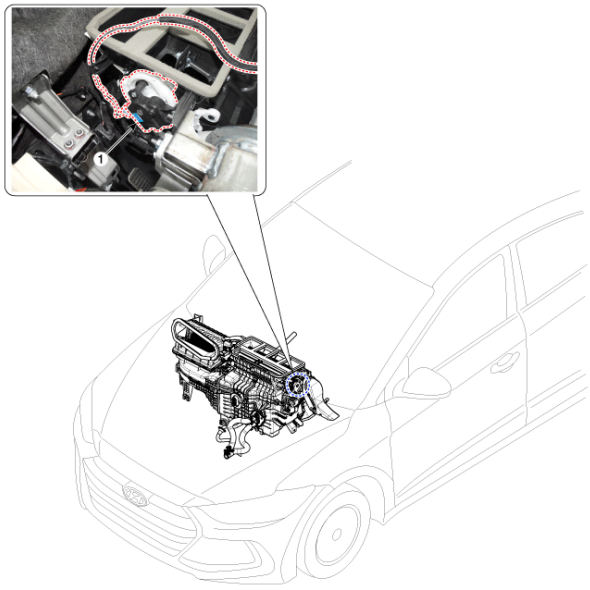
- Components Location



1. Intake actuator

Mode Control Actuator - Components and Components Location (Article 44866)

- Components Location



1. Mode control actuator

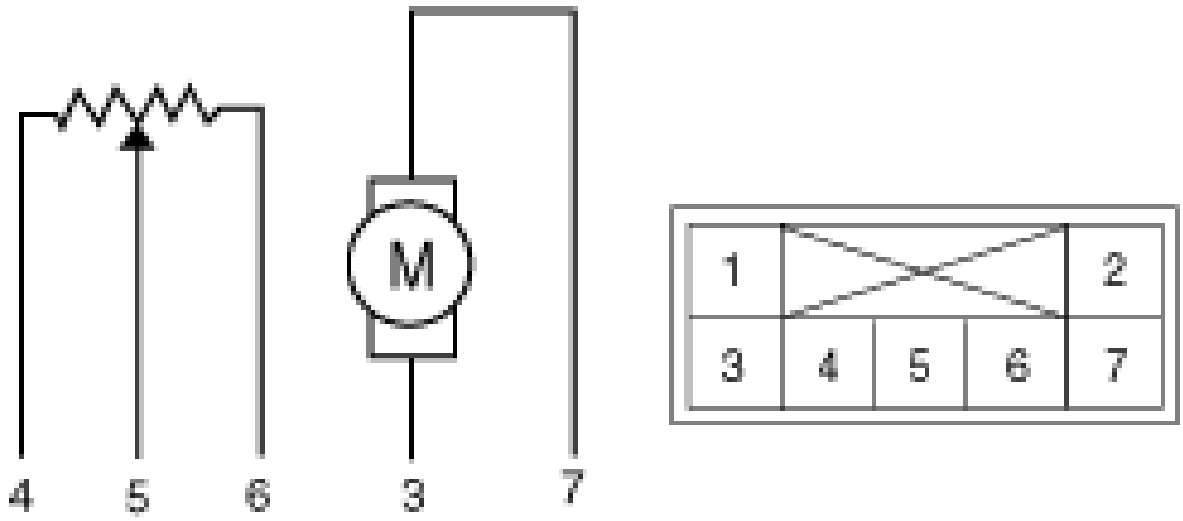
Temperature Control Actuator - Components and Components Location (Article 44858)

- Components Location

1. Temperature control actuator [LH] 2. Temperature control actuator [RH]

Auto Defogging Actuator - Repair Procedures (Article 44873)

- Inspection
- Turn the ignition switch OFF.
- Disconnect the auto defogging connector.
- Verify that the auto defogging actuator operates to the open position when connecting 12V to terminal 3 and grounding terminal 4. Verify that the auto defogging actuator operates to the close position when connected in reverse. Pin NO Function 1 - 2 - 3 Open 4 Sensor (+5V) 5 Feedback signal 6 Sensor ground 7 Off

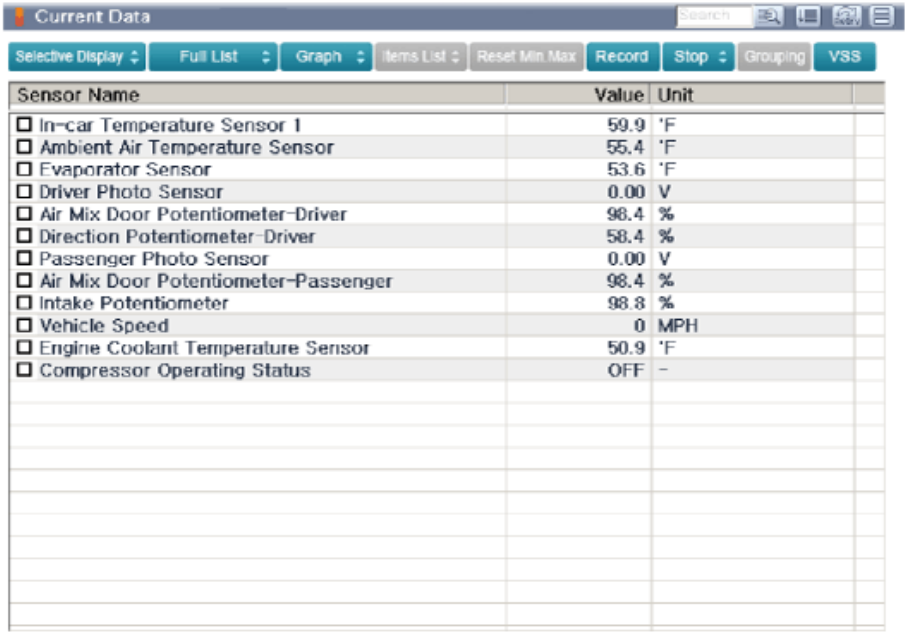


Pin NO Function
1 -
2 -
3 Open
4 Sensor (+5V)
5 Feedback signal
6 Sensor ground
7 Off
- Connect the auto defogging actuator connector.

