

# **Component Procedures: Control Assembly**

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# Component Procedures: Control Assembly

## Parts and Labor (itype\_189)

### Parts

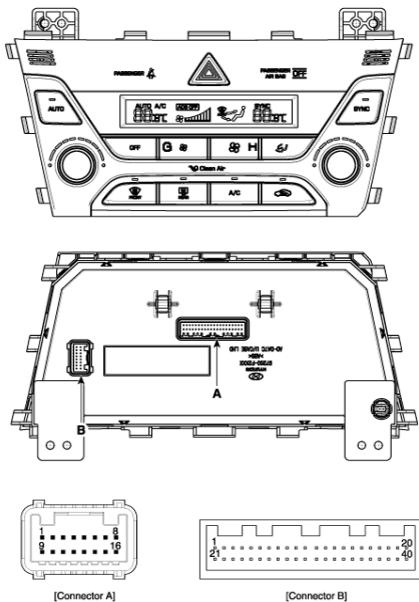
Qualifier	Part #	Name	Price	Note
Controls > Dash Control Unit?	97250F2231KEX	With Atc	547.19	Order By Vehicle Applicati?
Controls > Dash Control Unit?	97250F2AH0SSH	Without Atc	568.95	Order By Vehicle Applicati?
Controls > Dash Control Unit?	97250F2231RET	With Atc	601.87	Order By Vehicle Applicati?
Controls > Dash Control Unit?	97250F20614X	Without Atc	568.95	Order By Vehicle Applicati?

### Labor

Operation	Qualifier Path	Skill	Std Hrs	Wty Hrs
Remove & Replace	Controls > Dash Control Unit, R&R	B	1.0	0.0

## Heater and A/C Control Unit (DATC) - Components and Components Location (Article 44888)

- Components



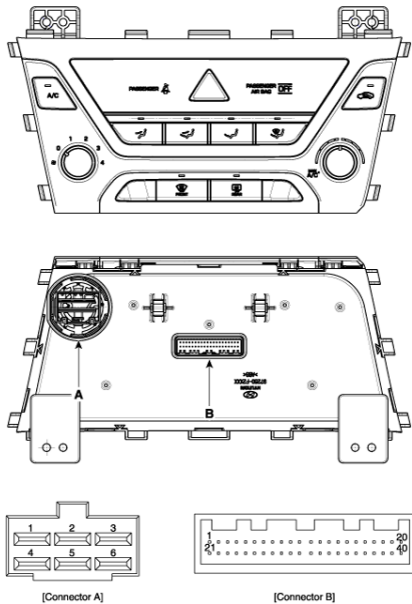
Connector Pin NO Function Connector Pin NO Function

- A 1 Battery (+) A 21 IGN1
- 2 IGN2 22 ILL+ (TAIL)
- 3 ISG B+ 23 Sensor ground REF (+5V)
- 4 Mode control actuator (Vent) 24 C\_CAN High
- 5 Mode control actuator (Def) 25 C\_CAN Low
- 6 Mode control actuator (Feedback) 26 HTD (Rear defog indicator)
- 7 Intake actuator (Fresh) 27 -
- 8 Intake actuator (Recirculation) 28 -
- 9 Intake actuator (Feedback) 29 Passenger's temperature control actuator (Cool)
- 10 Defogging actuator (On) 30 Passenger's temperature control actuator (Warm)
- 11 Defogging actuator (Off) 31 Passenger's temperature control actuator (Feedback)
- 12 Defogging actuator (Feedback) 32 PTC Relay 2
- 13 Rear defog switch 33 PTC Relay 3
- 14 Hazard switch 34 PTC on signal
- 15 Driver's temperature control actuator (Cool) 35 Detent out (-)
- 16 Driver's temperature control actuator (Warm) 36 -
- 17 Driver's temperature control actuator (Feedback) 37 ECV +
- 18 - 38 ECV - (Ground)
- 19 Sensor ground 39 ILL- (RHEO)

- 20 Ground 40 Ground
- B 1 Blower motor (+) B 9 PAB IGN1
- 2 FET Drain (Feedback) 10 Clean signal
- 3 FET (Gate) 11 Ionizer diagnosis
- 4 SBR 12 AMB sensor (+)
- 5 Rear SBR (LH) 13 EVAP sensor (+)
- 6 Rear SBR (Center) 14 Auto defogging sensor signal
- 7 Rear SBR (RH) 15 Photo sensor (-)\_LH
- 8 PAB Off signal 16 Photo sensor (-)\_RH

## Heater and A/C Control Unit (Manual) - Components and Components Location (Article 44886)

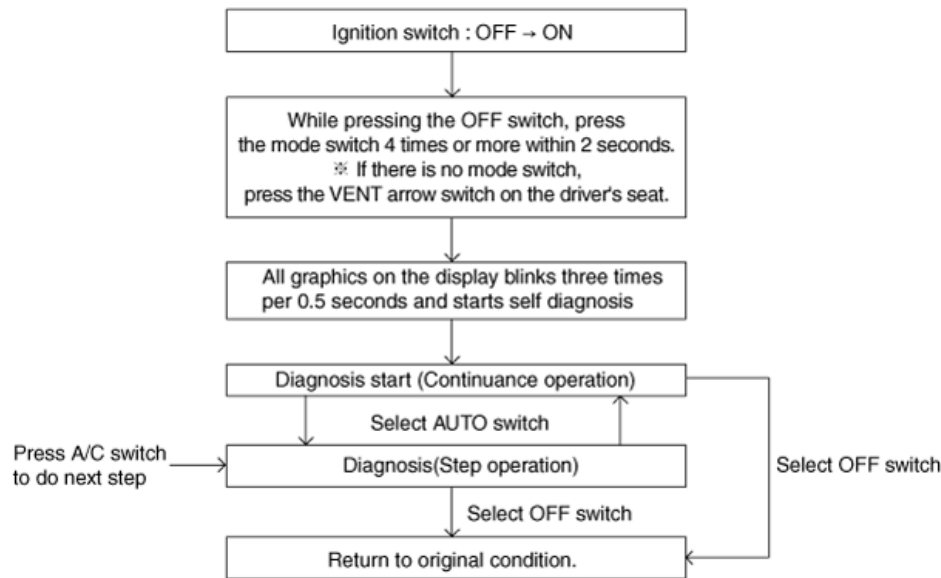
- Components



Connector	Pin	NO	Function	Connector	Pin	NO	Function
A	1	Low	B 18 ILL- (RHEO)				
	2	Common	19 Sensor ground				
	3	Ground	20 Ground				
	4	Middle Low	21 Battery (+)				
	5	Middle High	22 ISG DC				
	6	High	23 ISG B+				
B	1	IGN2	24 ILL+ (TAIL)				
	2	PAB IGN1	25 Sensor REF (+5V)				
	3	HTD (Rear defog indicator)	26 EVAP sensor (+)				
	4	Detent Out (-)	27 AMB sensor (+)				
	5	PTC Relay 2	28 Mode control actuator (Feedback)				
	6	PTC Relay 3	29 Temperature control actuator (Feedback)				
	7	PTC on signal	30 Intake actuator (Feedback)				
	8	PAB Off signal	31 Mode control actuator (Vent)				
	9	SBR	32 Mode control actuator (Def)				
	10	Rear SBR [LH]	33 Temperature control actuator (Cool)				
	11	Rear SBR [Center]	34 Temperature control actuator (Warm)				
	12	Rear SBR [RH]	35 Intake actuator (Fresh)				
	13	ECV+	36 Intake actuator (Recirculation)				
	14	ECV- (Ground)	37 C_CAN High				
	15	Max blower on signal	38 C_CAN Low				
	16	Rear defogging swich (On)	39 Blower common signal				
	17	Hazard signal	40 Ground				