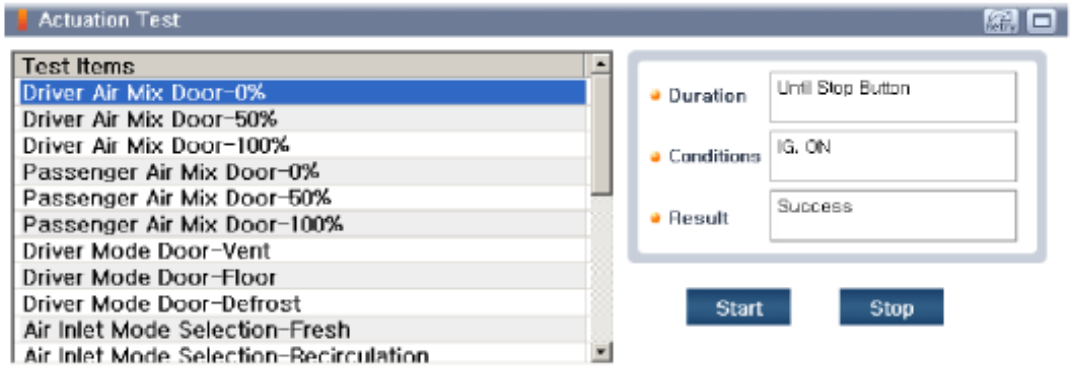
- Turn the ignition switch ON.
- Check the voltage between terminals 6 and 5.
- If the measured voltage is not within specification, check the operation by replacing the existing auto defogging actuator with a new genuine part. After that, determine whether replacement of the auto defogging actuator is required or not.

- Diagnosis With GDS

- The heating, ventilation and air conditioning can be quickly diagnosed failed parts with vehicle diagnostic system (GDS). ■ The diagnostic system (GDS) provides the following information. (1) Self diagnosis : Checking the failure code (DTC) and display. (2) Current data : Checking the system input/output data state. (3) Actuation test : Checking the system operation condition. (4) Additional function : Other controlling such as he system option and zero point adjustment.
- Select the 'Car model' and the system to be checked in order to check the vehicle with the tester.
- Select the 'Current data' menu to search the current state of the input / output data. The input / output data for the sensors corresponding to the Auto Defogging Actuator can be checked.

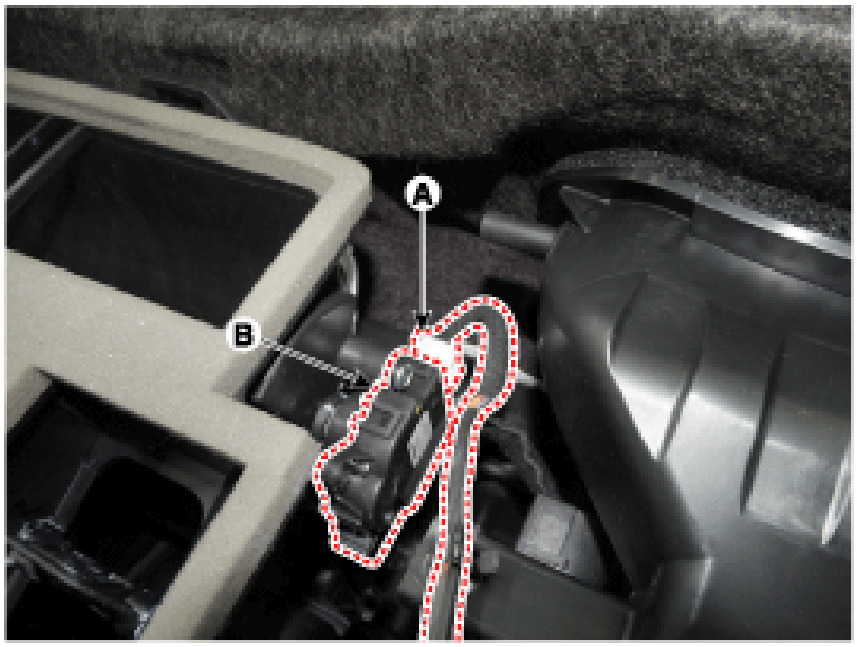


- To perform compulsory operation on Auto Defogging Actuator input factors, select "ACTUATION TEST".