## Heater and A/C Control Unit (DATC) - Repair Procedures (Article 44889)

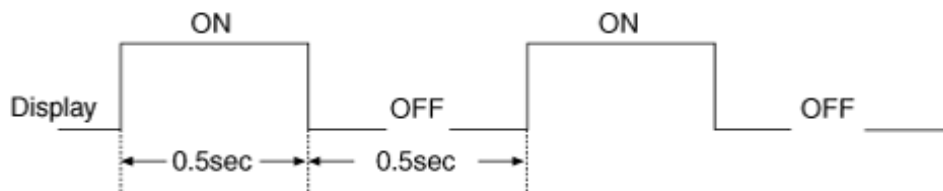
- Self Diagnosis
- Self-diagnosis process. When operating the self-diagnostics, the below fault (self-diagnostics code) will blink at 0.5 seconds interval on the temperature display settings (driver's side only) and the remaining symbols are OFF .



When operating the self-diagnostics, the below fault (self-diagnostics code) will blink at 0.5 seconds interval on the temperature display settings (driver's side only) and the remaining symbols are OFF .

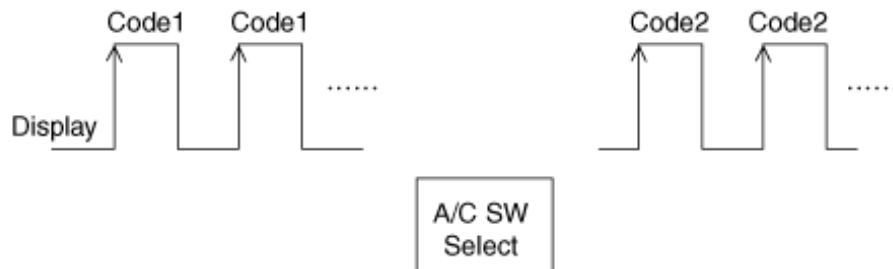
# NOTICE

- When operating the self-diagnostics, the below fault (self-diagnostics code) will blink at 0.5 seconds interval on the temperature display settings (driver's side only) and the remaining symbols are OFF .
- Fault code display Continuance operation : DTC code. Continuance operation : DTC code. STEP operation. A. Normal or one fault code is same as a continuance operation. B. DTC code.
- Continuance operation : DTC code.





- STEP operation. A. Normal or one fault code is same as a continuance operation. B. DTC code.



- If fault codes are displayed during the check, Inspect malfunction causes by referring to fault codes.

Display Fail description 0 Normal 11 Incar sensor OPEN 12 Incar sensor SHORT 13 Ambient sensor OPEN 14 Ambient sensor SHORT 17 Evaporator sensor OPEN 18 Evaporator sensor SHORT 19 Driver temp door potentionmeter OPEN or SHORT 20 Driver temp door potentionmeter Error 21 Mode door potentionmeter OPEN or SHORT 22 Mode door potentionmeter Error 23 Auto defog sensor OPEN 24 Auto defog sensor SHORT 25 Intake door potentionmeter OPEN or SHORT 26 Intake door potentionmeter Error 32 Passenger temp door potentionmeter OPEN or SHORT 33 Passenger temp door potention meter Error 45 APT CAN Signal Error 47 RPM CAN Signal Error 48 Vehicle speed CAN Signal Error 49 Engine coolant temprature CAN Signal Error 50 Cluster ionizer fault 71 ECV Fault (OPEN)

Display Fail description

0 Normal

11 Incar sensor OPEN

12 Incar sensor SHORT

13 Ambient sensor OPEN

14 Ambient sensor SHORT

17 Evaporator sensor OPEN

18 Evaporator sensor SHORT

19 Driver temp door potentionmeter OPEN or SHORT

20 Driver temp door potentionmeter Error

21 Mode door potentionmeter OPEN or SHORT

22 Mode door potentionmeter Error

23 Auto defog sensor OPEN

24 Auto defog sensor SHORT

25 Intake door potentionmeter OPEN or SHORT

26 Intake door potentionmeter Error

32 Passenger temp door potentionmeter OPEN or SHORT

33 Passenger temp door potention meter Error

45 APT CAN Signal Error

47 RPM CAN Signal Error

48 Vehicle speed CAN Signal Error

49 Engine coolant temprature CAN Signal Error

50 Cluster ionizer fault

71 ECV Fault (OPEN)

- Fail safe NO Item Fault Fail Safe 1 Incar sensor Open or Short Control with the value of 25°C(77.0°F) 2