- Replacement

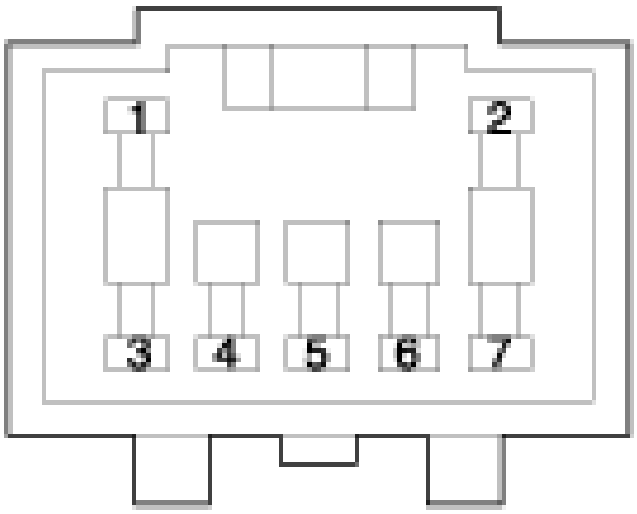
- Disconnect the negative (-) battery terminal.
- Remove the main crash pad assembly. (Refer to Body - "Main Crash Pad Assembly")
- Disconnect the connector (A) and then remove the auto defogging actuator (B) after loosening the mounting screws.



- To install, reverse the removal procedure.

Intake Actuator - Repair Procedures (Article 44885)

- Inspection
- Turn the ignition switch OFF.
- Disconnect the intake actuator connector.
- Verify that the intake actuator operates to the fresh position when connecting 12V to terminal 3 and grounding terminal 4. Verify that the intake actuator operates to the recirculation position when connected in reverse. Pin NO Function 1 - 2 - 3 Fresh air 4 Sensor (+5V) 5 Feedback signal 6 Sensor ground 7 Recirculated air

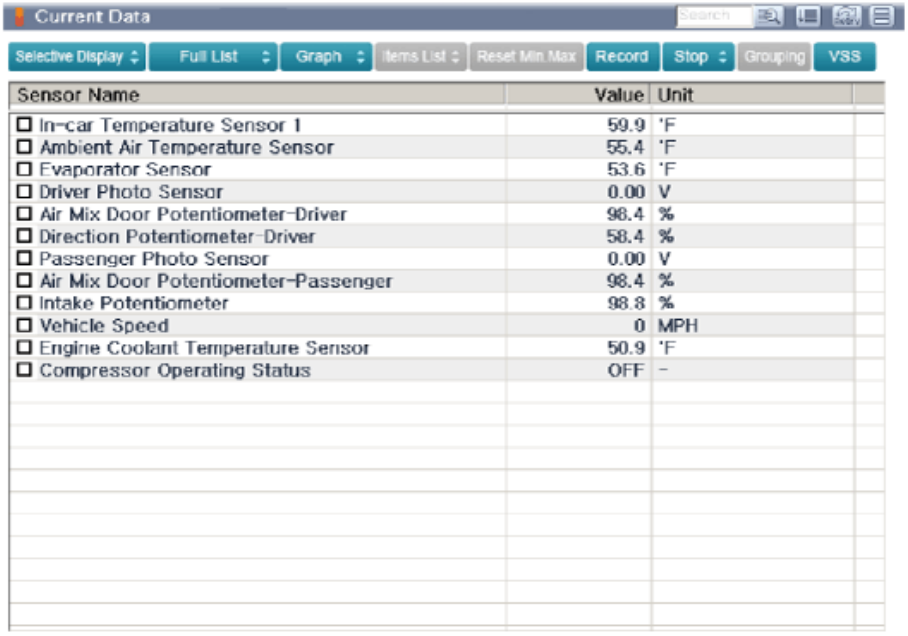


Pin NO Function
1 -
2 -
3 Fresh air
4 Sensor (+5V)
5 Feedback signal
6 Sensor ground
7 Recirculated air

- Connect the intake actuator connector.
- Turn the ignition switch ON.
- Check the voltage between terminal 6 and 5.
- If the measured voltage is not within specification, check the operation by replacing the existing intake actuator with a new genuine part. After that, determine whether replacement of the temperature control actuator is required or not.

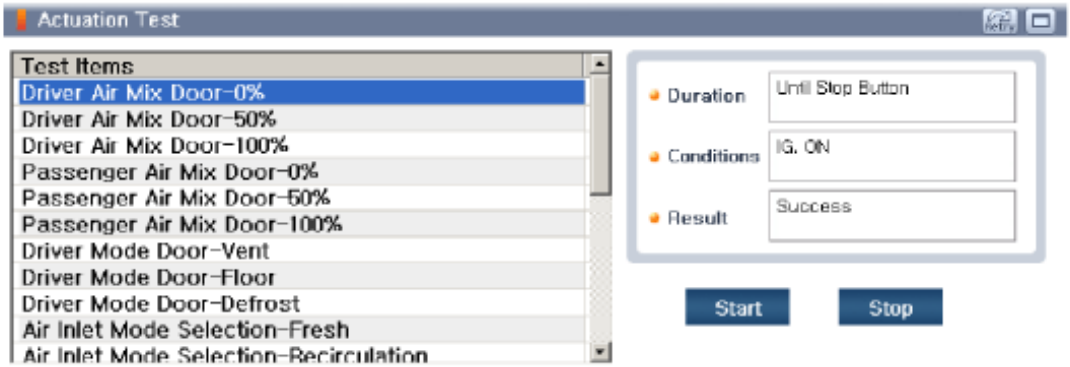
- Diagnosis With GDS

- The heating, ventilation and air conditioning can be quickly diagnosed failed parts with vehicle diagnostic system (GDS). ■ The diagnostic system (GDS) provides the following information. (1) Self diagnosis : Checking the failure code (DTC) and display. (2) Current data : Checking the system input/output data state. (3) Actuation test : Checking the system operation condition. (4) Additional function : Other controlling such as he system option and zero point adjustment.
- Select the 'Car model' and the system to be checked in order to check the vehicle with the tester.
- Select the 'Current data' menu to search the current state of the input / output data. The input / output data for the sensors corresponding to the Intake Actuator can be checked.



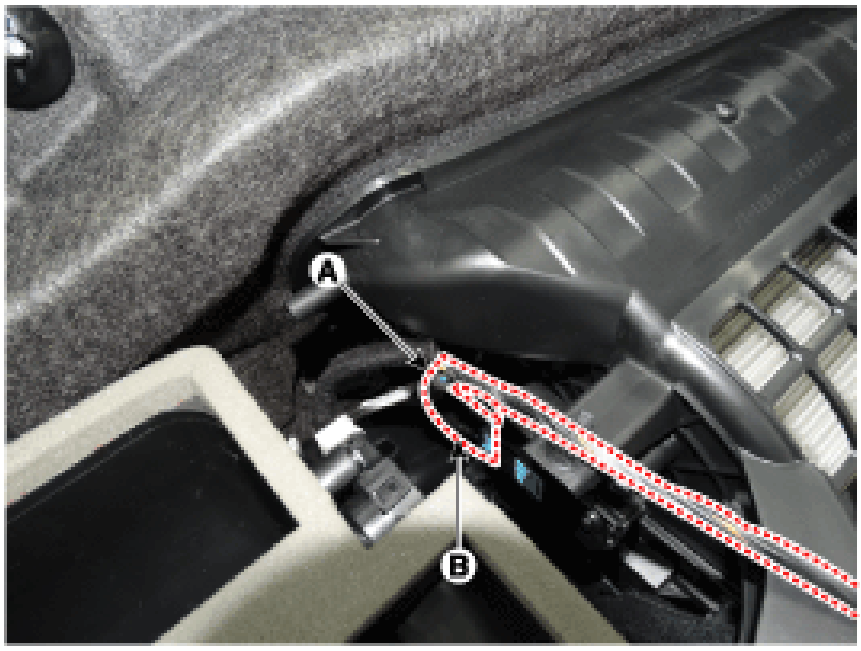
Sensor Name	Value	Unit
In-car Temperature Sensor 1	59.9	°F
Ambient Air Temperature Sensor	55.4	°F
Evaporator Sensor	53.6	°F
Driver Photo Sensor	0.00	V
Air Mix Door Potentiometer-Driver	98.4	%
Direction Potentiometer-Driver	58.4	%
Passenger Photo Sensor	0.00	V
Air Mix Door Potentiometer-Passenger	98.4	%
Intake Potentiometer	98.8	%
Vehicle Speed	0	MPH
Engine Coolant Temperature Sensor	50.9	°F
Compressor Operating Status	OFF	-

- To perform compulsory operation on Intake Actuator input factors, select "ACTUATION TEST".



- Replacement

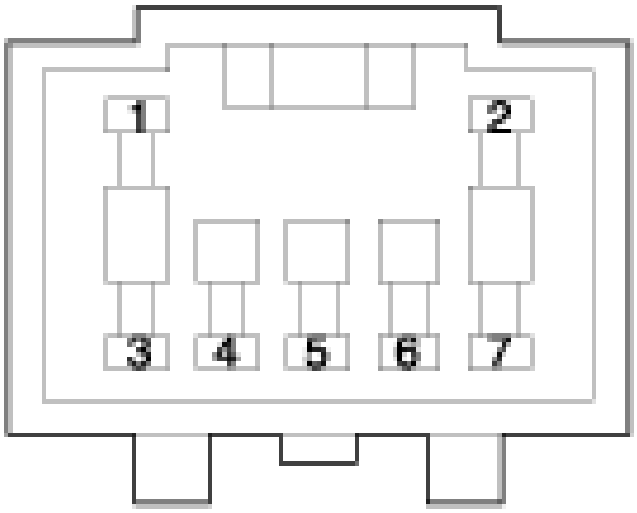
- Disconnect the negative (-) battery terminal.
- Remove the main crash pad assembly. (Refer to Body - "Main Crash Pad Assembly")
- Disconnect the connector (A) and then remove the intake actuator (B) after loosening the mounting screws.



- To install, reverse the removal procedure.

Mode Control Actuator - Repair Procedures (Article 44869)

- Inspection
- Turn the ignition switch OFF.
- Disconnect the mode control actuator connector.
- Verify that the mode control actuator operates to the defrost mode when connecting 12V to terminal 3 and grounding terminal 4. Verify that the mode control actuator operates to the vent mode when connected in reverse. Pin NO Function 1 - 2 - 3 Vent mode 4 Sensor (+5V) 5 Feedback signal 6 Sensor ground 7 Defrost mode