Ambient sensor Open or Short Control with the value of 20°C(67°F) 3 Evaporator sensor Open or Short Control

with the value of -2°C(28.4°F) 4 Mode door potentiometer Open or Short Fix vent position, while selecting vent

mode. Fix defrost position, while selecting all except vent mode. 5 Temperature door potentiometer (MTC) Open

or Short If temperature setting 1 ~ 7 step, fix at maximum cooling position. If temperature setting 8 ~ 15

step, fix at maximum heating position. 6 Temperature door potentiometer (DATC) Open or Short If temperature setting 17°C(62.6°F) ~ 24.5°C(76.1°F), fix at maximum cooling position. If temperature setting 25°C(77°F) ~ 32°C(89.6°F), fix at maximum heating position. 7 Intake door potentiometer Open or Short Fix vent position, while selecting vent mode. Fix defrost position, while selecting all except vent mode. 8 Engine RPM FFh or NO reception A/C OFF (Control with the value of 650 rpm) 9 Vehicle speed FFh or NO reception A/C OFF 10 Engine coolant temperature FFh or NO reception Control with the value of - 2°C(28.4°F) 11 APS FFh or NO reception Control with the value of 5% 12 R-TQACNAPVC (Max Torque limitation of A/C Compressor ) FFh or NO reception A/C OFF (Control with the value of 0 Nm) 13 R-PACNC (APT Sensor Output Value) FFh or NO reception A/C OFF (Control with the value of 0 Nm) 14 RLY-AC (Activation of air conditioner compressor relay) FFh or NO reception FFh  
NO Item Fault Fail Safe

1 Incar sensor Open or Short Control with the value of 25°C(77.0°F)

2 Ambient sensor Open or Short Control with the value of 20°C(67°F)

3 Evaporator sensor Open or Short Control with the value of -2°C(28.4°F)

4 Mode door potentiometer Open or Short Fix vent position, while selecting vent mode. Fix defrost position, while selecting all except vent mode.

5 Temperature door potentiometer (MTC) Open or Short If temperature setting 1 ~ 7 step, fix at maximum cooling position. If temperature setting 8 ~ 15 step, fix at maximum heating position.

6 Temperature door potentiometer (DATC) Open or Short If temperature setting 17°C(62.6°F) ~ 24.5°C(76.1°F), fix at maximum cooling position. If temperature setting 25°C(77°F) ~ 32°C(89.6°F), fix at maximum heating position.

7 Intake door potentiometer Open or Short Fix vent position, while selecting vent mode. Fix defrost position, while selecting all except vent mode.