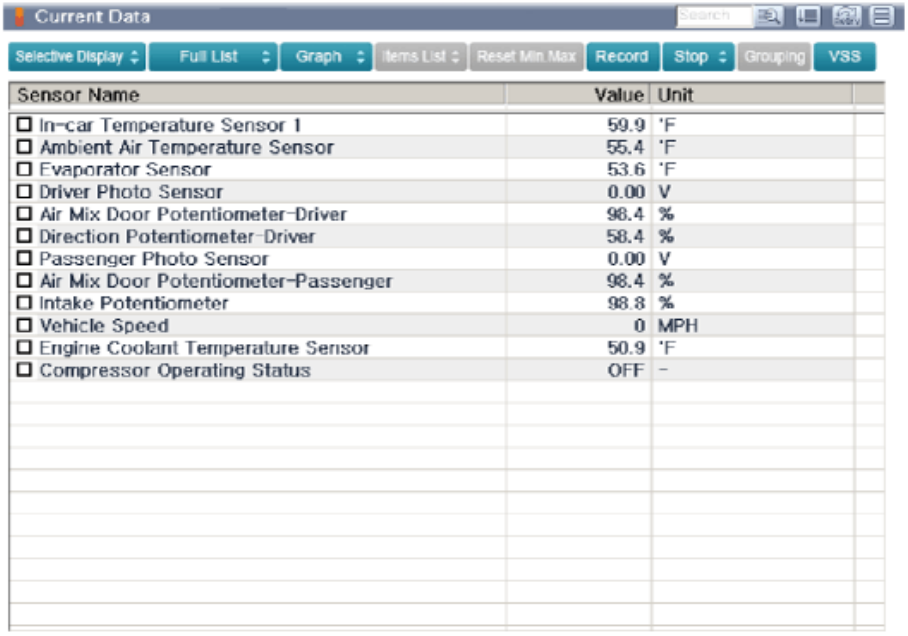


Pin NO Function
1 -
2 -
3 Vent mode
4 Sensor (+5V)
5 Feedback signal
6 Sensor ground
7 Defrost mode
- Connect the mode control actuator connector.

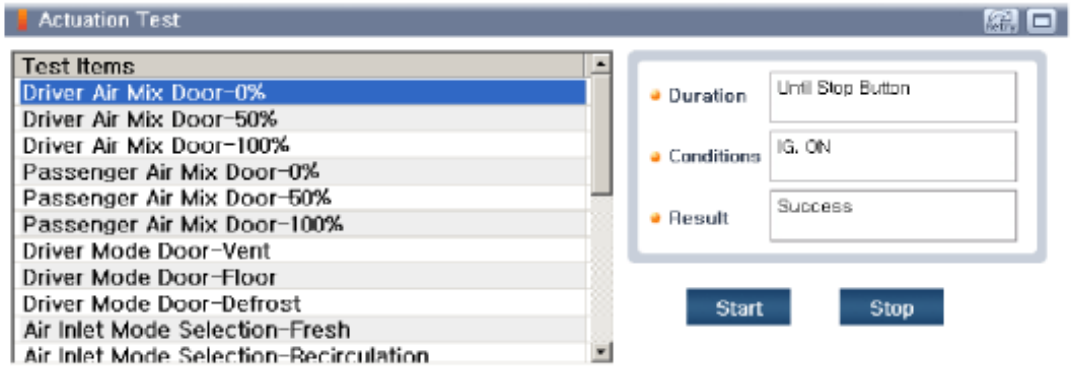
- Turn the ignition switch ON.
- Check the voltage between terminal 6 and 5.
- If the measured voltage is not within specification, check the operation by replacing the existing mode control actuator with a new genuine part. After that, determine whether replacement of the temperature control actuator is required or not.

- Diagnosis With GDS

- The heating, ventilation and air conditioning can be quickly diagnosed failed parts with vehicle diagnostic system (GDS). ■ The diagnostic system (GDS) provides the following information. (1) Self diagnosis : Checking the failure code (DTC) and display. (2) Current data : Checking the system input/output data state. (3) Actuation test : Checking the system operation condition. (4) Additional function : Other controlling such as he system option and zero point adjustment.
- Select the 'Car model' and the system to be checked in order to check the vehicle with the tester.
- Select the 'Current data' menu to search the current state of the input / output data. The input / output data for the sensors corresponding to the Mode Control Actuator can be checked.

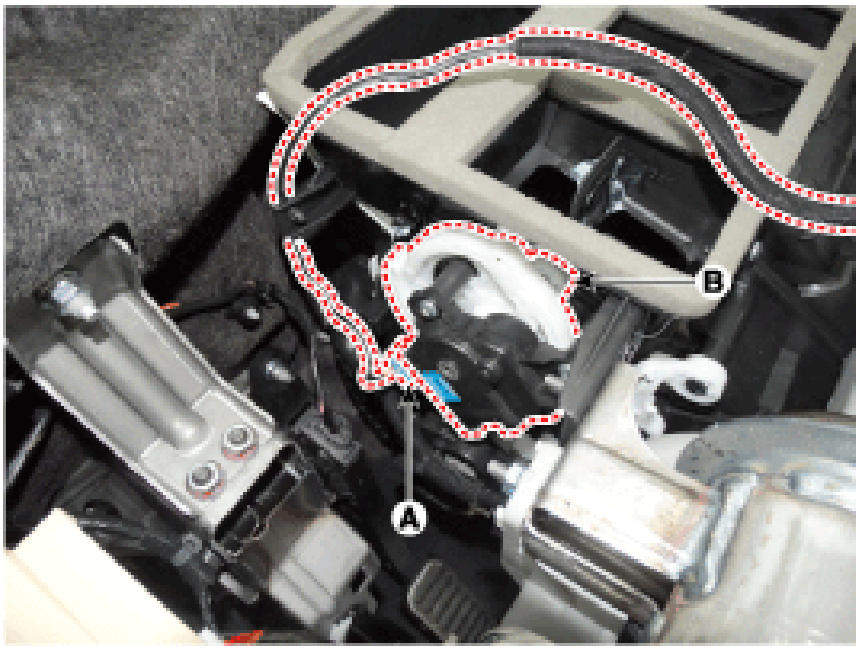


- To perform compulsory operation on Mode Control Actuator input factors, select "ACTUATION TEST".



- Replacement

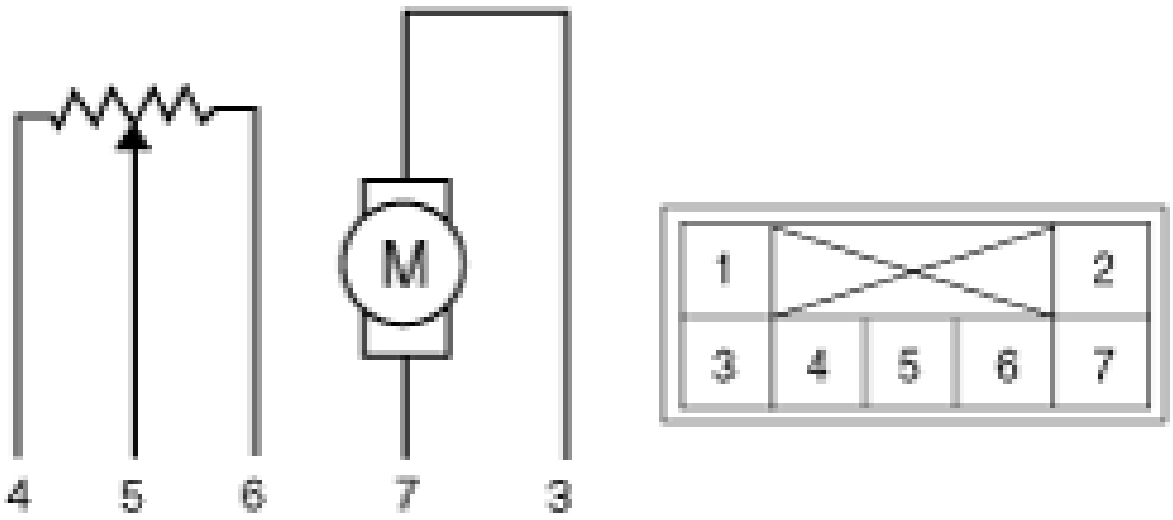
- Disconnect the negative (-) battery terminal.
- Remove the main crash pad assembly. (Refer to Body - "Main Crash Pad Assembly")
- Disconnect the connector (A) and then remove the mode control actuator (B) after loosening the mounting screws.



- To install, reverse the removal procedure.

Temperature Control Actuator - Repair Procedures (Article 44864)

- Inspection
- Turn the ignition switch OFF.
- Disconnect the temperature control actuator connector.
- Verify that the temperature control actuator operates to the cool position when connecting 12V to terminal 3 and grounding terminal 7. Verify that the temperature control actuator operates to the warm position when connected in reverse. Pin NO Function 1 - 2 - 3 Cool position 4 Sensor (+5V) 5 Feedback signal 6 Sensor ground 7 Warm position

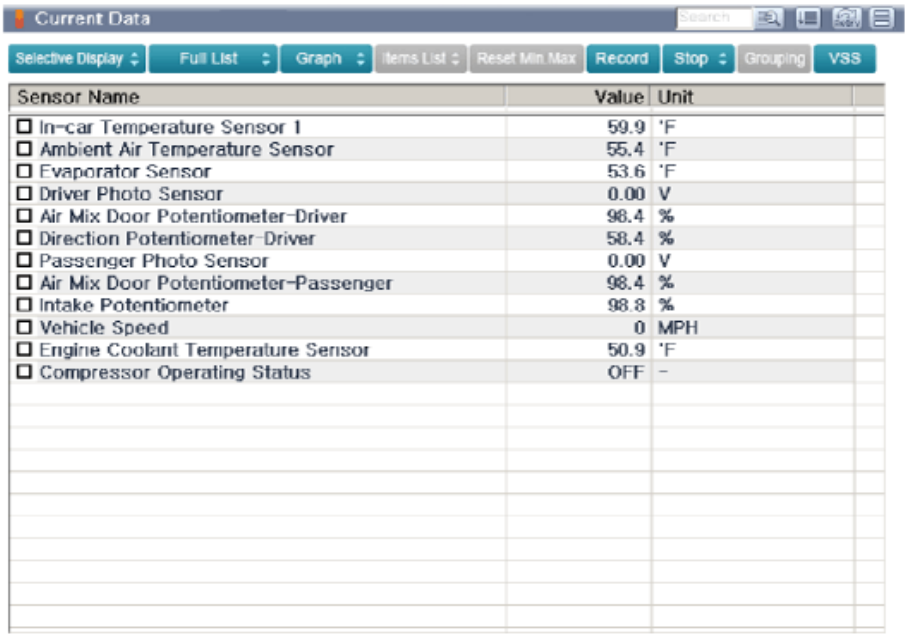


Pin NO Function
1 -
2 -
3 Cool position
4 Sensor (+5V)
5 Feedback signal
6 Sensor ground
7 Warm position