8 Engine RPM FFh or NO reception A/C OFF (Control with the value of 650 rpm)

9 Vehicle speed FFh or NO reception A/C OFF

10 Engine coolant temperature FFh or NO reception Control with the value of - 2°C(28.4°F)

11 APS FFh or NO reception Control with the value of 5%

12 R-TQACNAPVC (Max Torque limitation of A/C Compressor ) FFh or NO reception A/C OFF (Control with the value of 0 Nm)

13 R-PACNC (APT Sensor Output Value) FFh or NO reception A/C OFF (Control with the value of 0 Nm)

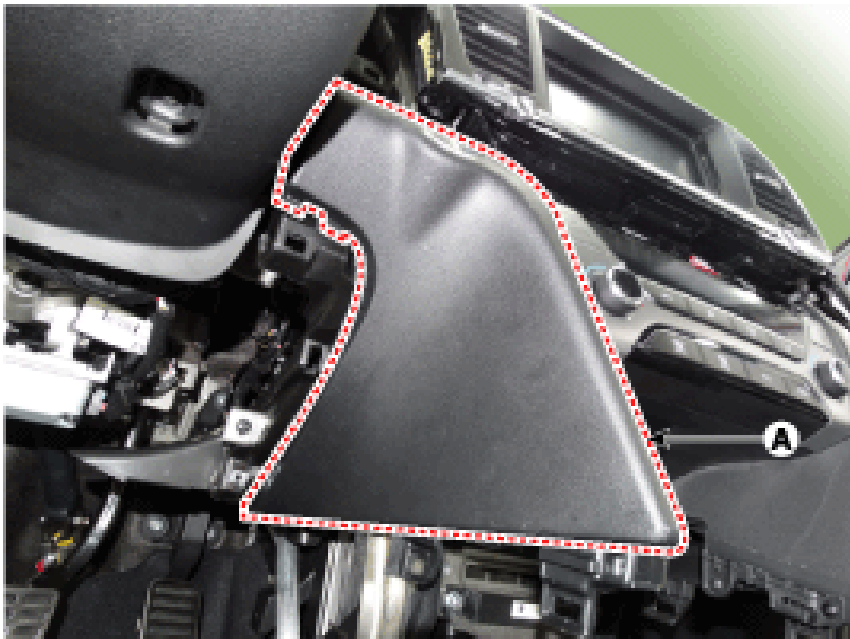
14 RLY-AC (Activation of air conditioner compressor relay) FFh or NO reception FFh

- Replacement

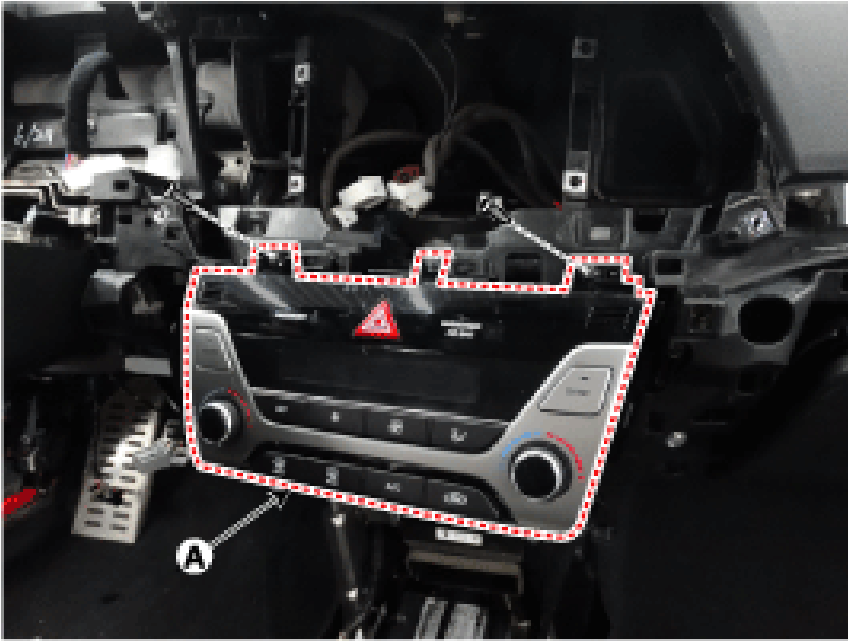
- Disconnect the negative (-) battery terminal.

- Remove the glove box upper cover assembly. (Refer to Body - "Glove Box Upper Cover Assembly")

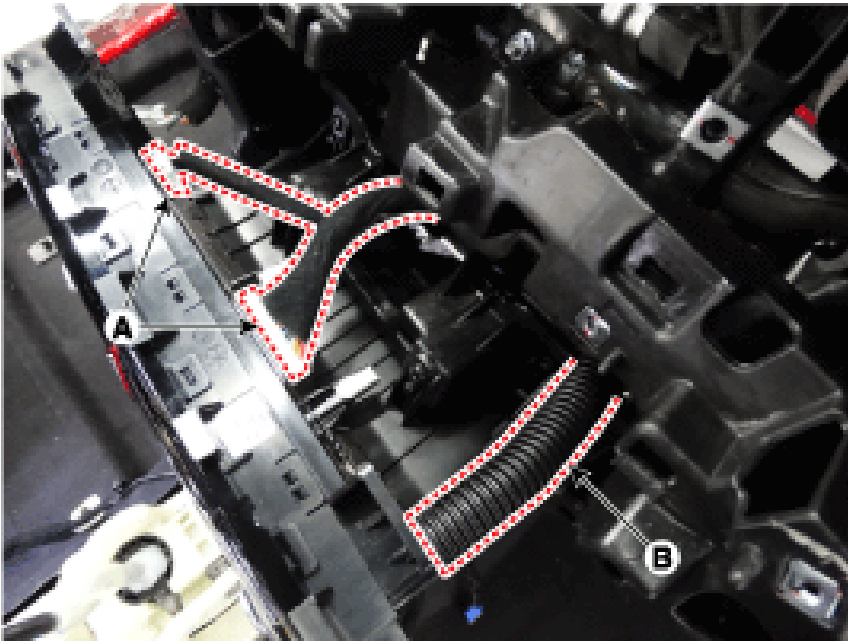
- Loosen the mounting screws and remove the crash pad center lower cover [LH](A).



- After loosening the mounting screws, remove the A/C & heater control unit (A).

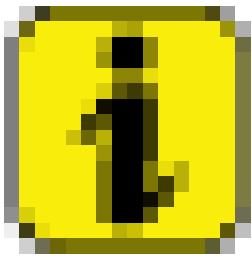


- Disconnect the A/C & heater controller connectors (A) and hose (B).



- To install, reverse the removal procedure. Make sure the connector are connected in properly. Replace any damaged clips.

Make sure the connector are connected in properly. Replace any damaged clips.



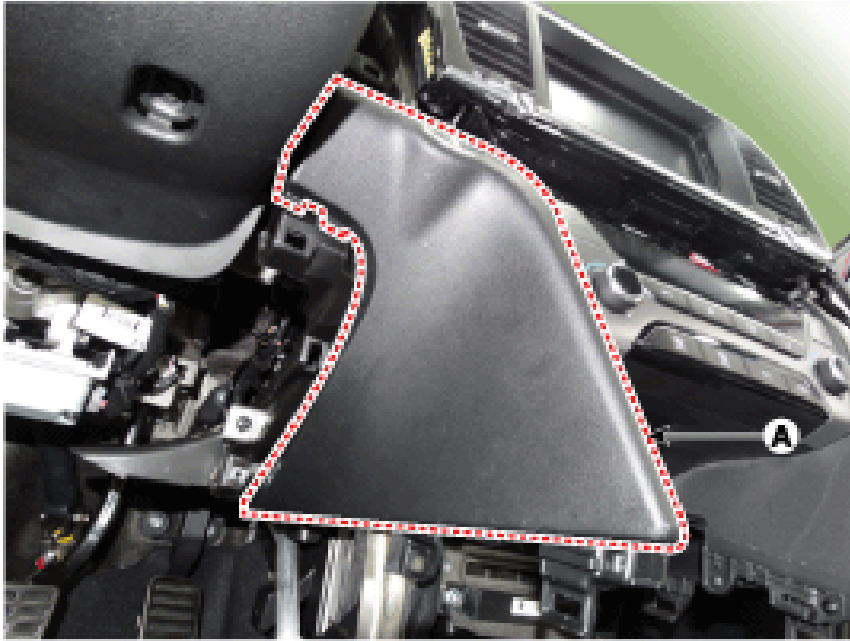
# Information

- Make sure the connector are connected in properly.