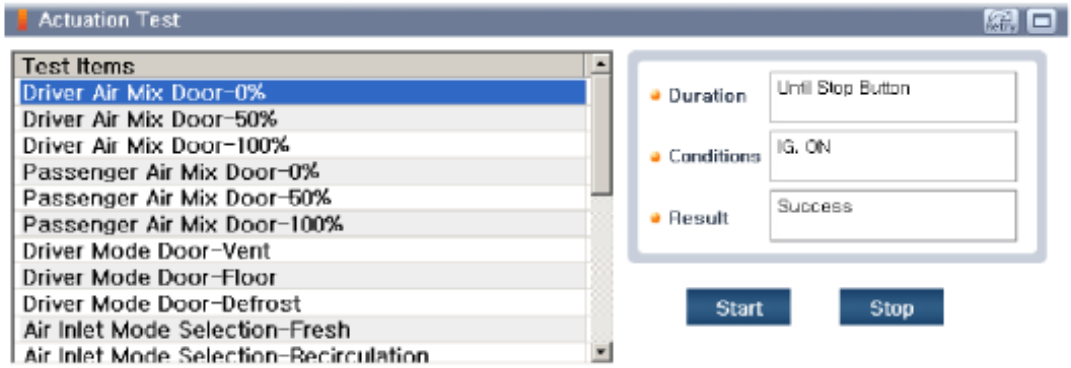
- Connect the temperature control actuator connector.
- Turn the ignition switch ON.
- Check the voltage between terminal 5 and 6.
- If the measured voltage is not within specification, check the operation by replacing the existing temperature control actuator with a new genuine part. After that, determine whether replacement of the temperature control actuator is required or not.

- Diagnosis With GDS

- The heating, ventilation and air conditioning can be quickly diagnosed failed parts with vehicle diagnostic system (GDS). ■ The diagnostic system (GDS) provides the following information. (1) Self diagnosis : Checking the failure code (DTC) and display. (2) Current data : Checking the system input/output data state. (3) Actuation test : Checking the system operation condition. (4) Additional function : Other controlling such as he system option and zero point adjustment.
- Select the 'Car model' and the system to be checked in order to check the vehicle with the tester.
- Select the 'Current data' menu to search the current state of the input / output data. The input / output data for the sensors corresponding to the Temperature Control Actuator can be checked.



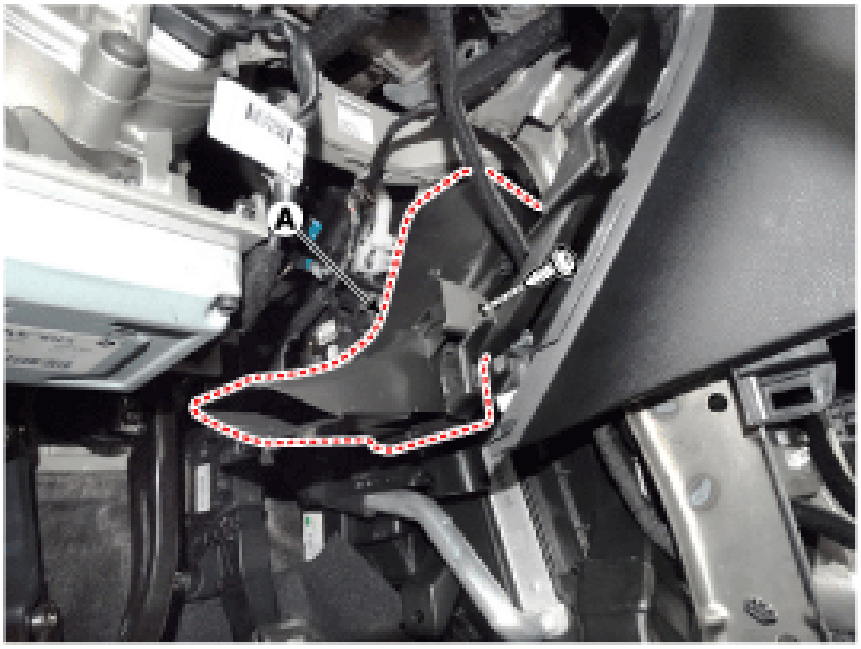
- To perform compulsory operation on Temperature Control Actuator input factors, select "ACTUATION TEST".



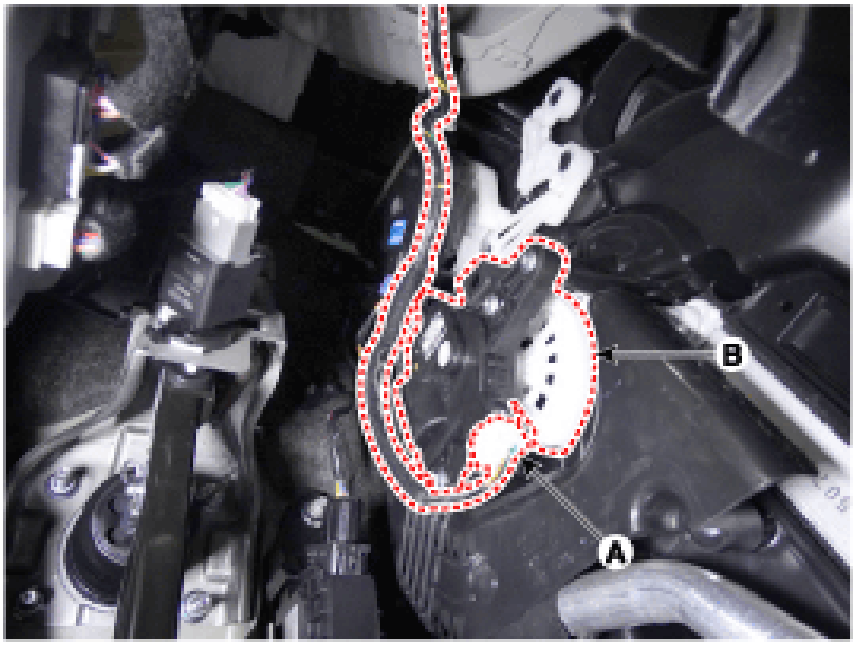
- Replacement

[Driver's side]

- Disconnect the negative (-) battery terminal.
- Remove the crash pad lower panel. (Refer to Body - "Crash Pad Lower Panel")
- Remove the driver's side shower duct (A) after loosening the screw.



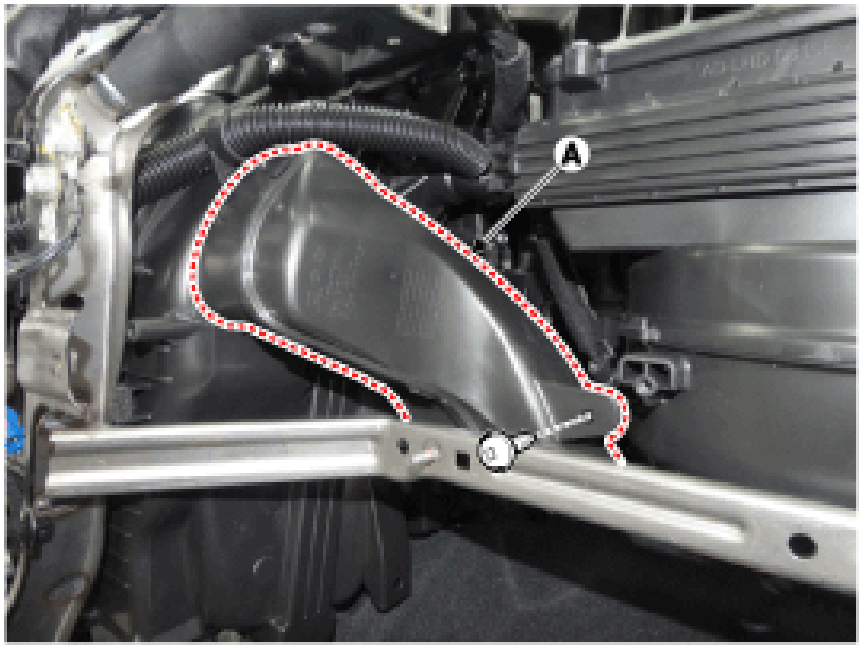
- Disconnect the connector (A) and then remove the driver's side temperature control actuator (B) after loosening the mounting screws.



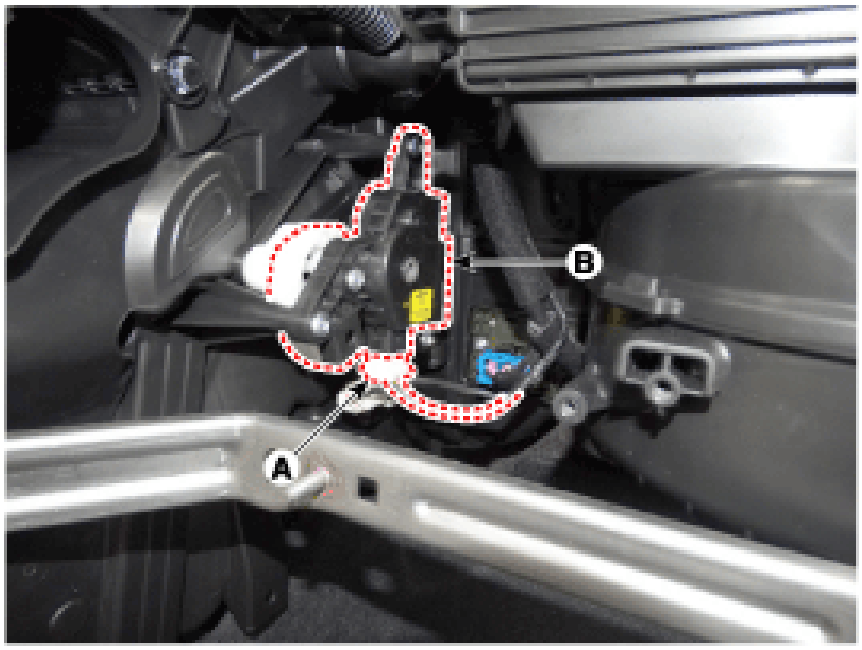
- To install, reverse the removal procedure.

[Passenger's side]

- Remove the glove box upper cover assembly. (Refer to Body - "Glove Box Upper Cover Assembly")
- Remove the passenger's side shower duct (A) after loosening the screw.



- Disconnect the connector (A) and then remove the passenger's side temperature control actuator (B) after loosening the mounting screws.



Auto Defogging Actuator - Specifications (Article 44872)

- Specifications

Door position Voltage (V) Error detecting
Max. cooling 0.3 ± 0.15 Low voltage : 0.1V or less
Max. heating 4.7 ± 0.15 High voltage : 4.9V or more

Intake Actuator - Specifications (Article 44884)

- Specifications

Door position Voltage (V) Error detecting
Max. cooling 0.3 ± 0.15 Low voltage : 0.1V or less
Max. heating 4.7 ± 0.15 High voltage : 4.9V or more

Mode Control Actuator - Specifications (Article 44868)

- Specifications

Door position Voltage (V) Error detecting

Max. cooling 0.3 ± 0.15 Low voltage : 0.1V or less
Max. heating 4.7 ± 0.15 High voltage : 4.9V or more

Temperature Control Actuator - Specifications (Article 44862)

- Specifications
Door Position Voltage (V) Error Detecting
Max. cooling 0.3 ± 0.15 Low voltage : 0.1V or less High voltage : 4.9V or more
Max. heating 4.7 ± 0.15