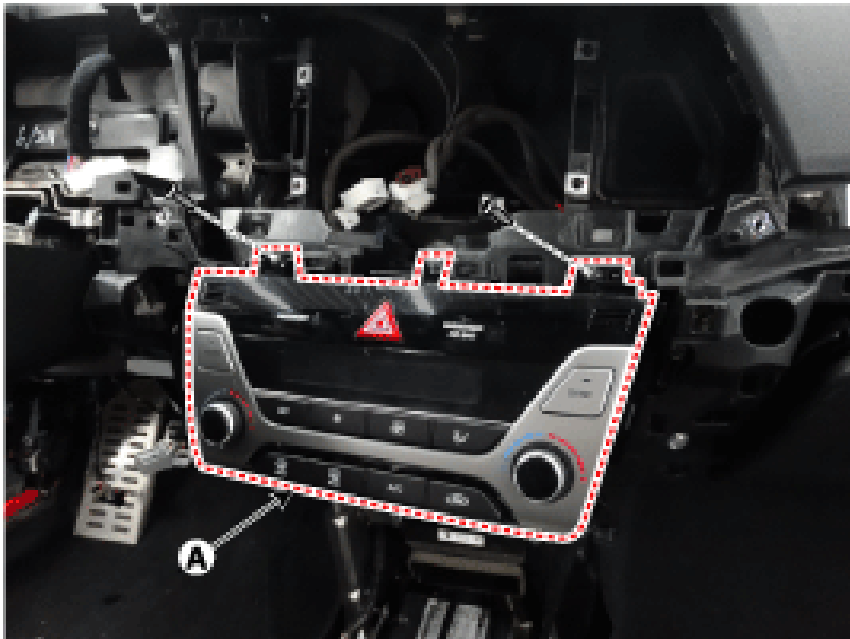
- Replace any damaged clips.

## Heater and A/C Control Unit (Manual) - Repair Procedures (Article 44887)

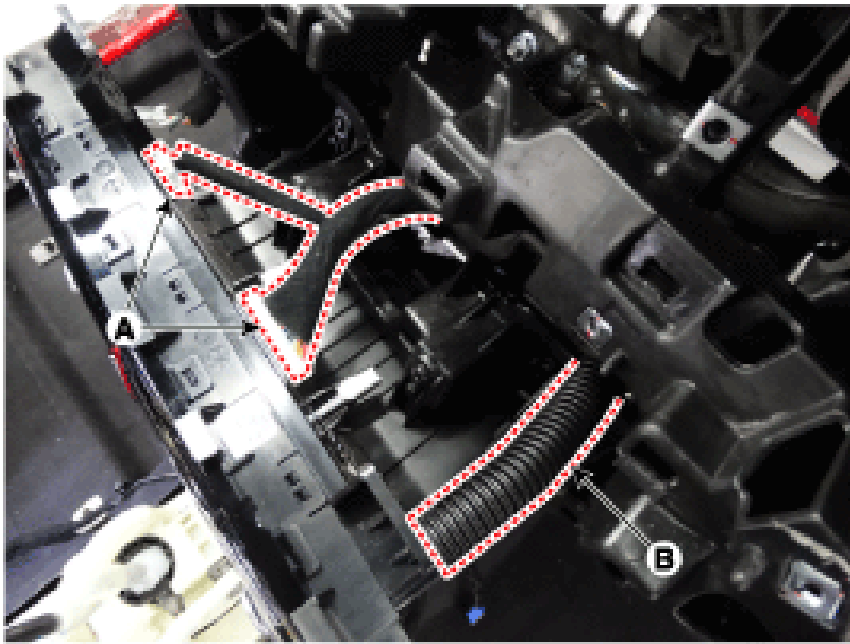
- Replacement
- Disconnect the negative (-) battery terminal.
- Remove the glove box upper cover assembly. (Refer to Body - "Glove Box Upper Cover Assembly")
- Loosen the mounting screws and remove the crash pad center lower cover [LH](A).



- After loosening the mounting screws, remove the A/C & heater control unit (A).



- Disconnect the A/C & heater controller connectors (A) and hose (B).



- To install, reverse the removal procedure. Make sure the connector are connected in properly. Replace any damaged clips (or pin-type retainers).

Make sure the connector are connected in properly. Replace any damaged clips (or pin-type retainers).



# Information

- Make sure the connector are connected in properly.
- Replace any damaged clips (or pin-type retainers).